

Search history

- Search 1: ft=fryer and cover (Results 852)
- Search 2: ft=fryer and cover and handle (Results 212)
- Search 3: [SP]: device for protecting oil spatter purpose: an oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. constitution: an oil dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). in the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. an oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. the piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. the size of body is 1.5~2.5 times greater than the vapor outlet. in the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions. (Results 2)
- Search 4: ft=pan and (splash* or splatter*) and (cover or lid) (Results 783)
- Search 5: ft=pan and (splash* or splatter*) and (cover or lid) and oil (Results 228)
- Search 6: ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) (Results 328)
- Search 7: ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and perforated (Results 3)
- Search 8: ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and hole* (Results 46)

- session log created:31 March 2017 03:50:30

- Update information:

PatBase Coverage at Update 2017 Week 12 (Year 2017 Week 12)

PatBase Coverage includes 100+ million documents from over 100 patent-issuing authorities and includes patent applications, granted patents, utility models and designs â€” detailed in the below coverage listings.

Major countries

Publishing body	Document type	Bibliographic publication date		Full-Text publication date	
		Earliest	Latest	Earliest	Latest
CN China	Patent Applications	19850910	20170322	19850910	20170322
	Patents	19930106	20170322	19930106	20170322
	Utility Model Applications	19850409	19921230	19850409	19921230
	Utility Models	19930106	20170322	19930106	20170322
	Designs	19850910	20170322	19850910	20150819
DE Germany	Patent Applications	19211221	20170323	19650317	20170323
	Patents	18770101	20170323	19200113	20170323
	Utility Models	19280626	20170323	19610831	20170323

	EP/WO Patents	19871217	20140410		
EP European Patent Office	Patent Applications	19781220	20170322	19781220	20170322
	Patents	19800109	20170322	19800109	20170322
FR France	Patent Applications	19690307	20170324	19810102	20170217
	Patents	18550227	20170324	19600502	20170317
	Utility Model Applications	19720107	20170324	19800104	20170217
	Utility Models	19730112	20170324	19690802	20170317
GB United Kingdom	Unpublished Patent Applications	19830209	20170125		
	Patent Applications	19790104	20170322	19790104	20170308
	Patents	17820704	20170322	19020911	19811216
JP Japan	Patent Applications	19710116	20170323	19930108	20170316
	Patents	19281026	20170308	19960529	20170308
	Utility Model Applications	19710723	20060209	19990817	20031107
	Utility Models	19640805	19960329		
	Registered Utility Models	19940726	20170309	19940726	20101216
KR Republic of Korea	Patent Applications	19781209	20170324	19940103	20170324
	Patents	19700820	20170324	19970104	20170324
	Utility Model Applications	19781127	20170324	19940730	20170324
	Utility Models	19780110	20170324	19970104	20170324
US United States of America	Patent Applications	20010315	20170323	20010315	20170323
	Patents	18360101	20170321	18560617	20170321
	Designs	18650912	20170321	19770719	20170321
WO World Intellectual Property Organization (WIPO)	Patent Applications	19781019	20170323	19781019	20170323
	Designs	20151127	20170324	20151127	20170317

20170325 21:00

- Login to Patbase:31 March 2017 03:50:30
- **search:** SS1 ft=fryer and cover (Results 852)
- **search:** SS2 ft=fryer and cover and handle (Results 212)
- List: SS2 1–50 (ft=fryer and cover and handle) (Results 212)

0) US2008237104A – FRYER DEVICE

1) Family number: 42227183 (US2008237104A)

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Title: FRYER DEVICE

Priority: AU20070350311 20070330 AU20100245993 20100505 AU20150200663 20150211
 EP20090733043 20090414 EP20070754706 20070330 AU20160238884 20161006
 US20070693143 20070329 US20080044733P 20080414 US20080193618 20080818
 US20080193615 20080818 US20090146859P 20090123 US20090175703P 20090505
 US20090243457P 20090917 EP20100718794 20100505 WO2007US08222 20070330
 WO2009US40451 20090414 US20100691064 20100121 US20090623868 20091123
 US20100782875 20100519 US20110030841 20110218 WO2010US33692 20100505
 US20110030792 20110218 US20110280177 20111024

Family:

Publication number	Publication date	Application number	Application date
AU2007350311 AA	20081009	AU20070350311	20070330
AU2009236378 AA	20091022	AU20090236378	20090414
AU2010245993 AA	20101111	AU20100245993	20100505
AU2015200663 AA	20150430	AU20150200663	20150211
AU2015200663 BB	20161103	AU20150200663	20150211
AU2016238884 AA	20161020	AU20160238884	20161006
CA2681981 AA	20081009	CA20072681981	20070330
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CA2797477 AA	20101111	CA20102797477	20100505
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DE602007042446 D1	20150917	DE200760042446T	20070330
DE602009016248 D1	20130725	DE200960016248T	20090414
DK2131706 T3	20151102	DK20070754706T	20070330
EP2131706 A1	20091216	EP20070754706	20070330
EP2131706 B1	20150805	EP20070754706	20070330
EP2288279 A1	20110302	EP20090733043	20090414
EP2288279 B1	20130605	EP20090733043	20090414
EP2427087 A2	20120314	EP20100718794	20100505
EP2449930 A2	20120509	EP20110009714	20100505
EP2449930 A3	20121017	EP20110009714	20100505
IN09411DN2011 A	20130125	IN2011DN09411	20111130
MX2009010460 A1	20100115	MX20090010460	20070330
MX2010011180 A1	20101221	MX20100011180	20090414
MX2011011783 A1	20120402	MX20110011783	20100505
US2008237104 AA	20081002	US20070693143	20070329
US2009044706 AA	20090219	US20080193618	20080818
US2010037782 AA	20100218	US20080193615	20080818
US2010206179 AA	20100819	US20100691064	20100121
US2010258109 AA	20101014	US20090623868	20091123
US2011061545 AA	20110317	US20100782875	20100519
US2012012011 AA	20120119	US20110030841	20110218
US2012017773 AA	20120126	US20110030792	20110218
US2012055345 AA	20120308	US20110280177	20111024
US8065954 BB	20111129	US20080193618	20080818
US8402885 BB	20130326	US20100691064	20100121
US8549993 BB	20131008	US20100782875	20100519

<u>WO08121111 A1</u>	20081009	WO2007US08222	20070330	
<u>WO09129209 A1</u>	20091022	WO2009US40451	20090414	
<u>WO10129651 A2</u>	20101111	WO2010US33692	20100505	
<u>WO10129651 A3</u>	20111110	WO2010US33692	20100505	
<u>WO12112839 A2</u>	20120823	WO2012US25565	20120217	
<u>WO12112839 A3</u>	20130110	WO2012US25565	20120217	

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Inventor(s): MILLIKIN RORY CP ; FOSTER PAUL LINCOLN LINCOLN ; DEL MOFFAT THORNOCK ; MILLIKEN RORY CP ; RORY C P MILLIKIN ; PAUL LINCOLN FOSTER ; THORNOCK DEL MOFFAT CONCORD ; RORY CP MILLIKIN

Agent(s): BALDWIN INTELLECTUAL PROPERTY; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; MARKS AND CLERK LUXEMBOURG LLP; HARGREAVES TIMOTHY EDWARD; SNELL AND WILMER LLP MAIN; SNELL AND WILMER LLP; SNELL AND WILMER L L P; BOYD DAMON L; BARKER DAVID G; BOYD DAMON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A47J36/00 A47J36/38 A47J37/10 A47J37/12 F24C15/20 (Advanced/Invention);
(IPC 8-9). A47J36/00 A47J37/12 (Core/Invention)

CPC: A47J36/38 A47J37/1276 A47J36/00 A47J37/1204 A47J37/1257 A47J37/1266 A47J37/1223 A47J37/129 A47J37/1271 A47J43/24 A47J37/1219 A47J37/1295

European class: A47J36/00 A47J36/38 A47J37/12A A47J37/12C A47J37/12D A47J37/12H A47J37/12K A47J37/12L A47J37/12M A47J37/12M3 A47J37/12P K47J43/24

US class: 126/299.00EP 126/299E 210/167.28 99/325 99/336 99/336P 99/337 99/337P 99/355 99/355S 99/357 99/403 99/407 99/407P 99/409 99/409S 99/410 99/410P 99/410S 99/449 99/450 994/7

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Cited documents: WO9739670 A1, WO9725910 A1, WO9619934 A1, WO9617541 A1, WO9423625 A1, WO08103056 A1, WO0191580 A1, USRE37706 E, USD462567 S1, US7681655 BB, US7387602 BA, US7154069 BA, US7018326 BB, US6834577 BB, US6772677 BB, US6732552 BB, US6705209 BB, US6322831 BA, US6196115 BA, US6186241 BA, US6173791 BA, US6112646 A, US6062132 A, US6009795 A, US5993872 A, US5988051 A, US5937741 A, US5782170 A, US5771781 A, US5650187 A, US5611265 A, US5586487 A, US5586486 A, US5543166 A, US5495795 A, US5490453 A, US5469778 A, US5403260 A, US5379684 A, US5351605 A, US5345068 A, US5301604 A, US5275090 A, US5249510 A, US5236135 A, US5223137 A, US5185168 A, US5182982 A, US5168797 A, US5165330 A, US5142968 A, US5129386 A, US5027697 A, US5018438 A, US5010805 A, US4873920 A, US4722267 A, US4719850 A, US4539898 A, US4508026 A, US4489647 A, US4426794 A, US4372980 A, US4294166 A, US4250803 A, US4215629 A, US4204464 A, US4196660 A, US4187770 A, US4155294 A, US4031820 A, US3908531 A, US3827985 A, US3827344 A, US3772499 A, US3690246 A, US3614924 A, US3525299 A, US3512473 A, US3380375 A, US3357685 A, US3279353 A, US3200737 A, US3078988 A, US3078786 A, US2858762 A, US2674938 A, US2628762 A, US2568792 A, US241631 A, US2186345 A, US2010037782 AA, US2009304878 AA, US2009044706 AA, US2009040451, US2008314261 AA, US2007163450 AA, US2006207438 AA, US2006016350 AA, US2005238770 AA, US2005011370 AA, US2004060456 AA, US2004055474 AA, US2004031396 AA, US2004007137 AA, US2003207009 AA, US2003192435 AA,

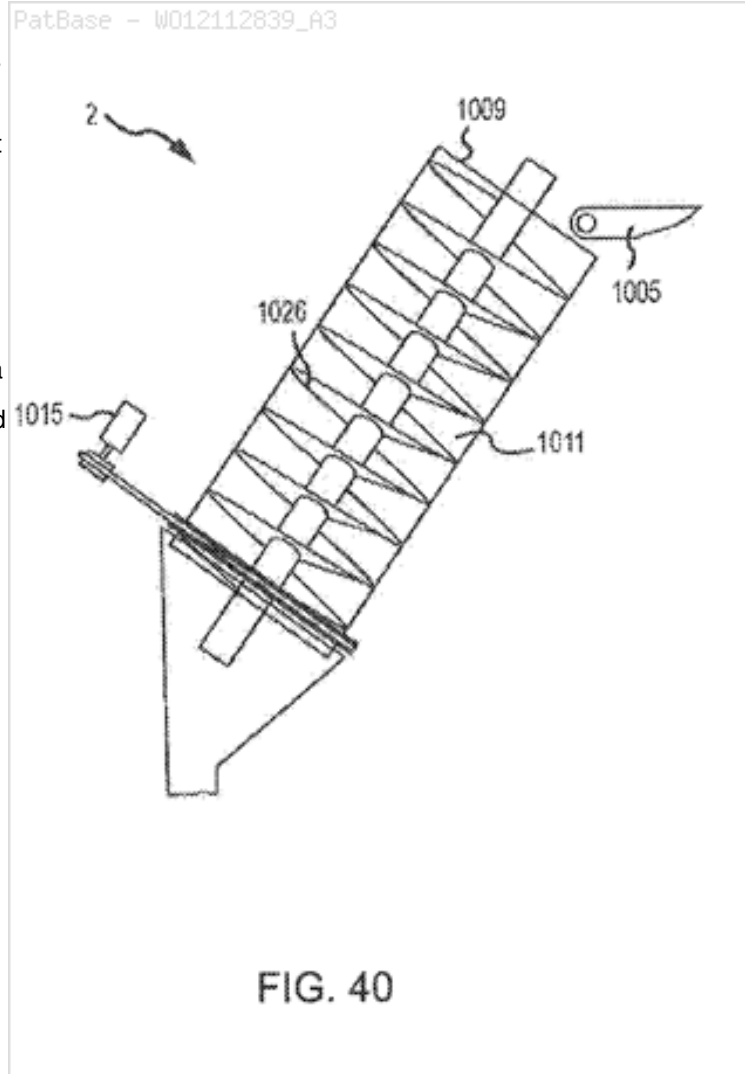
US2002088350 AA, US1759921 A, US1630787 A, US1316827 A, GB2295768 A1, GB1337547 A, GB1282713 A, FR2846218 A1, EP1248046 A2, EP1205591 A2,

DE102005052301 A1

Forward Citations: WO15198353, WO15173595, WO15112204, WO15065465, WO15006891, WO13074620, WO13025988, WO13016222, WO12112839, WO12112839, WO12040895, WO10129651, WO10129651, WO10096668, USD778687, USD695057, USD694058, US9538881, US9474410, US9380911, US9291377, US9167930, US9113743, US9021940, US8926837, US8875620, US8827101, US8726795, US8646382, US8618447, US8613969, US8584894, US8549993, US8522671, US8450655, US8402885, US8109201, US2014377417, US2014360535, US2014224132, US2014102493, US2013174747, US2013068112, US2013022719, US2012247451, US2012180673, US2011256285, US2011088564, US2011061545, US2011011278, US2011005403, US2010282095, US2010258109, US2010251902, US2010212511, US2010206179, US2010037782, US2009321333, KR101529014, JP2014521320, EP2449930, EP2398365, EP2353465, CN104825048, CN104257253, CN103713570, CN103702571, CN103690065, CN103070217, CN102499576, CN102355838,

Abstract:

Source: US2008237104A The present invention relates to a food fryer. The food fryer comprises a frying section where the food is fried in oil and an oil removal section where the oil content of the food is reduced. A basket located within the apparatus contains the food and is movable between the two sections. At least one motor is operable to remove oil content from the food and to move the basket between the two sections, and a controller communicates with the motor and other elements of the apparatus to facilitate the frying of the food. Exemplary embodiments of the invention provide methods for minimizing a cooling rate of the cooked food to prevent oil from gathering in the center of the cooked food and to increase the desirability of the cooked food. A cover that is sealably connected to the food frying apparatus aids in maintaining a temperature in the frying and oil removal environments that is higher than room temperature. A heating element in the oil removal section may also aid in maintaining a desirable temperature in the oil removal section. Systems for frying food according to embodiments of the invention comprise filtering systems, fire suppression systems, and/or ventilation systems. These systems may also comprise multiple food frying apparatuses.



0) US2007028780A – COOKING DEVICE TO DEEP FAT FRY FOODS

2) Family number: 34194809 (US2007028780A)

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Title: COOKING DEVICE TO DEEP FAT FRY FOODS

Priority: EP20060800998 20060808 EP20090820925 20090504 EP20110833471 20111014
 US20080251019 20081014 US20060539655 20061009 US20060345187 20060201
 US20050706859P 20050808 US20060425317 20060620 EP20140158428 20090504
 WO2006US30946 20060808 US20100775725 20100507 US20100856230 20100813
 WO2009US42676 20090504 US20100904803 20101014 US20110072391 20110325
 WO2011US35530 20110506 WO2011US56314 20111014 US20140253253 20140415

Family:	Publication number	Publication date	Application number	Application date
	<u>DE602006040539 D1</u>	20140417	DE200660040539T	20060808
	<u>DE602009035183 D1</u>	20160121	DE200960035183T	20090504
	<u>DE602011022351 D1</u>	20160218	DE201160022351T	20111014
	<u>EP1919335 A1</u>	20080514	EP20060800998	20060808
	<u>EP1919335 A4</u>	20100825	EP20060800998	20060808
	<u>EP1919335 B1</u>	20140305	EP20060800998	20060808
	<u>EP1919335 B9</u>	20140709	EP20060800998	20060808
	<u>EP2344014 A1</u>	20110720	EP20090820925	20090504
	<u>EP2344014 A4</u>	20130911	EP20090820925	20090504
	<u>EP2566348 A2</u>	20130313	EP20110721176	20110506
	<u>EP2627224 A2</u>	20130821	EP20110833471	20111014
	<u>EP2627224 A4</u>	20140521	EP20110833471	20111014
	<u>EP2627224 B1</u>	20151230	EP20110833471	20111014
	<u>EP2752141 A2</u>	20140709	EP20140158428	20090504
	<u>EP2752141 A3</u>	20141001	EP20140158428	20090504
	<u>EP2752141 B1</u>	20151209	EP20140158428	20090504
	<u>US2007028780 AA</u>	20070208	US20060345187	20060201
	<u>US2007028781 AA</u>	20070208	US20060425317	20060620
	<u>US2007256571 AA</u>	20071108	US20060539655	20061009
	<u>US2009120303 AA</u>	20090514	US20080251019	20081014
	<u>US2010269712 AA</u>	20101028	US20100775725	20100507
	<u>US2010303973 AA</u>	20101202	US20100856230	20100813
	<u>US2011203570 AA</u>	20110825	US20100904803	20101014
	<u>US2012167778 AA</u>	20120705	US20110072391	20110325
	<u>US2014227411 AA</u>	20140814	US20140253253	20140415
	<u>US8186265 BB</u>	20120529	US20100775725	20100507
	<u>US8309151 BB</u>	20121113	US20100856230	20100813
	<u>US8707857 BB</u>	20140429	US20060425317	20060620
	<u>US8850965 BB</u>	20141007	US20080251019	20081014
	<u>WO07019534 A1</u>	20070215	WO2006US30946	20060808
	<u>WO10044909 A1</u>	20100422	WO2009US42676	20090504
	<u>WO11140447 A2</u>	20111110	WO2011US35530	20110506
	<u>WO11140447 A3</u>	20130321	WO2011US35530	20110506
	<u>WO12051508 A2</u>	20120419	WO2011US56314	20111014
	<u>WO12051508 A3</u>	20130801	WO2011US56314	20111014

Probable Assignee: RON S ENTPR INC

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 GANTMAN KATHRYN ; POPEIL GANTMAN KATHRYN ; POPEIL STAIRS SHANNON ;
 POPEIL LAUREN ; POPEIL RONALD M ; POPEIL KATHRYN ; R P INV S INC ; RON S

ENTPR INC ; RONALD M POPEIL ; RON S ENTERPRISE INC

Assignee(s): RON S ENTERPRISES INC BEVERLY HILLS ; RP INVENTIONS INC ; RONCO ACQUISITION CORP ; RON'S ENTERPRISES INC ; RONALD M ; RON S ENTERPRISES INC ; R P INVENTIONS INC

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Agent(s): KRAMER BARSKE SCHMIDTCHEN PATENTANWALTE PARTG MBB; KRAMER – BARSKE – SCHMIDTCHEN; KRAMER BARSKE SCHMIDTCHEN; Kramer – Barske – Schmidtchen; KRAMER BARSKE SCHMIDTCHEN PATENTANWALTE PARTG MBB; TUCKER ELLIS AND WEST LLP; TUCKER ELLIS LLP; MIZER SUSAN L; GARRED JOHN X; MICHAEL E HUDZINSKI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): A23L1/00 A23L1/01 A23L1/315 A23L13/50 A23L5/10 A47J27/00 A47J27/04 A47J36/00 A47J37/00 A47J37/07 A47J37/12 A47J43/18 (Advanced/Invention);
A23L1/00 A47J45/06 (Advanced/Non-invention);
A23L1/00 A47J37/00 A47J37/12 (Core/Invention);
A23L1/00 (Core/Non-invention)

CPC: A47J36/10 A47J37/1261 A47J37/1266 A47J37/129 A47J43/18 A23L5/11 A23L13/57 A47J37/1209 A47J37/1219

European class: A23L1/01B A47J36/10 A47J37/12A1 A47J37/12C A47J37/12H2 A47J37/12K A47J37/12M3

US class: 126/20 126/20S 126/369 219/401 219/401S 220/573.1 294/61 426/233 426/233P 426/302 426/438 426/438S 426/509 426/509S 426/523 99/330 99/336 99/339 99/339P 99/340 99/350 99/355 99/356 99/403 99/403P 99/403S 99/407 99/407P 99/408 99/409 99/410 99/411 99/412 99/413 99/414 99/415 99/419 99/427 99/444 99/449 99/449S

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Cited documents: WO10044909 A1, WO03009730 A1, USRE37955 E, USRE3795 E, USRE36147 E, USD696058 S1, USD694058 S1, USD686018 S1, USD576454 S1, USD57645 S1, USD563719 S1, USD56371 S1, USD560424 S1, USD56042 S1, USD553432 S1, USD55343 S1, USD552921 S1, USD55292 S1, USD535164 S1, USD53516 S1, USD506068 S1, USD503068 S1, USD489223 S1, USD486689 S1, USD462567 S1, USD427481 S1, USD418366 S1, USD415937 S1, USD41593 S1, USD413225 S1, USD388665 S1, USD38866 S1, USD226940 S1, USD193754 S1, USD19375 S1, US975843 A, US959715 A, US951241 A, US940557 A, US92791 A, US9220371 BA, US91899 A, US910812 A, US900398 A, US900396 A, US899244 A, US895856 A, US875972 A, US859717 A, US8535088 BB, US8497753 BB, US8435042 BB, US8348678 BB, US8309151 BB, US8186265 BB, US8177560 BB, US812546 A, US8109201 BB, US8087939 BB, US8067716 BA, US7997906 BB, US7981459 BB, US7931472 BB, US7901216 BB, US78588 A, US7771202 BB, US7762817 BB, US7739948 BB, US7736151 BA, US7645143 BB, US7641477 BB, US7640848 BA, US7626142 BB, US7517235 BB, US7500427 BB, US7464640 BB, US7442042 BA, US7424849 BB, US7412922 BB, US73692 A, US7351066 BB, US7322386 BB, US7311526 BB, US7309422 BB, US7302976 BA, US7284581 BB, US7240701 BB, US7237583 BB, US7237582 BA, US7237476 BA, US7229656 BB, US7225730 BB, US7225729 BB, US7211770 BB, US7153120 BB, US7142922 BB, US7141764 BA, US7138609 BB, US7114536 BB, US7090269 BB, US7086155 BB, US7074046 BB, US7065883 BB, US7053338 BA, US7044049 BB, US7036425 BB, US703331 A, US702525 A, US7021204 BB, US7021203 BB, US7019271 BB, US7015429 BB, US7013934 BA, US7012271 BB, US6998581 BB, US6998561 BB, US6998481 BB, US6998445 BB, US6988445 BA, US6976882 BB, US6976420 BA, US6965095 BA, US6962106 BB, US6955118 BA, US6941857 BB, US6935389 BA, US6921480 BB, US690415 A, US6900415 BA, US6874408 BB, US6868776 BB, US6867139 BB, US6865983 BB, US6851351 BB, US6845707 BA, US6841857 BB, US6840161 BB, US6840159 BA, US6837150 BB, US6834578 BA, US6834577 BB, US6831185 BB, US6823772 BB, US6820540 BA,

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US641267 A, US6412401 BA, US6408742 BA, US6405765 BA, US6398066 BA,
US6393972 BA, US6378420 BA, US6371014 BA, US6365878 BA, US6364120 BA,
US6341631 BA, US633423 A, US6330855 BB, US6322831 BA, US6320166 BA,
US6314869 BA, US6306294 BA, US6305270 BA, US6293271 BA, US6289795 BA,
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US6255636 BA, US6254790 BA, US6253665 BA, US6250214 BA, US6250213 BA,
US6244483 BA, US6244170 BA, US6240838 BA, US6240835 BA, US6223792 BA,
US6213002 BA, US6196119 BA, US6187355 BA, US6182561 BA, US6180934 BA,
US6180934 B1, US6179558 BA, US6179558 B1, US6176175 BA, US6173645 BA,
US6173645 B1, US6170390 BA, US6170390 B1, US6167799 BA, US6167799 B1,
US6162481 A, US616095 A, US6152198 A, US6152022 A, US6142193 A, US6142064 A,
US6138552 A, US6131564 A, US6125738 A, US6119739 A, US6116299 A, US6112646
A, US6103291 A, US6095037 A, US6092547 A, US6085640 A, US6082249 A,
US6079319 A, US6077555 A, US6058830 A, US6055901 A, US6035907 A, US6035767
A, US6029566 A, US6009795 A, US6006658 A, US6002111 A, US5997938 A,
US5996477 A, US5996474 A, US5994672 A, US5993872 A, US5988048 A, US5988046
A, US5979516 A, US5974955 A, US5974953 A, US5973297 A, US5971690 A,
US5970853 A, US5970852 A, US5950697 A, US5947016 A, US5945024 A, US5941407
A, US5937741 A, US5931081 A, US5927353 A, US5927181 A, US5920916 A,
US5918535 A, US5902618 A, US5899246 A, US5896810 A, US5887509 A, US5882116
A, US5857504 A, US5836238 A, US5826494 A, US5816139 A, US5813321 A,
US5809870 A, US5794522 A, US5787944 A, US5782170 A, US5782165 A, US5782164
A, US5776530 A, US5771781 A, US5770252 A, US5762120 A, US5758569 A,
US5746217 A, US5746117 A, US5731012 A, US572595 A, US5722289 A, US5720991 A,
US571929 A, US5718934 A, US5718220 A, US571686 A, US5699722 A, US568914 A,
US568353 A, US5655580 A, US5651905 A, US565016 A, US5638873 A, US5632197 A,
US5629039 A, US5617777 A, US5611265 A, US5609093 A, US5607004 A, US5605091
A, US559588 A, US558816 A, US5586486 A, US5584235 A, US5584234 A, US5582093
A, US5573292 A, US5568765 A, US5560284 A, US5555793 A, US5553531 A,
US5543166 A, US5542347 A, US5535793 A, US5535665 A, US5524527 A, US5517902
A, US5515990 A, US5515892 A, US5513558 A, US5490453 A, US5469778 A,
US5465651 A, US5463943 A, US5458168 A, US5452648 A, US5445073 A, US5431092
A, US5429039 A, US5421713 A, US5421249 A, US5402712 A, US5400700 A,
US5385180 A, US5379684 A, US5375512 A, US5373781 A, US536986 A, US5363749 A,
US5359924 A, US5355776 A, US5333539 A, US5324185 A, US5313876 A, US5305686
A, US5301604 A, US5287798 A, US5277233 A, US5275094 A, US5275090 A,
US5271317 A, US5253566 A, US5247876 A, US5245902 A, US5238138 A, US5235904
A, US5232151 A, US5230279 A, US5221962 A, US5209218 A, US5200224 A,
US5197736 A, US5195145 A, US5193524 A, US5189946 A, US5182981 A, US5172328
A, US5170696 A, US5168908 A, US5168797 A, US5166886 A, US5165329 A,
US5165328 A, US5148655 A, US5142973 A, US5140711 A, US5134956 A, US5133788
A, US5106642 A, US5097753 A, US5097752 A, US5090305 A, US5078189 A,
US5074199 A, US506068 A, US5052369 A, US5038676 A, US5033453 A, US5033162 A,
US503068 A, US5030027 A, US5029519 A, US5027697 A, US502622 A, US5022773 A,
US5017143 A, US5010805 A, US5010740 A, US499615 A, US4995312 A, US498992 A,
US4968516 A, US4959144 A, US4957039 A, US4955271 A, US4951558 A, US4948106
A, US4945893 A, US4930408 A, US4913042 A, US4913041 A, US4911068 A,
US4901633 A, US4898151 A, US4898091 A, US4896707 A, US489223 A, US4873920 A,
US486689 A, US4858592 A, US4854299 A, US4854227 A, US4852471 A, US4852256 A,
US4850403 A, US4840287 A, US4838244 A, US4832226 A, US4832095 A, US4823848
A, US4817509 A, US4807862 A, US4804026 A, US4798939 A, US4789017 A,
US4787301 A, US4785725 A, US4773316 A, US475874 A, US475840 A, US4754698 A,
US474120 A, US474036 A, US4739698 A, US4738246 A, US4732081 A, US4719850 A,
US4713522 A, US4706719 A, US4704290 A, US4702160 A, US4698861 A, US4694742
A, US4691096 A, US4688549 A, US4688475 A, US4685386 A, US4668390 A,
US4658117 A, US462567 A, US4623544 A, US4617452 A, US4616625 A, US4604989 A,
US4602612 A, US4593170 A, US4580549 A, US4580024 A, US4574776 A, US4573384
A, US4571473 A, US4569280 A, US4557378 A, US4542685 A, US4542684 A,
US4535931 A, US4510361 A, US4509412 A, US4508027 A, US4508026 A, US4505193

A, US4491602 A, US4489646 A, US4485831 A, US4478140 A, US4468556 A, US4462308 A, US4436025 A, US442431 A, US4420006 A, US4401017 A, US4399743 A, US4397879 A, US4397299 A, US4385911 A, US4371623 A, US4339326 A, US4332992 A, US4331691 A, US4331251 A, US4317017 A, US427481 A, US4266813 A, US4256154 A, US4250803 A, US4238997 A, US4230238 A, US4211909 A, US4205803 A, US4203357 A, US4202386 A, US4189993 A, US418366 A, US4170252 A, US4164174 A, US4157707 A, US4143690 A, US4143680 A, US4140160 A, US4140049 A, US413225 A, US4127060 A, US4114013 A, US4108222 A, US4106486 A, US4103604 A, US4095518 A, US4091252 A, US4081647 A, US4062387 A, US4062260 A, US4059046 A, US4041852 A, US4028520 A, US4013861 A, US3998144 A, US3975997 A, US3975070 A, US3971307 A, US3971304 A, US3964628 A, US3939884 A, US3933645 A, US3885519 A, US3874429 A, US3869972 A, US3869792 A, US3853044 A, US3845702 A, US3842725 A, US3830151 A, US3821925 A, US3816703 A, US3808963 A, US3801331 A, US3800692 A, US3800649 A, US3800648 A, US3789822 A, US3789178 A, US3767884 A, US3739743 A, US3737621 A, US3735726 A, US3731038 A, US3718485 A, US3714889 A, US3713378 A, US3696778 A, US3690246 A, US3688683 A, US3667374 A, US3641923 A, US3626840 A, US3618587 A, US3613553 A, US3604340 A, US3561511 A, US3554253 A, US3547075 A, US3489267 A, US3484252 A, US3483815 A, US3469561 A, US3468355 A, US3463077 A, US3438353 A, US3434410 A, US3404659 A, US3396656 A, US3394677 A, US3375476 A, US3364845 A, US3354546 A, US3327621 A, US3283730 A, US3279353 A, US3234905 A, US3225735 A, US3225681 A, US3217633 A, US3216474 A, US3211195 A, US3201015 A, US3194662 A, US3145743 A, US3128810 A, US3127494 A, US3116770 A, US3112781 A, US3107601 A, US3095326 A, US309249 A, US3078785 A, US3065326 A, US3063843 A, US3026790 A, US300691 A, US2997566 A, US2926595 A, US2915000 A, US2906850 A, US2902062 A, US2899889 A, US2897776 A, US2855893 A, US2836212 A, US2835191 A, US2811181 A, US2805314 A, US2786502 A, US2785277 A, US2769878 A, US2751120 A, US2742850 A, US274208 A, US2740349 A, US2735357 A, US2716939 A, US2714070 A, US2703670 A, US2703522 A, US2658444 A, US2645262 A, US2625972 A, US2622187 A, US2620790 A, US2597695 A, US2588614 A, US2577433 A, US2576688 A, US2568792 A, US2563237 A, US2560229 A, US2543052 A, US2524900 A, US2517759 A, US2509533 A, US2468987 A, US2367448 A, US2342067 A, US2315473 A, US2302138 A, US2287396 A, US2269689 A, US2250910 A, US2247650 A, US2215929 A, US2196968 A, US217378 A, US213244 A, US2127749 A, US2112990 A, US211076 A, US2089158 A, US2081751 A, US2061533 A, US2032175 A, US2027146 A, US2009120303 AA, US2008265594 AA, US2008210100 AA, US2008202349 AA, US2008196596 AA, US2008169281 AA, US2008159281 AA, US2008153281 AA, US2008124438 AA, US2008102181 AA, US2008041238 AA, US2007256571 AA, US2007251517 AA, US2007221651 AA, US2007145061 AA, US2007054018 AA, US2007040559 AA, US2007028781 AA, US2007028780 AA, US2006283335 AA, US2006272633 AA, US2006272514 AA, US2006266227 AA, US2006219099 AA, US2006182862 AA, US2006091137 AA, US2005289443 AA, US2005284306 AA, US2005283335 AA, US2005276892 AA, US2005272513 AA, US2005269332 AA, US2005268792 AA, US2005268791 AA, US2005266228 AA, US2005259309 AA, US2005252504 AA, US2005247454 AA, US2005241492 AA, US2005235838 AA, US2005229791 AA, US2005229789 AA, US2005229760 AA, US2005217662 AA, US2005217494 AA, US2005207438 AA, US2005204929 AA, US2005194372 AA, US2005172949 AA, US2005151464 AA, US2005144250 AA, US2005144248 AA, US2005121020 AA, US2005115556 AA, US2005091050 AA, US2005072315 AA, US2005072309 AA, US2005061159 AA, US2005056157 AA, US2005055533 AA, US2005055130 AA, US2005051035 AA, US2005051034 AA, US2005034611 AA, US2004260018 AA, US2004237801 AA, US2004187702 AA, US2004112225 AA, US2004103795 AA, US2004069149 AA, US2004049961 AA, US2003226452 AA, US2003222112 AA, US2003205569 AA, US2003196940 AA, US2003179653 AA, US2003167932 AA, US2003132259 AA, US2003110954 AA, US2003029323 AA, US2003005828 AA, US2003003209 AA, US2002139365 AA, US2002092803 AA, US2002069767 AA, US2002050212 AA, US2002040644 AA, US2002017201 AA, US193486 A, US1909983 A, US1881549 A, US1842101 A, US1789428 A, US1733261 A, US1662147 A, US1638446 A, US1635563 A, US1599805 A, US1577856 A, US1563005 A, US1538171 A, US1487824 A, US1478939 A, US1469512 A, US1462275 A, US1461654 A, US1460639 A, US1445788 A, US1430691 A, US1396606 A, US1375028 A, US1371718 A, US1368640 A, US1339625 A, US1315665 A, US1302086 A, US1272222 A, US1264348 A, US1263151 A, US1260794 A, US1255014 A, US1228108 A, US1214992 A, US1205026 A, US1199211 A, US1189498 A, US1117277 A, US1012877 A, JP9037966 A2, JP2310425 A2, GB668613 A, FR921942 A, FR2786082 A1, EP0513817 A2, DE29512940 U1, DE29512940 U, CH285439 A, CH240760 A,

Forward Citations: WO16092445, WO15176973, WO13148622, WO12051508, WO11140447, WO11140447, WO11129875, WO10044909, USD676705, USD551897, US9545175, US9486101, US9169067, US9161650, US9060638, US9049966, US9003960, US8943953, US8875620, US8869686, US8850965, US8807022, US8721164, US8707857, US8702300, US8648282, US8642930, US8424449, US8381637, US8309151,

US8186265, US7856875, US2016369450, US2016206152, US2015313410, US2015266543, US2015257590, US2015104549, US2015020404, US2015014326, US2014377417, US2014318384, US2014076904, US2013327225, US2013243921, US2013192583, US2013108757, US2013032041, US2012318148, US2012285331, US2012273483, US2012026827, US2011256494, US2011256287, US2011203570, US2011146650, US2011083565, US2011031232, US2011011278, US2011006054, US2010303973, US2010269712, US2010180776, US2010018411, US2008078243, US2007256571, US2007028781, US2007028780, RU2540875, ITCH20090016, FR2967879, EP2752141, EP2752141, EP2627224, EP2627224, EP2398365, EP2344014, CN103349515, CN101982152,

Abstract:

Source: US2007028780A A cooking device include an outer housing and a cooking cavity disposed within and separate from the outer housing. The cooking cavity accommodates a volume of cooking liquid therein. The device includes a heater positioned adjacent the cooking cavity to heat the cooking liquid. A lid is movably attached to the device and is used to form a seal with the cooking cavity. The lid includes a transparent portion positioned along a top surface to enable viewing inside of the cooking cavity. A controller can be used to heat the cooking fluid for an amount of time designated by user input. A moving mechanism can be used to move a food article into and out of the cooking liquid. The moving mechanism can be automated. The device can include a drainage system for removing the cooking liquid.

PatBase - W012051508_A2

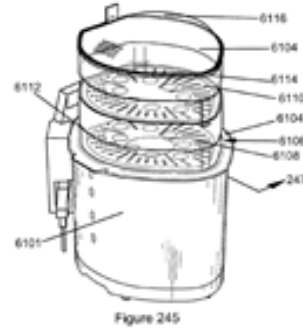


Figure 245

0) US2004103795A – COOKING APPARATUS

3) Family number: 30615954 (US2004103795A)

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Title: COOKING APPARATUS

Priority: US20020402912P 20020814 US20030640691 20030814 US20030640691F 20030814
US20040219017F 20041213 US20050229943F 20050516 US20040020027 20041223
US20040917418F 20040813 US20050141194 20050601 US20040917418 20040813
US20060415415 20060502 US20080222879 20080818 US20080219456 20080722
US20090336908F 20090512 US20110155666 20110608 WO2004US26382 20040813

Family:

Publication number	Publication date	Application number	Application date
CA2535012 AA	20060202	CA20042535012	20040813
CA2535012 C	20150616	CA20042535012	20040813
CN101119664 A	20080206	CN200480029879	20040813
CN101119664 B	20140702	CN200480029879	20040813
US2004103795 AA	20040603	US20030640691	20030814
US2005034611 AA	20050217	US20040917418	20040813
US2005276892 AA	20051215	US20050141194	20050601
US2006137543 AA	20060629	US20040020027	20041223
US2006254432 AA	20061116	US20060415415	20060502
US2009078127 AA	20090326	US20080222879	20080818
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US7703389 BB	20100427	US20060415415	20060502
US7981459 BB	20110719	US20050141194	20050601
USD516374 S1	20060307	US20040219017F	20041213
USD560424 S1	20080129	US20050229943F	20050516
USD616243 S1	20100525	US20090336908F	20090512
WO05016091 A1	20050224	WO2004US26382	20040813

Probable Assignee: MASTERBUILT MFG INC

Assignee(s):^(std): MASTERBUILT MFG INC ; MCLEMORE JOHN D ; MCLEMORE JOHN ; MCLEMORE DON

Assignee(s): WELLS FARGO BANK NATIONAL ASSOCIATION ; MCLEMORE JOHN DARIN ; MCLEMORE DON CALVIN ; MASTERBUILT MFG LLC ; FIFTH THIRD BANK AGENT AS ; MASTERBUILT MANUFACTURING INC

Inventor(s):^(std): MCLEMORE DON ; MCLEMORE JOHN D

Inventor(s): MCLEMORE JOHN

Agent(s): GOWLING LAFLEUR HENDERSON LLP; DEETH WILLIAMS WALL LLP; SMITH GAMBRELL AND RUSSELL LLP; SMITH GAMBRELL AND RUSSELL LLP, ATTORNEYS AT LAW; SMITH GAMBRELL AND RUSSELL LLP ATTORNEYS AT LAW; SMITH GAMBRELL AND RUSSELL

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International class [A23B4/044](#) [A23L1/01](#) [A23L1/315](#) [A23L13/50](#) [A23L5/10](#) [A47J27/00](#) [A47J37/07](#) [A47J37/12](#)
(IPC 8-9): [A47J39/00](#) (Advanced/Invention);
[G01K1/08](#) (Advanced/Non-invention);

A23B4/044 A23L1/01 A47J37/07 A47J37/12 A47J39/00 (Core/Invention)

International class
(IPC 1-7):

A47J27/00 A47J37/12

CPC:

A47J37/1209 A47J37/1266 A47J37/1295 A23B4/052

European class:

A23B4/052 A47J37/12A1 A47J37/12K A47J37/12P

US class:

126/59.5 340/501 340/584 340/585 340/588 340/870.01 340/870.04 340/870.09
340/870.17 374/141 374/149 374/150 374/155 374/179 426/314 426/314S 426/438
426/438P 426/523 426/523P 426/523S 426/644 70/200 99/33 99/330 99/330S 99/339
99/340 99/342 99/343 99/344 99/403 99/403P 99/403S 99/407 99/410 99/412 99/413
99/413P 99/413S 99/414 99/415 99/418 99/418S 99/448 99/448P 99/467 99/482 99/482P
99/4130 D7/332 D7/354 D7/355 D7/360

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07/02

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Cited documents:

WO05016091 A1, USD586608 S1, USD560424 S1, USD516374 S1, USD493328 S1, USD486351 S1, USD464526 S1, USD458507 S1, USD455040 S1, USD450528 S1, USD444666 S1, USD431150 S1, USD431149 S1, USD424366 S1, USD419824 S1, USD418361 S1, USD416434 S1, USD416166 S1, USD395980 S1, USD386646 S1, USD382767 S1, USD378647 S1, USD374791 S1, USD369505 S1, USD369270 S1, USD368621 S1, USD365723 S1, USD345281 S1, USD341056 S1, USD339957 S1, USD338132 S1, USD323762 S1, USD313530 S1, USD280064 S1, USD267769 S1, USD249924 S1, USD242947 S1, USD131468 S1, US7981459 BB, US7703452 BB, US7703389 BB, US7426885 BB, US7412922 BB, US7157668 BB, US7100497 BB, US6967900 BB, US6945160 BB, US6941857 BB, US6868777 BA, US6818869 BB, US6811308 BB, US6803065 BA, US6730890 BB, US6712505 BB, US6711992 BA, US6708604 BA, US6701829 BB, US6595197 BA, US6568848 BA, US6539842 BA, US6532865 BA, US652531 A, US6515262 BA, US6501384 BB, US6499390 BA, US6498326 BA, US6498323 BA, US6495808 BA, US6483990 BA, US6481344 BA, US6470794 BB, US6470794 B1, US6446545 BB, US6446545 B1, US6446397 BA, US6443051 BA, US6430879 BA, US6412401 BA, US6378420 BA, US6320166 BA, US6314869 BA, US6289793 BA, US6269737 BA, US6262398 BA, US6240835 BA, US6223737 BA, US6213116 BA, US6209533 BA, US6155465 A, US6138552 A, US6131564 A, US6102028 A, US6095132 A, US6085641 A, US6080972 A, US6058830 A, US6053207 A, US6035770 A, US6009794 A, US6006658 A, US6002111 A, US5983882 A, US5973297 A, US5970852 A, US5947007 A, US5931081 A, US5927181 A, US5918535 A, US5910209 A, US5896810 A, US5891498 A, US5832810 A, US5823097 A, US5813321 A, US5809870 A, US5794522 A, US5782164 A, US5776530 A, US5758569 A, US5731024 A, US5719934 A, US5718934 A, US5718165 A, US5713267 A, US5682809 A, US5651905 A, US5642660 A, US5617777 A, US5613423 A, US5590583 A, US5588352 A, US5577438 A, US5524528 A, US5429110 A, US5429039 A, US5400700 A, US5379684 A, US5365830 A, US5247876 A, US5243963 A, US5199926 A, US5172328 A, US5169223 A, US5167183 A, US5156195 A, US5138939 A, US5133266 A, US5078049 A, US5070776 A, US5045672 A, US4968516 A, US4951558 A, US4911068 A, US4866809 A, US4823684 A, US4798939 A, US4771906 A, US4770157 A, US4757755 A, US4721037 A, US4716411 A, US4697506 A, US4691096 A, US4686958 A, US464526 A, US4643162 A, US4626662 A, US458507 A, US4574183 A, US4572062 A, US4509868 A, US4503320 A, US4495860 A, US4489235 A, US4483255 A, US4475024 A, US4471748 A, US444666 A, US4422441 A, US4377733 A, US4374489 A, US4355570 A, US4347833 A, US4342259 A, US4325294 A, US4324173 A, US4321857 A, US431150 A, US4309938 A, US4258692 A, US424366 A, US4020322 A, US3973481 A, US3964637 A, US3938498 A, US3938494 A, US3908531 A, US3908111 A, US3849309 A, US3839951 A, US3801331 A, US3797563 A, US3797378 A, US3789824 A, US378647 A, US3776127 A, US3759164 A, US3722498 A, US3714889 A, US365723 A, US3539095 A, US3512473 A, US3508485 A, US3447530 A, US3229846 A, US3194662 A, US2902582 A, US2868112 A, US2851576 A, US2848894 A, US2842043 A, US2833201 A, US2785277 A, US2756321 A, US2711474 A, US2695947 A, US2614718 A, US2597695 A, US2471260 A, US2344893 A, US2273561 A, US2250729 A, US2215929 A, US2191270 A, US2080786 A, US2032175 A, US2026387 A, US2010071564 AA, US2009078127 AA, US2006137543 AA, US2005157775 AA, US2005155975 AA, US2005034611 AA, US2004103795 AA, US2004034611 AA, US2003110954 AA, US2003103795 AA, US2003003209 AA, US2002092427 AA, US2002069767 AA, US2002017201 AA, US1994909 A, US1763126 A, US1622587 A, US1534867 A, US1444647 A, US1272222 A, US1232360 A, JP62062130 A2, EP0432370 A1, EP0143885 A1, DE3437398 A1, DE3221433 A1, DE3150455 A1, DE3143863 A1, CN2051080,

Forward Citations:

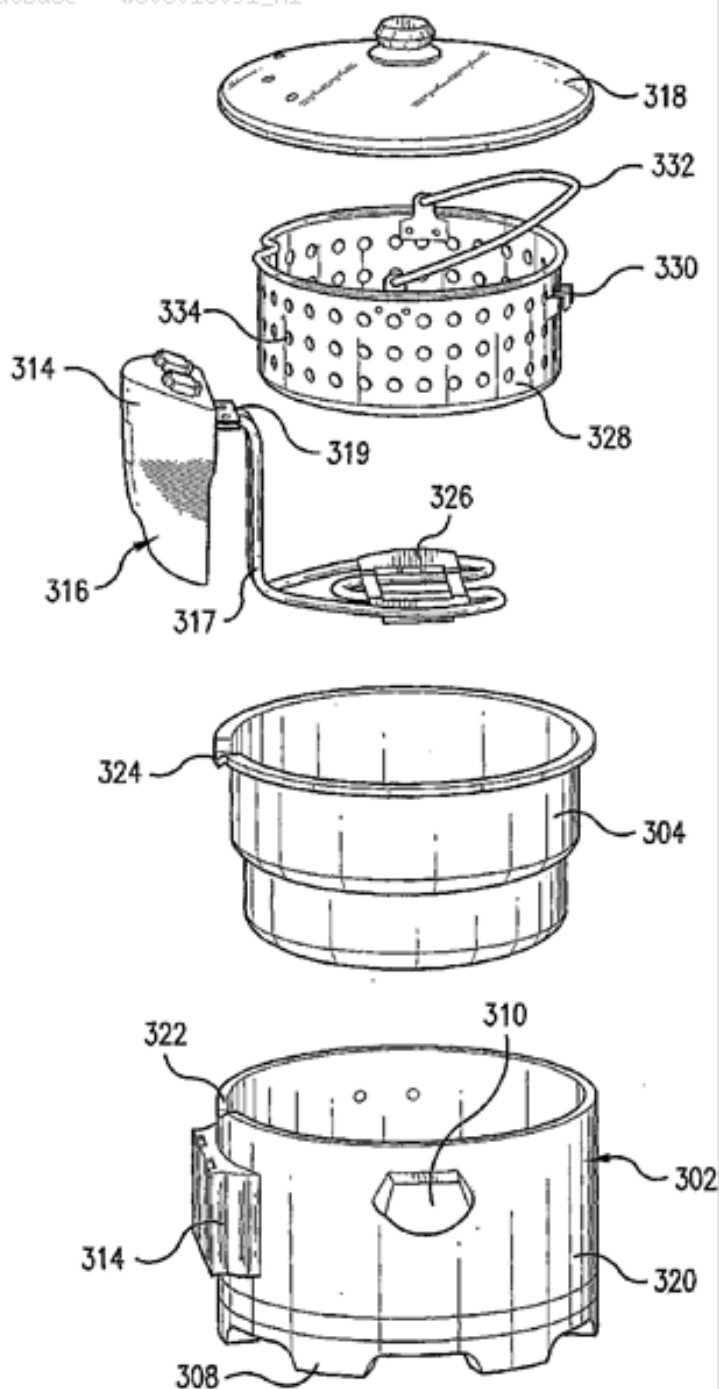
WO16200678, WO16077284, WO15138985, WO14178025, WO14095659, WO13185457, WO13063363, WO08138036, WO07146619, USD766748, USD766747, USD761673, USD761672, USD761136, USD761135, USD761134, USD755012, USD744875,

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US8006687, US7981459, US7934494, US7726234, US7703389, US7412922,
US7316180, US7211770, US7078657, US2016223205, US2016206152, US2016031106,
US2016022085, US2016015203, US2015374162, US2015351579, US2015313410,
US2015150403, US2015025687, US2014209598, US2013220143, US2013213242,
US2013171300, US2013067937, US2013019760, US2012224604, US2012167778,
US2012156350, US2012114815, US2012074121, US2012009317, US2011317738,
US2011309043, US2011231306, US2011120442, US2011081471, US2011049123,
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US2009212038, US2009205511, US2009120303, US2009087534, US2009078127,
US2008277558, US2008257168, US2008169281, US2007286017, US2007256571,
US2007108217, US2007028781, US2007028780, US2007012198, US2006289443,
US2006254432, US2006201336, US2006151464, US2005258163, US2005232075,
US2005034611, GB2528211, GB2462038, GB2462038, GB2414165, GB2414165,
EP3121573, EP2116829, EP1919335, CN105433752, CN105307546, CN104771056,
CN104379036,

Abstract:

Source: US2004103795A A domestic fryer assembly and method of using which includes interconnected shell and cooking pot with the shell having an interior cavity receiving the cooking pot. A heating unit as in a resistance bar heater unit is supported by the combination shell and cooking pot and extends down into the cooking pot and features a generally horizontal portion suspended above the cooking pot bottom and preferably having a configuration of a horse-shoe with outer curved sides that generally follow the curvature of the supporting pot. The cooking pot is designed to hold sufficient cooking fluid to provide for deep frying relatively large single item food pieces as in a whole turkey of, for example, 8 to 18 pounds. The food item is preferably retained in a cooking basket that is dimensioned for insertion into the cooking pot. The cooking pot also preferably includes one or more volume reduction step-ins such as a bottom or lower one for doubling as a cooking basket support and/or an upper annular ledge step-in in the pot.

PatBase - W005016091_A1



0) US2013152800A – FRYER WITH PERFORATED COVER

4) Family number: 50641120 (US2013152800A)

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Title: FRYER WITH PERFORATED COVER

Priority: EP20110767787 20110809 IT2010RM00449 20100811 WO2011IT00293 20110809

Family:

Publication number	Publication date	Application number	Application date
AP201306755 A0	20130331	AP20130006755	20110809
AP3502 A	20151231	AP20130006755	20110809
AU2011288140 AA	20120216	AU20110288140	20110809
CA2813164 AA	20130328	CA20112813164	20110809
CN103209624 A	20130717	CN201180047222	20110809
CN103209624 B	20160504	CN201180047222	20110809
DE602011016132 D1	20150611	DE201160016132T	20110809
EA024318 B1	20160930	EA20130000221	20110809
EA201300221 A1	20130830	EA20130000221	20110809
EP2603125 A1	20130619	EP20110767787	20110809
EP2603125 B1	20150429	EP20110767787	20110809
ES2543753 T3	20150821	ES20110767787T	20110809
IL224607 A0	20130324	IL20110224607	20110809
IT1401594 B1	20130726	IT2010RM00449	20100811
ITRM20100449 A1	20120212	IT2010RM00449	20100811
JP2013533089 T2	20130822	JP20130523701T	20110809
JP5946098 B2	20160705	JP20130523701T	20110809
KR20130108291 A	20131002	KR20137006229	20110809
MX2013001667 A1	20130829	MX20130001667	20110809
NZ608013 A	20141224	NZ20110608013	20110809
SG187772 A1	20130328	SG20130009618	20110809
US2013152800 AA	20130620	US20130762777	20130208
US9226616 BB	20160105	US20130762777	20130208
WO12020442 A1	20120216	WO2011IT00293	20110809
ZA201301834 A	20140528	ZA20130001834	20130311

Probable Assignee: BY ME SRL

Assignee(s):^(std): BY ME S R L ; BY ME SLR ; BY ME SRL ; FERRARI LUCIANO ; OPINION LEADERS S R L

Assignee(s): OPINION LEADERS SRL

Inventor(s):^(std): FERRARI LUCIANO ; RERRARI LUCIANO

Inventor(s): LUCIANO FERRARI

Agent(s): FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD; RIDOUT AND MAYBEE LLP; IANNONE CARLO LUIGI; DE ELZABURU ALBERTO; KITA AOYAMA INT PATENT BUREAU; HERSHKOVITZ AND ASSOCIATES PLLC; ABRAHAM; BANCHETTI MARINA ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
^(IPC 8-9): [A47J A47J36/38 A47J37/12](#) (Advanced/Invention);
[A47J](#) (Subclass/Invention)

CPC: A47J37/128 A47J37/1204 A47J36/38 A47J37/1266

European class: A47J36/38 A47J37/12K A47J37/12M1

US class: 1/1 99/403

[Classification Explorer](#)

Cited documents: WO201086892, WO10086892 A1, US7098427 BB, US6125842 A, US5816139 A, US4724825 A, US4482077 A, US4091956 A, US2010000418 AA, US04091956, JP63107626 U, JP63107626 U, JP2007535358 T2, JP2007535358, JP1018682 Y1, JP10018682 Y1, ITRM20090046, IT1392954 B1, CN201279079 Y, CN201018671 Y,

Forward Citations: WO14195985, ITRM20130321,

Abstract:

Source: US2013152800A The present invention relates to a fryer (10) provided with a containing structure (11) inside which at least a frying basin (15) is present, which is filled with oil up to a preset maximum level, each frying basin (15) being provided with at least one drum (17) for containing the food to be fried, the fryer (10) further being provided with a perforated lid (20) comprising pass through holes (25, 27) for the passage of vapour and gas going upwards and of condensed vapour going downwards and means for cooling (21, 22, 23) and condensing vapour passing through said holes, and support means (16) of said vapour cooling means (21, 22, 23), characterised in that it further comprises means for adjusting the vapour flow (28).

PatBase - W012020442_A1

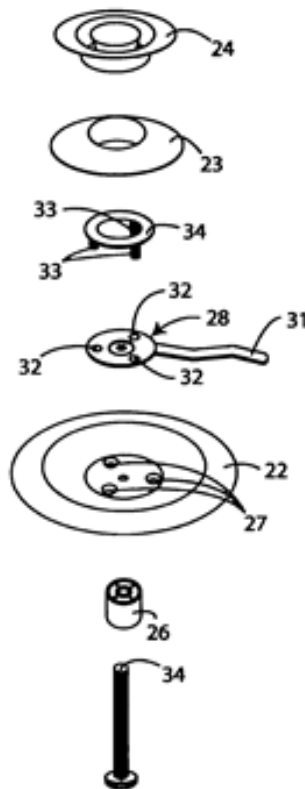


Fig. 6

0) US3610133A – APPARATUS FOR COOKING CHICKEN

5) Family number: 17916773 (US3610133A)

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Title: APPARATUS FOR COOKING CHICKEN
Priority: US19690824430 19690514 US19700024517 19700401 US19720272180 19720717
Family:

Publication number	Publication date	Application number	Application date
AU197014807 A1	19711118	AU19700014807	19700508
BE750352 A1	19701016	BE19700750352	19700513
CA918943 A1	19730116	CA19700082553	19700512
CA973754 A1	19750902	CA19710105723	19710218
DE2022337 A1	19701119	DE19702022337	19700506
DE7017113 U	19720518	DE19700017113U	19700506
FR2042635 A1	19710212	FR19700017483	19700513
GB1271161 A	19720419	GB19700023099	19700513
GB1271162 A	19720419	GB19710030748	19700513
IT1032010 A	19790530	IT19710049124	19710317
IT983069 A	19741031	IT19700050651	19700513
JP51018508 B4	19760610	JP19700041285	19700514
NL7007027 A	19701117	NL19700007027	19700514
US3610133 A	19711005	US19690824430	19690514
US3845702 A	19741105	US19720272180	19720717

Probable Assignee: MIES PRODUCTS INC

Assignee(s):^(std): MIES FILTER PROD INC ; MIES FILTER PRODUCTS INC ; NIES FILTER PRODUCTS INC

Assignee(s): MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LOUISVILLE KENTUCKY 40204 E U A ; WINSTON L SHELTON ; MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LO ; MIES PRODUCTS INC ; MIES FILTER PROD INC US ; MIES FILTER PRODUCTS ; CARL P MIES JR ; MIES CARL P

Inventor(s):^(std): MIES C ; MIES C P ; MIES CARL P ; MIES CARL P JR ; SHELTON W L ; SHELTON WINSTON L ; L SHELTON WINSTON ; P MIES CARL

Inventor(s): MIES C US ; CARL P MIES ; CP MIES ; CARL P MIES JR ; C P MIES ; WL SHELTON ; WINSTON L SHELTON ; W L SHELTON

International class
(IPC 8-9): [A23L1/31](#) [A23L1/315](#) [A23L13/50](#) [A47J27/08](#) [A47J37/12](#) (Advanced/Invention);
[A23L1/31](#) [A23L1/315](#) [A47J27/08](#) [A47J37/12](#) (Core/Invention);
[A22C](#) (Subclass/Invention)

International class
(IPC 1-7): [A22C](#) [A23L1/315](#) [A47J](#) [A47J37/00](#) [A47J37/12](#) [E05F](#)

CPC: [Y10S210/08](#) [A47J27/0817](#) [Y10T137/86397](#)

European class: [A47J27/08R](#)

US class: [137/624.12](#) [210/162](#) [210/489](#) [210/DIG.8](#) [220/324](#) [392/459](#) [99/337](#) [99/342](#) [99/408](#) [99/410](#) [993/370](#)

[Classification Explorer](#)

Cited documents: US3655411 A, US3363541 A, US3263596 A, US3245800 A, US3194662 A, US2914063 A, US2128738 A, US1707786 A,

Forward Citations: WO03032794, USRE33712, US8707857, US8354620, US8067717, US7856923, US7314001, US7227107, US6773237, US6711992, US6666131, US6451125, US6374835, US6328045, US6095163, US6044854, US5247878, US5002196, US4798939, US4721094, US4487691, US4325491, US4313371, US4273991, US4230574, US3977973, US3861286, US3853044, US3816703, US3793940, US3750560, US2015129509, US2011049123, US2009013879, US2009007799, US2008233257, US2006091137, US2006065582, US2004079238, US2003039557,



6) Family number: 20297038 (US5416950A)

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Title: COOKING SYSTEM AND ACCESSORIES**Priority:** US19930002213 19930108 US19930037310 19930326 US19950397948 19950303
US19930171108 19931221 WO1994US00264 19940107

Family:	Publication number	Publication date	Application number	Application date
	<u>AU199460848 A1</u>	19940815	AU19940060848	19940107
	<u>US5416950 A</u>	19950523	US19930002213	19930108
	<u>US5438916 A</u>	19950808	US19930037310	19930326
	<u>US5520096 A</u>	19960528	US19950397948	19950303
	<u>WO9415509 A2</u>	19940721	WO1994US00264	19940107
	<u>WO9415509 A3</u>	19941110	WO1994US00264	19940107

Probable Assignee: AMERICAN HARVEST INC**Assignee(s):^(std):** AMERICAN HARVEST INC ; ALTERNATIVE PIONEERING SYST**Assignee(s):** ALTERNATIVE PIONEERING SYSTEMS INC ; ALTERNATIVE PIONEERING SYSTEMS INC D B A AMERICAN ; NESCO AMERICAN HARVEST CORP ; METAL WARE CORP ; NEWCO OF TWO RIVERS INC ; NORWEST BUSINESS CREDIT INC ; ALTERNATIVE PIONEERING SYSTEMS INC D B A AMERICAN HARVEST**Inventor(s):^(std):** DORNBUSH DAVID A ; ERICKSON CHAD S ; ESSON MICHAEL J ; LEE ROBERT T ; LEMON BRYCE M ; LEMON MERLIN S ; ALSETH STEVEN ; REAY STACI D ; REHMEYER THEODORE H ; SKED N PHILIP**Inventor(s):** STACI D REAY ; STEVEN ALSETH ; THEODORE H REHMEYER ; ROBERT T LEE ; SKED N ; BRYCE M LEMON ; CHAD S ERICKSON ; DAVID A DORNBUSH ; MERLIN S LEMON ; MICHAEL J ESSON ; N PHILIP SKED**Designated states:** AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LK LU LV MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA UZ VN**International class**
(IPC 8-9): A21B3/13 A47J36/06 A47J36/20 A47J36/22 A47J39/00 (Advanced/Invention);
A21B3/00 A47J36/00 A47J39/00 (Core/Invention)**International class**
(IPC 1-7): A21B1/52 A47J27/00 A47J27/04 A47J37/00 A47J37/00 A47J45/10**CPC:** A47J37/0664 A47J37/0623 A21B3/132 A47J36/06 A47J36/20 A47J36/22 A47J37/0641 Y10T16/469**European class:** A21B3/13D A47J36/06 A47J36/20 A47J36/22 A47J37/06C A47J37/06C10 A47J37/06C4D K47J37/06C10**US class:** 126/21A 126/275E 16/114A 16/422 161/14A 219/400 220/254 220/756 220/759 220/768 99/330 99/340 99/393 99/448 99/450 99/476[Classification Explorer](#)**Cited documents:** US972078 A, US941041 A, US73703 A, US5329919 A, US5329191 A, US5165424 A, US5165328 A, US5056424 A, US503756 A, US4847461 A, US4817509 A, US4735192 A, US4649053 A, US4583955 A, US4563946 A, US4554864 A, US4512495 A, US4384513 A, US4378729 A, US4360123 A, US4329977 A, US4296682 A, US4201312 A, US4185125 A, US4176591 A, US3908535 A, US3905535 A, US3610135 A, US3577908 A, US3399858 A, US3383083 A, US3349948 A, US323887 A, US3088393 A, US2914185 A, US2724764 A, US2402883 A, US2118326 A, US1997509 A, US1056237 A, US1012869 A, NO118622 A, GB661454 A, GB519884 A, GB262285 A, FR993517 A, FR2577785 A1, FR2573643 A1, FR1078213 A, DE503054 A, CH314594 A, BE537402 A,**Forward Citations:** WO12011956, WO03026469, WO03026469, USD693643, USD444342, US8960081, US8835810, US8330083, US7964824, US6796222, US6783782, US6747250, US6617554, US6286708, US6241415, US6198076, US6085442, US5680956, US5656188, US2011023724, US2010089248, US2009321410, US2009139981, US2008135719,

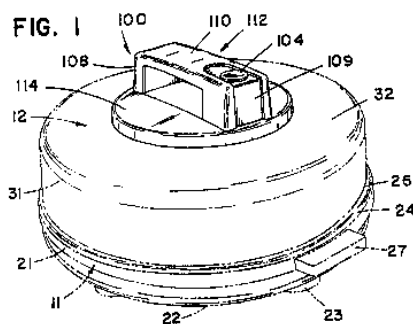
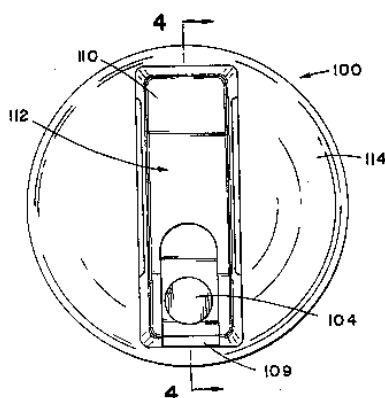
Abstract:

Source: US5416950A A handle adapted for replacing a heater and blower system removably located in a central opening defined a top enclosure of a countertop oven. The handle comprises a mounting system for removably attaching the handle to the top enclosure in order to replace the heater and blower system when the heater and blower system is removed. The handle enables a user to remove the top enclosure from the bottom enclosure by lifting up on the handle when the handle is installed in the top enclosure. In this manner, the countertop oven may be converted to a food server comprising the handle, the top enclosure, and the bottom enclosure.

WO 94/15509

PCT/US94/00264

1/16

FIG. 1**FIG. 2**

7) Family number: 55189382 (US2013306638A)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME
Priority: US20120476080 20120521 US20130080343 20131114 US20140337466 20140722
Family:

Publication number	Publication date	Application number	Application date
CN203302865 U	20131127	CN201320280280U	20130521
CN204071674 U	20150107	CN201420250548U	20140515
US2013306638 AA	20131121	US20120476080	20120521
US2014084006 AA	20140327	US20130080343	20131114
US2014319146 AA	20141030	US20140337466	20140722
US8827101 BB	20140909	US20120476080	20120521
US9113743 BB	20150825	US20130080343	20131114

Probable Assignee: HAMILTON BEACH BRANDS INC

Assignee(s):^(std): GARMAN MICHAEL ; HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX ; STEINER MARK C ; HUDGINS ARTHUR WAYNE ; SANDFORD MICHAEL G ; YE GUOYAO ; HAMILTON COMPLETED KEBU LANDERS LTD

Assignee(s): HAMILTON BEACH PROCTOR SILEX INC

Inventor(s):^(std): DAVID MATTHEW SCHANDEL ; GARMAN MICHAEL ; HUDGINS ARTHUR WAYNE ; MARK C STEINER ; MICHAEL G SANDFORD ; MICHAEL GARMAN ; SANDFORD MICHAEL G ; SCHANDEL DAVID MATTHEW ; STEINER MARK C ; YE GUOYAO ; ARTHUR WAYNE HUDGINS

Inventor(s): ARTHURWAYNEHUDGINS ; MICHAELGARMAN ; MICHAELGSANDFORD ; MARKCSTEINER

Agent(s): ALEXANDER D

International class
 (IPC 8-9): [A47J27/00](#) [A47J27/56](#) [A47J36/00](#) [A47J36/06](#) [A47J36/10](#) [A47J45/06](#) [B65D25/28](#)
[B65D45/00](#) (Advanced/Invention);
[B65D25/28](#) [B65D45/08](#) (Advanced/Non-invention)

CPC: [A47J36/10](#) [A47J27/002](#) [Y10S220/9151](#) [B65D25/2841](#) [B65D45/08](#)

US class: [1/1](#) [220/212.5](#) [220/318](#) [220/573.1](#) [220/915.1](#)

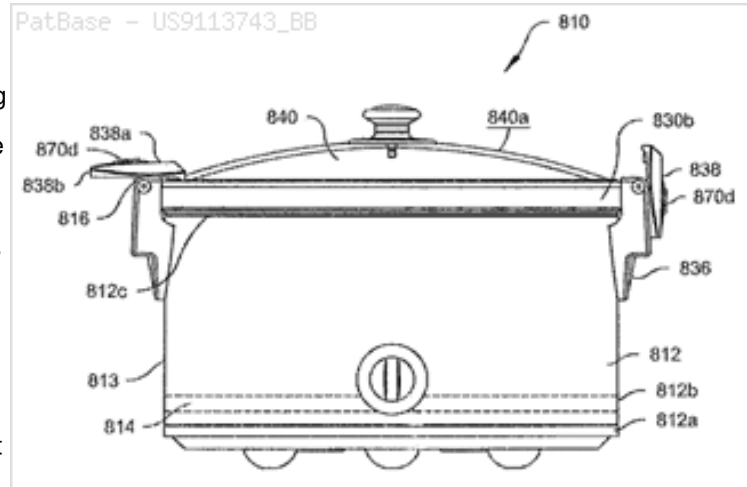
[Classification Explorer](#)

Cited documents: USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7820947 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6987247 BB, US6776085 BA, US6772677 BB, US6606987 BB, US6601726 BB, US6587739 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5476184 A, US5415082 A, US5355777 A, US5337910 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2013098922 AA, US2011061545 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009039071 AA, US2008084144 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Forward Citations: US9376232, US9067713, US9038843, US8783498, US2016095467, US2015239606, US2014299603,

Abstract:

Source: US2013306638A A kitchen appliance includes a housing that defines a cavity. The housing has a housing rim defining an opening to the cavity. A heating or cooling element is disposed within the housing to heat or cool the cavity. A container has a generally hollow interior and a container rim. A lid is sized and shaped to at least partially cover the opening of the container when placed on the container. The lid has an exterior surface and an opposing interior surface. At least one handle is pivotally mounted to one of the exterior surface of the side wall of the housing and the exterior surface of the lid. The handle is pivotable between an engaged position to retain the lid in sealing engagement with the container rim and disengage position to permit the lid to be removed from the container rim.



0) US3701313A – DEEP FAT FRYER UNIT WITH SOLENOID VALVES AND AU...

8) Family number: 1028498 (US3701313A)

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Title: DEEP FAT FRYER UNIT WITH SOLENOID VALVES AND AUTOMATIC CONTROLS

Priority: US19710115031 19710212 US19720288073 19720911

Family:	Publication number	Publication date	Application number	Application date
	CA955416 A1	19741001	CA19720134462	19720210
	GB1367541 A	19740918	GB19720006337	19720210
	GB1367542 A	19740918	GB19730017752	19720210
	US3701313 A	19721031	US19710115031	19710212
	US3900580 A	19750819	US19720288073	19720911

Probable Assignee: FOOD RESEARCH AND EQUIPMENT CO

Assignee(s):^(std): FOOD RESEARCH AND EQUIPMENT CO ; FOOD RESEARCH AND EQUIPMENT COMP

Assignee(s): FOOD RESEARCH AND EQUIPMENT COMPANY ; FOOD RESEARCH EQUIPMENT CO ; BOGGS WELDON C

Inventor(s):^(std): BOGGS WELDON C

Inventor(s): WELDON C BOGGS

International class
^(IPC 8-9): [A47J37/12 B01D29/00 B01D35/14](#) (Advanced/Invention) ;
[A47J37/12 B01D29/00 B01D35/14](#) (Core/Invention)

International class
^(IPC 1-7): [A47J37/12 B01D43/00](#)

CPC: [Y10S210/08 A47J37/1233](#)

European class: [A47J37/12F B01D29/00A34 B01D29/00A36 B01D29/34 B01D35/14](#)

US class: [210/167 210/167.28 210/DIG.8 426/417 426/438 99/100 99/330 99/342 99/408](#)

[Classification Explorer](#)

Cited documents: US3573861 A, US3483982 A, US3410199 A, US3376806 A, US3368682 A, US3363541 A, US3282197 A, US3210193 A, US3107601 A, US3100747 A, US3097589 A, US1907265 A,

Forward Citations: WO8807821, WO11109405, USD462567, USD418366, US9357881, US9215948, US8910565, US8689679, US8545699, US8163098, US7931804, US7704387, US7698994, US7317468, US7309422, US6890428, US6572764, US6254790, US6105488, US6029653, US6009795, US6009794, US5974955, US5942269, US5869806, US5865102, US5730186, US5586486, US5367949, US5354570, US5200224, US5160444, US5069116, US5060559, US4798939, US4768426, US4747944, US4732080, US4688475, US4668390, US4643824, US4623544, US4487691, US4459902, US4308011, US4210123, US4148729, US4026804, US3970558, US3894482, US3885056, US3877361, US2013220143, US2011126925, US2010192981, US2009283462, US2009084273, US2008196596, US2008121115, US2008060528, US2007062515, US2006146114, US2006065582, US2005072309, US2003196940, US2002092803, EP0273094, DE2756428,

Abstract:

Source: US3701313A A deep fat fryer unit having solenoid operated valves controlled by switches, relays and motor driven timers for controlling the various phases of operation of the unit, including the pumping of oil from a storage tank into a heater tank and then into a cooking pot, through a filter, and return to the heater tank. The oil is continuously circulated through the heater tank and may be circulated through the cooking pot or bypass the cooking pot. A removable crumb conveyor continuously removes crumbs from a crumb well at the lower end of a filter bowl opening into the cooking pot and containing the filter. A vacuum switch is connected with the inlet of the pump and is set to close when the filter is about 50 percent clogged. Closing of the vacuum switch automatically effects return of the oil from the cooking pot to the storage tank and precludes resumption of normal cooking operations until after the filter has been cleaned. Upon removal of the filter and crumb conveyor, a pump-out adapter can be mounted in the filter bowl together with a pump-out hose and the oil pumped out of the crumb-well in response to operation of a sump switch. The storage tank and heater tank can be emptied one at a time by operating separate switches. An emergency STOP switch can be operated at any time to shut down the unit. Automatic signal lights on a control panel indicate when the unit is turned on, when the unit is in operation, when the heating grids are operating, when the heating grids are not working and oil is being circulated through the filter, and when a change of the filter is required.

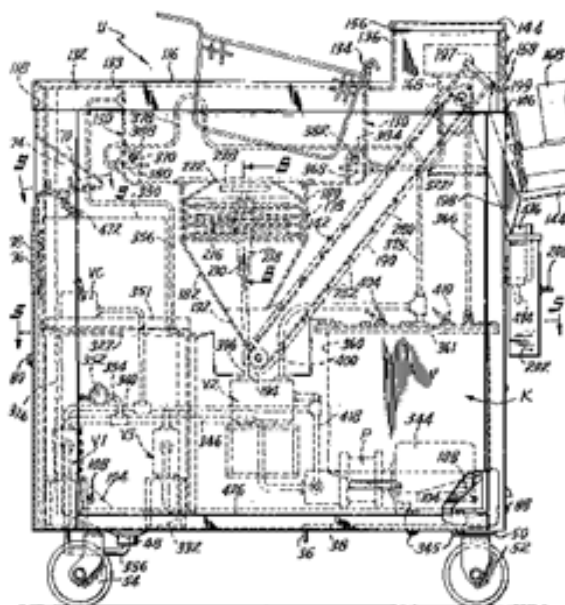
PatBase - US3900580_A

PATENTED AUG 19 1975

3,900,580

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0) US5142968A – AUTOMATED DEEP FAT FRYER

9) Family number: 11601171 (US5142968A)

© PatBase

Title: Automated deep fat fryer

Priority: US19890458982 19891229 US19910759606 19910913 WO1990US07553 19901220
US19930001733 19930107 US19920831110 19920204 US19930001188 19930107

Family:	Publication number	Publication date	Application number	Application date
	<u>AU199171683 A1</u>	19910724	AU19910071683	19901220
	<u>CA2072589 AA</u>	19920625	CA19902072589	19901220
	<u>EP0507864 A1</u>	19921014	EP19910902641	19901220
	<u>EP0507864 A4</u>	19930421	EP19910902641	19901220
	<u>US5142968 A</u>	19920901	US19910759606	19910913
	<u>US5224415 A</u>	19930706	US19920831110	19920204
	<u>US5230279 A</u>	19930727	US19930001275	19930107
	<u>US5305615 A</u>	19940426	US19930001188	19930107
	<u>US5319939 A</u>	19940614	US19930001733	19930107
	<u>WO9109558 A1</u>	19910711	WO1990US07553	19901220

Probable Assignee: GAS RES INST

Assignee(s):^(std): LITTLE INC A ; GAS RES INST

Assignee(s): GAS RESEARCH INST ; ENTERPRISE MEDICAL TECHNOLOGIES INC ; GAS RESEARCH INSTITUTE ; LITTLE ARTHUR D INC ; DIECKMANN JOHN ; MCFADDEN DAVID H ; ABLECO FINANCE LLC AS AGENT ; ARTHUR D LITTLE ENTERPRISES INC ; ARTHUR D LITTLE INC ; CAMBRIDGE CONSULTANTS LTD ; CARON RICHARD N ; COLLINS JOHN M

Inventor(s):^(std): BARNES KEVIN P ; CARON RICHARD N ; COLLINS JOHN M ; DIECKMANN JOHN ; FARRA ROBERT ; HOEKSTRA JOOP F ; HOSMER THOMAS P ; MCFADDEN DAVID H

Inventor(s): RICHARD N CARON ; JOHN DIECKMANN ; JOHN M COLLINS ; DAVID H MCFADDEN

Agent(s): MACRAE AND CO

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CM DE DK ES FI FR GA GB GR HU IT JP KP KR LI LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG

International class A47J37/12 B65H7/00 F25B5/04 F25D13/06 F25D21/04 F25D25/04 (Advanced/Invention) ;
(IPC 8-9) : A47J37/12 F25B5/00 F25D13/00 (Core/Invention)

International class A47H37/12 A47J27/00 A47J37/00 A47J37/12 B65B21/02 B65H7/00 F25D21/04
(IPC 1-7) : F25D25/00 F25D25/02 F25D25/04 G07F11/00

CPC: A47J37/1228 F25B5/04 F25D13/06

European class: A47J37/12E F25B5/04 F25D13/06

US class: 221/150HC 221/150R 221/81 222/146.6 34/500 414/331 414/331.04 414/404 62/266 62/378 62/382 62/440 62/63 62/630 623/780 99/334 99/357 99/404 99/407 99/409 993/340 993/570 994/40

[Classification Explorer](#)

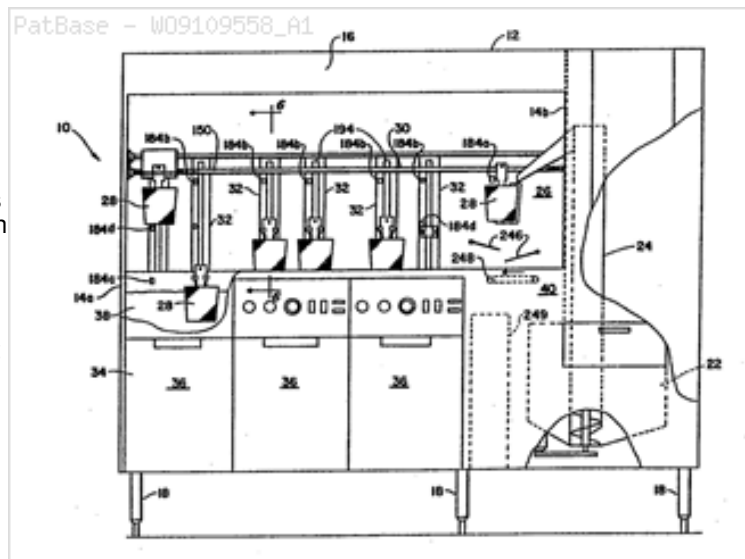
Cited documents: US5125240 A, US5105979 A, US5104002 A, US5097754 A, US5029520 A, US5029447 A, US4979864 A, US4971223 A, US4969336 A, US4928502 A, US4821633 A, US4751915 A, US4748902 A, US4732080 A, US4722267 A, US4685386 A, US4658709 A, US460489 A, US4567051 A, US4506995 A, US4502373 A, US4488478 A, US4478140 A, US4356870 A, US4346649 A, US4228730 A, US4031820 A, US3981232 A, US3908531 A, US3838790 A, US3818820 A, US3779410 A, US3685432 A, US3667373 A, US3535299 A, US3505072 A, US3448677 A, US3398672 A, US3392815 A, US3357341 A, US3315785 A, US3296954 A, US3237804 A, US3227501 A, US3225681 A, US3190489 A, US3075670 A, US2984084 A, US2836968 A, US2804982 A, US2719651 A, US2679323 A, US2497219 A, US2215929 A, FR2626741 A1, FR2593308 A1, FR2579072 A1, FR2214446 A1, EP0335698 A2, CA1257103 A1,

Forward Citations:

WO9602176, WO9520900, WO10008688, WO06043835, WO04083083, WO03089301, WO03088793, WO03061444, WO0203820, WO0078187, USRE45967, USD561530, US9339054, US9097452, US8875620, US8869680, US8850965, US8707857, US8549993, US8522671, US8434320, US8317052, US8309151, US8253581, US8251108, US8234972, US8186265, US8182191, US8034390, US7981455, US7891289, US7802593, US7703636, US7441388, US7356980, US7343719, US7337594, US7316122, US7303776, US7001626, US6960157, US6941762, US6929149, US6871676, US6869633, US6751977, US6658886, US6644174, US6560973, US6555154, US6494049, US6481226, US6427583, US6401464, US6389962, US6322831, US6308522, US6269285, US6209329, US6155071, US6152023, US6104966, US5970853, US5735192, US5723782, US5586486, US5522309, US5435685, US5404797, US5367949, US5340949, US2012017773, US2011101022, US2011061545, US2011011278, US2010316473, US2010212511, US2010092626, US2010038387, US2010015298, US2010015297, US2010015284, US2009063166, US2008292759, US2008230558, US2008220139, US2008193617, US2008188977, US2008166461, US2008166460, US2008110902, US2008063769, US2008061072, US2008038417, US2007140044, US2007140043, US2007134394, US2006093719, US2006073253, US2006062877, US2005263536, US2005193898, US2005106301, US2005061160, US2005011368, US2004154322, US2004020555, US2004011006, US2003234259, US2003207009, US2003205288, US2003205028, US2003205027, US2003196558, US2003196446, EP1496779, EP1225808, EP1225808, AU2003222654,

Abstract:

Source: US5142968A An automated system for storing and cooking french fried potatoes includes a refrigeration and storage assembly and unique transport system which is easily used with fryers of a commercial type. The transport system includes a horizontal and vertical transport assembly for moving baskets of fries to and from the one or more fryers, with the vertical transport assembly being adapted to lower the basket into the fryer as well as support the basket above the fryer after cooking so as to allow the basket to drain. In accordance with another aspect of the present invention the refrigeration system is such and the strips are oriented all in substantially the same direction before being loaded into a basket so as to enable the fries to be cooked with little or no sticking without requiring the operator to shake the potatoes during or following cooking.



0) US2001009128A – ROTISSERIE OVEN HAVING A HEAT SHIELD

10) Family number: 28328965 (US2001009128A)

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Title: ROTISSERIE OVEN HAVING A HEAT SHIELD

Priority:

CA20022366635 20020104	CA20022550036 20020104	EP20050075354 20020108
EP20020090002 20020108	US19990436614 19991109	US19980217944 19981221
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US20060370622 20060307		

Family:

Publication number	Publication date	Application number	Application date
AT295109 E	20050515	AT20020090002T	20020108
AT333230 E	20060815	AT20020075354T	20020108
AU200210080 A5	20020718	AU20020010080	20020107
AU777121 B2	20040930	AU20020010080	20020107
CA2366635 AA	20020712	CA20022366635	20020104
CA2550036 AA	20020712	CA20022550036	20020104
DE60204060 D1	20050616	DE20026004060	20020108
DE60204060 T2	20060316	DE20026004060T	20020108
DE60213291 D1	20060831	DE20026013291	20020108
EP1222889 A1	20020717	EP20020090002	20020108
EP1222889 B1	20050511	EP20020090002	20020108
EP1535556 A1	20050601	EP20050075354	20020108
EP1535556 B1	20060719	EP20050075354	20020108
EP1700550 A1	20060913	EP20060090100	20020108
HK1048240 A1	20051118	HK20030100435	20030117
KR100493601 B1	20050610	KR20020001777	20020111
KR20020061116 A	20020722	KR20020001777	20020111
US2001009128 AA	20010726	US20010783667	20010214
US2001022140 AA	20010920	US20010784565	20010215
US2001032547 AA	20011025	US20010783364	20010214
US2001042449 AA	20011122	US20010891019	20010625
US2002017201 AA	20020214	US20010880673	20010613
US2002023545 AA	20020228	US20010824429	20010402
US2002023546 AA	20020228	US20010893076	20010627
US2002023547 AA	20020228	US20010940219	20010827
US2002050212 AA	20020502	US20010016298	20011210
US2002069768 AA	20020613	US20010017782	20011030
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US2002108503 AA	20020815	US20020126863	20020418
US2002144607 AA	20021010	US20020108044	20020327
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<u>US6253665 BA</u>	20010703	US20000599329	20000622
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<u>US7626142 BB</u>	20091201	US20060367831	20060303
<u>US7878111 BB</u>	20110201	US20080025530	20080204
<u>US8017167 BB</u>	20110913	US20090401395	20090310

Probable Assignee: RONCO HOLDINGS INC

Assignee(s):^(std): POPEIL RON ; RONCO CORP ; RONCO MARKETING CORP ; RONCO ACQUISITION CORP ; ADVANTAGE PARTNERS ; ADVANTAGE PARTNERS IP LLC ; ADVANTAGE PARTNERS LLC ; BACKUS ALAN L ; RONCO HOLDING INC

Assignee(s): RONCO HOLDINGS INC ; CROSSROADS FINANCIAL LLC ; KALLINA CORP ; ALAN L BACKUS ; LAURUS MASTER FUND LTD ; ROMCO MARKETING CORP ; LV

ADMINISTRATIVE SERVICES INC ; POPEIL RONALD M ; RON POPEIL ; RONCO
AQUISITION LLC ; LV ADMINISTRATIVE SERVICES AGENT AS

Inventor(s):(std): ALAN L BACKUS ; BACKUS ALAN L ; POPEIL RON ; POPEIL RONALD M ; RON
POPEIL

Inventor(s): BACKUS ALAN ; POPEIL RONALD

Agent(s): FB RICE; FETHERSTONHAUGH AND CO; JEFFER MANGELS BUTLER AND
MARMARO LLP; CONNOLLY BOVE LODGE AND HUTZ LLP; JEFFER MANGSIS
BUTLER AND MARMARO LLP

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

International class
(IPC 8-9): A21B1/00 A21B1/22 A21B2/00 A21B3/00 A22C7/00 A23L1/01 A23L5/10 A23P1/00
A47J36/06 A47J37/00 A47J37/04 A47J37/06 A47J37/07 A47J43/18 B65D25/26
F27D11/02 F27D3/12 (Advanced/Invention);
A47J36/06 A47J37/07 F24C15/16 (Advanced/Non-invention);
A47J37/04 A47J37/06 (Core/Invention);
F24C15/16 (Core/Non-invention)

International class
(IPC 1-7): A22C7/00 A23L1/00 A23P1/00 A47J27/00 A47J27/62 A47J37/00 A47J37/04 A47J37/06
A47J37/07 A47J43/18

CPC: Y10S220/912 A47J37/0629 A47J37/0664 A47J37/0641 A47J36/06 A47J37/041
A47J37/042 A47J37/043 A47J37/047 A47J37/0623 A47J37/0635 A47J37/0745 A47J43/18

European class: A47J37/04A A47J37/04B A47J37/04C A47J37/04G A47J37/06C A47J37/06C10
A47J37/06C4 A47J37/06C4B A47J37/06C4D A47J37/07E A47J43/18 K47J36/06
K47J37/06C10

US class: 126/190 126/194 126/198 126/273.5 126/275E 219/403 219/405 219/411 220/326
220/573.1 220/573.100P 220/655 220/655S 220/912 426/241 426/243 426/523 426/523S
99/326 99/326P 99/327 99/331 99/331S 99/332 99/335 99/339 99/349 99/357 99/357S
99/395 99/419 99/419P 99/419S 99/421 99/421.00H 99/421.00HP 99/421.00HS
99/421.00R 99/421.00RS 99/421H 99/421HH 99/421HV 99/421P 99/421R 99/421V
99/427 99/427P 99/427S 99/447 993/270 993/490 993/950 994/210R

[Classification Explorer](#)

Cited documents: WO8604978 A1, WO8604978, WO0028869 A1, WO0028869, USD434939 S1,
USD434939, USD433867 S1, USD433867, USD422172 S1, USD415923
S1, USD415923, USD395980 S1, USD395980, USD391799 S1, USD391799,
USD347762 S1, USD347762, USD199712 S1, US961543 A, US904382 A, US848018 A,
US807162 A, US7225730 BB, US7225729 BB, US714430 A, US7138609 BB, US7021204
BB, US7021203 BB, US6988445 BA, US6965095 BA, US693725 A, US6874408 BB,
US6837150 BB, US6782806 BB, US6782805 BB, US6742445 BB, US6734914 BA,
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US6167800 BA, US6167800 B1, US6167800, US616694 A, US6142064 A, US6138553 A,
US6138553, US6131505 A, US6119586 A, US6119586, US6085642 A, US6085642,
US6080967 A, US6079322 A, US6079322, US6079319 A, US6079319, US6076453 A,
US6076453, US6047633 A, US6047633, US6041694 A, US6041694, US6038965 A,
US6038965, US6023049 A, US6023049, US6009797 A, US6009797, US5997928 A,
US5997928, US5981926 A, US5981926, US5974956 A, US5974956, US5970854 A,
US5970854, US5961866 A, US5957557 A, US5918589 A, US5918534 A, US5918534,
US5910332 A, US5910332, US5908576 A, US5887513 A, US5887513, US5881640 A,
US5881640, US5845563 A, US5845563, US5837980 A, US5819639 A, US5819639,
US5814795 A, US5809995 A, US5809995, US5802962 A, US5802962, US5801362 A,
US5801362, US5801357 A, US5801357, US5799569 A, US5799569, US5798505 A,
US5798505, US5793610 A, US5793610, US5785046 A, US5785046, US5780815 A,
US5780815, US5778766 A, US5778766, US5761991 A, US5761991, US5746116 A,
US5746116, US5740724 A, US5740724, US5740722 A, US5740722, US5735191 A,
US5735191, US5727719 A, US5727719, US5726424 A, US5720217 A, US5720217,
US5716657 A, US5716657, US5715744 A, US5715744, US5697289 A, US5697289,
US5671659 A, US5671659, US5669290 A, US5669290, US5665258 A, US5665258,
US5639497 A, US5639497, US5634559 A, US5632265 A, US5632265, US5632098 A,
US5632098, US5619909 A, US5619909, US5611265 A, US5611265, US5601070 A,
US5601070, US5598769 A, US5598769, US5598582 A, US5598582, US559720 A,
US5592869 A, US5592869, US5588353 A, US5588353, US5579681 A, US5579681,
US5575196 A, US5575196, US5566997 A, US5566997, US5562022 A, US5562022,
US5560285 A, US5560285, US5545874 A, US5545874, US553363 A, US5533440 A,

US5533440, US5518127 A, US5518127, US5515774 A, US5515774, US5515773 A,
US5497697 A, US5497697, US5485780 A, US5485780, US5477029 A, US5473977 A,
US5473977, US5471915 A, US5471915, US5471914 A, US5471914, US5469782 A,
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US5447620, US5447096 A, US5447096, US5445065 A, US5445065, US5445064 A,
US5445064, US5442999 A, US5442999, US5441037 A, US5441037, US5431093 A,
US5431093, US5429042 A, US5429042, US5427015 A, US5427015, US5417148 A,
US5417148, US5410950 A, US5410950, US5410948 A, US5410948, US5405627 A,
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US5367950 A, US5367950, US5361686 A, US5361686, US5361685 A, US5361685,
US5325767 A, US5325767, US5297534 A, US5297534, US5275095 A, US5275095,
US5235903 A, US5235903, US5235148 A, US5235148, US5205208 A, US5205208,
US5205207 A, US5205207, US5203252 A, US5193444 A, US5193444, US5184540 A,
US5184540, US5182981 A, US5182981, US5176124 A, US5172628 A, US5172628,
US5163358 A, US5163358, US5148737 A, US5148737, US5146842 A, US5146842,
US5136933 A, US5136933, US5134927 A, US5134927, US5101715 A, US5058493 A,
US5058493, US5044262 A, US504256 A, US5039535 A, US5039535, US5038748 A,
US5038748, US5001971 A, US5001971, US4986174 A, US4986174, US4968515 A,
US4968515, US4924766 A, US4924766, US4889972 A, US4886644, US4886044 A,
US4886044, US4870896 A, US4870896, US4867051 A, US4867051, US4839186 A,
US4839186, US4817514 A, US4817514, US4743737 A, US4743737, US4726352 A,
US4726352, US4717802 A, US4688541 A, US4688541, US4661669 A, US4661669,
US4625634 A, US4625634, US4600254 A, US4600254, US4591683 A, US4591683,
US4585661 A, US4585661, US4583452 A, US4583452, US4572062 A, US4572062,
US4562771 A, US4562771, US4556046 A, US4556046, US4555986 A, US4555986,
US4548130 A, US4548130, US4520791 A, US4520791, US4508024 A, US4508024,
US4505195 A, US4505195, US4491065 A, US4491065, US4483241 A, US4483241,
US4470343 A, US4470343, US4455928 A, US4455928, US4455319 A, US4454805 A,
US4454805, US4450758 A, US4450758, US4442763 A, US4442763, US442758 A,
US4421016 A, US4421016, US4418261 A, US4418261, US4410553 A, US4410553,
US4409452 A, US4409452, US4407189 A, US4407189, US4372199 A, US4372199,
US4366750 A, US4366750, US4355626 A, US4355626, US4355569 A, US4355569,
US4335289 A, US4335289, US4327274 A, US4327274, US4321857 A, US4321857,
US4304177 A, US4304177, US4301718 A, US4301718, US4300443 A, US4300443,
US4286133 A, US4286133, US427671 A, US4270444 A, US4270444, US4250955 A,
US4244979 A, US4244979, US422172 A, US4214516 A, US4214516, US4181074 A,
US4181074, US4176592 A, US4176592, US4165684 A, US4165683 A, US4165683,
US4163894 A, US4163894, US4158992 A, US4158992, US4154154 A, US4154154,
US4119020 A, US4119020, US4114523 A, US4114523, US4112832 A, US4106473 A,
US4106473, US4103606 A, US4103606, US4103605 A, US4103605, US4089258 A,
US4089258, US4051838 A, US4051838, US4005646 A, US4005646, US3980010 A,
US3980010, US395980 A, US3959620 A, US3959620, US3943837 A, US3943837,
US3939761 A, US3939761, US3935807 A, US3935807, US3935806 A, US3935806,
US3931758 A, US3931758, US3901136 A, US3901136, US3893442 A, US3867877 A,
US3867877, US3867605 A, US3867605, US3848525, US3848522 A, US3848522,
US3838538 A, US3838538, US3812840 A, US3807292 A, US3807292, US3805762 A,
US3805762, US3802331 A, US3802331, US3797379 A, US3797379, US3782268 A,
US3782268, US3734740 A, US3734740, US3732803 A, US3693538 A, US3693538,
US3566777 A, US3566777, US3559565 A, US3559565, US3529536 A, US3529536,
US3527155 A, US3527155, US3511170 A, US3511170, US3503323 A, US3503323,
US3473464 A, US3473464, US3473463, US3362350, US3362320 A, US3362320,
US3355573 A, US3355573, US3348471 A, US3348471, US3335712 A, US3335712,
US3333529 A, US3333529, US3329082 A, US3329082, US3315591 A, US3315591,
US3298301 A, US3285238 A, US3285238, US3276351 A, US3269299 A, US3248518 A,
US3240147 A, US3235238 A, US3227405 A, US3215338 A, US3205812 A, US3196776
A, US3188939 A, US3186776 A, US3182585 A, US3181453 A, US3129653 A,
US3127889 A, US3126814 A, US3125015 A, US3121424 A, US3104605 A, US3103161
A, US3100435 A, US3085500 A, US3079208 A, US3074360 A, US3070953 A,
US3045581 A, US3025783 A, US2983218 A, US2979053 A, US2940380 A, US2939383
A, US2938450 A, US2925081 A, US2917988 A, US2898437 A, US2895408 A,
US2888872 A, US2887994 A, US2887944 A, US2885950 A, US2882812 A, US2867163
A, US2851575 A, US2846941 A, US2845941 A, US2839989 A, US2831421 A,
US2831420 A, US2828733 A, US2827847 A, US2821187 A, US2815707 A, US2811099
A, US2809579 A, US2762293 A, US2760428 A, US2759411 A, US2754401 A,
US2727315 A, US2722885 A, US2722882 A, US2705450 A, US2701516 A, US2700682
A, US2696163 A, US2681001 A, US2664490 A, US2649852 A, US2638841 A,
US2619951 A, US2618730 A, US2616360 A, US2607286 A, US257609 A, US2565967 A,
US251657 A, US2502685 A, US2501104 A, US2472164 A, US2297825 A, US2245220 A,
US2142390 A, US2136658 A, US2133667 A, US2130259 A, US2102097 A, US2085169
A, US2049481 A, US2048769 A, US2012811 A, US2007145061 AA, US2006144248 AA,
US2005178275 AA, US199712 A, US1993607 A, US1976989 A, US1786300 A,
US1723704 A, US1666394 A, US1584121 A, US1471122 A, US1282195 A, US1093883

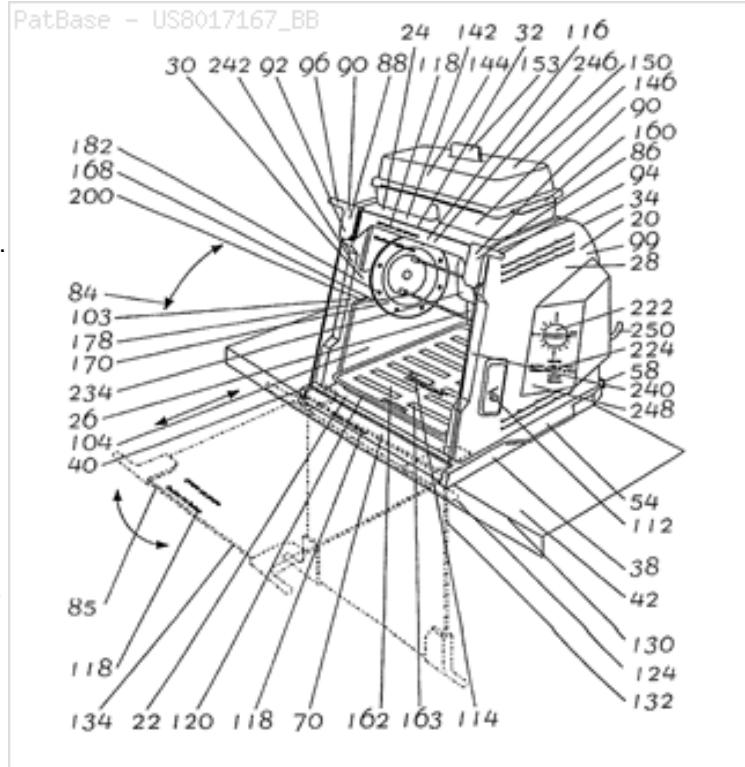
A, US1063516 A, US1045049 A, SE550872, SE500872 C2, SE500872, SE323756, SE323756, KR206810, KR100206810 B1, JPS6122133, JP61022133 A2, JP61022133, JP60049785 A2, JP60049785, JP60019785 A2, IT555893 A, IT555893, IT555893, IT555893, GB996233 A, GB996233, GB996223 A, GB880899, GB880899, GB850083 A, GB850083, GB478044, GB478044, GB1257945, GB1257945, FR853400 A, FR853400, FR2739272, FR2625668 A1, FR2625668, FR2603178 A3, FR2603178, FR2498915 A1, FR2498915, FR2477396 A1, FR2477396, FR24477396, FR2276799 A1, FR2276799, FR2078609, FR2078609, FR1300126, FR1300126, FR1265159, FR1265159, FR1218203 A, FR1218203, FR1116586 A, FR1116586, ES2029576 AF, ES2029576 a2, ES2029576, EP1700550, EP1535556, EP1222889, EP0853400, EP0853400, EP0396470 A1, EP0396470, EP0332505 A1, EP0332505, EP0281866 A1, EP0281866, DE91799 A, DE7407464, DE7407464, DE7407464, DE7213693, DE7213693, DE7213693, DE7047203, DE7047203, DE7047203, DE657089, DE657089, DE4413059, DE4413050 C1, DE4413050, DE43251, DE43251, DE43251, DE4226098 A1, DE4226098, DE4113050, DE4112325 A1, DE4112325, DE3606800 A1, DE3401002 A1, DE3401002, DE3235985 A1, DE3214818 A1, DE3214818, DE3000653 A1, DE3000653, DE29916242 U1, DE29916242 U, DE29916242, DE29916242, DE29916161 U1, DE29916161 U, DE29916161, DE29916161, DE29909108 U1, DE29909108 U, DE29909108, DE29909108, DE29602405 U1, DE29602405 U, DE29602405, DE29602405, DE2646811 A1, DE2646811, DE2601877 A1, DE2601877, DE2430233 A1, DE2430233, DE2425346 A1, DE2425346, DE2358119, DE2358119, DE2310390, DE2310390, DE2308779, DE2308779, DE2307575, DE2307575, DE2205703, DE2205703, DE1998600, DE1998600, DE1998600, DE1779063, DE1779063, DE1679001, DE1679001, DE1679001, DE1454157, DE1454157, DE1454157, DE1454014, DE1454014, DE1454014, DE1454011, DE1429829, DE1429829, DE1429829, DE1162985, DE1162985, DD2601877, DD2430233, DD2425346, DD2358119, DD2310390, DD2308779, DD2307575, CH662496, CH662496, CH603430, CH603130, CH603130, CH424144, CH424144, AU238395 A1, AU238395, AT238395, AT238395, AT223335, AT223335,

Forward Citations:

WO17021887, WO14195219, WO14195129, WO14120239, WO13043285, WO10053538, WO09105111, WO03007765, WO03007765, USD771994, USD703993, USD693643, USD650228, USD629639, USD532654, US9513016, US9480364, US9402505, US9326639, US9289543, US9288997, US9211035, US9155422, US9155421, US9096364, US9003960, US8943953, US8877064, US8850966, US8850965, US8776774, US8752538, US8739693, US8707857, US8687842, US8584580, US8575520, US8549993, US8516952, US8485176, US8438970, US8408120, US8402885, US8375848, US8330083, US8330080, US8309151, US8272321, US8186265, US8151697, US8110237, US8065954, US8053707, US8051768, US8043087, US8017167, US8015727, US7981459, US7964824, US7958650, US7937929, US7934494, US7921768, US7878111, US7823502, US7798139, US7793648, US7739948, US7626142, US7536946, US7514651, US7487716, US7478586, US7412922, US7404354, US7325484, US7306555, US7263990, US7241977, US7164850, US7060942, US6941857, US6923110, US6837151, US6782805, US6637319, US6568316, US6561083, US6509549, US6497175, US6363841, US2015375468, US2015250187, US2015164088, US2015020284, US2014299002, US2014246008, US2014245897, US2014157997, US2013233182, US2013193130, US2012260809, US2012199017, US2012174906, US2012097046, US2012076350, US2012037012, US2011283893, US2011262113, US2011220573, US2011203570, US2011142998, US2011136587, US2011061545, US2011030670, US2010313878, US2010303973, US2010270282, US2010269712, US2010258109, US2010224079, US2010206287, US2010206179, US2010199855, US2010059038, US2010037782, US2010000417, US2009282989, US2009196970, US2009191322, US2009178665, US2009178664, US2009178579, US2009178578, US2009178577, US2009173240, US2009139981, US2009126366, US2009120303, US2009090248, US2009087535, US2009087534, US2009044706, US2009032007, US2008289511, US2008250940, US2008229937, US2008223845, US2008164246, US2008145282, US2008098903, US2008092751, US2008005918, US2008002383, US2007293385, US2007283945, US2007256571, US2007102418, US2007101869, US2007045201, US2007034621, US2007028912, US2007028781, US2007028780, US2007006869, US2006289530, US2006278211, US2006225580, US2006191156, US2006124627, US2006124561, US2006112837, US2006076789, US2006031234, US2005276892, US2005268794, US2005261475, US2005102854, US2005072018, US2005022676, US2005000371, US2004250693, US2004142082, US2004103795, US2004079239, US2004055477, US2003110955, TWI554235, KR100743273, ITVI20110317, ITVI20090078, ITMO20100357, GB2461395, GB2447284, GB2412296, GB2412296, EP2482866, EP2085003, EP1994864, EP1796475, EP1700550, EP1222889, DE102009045095, DE102009045095, CN104172941, CN104172941, CN103770666, CN102920357, AU777121,

Abstract:

Source: US2001009128A Enclosed rotisserie with added convenience, including a countertop resting box-like enclosure housing a safety rear mounted heating element and a power rotated dual rod spit assembly. The gear driven spit assembly may be easily inserted and removed straight into and out of the enclosure without need for angling or coupling the assembly to a power drive socket. The spit assembly may also be mounted at various distances from the heating element to decrease cooking times. The open front of the enclosure is from time to time covered by an inclined glass panel door which may be opened in various ways to facilitate food insertion into and removal from the enclosure, and which may be easily removed for cleaning or other purposes. The embodiment's design makes efficient use of valuable counter space by recessing back and raising off the countertop its controls. A contained light as well as room light emitted through the inclined glass door illuminate the enclosure's interior to make the rotisserie cooking into a taste tempting show. Two countertop supported sizes for the embodiment are suggested, one for larger families and entertaining, and the other for small families and singles. Cooking times are decreased and manufacture simplified by the embodiment heating element remaining on constantly during the cooking process. Maintenance is minimized by various embodiment parts being removable for cleaning including a cleaning shield located behind the heating element, the glass door, and a drip pan with slotted cover. A variety of foods may be cooked using the spit and accessories that attach to the spit. Such accessories include wire baskets and a rotating stir fryer. Foods may be cooked on top of the embodiment as well using an included warming tray and an inserted steaming tray with cover. Grease-tight rotisserie/barbecue gloves make food handling easier and safer, as can also be said for a spit support platform which supports the spit assembly for food mounting and carving. Self-rotating kabob rods cook kabobs on all sides evenly and allow for increasing rotisserie capacity by increasing the length of rotating rods available for rotisserie food mounting.



0) US2013233183A – COOKING APPARATUS AND SYSTEM

11) Family number: 51169275 (US2013233183A)

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Title: COOKING APPARATUS AND SYSTEM

Priority: US20100416333P 20101123 US20110261659 20111122 US20110449423P 20110304
US20110500226P 20110623 WO2011US61804 20111122

Family:	Publication number	Publication date	Application number	Application date
	CN103338688 A	20131002	CN201180063652	20111122
	CN103338688 B	20160601	CN201180063652	20111122
	US2013233183 AA	20130912	US20110261659	20111122
	WO12071390 A2	20120531	WO2011US61804	20111122
	WO12071390 A3	20130117	WO2011US61804	20111122

Probable Assignee: SHARKNINJA OPERATING LLC

Assignee(s):^(std): BRINCKERHOFF AMY TINNELL ; CUMMINGS ALLISON ; EURO PRO OPERATING LLC ; JENNINGS ARIC ; YIU SKINNER ; VRDOLJAK OGNJEN ; JENNINGS ERIC

Assignee(s): SHARKNINJA OPERATING LLC ; BANK OF AMERICA NA AGENT AS

Inventor(s):^(std): JENNINGS ERIC ; YIU SKINNER ; VRDOLJAK OGNJEN ; JENNINGS ARIC ; CUMMINGS ALLISON ; BRINCKERHOFF AMY TINNELL

Agent(s): HUANG DAVID E

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [A47J37/12 B65D6/08](#) (Advanced/Invention)
(IPC 8-9):

CPC: [A47J37/12 A47J37/1295](#)

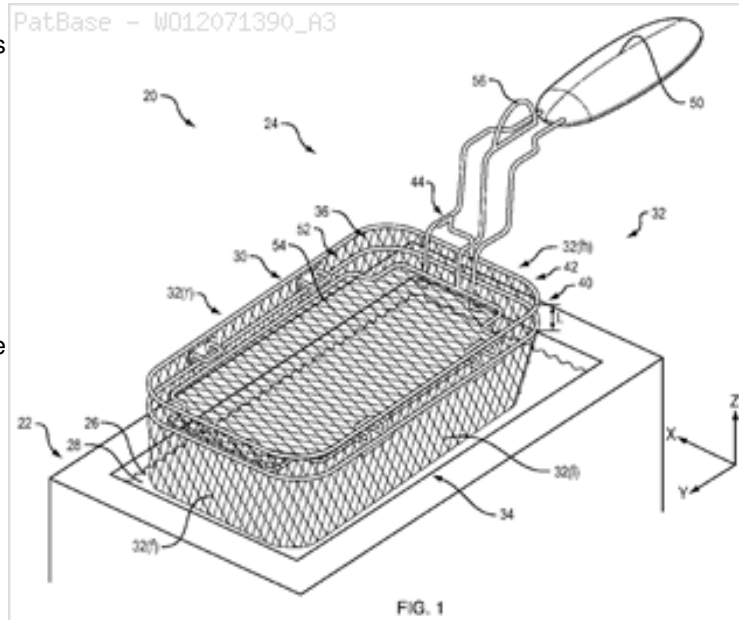
US class: [99/403](#)

[Classification Explorer](#)

Cited documents: US6176175 BA, US3613553 A, US2007251517 AA, US2007214968 AA, US2005204929 AA, JP2004201683 A2, CN201422771 Y,

Abstract:

Source: US2013233183A A cooking apparatus includes a container which defines four sides, a bottom and an open top. The cooking apparatus further includes a container handle which extends from a handle side of the four sides, and a cover which attaches to one of the four sides other than the handle side. The cover is constructed and arranged to transition between (i) an open position in which the cover substantially exposes the open top defined by the container to allow food product to enter or exit through the open top of the container and (ii) a closed position in which the cover substantially encloses the open top defined by the container to prevent food product from entering or exiting through the open top of the container.



12) Family number: 28149715 (US2001050005A)

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Title: Electric fryer
Priority: CN20002028463U 20000608 CN20002040170U 20001116
Family:

Publication number	Publication date	Application number	Application date
CN2437266 Y	20010704	CN20002028463U	20000608
CN2448247 Y	20010919	CN20002040170U	20001116
DE20109574 U1	20010816	DE20012009574U	20010606
FR2810868 A3	20020104	FR20010007460	20010607
FR2810868 B3	20020419	FR20010007460	20010607
GB200113820 A0	20010725	GB20010013820	20010606
GB2365757 A1	20020227	GB20010013820	20010606
GB2365757 B2	20020731	GB20010013820	20010606
ITMI20010314 U0	20010607	IT2001MI00314U	20010607
ITMI20010314 U1	20021209	IT2001MI00314U	20010607
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Probable Assignee: DONGMING WANG**Assignee(s):**^(std) DONGMING WANG ; WANG DONGMING**Inventor(s):**^(std) WANG DONGMING ; DONGMING WANG

International class
^{(IPC 8-9):} [A47J27/00](#) [A47J37/10](#) [A47J37/12](#) ^{(Advanced/Invention);}
[A47J27/00](#) [A47J37/10](#) [A47J37/12](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [A23L1/00](#) [A47J37/10](#) [A47J37/12](#)

CPC: [A47J27/004](#)**European class:** [A47J27/00B](#)**US class:** [219/430](#) [219/432](#) [219/435](#) [99/331](#) [99/403](#) [99/422](#)[Classification Explorer](#)**Cited documents:** US5048402 A, EP0705554 A1, EP0328432 A1,

Forward Citations: WO16077284, WO05020772, WO05020771, USD552921, US9326637, US9320293, US9232875, US9089238, US8342367, US8067716, US7993049, US7980171, US7926418, US7872213, US7075038, US7074277, US6892629, US6772677, US2015101491, US2014366746, US2013255509, US2013236614, US2013199376, US2011162535, US2011095015, US2010097881, US2010097880, US2010095887, US2010095884, US2009304876, US2009152276, US2009013877, US2008223220, US2008169281, US2007137499, US2006107842, US2005217662, US2004123742, US2004079747, US2003161947, US2003159596, TWI436115, GB2437914, FR2858537, FR2858535, FR2858533, ES2221591, EP1651086, EP1504706, EP1504705, CN102665503, CN102665503,

Abstract:

Source: US2001050005A The invention relates to an electric fryer comprising a body comprising a housing and a container between which an insulating chamber is formed; a lid connected to the upper part of said body; a basket positionable in said container for containing food to be fried; heating means for heating the container; controlling means for controlling a heating time and a heating temperature of the heating means; and a base positioned under the body and connected separately thereto. The electric fryer according to the invention is of a novel structure, ensures safety, and can be easily cleaned and saves power.

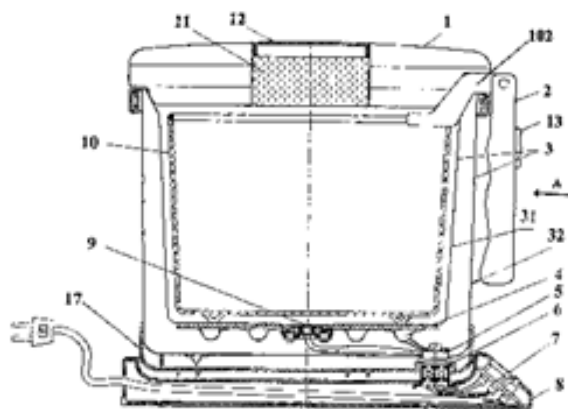
PatBase - US6545252_BB

U.S. Patent

Apr. 8, 2003

Sheet 1 of 7

US 6,545,252 B2

**Fig 1**

13) Family number: 44896931 (US2010089247A)

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Title: DEEP FRYER FOR COOKING FOODSTUFF**Priority:** US20080251215 20081014**Family:**

Publication number	Publication date	Application number	Application date
<u>CN201734548 U</u>	20110209	CN200920178982U	20091014
<u>US2010089247 AA</u>	20100415	US20080251215	20081014
<u>US8230779 BB</u>	20120731	US20080251215	20081014

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):^(std):** HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX ; YANG WEIQUN**Assignee(s):** HAMILTON BEACH PROCTOR SILEX INC**Inventor(s):^(std):** WEIQUN YANG ; YANG WEIQUN**Agent(s):** PANITCH SCHWARZE BELISARIO AND NADEL LLP

International class A47J27/04 A47J27/10 A47J36/06 A47J36/10 A47J36/38 A47J37/08
 (IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

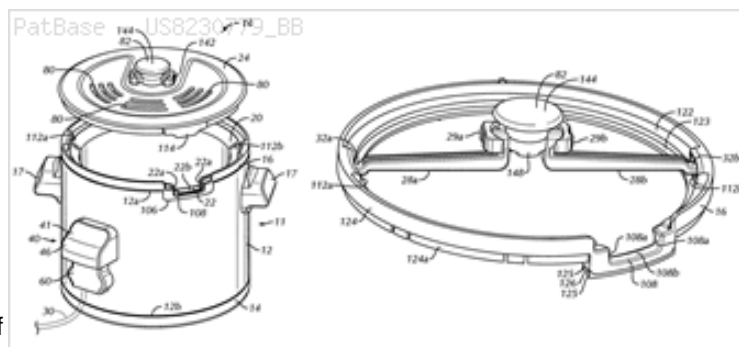
CPC: A47J37/1209 Y10S220/912**European class:** A47J37/12A1**US class:** 220/281 220/326 220/573.1 220/912 99/403 99/403P[Classification Explorer](#)

Cited documents: USD560964 S1, USD552922 S1, USD533014 S1, USD530564 S1, USD525478 S1, USD516374 S1, USD486351 S1, USD452412 S1, USD416166 S1, USD396505 S1, USD381242 S1, USD378647 S1, USD376724 S1, USD369505 S1, USD368623 S1, USD368621 S1, USD368620 S1, USD345281 S1, USD338133 S1, USD321455 S1, USD313531 S1, USD246686 S1, USD174721 S1, US7373874 BB, US7322279 BB, US7015429 BB, US6807899 BB, US6513420 BA, US6478614 BA, US6257124 BA, US6019029 A, US5911346 A, US5730045 A, US5678721 A, US5613424 A, US4627417 A, US4470515 A, US4201312 A, US2033011 A, US2009064868 AA, US2006272633 AA, US2005269309 AA, US2004250690 AA, US1241448 A,

Forward Citations: USD711679, USD710149, USD709731, USD703994, USD698197, USD695056, USD677979, USD677518, USD677517, USD673806, US8783498, US2015122136,

Abstract:

Source: US2010089247A A kitchen appliance for cooking foodstuff in a liquid including a container for receiving the foodstuff and the liquid. The container having an open end and a closed end. The open end of the container includes two spaced-apart lips. A lid is removably mountable to the open end of the container to enclose the foodstuff and the liquid therein. The lid includes two oppositely oriented elongated sliders. Each slider has a proximal and a distal end. At least one biasing member engages the proximal ends of each of the sliders. In a resting position, the at least one biasing member urges each of the distal ends of the sliders into one of the lips for selective engagement of the lid to the container.



14) Family number: 50923143 (ES1076697U)

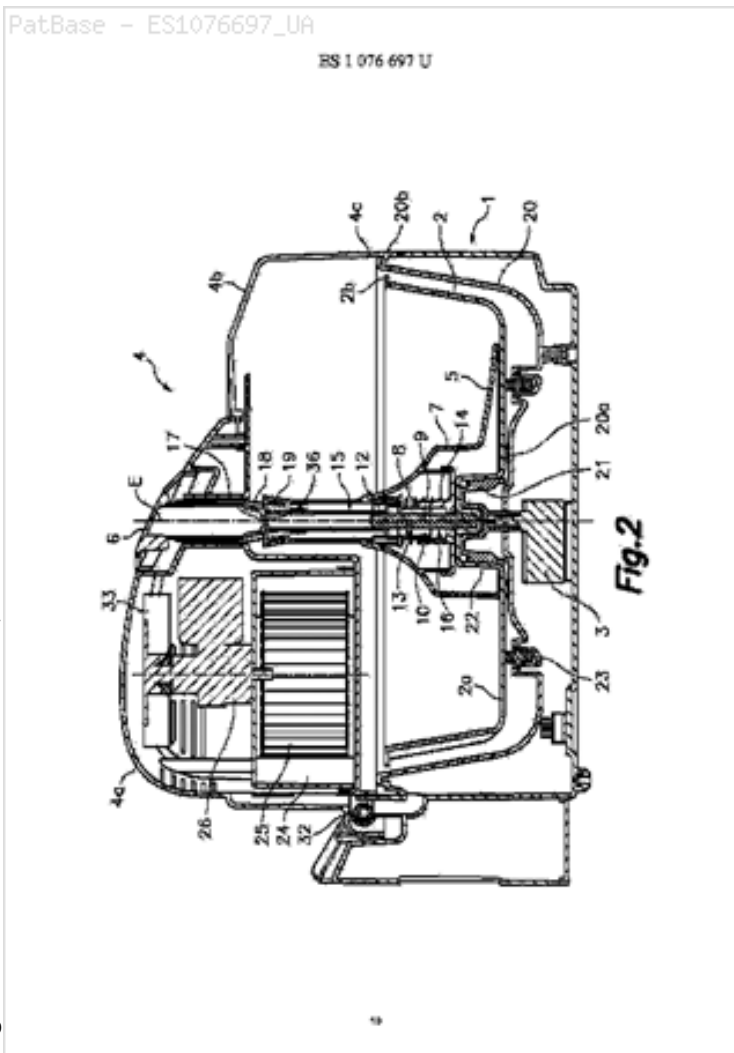
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Title: FREIDORA DE AIRE CALIENTE HOT AIR FRYER (Machine translation)**Priority:** ES20120030252U 20120307**Family:**

Publication number	Publication date	Application number	Application date
<u>ES1076697 UA</u>	20120412	ES20120030252U	20120307
<u>ES1076697 Y1</u>	20120710	ES20120030252U	20120307

Probable Assignee: COMPANIA ESPANOLA DE ELECTROMENAJE SL**Assignee(s):^(std):** COMPANIA ESPANOLA DE ELECTROMENAJE SL**Inventor(s):^(std):** ALET VIDAL JOSEP ; TRENCH ROCA LLUIS**Inventor(s):** JOSEP ALET VIDAL ; LLUIS TRENCH ROCA**Agent(s):** TORNER ELISABET**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: ES1076697U 1. Freidora de aire caliente, comprendiendo una base (1) que soporta un recipiente de coccion (2) giratorio, un motor electrico de accionamiento (3) que hace girar dicho recipiente de coccion (2) respecto a dicha base (1), una cubierta (4) movable entre una posicion abierta, en la que dicha cubierta (4) permite el acceso al recipiente de coccion (2), y una posicion cerrada, en la que la cubierta (4) cubre el recipiente de coccion (2), unos medios de circulacion de aire caliente asociados a la cubierta (4) y configurados para hacer circular una corriente de aire caliente por el interior del recipiente de coccion (2) cuando la cubierta (4) esta en dicha posicion cerrada, y una aleta de remocion (5) dispuesta dentro del recipiente de coccion (2) con capacidad de giro relativo al recipiente de coccion (2), caracterizada porque dicha aleta de remocion (5) esta asociada a un mecanismo de arrastre comandado por un mando de activacion (6) que proporciona un modo inactivo, en el que dicho mecanismo de arrastre esta conectado y hace girar la aleta de remocion (5) junto con el recipiente de coccion (2), y un modo activo, en el que el mecanismo de arrastre esta desconectado y la aleta de remocion (5) permanece estacionaria respecto a la base (1) para remover alimentos dentro del recipiente de coccion (2) mientras este gira respecto a la base (1). 2. Freidora de aire caliente segun la reivindicacion 1, caracterizada porque el mecanismo de arrastre comprende un primer organo de conexion (15) que gira con la aleta de remocion (5) y un segundo organo de conexion (16) que gira con el recipiente de coccion (2), o viceversa, donde dicho primer organo de conexion (15) es movable entre una posicion conectada, en la que el primer organo de conexion (15) esta acoplado mediante un encaje de forma con dicho segundo organo de conexion (16) de manera que ambos giran conjuntamente, y una posicion desconectada, en la que el primer



organo de conexión (15) esta desacoplado del segundo organo de conexión (16).3. Freidora de aire caliente segun la reivindicación 2, caracterizada porque el primer organo de conexión (15) es movable en una dirección axial respecto a un eje de giro (E) del recipiente de cocción (2) entre dichas posiciones conectada y desconectada, y un elemento elastico (14) esta dispuesto de manera que empuja el primer organo de conexión (15) hacia la posición conectada.4. Freidora de aire caliente segun la reivindicación 3, caracterizada porque el mando de activación (6) es movable manualmente desde una posición inactiva, en la que el primer organo de conexión (15) es mantenido en la posición conectada por dicho elemento elastico (14), hasta una posición activa, en la que el mando de activación (6) empuja el primer organo de conexión (15) hacia la posición desconectada contra el empuje del elemento elastico (14).5. Freidora de aire caliente segun la reivindicación 4, caracterizada porque la aleta de remoción (5) esta unida a un buje (7) y dicho primer organo de conexión (15) esta instalado en dicho buje (7) de manera que puede moverse axialmente entre unos limites pero no girar respecto al buje (7).6. Freidora de aire caliente segun la reivindicación 5, caracterizada porque el primer organo de conexión (15) comprende un manguito (8) provisto de un agujero axial (9) y una ranura axial (10) formada en una superficie interior de dicho agujero axial (9), y el segundo organo de conexión (16) comprende un vástago axial (12) fijado al recipiente de cocción (2) y un saliente de arrastre (13) que sobresale radialmente de dicho vástago axial (12), donde en situación de uso dicho vástago axial (12) se inserta en el agujero axial (9) del manguito (8) y dicho saliente de arrastre (13) se inserta en dicha ranura axial (10) del manguito (8).7. Freidora de aire caliente segun la reivindicación 6, caracterizada porque donde la ranura axial (10) del manguito (8) esta dimensionada de manera que el saliente de arrastre (13) permanece en la ranura axial (10) mientras el primer organo de conexión (15) esta en la posición conectada y escapa de la ranura axial (10) cuando el primer organo de conexión (15) esta en la posición desconectada.8. Freidora de aire caliente segun la reivindicación 7, caracterizada porque el manguito (8) tiene una superficie circunferencial de apoyo (11) sobre la que se apoya y resbala el saliente de arrastre (13) despues de que el mismo haya escapado de la ranura axial (10) a consecuencia de un movimiento del primer organo de conexión (15) desde la posición conectada a la posición desconectada, y el saliente de arrastre (13) se inserta automaticamente en la ranura axial (10) permitiendo que el primer organo de conexión (15) sea retornado por el elemento elastico (14) desde la posición desconectada a la posición conectada despues de que el vástago axial (12) junto con el recipiente de cocción (2) haya realizado una vuelta completa.9. Freidora de aire caliente segun la reivindicación 8, caracterizada porque el mando de activación (6) esta instalado en dicha cubierta (4) de manera que puede moverse en una dirección axial entre dichas posiciones inactiva y activa pero no girar respecto a la cubierta (4), y el mando de activación (6) comprende en un extremo inferior del mismo un empujador (17) que se encuentra enfrentado y muy proximo o en contacto con un extremo superior del primer organo de conexión (15) cuando la cubierta (4) esta en dicha posición cerrada y el primer organo de conexión (15) esta en la posición conectada.10. Freidora de aire caliente segun la reivindicación 9, caracterizada porque el mando de activación (6) puede moverse libremente entre dichas posiciones inactiva y activa y es empujado hacia la posición inactiva por el primer organo de conexión (15) bajo la acción del elemento elastico (14).11. Freidora de aire caliente segun la reivindicación 9 o 10, caracterizada porque dicho empujador (17) del mando de activación (6) tiene un primer elemento de acoplamiento (18) que se acopla mediante un encaje de forma con un segundo elemento de acoplamiento (19) formado en un extremo superior del buje (7) inmovilizando con ello el giro de la aleta de remoción (5) respecto a la cubierta (4) cuando el mando de activación (6) es movido a la posición activa empujando el primer organo de conexión (15) a la posición desconectada.12. Freidora de aire caliente segun una cualquiera de las reivindicaciones precedentes, caracterizada porque la base (1) comprende un receptaculo (20) en el que se aloja el recipiente de cocción (2) en situación de uso, dicho motor electrico de accionamiento (3) esta situado por debajo de un fondo (20a) de dicho receptaculo (20) y conectado operativamente para hacer girar un miembro de accionamiento (21) situado centralmente por encima de dicho fondo (20a) del receptaculo (20), y el recipiente de cocción (2) tiene en su fondo (2a) una cavidad de acoplamiento (22) que se acopla mediante un encaje de forma con dicho miembro de accionamiento (21) en situación de uso.13. Freidora de aire caliente segun la reivindicación 12, caracterizada porque el fondo (20a) del receptaculo (20) incluye unos elementos de soporte de baja fricción (23) sobre los que se apoya dicho fondo (2a) del recipiente de cocción (2).14. Freidora de aire caliente segun la reivindicación 12, caracterizada porque el receptaculo (20) tiene un borde superior (20b) cercano a un borde superior (2b) del recipiente de cocción (2), y la cubierta (4) tiene un borde inferior que descansa sobre dicho borde superior (20b) del receptaculo (20) cuando la cubierta (4) esta en la posición cerrada.15. Freidora de aire caliente segun una cualquiera de las reivindicaciones 1 a 11, caracterizada porque los medios de circulación de aire caliente comprenden una turbina (25) accionada por un motor electrico de circulación de aire (26) y al menos una resistencia electrica.16. Freidora de aire caliente segun la reivindicación 15, caracterizada porque la cubierta (4) comprende una carcasa (4a) en la que estan instalados dichos medios de circulación de aire caliente y una porción de cubierta transparente (4b).17. Freidora de aire caliente segun la reivindicación 16, caracterizada porque dicha turbina (25) y dicha resistencia electrica estan instaladas en un compartimento (24) de dicha carcasa (4a), y dicho compartimento (24) tiene una entrada de aspiración de aire y una salida de impulsión de aire enfrentadas al recipiente de cocción (2) en situación de uso.18. Freidora de aire caliente segun la reivindicación 16, caracterizada porque el mando de activación (6) esta instalado en dicha carcasa (4a) de la cubierta (4).19. Freidora de aire caliente segun una cualquiera de las reivindicaciones precedentes, caracterizada porque incluye un mango accesorio (27) que comprende una porción de mango (28) y un apéndice de agarre (29) movil configurado para agarrar un borde superior (2b) del recipiente de cocción (2), estando dispuestos en dicha porción de mango (28) un mando de agarre (30) que mueve dicho apéndice de agarre (29) entre una posición liberada y una posición agarrada, un segundo elemento elastico que empuja el apéndice de agarre (29) hacia dicha posición liberada, un mecanismo de retención que inmoviliza el apéndice de agarre (29) en dicha posición agarrada contra el empuje de dicho segundo elemento elastico, y un botón de liberación (31) que libera dicho mecanismo de retención permitiendo que el segundo elemento elastico retorne el apéndice de agarre (29) a la posición liberada.

Machine translation: 1. Hot air fryer, comprising a base (1) supporting a cooking vessel (2) rotating a drive electric motor (3) which rotates said cooking vessel (2) with respect to said base (1), a cover (4) movable between

an open position in which said cover (4) allows access to the cooking vessel (2), and a closed position in which the cover (4) covering the cooking vessel (2), means for hot air circulation associated with the cover (4) and configured to circulate a current of hot air inside the cooking vessel (2) when the cover (4) is in said closed position, and a fin removal (5) disposed within the cooking vessel (2) rotatable relative to the cooking vessel (2), wherein said fin removal (5) is associated with a drive mechanism controlled by a command activation (6) that provides an idle mode, wherein said drive mechanism is connected to and rotates the removal flap (5) together with the cooking vessel (2), and an active mode, in which the drive mechanism is disconnected and removal flap (5) remains stationary relative to the base (1) to remove food within the cooking vessel (2) while it rotates relative to the base (1).

2. Hot air fryer according to claim 1, wherein the drive mechanism comprises a first connecting member (15) which rotates with removal flap (5) and a second connecting member (16) which rotates with the cooking vessel (2), or vice versa, wherein said first connecting member (15) is movable between a connected position in which the first connecting member (15) is coupled with a form fit with said second connecting member (16) so that both rotate together, and a disconnected position, in which the first connecting member (15) is decoupled from the second connecting member (16).

3. Hot air fryer according to claim 2, wherein the first connecting member (15) is movable in an axial direction about an axis of rotation (E) of the cooking vessel (2) between said positions connected and disconnected, and an elastic element (14) is arranged to push the first connecting member (15) towards the position connected.

4. Hot air fryer according to claim 3, wherein the activation control (6) is manually movable from an inactive position, wherein the first connecting member (15) is held in position by said elastic element (14) to an active position, in which the activation command (6) pushes the first connecting member (15) toward the disengaged position against the bias of the elastic element (14).

5. Hot air fryer according to claim 4, wherein the removal tab (5) is attached to a hub (7) and said first connecting member (15) is installed in said bushing (7) so that it can move axially between some limits but not rotate with respect to the hub (7).

6. Hot air fryer according to claim 5, wherein the first connecting member (15) comprises a sleeve (8) provided with an axial hole (9) and an axial slot (10) formed on an inner surface of said axial hole (9) and the second connecting member (16) comprises an axial rod (12) fixed to the cooking vessel (2) and a drive protrusion (13) protruding radially from said axial rod (12), where in situation of Use axial said rod (12) is inserted into the axial hole (9) of the sleeve (8) and drive said projection (13) is inserted into said axial groove (10) of the sleeve (8).

7. Hot air fryer according to claim 6, wherein where the axial slot (10) of the sleeve (8) is sized so that the outgoing trawl (13) remains in the axial slot (10) while the first connecting member (15) is in the connected position and escape from the axial slot (10) when the first connecting member (15) is at position disconnected.

8. Hot air fryer according to claim 7, wherein the sleeve (8) has a circumferential support surface (11) on which rests and slides the drive projection (13) after the same has escaped from the axial slot (10) as a result of movement of the first connecting member (15) from the position connected to the disconnected position, and the projection of drag (13) is automatically inserted into the axial slot (10) allowing the first connecting member (15) is returned by the elastic element (14) from the disconnected position to the connected position after the axial rod (12) together with the cooking vessel (2) has made a turn completa.

9. Hot air fryer according to claim 8, wherein the activation command (6) is installed on said cover (4) so that it can move in an axial direction between said inactive and active positions but not rotate relative to the deck (4), and the activation command (6) comprises a lower end thereof a plunger (17) that is facing and very close to or in contact with an upper end of the first connecting member (15) when the cover (4) is in said closed position and the first connecting member (15) is at position connected.

10. Hot air fryer according to claim 9, wherein the activation command (6) can move freely between said inactive and active positions and is pushed into the inactive position by the first connecting member (15) under the action of the elastic element (14).

11. Hot air fryer according to claim 9 or 10, wherein said pusher (17) of the activation command (6) has a first coupling element (18) which is engaged by a lace formed with a second coupling element (19) formed at an upper end of the hub (7) thereby immobilizing the rotation of the fin removal (5) with respect to the cover (4) when the activation command (6) is moved to the active position by pushing the first organ of connection (15) to position disconnected.

12. Hot air fryer according to any one of the preceding claims, wherein the base (1) comprises a receptacle (20) which is housed in the cooking vessel (2) in a situation of use, said electric drive motor (3) is located below a bottom (20a) of said receptacle (20) and operatively connected to rotate a drive member (21) located centrally above said bottom (20a) of the receptacle (20), and the cooking vessel (2) has at its bottom (2a) a coupling cavity (22) which is coupled by a fit of form with the drive member (21) in situation of use.

13. Hot air fryer according to claim 12, wherein the bottom (20a) of the receptacle (20) includes support elements of low friction (23) which rests on said bottom (2a) of the cooking vessel (2).

14. Fryer hot air according to claim 12, wherein the receptacle (20) has an upper edge (20b) near an upper edge (2b) of the cooking vessel (2), and the cover (4) has a lower edge rests on the top edge (20b) of the receptacle (20) when the cover (4) is in the position cerrada.

15. Hot air fryer according to any one of claims 1 to 11, characterized in that the means of hot air circulation comprise a turbine (25) driven by an electric motor for air circulation (26) and at least one electrica.

16. resistance. Hot air fryer according to claim 15, wherein the cover (4) comprises a housing (4a) in which are installed said means for circulation of hot air and a transparent cover portion (4b).

17. Hot air fryer according to claim 16, wherein said turbine (25) and electrical resistance that are installed in a compartment (24) of said housing (4a) and the compartment (24) has an air suction inlet and a air discharge outlet facing the cooking vessel (2) in situation of uso.

18. Hot air fryer according to claim 16, wherein the activation control (6) is installed in said housing (4a) of the cover (4).

19. Hot air fryer according to any one of the preceding claims, characterized in that includes a handle attachment (27) comprising a handle portion (28) and a gripping appendix (29) configured to hold a mobile upper edge (2b) of the container cooking (2), being arranged in said handle portion (28) a gripping knob (30) which moves said gripping appendix (29) between a released position and a gripping position, a second elastic element which pulls the appendix of grip (29) toward said released position, a retention mechanism that keeps the gripping appendage (29) in said gripping position against the bias of said second elastic element, and a release button (31) which releases the retention mechanism allowing that the second elastic return gripping appendix (29) to the unlocked position.

15) Family number: 18925002 (US4487117A)

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Title: Cooking appliance with lid and open work basket

Priority: BE19780057276 19780913 BE19782057276 19780913 BE19782057276 19780913
 BE19790058121 19791009 US19820373067 19820429 US19790073779 19790910
 BE19780870419 19780913 BE19792058121 19791009

Family:	Publication number	Publication date	Application number	Application date
	<u>BE870419 A1</u>	19790313	BE19782057276	19780913
	<u>BE879268 A4</u>	19800409	BE19792058121	19791009
	<u>DE2967555 D1</u>	19860130	DE19792967555	19790905
	<u>DE2967705 D1</u>	19920312	DE19792967705	19790905
	<u>DE7925866 U1</u>	19800207	DE19790025866U	19790912
	<u>EP0008838 A2</u>	19800319	EP19790200492	19790905
	<u>EP0008838 A3</u>	19810204	EP19790200492	19790905
	<u>EP0008838 B1</u>	19851218	EP19790200492	19790905
	<u>EP0026958 A1</u>	19810415	EP19800200943	19801006
	<u>EP0162482 A2</u>	19851127	EP19850200073	19790905
	<u>EP0162482 A3</u>	19890628	EP19850200073	19790905
	<u>EP0162482 B1</u>	19920129	EP19850200073	19790905
	<u>EP0183281 A2</u>	19860604	EP19850200074	19790905
	<u>ES245548 U</u>	19800101	ES19790245548U	19790912
	<u>ES245548 Y</u>	19800616	ES19790245548U	19790912
	<u>GR70231 B</u>	19820901	GR19790059969	19790905
	<u>US4487117 A</u>	19841211	US19830540104	19831007

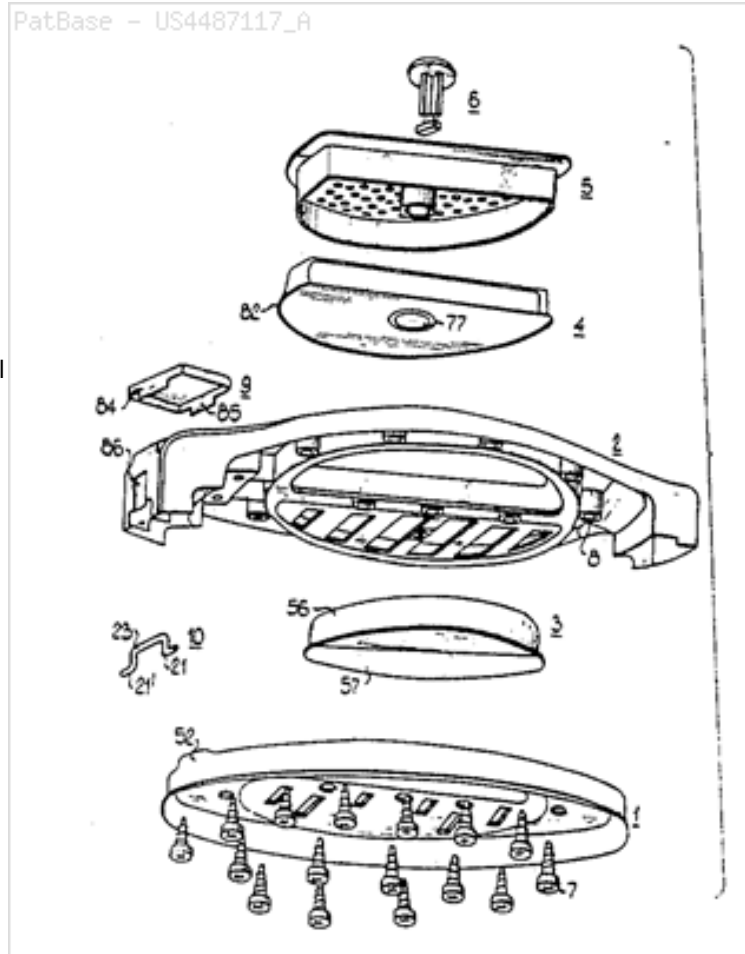
Probable Assignee: ITT**Assignee(s):^(std):** INC ; ITT ; ITT IND BELGIUM ; ITT IND GMBH DEUTSCHE ; NOVA ELECTRO INT ; ITT INDUSTRIES ; ITT IND BELGIUM SA**Assignee(s):** NOVA ELECTRO INTERNATIONAL N V TONGEREN BE ; ITT INDUSTRIES BELGIUM S A ; ITT INDUSTRIES INC ; ITT IND BELGIUM SOC ANONYME ; ITT IND INC ; ITT INDUSTRIES BELGIUM SOCIETE ANONYME ; NOVA ELECTRO INTERNATIONAL N V ; ITT IND ; DEUTSCHE ITT IND GMBH ; DEUTSCHE ITT INDUSTRIES GMBH ; DEUTSCHE ITT INDUSTRIES GMBH 7800 FREIBURG**Inventor(s):^(std):** COLLEY JACQUES L J ; COLLEY JACQUES LOUIS JOSEPH ; VRYDAGS ANDRE P J ; VRYDAGS ANDRE PIERRE JOSEPH**Inventor(s):** VRYDAGS ANDRE PIERRE JOSEPH B 4880 SPA BE ; COLLEY JACQUES LOUIS JOSEPH B 4000 LIEGE BE**Designated states:** BE CH DE FR GB IT NL SE**International class**
(IPC 8-9): A47J36/06 A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)**International class**
(IPC 1-7): A47J27/12 A47J36/06 A47J36/12 A47J36/38 A47J37/12 A47J45/10**CPC:** A47J36/38 A47J36/06 A47J37/1204 A47J37/128 A47J37/1295**European class:** A47J36/06 A47J36/38 A47J37/12A A47J37/12M1 A47J37/12P**US class:** 116/276 220/377 220/662 220/82R 73/334 99/341 99/403[Classification Explorer](#)**Cited documents:** US4145194 A, US4034663 A, US3964378 A, US3801331 A, US3714885 A, US3667648 A, US3463077 A, US3366035 A, US3278114 A, US3145643 A, US3128363 A, US2612154 A, US2603740 A, US2438270 A, US1836827 A, US143574 A, US1275598 A, JP48029653 U1, JP48029653 A2, GB828267 A, GB1545217 A, GB1297801 A, FR94107

E, FR801212 A, FR513542 A, FR2368857 A7, FR2299900 A1, FR2180637 A1, FR2149708 A5, FR2033547 A5, FR1517736 A, FR1302954 A, DE3103450 A1,

Forward Citations: WO9426157, WO8403427, WO06019230, WO05079643, WO05065505, USD552921, US8016122, US7628162, US6334888, US6240837, US5873298, US5253566, US5238138, US4995312, US4636618, US2008308489, US2007068561, US2003209551, GB2345631, GB2345631, GB2139077, FR2967879, FR2928821, FR2838948, FR2818524, FR2680312, FR2657516, FR2634734, FR2525888, ES2212924, ES2058017, EP2103238, EP1568302, EP1563778, EP1563777, EP1216641, EP0891736, EP0587300, EP0527418, EP0263084, EP0149856, DE4304689, DE4304683, CH704665, BE1008015, BE1007170,

Abstract:

Source: US4487117A A cooking appliance including a vat for containing food during cooking, having a lid for engaging the vat. The lid has a transparent portion forming a double window consisting exclusively of an upper window and a lower window congruently placed on top of each other and an air space sealed therebetween, such that the lower window is exposed to cooking vapors emanating from the vat and the upper window is exposed to the outside atmosphere. Improved visibility through the windows is obtained during cooking. The upper and lower windows comprise a single unitary closed shell surrounding the air space.



16) Family number: 28994032 (US2003155346A)

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Title: ELECTRON SOURCE FOR FOOD TREATING APPARATUS AND METHOD

Priority: US20010014631 20011026 US20030379262 20030304 WO2002US34401 20021028
US20040999119 20041129 US20050234044 20050923

Family:	Publication number	Publication date	Application number	Application date
	<u>AT363850 E</u>	20070615	AT20020770666T	20021028
	<u>AU2002335896 AA</u>	20030526	AU20020335896	20021028
	<u>DE60220534 D1</u>	20070719	DE20026020534	20021028
	<u>DE60220534 T2</u>	20080214	DE20026020534T	20021028
	<u>EP1441625 A1</u>	20040804	EP20020770666	20021028
	<u>EP1441625 B1</u>	20070606	EP20020770666	20021028
	<u>US2003155346 AA</u>	20030821	US20030379262	20030304
	<u>US2005115948 AA</u>	20050602	US20040999119	20041129
	<u>US2006016798 AA</u>	20060126	US20050234044	20050923
	<u>US6528768 BA</u>	20030304	US20010014631	20011026
	<u>US6828527 BB</u>	20041207	US20030379262	20030304
	<u>US6949721 BB</u>	20050927	US20040999119	20041129
	<u>US7135657 BB</u>	20061114	US20050234044	20050923
	<u>WO03041545 A1</u>	20030522	WO2002US34401	20021028

Probable Assignee: SIMIC GLAVASKI BRANIMIR

Assignee(s):^(std): LIFEWARE LLC ; SIMIC GLAVASKI BRANIMIR ; SIMIC MICHAEL G

Assignee(s): SIMIC MICHAEL G DR ; SIMIC GLAVASKI BRANIMIR DR ; LIFEWARE LLC SUITE ; AMERICA INVENTS LLC ; BRANIMIR SIMIC GLAVASKI

Inventor(s):^(std): SIMIC GLAVASKI BRANIMIR ; SIMIC MICHAEL G ; SIMIC MICHAEL

Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; RENNER OTTO BOISSELLE AND SKLAR LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): A23L1/025 A23L1/25 A23L3/32 A23L5/30 A47J27/00 A47J45/06
F27D11/00 (Advanced/Invention);
A23L1/025 A47J27/00 A47J45/00 (Core/Invention)

International class
(IPC 1-7): A23L1/25 A23L3/32 A47J27/00 F27D11/00 H05B3/03

CPC: A23L5/30 A47J27/00 A47J37/12 A47J45/06 A47J27/004 A47J45/061

European class: A23L1/025 A47J27/00 A47J27/00B A47J37/12 A47J45/06 A47J45/06A

US class: 219/386 219/438 219/441 426/237 426/244 99/431 99/451 99/483

[Classification Explorer](#)

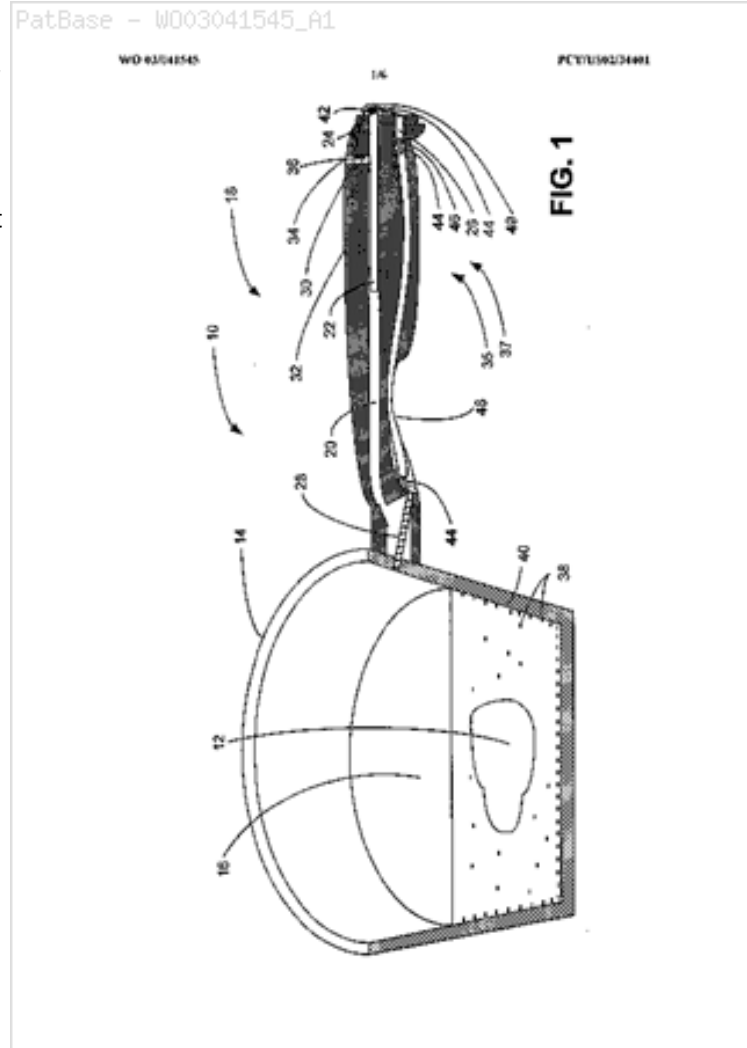
Cited documents: WO03041545 A1, WO0044269 A1, US6949721 BB, US6949721 BA, US6828527 BB, US6828527 BA, US6562386 BB, US6562386 BA, US6528768 BA, US6451364 BA, US6393973 BA, US6331321 BA, US5718934 A, US5609900 A, US5447733 A, US5356646 A, US4386110 A, US3632962 A, US3230096 A, JP8215069 A2, JP408215069,

Forward Citations: WO14191963, WO08087507, WO08081394, WO06101888, WO06101888, WO04075656, US9386881, US9247841, US9215886, US9095145, US8814863, US8814862, US8486684, US8284248, US8158175, US8124160, US8114463, US8110240, US8076620, US7867529, US7811618, US7767247, US7763306, US7763305,

US7763304, US7728263, US7706671, US7527815, US7524519, US7514113, US7393550, US7361914, US7267834, US7220440, US7189422, US7135657, US6989167, US6949721, US6914221, US2010143540, US2010119668, US2009252842, US2008312774, US2007277809, US2007235019, US2007210064, US2007178219, US2007120067, US2007108183, US2006210669, US2006207986, US2006127534, US2006057260, US2006051471, US2006051470, US2006051469, US2006051468, US2006034982, US2006016798, US2005202153, US2005118322, US2005115948, US2005102139, US2005074538, US2005064084, US2004265432, US2004265429, US2004166227, US2004166210, US2004101607, US2004081724, US2004058046, US2004058045,

Abstract:

Source: US2003155346A A food treating apparatus and method wherein a reducing DC electric current is provided by a DC electric circuit, the food treating apparatus including a vessel and a handle, and wherein at least part of the electric circuit is integral with the handle and is operative to provide electrons to food in the vessel. Further, the added electrons inhibit and/or reduce the formation of acrylamides in the food prepared in the food treating apparatus.



0) US2012145144A – SOLAR COOKING APPLIANCES

17) Family number: 48200875 (US2012145144A)

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Title: SOLAR COOKING APPLIANCES

Priority: CA20092672760 20090723 CA20092673702 20090723 WO2010CA01118 20100719
CA20092673703 20090723 US20120355201 20120120 US20150675052 20150331
WO2010CA01120 20100719 WO2010CA01119 20100719

Family:

Publication number	Publication date	Application number	Application date
AP201206136 A0	20120229	AP20120006136	20100719
AP201206137 A0	20120229	AP20120006137	20100719
AP201206138 A0	20120229	AP20120006138	20100719
AP3087 A	20150131	AP20120006138	20100719
AP3386 A	20150831	AP20120006136	20100719
AR081123 AA	20120627	AR2011P100218	20110124
AU2012201047 AA	20120315	AU20120201047	20120223
AU2012201047 BB	20140605	AU20120201047	20120223
AU2012201056 AA	20120315	AU20120201056	20120223
AU2012201056 BB	20140605	AU20120201056	20120223
BR112012001546 A2	20160412	BR20121101546	20100719
BR112012001549 A2	20160308	BR20121101549	20100719
CA2672760 AA	20110123	CA20092672760	20090723
CA2673702 AA	20110123	CA20092673702	20090723
CA2673702 C	20141125	CA20092673702	20090723
CA2673703 AA	20110123	CA20092673703	20090723
CA2673703 C	20150505	CA20092673703	20090723
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CN102597649 B	20150729	CN201080033195	20100719
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CN102741621 B	20140813	CN201080033182	20100719
EA022804 B1	20160331	EA20120000168	20100719
EA023531 B1	20160630	EA20120000169	20100719
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EA201200169 A1	20120730	EA20120000169	20100719
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EP2457029 A4	20140514	EP20100801820	20100719
EP2457030 A1	20120530	EP20100801822	20100719
EP2457030 A4	20141217	EP20100801822	20100719
EP2459939 A1	20120606	EP20100801821	20100719
EP2459939 A4	20140514	EP20100801821	20100719
HK1171072 A1	20160129	HK20120111936	20121122
IN01471DN2012 A	20150605	IN2012DN01471	20120217
IN01472DN2012 A	20150605	IN2012DN01472	20120217
IN01474DN2012 A	20150605	IN2012DN01474	20120217
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JP2012533371 T2	20121227	JP20120520874T	20100719

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JP5907868 B2	20160426	JP20120520872T	20100719	
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WO11009200 A8	20110728	WO2010CA01119	20100719	
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ZA201200695 A	20130227	ZA20120000695	20120127	

Probable Assignee: W AND E INT CORP

Assignee(s):^(std): HUAZI LIN ; LIN HUAZ ; LIN HUAZI ; W AND E INT CANADA CORP ; W AND E INT CORP

Assignee(s): WAND E INT CANADA CORP ; W AND E INT CANADA CORP66 DEVONSLEIGH BOULEVARDRICHMOND HILLO1L4S 1H2CA ; LIN HUAZI66 DEVONSLEIGH BOULEVARDRICHMOND HILLO1L4S 1H2CA

Inventor(s):^(std): LIN HUAZ ; LIN HUAZI ; HUAZI LIN

Inventor(s): LIN HUAZI66 DEVONSLEIGH BOULEVARDRICHMOND HILLO1L4S 1H2CA

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; KROUZER IP; WONG DAVID W; TOMKINSON ALEXANDRA; TANI AND ABE PC; WPAT PC; JUSTIN; LIN HUAZI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): [A47J27/00](#) [A47J27/04](#) [A47J27/21](#) [A47J31/00](#) [A47J31/44](#) [A47J33/00](#) [A47J36/24](#) [A47J37/00](#) [A47J37/06](#) [A47J37/12](#) [F24C1/00](#) [F24C15/00](#) [F24C15/34](#) [F24J2/02](#) [F24J2/04](#) [F24J2/05](#) [F24J2/24](#) [F24J2/30](#) [F24J2/34](#) [F24J2/42](#) [F24J2/46](#) [F24J2/54](#) (Advanced/Invention); [A47J27/00](#) [A47J37/00](#) (Core/Invention); [A47J F24J](#) (Subclass/Invention)

International class
(IPC 1-7): [A47J27/00](#) [F24J2/02](#)

CPC: [F24J2/4649](#) [A47J37/00](#) [A47J37/0623](#) [A47J27/00](#) [A47J31/44](#) [F24J2/0023](#) [F24J2/265](#) [F24J2/32](#) [F24J2/36](#) [F24J2/02](#) [F24J2/055](#) [F24J2/34](#) [Y02B40/18](#) [Y02E10/44](#) [F24J2/46](#) [F24J2/4647](#) [A47J36/02](#) [A47J27/04](#) [F24J2/42](#)

European class: [A47J27/00](#) [A47J31/44](#) [A47J37/00](#) [A47J37/06C](#) [F24J2/00E](#) [F24J2/02](#) [F24J2/05B](#) [F24J2/26B](#) [F24J2/32](#) [F24J2/34](#) [F24J2/36](#) [Y02B40/18](#) [Y02E10/44](#)

US class: [1/1](#) [126/400](#) [126/609](#) [126/617](#) [126/620](#) [126/635](#) [126/643](#) [126/643S](#) [126/676](#) [126/681](#) [126/681S](#) [165/104.11](#) [165/104.14](#) [165/236](#) [99/279](#) [99/292](#)

[Classification Explorer](#)

Cited documents: WO09039925 A1, US7458316 BB, US742961 A, US7412976 BB, US7270049 BB, US7056371 BB, US6124575 A, US5524610 A, US5167218 A, US4853088 A, US4834066 A, US4712606 A, US4662354 A, US4597434 A, US4469088 A, US4442828 A, US4281644 A, US4281639 A, US4258695 A, US4217882 A, US4215553 A, US4203427 A, US4196721 A, US4142576 A, US4142513 A, US4042012 A, US4018212 A, US3968786 A, US3938497 A, US3915304 A, US3875926 A, US3791372 A, US3570390 A, US3236227 A, US2178049 A, US2097977 A, US2010139648 AA, US2010071686 AA, US2009165781 AA, US2009133688 AA, US2008283046 AA, US2008271731 AA, US2008156314 AA, US2007221067 AA, US1769752 A, US1442696 A, US04196721, JP9206224 A2, JP7004751 A2, JP7004751, JP63501311 T2, JP63046345 A2, JP63046345, JP6064070 U1, JP6064070 U, JP6064070 U, JP59232165 A2, JP59152359 U1, JP59152359 U, JP59152359 U, JP59152359 U, JP59014830 A2, JP59014830, JP58194377 U1, JP58194377 U, JP58194377 U, JP58194377 U, JP58078628 A2, JP58078628, JP57135310 U1, JP57135310 U, JP57135310 U, JP56500189 T2, JP56172650 U, JP56172650 U, JP56166454 U1, JP56166454 U, JP56127142 A2, JP56127142, JP2101350 A2, JP2071424 U1, JP2006217997 A2, JP2006217997, JP2005241020 A2, JP2005241020, JP2004205183 A2, JP2001238712 A2, JP2000107033 A2, JP1291060 A2, JP07004751, JP06064070 U, JP02101350, JP01291060, EP0099423 A2, DE4338736 A1, DE4142119 A1, DE3544039 A1, DE3521027 A1, DE3044192 A1, DE29500709 U1,

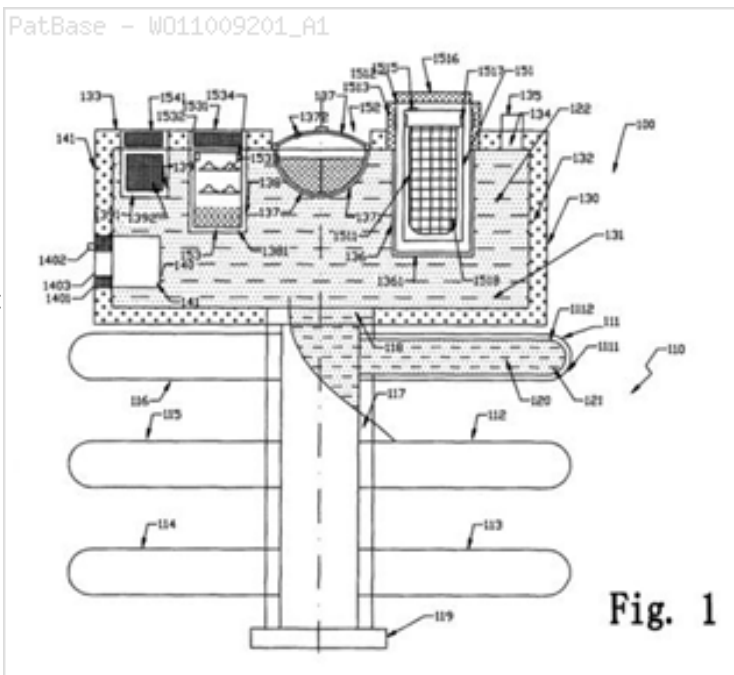
DE202007013089 U1

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Forward Citations: WO17002127, WO13177657, WO13106901, US9291372, US9222709, US2015044345, US2014223945, US2014216439, US2014196868, US2013025821, US2011108020, ES2529364, CN104654621, CN104515304, CN103733000, CN103654380, CN103505068, CN103120544, CN103120544, CN102743109,

Abstract:

Source: US2012145144A Solar heat collector, especially an evacuated-tube solar heat collector, filled with first solid heat storage and conducting material transfers the solar heat to an electric power heat insulated utensil through second heat conducting/transferring material for cooking foods and making coffee/tea. A set of solar cooking appliance having a solar heat collector filed with a first solid heat storage and conducting material and a solar cooking range filled with third solid heat storage and conducting material. The solar cooking range having a heat insulated enclosed compartment and also having a cooktop. The cooking range having a set of cooking chambers which are in thermal contact with the first and second heat storage and conducting material for cooking food therein. The cooking appliance also has a group of removable parts that cover the cooking chambers separately. An electric power heater provides a backup energy source and electric heat storage.



18) Family number: 42647179 (US2008302353A)

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Title: REMOVABLE FLAME HEAT REGULATING APPARATUS INCLUDING AN INNER HOLLOW SHELL AND AN OUTER WALL FOR A BURNER OF A GAS STOVE

Priority: US20070811521 20070611 US20080313940 20081126 US20100660234 20100222
US20120403733 20120223

Family:	Publication number	Publication date	Application number	Application date
	CN101440972 A	20090527	CN200710181072	20070930
	CN101440972 B	20130130	CN200710181072	20070930
	CN101818896 A	20100901	CN200910127571	20090315
	CN101818896 B	20140618	CN200910127571	20090315
	CN102141255 A	20110803	CN201110046620	20110219
	CN102141255 B	20140212	CN201110046620	20110219
	CN102865609 A	20130109	CN201210345013	20070930
	CN102865609 B	20141217	CN201210345013	20070930
	CN201229012 Y	20090429	CN200720183522U	20070930
	CN201539902 U	20100804	CN200920003268U	20070930
	CN201555220 U	20100818	CN200920008464U	20090315
	CN202188530 U	20120411	CN201120047260U	20110219
	US2008302353 AA	20081211	US20070811521	20070611
	US2009078247 AA	20090326	US20080313940	20081126
	US2010154778 AA	20100624	US20100660234	20100222
	US2012180779 AA	20120719	US20120403733	20120223
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	US8590526 BB	20131126	US20100660234	20100222

Probable Assignee: SUN YIHUI**Assignee(s):**^(std): SUN YIHUI ; SUN YIZHONG ; YIZHONG SUN**Inventor(s):**^(std): SUN YIZHONG ; YIZHONG SUN**Agent(s):** YIZHONG SUN

International class
(IPC 8-9): [F23D14/02](#) [F23D14/46](#) [F23D14/58](#) [F23D14/70](#) [F23D14/84](#) [F24C1/16](#) [F24C15/10](#)
[F24C15/22](#) [F24C15/24](#) [F24C3/00](#) [F24C3/08](#) (Advanced/Invention);
[F24C3/14](#) (Advanced/Non-invention);
[F23D14/02](#) [F23D14/46](#) [F23D14/48](#) [F24C1/00](#) [F24C15/00](#) [F24C15/10](#) [F24C3/00](#)
[F24C3/08](#) (Core/Invention);
[F24C3/00](#) (Core/Non-invention)

CPC: [A47J36/36](#) [A47J36/34](#) [A47J37/0652](#) [F23H13/00](#) [F24B1/192](#) [F24C15/101](#) [F24C15/36](#)
[Y02B40/166](#) [F24C15/107](#)

European class: [F24C15/10D](#)

US class: [126/211](#) [126/214D](#) [126/215](#) [126/216](#) [126/22](#) [126/39.00ES](#) [126/39.00KP](#) [126/39.00RP](#)
[126/39E](#) [126/39K](#) [126/39R](#) [126/40](#) [126/50](#)

[Classification Explorer](#)

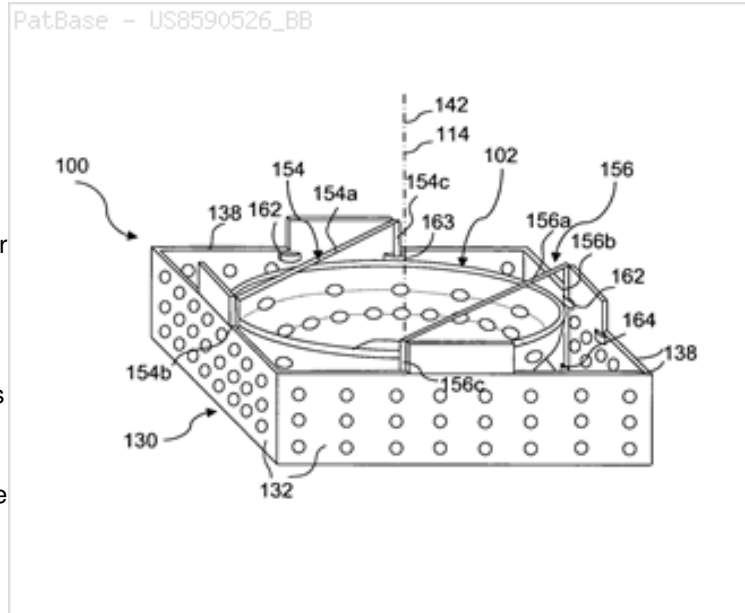
Cited documents: USD220150 S1, US936482 A, US7246614 BB, US6851420 BB, US6851419 BB, US6619280, US6505621 BB, US6244263 BA, US6146132 A, US6132205 A, US6093018 A, US6078029 A, US5797386 A, US5649822 A, US5490778 A, US5323759 A, US5201306 A, US5002039 A, US4968246 A, US4909235 A, US4850335 A, US4794906 A, US4705021 A, US4620526 A, US4448186 A, US4337752 A, US3658049 A, US3625196 A, US3187742 A, US2910930 A, US2327807 A, US2166442 A, US2009078247 AA, US2008302353 AA, US2006065264 AA, US2005115556 AA, US2005109330 AA, US2004250807 AA, US2004045542 AA, US1485292 A, US1159087 A, US1156087 A, US1091649 A, US1072115 A, JP6122111, GB2434438, CN87212558, CN2872146 Y, CN2795701, CN2731314, CN2454679, CN2292237 Y, CN201555220,

CN201344574 Y, CN201203104 Y, CN1815085, CN1409047, CN1246599, CN101440972 A, CN101285598,

Forward Citations: WO15153224, WO15108425, WO15049551, WO14174228, WO13106892, WO10132889, USD734974, USD728308, USD680371, USD667257, USD651851, USD645298, USD645297, USD645296, USD644874, USD644868, US9593854, US9523498, US9506656, US9488383, US9194578, US9138098, US9097436, US8951041, US8590526, US7694671, US2014345591, US2014106288, US2013087137, US2011311928, US2011297137, US2011232628, US2010154778, US2010024796, GB2495723, GB2482843, CN104819490, CN103292580, CN102421338, CN102141255, CN101818896,

Abstract:

Source: US2008302353A A flame heat regulating apparatus for a cooktop of a gas stove, comprising an inner hollow shell and an outer wall which are both placed onto the stove cooktop. The shell further positioned to surround a gas burner is arcuate in shape, having a smaller sized bottom side and a larger sized top side. A plurality of air passages are through the shell, wherein the air passages are more densely distributed onto a lower part of the shell, as compared with the air passages which are less densely distributed onto an upper part of the shell. The outer wall further positioned to surround the shell is comprised of a plurality of air passages which are evenly distributed therethrough. In addition, a plurality of extensions projecting upwardly are spaced on a top side of the wall to support a cookware. Application of the flame heat regulating apparatus enables increase of heating efficiency of the flame in cooking, and prevents undesirable heating of a handle of the cookware.



19) Family number: 32360599 (US2005235838A)

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Title: APPARATUS AND METHOD FOR BARRIER SUBMERSION COOKING

Priority: US20040709273 20040426 US20060821062P 20060801 US20070830957 20070731
 US20080194296 20080819 WO2007US74848 20070731 US20120345145 20120106
 US20090433946 20090501 US20070884897P 20070115

Family:	Publication number	Publication date	Application number	Application date
	CA2658702 AA	20090122	CA20072658702	20070731
	CA2658702 C	20131210	CA20072658702	20070731
	EP2046175 A2	20090415	EP20070799938	20070731
	US2005235838 AA	20051027	US20040709273	20040426
	US2008220134 AA	20080911	US20070830957	20070731
	US2008295706 AA	20081204	US20080194296	20080819
	US2009232952 AA	20090917	US20090433946	20090501
	US2012152128 AA	20120621	US20120345145	20120106
	US7543530 BB	20090609	US20070830957	20070731
	US8342081 BB	20130101	US20090433946	20090501
	US8453563 BB	20130604	US20120345145	20120106
	WO08016918 A2	20080207	WO2007US74848	20070731
	WO08016918 A3	20080403	WO2007US74848	20070731

Probable Assignee: B S C TECHNOLOGIES INC

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Inventor(s): SUCHECKI J

Agent(s): GOWLING LAFLEUR HENDERSON LLP; MOORE CHRISTOPHER MARK ET AL;
 MITCHELL A SMOLOW; CAESAR RIVISE BERNSTEIN COHEN AND POKOTILOW LTD;
 SMOLOW MITCHELL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM
 CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM
 GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK
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 NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ
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International class [A23L1/01](#) [A23L1/48](#) [A23L35/00](#) [A23P1/00](#) [A47F7/00](#) [A47J27/10](#) [A47J36/02](#) [A47J36/16](#)
^{(IPC 8-9):} [A47J37/00](#) [A47J37/12](#) [A47J43/28](#) [B65D33/01](#) [B65D33/14](#) [B65D81/34](#) (Advanced/Invention);
[A23L1/01](#) [A23L1/48](#) [A23P1/00](#) [A47F7/00](#) [A47J27/10](#) [A47J36/00](#) [A47J36/02](#) [A47J37/00](#)
[A47J37/12](#) [A47J43/00](#) [B65D33/01](#) [B65D33/14](#) [B65D81/34](#) (Core/Invention)

International class [A23P1/00](#)
^{(IPC 1-7):}

CPC: [A23L5/11](#) [A23L5/12](#) [A23L5/15](#) [A47J37/1295](#) [A47J36/16](#)

European class: [A23L1/01B](#) [A23L1/01B2](#) [A23L1/01F](#) [A47J36/16](#) [A47J37/12P](#)

US class: [211/85.4](#) [211/85.400S](#) [383/103](#) [383/103S](#) [426/395](#) [426/395P](#) [426/412](#) [426/412P](#) [99/403](#)
[99/403S](#) [99/407](#) [99/407S](#) [99/410](#) [99/414](#) [99/416](#) [99/416P](#) [99/416S](#) [99/426](#) [99/450](#) [99/450S](#)

[Classification Explorer](#)

Cited documents: WO08016918 A2, USD394371 S1, USD236414 S1, US869690 A, US7543530 BB,
 US7040219 BA, US6884978 BB, US6048558 A, US5994672 A, US5988048 A,
 US5937743 A, US5871790 A, US5865103 A, US5814382 A, US5613423 A, US5431092
 A, US5407611 A, US5359924 A, US5223286 A, US5086924 A, US5079020 A,
 US4894247 A, US4873919 A, US4762056 A, US4542685 A, US4508027 A, US4499817
 A, US4462915 A, US44445428 A, US4412482 A, US4232596 A, US4215629 A,

US4211158 A, US3946654 A, US3935810 A, US3908534 A, US3891775 A, US3858496 A, US3819089 A, US374909 A, US3716369 A, US3658562 A, US3607312 A, US3578239 A, US3532225 A, US3531300 A, US3236196 A, US2912336 A, US2659362 A, US2323623 A, US2244193 A, US2204699 A, US2008199579 AA, US2007134382 AA, US2005235838 AA, US2004252921 AA, US2004115318 AA, US2003021870 AA, US1622081 A, JP11046698 A2,

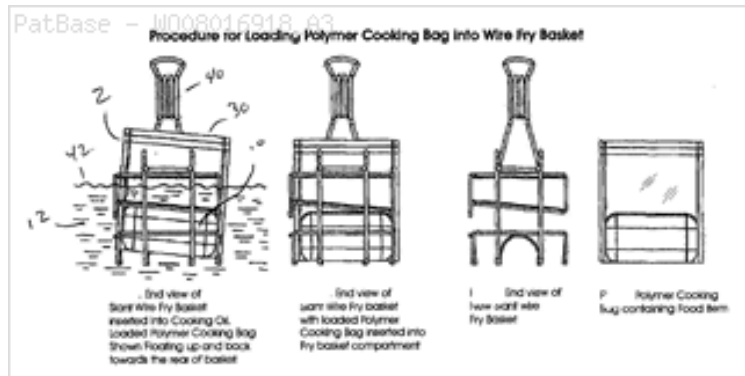
Forward Citations:

WO08016918, WO08016918, USD763636, USD741640, USD702084, USD694057, USD691845, USD690553, USD686869, USD677972, USD676705, USD665221, USD620306, USD620305, USD613108, USD597371, USD596893, US9504356, US8850965, US8847123, US8707857, US8684600, US8596189, US8500870, US8460729, US8453563, US8342081, US8309151, US8186265, US7754261, US7543530, US2016278567, US2016081372, US2015272371, US2015197388, US2014007780, US2012137886, US2012085245, US2011235951, US2010224081, US2010071567, US2009232952, US2008295706, US2008220134, US2007256571, US2007253646, US2007212469, US2005279224, JP2013063277, EP2008556,

Abstract:

Source: US2005235838A A method and apparatus for placing a food item into a cooking vessel fabricated from a material with an effective heat transfer rate that will cause the temperature of the interior vessel wall to achieve effective frying temperature substantially instantaneously after placement into hot cooking oil. The vessel is effectively dimensioned so that it can be placed into the hot oil of the deep fryer while a vent remains above the top surface of the oil. A food item is inserted into the cooking vessel to fit snugly into a food containment area of the vessel such that it intimately contacts the interior

vessel walls. Using a rack, the vessel is lowered into the deep fryer's hot oil to an effective depth such that the food item containment area is below the surface of the oil while the vent remains above the top level of the hot oil. Due to the high heat transfer characteristics inherent in the vessel, heat is substantially instantaneously transferred from the hot oil through the cooking vessel to the food item contained within, causing the food item to start frying substantially immediately. Steam and hot vapors omitted from the food during the frying process escape through the vent opening of the cooking vessel.



0) US2006076281A – DEVICE FOR CONTINUOUSLY FILTERING DEEP FAT FRYE...

20) Family number: 32813276 (US2006076281A)

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Title: DEVICE FOR CONTINUOUSLY FILTERING DEEP FAT FRYER OIL

Priority: CA20052511845 20050704 FR20040010594 20041007

Family:	Publication number	Publication date	Application number	Application date
	CA2511845 AA	20060407	CA20052511845	20050704
	EP1645217 A1	20060412	EP20050356107	20050615
	FR2876263 A1	20060414	FR20040010594	20041007
	FR2876263 B1	20061201	FR20040010594	20041007
	US2006076281 AA	20060413	US20050168871	20050629

Probable Assignee: MORICE EQUIPEMENT

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Inventor(s):^(std): ALDEGUER RENE

Agent(s): ROBIC; OLIFF AND BERRIDGE PLC

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

International class
^(IPC 8-9): [A47J37/12 B01D29/56 B01D35/00 B01D35/02 B01D35/027 B01D35/26](#) (Advanced/Invention);
[A47J37/12 B01D29/50 B01D35/00](#) (Core/Invention)

CPC: [A47J37/1223](#)

European class: [A47J37/12D](#)

US class: [210/167 210/167.28 210/416.5 210/DIG.008 210/DIG.8](#)

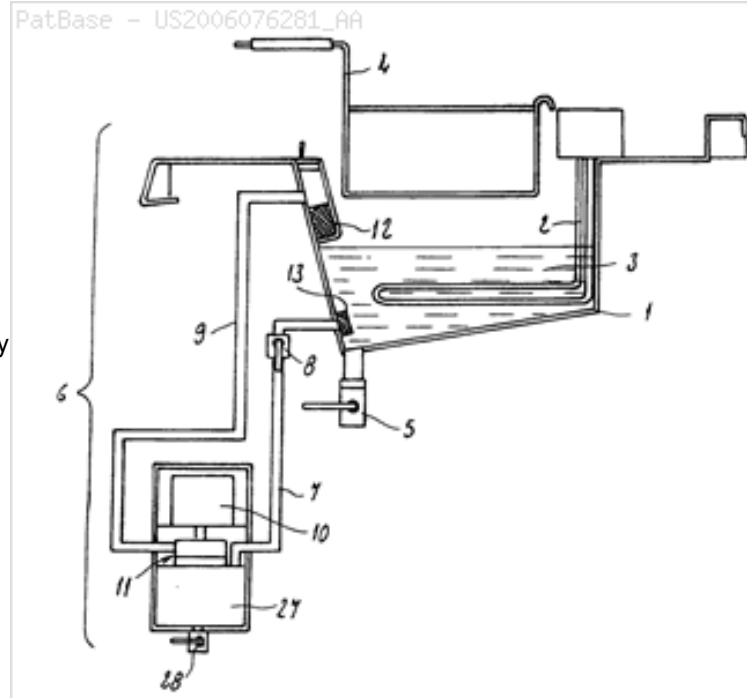
[Classification Explorer](#)

Cited documents: US6470794 BB, US6235210 BA, US5680811 A, US5404799 A, US4945893 A, US4328097 A, US4195667 A, US3685433 A, US3667374 A, US2652767 A, US2578129 A, US2477404 A, FR2846218 A1,

Forward Citations: US9532681, US8828223, US7686952, US7566468, US2008196596, US2007170109,

Abstract:

Source: US2006076281A For a deep fat fryer comprising a vat containing a bath of heated oil, there is provided a built-in device for filtering the oil, including means for collecting the oil contained in the vat, and means for pumping, for filtering and for recirculating this oil to the vat. The filtering device comprises, on the one hand, a filtering unit situated in the upper part of the vat of the deep fat fryer, in a readily accessible location, at the downstream end of the recirculating means and, on the other hand, arranged inside the cabinet of the deep fat fryer, a motor and a pump, particularly a rotary pump, driven by the motor. The invention applies to industrial or commercial deep fat fryers.



21) Family number: 31002790 (US2004188340A)

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Title: APPARATUS FOR SEPARATING PARTICULATES FROM A SUSPENSION, AND USES THEREOF

Priority: CA20042517440 20040325 CA20042783179 20040325 US20030458520 20030328
 JP20060509261 20040325 US20030458520P 20030328 CA20122517440 20120731
 US20050293757 20051202 US20050721836P 20050928 US20050727481P 20051017
 US20030717076 20031118 US20030716839 20031118 US20040954691 20040929
 US20030716837 20031118 US20040957540 20040930 US20060529825 20060929
 US20080037914 20080226 US20050727491P 20051017 US20060778034P 20060228
 US20060812275P 20060609 US20060840207P 20060825 US20080140899 20080617
 WO2006US38024 20060929 WO2004US09037 20040325 WO2009US35258 20090226
 WO2005US34881 20050922 US20110213454 20110819 WO2005US34880 20050922
 US20140462493 20140818

Family:

Publication number	Publication date	Application number	Application date
AR043944 AA	20050817	AR2004P101030	20040329
AR052014 AA	20070228	AR2005P104103	20050929
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AR057141 AA	20071121	AR2006P104263	20060928
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AU2004225961 BB	20100218	AU20040225961	20040325
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AU2006303016 BB	20130328	AU20060303016	20060929
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BRPI0408894 A	20060613	BR2004PI08894	20040325
BRPI0515959 A	20080812	BR2005PI15959	20050922
BRPI0516864 A	20080923	BR2005PI16864	20050922
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CA2517440 AA	20050826	CA20042517440	20040325
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CA2753534 AA	20110824	CA20092753534	20090226
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CA2783179 C	20150106	CA20042783179	20040325
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CL2005002531 A1	20060929	CL20050002531	20050929
CL2005002532 A1	20060929	CL20050002532	20050929
CL2006002608 A1	20080222	CL20060002608	20060928
CN101068906 A	20071107	CN200580041172	20050922
CN101379009 A	20090304	CN200580040897	20050922
CN101578234 A	20091111	CN200680047538	20060929
CN102015583 A	20110413	CN200980114820	20090226
CN1871190 A	20061129	CN200480013665	20040325

<u>EP1615862 A2</u>	20060118	EP20040758275	20040325
<u>EP1615862 A4</u>	20110615	EP20040758275	20040325
<u>EP1797023 A2</u>	20070620	EP20050803185	20050922
<u>EP1797023 A4</u>	20110803	EP20050803185	20050922
<u>EP1799793 A2</u>	20070627	EP20050802984	20050922
<u>EP1951618 A2</u>	20080806	EP20060815770	20060929
<u>EP1951618 A4</u>	20091118	EP20060815770	20060929
<u>EP2257510 A1</u>	20101208	EP20090714171	20090226
<u>EP2257510 A4</u>	20110928	EP20090714171	20090226
<u>HK1086815 A3</u>	20060929	HK20060108074	20060718
<u>HK1106788 A3</u>	20080320	HK20070114062	20071224
<u>HK1121733 A3</u>	20090430	HK20090100901	20090202
<u>HK1156596 A3</u>	20120615	HK20110110760	20111011
<u>IL171084 A1</u>	20121129	IL20040171084	20040325
<u>IL182448 A0</u>	20090211	IL20050182448	20050922
<u>IL182449 A0</u>	20090211	IL20050182449	20050922
<u>IL190911 A0</u>	20081103	IL20060190911	20060929
<u>IN01810CN2007 A</u>	20070928	IN2007CN01810	20070430
<u>IN01832CN2007 A</u>	20070831	IN2007CN01832	20070430
<u>IN02440CN2008 A</u>	20090306	IN2008CN02440	20080516
<u>IN02781CN2005 A</u>	20070831	IN2005CN02781	20051027
<u>IN03485CN2007 A</u>	20080627	IN2007CN03485	20070809
<u>IN05989CN2010 A</u>	20110429	IN2010CN05989	20100923
<u>IN223477 B</u>	20081121	IN2005CN02781	20051027
<u>JP2007524498 T2</u>	20070830	JP20060509261T	20040325
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<u>JP2011515509 T2</u>	20110519	JP20100547871T	20090226
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<u>JP5036303 B2</u>	20120926	JP20060509261T	20040325
<u>JP5486767 B2</u>	20140507	JP20070534738T	20050922
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<u>KR20070058673 A</u>	20070608	KR20077009628	20070427
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<u>KR20080064866 A</u>	20080709	KR20087011765	20060929
<u>KR20100122103 A</u>	20101119	KR20107021528	20090226
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<u>MX2007003898 A1</u>	20070607	MX20070003898	20050922
<u>MX336111 B</u>	20160108	MX20080005026	20060929
<u>MXPA05010366 A1</u>	20060308	MX2005PA10366	20040325
<u>NO20054596 A</u>	20051223	NO20050004596	20051006
<u>NO20054596 A0</u>	20051006	NO20050004596	20051006
<u>NO20071923 A</u>	20070621	NO20070001923	20070416
<u>NO20071925 A</u>	20070621	NO20070001925	20070416
<u>NO20081895 A</u>	20080708	NO20080001895	20080422
<u>NZ588214 A</u>	20121026	NZ20090588214	20090226
<u>PA8599201 A1</u>	20041008	PA20040085992	20040326

<u>PE07802006 A1</u>	20060918	PE20050001156	20050929
<u>PE07812006 A1</u>	20060915	PE20050001157	20050929
<u>PE08602007 A1</u>	20070904	PE20060001253	20061016
<u>PE10232004 A1</u>	20050210	PE20040000325	20040326
<u>RU2005133203 A</u>	20060810	RU20050133203	20040325
<u>RU2007116133 A</u>	20081110	RU20070116133	20050922
<u>RU2007116134 A</u>	20081110	RU20070116134	20050922
<u>TH70435 A</u>	20050907	TH20041001089	20040326
<u>TW200505839 A</u>	20050216	TW20040108415	20040326
<u>TW200626228 A</u>	20060801	TW20050133566	20050927
<u>TW200628600 A</u>	20060816	TW20050133564	20050927
<u>TW200732467 A</u>	20070901	TW20060136026	20060928
<u>US2004188340 AA</u>	20040930	US20030716837	20031118
<u>US2004192980 AA</u>	20040930	US20030717076	20031118
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<u>WO04087619 A2</u>	20041014	WO2004US09037	20040325
<u>WO04087619 A3</u>	20060413	WO2004US09037	20040325
<u>WO06039354 A2</u>	20060413	WO2005US34880	20050922
<u>WO06039354 A3</u>	20061005	WO2005US34880	20050922
<u>WO06039355 A2</u>	20060413	WO2005US34881	20050922
<u>WO06039355 A3</u>	20081030	WO2005US34881	20050922
<u>WO07046858 A1</u>	20070426	WO2006US14867	20060420
<u>WO07047063 A2</u>	20070426	WO2006US38024	20060929
<u>WO07047063 A3</u>	20090409	WO2006US38024	20060929
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<u>ZA201006788 A</u>	20120125	ZA20100006788	20100922

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Inventor(s): TERRY NADAMS BRIAN SAPPAL JAMES HFREISS ; ADAMS TERRY ; CARNESI MICHAEL ; APPEL BRIAN ; EINFELDT CRAIG ; LANGE WILLIAM ; FREISS JAMES ; ROBERTS MICHAEL ; TERRY NADAMS ; WILLIAM FLANGE ; WILLIAM F LANGE ; ROBERTS MICHAEL JUS ; SHANNON M JONES ; MICHAEL J ROBERTS ; LANGE WILLIAM FUS ; MICHAEL CHARLES ; FREISS JAMES HUS ; JAMES HFREISS ; JONES SHANNON ; EINFELDT CRAIG TIMOTHYUS ; CRAIG T EINFELDT ; CRAIG TEINFELDT ; CARNESI MICHAEL CHARLESUS ; BRIAN SAPPAL ; APPEL BRIAN SUS ; APPEL BRIAN S ADAMS TERRY N ROBERTS MICHAEL J LANG ; ADAMS TERRY NUS

Agent(s): PHILLIPS ORMONDE FITZPATRICK; BCF LLP; OSLER HOSKIN AND HARCOURT LLP; VILLASECA; NAISMITH ROBERT STEWART ET AL; SHANKS ANDREW; PEARL COHEN ZEDEK LATZER BARATZ; MORGAN LEWIS AND BOCKIUS LLP; BRETT L NELSON EASTMAN CHEMICAL CO; MORGAN LEWIS AND BOCKIUS LLP (SF); DOWNS RACHLIN MARTIN PLLC; KOHLER THOMAS D

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TZ UA US UG UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): B09B3/00 C10G1/10 C10L3/00 C10L5/40 A01C3/00 A23K1/00 A23K1/175 A23L1/00 B01D3/00 B01D3/06 B01D3/14 B01D5/00 B01D53/00 B01D53/86 B01D63/16 B01J10/00 B01J19/00 B01J19/18 B01J3/00 B04B5/12 B09C1/02 B09C1/08 B29B17/00 C01B31/02 C01B7/00 C01B7/19 C01G1/00 C02F1/68 C02F1/70 C02F11/00 C02F11/08 C02F11/10 C02F11/18 C05B17/00 C05F1/00 C05F11/00 C05F17/00 C05F17/02 C05F3/00 C05F5/00 C05F7/00 C05F9/00 C05G1/00 C05G3/00 C07C1/00 C07C1/20 C07C4/00 C07C7/00 C07C9/00 C07H15/04 C07H15/06 C07H5/04 C07H5/06 C08J11/10 C10B1/00 C10B35/00 C10B47/00 C10B53/00 C10B53/02 C10B53/07 C10B7/10 C10G1/00 C10G1/02 C10G1/04 C10G1/06 C10G3/00 C10G45/00 C10G9/00 C10L1/00 C10L1/02 C10L1/04 C10L3/06 C10L5/00 C11B13/00 C11B13/04 C11B3/00 (Advanced/Invention); B01D63/00 B09B3/00 C02F1/38 C02F103/20 C02F103/22 C02F11/10 C02F11/12 C05F1/00 C05F3/00 C05F7/00 C05F9/00 C07C1/00 C07H15/04 C07H15/06 C10G1/00 C10G1/06 C10G1/10 C10G3/00 C10L1/04 (Advanced/Non-invention); A23K1/00 A23K1/175 A23L1/00 B01D53/00 B01D53/86 B09B3/00 B29B17/00 C01B7/00 C02F11/00 C02F11/06 C02F11/10 C05B17/00 C05F1/00 C05F11/00 C05F3/00 C05F5/00 C05F7/00 C05F9/00 C05G1/00 C07C1/00 C07H15/00 C07H5/00 C08J11/00 C10B53/00 C10B53/07 C10G1/00 C10G45/00 C10L1/00 C10L3/00 C10L5/40 C11B13/00 (Core/Invention); C05F1/00 C05F3/00 C05F7/00 (Core/Non-invention); C01B C05G C07C C10G C10L (Subclass/Invention)

International class
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European class: A61L11/00 B01D3/00R B01D3/06 B01D3/14B4 B01D5/00F10 B01D63/16 B01J19/18 B01J19/20 B03B9/06 B04B5/12 C02F11/18 C05B17/00 C05F1/00 C05F1/00D C05F3/00 C07H5/06 C10B53/00 C10B53/02 C10B53/07 C10G1/00 C10G1/00B C10G1/02 C10G1/04E C10G1/04W C10G1/10 C10G3/00 C10G9/00L C10L1/00 C10L1/04 C10L3/12 C10L5/40 L01J219/00A2B L01J219/00B2D2D L01J219/00D2D M02F1/02 M02F1/04

M02F1/38 M02F1/44 M02F103/20 M02F103/22 M02F103/28 M02F103/32B M02F103/36
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US class:

201/21 201/25 201/25S 202/118 202/26 202/260 202/260S 202/262 202/262S 202/96
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585/1S 585/240 585/240P 585/240S 585/241 585/241P 585/242 585/310 585/310S
585/469 585/638 585/733 585/800 585/800S

Classification Explorer

Cited documents:

WO9521903 A1, WO9406721 A1, WO09108761 A1, WO08073186 A2, WO04087619 A2,
WO0013811 A1, US8003833 BB, US7771699 BB, US7692050 BB, US7476296 BB,
US7301060 BB, US7179379 BB, US7094746 BB, US7049433 BB, US6972284 BB,
US6905600 BB, US6822126 BB, US6699708 BA, US6693188 BB, US6548560 BA,
US6504068 BA, US6465707 BA, US6440223 BA, US6387221 BA, US6197081 BA,
US6180845 BA, US6180845 B1, US6172275 BA, US6172275 B1, US5891926 A,
US5888307 A, US5852062 A, US5817282 A, US5711235 A, US5685153 A, US5639934
A, US5636580 A, US5609113 A, US5608136 A, US5543061 A, US5498827 A,
US5485728 A, US5466383 A, US5425925 A, US5389258 A, US5387267 A, US5360553
A, US5359061 A, US5269947 A, US5221357 A, US4983278 A, US4981579 A,
US4980029 A, US4971703 A, US4961579 A, US4950309 A, US4941952 A, US4938976
A, US4938876 A, US4935038 A, US4923604 A, US4897205 A, US4891459 A,
US4871462 A, US4871426 A, US4842728 A, US4842692 A, US4795841 A, US4755300
A, US4657681 A, US4636318 A, US4618735 A, US4578163 A, US4552621 A,
US4515659 A, US4510038 A, US4439209 A, US4364745 A, US4344770 A, US4321151
A, US4321150 A, US4298621 A, US4289625 A, US4280817 A, US4271326 A,
US4260473 A, US4192734 A, US4164396 A, US4118281 A, US4113185 A, US4094740
A, US4093516 A, US4089773 A, US4057401 A, US4054590 A, US4010098 A,
US4002438 A, US3946679 A, US3933620 A, US3838199 A, US3733255 A, US3704108
A, US3558426 A, US2884411 A, US2011306808 AA, US2009062581 AA, US2007098625
AA, US2006231510 AA, US2006172392 AA, US2006004237 AA, US2005113611 AA,
US2004192981 AA, US2004192980 AA, US2004077055 AA, US2003212851 AA,
US2003153797 AA, US2003148998 AA, US2003121851 AA, US2002185447 AA,
US2002010222 AA, SU727152 T, SU727152 D, SU1087077 D, RU727152, RU2185892
C2, RU2169075 C2, RU2022666 C1, KR20080064866 A, KR20070058673 A,
JPS5369455, JP9201590 A2, JP8501492 T2, JP59047292 A2, JP59047292, JP58156023
A2, JP58156023, JP53069455 A2, JP53049855 A2, JP2002018393 A2, JP2001137812
A2, EP1117463 B1, EP0204354 A1, DE4313123 A1, CN1392224 A, CA1093102 A1,

Forward Citations:

WO16209741, WO16190759, WO16079361, WO15094436, WO15084192, WO15069845,
WO14027059, WO13185778, WO13185777, WO13158438, WO13151220, WO13133868,
WO13111935, WO13088267, WO13086294, WO13049918, WO13015819, WO12167793,
WO12167792, WO12167791, WO12167789, WO12167252, WO12149590, WO12117319,
WO12031356, WO12031356, WO12011800, WO12010223, WO1149774, WO11133615,
WO11123145, WO11014686, WO11012439, WO10151361, WO10149137, WO10149137,
WO10136850, WO10077961, WO10077961, WO10011671, WO10002885, WO10002885,
WO09142784, WO09108761, WO09108601, WO09108601, WO09108599, WO09108599,
WO09032634, WO08137473, WO08137469, WO08115777, WO08103204, WO08103204,
WO08092557, WO08092557, WO08020046, WO08020046, WO07075785, WO07047063,
WO07047063, WO07016504, WO06116658, WO06080994, WO04087619, WO04087619,
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ITMI20110333, GB2458271, ES2526716, EP3059295, EP2942433, EP2791349,
EP2697239, EP2697239, EP2582835, EP2582835, EP2551025, EP2551025,
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AU2011240449, AU2009249565, AU2006303016, AP3791,

Abstract:

Source: US2004188340A The present invention includes an apparatus for separating particulates from a fluid in a suspension, comprising: a housing defining a frusto-conically shaped inner chamber with an inner wall, an inlet and a first outlet communicating with the chamber, and a second outlet; and a spinning assembly with a hollow interior mounted in the chamber, the assembly being shaped to define an annular gap with the chamber inner wall, the hollow interior communicating with the second outlet, and the hollow interior communicating with the annular gap for flow of fluid materials from the gap into the interior and out of the second outlet in response to rotation of the spinning assembly. The separator finds application in the preparation of waste products such as municipal sewage sludge for processes that produce useful materials including gas, oil, specialty chemicals, fertilizer, and carbon solids, in reliable purities and compositions, and with high energy efficiency.

PatBase - W009108761_A9

W0 2009/108761

REPLACEMENT SHEET

PCT/US2009/015259

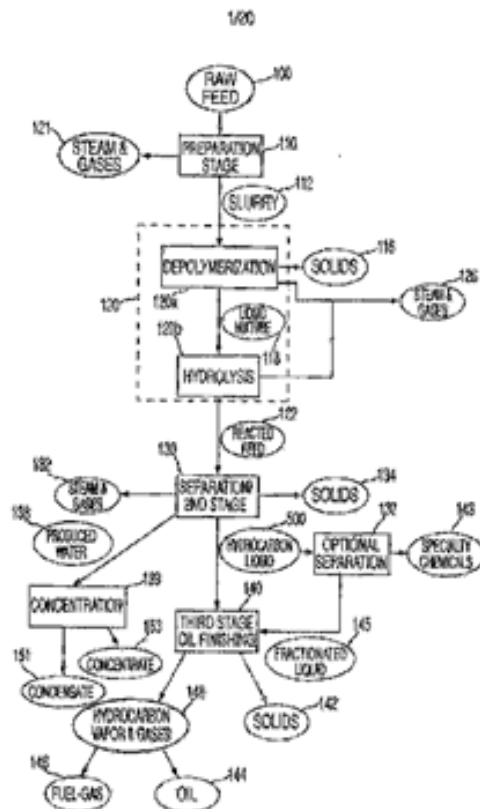


FIG. 1

SUBSTITUTE SHEET (RULE 26)

0) DE2931859A1 – ELEKTRISCHES FRITIERGERAET COUNTER TOP ELECTRIC...

22) Family number: 1816571 (DE2931859A1)

© PatBase

Title: ELEKTRISCHES FRITIERGERAET COUNTER TOP ELECTRIC DEEP FRYER – HAS SIDE ATTACHMENTS PROVIDING HANDLES, HINGE MOUNTINGS FOR COVER AND BASKET AND HOUSING CONTROL CIRCUIT

Priority: DE19792931859 19790806

Publication number	Publication date	Application number	Application date
<u>DE2931859 A1</u>	19810226	DE19792931859	19790806

Probable Assignee: KRUPS ROBERT FA

Assignee(s):^(std): KRUPS FA ROBERT ; KRUPS ROBERT FA

Assignee(s): FA ROBERT KRUPS ; FAROBER T KRUPS

Inventor(s):^(std): BEANTRAGT NICHTNENNUNG

International class
^(IPC 8-9): A47J36/18 A47J36/38 A47J37/12 ^(Advanced/Invention);
A47J36/00 A47J37/12 ^(Core/Invention)

International class
^(IPC 1-7): A47J37/12

CPC: A47J36/18 A47J36/38 A47J37/1209

European class: A47J36/18 A47J36/38 A47J37/12A1

[Classification Explorer](#)

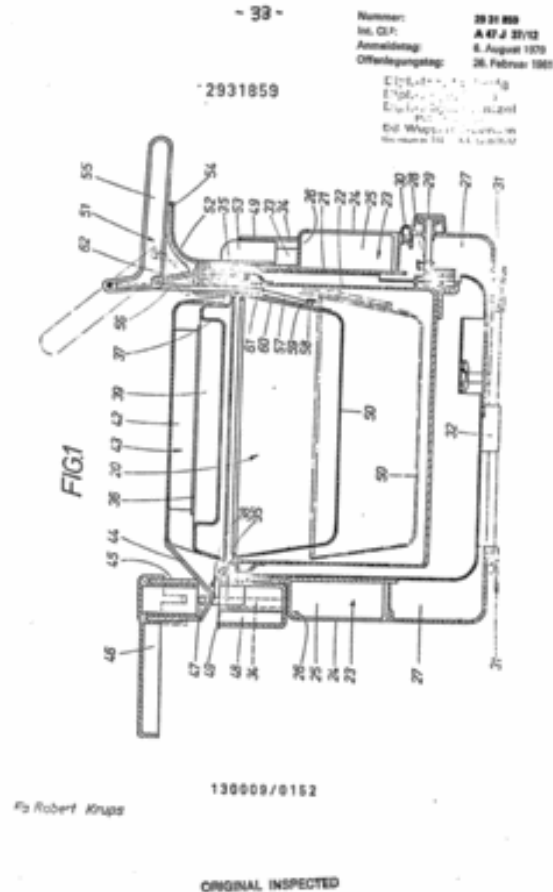
Forward Citations: WO8403427, WO0048497, US4636618, FR2789876, FR2551645, FR2473868, EP1561408, EP1152681, EP0145511, EP0037562, DE3150455,

Abstract:

Source: DE2931859A1 Kennwort: "Friteuse"

Ansprueche Elektrisches Fritiergeraet mit einem topfartigen, eine Heizeinrichtung aufweisenden Behaelter mit einem den Behaelter verschliessenden Deckel mit einem in den Behaelter einsetzbaren Fritierkorb und mit an der Behaelteraussenwand an zwei gegenueberliegenden Seiten angeordneten Handgrifcn, d a d u r c h g e k e n n z e i c h n e t, dass die Handgriffe (24) als axial des topfartigen Behaelters (21) verlaufende Ansaetze (23) ausgebildet sind, die eine Griffmulde (25) und eine zur Aufnahme der die Heizeinrichtung steuernden elektrischen und elektronischen Bauteile (2) bestimmte Kammer (27) aufweisen 2. The deep-fryer has a deeply dished container incorporating an electric heating element, a cover and a frying basket, which fits into the container. The latter has two axial attachments at diametrically opposite points, providing handles for lifting the container and also defining a chamber for housing the electric and electronic control circuit for the heating element. Pref. the handles are formed by cylindrical radial recesses, their inner cylindrical surfaces having rear cut-outs at the side adjacent the container opening. The axial attachments may also have a hooked nose near the base of the container, to allow the lead cable to be wound round them during storage and the frying basket is pref. hinged to the top of one attachment and the cover hinged to the top of the other.

PatBase - DE2931859_A1



23) Family number: 11641759 (US5333539A)

© PatBase

Title: MICROWAVE ENHANCED DEEP FAT FRYER
Priority: US19900494588 19900316 US19920893591 19920602 US19930150279 19931110
 US19930118122 19930907

Family:	Publication number	Publication date	Application number	Application date
	<u>US5333539 A</u>	19940802	US19930150279	19931110
	<u>US5363749 A</u>	19941115	US19930118122	19930907

Probable Assignee: TECOGEN INC

Assignee(s):^(std): TECOGEN INC

Inventor(s):^(std): CHILDS PAUL J ; HURLEY JAMES R ; NORMAN TIMOTHY J

International class
^{(IPC 8-9):} A23L1/01 A23L5/10 A47J37/12 H05B6/70 H05B6/72 H05B6/76 H05B6/80 (Advanced/Invention);
A23L1/01 A47J37/12 H05B6/70 H05B6/72 H05B6/76 H05B6/80 (Core/Invention)

International class
^{(IPC 1-7):} A23L1/025 A47J37/12

CPC: Y10S99/14 H05B6/76 A47J37/1271 A47J37/1295 H05B6/70 H05B6/72 A23L5/11
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European class: A23L1/01B A23L1/01F A47J37/12L A47J37/12P H05B6/70 H05B6/72 H05B6/76
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[Classification Explorer](#)

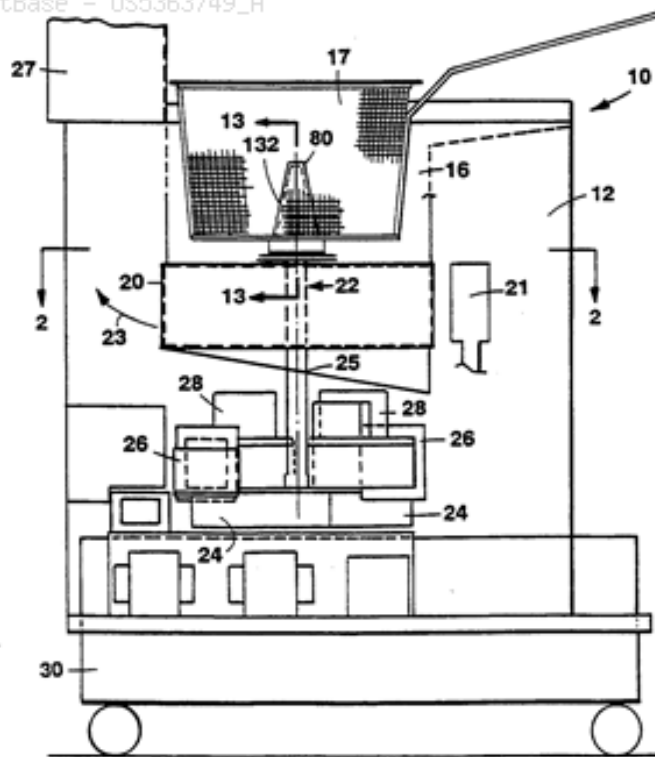
Cited documents: US5052369 A, US4945893 A, US4859822 A, US4831224 A, US4704290 A, US4593170 A, US4580024 A, US4571473 A, US4510361 A, US4416906 A, US4339326 A, US4332992 A, US4280032 A, US4211909 A, US4114013 A, US4091252 A, US4081647 A, US4041852 A, US4028520 A, US4013861 A, US3789178 A, US3767884 A, US3731038 A, US3375476 A, US3127494 A, US2997566 A, US2906850 A, US2856497 A, US2805314 A, US2714070 A, US2622187 A,

Forward Citations: WO08020912, WO06079464, USRE37706, US8707857, US8229804, US7538303, US7432482, US7053346, US7012574, US5771786, US5697291, US5568765, US5476084, US2010057540, US2009134152, US2008128410, US2007095823, US2006289502, US2006006171, US2005258170, US2004060456, US2004056821, US2003089243, GB2344501, EP1842397, EP0704188, AU673307,

Abstract:

Source: US5333539A A microwave radiation source is introduced into a fry basket within the fry tank of a deep fat fryer to reduce the cooking time of food products within the fry basket. Microwave energy is generated outside the fry tank and coupled into the fry basket by a microwave tuned transition, waveguide and antenna. Microwave chokes seal the basket top cover and microwave antenna to basket interface to confine the microwave energy to the fry basket. An electrical safety interlock prevents generation of microwave energy unless the fry basket is sealed.

PatBase - US5363749_A



24) Family number: 57894530 (CN203970196U)

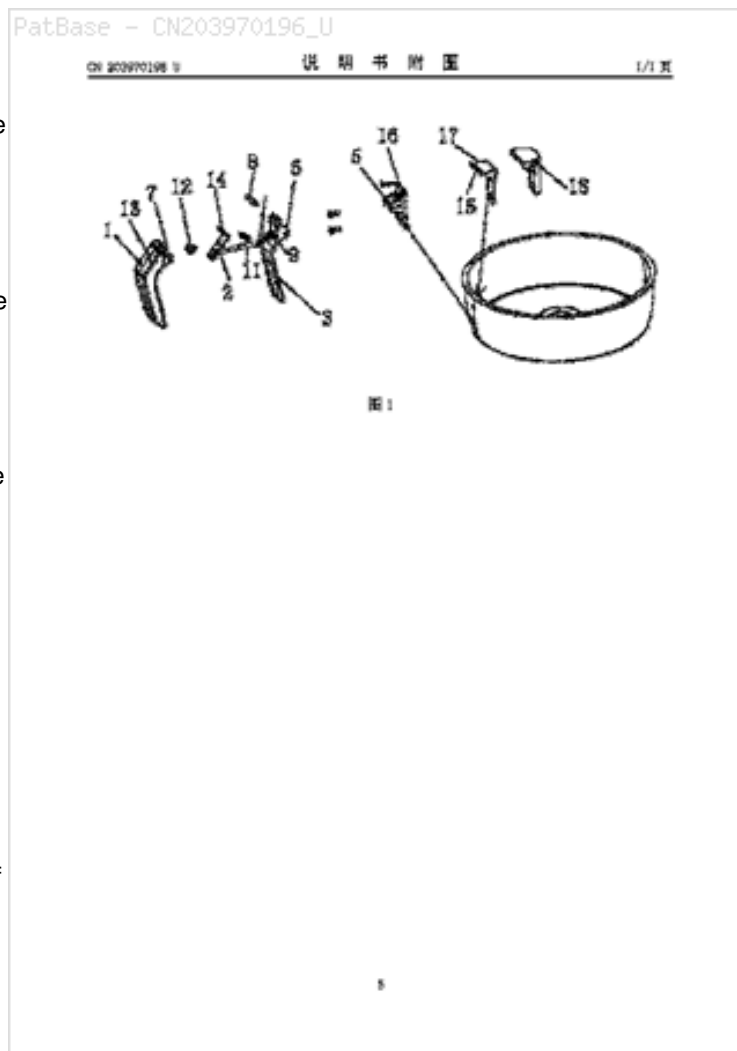
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Title: FRYER BODY HANDLE STRUCTURE OF AIR FRYER**Priority:** CN201420126180U 20140319

Family:	Publication number	Publication date	Application number	Application date
	CN203970196 U	20141203	CN201420126180U	20140319

Probable Assignee: ZHEJIANG WUYI WJL PLASTIC IND CO LTD**Assignee(s):^(std):** ZHEJIANG WUYI WJL PLASTIC IND CO LTD**Assignee(s):** ZHEJIANG WUYI TEN THOUSAND LUNG PLASTIC CO LTD ; ZHEJIANG WUYI WJL PLASTIC IND CO**Inventor(s):^(std):** WANG JIANMIN**International class** A47J45/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN203970196U A fryer body handle structure of an air fryer comprises an upper handle cover, a button plate, a lower handle cover and a handle cover connecting base, the handle cover connecting base is fixedly arranged on the wall face of a fryer body, the upper portion of the handle cover connecting base is higher than the top face of the fryer body, two first pin holes are formed in the position which is higher than the top face of the fryer body and close to the outer wall of the fryer body, two second pin holes are formed in the upper end of the lower handle cover, two third pin holes are formed in the upper end of the upper handle cover, a hinge pin sequentially penetrates through the third pin holes, the second pin holes and the first pin holes from middle to exterior, the upper handle cover and the lower handle cover are in a breaking-angle shape, a spring column and a pin column are arranged on the breaking-angle-shaped upper portion of the lower handle cover, the spring column is sleeved with a spring, the upper end of the spring abuts against the button plate, a positioning hole allowing the pin column to penetrate is formed in the button plate, a button is arranged on the upper portion of the button plate, a clamping hook is arranged at the upper end of the button plate, and a clamping groove matched with the clamping hook is formed in the upper end of the handle cover connecting base. According to the fryer body handle structure, the transverse space of the fryer body can be effectively reduced, the packaging size of the whole fryer is reduced, and the transportation cost is reduced.



25) Family number: 41798728 (US2008110350A)

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Title: ELECTRIC HEATING APPARATUS WITH AN AUTOMATIC ROTATING FOOD BASKET**Priority:** CN200620067665U 20061114

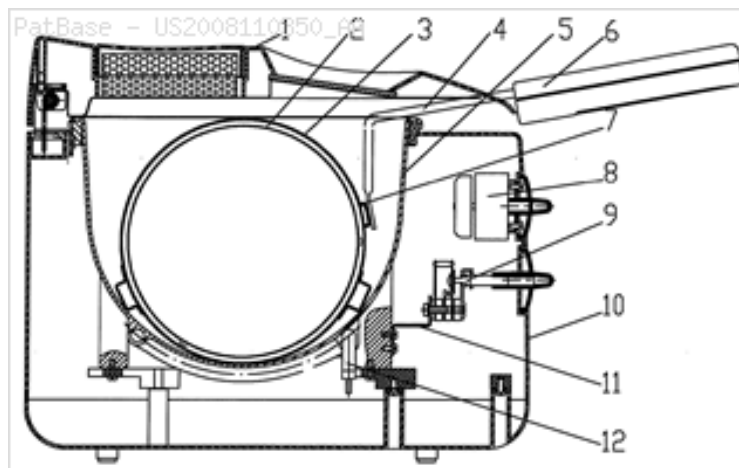
Family:	Publication number	Publication date	Application number	Application date
	CN201205224 Y	20090311	CN200620067665U	20061114
	US2008110350 AA	20080515	US20070938943	20071113

Probable Assignee: DONGLEI WANG**Assignee(s):^(std):** DONGLEI WANG ; WANG DONG LEI**Assignee(s):** WANG DONGLEI**Inventor(s):^(std):** DONGLEI WANG ; WANG DONG LEI**Inventor(s):** WANG DONGLEI**Agent(s):** ALLEN DYER DOPPELT MILBRATH AND GILCHRIST PA

International class [A47J37/12](#) (Advanced/Invention);
 (IPC 8-9): [A47J37/12](#) (Core/Invention)

CPC: [A47J37/1295](#)**European class:** [A47J37/12P](#)**US class:** [99/409](#)[Classification Explorer](#)**Cited documents:** US6834577 BB, US6079319 A, US5543166 A, US5027697 A, US3221566 A, US2705450 A, US2007251517 AA,**Forward Citations:** CN102342761, CN101862136,**Abstract:**

Source: US2008110350A The present invention provides an electric heating apparatus with an automatic rotating food basket. With the present invention, the food basket assembly is suspended inside the fryer body, and the food basket assembly is driven by the rotating mechanism to rotate 360 degrees in the fryer body. Therefore, during the process of frying food, the food and the basket rotate together and the food is immersed fully in the hot oil, which results in even frying with less oil, and more quantity of food can be cooked.



0) ES2158747A – DOMESTIC FRYING PAN FREIDORA DOMESTICA.

26) Family number: 15499535 (ES2158747A)

© PatBase

Title: Domestic frying pan

Priority: ES19980000980 19980511

Family:

Publication number	Publication date	Application number	Application date
ES2158747 AA	20010901	ES19980000980	19980511
ES2158747 BA	20020316	ES19980000980	19980511

Probable Assignee: UNION FABRICANTES ELECTRODOMES

Assignee(s):^(std): UNION FABRICANTES ELECTRODOMES ; UNION FABRICANTES ELECTRODOMESTICOS S A UFESA ; UNION FABRICANTES ELECTRODOMESTICOS UFESA SA

Inventor(s):^(std): VAL LARREDONDA PEDRO ANGEL

International class [A47J37/12](#) (Advanced/Invention);
(IPC 8-9): [A47J37/12](#) (Core/Invention)

International class [A47J37/12](#)
(IPC 1-7):

[Classification Explorer](#)

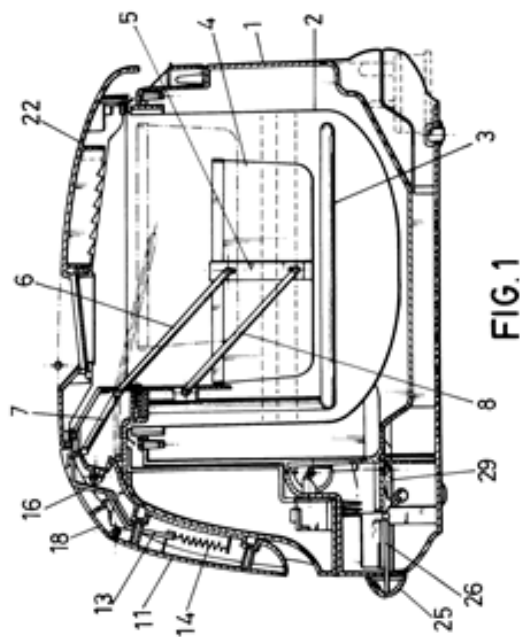
Cited documents: US5746117, FR2701377, FR2701376, EP0891736, EP0149856,

Abstract:

The domestic frying pan comprises a joined and articulated basket (4) with a top brace (6) and an extension (7), and a low brace (8). Both connect to a handle (11) that has angular movement. It is the movement of this handle that raises or lowers the basket (4). The extension (7) of the top brace (6) is directly connected to the main handle (11) in such a way that the basket (4) is lowered and raised by operating the handle. (11). The trigger (13, 15 and 16) is activated by pressing a button (18), which causes the longitudinal movement of the basket, locking or freeing the handle from its horizontal position.

PatBase - ES2158747_BA

ES 2 158 747 B1



27) Family number: 65151905 (US2017071407A)

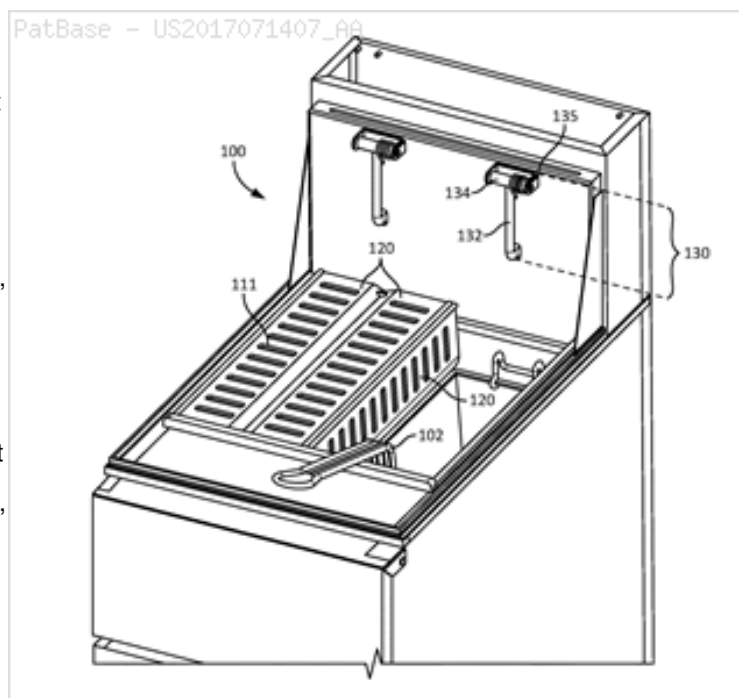
© PatBase

Title: FIRE EXTINGUISHING COVER FOR COOKING SYSTEMS**Priority:** US20130818302P 20130501 US20130889854P 20131013 US20150853714 20150914
US20150821658 20150807 US20140267523 20140501

Family:	Publication number	Publication date	Application number	Application date
	<u>US2017071407 AA</u>	20170316	US20150853714	20150914

Probable Assignee: MILLIKIN RORY CHESLEY PATRICK**Assignee(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**Inventor(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/128 A47J37/1266[Classification Explorer](#)**Abstract:**

Source: US2017071407A Systems, methods and apparatuses for making fryers and deep-fryers safer and/or more energy efficient are disclosed. Different embodiments generally comprise a cover, having a number of flaps, doors or plates that open upwardly or downwardly. Flaps/doors may be solid, perforated or the like. The cover can be maintained in a suitably rigid closed locked position, for example, by a locking mechanism, preventing the basket(s), body parts, or other items from unintentionally being placed in the fryer. In such embodiments, the cover also prevents the loss of heat from the oil. In various embodiments, the cover and/or the door may be maintained in a closed position, though not necessarily locked, preventing heat loss from the oil. In such embodiments, the cover may be vented. In various embodiments, the cover and/or the door may include an attachable or an integrated fire extinguishing mechanism.



28) Family number: 28140238 (US2001054358A)

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Title: FOOD COOKING APPARATUS WITH DRAIN SPIGOT
Priority: US20000593223 20000614 US20010853146 20010510 US20020210944 20020802
 WO2001US19169 20010614

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2376407 AA</u>	20011228	CA20012376407	20010614
	<u>US2001054358 AA</u>	20011227	US20010853146	20010510
	<u>US2003003209 AA</u>	20030102	US20020210944	20020802
	<u>US6269737 BA</u>	20010807	US20000593223	20000614
	<u>US6446545 BB</u>	20020910	US20010853146	20010510
	<u>WO0195740 A1</u>	20011220	WO2001US19169	20010614

Probable Assignee: EMPIRE COMFORT SYSTEMS INC
Assignee(s):^(std): EMPIRE COMFORT SYSTEMS INC ; RIGNEY DONALD P
Assignee(s): BANK OF AMERICA NA ; CHRISTENSEN DAVID M ; EMPIRE COMFORT SYSTEMS
Inventor(s):^(std): CHRISTENSEN DAVID M ; RIGNEY DONALD P
Agent(s): OSLER HOSKIN AND HARCOURT LLP
Designated states: CA

International class
 (IPC 8-9): A23L1/00 A47J27/04 A47J27/10 A47J36/20 A47J37/12 (Advanced/Invention);
A47J27/04 A47J27/10 A47J36/00 A47J37/12 (Core/Invention)

International class
 (IPC 1-7): A23L1/00 A47J27/00 A47J27/04 A47J27/10 A47J37/12

CPC: Y10S220/912 A47J36/20 A47J27/04 A47J27/10 A47J37/1285 A47J37/1295

European class: A47J27/04 A47J27/10 A47J36/20 A47J37/12M2 A47J37/12P

US class: 126/369 126/912 220/912 426/438 426/438P 99/336 99/337 99/339 99/34 99/340 99/403 99/407 99/41 99/410 99/413 99/414 99/417 99/450 993/390

[Classification Explorer](#)

Cited documents: US99415 A, US6269737 BA, US5896810 A, US5896710 A, US575869 A, US5758569 A, US5651905 A, US5584235 A, US5560284 A, US5470011 A, US5431092 A, US5320028 A, US5301604 A, US5235904 A, US5211105 A, US5106642 A, US4958117 A, US4957039 A, US4951558 A, US4658117 A, US4626352 A, US4604989 A, US4574776 A, US4542685 A, US4366920 A, US4250803 A, US3998144 A, US3971304 A, US3853044 A, US3808963 A, US3713378 A, US3263596 A, US2926595 A, US2890577 A, US2809577 A, US2350623 A, US1909983 A, US1554612 A, US1272222 A, US1260794 A, IT333782 A, CH178687 A,

Forward Citations: WO11038262, WO11038262, WO08077836, WO04034861, USD755012, USD752913, USD730106, USD693067, USD687257, USD687256, USD662761, USD658425, USD658424, USD653074, USD653073, USD642421, USD612658, USD553432, USD552921, USD552410, USD505589, US9572362, US9016190, US8850965, US8828467, US8826806, US8763170, US8707860, US8707859, US8707857, US8616121, US8309151, US8186265, US8067716, US7981459, US7412922, US7316180, US7185766, US7172705, US6941857, US6820536, US6748851, US6711992, US6532865, US6446545, US2014020569, US2013125765, US2012222562, US2012009317, US2010255168, US2010186236, US2009087534, US2009025702, US2008277558, US2008169281, US2008073356, US2007256571, US2007108217, US2007028781, US2006272633, US2006272514, US2006201336, US2006175247, US2006134273, US2006134272, US2006134271, US2005276892, US2005230326, US2005172949, US2005034611, US2004200359, US2004163547, US2004103795, US2003132221, US2003110954, GB2410680, GB2410680, EP1459664,

Source: US2001054358A A cooking apparatus includes a container, a spigot, a lid, and a food support. The container has a bottom surface and a side wall that extends upwardly from the bottom surface to a top edge of the side wall. The spigot is attached to the container side wall and has a valve member that is selectively positionable between opened and closed positions. The spigot valve member allows liquid contents of the container to drain from the container when in the opened position, and prevents the contents from draining out of the container when in the closed position. The food support is comprised of a perforated horizontal member with a perforated side wall extending upwardly from the horizontal member. A plurality of vertical members spaced around the periphery of the horizontal member extend upwardly from the horizontal member. The food support is dimensioned to fit within the interior of the container and some of the vertical members have top ends with integral support connectors that are adapted to engage with the side wall top edge to suspend the food support in a spaced relation from the container bottom surface. The lid has a handle and lid connectors that are complementary to and selectively connectable to the support connectors. The lid connectors can selectively connect with the food support and allow the food support to be lifted by the lid and lowered into or removed from the container. The lid shields the user from the hot contents of the container when the food support is lowered into or removed from the container. The lid top and bottom surfaces slant downwardly as the lid top and bottom surfaces extends inwardly from the lid peripheral edge toward the center of the lid. The slanting forms a central depression in the lid which promotes liquid accumulated on the lid bottom surface to drip from the apex of the central depression.

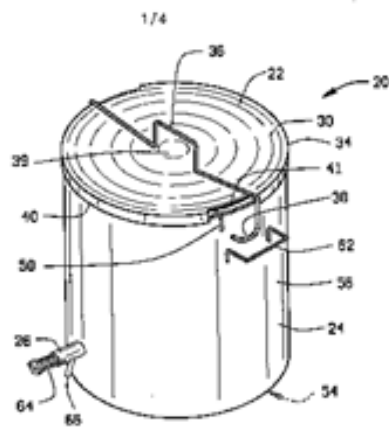


FIG. 1

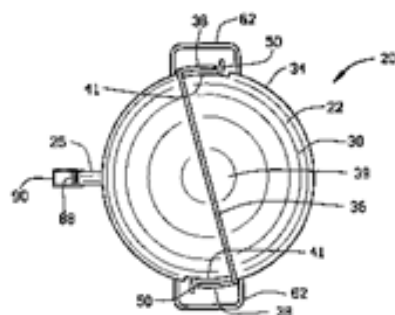


FIG. 2

29) Family number: 63719526 (WO16160710A1)

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Title: COMBINATION PRESSURE AND OPEN FRYING APPARATUS**Priority:** US20150139537P 20150327

Family:	Publication number	Publication date	Application number	Application date
	<u>WO16160710 A1</u>	20161006	WO2016US24530	20160328

Probable Assignee: HENNY PENNY CORP**Assignee(s):^(std):** HENNY PENNY CORP**Inventor(s):^(std):** CARTWRIGHT RICHARD W ; EROS KIMBERLY ; LONG STEVEN J**Agent(s):** FOSTER WILLIAM S JR

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

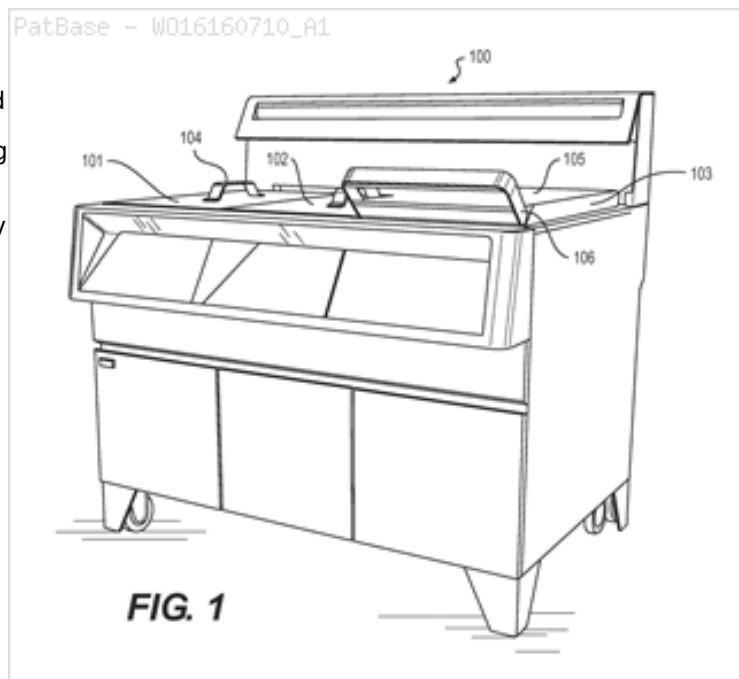
International class A47J36/10 A47J37/12 (Advanced/Invention)
(IPC 8-9):

CPC: A47J36/10 A47J37/128[Classification Explorer](#)

Cited documents: US2014076904 AA, US2011005403 AA, JP6058824 U1, JP2004254855 A2, CN102415826 A,

Abstract:

A fryer apparatus includes a selectively closeable frypot to alternate a mechanism of operation between an open frying platform and a pressure frying platform. The selectively closeable frypot includes a cover with a locking mechanism disposed within the cover that is actuated by rotation of a handle such that the footprint of the selectively closeable frypot may be sized comparable with a typical open fryer to accommodate space constraints of limited service restaurants. The fryer apparatus may also include a pressure assist feature so that the selectively closeable frypot to efficiently reaches a desired pressure for smaller batches of food product when used as a pressure frying platform.

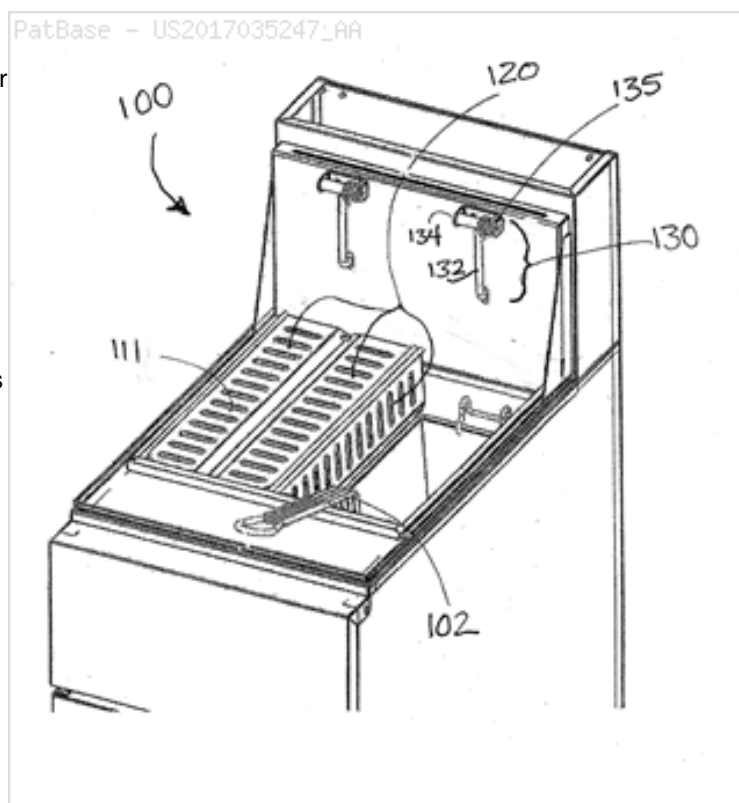


Title: UPWARD OPENING FRYER COVER**Priority:** US20150821658 20150807**Family:**

Publication number	Publication date	Application number	Application date
<u>US2017035247 AA</u>	20170209	US20150821658	20150807

Probable Assignee: MILLIKIN RORY CHESLEY PATRICK**Assignee(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**Inventor(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/128 A47J37/1266 A47J37/1219[Classification Explorer](#)**Abstract:**

Source: US2017035247A Systems, methods and apparatuses for making fryers safer and/or more energy efficient are disclosed. Methods and devices in accordance with the present disclosure generally comprise a cover, having a number of flaps, doors or plates that open upwardly or downwardly to receive a basket. Flaps/doors may be solid, perforated or the like. The cover can be maintained in a suitably rigid closed locked position, for example, by a locking mechanism, preventing the basket(s), body parts, or other items from unintentionally being placed in the fryer. In such embodiments, the cover also prevents the loss of heat from the oil. Alternatively, the cover may be maintained in a closed position, though not necessarily locked, with a primary purpose of preventing heat loss from the oil. In such embodiments, the cover may be vented.



0) US3646882A – FILTER FOR DEEP FRYER

31) Family number: 393309 (US3646882A)

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Title: FILTER FOR DEEP FRYER

Priority: US19690828672 19690528

Family:	Publication number	Publication date	Application number	Application date
	CA921270 A1	19730220	CA19700076532	19700305
	DE2014072 A1	19701203	DE19702014072	19700324
	DE2014072 B2	19730215	DE19702014072	19700324
	DE2014072 C3	19730906	DE19702014072	19700324
	FR2048909 A5	19710319	FR19700019451	19700527
	GB1302117 A	19730104	GB19700018332	19700416
	US3646882 A	19720307	US19690828672	19690528

Probable Assignee: KEATING RICHARD

Assignee(s):^(std): KEATING R T ; KEATING RICHARD ; KEATING RICHARD THOMAS ; RICHARD T KEATING

Inventor(s):^(std): KEATING R T ; KEATING RICHARD T ; KEATING RICHARD THOMAS

Inventor(s): RICHARD T KEATING

International class
(IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/00 A47J37/12 B01D23/02](#)

CPC: [A47J37/1223](#)

European class: [A47J37/12D](#)

US class: [210/167 210/167.28 99/408 994/80](#)

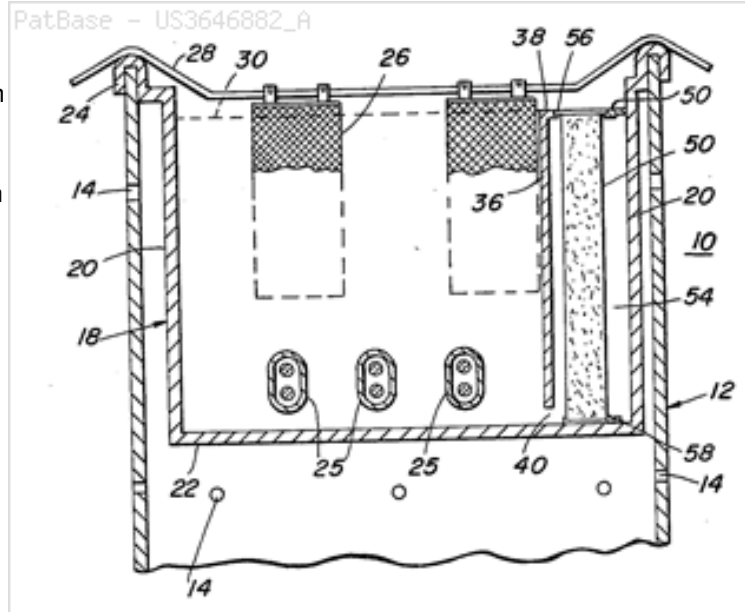
[Classification Explorer](#)

Cited documents: US3495525 A, US3447685 A, US3415181 A, US3263596 A, US3210193 A, US3203754 A, US3099623 A, US3049240 A, US2578129 A, US2335532 A, US2073442 A,

Forward Citations: WO07055980, WO07055980, US9452374, US6874642, US6378420, US6363840, US5782164, US4487691, US4328097, US4041852, US3984447, US3968741, US3909291, US2013075347, GB2231478, GB2146547, EP1029493, DE2756428,

Abstract:

Source: US3646882A A multilayered filter element for deep fryers characterized by both the efficiency of filtering and sweetening action and ease of replacement. In one embodiment the filter element is formed as an elongated member having layers of filtering media of different particle size or porosity through which the liquid to be filtered is passed. In another embodiment the filter element has a combination of a fibrous filtering media and a finely divided absorbent material in alternate layers. A tubular filter element is disclosed having a wall composed of an inner layer of coarse filter paper, an intermediate layer of medium filter paper and an outer layer of fine filter paper, with diatomaceous earth or the equivalent interposed between the layers. The filter element is provided with a wall having engaging means whereby the filter can be readily removed from the fryer. In another embodiment a filter trough is provided into which the liquid fat overflows and passes through interposed layers of graded filter media. Other embodiments are disclosed.



BACKGROUND OF THE INVENTION It was customary in deep fryers to locate the direct fire-heating elements for the frying fat at or adjacent the base of the vessel and depend upon convection currents to circulate the fat into contact with the food to be cooked, which is generally suspended in baskets within the top part of the vessel. The lower portion of the vessel nearest the heat source, becomes superheated, and any food particles that are dropped or are carried into the liquid fat from the fryer baskets ultimately contact the lower reaches of the vessel where excessive heat causes the rapid formation of charred or carbonized food particles and other decomposition products. Such products accumulate rapidly and cause the discoloration of the fat, hasten the need to replace the fat, and often adversely affect the taste and appearance of the food being treated. Wide mesh screens have been used in early types of deep fryers, such as described in U.S. Pat. No. 2,061,533, to keep the food particles from settling into the heated base of the vessel. Something more than screens is necessary to meet the modern standards of commercial deep fryers since the fat must now be kept free of food particles and materials causing contamination of the fat by unwanted tastes and odors. The use of fine filters has not been desirable because they impede the required rapid convection flow of liquid fat through the vessel. More costly pumps and bypass filters have been used to solve this problem as disclosed in U.S. Pat. No. 2,578,129. Indirect heat exchange elements in the form of combustion tubes extending through the fat, as shown in U.S. Pat. No. 2,712,308 have eliminated the formation of superheated zones in the vessel and prevented to some extent the accumulation of food particles adjacent high temperature heating surfaces. However, even and rapid circulatory flow of the liquid fat is necessary to the proper heat balance within the vessel and the use of fine filters in the main circulatory path of the fat upsets this heat balance. Also there is danger of fire due to clogging of the filters and overheating of the stagnated fat. One solution to this problem is disclosed in U.S. Pat. No. 3,263,596 wherein the filter screens are located below the heating elements as a bottom wall by means of thermal barrier side plates forming an inner receptacle within an outer vessel. The top edges of the barrier plates act as a weir allowing the circulating fat to pass over and down as an auxiliary flow, during cooking or on-off cycles, into a space between the plates and the sides of the outer vessel, up through the filter, past the heating elements and into contact with the food basket. If the filter becomes clogged circulation of the liquid fat can still take place within the confines of the inner receptacle defined by the plates and the top of the filter. However, in a deep fryer of this construction there is no provision for replacement of the filter screen and filter paper, without draining the vessel. Thus, the tendency is to use the filters to the extent of their filtering action because of the time and labor involved in replacement. Not all of the liquid fat is subjected to filtering, that is, the filtering action is intermittent and in order to maintain a pressure differential across the filter the auxiliary stream is cooled. This represents added and unnecessary parts and heat losses.

SUMMARY OF THE INVENTION In accordance with this invention, the foregoing disadvantages are eliminated and efficient filtering action maintained upon all of the circulating liquid fat by the use of filter cartridges which are effectively placed in the circulating stream and conveniently replaced without the necessity of draining the vessel or for that matter even stopping the cooking process. This invention also concerns the use of multiple layer filter means having greatly increased filtering action which prolongs the useful life of the cooking oil or fat. In one embodiment the deep fryer is an open-topped vessel adapted to contain the liquid fat and into which the food is suspended in baskets, and is provided with an overflow filter chamber having an open top and an opening at the bottom communicating with the bottom zone of the vessel wherein are located the heating elements. The open top of the filter chamber is in communication with the liquid fat ebullating from the top of the vessel and the bottom of the chamber communicates with the lower heated zone of the liquid fat. A multiple removable layered filter element is interposed in the filter chamber so that the overflowing liquid fat passes through the filter element in its cyclic passage through the chamber. The filter means is characterized by providing a multilayer filter media wall through which all of the bypassed portion of liquid fat is conducted by natural convection flow. In one embodiment the filter means is in the form of a tubular element adapted to fit within the bypass chamber and spaced from the walls thereof so that the liquid fat flows from within the tubular element radially outward into the space around the filter element and thence into the heating zone. The bypass chamber is a section of the vessel separated from the main heating zone by a discontinuous wall that has an opening at the bottom communicating with the heating

zone. The filter means may also comprise a trough-shaped cover member for part or all of the bypass section to catch the overflowing stream of liquid fat as it passes over the wall, subject it to filtration and allow the filtrate to descend and pass under the wall to the heating zone. Means are provided whereby the filter elements can be engaged and easily removed from the deep fryer.

32) Family number: 27917157 (US6490872B)

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Title:	Apparatus and a method for clean-in-place for a semi-frozen food dispensing machine			
Priority:	US19990135063P 19990520 US20010031643 20011102 US20020979534 20020416 US20020979693 20020219 WO2000US13825 20000519 WO2000US14029 20000519 WO2000US13781 20000519 WO2000US14005 20000519 WO2000US14035 20000519			
Family:	Publication number	Publication date	Application number	Application date
	AR024049 AA	20020904	AR2000P102467	20000519
	AR024050 AA	20020904	AR2000P102468	20000519
	AR024051 AA	20020904	AR2000P102469	20000519
	AR024052 AA	20020904	AR2000P102470	20000519
	AR024554 AA	20021016	AR2000P102471	20000519
	AU200048589 A5	20001212	AU20000048589D	20000519
	AU200050317 A5	20001212	AU20000050317D	20000519
	AU200051449 A5	20001212	AU20000051449D	20000519
	AU200052805 A5	20001212	AU20000052805D	20000519
	AU200058674 A5	20001212	AU20000058674D	20000519
	DE60016586 D1	20050113	DE20006016586	20000519
	DE60016586 T2	20051222	DE20006016586T	20000519
	DE60024254 D1	20051229	DE20006024254	20000519
	DE60024254 T2	20060727	DE20006024254T	20000519
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	DE60033515 T2	20071108	DE20006033515T	20000519
	EP1178734 A1	20020213	EP20000930835	20000519
	EP1178734 A4	20020731	EP20000930835	20000519
	EP1178734 B1	20070221	EP20000930835	20000519
	EP1178735 A1	20020213	EP20000937663	20000519
	EP1178735 A4	20020731	EP20000937663	20000519
	EP1178735 B1	20051123	EP20000937663	20000519
	EP1179168 A1	20020213	EP20000936084	20000519
	EP1179168 A4	20020731	EP20000936084	20000519
	EP1179168 B1	20041208	EP20000936084	20000519
	ES2233385 T3	20050616	ES20000936084T	20000519
	ES2254186 T3	20060616	ES20000937663T	20000519
	ES2282110 T3	20071016	ES20000930835T	20000519
	JP2003500034 T2	20030107	JP20000619282T	20000519
	JP2003505011 T2	20030212	JP20000619283T	20000519
	JP2003521884 T2	20030722	JP20000620304T	20000519
	US6490872 BA	20021210	US20020979693	20020219
	US6494055 BA	20021217	US20020979534	20020416
	US6553779 BA	20030429	US20010031643	20011102
	WO0070961 A1	20001130	WO2000US13825	20000519
	WO0070962 A1	20001130	WO2000US14029	20000519
	WO0070963 A1	20001130	WO2000US14035	20000519
	WO0071946 A2	20001130	WO2000US14005	20000519
	WO0071946 A3	20010301	WO2000US14005	20000519
	WO0071959 A1	20001130	WO2000US13781	20000519

Probable Assignee: SPECIALTY EQUIPMENT COMPANIES INC

Assignee(s):^(std): BECK NORMAN L ; BOYER GEORGE C ; CARRIER CORP ; DUNCAN DAVID C ; MESEROLE MICHAEL ; MRUGALA RONALD J ; SCHWITTERS STEPHEN W ; SPECIALITY EQUIP CO ; WOHLER JACK D

Assignee(s): SPECIALTY EQUIPMENT COMPANIES INC ; CARRIER CORP FARMINGTON

Inventor(s):^(std): BECK L ; BOYER C ; BOYER GEORGE ; DUNCAN C ; MRUGALA J ; WOHLER JACK D ; SCHWITTERS STEPHEN W ; MRUGALA RONALD J ; MESEROLE MICHAEL ; DUNCAN DAVID C ; BOYER GEORGE C ; BECK NORMAN L

Inventor(s): STEPHEN W SCHWITTERS ; MICHAEL MESEROLE ; JACK D WOHLER ; RONALD J MRUGALA ; NORMAN L BECK ; GEORGE C BOYER ; DAVID C DUNCAN

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

International class
(IPC 8-9): A23G9/04 A23G9/12 A23G9/14 A23G9/16 A23G9/20 A23G9/22 A23G9/28 A23G9/30 B01F15/00 B01F15/02 B01F15/06 B01F7/02 F25D11/00 (Advanced/Invention);
B01F15/00 B01F15/02 B01F7/02 F25D11/00 (Advanced/Non-invention)

International class
(IPC 1-7): A23G9/00 A23G9/12 A23G9/14 A23G9/16 A23G9/20 A23G9/22 A23G9/28 A23G9/30 A26G9/12 B01F15/00 B01F15/02 B01F15/06 B01F7/02 B08B3/00 F25B5/02 F25D11/00 F25D31/00 F28G13/00 F28G9/00

CPC: F25B5/02 F25B40/00 F25B41/043 A23G9/30 A23G9/045 A23G9/16 A23G9/163 A23G9/20 A23G9/22 A23G9/224 A23G9/225 A23G9/228 A23G9/28 A23G9/281

European class: A23G9/04D A23G9/16 A23G9/16D A23G9/20 A23G9/22 A23G9/22H A23G9/22J A23G9/22N A23G9/28 A23G9/28D A23G9/30

US class: 222/146.6 251/335.2 366/305 366/310 366/312 62/303 62/342 62/66 62/660

[Classification Explorer](#)

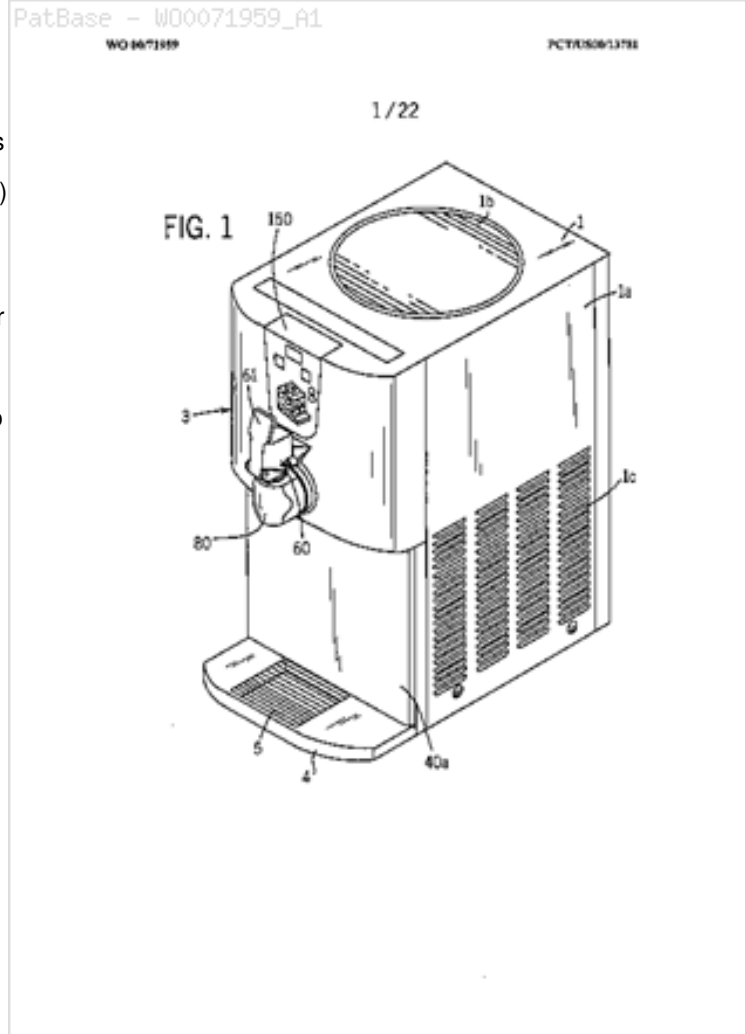
Cited documents: US5771924 A, US5752393 A, US5706720 A, US5603229 A, US5538343 A, US5465591 A, US5463877 A, US5419150 A, US5410888 A, US5406805 A, US5400309 A, US5386709 A, US5323618 A, US5285812 A, US5016446 A, US4962648 A, US4959972 A, US4916920 A, US4907417 A, US4860550 A, US4817396 A, US4711376 A, US4703628 A, US4649746 A, US4644757 A, US4637219 A, US4567761 A, US4522041 A, US4363223 A, US4275567 A, US4201558 A, US4162127 A, US4129389 A, US3995770 A, US3898859 A, US3874189 A, US3797268 A, US3733840 A, US3729177 A, US3721104 A, US3698206 A, US3660988 A, US3641783 A, US3638448 A, US3468137 A, US3367126 A, US3333828 A, US3273585 A, US3256100 A, US3145017 A, US3029613 A, US2977097 A, US2972239 A, US2867994 A, US2867944 A, US2754664 A, US2281944 A, US2185022 A, US2121625 A, EP0503274 A1, EP0287194 A2, DE3726836 A1,

Forward Citations: WO15197754, WO14003881, WO13121421, WO11048568, WO10135284, WO10135284, WO10077699, WO09034592, WO09029161, WO09007672, WO08068124, WO07042028, WO07025253, WO07025253, WO05020703, USRE43998, USRE43805, USD649984, USD625952, US9528740, US9523090, US9518769, US9516889, US9512398, US9511333, US9492404, US9457386, US9402803, US9364114, US9335082, US9326531, US9272000, US9240745, US9233829, US9198929, US9173521, US9125426, US9034195, US9011922, US9004743, US8980325, US8962700, US8944289, US8899058, US8887522, US8875732, US8869540, US8863992, US8857667, US8823314, US8815292, US8810190, US8784898, US8784897, US8723488, US8721162, US8698447, US8698446, US8685477, US8672534, US8619443, US8617616, US8609148, US8606396, US8597689, US8591957, US8534501, US8479531, US8470893, US8459176, US8449172, US8445546, US8410182, US8349191, US8292858, US8205460, US8120307, US8085010, US8085009, US8079230, US8074837, US8070023, US8004255, US7919534, US7887698, US7857910, US7832920, US7813834, US7806584, US7770814, US7690569, US7681761, US7654728, US7603870, US7401613, US7290682, US7272894, US6948327, US6918258, US6878392, US6852351, US6817749, US6735967, US6678628, US6650962, US6637214, US2017049127, US2016213025, US2015276286, US2015239726, US2015101357, US2015034668, US2014231047, US2013068331, US2013045311, US2012240611, US2012222434, US2012217264, US2012031135, US2011271690, US2011217440, US2011168738, US2011010133, US2010323071, US2010320956, US2010314410, US2010314407, US2010293965, US2010192607, US2010139493, US2010101235, US2010058772, US2009321443, US2009302038, US2009261129, US2009246074, US2009200981, US2009140006,

US2009133429, US2009126581, US2009071177, US2009051344, US2009030379, US2008217362, US2008217361, US2008140437, US2008092580, US2008041876, US2007268128, US2007251260, US2007102448, US2007062212, US2006276932, US2006243310, US2006175355, US2006134275, US2006123802, US2006123653, US2005098575, US2005064077, US2004194811, US2004079095, US2004060307, US2002115433, JP2013081395, JP2006516109, ITMO20090259, ITBO20130612, ITBO20130020, GB2427673, GB2427673, EP3127431, EP2936992, EP2896298, EP2578119, EP1931457, EP1716760, EP1716760, EP1588981, EP1283013, EP1254603, EP1212948, CN104080356, CN103423944, CN103190520, CN102573509, CN102573509, CN102177533, CN101842022,

Abstract:

Source: US6490872B A softserve product refrigeration and dispensing machine (1) having numerous novel features to make the machine and the operation thereof more efficient; a novel supply method and apparatus provides raw product mix and gaseous matter at the proper ratios to the freezing cylinder (17) of the machine. Additionally, and also in conjunction with a novel door and product dispensing apparatus (40, 40a), the special design features enable the maintenance of a dispenser (60), beater (110), freezing chamber and other parts of the machine capable of easy flushing with a cleaning and/or sanitizing solution via the supply method and apparatus without requiring machine disassembly with no retention of the food stuffs and the like.



33) Family number: 22695790 (FR1489236A)

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Title: POIGNEE POUR BASSINE HANDLE BOWL (Machine translation)**Priority:** FR19660065140 19660611

Family:	Publication number	Publication date	Application number	Application date
	FR1489236 A	19670721	FR19660065140	19660611

Probable Assignee: ARTICLE MENAGER L**Assignee(s):^(std):** ARTICLE MENAGER L**Assignee(s):** L ARTICLE MENAGER

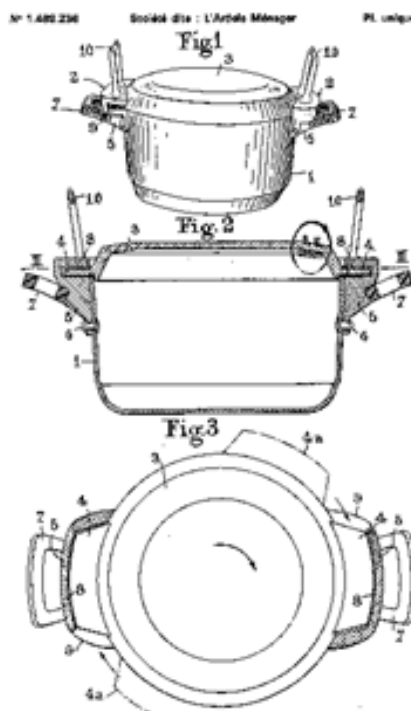
International class A47J36/06 A47J45/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J45/00 (Core/Invention)

International class A47J45/06
 (IPC 1-7):

CPC: A47J36/06 A47J45/062**European class:** A47J36/06 A47J45/06B[Classification Explorer](#)**Forward Citations:** FR2543423,**Abstract:**

Source: FR1489236A [Source: Claim 1] 1. De plus, la forme et la dimension des rainures 8, ainsi prévues dans les embases des deux poignées, sont telles que chacune d'elles puisse servir de logement à l'une des oreilles de préhension 4 du couvercle 3. Pour permettre l'introduction de ces oreilles dans les rainures 8, ces dernières sont par ailleurs ouvertes à l'une de leurs extrémités. En effet, l'un des cotés de chaque embase 5 comporte une ouverture 9, débouchant dans la rainure correspondante. Toutefois, ces rainures sont fermées sur le côté opposé des embases 5. À sa partie supérieure, l'embase de chaque poignée porte une anse 10, susceptible de servir de support à une des oreilles de préhension du panier d'égouttage prévu dans la bassine à friture 1. Ces anses s'étendent verticalement de façon à pouvoir maintenir le panier d'égouttage à quelque distance au-dessus du fond de la bassine 1, lorsque les oreilles de celui-ci reposent sur les anses 10 des deux poignées. Ce panier, qui peut être de type quelconque, n'est pas représenté sur le dessin annexe. De préférence, l'embase 5 et l'anse 10 de chaque poignée selon l'invention, sont constituées par une pièce monobloc, réalisée par moulage en métal, ou en alliage métallique. Ainsi, seule la poignée de préhension 7 proprement dite est fabriquée indépendamment et rapportée ensuite sur l'embase correspondante 5. Ainsi qu'il a déjà été indiqué, les deux poignées 2 prévues sur la bassine sont diamétralement opposées. Les ouvertures 9 des rainures 8 prévues dans les embases de ces deux poignées, sont tournées dans la même direction. Dans ces conditions, pour loger les oreilles 4 du couvercle 3 dans ces rainures, il convient tout d'abord de placer ce couvercle sur le dessus de la bassine, ses

PatBase - FR1489236_A



oreilles de prehension occupant par exemple la position 4a representee en traits mixtes sur la figure 3. Puis en imprimant un mouvement de rotation au couvercle 3 dans le sens de la fleche F, on peut ainsi engager ses deux oreilles de prehension dans les ouvertures 9 des rainures 8 des deux poignees. En fin de mouvement, ces deux oreilles se trouvent completement logees a l'interieur desdites rainures et elles viennent buter contre l'extremite fermee de ces dernieres. Ainsi, les deux oreilles du couvercle se trouvent en quelque sorte escamotees a l'interieur des poignees de la bassine, de sorte que cette derniere comporte, en tout et pour tout, les deux saillies formees par ses poignees. Ceci facilite donc le rangement de la presente bassine. Par ailleurs, il convient de noter que le couvercle 3 se trouve maintenu en place sur la bassine, du fait meme que ses oreilles 4 sont logees dans les rainures 8 des deux poignees de celle-ci. Dans ces conditions, le couvercle ne risque pas de se soulever de facon intempestive, lorsque la bassine est rangee en place. Cependant, ce couvercle n'est pas fixe a proprement parler sur la bassine. En effet, il est simplement maintenu en place. Pour le retirer, il suffit de lui imprimer une rotation dans le sens inverse a la fleche F, afin de degager les oreilles 4 hors des rainures 8 des deux poignees de la bassine. Apres quoi, ce couvercle peut etre degage par simple soulevement. Les poignees selon l'invention, presentent donc des avantages incontestables par rapport aux poignees de type usuel. Cependant, il va de soi que ces poignees ne sont pas limitees a l'exemple qui a ete decrit ci-dessus, et qui est represente sur le dessin annexe a simple titre indicatif. Ainsi, les poignees selon l'invention, pourraient etre concues pour equiper des bassines de cuisine autres que des bassines a friture, auquel cas, les anses 10 seraient supprimees. Par ailleurs, la forme de ces poignees peut evidemment etre modifiee, en fonction notamment de la forme des oreilles de prehension du couvercle de la bassine correspondante.

RESUME 1. Une poignee pour bassine destinee a recevoir un couvercle muni d'oreilles de prehension, cette poignee etant caracterisee en ce que son embase de fixation comporte une rainure s'etendant au-dessus du bord de la bassine, parallelement a ce bord, et qui est adaptee a servir de logement a l'une des oreilles du couvercle qui peut y etre introduite par rotation de ce couvercle apres sa mise en place sur le dessus de la bassine; [Source: Claim 1]

1. In addition, the shape and size of the grooves 8, as provided for in the bases of the two handles, are such that each of them can serve as housing has one of prehension 4 ears of the lid 3. To allow introduction of the lugs in the grooves 8, the latter are also open to the one of their ends. Indeed, one of the coordinates of each base 5 has an opening 9 which opens into the corresponding groove. However, these grooves are closed on the opposite side of the sockets 5. At its upper part, the base of each door handle cove 10, could serve as a support has a prehension of the ears of the basket of planned dewatering in the basin a frying 1. These handles extend vertically for a way to maintain the basket of dewatering at some distance above the bottom of the basin 1, when the ears of the latter based on the handles 10 of the two handles. This basket, which can be of any type, is not represented on the attached drawing. Preferably, the base 5 and the handle 10 of each handle of the invention, consist of a monobloc piece, made by casting metal, or metal alloy. Thus, only the handle of prehension 7 itself is produced independently and then attached to the corresponding seat 5. As has already been indicated, the two handles 2 provided for the basin are diametrically opposed. The openings 9 provided for the 8 slots in the bases of the two handles are tournees in the same direction. In these conditions, to house 4 ears of the cover 3 in the grooves, it is first necessary to place the lid on top of the basin, ears of prehension occupying such position 4a represented in broken lines in Figure 3. Then by printing a rotational movement to the cover 3 in the direction of the arrow F, one can thus engage both ears prehension in the openings 9 of the grooves 8 of the two handles. At the end of movement, both ears are completely housed inside said grooves and they abut against the extremity of the latest closed. Thus both ears cover are somewhat retracted inside the handles of the pan, so that the latter includes, all in all, the two projections formed by its handles. This therefore facilitates storage of this basin. Furthermore, it should be noted that the lid 3 is held in place on the bowl, the very fact that his ears 4 are housed in the grooves 8 of the two handles thereof. Under these conditions, the cover does not raise risk of untimely way when the basin is up row. However, this cover is not fixed properly speaking on the basin. Indeed, it is simply held in place. To remove, simply print it to rotate in the opposite direction to the arrow F, in order to clear the ears 4 out of the grooves 8 of the two handles of the pan. After which, the cover can be by simply clears uprising. The handles of the invention thus have undeniable advantages over conventional type handles. However, it is obvious that these handles are not limited to the example which has been described above, which is represented on the attached drawing a mere indication. Thus, the handles of the invention could be designed to equip kitchen bowls other than a frying pans, in which case, the handles 10 would be eliminated. Furthermore, the shape of these handles can obviously be modified, depending in particular on the shape of the ears of prehension of the corresponding bowl lid.

SUMMARY 1. A handle for bowl destiny to receive a cover with prehension ears, this handle being characterized in that the mounting base has a groove extending over the edge of the basin, parallel to that edge, and is adapted to serve housing has one of the cover ears that can be brought by rotation of the cover after setting it up on top of the bowl;

34) Family number: 33400020 (WO06100151A1)

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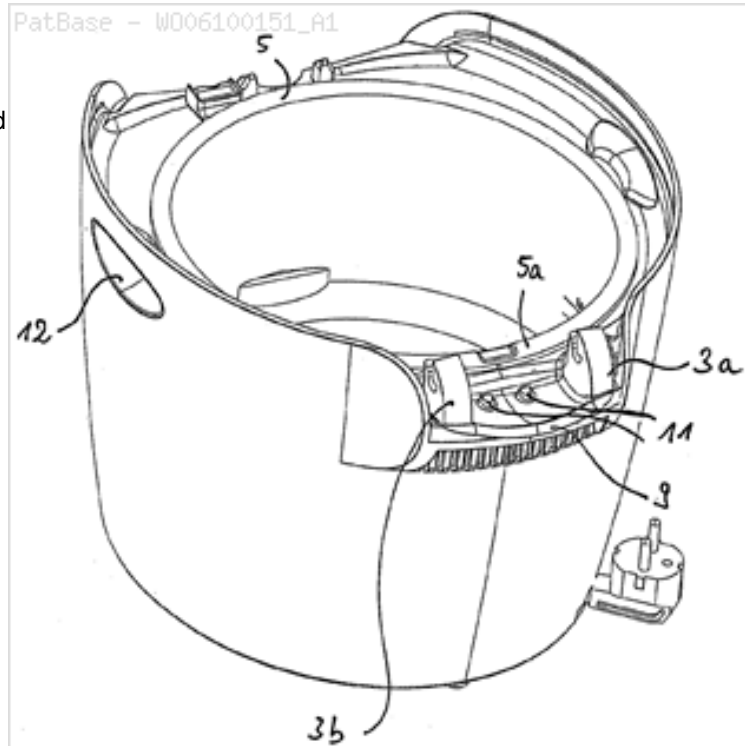
Title: DEEP FRYER**Priority:** DE200510013805 20050324 WO2006EP50678 20060206

Family:	Publication number	Publication date	Application number	Application date
	<u>AT415121 E</u>	20081215	AT20060704123T	20060206
	<u>CN100518600 C</u>	20090729	CN200680000834	20060206
	<u>CN101031229 A</u>	20070905	CN200680000834	20060206
	<u>DE102005013805 A1</u>	20060928	DE200510013805	20050324
	<u>DE502006002183 D1</u>	20090108	DE200650002183T	20060206
	<u>EP1788918 A1</u>	20070530	EP20060704123	20060206
	<u>EP1788918 B1</u>	20081126	EP20060704123	20060206
	<u>WO06100151 A1</u>	20060928	WO2006EP50678	20060206

Probable Assignee: BSH BOSCH SIEMENS HAUSGERAETE**Assignee(s):^(std):** BSH BOSCH AND SIEMENS HOME APPLIANCE GMBH ; BSH BOSCH SIEMENS HAUSGERAETE ; MIKULIK FRANTISEK ; MUEHLBACHER RICHARD ; SEDLAK JOSEF ; STEFFL MICHAEL**Assignee(s):** BSH BOSCH SIEMENS HAUSGERAETE GMBH ; BSH BOSCH U SIEMENS HAUSGERAETE GMBH ; BSH BOSCH UND SIEMENS HAUSGERAETE GMBH**Inventor(s):^(std):** FRANTISEK MIKULIK ; JOSEF SEDLAK ; MICHAEL MIKULIK FRANTISEK MUEH ; MICHAEL STEFFL ; MIKULIK FRANTISEK ; MUEHLBACHER RICHARD ; RICHARD MUEHLBACHER ; SEDLAK JOSEF ; STEFFL MICHAEL**Inventor(s):** MIKULIK FRANTISEK MUEHLBACHER RICHARD SEDLAK**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class**
(IPC 8-9): [A47J37/12](#) (Advanced/Invention) ;
[A47J37/12](#) (Core/Invention)**CPC:** [A47J36/14](#) [A47J37/1285](#)**European class:** [A47J37/12A1](#) [A47J37/12M2](#) [A47J37/12M3](#) [K47J36/14](#)[Classification Explorer](#)**Cited documents:** US6365878 BA, US2004112227 AA, EP1504706 A1, EP1224896 A1,

Abstract:

The invention relates to a deep fryer (1) which comprises a heated container (5) for receiving a frying bath, a housing (2, 2a), a spout (9) for pouring out the frying bath and a lid (4), hinged to the deep fryer (1), for closing and opening the container. The inventive deep fryer, in the area where the lid (4) is hinged, is configured as the spout (9) for pouring out the frying bath.



0) CN101862136A – ROTARY FRYING BASKET OF FRYER

35) Family number: 47419075 (CN101862136A)

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Title: ROTARY FRYING BASKET OF FRYER

Priority: CN201010204735 20100618

Family:	Publication number	Publication date	Application number	Application date
	CN101862136 A	20101020	CN201010204735	20100618
	CN101862136 B	20120201	CN201010204735	20100618

Probable Assignee: MIDEA HOLDING CO LTD

Assignee(s):^(std): MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD

Assignee(s): MIDEA HOLDING CO

Inventor(s):^(std): MINQIANG FENG ; TIANBING GAO ; YUN YANG

Inventor(s): YANG YUN ; FENG MINQIANG ; GAO TIANBING

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Cited documents: US5771600 A, CN2655789 Y, CN201743536 U, CN201205224 Y,

Forward Citations: CN102319028, CN102239895, CN102239895,

Abstract:

Source: CN101862136A The invention discloses a rotary frying basket of a fryer. The rotary frying basket comprises a basket body, a front cover, a rear cover and a handle, wherein the front cover and the rear cover are firmly connected with the basket body; the rotary frying basket is characterized by further comprising a bearing, a bearing housing and a handle seat, wherein an inner ring of the bearing is fixedly connected with the front cover, and an outer ring of the bearing is fixedly connected with the bearing housing and the handle seat; and the handle is arranged on the handle seat. Because the bearing is arranged between the front cover and the handle of the frying basket and non-interference 360-degree rotation can be realized by using the inner ring and the outer ring of the bearing, the inner ring of the bearing is fixed with the front cover and the outer ring of the bearing is fixed with the handle seat, the handle arranged on the frying basket does not rotate relatively to the frying basket so as not to cause interference to the frying basket when the basket body of the frying basket rotates; and the frying basket is suitable for the fryer with rotatable frying basket.

PatBase - CN101862136_B

CN 101862136 B

说明书附图

1/1 页

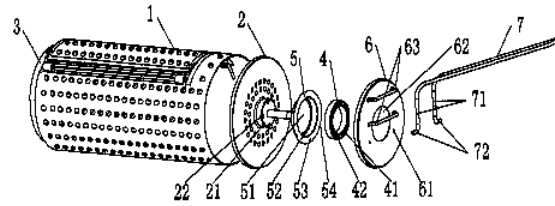


图 1

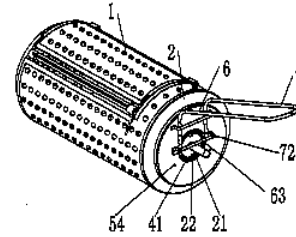


图 2

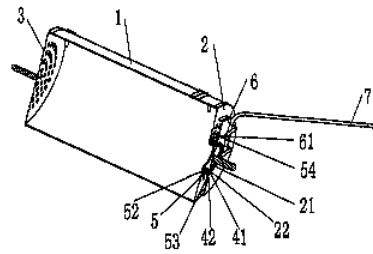


图 3

5

0) DE3150455A1 – DEEP–FAT FRYER WITH AN ELECTRICALLY HEATABLE FR...

36) Family number: 3063888 (DE3150455A1)

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Title: Deep–fat fryer with an electrically heatable frying pot

Priority: DE19813150455 19811219

Family:	Publication number	Publication date	Application number	Application date
	<u>DE3150455 A1</u>	19830630	DE19813150455	19811219

Probable Assignee: KRUPS STIFTUNG

Assignee(s):^(std): KRUPS STIFTUNG

Assignee(s): ROBERT KRUPS STIFTUNG AND CO KG

Inventor(s): VERZICHT DES ERFINDERS AUF NENNUNG

International class
(IPC 8–9): A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1–7): A47J37/12

CPC: A47J36/38 A47J37/1209

European class: A47J36/38 A47J37/12A1

[Classification Explorer](#)

Cited documents: DE2931859 A1, DE2508263 A1, DE1804842 U,

Forward Citations: USD552921, US7981459, US7412922, US6941857, FR2804309, ES2244312, EP1563778, EP1563777, EP1561408, EP1561408, EP0432370,

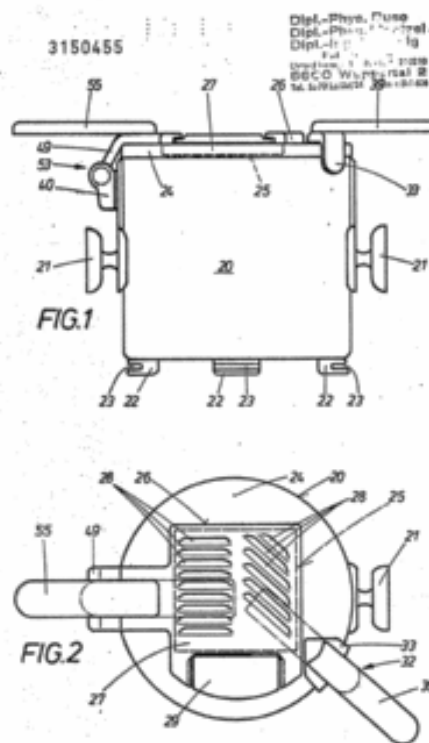
Abstract:

Source: DE3150455A1 In a deep-fat fryer with an electrically heatable frying pot provided with carrying handles, the lid closing said frying pot is fastened thereto via a hinge. In this case, the lid has a filter chamber provided with openings for receiving a vapour filter and is furthermore fitted with a condensation container connected detachably to the frying pot below the hinge. Additionally, a frying basket is inserted in the frying pot, the handle of which frying basket is arranged on the outside and is fixed to the frying basket via connectors penetrating the lid. In order to provide a hinge connection of the lid to the frying pot by simple means and in a simple construction whilst being able to remove the lid from the frying pot and to assign it thereto again easily, the hinge is formed from one hinge half connected to the lid and one hinge half integrated with the condensation container.

PatBase - DE3150455_A1

23.

Number: 3150455
Int. Cl. A47J 37/12
Anmeldungs- 15. Dezember 1981
Offenlegungstermin: 30. Juni 1983



37) Family number: 32126941 (EP1561408A1)

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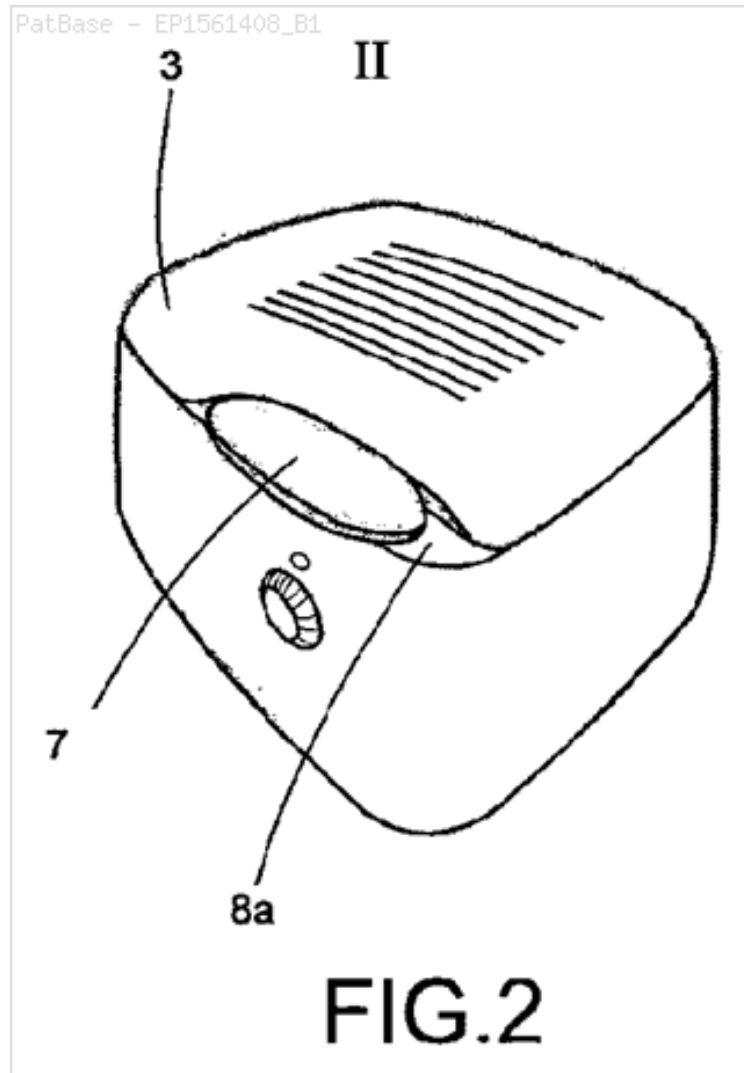
Title: Fryer**Priority:** ES20040000348 20040205

Family:	Publication number	Publication date	Application number	Application date
	AT426349 E	20090415	AT20050100783T	20050204
	DE502005006915 D1	20090507	DE200550006915T	20050204
	EP1561408 A1	20050810	EP20050100783	20050204
	EP1561408 B1	20090325	EP20050100783	20050204
	ES2244312 AA	20051201	ES20040000348	20040205
	ES2244312 BA	20070216	ES20040000348	20040205

Probable Assignee: BSH UFESA IND S A**Assignee(s):^(std):** BSH BOSCH UND SIEMENS HAUSGER ; BSH BOSCH SIEMENS HAUSGERAETE ; BSH UFESA IND S A**Assignee(s):** BSH UFESA INDUSTRIAL S A ; BSH BOSCH U SIEMENS HAUSGERAETE GMBH ; BSH BOSCH U SIEMENS HAUSGERATE GMBH ; BSH BOSCH UND SIEMENS HAUSGERAETE GMBH ; BSH BOSCH UND SIEMENS HAUSGERATE GMBH ; BSH UFESA INDUSTRIAL SA**Inventor(s):^(std):** ARIZNABALETA JOSEBA ; ARIZNABARRETA GARABIETA JOSEBA ; KLEMM JOCHEN**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**International class**
(IPC 8-9): [A47J37/12](#) (Advanced/Invention) ;
[A47J37/12](#) (Core/Invention)**International class**
(IPC 1-7): [A47J37/12](#)**CPC:** [A47J37/1295](#) [A47J37/1219](#) [A47J37/128](#) [A47J37/1276](#)**European class:** [A47J37/12C](#) [A47J37/12M](#) [A47J37/12M1](#) [A47J37/12P](#)[Classification Explorer](#)**Cited documents:** US6334888 BA, ES2186216 T3, ES2084453 T3, ES1039813 UA, ES1024420 UA, EP162482, EP0891736 A1, EP0587300 A1, DE4304689, DE3150455 A1, DE2931859,

Abstract:

The deep fryer has a base, into which the frying basket fits, and a lid (3). This has a cut-out (8a) near the front, into which the handle (7) of the basket fits for storage.



0) ES1024420Y – ASA PARA CESTILLOS DE FREIDORAS.

38) Family number: 29373754 (ES1024420Y)

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Title: ASA PARA CESTILLOS DE FREIDORAS.

Priority: ES19930000921U 19930402

Family:	Publication number	Publication date	Application number	Application date
	ES1024420 UA	19930816	ES19930000921U	19930402
	ES1024420 Y1	19940416	ES19930000921U	19930402
	ES1024420 YA	19940416	ES19930000921U	19930402

Probable Assignee: UNION FABRICANTES ELECTRODOMES

Assignee(s):^(std): UNION FABRICANTES ELECTRODOMES

Assignee(s): UNION FABRICANTES ELECTRODOMESTICOS S A UFESA

Inventor(s):^(std): BERGARECHE BUSTINDUY ; BERGARECHE BUSTINDUY JAVIER

International class [A47J37/00](#) (Advanced/Invention);
(IPC 8-9): [A47J37/00](#) (Core/Invention)

International class [A47J37/00](#)
(IPC 1-7):

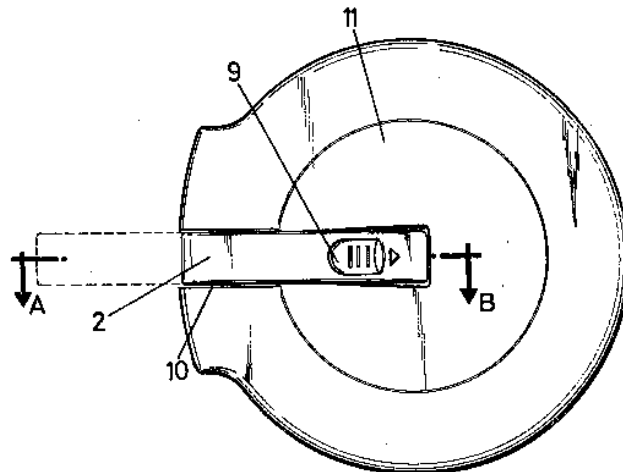
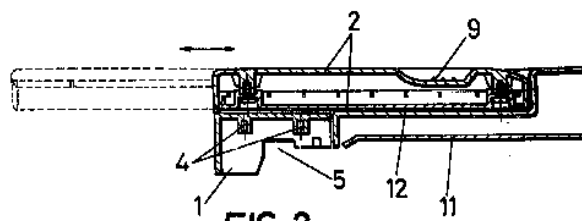
[Classification Explorer](#)

Forward Citations: ES2244312,

Abstract:

Source: ES1024420U 1. Asa para cestillos de freidoras, que estando prevista para jarse al correspondiente cestillo para posibilitar al manejo de este en su introduccion y/o extraccion respecto de la freidora, esencialmente se caracteriza porque esta constituida por la asociacion de dos piezas (1) y (2), la primera de las cuales dotada de medios para su jacion al correspondiente cestillo y con unas muescas (5) para apoyo sobre el borde superior de la respectiva freidora, en tanto que la pieza (2) es alargada y cuenta con unas ranuras laterales (3) en funciones de guias de desplazamiento respecto de la pieza (1), contando esta al efecto en sus caras laterales con alas (7) proyectadas hacia el interior, las cuales se alojan en las ranuras o guias laterales (3), para el desplazamiento de la pieza alargada (2) respecto de dicha pieza (1), quedando ambas piezas vinculadas, sin posibilidad de independizarse, por medio de unos pivotes (8) emergentes de las alas (7) de guiado, pivotes (8) que hacen tope contra el borde superior e interno de las propias ranuras o guias (3), con la particularidad de que esa pieza alargada (2) en su desplazamiento hacia delante o hacia atras determina las posiciones de reposo o de uso, respectivamente, de manera que en la posicion de reposo o de plegado la pieza (2) queda situada sobre una depresion (12) prevista en la superficie superior de la correspondiente tapa (11) de la freidora, bloqueando a esta en la posicion de cierre, mientras que en la posicion desplegada hacia atras de esa pieza (2) se determina el elemento de agarre y la liberacion de la propia tapa (11) para su correspondiente apertura.

1. Handle buckets fryers, which being provided for Jarse the corresponding rack to enable the handling of this in his introduction and / or removal in respect of the fryer, essentially characterized by the association of two parts (one) and (2), the first of which is provided with means for its jacion on the corresponding rack and notches (5) for support on the upper edge of the respective fryer, while part (2) is elongated and has a lateral grooves (3) acting as guides to offset from part (1), counting this purpose on its sides with wings (7) has projected inwards, which are accommodated in the og lateral slots or as (3) for the displacement of the elongated part (2) in respect of that part (1), both being linked parts, without possibility of independence, by means of pivots (8) emerging wings (7) guided pivots (8) which abut against the upper and inner edge of the slots themselves or guides (3), with the particularity that the elongated part (2) in their forward displacement or backward determines the positions of rest or use, respectively, so that the position of repos ood ol ap er eplegad can starts (2) as Qued ocated on a depression (12) provided in the upper super-cie the corresponding cover (11) from the fryer, blocking is in the position of closure, while in the deployed position to the rear of that part (2) the gripper and the release of the cover itself is determined (11) to its corresponding opening.

**FIG. 1****FIG. 2**
A-B

39) Family number: 53536597 (US2013098251A)

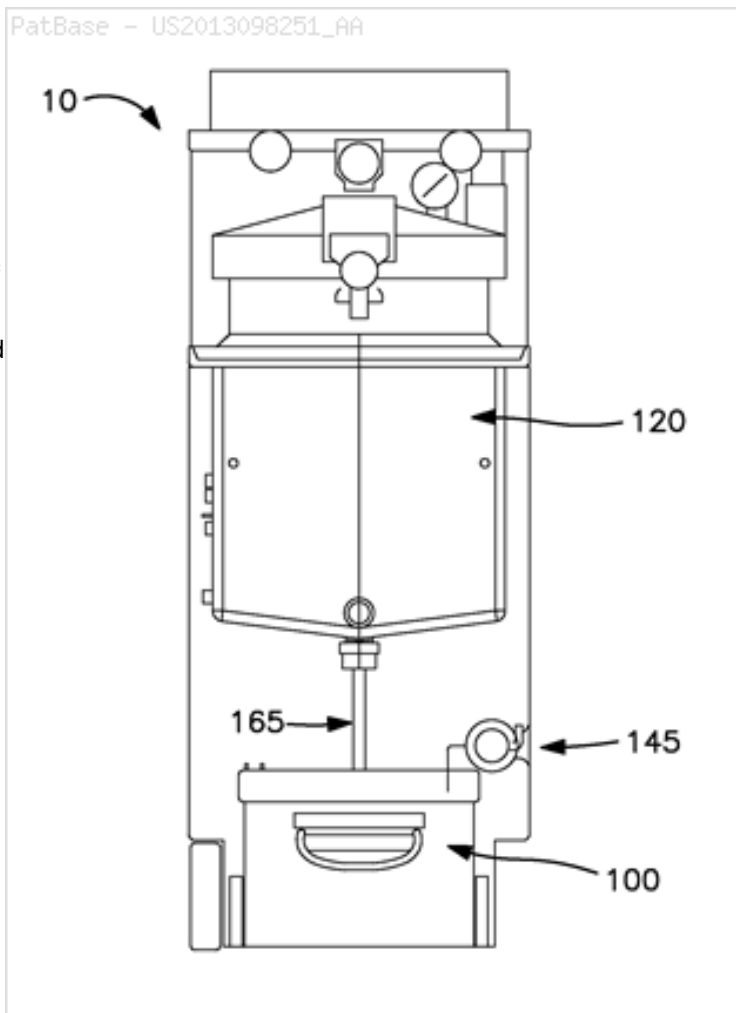
© PatBase

Title: FILTER PANS FOR USE IN FRYER APPARATUS AND FRYER APPARATUS**Priority:** US20110279032 20111021**Family:**

Publication number	Publication date	Application number	Application date
<u>US2013098251 AA</u>	20130425	US20110279032	20111021

Probable Assignee: HENNY PENNY CORP**Assignee(s):**^(std): BROOKS BRIAN ; GORT TOM ; HENNY PENNY CORP ; KILLION MARK ; LAMBERT KEITH**Inventor(s):**^(std): BROOKS BRIAN ; GORT TOM ; KILLION MARK ; LAMBERT KEITH**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/1223**US class:** 99/408[Classification Explorer](#)**Cited documents:** US6378420, US2009309619, US2009084273, US2009049994, US2005072309,**Abstract:**

Source: US2013098251A A fryer apparatus includes a cooking chamber and a filter pan. The filter pan includes an outlet passage, formed through a bottom portion of the filter pan, configured to allow cooking media to be discharged; a groove formed in the bottom portion of the filter pan and surrounding the outlet passage; and a removable, two-sided filter screen having an adaptor configured to couple the filter screen to the bottom portion of the filter pan at the outlet passage. The adaptor includes an engaging portion protruding from the filter screen and configured to fit at least partially into the outlet passage and a raised segment configured to fit at least partially in the groove, such that the filter screen does not contact the bottom portion of the filter pan. Further, the engaging portion includes a connector configured to create a seal between the adaptor and the outlet passage.



40) Family number: 50625045 (EP2420168A1)

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Title: Fryer fitted with means for filtering and purifying oil and a method carried out through said means

Priority: IT2010VR00167 20100806

Family:	Publication number	Publication date	Application number	Application date
	<u>EP2420168 A1</u>	20120222	EP20110176756	20110805
	<u>IT1401638 B1</u>	20130726	IT2010VR00167	20100806
	<u>ITVR20100167 A1</u>	20120207	IT2010VR00167	20100806

Probable Assignee: INOXPIU S R L

Assignee(s):^(std): INOXPIU S R L

Assignee(s): INOXPIU SRL

Inventor(s):^(std): ZUCCATTI ANDREA

Agent(s): SANDRI SANDRO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class A47J37/12 (Advanced/Invention)
(IPC 8-9):

CPC: A47J37/1223

European class: A47J37/12D

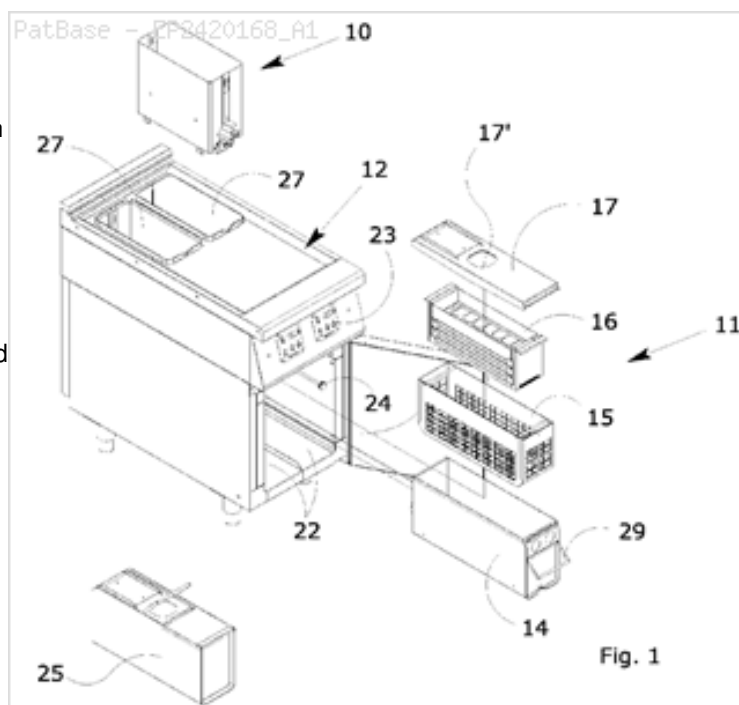
[Classification Explorer](#)

Cited documents: WO09014562 A1, US5782164 A, US2007062515 AA, US2005223909 AA, GB2427154 A1,

Forward Citations: EP3130386, DE102015113186,

Abstract:

Source: EP2420168A1 A fryer fitted with means for filtering and purifying frying oil, in which the means substantially comprise two components (10, 11) which can be installed on a new fryer (12) or retrofitted to an existing fryer, and in which the first of the two filtering components comprises a basket holder prefilter (10) inserted inside the main cooking tank of the frying machine designed to receive the frying basket (13), while the second component comprises a filtering element (11) comprising a series of micromesh elements which enable gravity-fed filtering of the oil, and where all the filtering elements are contained inside a holding tank (14) closed by a cover (17), the fryer being installable close to a discharge pipe (S) and connected to this in order to enable draining of the cleaning mix and the products for washing the tank and/or the filters.



0) CN105595858A – AIR FRYER

41) Family number: 62436575 (CN105595858A)

© PatBase

Title: AIR FRYER

Priority: CN201610104960 20160226

Family:

Publication number	Publication date	Application number	Application date
<u>CN105595858 A</u>	20160525	CN201610104960	20160226

Probable Assignee: NINGBO BIYI ELECTRIC APPLIANCE CO LTD

Assignee(s):^(std): NINGBO BIYI ELECTRIC APPLIANCE CO LTD

Assignee(s): BY APPLIANCE CO LTD NINGBO RATIO ; NINGBO BIYI ELECTRIC APPLIANCE CO

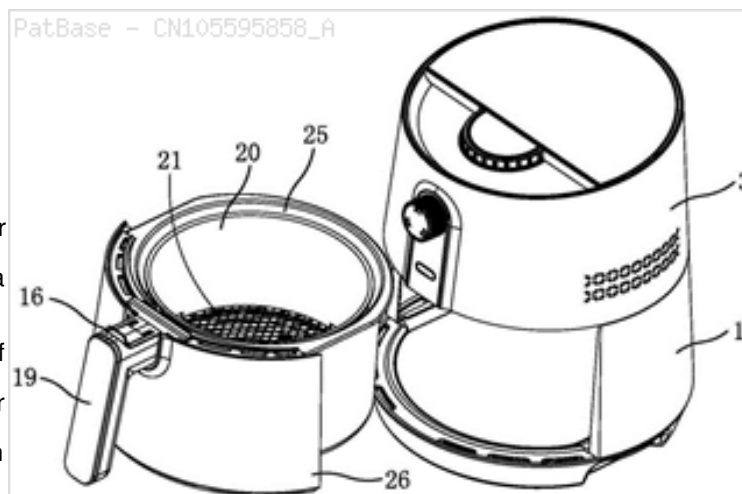
Inventor(s):^(std): WEN JIWANG

International class A47J37/12 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN105595858A The invention relates to an air fryer which is designed in order to solve the technical problems that for existing similar products, the structural design is poor, and the safety and oil filtration structure need to be further improved. A fryer cover, an inner fryer, an outer fryer and a handle of the air fryer are connected into a whole to form a fryer body, and an upper machine shell, a lower machine shell and a base are connected into a whole to form a machine body; the air fryer is characterized in that an oil-filter screen is arranged at the bottom of the inner diameter of the inner fryer, the oil-filter screen is fixed to an elastic sheet arranged at the inner diameter of a port of the inner fryer; the handle and the fryer cover are connected into a whole through a lock hook plate which is shaped like an L, one end of the hook part extends into the fryer cover and is buckled with sheet metal of the inner wall of the fryer cover, the other end abuts against a lock piece through a cocked sleeve, and the handle side of the lock piece is cocked; when the lock piece is pressed, the warped sleeve drives the lock hook plate to rotate. When the fryer body is put into the machine body, a shell hook of the fryer cover is buckled with a hook hole of the base; a sphere cylinder plate is arranged on the upper machine shell corresponding to a limiting diagonal bar of the handle, a limiting sphere cylinder in the upper machine shell extends out of the sphere cylinder plate through a spring and abuts against the inclined plane side of the limiting diagonal bar.



Title: Electric fryer

Priority: BE19830896081 19830304 BE19830210258 19830304 WO1984BE00005 19840302

Family:

Publication number	Publication date	Application number	Application date
BE896081 A1	19830701	BE19830210258	19830304
EP0137809 A1	19850424	EP19840900845	19840302
US4636618 A	19870113	US19840674955	19841030
WO8403427 A1	19840913	WO1984BE00005	19840302

Probable Assignee: ELECTRO DOMESTIC BELGIUM SOC ANONYME

Assignee(s):^(std): ELECTRO DOMESTIC BELGIUM ; JENICOT JEAN MARIE ; ELECTRO DOMESTIC BELGIUM SOCIE

Assignee(s): ELECTRO DOMESTIC BELGIUM SOCIETE ANONYME ; ELECTRO DOMESTIC BELGIUM S A ; ELECTRO DOMESTIC BELGIUM SA ; ELECTRO DOMESTIC BELGIUM SOC ; ELECTRO DOMESTIC BELGIUM SOC ANONYME

Inventor(s):^(std): JENICOT JEAN MARIE

Designated states: AT CH DE FR GB LI NL US

International class
(IPC 8-9): [A47J36/38 A47J37/12](#) (Advanced/Invention) ;
[A47J36/00 A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J27/00 A47J36/38 A47J37/12 F27D11/00](#)

CPC: [A47J36/38 A47J37/1209](#)

European class: [A47J36/38 A47J37/12A1](#)

US class: [219/438 219/441 220/368 220/662 220/82R D7/354](#)

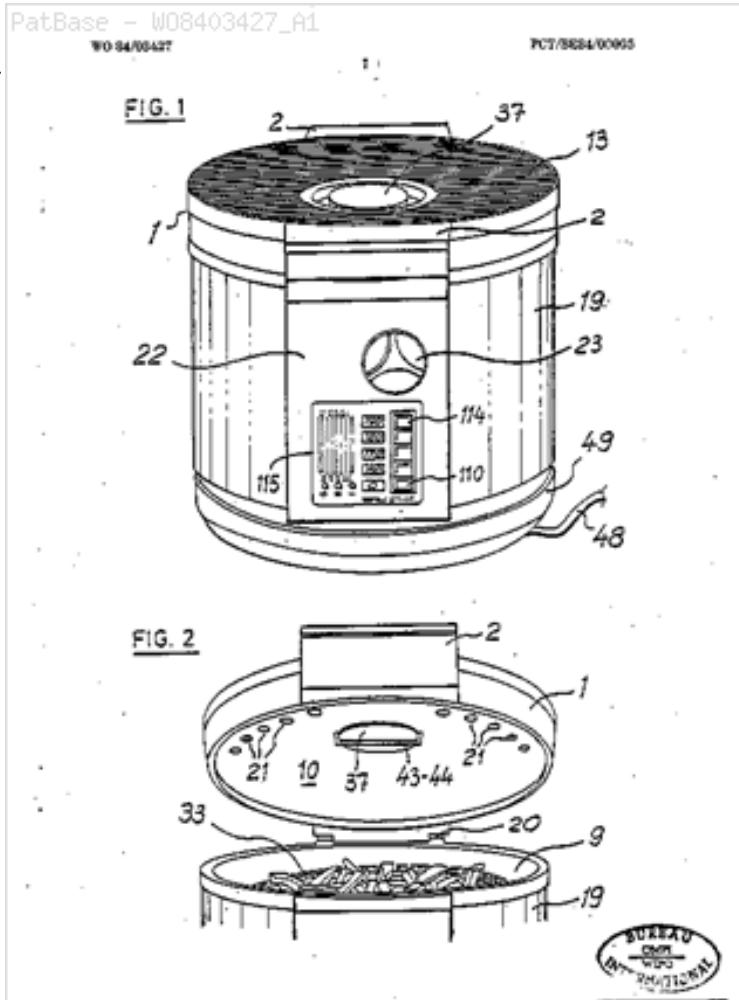
[Classification Explorer](#)

Cited documents: US4487117 A, US4148250 A, US1452018 A, GB2119635 A1, FR94107 E, FR94105 E, FR2239224 A1, FR1517736 A, FR1465655 A, FR1151736 A, DE682723 A, DE2931859 A1, DE2435447 A1, DE2155541 A1, DE1753812 A1, BE870419 A1,

Forward Citations: WO02062188, US8381637, US7307243, US6851351, US6526875, US5595108, US5523104, US2012325799, US2010018411, US2004250688, US2004007136, US2003209551, GB2245188, FR2820299, ES2165264, EP0263084,

Abstract:

Source: US4636618A PCT No. PCT/BE84/00005 Sec. 371 Date Oct. 30, 1984 Sec. 102(e) Date Oct. 30, 1984 PCT Filed Mar. 2, 1984 PCT Pub. No. WO84/03427 PCT Pub. Date Sep. 13, 1984. An electric fryer includes a filtering lid with upper and lower condensation walls which define between them a condensation chamber. A reflector is located between the lower condensation wall and the cooking chamber and a filter is carried by the upper condensation wall. The lid also includes a rotatable window with a scraper.



0) US3789822A – HINGED COVER DEEP FAT FRYER, GRIDDLE AND BARBEQ...

43) Family number: 7628083 (US3789822A)

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Title: HINGED COVER DEEP FAT FRYER, GRIDDLE AND BARBEQUE

Priority: US19720310774 19721130

Family:	Publication number	Publication date	Application number	Application date
	<u>US3789822 A</u>	19740205	US19720310774	19721130

Probable Assignee: SCHANTZ S

Assignee(s):^(std): SCHANTZ R ; SCHANTZ S

Assignee(s): SCHANTZ S US ; SCHANTZ R US

Inventor(s):^(std): SCHANTZ J

Inventor(s): SCHANTZ J US

International class A47J37/12 F24C3/14 (Advanced/Invention);
(IPC 8-9): A47J37/12 F24C3/00 (Core/Invention)

International class A47J37/00 A47J37/06 F24C3/04
(IPC 1-7):

CPC: F24C3/14 A47J37/1242 Y10T16/53615

European class: A47J37/12G F24C3/14

US class: 126/25R 126/41R 16/267 99/340

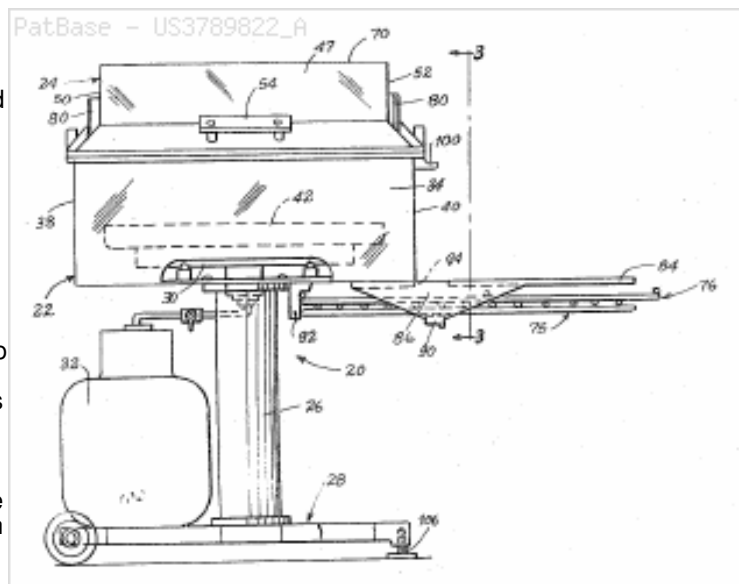
[Classification Explorer](#)

Cited documents: US3489132, US3388421, US3289801, US3244163, US3027887, US2817331,

Forward Citations: WO0002474, USRE32754, USD552407, USD541101, USD539395, USD536206, US8707857, US7798057, US6711992, US6418923, US5979431, US5941229, US5896810, US5758569, US5632265, US4909235, US4718399, US4446846, US4331123, US4322049, US4321857, US4245505, US4108142, US4062341, US4043312, US3915146, US2012204733, US2011067685, US2007028781, US2006266228,

Abstract:

Source: US3789822A A portable gas stove supporting for separate use a deep fat fryer, griddle and barbeque with a uniquely designed cover which serves as a griddle when in a closed position, a deep fat fryer in a reversed or inverted position and a barbeque heat reflector and windshield when opened to a vertically extending position. The stove has an open top within which a gas burner is provided. The open top of the stove supports the cover in a closed position where the flat top surface of the cover acts as a griddle. Hinge means enable the cover to be opened to a vertical position acting as a heat reflector and windshield. When the cover is reversed its open box like structure enables it to receive grease to act as a deep fat fryer. Hinged means are provided enabling the cover to rest upon the open top housing of the stove and be quickly hinged to a vertically extending in open position for use as a barbeque and to further enable the cover to be removed and reversed to act as a deep fat fryer.



44) Family number: 3825437 (US4995312A)

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Title: Cooking appliance with electric heating

Priority: CA19880566461 19880511 EP19880401155 19880511 FR19870006728 19870513
US19900488504 19900305 US19880191864 19880509 EP19880401155 19880511

Family:	Publication number	Publication date	Application number	Application date
	<u>AT57297 E</u>	19901015	AT19880401155T	19880511
	<u>CA1294141 A1</u>	19920114	CA19880566461	19880511
	<u>CN1005529 B</u>	19891025	CN19881002897	19880513
	<u>CN88102897 A</u>	19881130	CN19881002897	19880513
	<u>DE0295159 T1</u>	19890511	DE19880401155T	19880511
	<u>DE3860773 D1</u>	19901115	DE19883860773	19880511
	<u>EP0295159 A1</u>	19881214	EP19880401155	19880511
	<u>EP0295159 B1</u>	19901010	EP19880401155	19880511
	<u>ES2006435 A4</u>	19890501	ES19880401155T	19880511
	<u>FR2615274 A1</u>	19881118	FR19870006728	19870513
	<u>FR2615274 B1</u>	19890908	FR19870006728	19870513
	<u>GR3001116 T3</u>	19920512	GR19900400979T	19901128
	<u>GR89300023 T1</u>	19890412	GR19890300023T	19890412
	JP1788688 C3	19930910	JP19880113692	19880512
	<u>JP4076692 B4</u>	19921204	JP19880113692	19880512
	<u>JP63292917 A2</u>	19881130	JP19880113692	19880512
	<u>MX169771 B</u>	19930726	MX19880011466	19880513
	<u>US4995312 A</u>	19910226	US19900574529	19900828
	<u>US4995312 C1</u>	20100302	US19900574529	19900828

Probable Assignee: SEB SA

Assignee(s):^(std): SEB SA ; SEILER SA LTD CO

Assignee(s): LEIROS ERNEST ; S A SOCIETE AONYME ; SEB S A ; SEB S A SELONGEY COTE D OR FR

Inventor(s):^(std): LAROS ONEST ; LEIROS ERNEST ; ERUNESU RERO

Inventor(s): ERNEST LEIROS ; LEIROS ERNEST F 21000 DIJON FR ; ONEST LAROS

Agent(s): FETHERSTONHAUGH AND CO

Designated states: AT BE CH DE ES GB GR IT LI NL SE

International class
(IPC 8-9): A47J27/00 A47J36/36 A47J37/12 (Advanced/Invention);
A47J27/00 A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J27/00 A47J27/08 A47J27/66 A47J36/36 A47J37/12 F24C15/08 F24C15/34 F24C7/04

CPC: A47J27/004 A47J37/1209

European class: A47J27/00B A47J37/12A1

US class: 219/436 219/439 99/403 99/411 99/413 D7/354

[Classification Explorer](#)

Cited documents: US4728778 A, US4672179 A, US4622230 A, US4560850 A, US4487117 A, US4258695 A, US4189993 A, US4148250 A, US4138606 A, US4011431 A, US3801331 A, US3746837 A, US3725641 A, US3577908 A, US3463077 A, US3433150 A, US2863037 A, US2753436 A, US2597695 A, US2219949 A, GB1595750 A, FR2120637 A5, FR2046681 A5, ES290283 U,

Forward Citations:

WO9604832, WO9302609, WO10092951, WO04054417, WO03017813, USD636629, USD583616, USD552921, USD432348, US9018566, US8850965, US8707857, US8381637, US8309151, US8297181, US8186265, US7312425, US7105780, US7105780, US7075038, US6851351, US6742444, US6546848, US6536333, US6240837, US6002111, US5996474, US5873298, US5809870, US5794522, US5730308, US5590583, US5584234, US5526734, US5524527, US5400700, US2011266273, US2010303973, US2010269712, US2010089246, US2010018411, US2008169281, US2007256571, US2007028781, US2007028780, US2006065130, US2005217662, US2005184048, US2004245238, US2004007136, GB2407255, GB2407255, GB2306878, GB2306878, GB2255002, GB2255002, FR2848404, FR2848402, FR2820298, FR2789873, FR2737649, FR2723690, FR2720254, FR2679751, EP1029490, EP0815785, EP0757901, EP0587300, DE4418239,

Abstract:

Source: US4995312A A plastic skirt (3) surrounding a metal pan (1) is employed for external heat-insulation of electrically-heated cooking appliances and in particular deep fryers. The skirt (3) is of plastic material which does not continuously withstand the temperature of the pan wall (1a, 1b) and is separated from this wall by an air space (4) of sufficient width to limit the temperature of the skirt (3). The skirt is completely free with respect to the pan (1) with the exception of a ring (5) which joins the top edge (3a) of the skirt to the top edge (1c) of the pan and to which this latter is attached. The ring (5) is of heat-insulating material which affords continuous resistance to the temperature of the top edge (1c) of the pan (1).

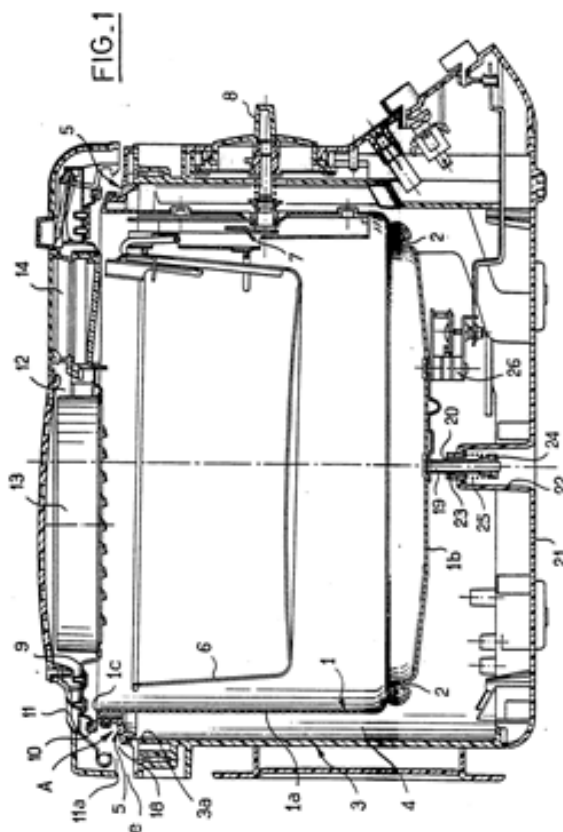
PatBase - US4995312_C1

U.S. Patent

Feb. 26, 1991

Sheet 1 of 2

4,995,312



45) Family number: 51894228 (US2012227564A)

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Title: MANDOLINE SLICER
Priority: CA20122767647 20120210 EP20120156820 20120224 US20110042050 20110307
Family:

Publication number	Publication date	Application number	Application date
<u>CA2767647 AA</u>	20120907	CA20122767647	20120210
<u>CA2767647 C</u>	20160531	CA20122767647	20120210
<u>DE602012000382 D1</u>	20131219	DE201260000382T	20120224
<u>EP2497400 A1</u>	20120912	EP20120156820	20120224
<u>EP2497400 B1</u>	20131016	EP20120156820	20120224
<u>US2012227564 AA</u>	20120913	US20110042050	20110307
<u>US8893602 BB</u>	20141125	US20110042050	20110307

Probable Assignee: CONAIR
Assignee(s):^(std): CONAIR ; FUNG KAM FAI
Assignee(s): CONAIR CORP ; CONAIR CORP STAMFORD
Inventor(s):^(std): FUNG KAM FAI
Inventor(s): FUNG KAM FAI STAMFORD
Agent(s): SIM AND MCBURNEY; AIRD AND BERLIS IP PARTNERSHIP LTD; AIRD AND MCBURNEY LP; STANNERS DAVID RALPH; MCCORMICK PAULDING AND HUBER LLP
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR
International class [A47J17/00 A47J43/25 B26B3/03 B26D1/02 B26D3/28 B27B29/08](#) (Advanced/Invention)
(IPC 8-9).
CPC: [Y10S83/932 A47J43/25 B26D3/283 Y10T83/6531 Y10T83/9493](#)
European class: [A47J43/25 B26D3/28E](#)
US class: [83/727 83/856 83/932](#)
[Classification Explorer](#)
Cited documents: US7621207 BB, US7143677 BB, US7107890 BB, US4273013 A, US2010122465 AA, US2007125207 AA, US2006283299 AA, GB2375950 A1,
DE202008002233 U1
DE102007007308 A1
Forward Citations: WO15119664, WO15090475, USD752388, USD751352, USD734107, US9446530, US9296115, US2016101535, US2015246457, GB2542211, CN105252576,

0) EP0145511A1 – FRYER WITH A HANDLE FOR MANIPULATING THE BASKET...

46) Family number: 5757036 (EP0145511A1)

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Title: Fryer with a handle for manipulating the basket.

Priority: FR19830014364 19830909

Family:	Publication number	Publication date	Application number	Application date
	DE0145511 T1	19850926	DE19840401731T	19840829
	EP0145511 A1	19850619	EP19840401731	19840829
	FR2551645 A1	19850315	FR19830014364	19830909
	FR2551645 B1	19851213	FR19830014364	19830909

Probable Assignee: SEB SA

Assignee(s):^(std): SEB SA

Assignee(s): SEB S A ; SEB S A SELONGEY COTE D OR FR

Inventor(s):^(std): AUBRY GERARD

Inventor(s): GERARD AUBRY ; AUBRY GERARD F 70310 FAUCOGNEY FR

Designated states: BE DE NL

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9):

International class [A47J37/12](#)
(IPC 1-7):

CPC: [A47J37/1209](#) [A47J37/1219](#)

European class: [A47J37/12A1](#) [A47J37/12C](#)

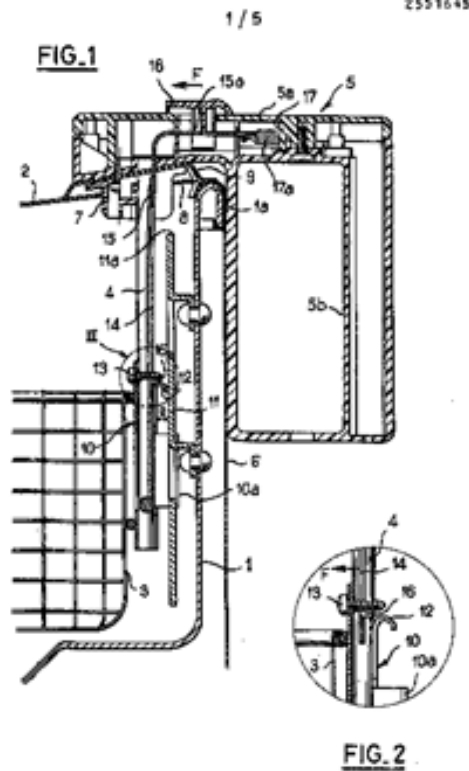
[Classification Explorer](#)

Cited documents: FR2473868 A1, DE8020281 U, DE2931859 A1,

Forward Citations: US4951558, GB2345631, GB2345631, FR2754163, FR2633818, EP0350340, BE1011829,

Abstract:

The fryer comprises a vessel (1) closed by a lid (2) and containing a frying basket (3) which is connected by a rod (4) passing through the lid to a handle (5) which enables the basket to be moved between a low position and a high position. The handle (5) is connected to the rod (4) by slide means (10) which, when the basket (3) is in the high position, enable the handle (5) to be moved towards the basket in order to press the seal (9) of the handle against the lid (2). Use in fryers equipped with an anti-smell filter.



0) US6305270B – ELECTRIC FRYER WITH AN ELEVATING MECHANISM

47) Family number: 17786662 (US6305270B)

© PatBase

Title: Electric fryer with an elevating mechanism

Priority: CN19992038903U 19990927

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2392471 Y</u>	20000823	CN19992038903U	19990927
	<u>US6305270 BA</u>	20011023	US20000579129	20000530

Probable Assignee: WANG DONGLEI

Assignee(s):^(std): WANG DONGLEI

Inventor(s):^(std): DONGLEI WANG ; WANG DONGLEI

International class
(IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/1219

European class: A47J37/12C

US class: 99/336 99/348 99/407 99/409 99/410 993/360

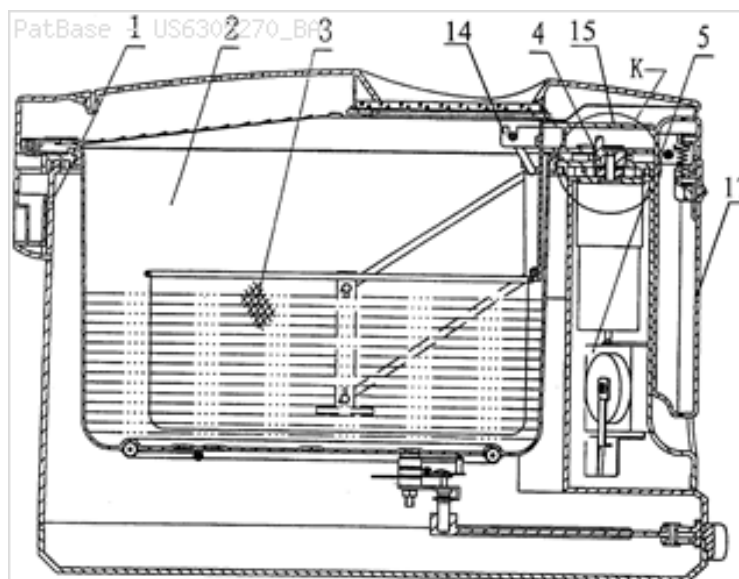
[Classification Explorer](#)

Cited documents: US6006658 A, US5931081 A, US5771781 A, US5500237 A,

Forward Citations: WO07019534, WO05063098, US8875620, US8783170, US8707857, US8522671, US7075038, US7036425, US6976420, US6593551, US2011011278, US2008110349, US2005268792, US2005217662, US2005139207, US2004154474, EP1703828, CN102355838,

Abstract:

Source: US6305270B An electric fryer with an elevating mechanism, includes a housing, a top cover, a fryer body, heating elements, a food basket assembly, a temperature controller, a cutout fuse and a timer. The electric fryer also includes an elevating mechanism. It is capable of lifting or lowering the food basket automatically, thus realizing the automation of the frying process.



48) Family number: 12980715 (US5611265A)

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Title: Combination charbroiler and fryer with spinning food basket**Priority:** US19960713836 19960913

Family:	Publication number	Publication date	Application number	Application date
	<u>US5611265 A</u>	19970318	US19960713836	19960913

Probable Assignee: SPINFRY INC**Assignee(s):^(std):** PEPIN ALAN P ; RONCI FERNANDO F**Assignee(s):** SPINFRY INC ; MIDDLEBY CORP**Inventor(s):^(std):** PEPIN ALAN P ; RONCI FERNANDO F

International class A47J37/10 A47J37/12 A47J43/24 (Advanced/Invention);
^{(IPC 8-9):} A47J37/10 A47J37/12 A47J43/00 (Core/Invention)

International class A47J37/10 A47J37/12
^{(IPC 1-7):}

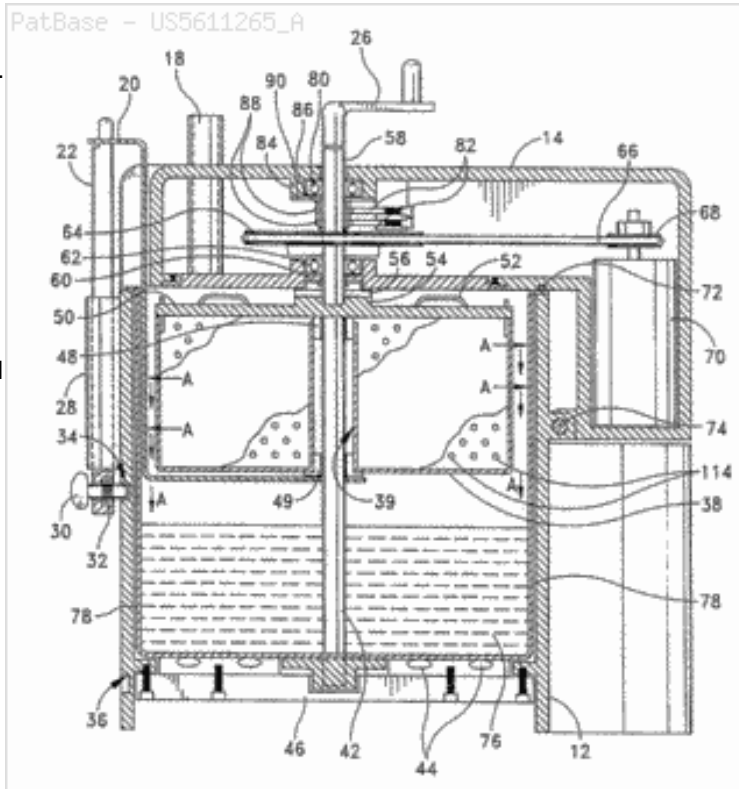
CPC: A47J37/103 A47J37/1219 A47J43/24**European class:** A47J37/10A1 A47J37/12C A47J43/24**US class:** 99/353 99/357 99/407 99/409 99/410 99/511 993/530[Classification Explorer](#)

Cited documents: US5168797 A, US5010805 A, US4196660 A, US4187770 A, US3357685 A, US3279353 A, US3200737 A, US3078986 A, US2858762 A, US2628762 A, US241631 A, US2186345 A, US1759921 A,

Forward Citations: WO13074620, WO13025988, WO12040895, WO11041641, WO09129209, WO08121111, WO08103056, WO04002280, WO02078501, USD702188, US9380911, US9301644, US9297705, US9267850, US8926837, US8726795, US8677890, US8616765, US8549993, US8528468, US8402885, US8382370, US8262287, US8100583, US8065954, US8017167, US7878111, US7739948, US7626142, US7514651, US7484455, US7424849, US7225730, US7225729, US7021203, US6976420, US6874408, US6845707, US6837150, US6834577, US6782806, US6782805, US6742445, US6708603, US6658991, US6568316, US6568315, US6536334, US6514554, US6453801, US6450087, US6408742, US6343546, US6165525, US6136358, US6077555, US5993872, US5904090, US2013174747, US2012291636, US2012180673, US2012055345, US2011203462, US2011061545, US2010294137, US2010286842, US2010284438, US2010282163, US2010258109, US2010206179, US2010145547, US2010083847, US2010071565, US2010037782, US2009321333, US2009208621, US2009052498, US2009044706, US2008282904, US2008237104, US2008213447, US2008202349, US2007029247, US2007028780, US2006144250, US2006144248, US2005284306, US2005229789, US2005178275, US2005056633, US2005011370, US2004221725, US2004194635, US2004060456, US2002062742, EP1351595, AU2015200663,

Abstract:

Source: US5611265A A combination fryer and charbroiler food cooking apparatus is provided. The food basket is slideably mounted to a centering rod mounted to a cooking oil container. The basket is moveable from a lower frying position to an upper spinning and/or charbroiling position. In the upper position, the basket is spun about its central axis to spin out unwanted excess fat, oil and grease. The food basket accommodates an insert food support for receiving a charbroil cover which includes charbroiling cooking elements. Upon installation of a charbroil cover, the charbroiling elements are positioned between upstanding food items residing in the insert food support. As a result, effective frying, charbroiling and removal of fat can be achieved.



49) Family number: 16480779 (DE8020281U1)

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Priority: DE19800020281U 19800729**Family:**

Publication number	Publication date	Application number	Application date
DE8020281 U1	19801113	DE19800020281U	19800729

Probable Assignee: A SEVERIN AND CO GMBH 5768 SUNDERN**Assignee(s):** A SEVERIN AND CO GMBH 5768 SUNDERN

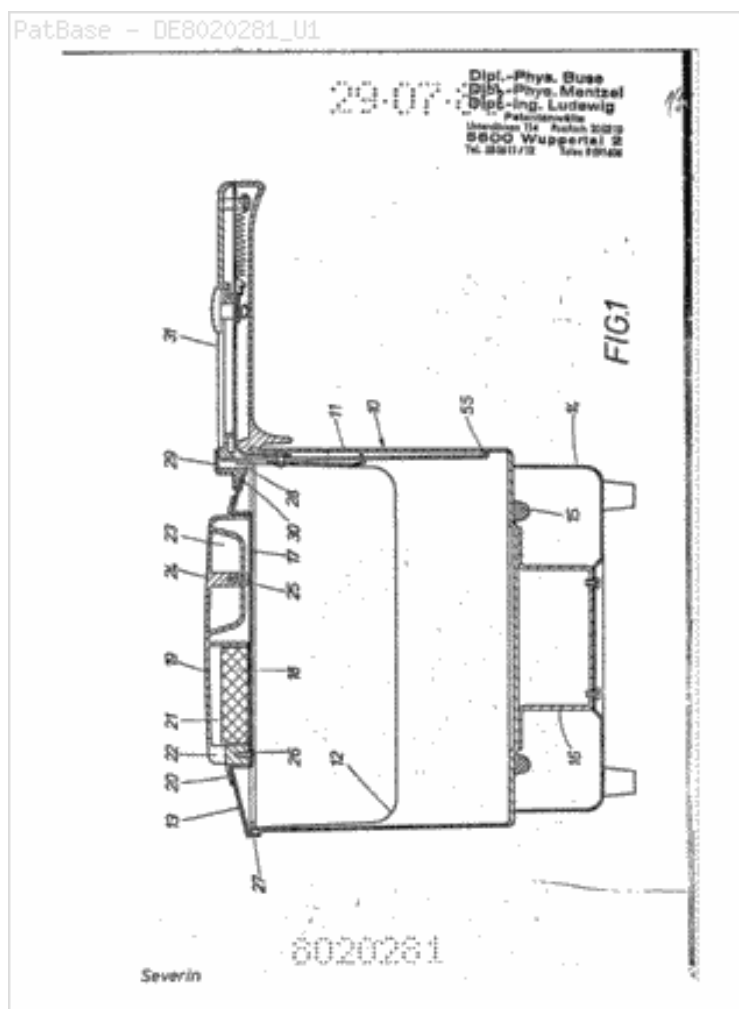
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

CPC: A47J37/1219**European class:** A47J37/12C[Classification Explorer](#)**Forward Citations:** FR2754163, FR2551645, EP0145511, BE1011829,**Abstract:**

Source: DE8020281U1 (Claim 1) 1. Friteuse mit einer Vorrichtung zum Senken und Heben des Fritierkorbes und mit einem abnehmbaren Deckel, d a d u r c h g e k e n n z e i c h n e t, dass die Vorrichtung einen Griff (31) aufweist, der einen Fritierkorb (12) unter Zwischenschaltung eines, im Griff (31) verschiebbar gefuehrten, biegsamen Bandes (35) vorzugs- weise aus Metall traegt.

Machine translation: (claim 1) 1 Fryer with a device for lowering and raising the Fritierkorbes and with a removable cover characterized in that the apparatus comprises a handle (31) having a frying basket (12) with interposition of a, in the handle (31) displaceably guided, flexible belt (35) preferably made of metal-wears.



50) Family number: 31306445 (US4250803A)

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Title: Deep fryer
Priority: DE19782833327 19780729

Family:	Publication number	Publication date	Application number	Application date
	AT132579 A	19810515	AT19790001325	19790221
	AT365058 B	19811210	AT19790001325	19790221
	BE876405 A1	19790917	BE19790195279	19790521
	DE2833327 B1	19791122	DE19782833327	19780729
	DE2833327 C2	19800731	DE19782833327	19780729
	FR2433326 A1	19800314	FR19790019158	19790725
	FR2433326 B1	19830701	FR19790019158	19790725
	NL174012 C	19840416	NL19790002684	19790405
	NL7902684 A	19800131	NL19790002684	19790405
	PT69304 A	19790401	PT19790069304	19790302
	US4250803 A	19810217	US19790051582	19790625

Probable Assignee: ROWENTA WERKE GMBH

Assignee(s):^(std): ROWENTA WERKE GMBH ; ROWENTA WERKE GES MIT BESCHRAENKTER HAFTU

Assignee(s): ROWENTA WERKE GESELLSCHAFT MIT BESCHRAENKTER HAFTU ; ROWENTA WERKE GESELLSCHAFT MIT BESCHRAENKTER HAFTUNG ; ROWENTA WERKE G M B H ; ROWENTA WERKE GMBH 6050 OFFENBACH ; ROWENTA WERKE GMBH TE OFFENBACH A D MAIN BONDSREPU ; ROWENTA WERKE GMBH TE OFFENBACH AM MAIN BONDSREPUB ; ROWENTA WERKE GMBH TE OFFENBACH A D MAIN BONDSREPUBLIEK DUITSLAND ; ROWENTA WERKE GMBH TE OFFENBACH AM MAIN BONDSREPUBLIEK DUITSLAND

Inventor(s):^(std): WOHLFART KURT ING ; WOHLFART KURT

Inventor(s): WOHLFART KURT ING GRAD 6050 OFFENBACH

International class
^{(IPC 8-9):} [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
^{(IPC 1-7):} [A47J37/12](#)

CPC: [A47J37/1219](#)

European class: [A47J37/12C](#)

US class: [99/407 99/409 99/427](#)

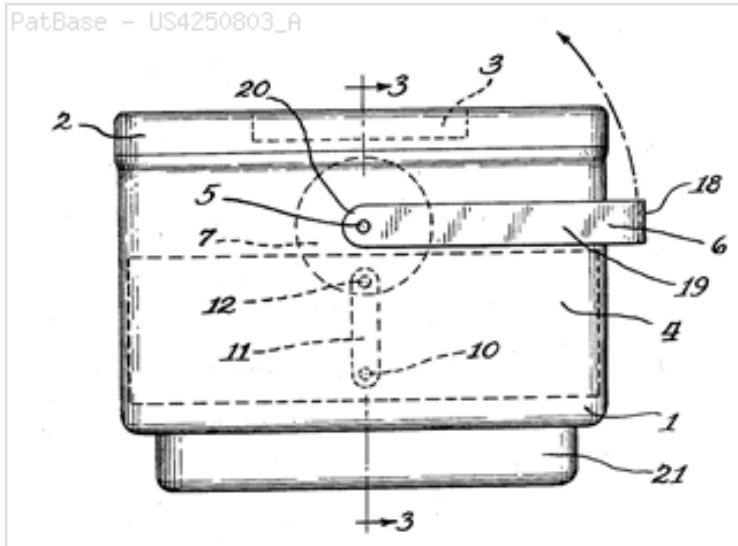
[Classification Explorer](#)

Cited documents: US4103604 A, US4031820 A, US3534677 A, US3463077 A, US3430553 A, US3071064 A, US2805314 A, US2550758 A, US2546464 A, US2222314 A, US2215929 A, US2202602 A, FR1517736 A, DE1110834 B, BE802372 A1,

Forward Citations: US8826807, US8707857, US8549993, US8402885, US6446545, US6269737, US5896810, US5758569, US5027697, US4404899, US2011061545, US2010258109, US2010206179, US2007256571, US2007028781, US2003003209, DE3542909, DE3224910,

Abstract:

Source: US4250803A In a deep fryer of a compact, portable type comprising a vessel, a handle, which is mounted to the vessel, a basket, which is adapted to be lowered and raised within the basket, a cover, which fits removably onto the vessel so as to cover the vessel, and means for lowering and raising the basket within the vessel while the vessel remains covered by the cover, wherein the handle has opposite ends mounted pivotally to opposite sides of the vessel, an improvement is disclosed wherein the basket lowering and raising means comprises a pair of pins, each of which is attached to one of the ends of the handle so as to rotate as the handle is pivoted, and which are linked to the basket so as to lower and raise the basket within the vessel as the handle is pivoted oppositely.



Title: COOKING APPLIANCE LID**Priority:** FR20050002735 20050318 WO2006FR00577 20060315

Family:	Publication number	Publication date	Application number	Application date
	<u>BRPI0608744 A2</u>	20100126	BR2006PI08744	20060315
	BRPI0608744 B1	20170207	BR2006PI08744	20060315
	<u>CA2601198 AA</u>	20070914	CA20062601198	20060315
	<u>CA2601198 C</u>	20100914	CA20062601198	20060315
	<u>CN100574688 C</u>	20091230	CN200680008725	20060315
	<u>CN101141904 A</u>	20080312	CN200680008725	20060315
	<u>DE602006007972 D1</u>	20090903	DE200660007972T	20060315
	<u>EP1871206 A1</u>	20080102	EP20060743577	20060315
	<u>EP1871206 B1</u>	20090722	EP20060743577	20060315
	<u>ES2328733 T3</u>	20091117	ES20060743577T	20060315
	<u>FR2883151 A1</u>	20060922	FR20050002735	20050318
	<u>FR2883151 B1</u>	20070511	FR20050002735	20050318
	<u>HK1116372 A1</u>	20100827	HK20080106994	20080624
	<u>HK1116372 A3</u>	20081224	HK20080106994	20080624
	<u>JP2008532669 T2</u>	20080821	JP20080501371T	20060315
	<u>JP5074376 B2</u>	20121114	JP20080501371T	20060315
	<u>KR101257965 B1</u>	20130424	KR20077023673	20060315
	<u>KR20080002834 A</u>	20080104	KR20077023673	20060315
	<u>MX2007011419 A1</u>	20071205	MX20070011419	20060315
	<u>RU2007134515 A</u>	20090427	RU20070134515	20060315
	<u>RU2363369 C2</u>	20090810	RU20070134515	20060315
	<u>US2009020531 AA</u>	20090122	US20060886630	20060315
	<u>US8544679 BB</u>	20131001	US20060886630	20060315
	<u>WO06097630 A1</u>	20060921	WO2006FR00577	20060315

Probable Assignee: SEB SA**Assignee(s):**^(std): SEB SA ; SEB SA SA ; CUILLERY PASCAL ; SEB AB**Assignee(s):** SEB S A ; SEB SOC ANONYME SA ; SEB SA SOCIETE ANONYME**Inventor(s):**^(std): CUILLERY PASCAL ; KJUIILLERI PASKAL ; PASCAL CUILLERY**Inventor(s):** KJUIILLERI PASKAL'**Agent(s):** SMART AND BIGGAR; GENDRON VINCENT CHRISTIAN; YOUNG AND THOMPSON

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class A47J27/00 A47J36/06 A47J37/10 A47J45/06 B65D25/28 B65D43/03 (Advanced/Invention);
 (IPC 8-9): A47J36/06 (Advanced/Non-invention);
A47J27/00 A47J36/00 A47J37/10 A47J45/00 B65D25/28 B65D43/02 (Core/Invention);
A47J (Subclass/Invention)

CPC: A47J45/063**European class:** A47J45/06C

US class: 220/212.5 220/380 220/756 220/762 220/772

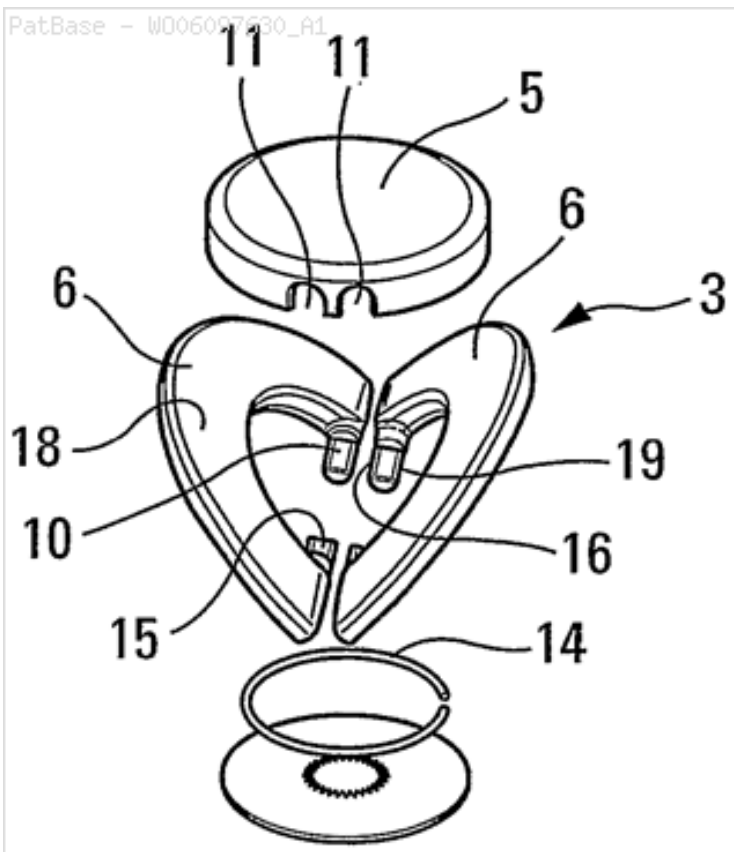
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Cited documents: US7090094 BB, US6665911 BA, US6230925 BA, US5794557 A, US5251774 A, US5232112 A, US5154114 A, US4944399 A, US361903 A, US25466 A, US1717538 A, RU2221473 C2, JPS6091138, JPS418298 B1, JPS3517181 Y1, JP6091138 A2, JP60091138 U1, JP60091138 U, JP60091138 A2, JP41008298 Y1, JP41008298 B4, JP41008298 B1, JP35017181 Y1, JP35017181 Y, GB2142868 A1, FR1203589 A,

Forward Citations: WO14176026, WO13110977, US2014319159, US2014069948, RU2567228, KR200460594, ITMI20121512, EP2708171, EP2404537, EP1792556, CN103705130, CN102309249,

Abstract:

Source: US2009020531A A lid includes a grip member (3) capable of being at least in a stacked state wherein it does not prevent stacking of the lid with another similar lid, and a gripping state wherein it has a released surface for gripping the lid. The lid includes at least one elastic member (14) moving the grip member (3) from its stacked state to its gripping state.



52) Family number: 44695091 (ES1071682U)

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Title: MAQUINA FREIDORA PARA HACER CREPES RELLENOS FRYER MACHINE TO MAKE PANCAKES STUFFED (Machine translation)

Priority: ES20090030630U 20091110

Family:	Publication number	Publication date	Application number	Application date
	<u>ES1071682 UA</u>	20100326	ES20090030630U	20091110
	<u>ES1071682 Y1</u>	20100622	ES20090030630U	20091110

Probable Assignee: GARCELAN VAZQUEZ ANA ISABEL

Assignee(s):^(std): GARCELAN VAZQUEZ ANA ISABEL

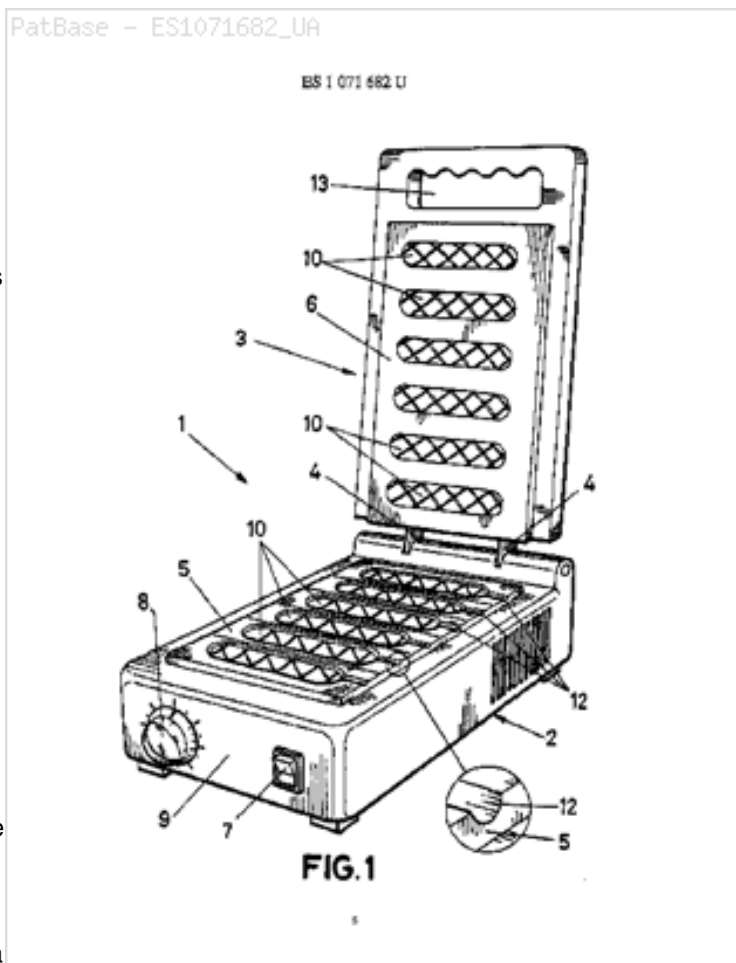
Inventor(s):^(std): GARCELAN VAZQUEZ ANA ISABEL

International class A47J37/06 (Advanced/Invention);
(IPC 8-9): A47J37/06 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: ES1071682U 1. Maquina freidora para hacer crepes rellenos, caracterizada por el hecho de comprender una carcasa, compuesta por una base (2) y una tapa (3) vinculadas entre si mediante una union articulada (4), en cuyas respectivas caras internas y enfrentadas, existen sendas planchas metalicas (5 y 6) capacitadas para calentarse de forma controlada tanto en tiempo como en potencia, mediante elementos electricos convencionales alojados en el interior de la carcasa, los cuales se controlan mediante un interruptor (7) y, al menos, mando de potencia graduable (8) previstos en la zona frontal (9) de la base (2), estando convenientemente conectados a un cable de alimentacion electrica que permite su conexionado a la red, contando dichas planchas (5 y 6) con una serie de huecos (10), dispuestos en coincidencia los de la plancha de la base respecto a los de la plancha de la tapa y que actuan como un molde para realizar los crepes, ya que estan destinados a acoger la masa del crepe asi como a alojar el relleno insertado en un palillo (11) que facilita su colocacion asi como la extraccion del crepe una vez frito. 2. Maquina freidora para hacer crepes rellenos, segun la reivindicacion 1, caracterizada por el hecho de que, para facilitar la colocacion de los palillos (11), en, al menos uno, de los laterales de los huecos (10), preferentemente en la plancha de la base (5), se ha previsto unas acanaladuras (12), de forma que al cerrarse la tapa (3) contra la base (2), el volumen del palillo (11) queda enrasado dentro de dicha acanaladura (12) y ambas planchas (5 y 6) de la base y de la tapa se cierran ajustando perfectamente una contra otra. 3. Maquina freidora para hacer crepes rellenos, segun la reivindicacion 1, caracterizada por el hecho de que los huecos (10) de las planchas (5 y 6) son de configuracion alargada y tiene su superficie ranurada para evitar que la masa se pegue al cocerse. 4. Maquina freidora para hacer crepes rellenos, segun las reivindicaciones anteriores, caracterizada por el hecho de que, opcionalmente, la plancha de la base (5) y la plancha de la tapa (6) estan recubiertas con una cobertura de material antiadherente. 5. Maquina freidora para hacer crepes rellenos, segun las reivindicaciones anteriores, caracterizada por el hecho de que la tapa (3) cuenta con un asa (13) que facilita su asidero para bajarla sobre la base (2).



Machine translation: 1. Fryer machine for stuffed crepes, characterized in that it comprises a housing, comprising a base (2) and a cover (3) linked together by an articulated joint (4), whose respective opposing inner sides and there are paths metal plates (5 and 6) capable heated in a controlled manner both in time and power, by conventional electric element housed inside the casing, which are controlled by a switch (7) and at least power control adjustable (8) provided at the front (9) of the base (2), being conveniently connected to an electrical power supply cable that allows connection to the network, counting those plates (5 and 6) with a series of holes (10), disposed in coincidence of the baseplate relative to those of the cover plate and which act as a mold for making pancakes, and which is intended to accommodate the mass of the crepe filling so as to alojarel inserted into a stick (11) for easy placement and extraction once fried crepe. 2. Machine for making pancakes filled fryer according to claim 1, characterized by the fact that, to facilitate placement of the sticks (11), in at least one of the sides of the recesses (10), preferably on the plate the base (5), is provided with grooves (12), so that on closing the lid (3) against the base (2), the volume of the stick (11) is flush within said groove (12) and both plates (5 and 6) of the base and lid are closed against each other perfectly adjusted. 3. Machine for making pancakes filled fryer according to claim 1, characterized by the fact that the holes (10) of the plates (5 and 6) are of elongated configuration and has a grooved surface to prevent the dough from sticking during cooking. 4. Fryer machine for stuffed crepes, according to previous claims, characterized in that, optionally, the baseplate (5) and the cover plate (6) are coated with a nonstick material coverage. 5. Fryer machine for stuffed crepes, according to previous claims, characterized in that the cover (3) has a handle (13) for easy handle to lower on the base (2).

53) Family number: 49290611 (CN201894154U)

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Title: Pressure oil deep fryer
Priority: CN201020653844U 20101210
Family:

Publication number	Publication date	Application number	Application date
<u>CN201894154 U</u>	20110713	CN201020653844U	20101210

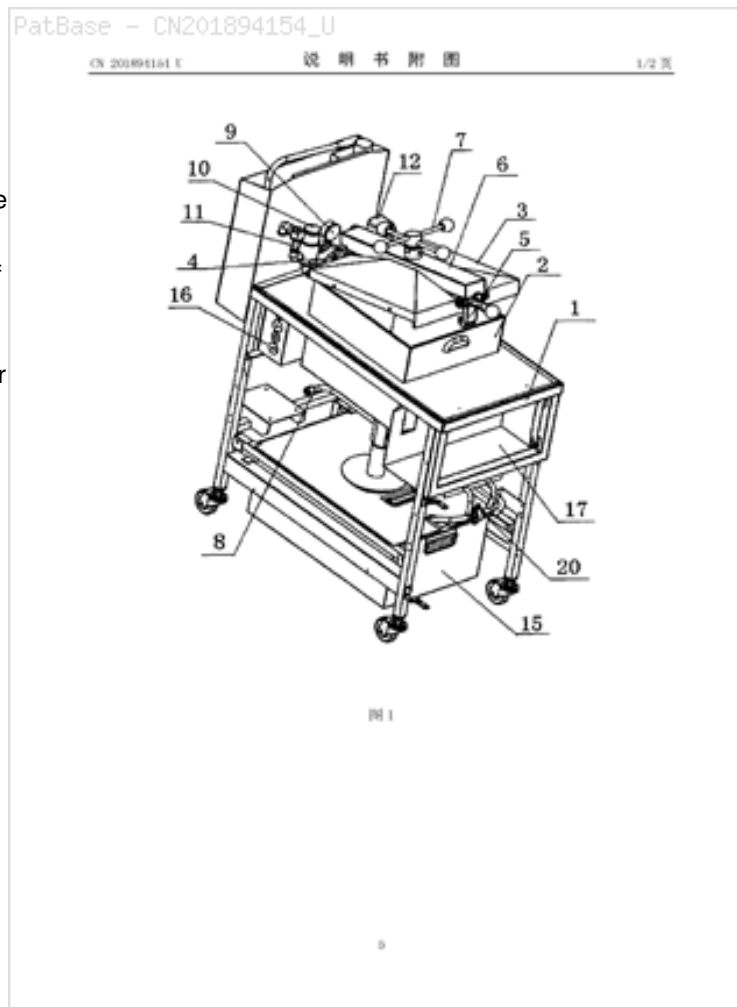
Probable Assignee: SHANGHAI MINGGU MACHINERY MFG CO LTD
Assignee(s):^(std): SHANGHAI MINGGU MACHINERY MFG CO LTD
Assignee(s): SHANGHAI MINGGU MACHINERY MANUFACTURING CO
Inventor(s):^(std): ZHANGLIN CAO
Inventor(s): CAO ZHANGLIN
International class A21B5/08 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Forward Citations: CN102428978,

Abstract:

Source: CN201894154U The utility model discloses a pressure oil deep fryer consisting of a bracket, a fryer body internally provided with a heating device, and a fryer cover, wherein the fryer body is installed on the bracket, one side of the fryer body is provided with a side frame, the other corresponding side of the fryer body is provided with a hook, the side frame is articulated on a fryer cover pressure beam of the fryer cover, the center of the fryer cover pressure beam is provided with a through hole, a cruciform handle is screwed in the through hole, an oil delivery pipe and a safety air pipe are communicated with the fryer body, the safety air pipe is sequentially provided with a pressure gauge, a pressure limiting valve, a manual relief valve and an electromagnetic relief valve, one end of the electromagnetic relief valve is connected with a muffler, the lower part of the fryer body is provided with an oil relief valve, the lower part of the oil relief valve is provided with an oil storage tank which is provided with a filter screen and arranged on the bracket, and two sides of the fryer body are respectively provided with a main power distribution box and an electrical control box which are arranged on the bracket. The pressure oil deep fryer can minimize the requirements on an operator in cooking process to always achieve the same flavor by using the pressure oil deep fryer, improve production efficiency and reduce production cost.



54) Family number: 22800687 (US3207059A)**Title:** BACON FRYER**Priority:** US19620232783 19621024

Family:	Publication number	Publication date	Application number	Application date
	<u>US3207059 A</u>	19650921	US19620232783	19621024

Probable Assignee: HIRONS WILLIAM H**Assignee(s):**^(std): HIRONS WILLIAM H**Inventor(s):**^(std): HIRONS WILLIAM H

International class A47J37/06 (Advanced/Invention);
^{(IPC 8-9):} A47J37/06 (Core/Invention)

International class A47J37/06
^{(IPC 1-7):}

CPC: A47J37/0694 Y10T16/549**European class:** A47J37/06P**US class:** 16/373 99/349 99/402 99/416 99/426 99/450 D7/361[Classification Explorer](#)**Cited documents:** US914159 A, US3019721 A, US2895406 A, US2868112 A, US2542109 A, US2469595 A, US244060 A, US223929 A, US1783792 A, US1699221 A, US1648335 A, US1201704 A,

Forward Citations: WO10036527, WO07005575, USD689344, USD655980, USD614003, US9332878, US8601940, US7966928, US7586067, US6415934, US4653468, US4181073, US4006675, US3738255, US3412674, US3389651, US2016100712, US2015313412, US2014007780, US2012085245, US2011303098, US2010077929, US2008184897, US2008124438, US2007000391, JP2009500109, FR2850007, AU2006265978,

Abstract:

Source: US3207059A (Claim 1) 1. A cooking utensil for deep fat frying bacon comprising, a heavy wire mesh base plate; wire mesh cover plate; at least one intermediate wire mesh plate, all of said plates having substantially the same dimensions; an encircling rim of wire attached to the peripheral edge of each of said base and cover plates only, the gage of said rim of wire being heavier than the gage of the wire forming the meshes of said plates; a combined handle and support member comprising a continuous run of heavy gage wire formed intermediate its ends into a handle loop, that has a downwardly directed portion, said support portion being terminated in a support portion fixed to the bottom of said base plate, and providing at one side of said base plate a pair of vertically elongated upstanding loops, and means fixed to said intermediate and cover plates and slidably cooperating with said elongated loops for holding said plates to said base plate.

PatBase - US3207059_A

Sept. 21, 1965

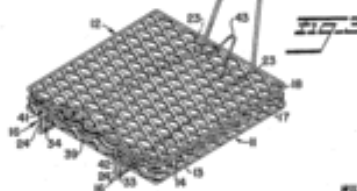
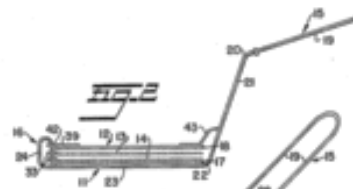
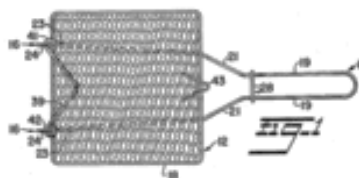
W. H. HIRONS

3,207,059

BACON FRYER

Filed Oct. 24, 1962

2 Sheets-Sheet 1

INVENTOR
WILLIAM H. HIRONS*Harold M. Smith*
ATTORNEY

0) PH2013000358Y – DEEP FRYER

55) Family number: 59409692 (PH2013000358Y)

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Title: DEEP FRYER
Priority: PH20130000358U 20130730

Family:	Publication number	Publication date	Application number	Application date
	PH2013000358 U	20150603	PH20130000358U	20130730
	PH2013000358 Y	20150603	PH20130000358U	20130730

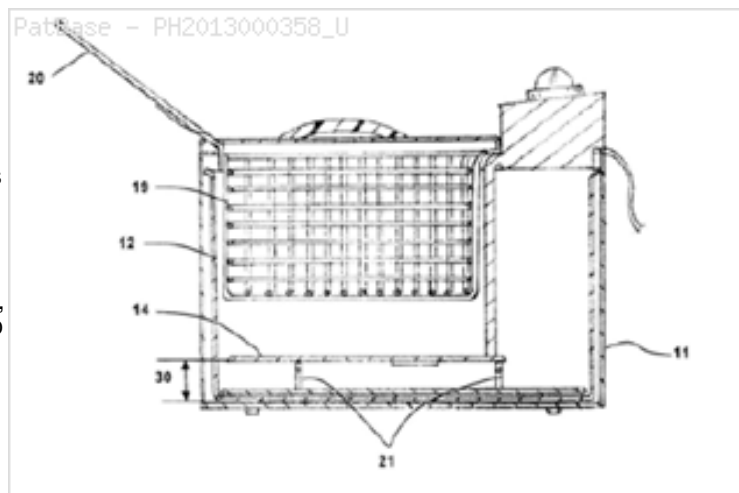
Probable Assignee: PHILKRAFT WELLNESS CORP
Assignee(s):^(std) PHILKRAFT WELLNESS CORP
Inventor(s):^(std) CONDES MANOLO M
Inventor(s): MANOLO M CONDES
Agent(s): ESTRELLITA BELTRAN ABELARDO

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: PH2013000358Y The utility model discloses a deep fryer which comprises a metal housing, an oil pan disposed inside the metal housing, a strainer being disposed inside said oil pan, said strainer having a pair of seats on top. The deep fryer also comprises a heating element disposed on top of said seats whereby said heating element and said oil pan defining a cold zone therebetween. Further, the deep fryer comprises a basket being disposed on top of said heating element, a lid disposed on top of said basket adapted to cover said metal housing, and a control box being disposed outside the metal housing.



56) Family number: 11406838 (US5910264A)

© PatBase

Title: Electrical cooking apparatus for cooking precooked, deep-frozen or fresh food, of the fryer type, with no oil bath

Priority: FR19940007866 19940627 WO1995FR00855 19950627

Family:	Publication number	Publication date	Application number	Application date
	AT183905 E	19990915	AT19950924372T	19950627
	DE69511866 D1	19991007	DE19956011866	19950627
	DE69511866 T2	20000413	DE19956011866T	19950627
	EP0767618 A1	19970416	EP19950924372	19950627
	EP0767618 B1	19990901	EP19950924372	19950627
	FR2721493 A1	19951229	FR19940007866	19940627
	FR2721493 B1	19960906	FR19940007866	19940627
	US5910264 A	19990608	US19970765322	19970520
	WO9600027 A1	19960104	WO1995FR00855	19950627

Probable Assignee: NODAVIC LLC

Assignee(s):^(std): DAULIACH MICHEL HENRI

Assignee(s): NODAVIC LLC

Inventor(s):^(std): DAULIACH MICHEL HENRI

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE US

International class
(IPC 8-9): [A47J37/04](#) (Advanced/Invention);
[A47J37/04](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/04 A47J37/12 F27B7/12 F27D1/18 F27D3/12](#)

CPC: [A47J37/047](#)

European class: [A47J37/04G](#)

US class: [126/21A 219/389 219/392 219/400 219/411 99/443R](#)

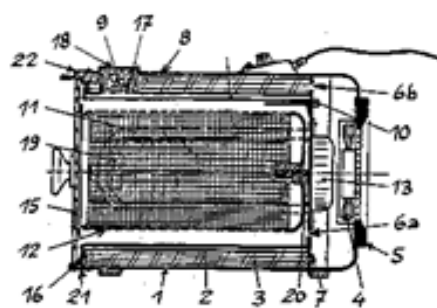
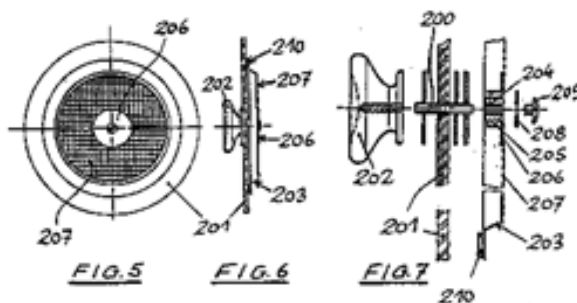
[Classification Explorer](#)

Cited documents: WO9321809 A1, WO9318349 A1, US5676870 A, US5545874 A, US5182981 A, US5148737 A, US4960977 A, US4945212 A, US4450758 A, US445075 A, US4304177 A, US4173925 A, US1993607 A, FR2682009 A1, FR2452906 A1, DE3519964 A1,

Forward Citations: WO14154775, WO11025370, WO10137982, WO0124673, US9357877, US9332877, US9301644, US8122815, US7901721, US7411159, US7307243, US6812433, US6657167, US6444955, US6373029, US6367371, US6204484, US6097002, US2010310717, US2008286429, US2008257168, US2008213447, US2008163764, US2007096352, US2006280825, US2005183716, US2004250688, US2003159687, EP1550392, EP0774004, CN102458132,

Abstract:

Source: US5910264A PCT No. PCT/FR95/00855 Sec. 371 Date May 20, 1997 Sec. 102(e) Date May 20, 1997 PCT Filed Jun. 27, 1995 PCT Pub. No. WO96/01259 PCT Pub. Date Jan. 18, 1996 The invention relates to a household electric cooking apparatus, of the frying type, without oil bath, intended to cook frozen or fresh food products such as french fries, etc, without unpleasant smell, without smoke and in a dietetic way. It is comprised of a body which contains a metal housing (2). The cooking is performed by short wavelength infrared radiations. Inside said housing, a removable basket (12) made of perforated metal, rotating upon itself, is driven by an electric motor (13). Between the inner housing (2) and the resistors (11), is provided a removable reflector (14) to facilitate the cleaning of the frying unit. The apparatus is light, has reduced dimensions and cooks very rapidly food products without the risks and disadvantages related to the manipulation of boiling oil.

FIG. 1FIG. 5FIG. 6FIG. 7

57) Family number: 14988931 (US6202543B)

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Title: REMOVAL OF PARTICULATES FROM FRYING OILS**Priority:** US19990399014 19990921

Family:	Publication number	Publication date	Application number	Application date
	<u>US6202543 BA</u>	20010320	US19990399014	19990921

Probable Assignee: CLAUDE LAVAL CORP**Assignee(s):^(std):** CLAUDE LAVAL CORP**Inventor(s):^(std):** FORD STEVEN D ; LISY THOMAS ; MOYA EMMANUEL G

International class A23L1/01 A23L5/10 A47J37/12 B01D29/27 B01D35/30 B01D37/00 (Advanced/Invention);
 (IPC 8-9): A23L1/01 A47J37/12 B01D29/13 B01D35/30 B01D37/00 (Core/Invention)

International class A23L1/00 A47J37/00 A47J37/12 B01D36/00
 (IPC 1-7):

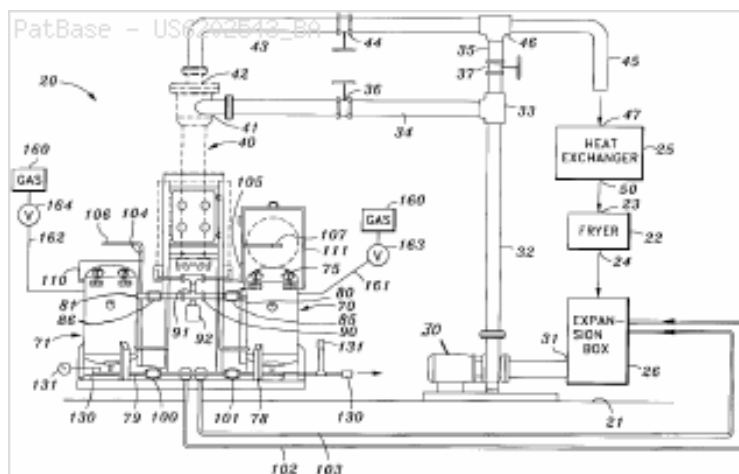
CPC: Y10S210/08 A47J37/1223 B01D29/27 B01D35/30 B01D37/00 B01D2201/301 A23L5/11**European class:** A23L1/01B A47J37/12D B01D29/27 B01D35/30 B01D37/00 L01D201/30C**US class:** 210/167 210/167.28 210/DIG.8 99/330 99/337 99/403 99/408 993/300[Classification Explorer](#)

Cited documents: US5811006 A, US4945893 A, US4751915 A, US4722267 A, US4684412 A, US4668390 A, US4602612 A, US4599990 A, US4481873 A, US4444095 A, US4210123 A, US3760793 A, US3722498 A,

Forward Citations: WO11059434, WO09086531, US9532681, US9528510, US9414727, US9357881, US9149166, US9114336, US8992773, US8980102, US8828223, US8709260, US8551331, US7938959, US7461587, US7335313, US7318374, US7025890, US2013183421, US2010326288, US2010300980, US2010116345, US2009321333, US2008277325, US2008121578, US2007062376, US2006201892, US2004211734, US2004182247, US2004117665,

Abstract:

Source: US6202543B A system for use with a hot oil fryer of the type which cooks food products in hot oil, in which particulates from the food are shed into the hot oil in the fry during the cooking operation, the fryer having an inlet to receive hot oil, and an outlet for recirculation of hot oil.

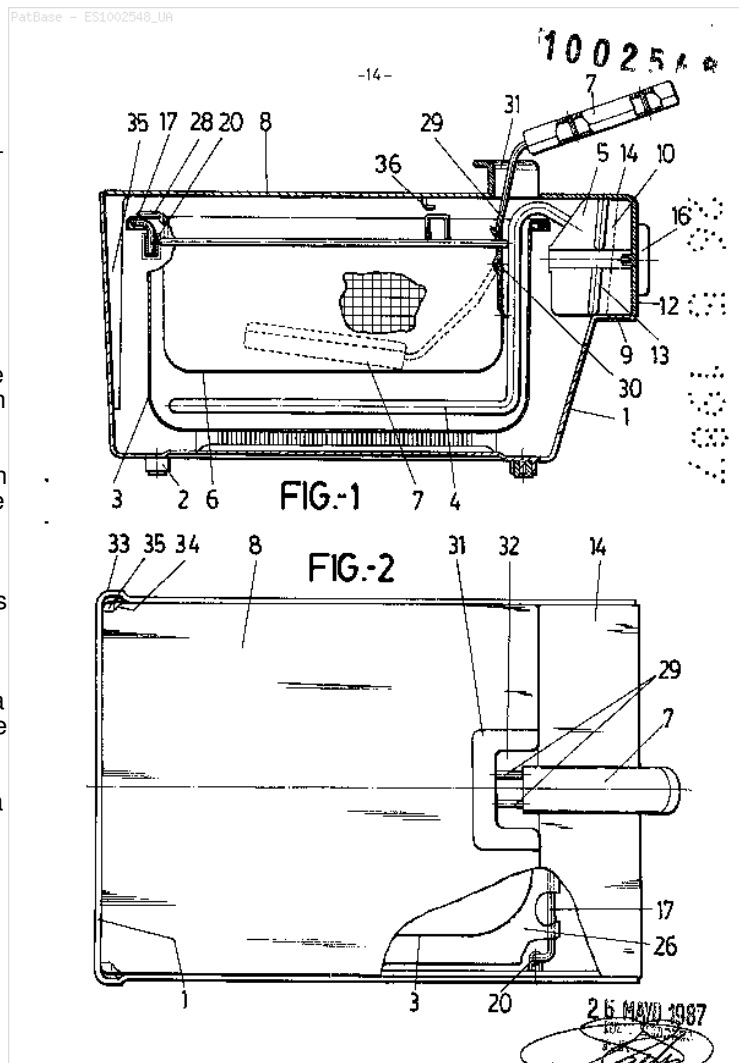


Title: FREIDORA PERFECCIONADA**Priority:** ES19870001759U 19870526**Family:**

Publication number	Publication date	Application number	Application date
<u>ES1002548 UA</u>	19880616	ES19870001759U	19870526
<u>ES1002548 Y1</u>	19890201	ES19870001759U	19870526
<u>ES1002548 YA</u>	19890201	ES19870001759U	19870526

Probable Assignee: OFICINA DE INVESTIGACION AGRUPADA S A**Assignee(s):**^(std) OFICINA DE INVESTIGACION AGRUPADA S A**Inventor(s):**^(std) LABADIA DEL FRESNO MIGUEL**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)**International class** A47J37/12
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: ES1002548U 1. Freidora perfeccionada, que siendo del tipo de las que se constituyen a partir de una carcasa en la que se establece una cubeta contenedora del aceite, debidamente jada a dicha carcasa, cubeta en la que a su vez se establece la resistencia electrica calefactora, asociada al correspondiente bloque portamandos, as como el cesto enrejillado e ne lq u eh ad ea l o j a r s ee lp r o d u c t o a f r e r, asis- tido por el correspondiente asa, y estando complementada la citada carcasa por una tapa, esencial- mente se caracteriza porque la mencionada car- casa incorpora sobre una de sus paredes laterales, en correspondencia con la zona de ubicacion del bloque portamandos, una escotadura abierta ha- cia su embocadura y prolongada exteriormente en un corto cuello acanalado, de seccion coincidente con la de dicho bloque, habiendose previsto que el mencionado cuello estep r o v i s t o e ns ue m b o - cadura externa de un rebaje escalonado y en sus caras laterales de sendas guas internas, mientras que el bloque portamandos incorpora a su vez en sus paredes laterales nervios complementarios de dichas guas y es solidario de una semicarcasa que, ademas de complementar en situacion de montaje a la carcasa de la freidora, estableciendo continui- dad con esta ultima, dene con respecto al bloque portamandos una pesta~ na prolongacion lateral de su pared lateral, destinada a encajar en los esca- lonamientos laterales de la embocadura de la car- casa, con la particularidad ademas de que tanto las guas del cuello de la carcasa como los nervios del portamandos adoptan una disposicion incli- nada que favorece el acoplamiento de dicho por- tamandos a la carcasa, con amplia holgura, esta- bleciendose un progresivo ajuste, a medida que se progresa en la penetracion, hasta una situacion li- mite en la que el portamandos queda rgidamente bloqueado con respecto a la carcasa, en situacion



inamovable y totalmente estable. 1. Improved fryer, which is of the type which is constituted from a casing in which an oil container tray duly joined to said housing, in the cuvette which in turn provides electrical resistance heating is set, I associated with the corresponding PORTAMANDOS block, as well as the basket grating and the handle, assisted by the corresponding handle, and being complemented said housing by, essentially cover characterized in that said housing incorporates on one of its side walls, in correspondence with the area of location of PORTAMANDOS block, an open recess towards its mouth and the outside was prolonged in a short grooved neck matching section to that of said block, having foreseen that said neck would be external and a stepped recess and in the side faces of respective inner guides, while the block PORTAMANDOS turn incorporates in its side walls of said guides complementary ribs and is secured to a half-shell that situation in addition to complement the housing assembly from the fryer, establishing continuity with the latter, with respect to block PORTAMANDOS a flange lateral prolongation of the lateral wall, designed to fit on the sides of the mouth of the housing, with the special addition that both guides the neck of the casing as the guides of PORTAMANDOS adopt a provision-scale inclined longitudinal favoring coupling to the PORTAMANDOS housing, with ample clearance, this allowing a progressive adjustment, as you progress in the penetration, to a limit situation in which the PORTAMANDOS is rigidamente locked with respect to the housing, unmovable and totally stable situation.

0) ES1036924Y – FREIDORA DOMESTICA.

59) Family number: 34651379 (ES1036924Y)

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Title:	FREIDORA DOMESTICA.			
Priority:	ES19970000883U 19970407			
Family:	Publication number	Publication date	Application number	Application date
	ES1036924 UA	19971201	ES19970000883U	19970407
	ES1036924 Y1	19980501	ES19970000883U	19970407
	ES1036924 YA	19980501	ES19970000883U	19970407

Probable Assignee: SOLAC ELECTRODOMESTICOS

Assignee(s):(std): SOLAC ELECTRODOMESTICOS

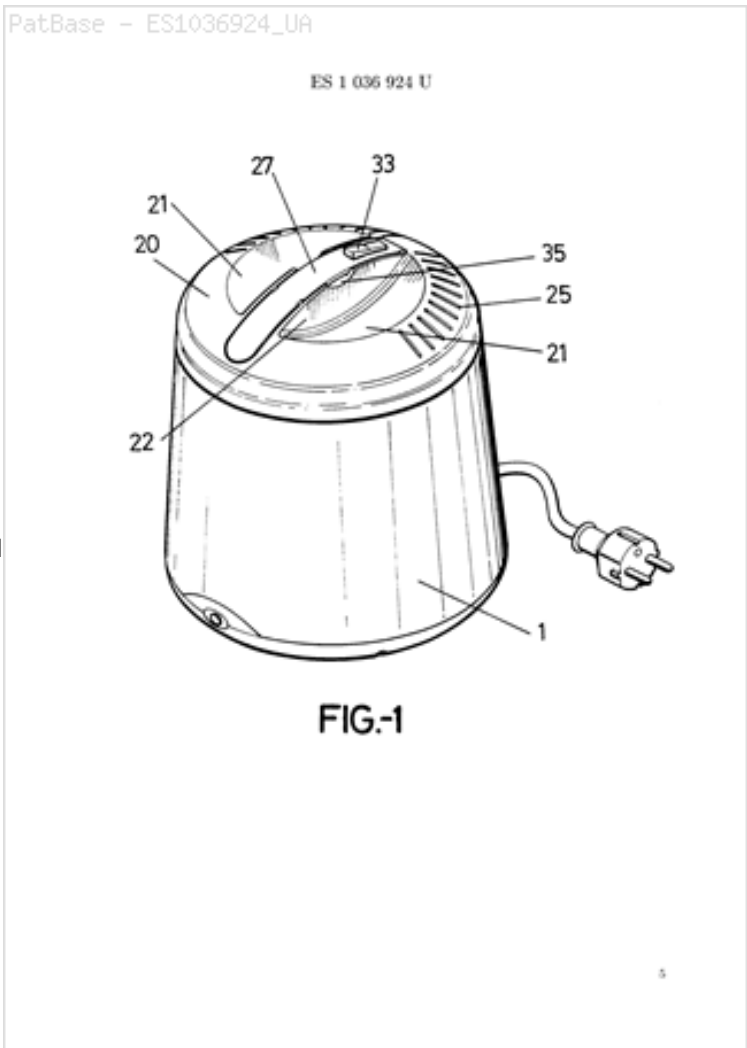
Assignee(s): ELECTRODOMESTICOS SOLAC S A ; ELECTRODOMESTICOS SOLAC SA

International class (IPC 8-9): A47J37/00 (Advanced/Invention); A47J37/00 (Core/Invention)

International class (IPC 1-7): A47J37/00

[Classification Explorer](#)

Abstract:
Source: ES1036924U 1. Freidora domestica, del tipo de las que in- corporan una carcasa en la que se establece una cuba con un cestillo en su interior, cuba asisti- da por una resistencia calefactora inferior y que se cierra mediante una tapa superior, caracteri- zada porque la carcasa esta constituida mediante un cuerpo tubular, de congruaci on tronco-coni- ca, convergente en sentido ascendente, cuya em- bocadura inferior se cierra mediante una tapa- base convenientemente jada a la misma, mien- tras que su embocadura superior se acopla a la cuba, as como la tapa que adopta una congu- racion en casquete esferico con una tapeta interior y plana, a nivel de su embocadura, y con rejillas tanto en dicha tapeta como en la citada tapa, que facilitan la disipacion termica y que permiten el agarre manual de dicha tapa, a traves de una pa- reja de rehundidos superiores que delimitan un puente transversal en funciones de asidero. 1. Domestica Fryer, of the type that incorporate a housing in which a Cuba with a basket inside, power-assisted Cuba by a lower heating element and is closed by a top cover Zada characterized, establishing that the housing is constituted by a tubular body, congruaci on truncated conical convergent upstream, the lower em-bocadura is closed by a cap-base conveniently jada to it, whereas its upper opening is coupled to the Cuba, as well as the cover which assumes a CONGU-ration in a spherical cap with a flat inner flap, at the level of its opening, and both said flap vents and said cap, to facilitate heat dissipation and allow manual gripping of said cover, through a pair of upper recesses delimiting a gantry serving as a grip.

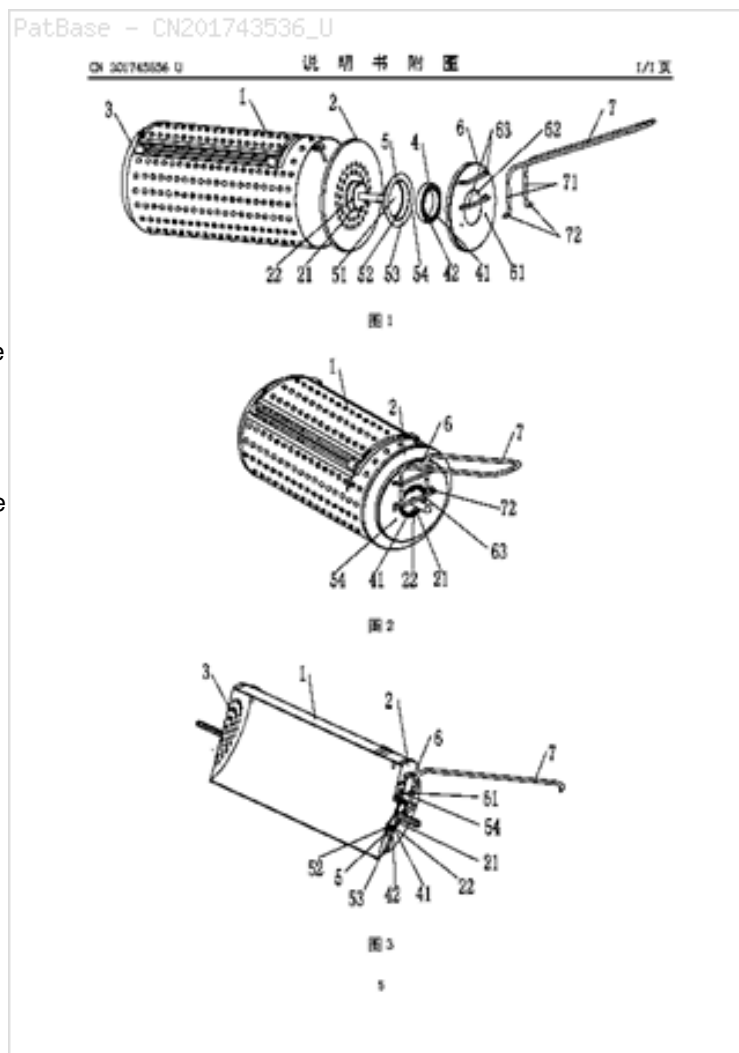


Title: Rotatable frying cage of deep fryer**Priority:** CN201020231416U 20100618

Family:	Publication number	Publication date	Application number	Application date
	CN201743536 U	20110216	CN201020231416U	20100618

Probable Assignee: MIDEA HOLDING CO LTD**Assignee(s):**^(std): MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD**Assignee(s):** MIDEA HOLDING CO**Inventor(s):**^(std): MINQIANG FENG ; TIANBING GAO ; YUN YANG**Inventor(s):** YANG YUN ; FENG MINQIANG ; GAO TIANBING**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** CN101862136,**Abstract:**

Source: CN201743536U The utility model relates to a rotatable frying cage of a deep fryer, which comprises a cage body, a front cover, a rear cover and a handle. The front cover, the rear cover and the cage body are tightly connected. The rotatable frying cage of the deep fryer is characterized by also comprising a bearing, a bearing sleeve and a handle seat, wherein an inner ring of the bearing is fixedly connected with the front cover; an outer ring of the bearing is fixedly connected with the bearing sleeve and the handle seat; and the handle is arranged on the handle seat. In the utility model, the bearing is arranged between the front cage and the handle of the frying cage, the inner ring of the bearing is fixed with the front cover and the outer ring of the bearing is fixed with the handle seat by utilizing the characteristic of the bearing that the inner ring and the outer ring can carry out 360 degrees of rotation without interference so as to reach the effect that when the cage body of the frying cage rotates, the handle arranged on the frying cage cannot rotate relative to the frying cage without causing interference to the frying cage. The utility model is suitable for the deep fryer with the rotatable frying cage.



61) Family number: 5356077 (US4686958A)

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Title: Versatile outdoor cooker
Priority: US19850808986 19851216

Family:	Publication number	Publication date	Application number	Application date
	<u>US4686958 A</u>	19870818	US19850808986	19851216

Probable Assignee: SKELTON DELORES J

Assignee(s):^(std): SKELTON DELORES J ; SKELTON MAYNARD A

Inventor(s):^(std): SKELTON DELORES J ; SKELTON MAYNARD A

International class
 (IPC 8-9): A47J37/06 A47J37/07 F24C3/14 (Advanced/Invention);
A47J37/06 A47J37/07 F24C3/00 (Core/Invention)

International class
 (IPC 1-7): F24D1/00

CPC: A47J37/06 A47J37/0713 F24C3/14

European class: A47J37/06 A47J37/07B3 F24C3/14

US class: 126/25R 126/348 126/369.2 126/41R 99/339 99/410 99/415

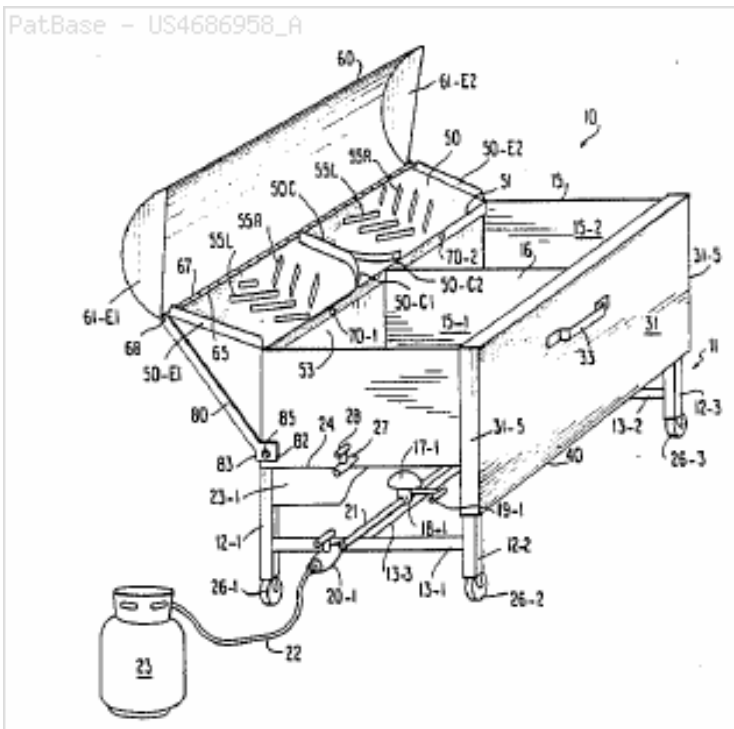
[Classification Explorer](#)

Cited documents: US943152 A, US4397299 A, US4350140 A, US3869972 A, US3771510 A, US3722498 A, US3714889 A, US2848938 A, US2794897 A, US2600234 A, US2109212 A,

Forward Citations: US9155421, US7188617, US6684757, US6557547, US6289792, US6240915, US6131562, US5934184, US5873355, US5765469, US5632265, US5628242, US5325843, US5195423, US5123337, US5097759, US4984515, US4979437, US2015152974, US2012260809, US2012204733, US2010242943, US2009087534, US2004069149, US2003196555,

Abstract:

Source: US4686958A An outdoor cooker has a rectangular metal cooking tank for holding a cooking liquid to be heated by a flame from a burner mounted beneath the cooking tank and includes a cooked food drain plate having an edge secured at a predetermined angle to the rear upper edge of the cooking tank so that cooking liquid from cooked food on the drain plate drains into the cooking tank with the cooked food drain plate being adapted to being heated by wasted heat from the burner. A domed cover minimizes heat loss from cooked food on the cooked food drain tray and prevents access to the cooked food by insects, grass, dirt, leaves, etc. The domed cover is preferably hingably connected to the edge of the drain plate remote from the upper edge of the cooking tank. A cooking tank cover, constituted by a flat metal plate having an area complementary to the cross-sectional area of the open top of the cooking tank has a handle on the upper surface thereof and at least one depending flange for hooking the cooking tank cover from the front edge of the cooking tank while the cook is inspecting food being cooked. Several cooking tanks may be provided, each with a separate burner for each tank, and separate control for each burner so that different foods and different preparation styles may be used in each tank.



0) US2013233950A – KITCHEN APPLIANCE FOR PROCESSING FOODSTUFF AND ...

62) Family number: 54623993 (US2013233950A)

© PatBase

Title: KITCHEN APPLIANCE FOR PROCESSING FOODSTUFF AND METHOD OF OPERATING SAME

Priority: US20120608193P 20120308 US20120707640 20121207 US20130774043 20130222
US20130057149 20131018 US20150741781 20150617

Family:	Publication number	Publication date	Application number	Application date
	CN203138173 U	20130821	CN201320106877U	20130308
	CN203328502 U	20131211	CN201320390464U	20130702
	US2013233950 AA	20130912	US20130774043	20130222
	US2013233952 AA	20130912	US20120707640	20121207
	US2014157995 AA	20140612	US20130057149	20131018
	US2015297034 AA	20151022	US20150741781	20150617
	US9084508 BB	20150721	US20130774043	20130222
	US9433324 BB	20160906	US20150741781	20150617

Probable Assignee: HAMILTON BEACH BRANDS INC

Assignee(s):^(std): HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX

Assignee(s): HAMILTON BEACH PROCTOR SILEX INC

Inventor(s):^(std): BRADY MARTIN ; ERNEST B PRYOR JR ; GARMAN MICHAEL ; MICHAEL G SANFORD ; MULVANEY PATRICK T ; PRYOR ERNEST B ; PRYOR JR E B ; PRYOR JR ERNEST B ; SANDFORD M G ; SANDFORD MICHAEL G

Inventor(s): MICHAELGSANFORD ; ERNESTBPRYOR JR

Agent(s): ALEXANDER D

International class [A47J27/00](#) [A47J36/00](#) [A47J36/10](#) [A47J43/00](#) [A47J43/046](#) [A47J43/07](#) [A47J43/08](#)
(IPC 8-9): [A47J45/06](#) (Advanced/Invention)

CPC: [A47J43/046](#) [A47J43/085](#) [A47J43/0722](#) [A47J43/0772](#) [A47J36/10](#)

US class: [1/1](#) [220/322](#) [241/27](#) [241/282.1](#) [241/282.2](#) [241/36](#) [99/337](#)

[Classification Explorer](#)

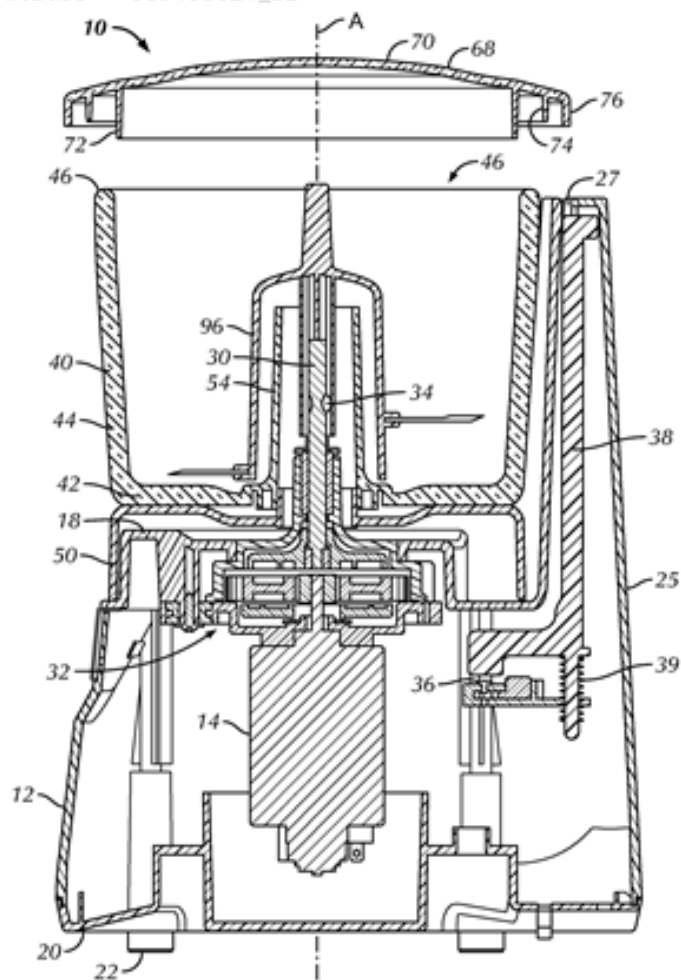
Cited documents: WO05011454 A1, USD683180 S1, USD644478 S1, USD445636 S1, USD426423 S1, USD395573 S1, USD394183 S1, USD311659 S1, USD290677 S1, US9198540 BB, US9084508 BB, US8403556 BB, US8157435 BB, US7566186 BB, US7530510 BB, US7387269 BB, US6907819 BB, US6669124 BB, US6637681 BA, US6568843 BA, US6513966 BA, US6510784 BA, US6474578 BA, US6338569 BA, US5934179 A, US5875706 A, US5567049 A, US5486665 A, US5454299 A, US5213028 A, US4741482 A, US4706896 A, US4629131 A, US4623097 A, US4506836 A, US4396159 A, US4226373 A, US4216917 A, US4143824 A, US3612126 A, US2014021278 AA, US2014001296 AA, US2013233950 AA, US2012206995 AA, US2012055303 AA, US2011210195 AA, US2011068204 AA, US2010206701 AA, US2010149909 AA, US2008135654 AA, US2008105684 AA, US2007210062 AA, US2006201341 AA, US2005145615 AA, US2005035231 AA, US2005000370 AA, US2004042338 AA, US2004042337 AA, US2003205635 AA, US2003193833 AA, US2001036124 AA, EP1153563 A1, CH417237 A,

Forward Citations: USD767327, US9526384, US9307860, US9055838, US2016256005, US2016158956, US2015053712, US2013233952, US2013098922,

Abstract:

Source: US2013233950A A kitchen appliance includes a housing enclosing a motor and a switch mechanism. A bowl is removably mountable onto the housing. At least one actuation member is movable between a first position and a second position. A bowl lid is removably mountable onto the upper rim of the bowl. When the bowl lid is properly positioned onto the upper rim of the bowl, the motor is actuated or permitted to be actuated by pressing downwardly on the lid such that at least a portion of one of a plurality of flanges of the bowl contacts at least a portion of the actuation member to force the actuation member to the second position.

PatBase - US9433324_BB



0) US4181073A – CHALUPA FRYING UTENSIL

63) Family number: 7604540 (US4181073A)

© PatBase

Title: Chalupa frying utensil

Priority: US19780877662 19780214

Family:	Publication number	Publication date	Application number	Application date
	US4181073 A	19800101	US19780877662	19780214

Probable Assignee: CHAPA ABEL A SR

Assignee(s):^(std): CHAPA ABEL A SR

Inventor(s):^(std): CHAPA ABEL A SR

International class
(IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/12](#)

CPC: [A47J37/1295](#)

European class: [A47J37/12P](#)

US class: [99/416 99/426](#)

[Classification Explorer](#)

Cited documents: US883432 A, US709048 A, US3207059 A, US2814981 A, US2216984 A, US1470521 A, US1195370 A,

Forward Citations: USD696058, US5706718, US4535688, US4517887, US4494453, US2014007780,

Source: US4181073A There is disclosed a chalupe frying utensil usable in conjunction with either deep fat fryers, deep sauce pans, or relatively flat skillets. The utensil comprises a multiplicity of thin perforate sheet metal plates connected together for opening and closing movement upon manipulation of a pair of handle sections connected to the outermost plates. Means are provided to secure the handle sections together. The perforate plates are selected to prevent sticking of the chalupas to the plates.

64) Family number: 1890114 (DE3009041A1)

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Title: DECKEL FUER EINE FRITEUSE COVER FOR FRYING PAN – CONSISTS OF FRAME SECTION WITH CENTRE OPENING AND SUPERIMPOSED INSET ALSO RECESSES FOR FONDUE FORKS

Priority: DE19803009041 19800206 DE19803009041 19800308

Family:	Publication number	Publication date	Application number	Application date
	DE3009041 A1	19810827	DE19803009041	19800308

Probable Assignee: KLEIN REINHOLD GEKA WERK

Assignee(s):^(std): GEKA WERK REINHOLD KLEIN KG ; KLEIN REINHOLD GEKA WERK

Inventor(s):^(std): KLUTE HERTA

International class
(IPC 8-9): A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

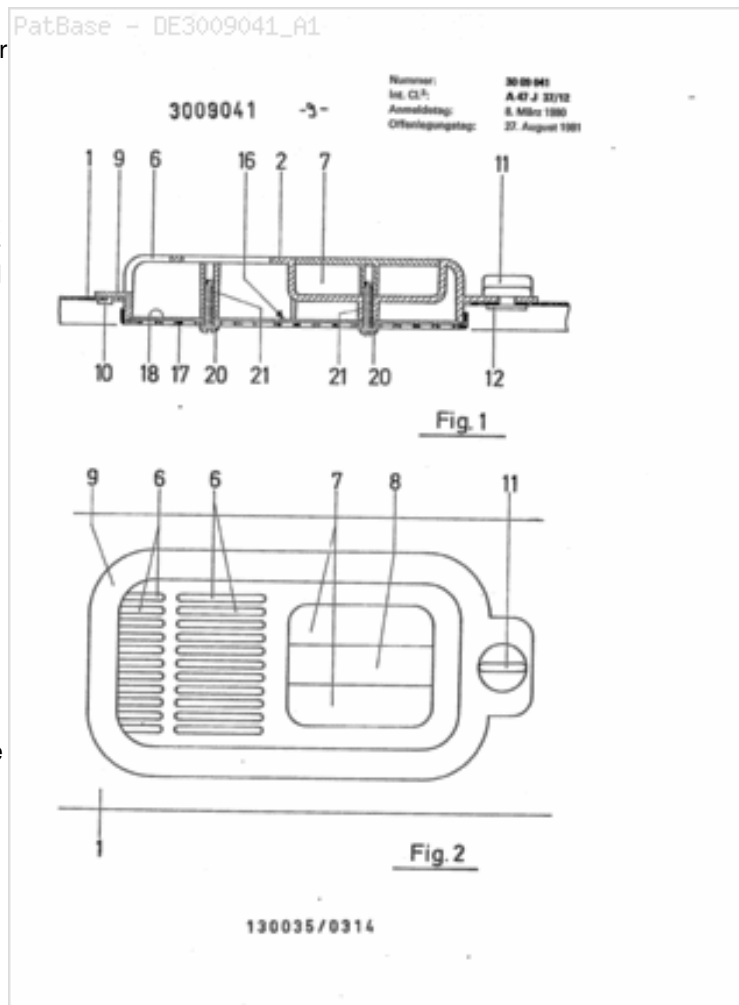
CPC: A47J37/128 A47J36/38

European class: A47J36/38 A47J37/12M1

[Classification Explorer](#)

Abstract:

Source: DE3009041A1 AnsprUche Deckel fuer eine Friteuse, dadurch gekennzeichnet, dass er zweiteilig ausgebildet ist und aus einem auf den oberen Friteusenrand aufsetzbaren, eine Mittelloeffnung (3) aufweisenden Rahmenteil (1) und einen Einsatz (2) besteht, der auf einen die Mittelloeffnung (3) umgebenden Randabschnitt des Rahmenteils (1) aufgesetzt ist, die Mittel oeffnung (3) abdeckt und loesbar mit dem Rahmenteil (1) verriegelt ist 2) Deckel nach Anspruch 1, dadurch gekennzeichnet, dass in dem die Mittelloeffnung (3) umgebenden und vom Einsatz (2) abgedeckten Randabschnitt des Rahmenteils (1) Aussparungen (4) zum Einlegen von Fonduegabeln vorgesehen sind 3) Deckel nach Anspruch 1 oder 2, dadurch gekennzeichnet, dass der Einsatz (2) eine Mehrzahl von Luftaustrittsoeffnungen (6) aufweist, die auf der Innenseite von einem Fett- und Geruchsfilter (16) abgedeckt sind 4) Deckel nach einem der Ansprueche 1 bis 3, dadurch gekennzeichnet, dass der Geruchsfilter (16) aus einem mit Luftdurchgang soeffnungen (19) versehenen, platt enfoelmnigen Traeger (7) und einem Filterelement (18) besteht 5) Deckel nach Anspruch 4, dadurch gekennzeichnet, dass das Filterelement (18) auf der von der Friteuse abgewandten Seite des Traegers (17) angeordnet ist 6) Deckel nach einem der Ansprueche 1 bis 5, dadurch gekennzeichnet, dass der Einsatz (2) einen Handgriff (8) aufweist 7) Deckel nach einem der Ansprueche 3 bis 6, dadurch gekennzeichnet, dass der Einsatz (2) haubenfoermig ausgebildet ist, wobei ein Haubenteil die Luftaustrittsoeffnungen (6) und ein anderer Haubenteil den Handgriff (8) enthaelt 8) Deckel nach einem der Ansprueche 4 bis 7,



dadurch gekennzeichnet, dass der Träger (17) lösbar am Einsatz (2) befestigt ist 9) Deckel nach Anspruch 8, dadurch gekennzeichnet, dass der Einsatz (2) wenigstens eine zur Aufnahme des Rahmenteilrandes bestimmte Lasche (10) und einen auf der gegenüberliegenden Seite der Lasche (10) angeordneten, zum Zusammenwirken mit dem Rahmenteil (1) bestimmten Verschlusskopf (11) aufweist. The frying pan cover is made in two parts and consists of a frame section (1) fitted with a centre opening and which can be placed on to the upper edge of the pan and of an insert (2) which is superimposed on to an edge section of the frame (1) enclosing the centre opening. The insert covers the centre opening and is detachably locked to the frame section (1). In that edge section of the frame section (1) enclosing the centre opening and covered by the insert (2) there are recesses for the insertion of fondue forks.

0) US6834578B – OIL–CASTING DEVICE FOR DEEP–FRYING BASKET

65) Family number: 31422182 (US6834578B)

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Title: Oil–casting device for deep–frying basket

Priority: US20040855710 20040528

Family:	Publication number	Publication date	Application number	Application date
	<u>US6834578 BA</u>	20041228	US20040855710	20040528

Probable Assignee: LYU JAN CO LTD

Assignee(s):^(std): LYU JAN CO LTD

Inventor(s):^(std): WU CHANG LI CHEN

International class
(IPC 8–9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1–7): A23L1/00 A47J37/00 A47J37/12

CPC: A47J37/1219 A47J37/1295

European class: A47J37/12C A47J37/12P

US class: 366/110 366/128 99/403 99/407 99/411 99/413 994/130

[Classification Explorer](#)

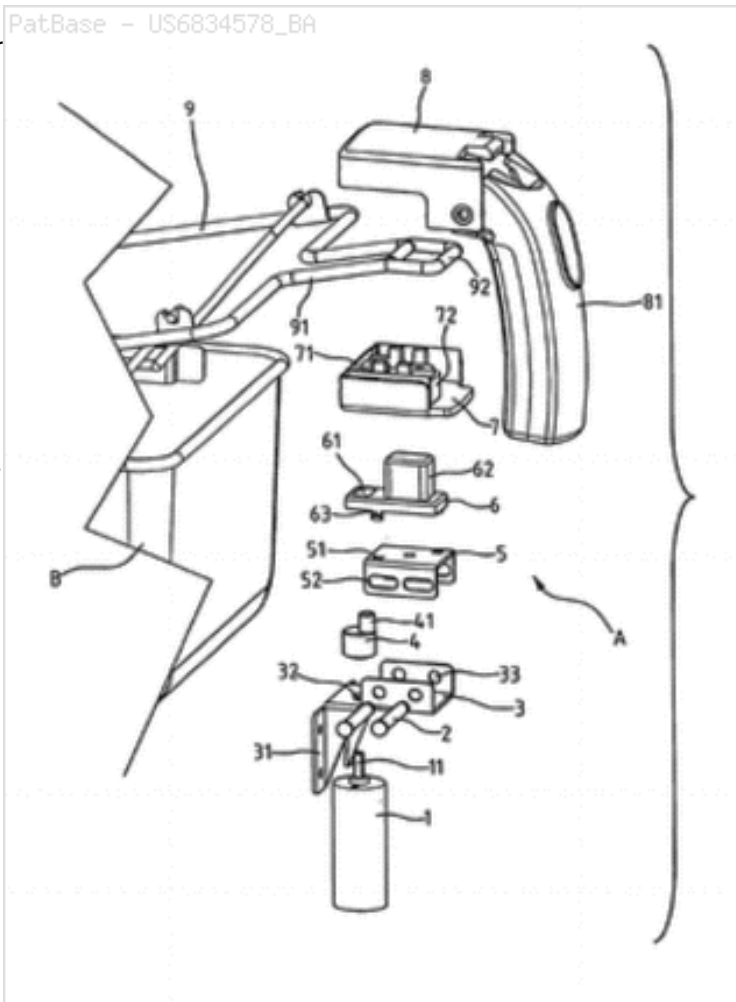
Cited documents: US6732636, US6250213, US6240837, US6006658, US5746117, US5379684, US4852471, US3799048, US3731614, US3078786, US1198374,

Forward Citations: WO09109144, WO08122210, USD740070, US8783170, US8707857, US2008110349, EP1922965,

Abstract:

Source: US6834578B An oil-casting device for deep-frying basket includes a vibration device, which is provided with a motor. A central spindle of the motor is arranged penetrating a through hole of a movable member seat to joint with an eccentric wheel. The movable member seat is combined with a movable member by insertion pins, and the top end of the movable member is in connection with an eccentric wheel seat. An eccentric axle of the eccentric wheel is penetratingly disposed in an axle hole in front of the eccentric wheel seat. An eccentric lever is arranged in rear of the axle hole and inserted in an eccentric lever seat inside a hook lower cover, and the outer circumference of the eccentric lever seat is sheathed on a grip of a supporting rack of deep-frying basket. And finally, the hook lower cover is combined with a handle of deep fryer having a hook upper cover to complete the architecture of the device.

PatBase - US6834578_BA



66) Family number: 56195521 (US2014116260A)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME**Priority:** CN201320665689U 20131025 US20120718351P 20121025 US20130059879 20131022
US20140513643 20141014 US20160370399 20161206

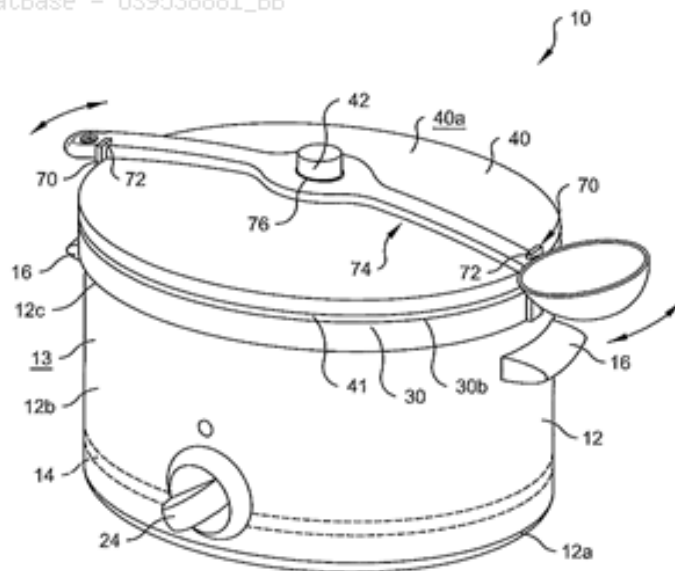
Family:	Publication number	Publication date	Application number	Application date
	<u>CN203506365 U</u>	20140402	CN201320665689U	20131025
	<u>CN204071671 U</u>	20150107	CN201420224740U	20131025
	<u>US2014116260 AA</u>	20140501	US20130059879	20131022
	<u>US2016183718 AA</u>	20160630	US20140513643	20141014
	<u>US2017079472 AA</u>	20170323	US20160370399	20161206
	<u>US9474410 BB</u>	20161025	US20130059879	20131022
	<u>US9538881 BB</u>	20170110	US20140513643	20141014

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):**^(std) HAMILTON BEACH BRANDS INC ; HAMILTON COMPLETED KEBU LANDERS LTD**Inventor(s):**^(std) STAMPER GEORGE ; PRYOR JR ERNEST B ; MULVANEY PATRICK T ; STEINER MARK C ; OLSON YVONNE ; RARING ALEXANDER D ; SANDFORD MICHAEL G ; MARTIN BRADY ; MICHAEL G SANDFORD ; MICHAEL GARMAN ; MARK C STEINER ; PATRICK T MULVANEY ; GARMAN MICHAEL ; HUDGINS ARTHUR W ; GUOYAO YE ; JOHN D BARNES ; ERNEST B PRYOR ; GEORGE STAMPER ; ERNEST B PRYOR JR ; BARNES JOHN D ; BRADY MARTIN ; ARTHUR W HUDGINS ; ALEXANDER D RARING ; YE GUOYAO ; YVONNE OLSON**Inventor(s):** ALEXANDER DRARING ; ARTHUR WHUDGINS ; ERNEST BPRYOR JR ; MARK CSTEINER ; MICHAEL GSANDFORD ; JOHN DBARNES ; PATRICK TMULVANEY**Agent(s):** ALEXANDER D**International class** A47J27/00 A47J27/08 A47J36/00 A47J36/10 A47J45/06 H05B6/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/10 A47J27/004**US class:** 1/1 99/324[Classification Explorer](#)**Cited documents:** USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6776085 BA, US6772677 BB, US6606987 BB, US6587739 BA, US6237765 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5447252 A, US5415082 A, US5355777 A, US5337910 A, US5251542 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4581989 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769902 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2011061545 AA, US2010251902 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009158940 AA, US2009039071 AA, US2008290092 AA, US2008084144 AA, US2007295221 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Abstract:

Source: US2014116260A A kitchen appliance includes a housing that defines a cavity. The housing has a housing rim defining an opening to the cavity. A heating or cooling element is disposed within the housing to heat or cool the cavity. A container has a generally hollow interior and a container rim. A lid is sized and shaped to at least partially cover the opening of the container when placed on the container. The lid has an exterior surface and an opposing interior surface. At least one latching mechanism or handle is operable to seal the contents of the appliance within the appliance.

PatBase - US9538881_BB



Title: DEEP FRYERS
Priority: GB19710030601 19710630

Family:	Publication number	Publication date	Application number	Application date
	<u>GB1390916 A</u>	19750416	GB19710030601	19710630

Probable Assignee: MILLE CO LTD NOEL DE

Assignee(s):^(std): MILLE CO LTD NOEL DE

Assignee(s): DE MILLE CO LTD NOEL

International class
 (IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
 (IPC 1-7): A47J37/12

CPC: A47J37/1209

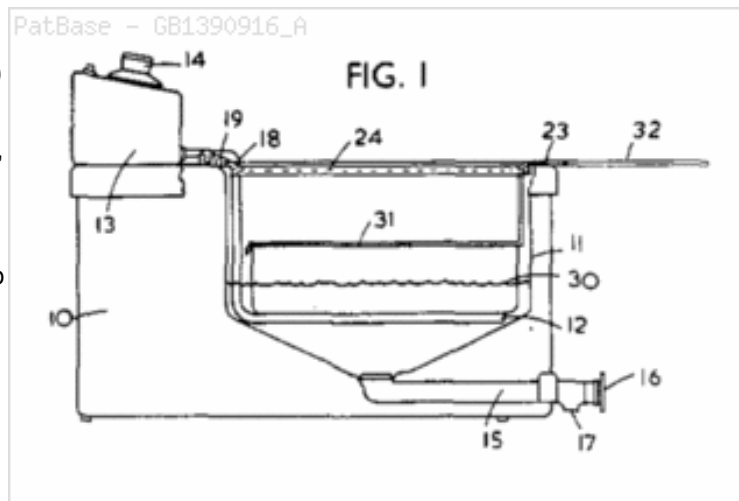
European class: A47J37/12A1

[Classification Explorer](#)

Forward Citations: WO07115784, GB2124073,

Abstract:

Source: GB1390916A 1390916 Deep fryers NOEL DE MILLE and CO Ltd 18 July 1972 [30 June 1971] 30601/71 Heading A4D A deep fryer has a cooking oil receptacle 11, a perforate cover therefor, and a food basket 31, such that when the basket is put in the receptacle, the cover can be put on before the basket is lowered below the normal oil level in the receptacle. In the Fig, the cover comprises a ring 18 with hinge lugs 19 and handles 23, to which a wire mesh grid 24 is attached. The basket handle 32 passes out of the receptacle between the handles 23. A further lid fitting over the perforate part of the cover acts as a dust cover when the fryer is not in use.



Title: Conveniently taken and put frying cage for fryer

Priority: CN201020248181U 20100705

Family:

Publication number	Publication date	Application number	Application date
CN201767809 U	20110323	CN201020248181U	20100705

Probable Assignee: MIDEA HOLDING CO LTD

Assignee(s):^(std) MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD

Assignee(s): MIDEA HOLDING CO

Inventor(s):(std): MINQIANG FENG ; TIANBING GAO ; YUN YANG

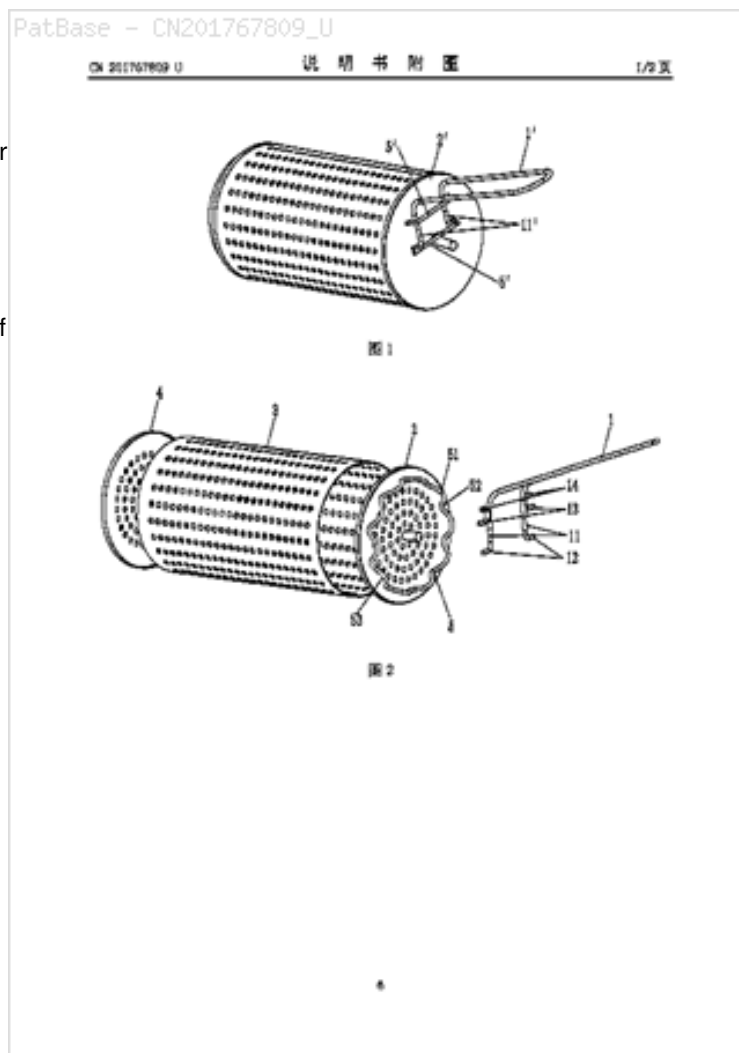
Inventor(s): YANG YUN ; FENG MINQIANG ; GAO TIANBING

International class A47J37/12 (Advanced/Invention)
(IPC 8-9).

Classification Explorer

Abstract:

Source: CN201767809U The utility model provides a conveniently taken and put frying cage for a fryer. The frying cage comprises a front end cover, a cage body and a rear end cover, wherein the front end cover and the rear end cover are fixed at the ends on the two sides of the cage body respectively; a handle seat is fixed on the outer end face of the front end cover; a handle is detachably arranged in the handle seat; the frying cage is characterized in that the handle seat is an annular wavelike handle seat which consists of a plurality of groups of bumps and recesses at equal intervals, wherein a hole for inserting a hand is formed between each bump and the front end cover. By using the annular wavelike handle seat, the diversification in the assembling direction on the handle seat is realized, and the hand can be smoothly inserted into the handle seat for assembling after the frying cage stops rotation in any direction.



69) Family number: 49445472 (CN201920540U)

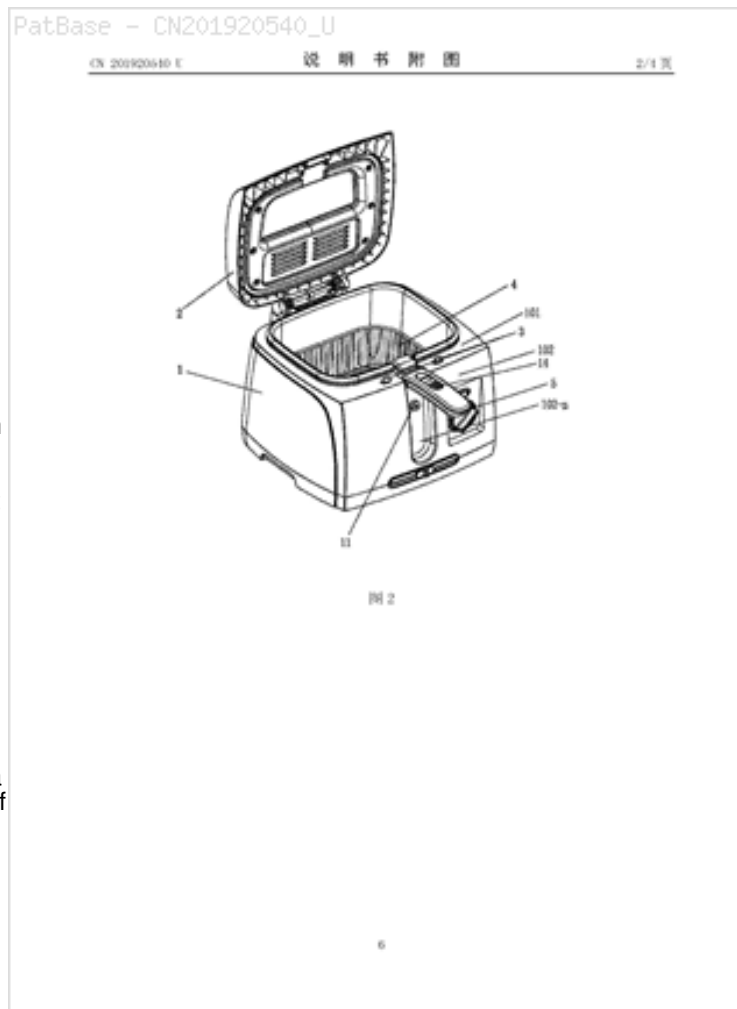
© PatBase

Title: Fryer with improved uncovered key structure**Priority:** CN201120074962U 20110321

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201920540 U</u>	20110810	CN201120074962U	20110321

Probable Assignee: YANMIN WU**Assignee(s):^(std):** YANMIN WU**Assignee(s):** WU YANMIN**Inventor(s):^(std):** YANMIN WU**Inventor(s):** WU YANMIN**International class** A47J37/12 H01H13/04 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201920540U The utility model relates to a fryer with an improved uncovered key structure, which comprises a fryer body and a surface cover, wherein an elastic buckle lug extends out of the front end of the top surface of the fryer body and is movably buckled with the surface cover in an opening/closing mode; a detachable frying net is arranged in the fryer body; the front end of the frying net is connected with a handle; the handle is embedded in a cavity on the front end surface of the fryer body in a bendable mode; an oscillating arm extends out of the elastic buckle lug to the inner part of the fryer body; one side of the oscillating arm is connected with a buckle lug spring; the bottom end of the oscillating arm is connected with a buckle lug mounting bracket by a transverse binding post; the handle is provided with a first key; the cavity is provided with a first key hole; the first key is installed in the first key hole; an inner central post is sheathed with a first reset spring and is supported on the buckle lug mounting bracket; a second key hole is arranged on the handle corresponding to the first key; the second key is installed in the second key hole; the central post on the inner side of the second key is sheathed with a second reset spring; a tail end extends out of the handle to be supported on the first key in a pressing mode. The fryer has the advantage of simple structure, and the body of the whole fryer is smooth and beautiful.



0) US2012223067A – KITCHEN APPLIANCE AND METHOD OF ASSEMBLING SAME...

70) Family number: 50660443 (US2012223067A)

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Title: KITCHEN APPLIANCE AND METHOD OF ASSEMBLING SAME
Priority: US20110386630F 20110303 US20120406043 20120227
Family:

Publication number	Publication date	Application number	Application date
CN301812325 S	20120125	CN201130283616F	20110817
US2012223067 AA	20120906	US20120406043	20120227
US9351606 BB	20160531	US20120406043	20120227
USD657611 S1	20120417	US20110386630F	20110303

Probable Assignee: HAMILTON BEACH BRANDS INC

Assignee(s):^(std): BARNES JOHN D ; BOCK BRIAN ; GAYNOR JAMES ROBERT ; HAMILTON BEACH BRANDS INC ; STEINER MARK C

Assignee(s): WELLS FARGO BANK NATIONAL ASSOCIATION

Inventor(s):^(std): BARNES JOHN D ; GAYNOR JAMES ROBERT ; STEINER MARK C ; BOCK BRIAN

Agent(s): PANITCH SCHWARZE BELISARIO AND NADEL LLP; ALEXANDER D

International class [A47J27/00 A47J36/10 A47J36/12 B23P11/00 F27D11/00](#) (Advanced/Invention)
(IPC 8-9):

CPC: [A47J36/10 A47J36/12 Y10T29/49947](#)

European class: [A47J36/10 A47J36/12](#)

US class: [1/1 219/438 220/573.4 29/525.01 D7/354 D7/358](#)

Locarno class: [07/02](#)

[Classification Explorer](#)

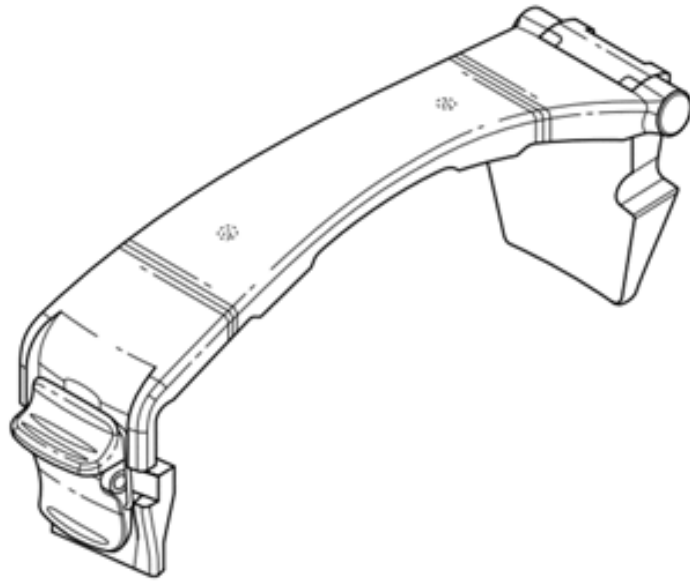
Cited documents: USD642856 S1, USD641204 S1, USD626784 S1, USD611758 S1, USD607267 S1, USD594694 S1, USD590204 S1, USD549517 S1, USD537670 S1, USD534759 S1, USD508817 S1, USD507718 S1, USD507452 S1, USD506350 S1, USD503584 S1, USD496555 S1, USD492882 S1, USD486352 S1, USD476191 S1, USD468163 S1, USD444993 S1, USD444664 S1, USD434940 S1, USD434266 S1, USD429596 S1, USD427483 S1, USD425360 S1, USD420246 S1, USD418360 S1, USD416434 S1, USD395980 S1, USD380504 S1, USD370827 S1, USD370826 S1, USD370381 S1, USD347963 S1, USD345886 S1, USD345485 S1, USD341058 S1, USD338370 S1, USD332549 S1, USD329570 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US7789015 BB, US7717028 BB, US7485831 BB, US7284733 BB, US7175041 BB, US7012221 BB, US6998581 BB, US6987247 BB, US6884971 BB, US6872921 BA, US6851351 BB, US6802429 BA, US6748853 BA, US6705209 BB, US6686569 BB, US6624392 BB, US6601726 BB, US6571975 BA, US6509550 BA, US6435358 BA, US6429408 BB, US6262398 BA, US6234067 BA, US6175105 BA, US6172339 BA, US6129234 A, US6105810 A, US6102238 A, US6032822 A, US6002111 A, US5957323 A, US5951899 A, US5834046 A, US5829342 A, US5683010 A, US5678790 A, US5643481 A, US5632403 A, US5472271 A, US5429039 A, US5415082 A, US5337910 A, US5129314 A, US5097107 A, US5046633 A, US4847949 A, US4617452 A, US4492853 A, US4375711 A, US4315139 A, US4148250 A, US3842725 A, US3801331 A, US3791368 A, US3769899 A, US3577908 A, US2010251902 AA, US2009218355 AA, US2008083730 AA, US2005167435 AA, US2005145615 AA, US2004079747 AA, US2003024936 AA, US1866874 A, US1837232 A, US1698928 A, US1661294 A, GB1446895 A, FR1024229 A, DE311246 A, DE301471 A, DE2934215 A1, CH245961 A,

Forward Citations: USD697750, US9538881, US9474410, US9375056, US9113743, US9055838, US8827101, US8640908, US8584894, US2016214633, US2016095467, US2015283034, US2014076174, US2013236614, US2013098922, US2013043253, CN103393343, CN103393340,

Abstract:

Source: US2012223067A A kitchen appliance includes a housing with a base, a side wall and a cavity. The housing has a housing rim defining an opening to the cavity. A hinge base is mounted to the side wall. A container has a generally hollow interior and a container rim defining an opening. The container fits within the cavity of the housing. A lid at least partially covers the opening of the container when placed on the container rim. The lid has an exterior surface, and an opposing interior surface facing the interior of the container when the lid is placed on the container rim. A bracket is mounted to the exterior surface of the lid. At least a portion of the bracket is rotatably and selectively removably received within at least a portion of the hinge base to rotatably and selectively removably mount to the lid of the housing.

PatBase - USD657611_S1



71) Family number: 52534865 (WO12163958A2)

© PatBase

Title: AN APPARATUS FOR COOLING A HOT FLUID**Priority:** US20110492879P 20110603**Family:**

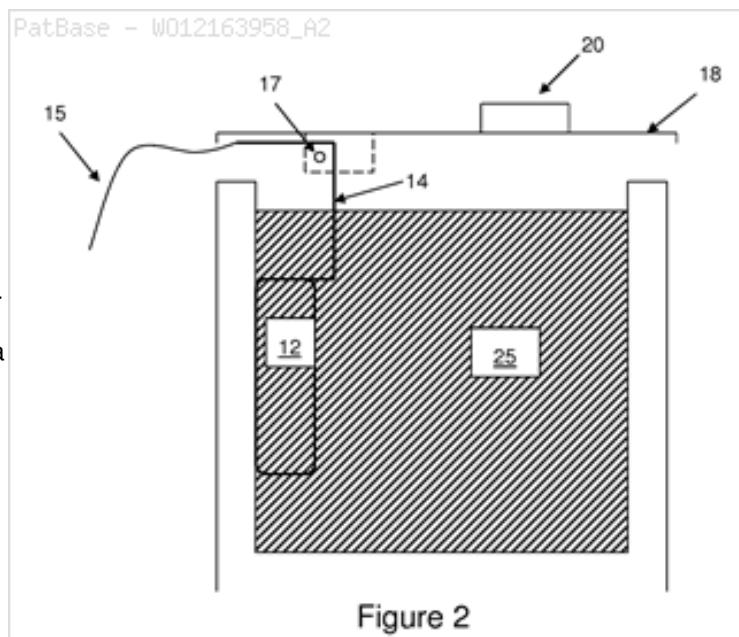
Publication number	Publication date	Application number	Application date
<u>WO12163958 A2</u>	20121206	WO2012EP60124	20120530
<u>WO12163958 A3</u>	20131114	WO2012EP60124	20120530

Probable Assignee: EX BURN APS**Assignee(s):^(std):** EX BURN APS ; LARSEN KENT FROEBERG ; LARSEN MARTIN LILLESOE ; OLESEN PETER HOULBERG ABILDHAUGE**Inventor(s):^(std):** LARSEN KENT FROEBERG ; LARSEN MARTIN LILLESOE ; OLESEN PETER HOULBERG ABILDHAUGE**Agent(s):** FOGED SOEREN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A62C3/06 A62C99/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A62C3/006 A62C3/06**European class:** A62C3/06[Classification Explorer](#)**Cited documents:** US4006606 A, US3422839 A, US2926731 A, JP2010023916 A2, GB801566 A, DE20106001 U1,**Forward Citations:** US2015267974,**Abstract:**

An apparatus for cooling a hot fluid, the apparatus comprising a hollow cooler for introduction into the fluid, an elongate, hollow element for connecting the hollow cooler to a fluid supply, a cradle for holding the cooler when not in use, and a valve element adapted to prevent fluid supply to the cooler through the elongate element when the cooler is in the cradle and allow fluid supply when the cooler is not in the cradle. An apparatus for cooling a hot fluid, the apparatus comprising a cooler for introduction into the fluid, a cradle for holding the cooler when not in use, the cradle having a cover with a handle attached to one side thereof, where the cooler is attached to a side of the cover opposite to the side on which the handle is attached.

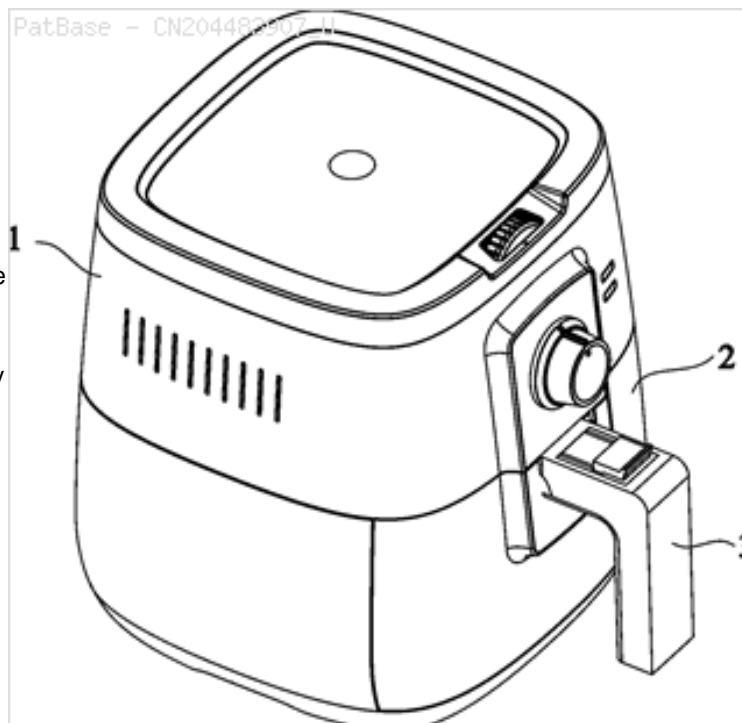


Title: AIR FRYER**Priority:** CN201520128030U 20150306**Family:**

Publication number	Publication date	Application number	Application date
<u>CN204483907 U</u>	20150722	CN201520128030U	20150306

Probable Assignee: JOYOUNG CO LTD**Assignee(s):^(std):** JOYOUNG CO LTD**Assignee(s):** JOYOUNG CO**Inventor(s):^(std):** JIN ENLAI ; WANG TIANHONG ; ZHU ZECHUN**International class** A47J37/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN204483907U The utility model relates to the technical field of kitchen appliances, in particular to a button protecting device for an air fryer. The air fryer comprises a fryer body and a frying basket arranged in the fryer body and connected with the fryer body, wherein a button controlling the frying basket to be connected with the fryer body is arranged on a handle of the frying basket, and a slidable protecting cover which can cover the button is arranged on the handle. The protecting cover is arranged above the button to cover and protect the button, so that people are prevented from being injured or scalded by the fryer body which falls off accidentally when the button is touched by accident during operation. An elastic part is further arranged on the protecting cover to enable the protecting cover to restore automatically.



73) Family number: 1505534 (EP0057775A1)

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Title: Cooking appliance with detachable lid.**Priority:** EP19810200155 19810209

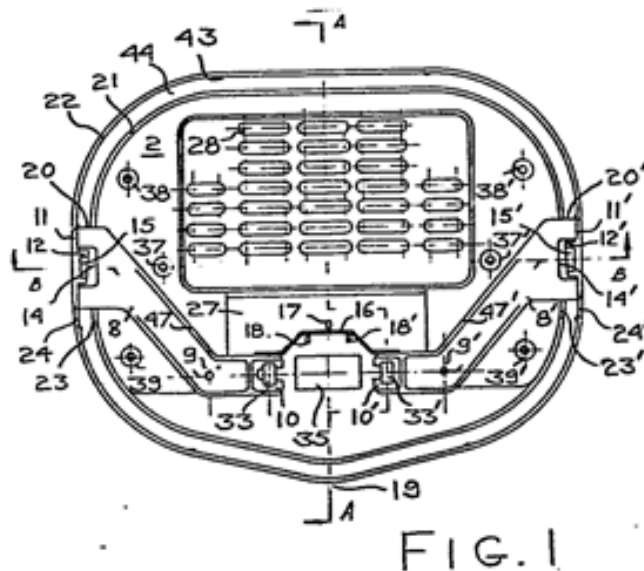
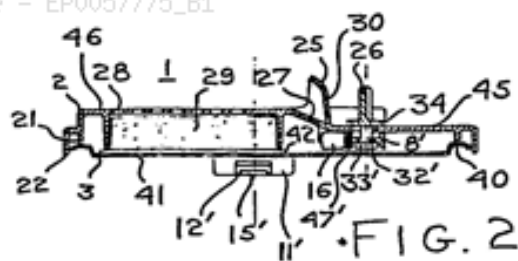
Family:	Publication number	Publication date	Application number	Application date
	<u>BE892063 A1</u>	19820809	BE19822059575	19820209
	<u>DE3174377 D1</u>	19860522	DE19813174377	19810209
	<u>EP0057775 A1</u>	19820818	EP19810200155	19810209
	<u>EP0057775 B1</u>	19860416	EP19810200155	19810209

Probable Assignee: ITT INDUSTRIES BELGIUM SOCIETE ANONYME**Assignee(s):**^(std): ITT ; ITT IND BELGIUM ; ITT IND GMBH DEUTSCHE**Assignee(s):** ITT IND INC ; ITT INDUSTRIES INC ; ITT INDUSTRIES BELGIUM SOCIETE ANONYME ; ITT INDUSTRIES BELGIUM S A ; ITT IND BELGIUM SOC ANONYME ; DEUTSCHE ITT IND GMBH ; DEUTSCHE ITT INDUSTRIES GMBH**Inventor(s):**^(std): VRYDAGS A ; VRYDAGS ANDRE PIERRE JOSEPH**Inventor(s):** A VRYDAGS**Designated states:** AT BE CH DE FR GB IT LU NL SE**International class**
(IPC 8-9): [A47J36/10 A47J37/12](#) (Advanced/Invention);
[A47J36/00 A47J37/12](#) (Core/Invention)**International class**
(IPC 1-7): [A47J36/10 A47J37/12](#)**CPC:** [A47J36/10 A47J37/1204 A47J37/128](#)**European class:** [A47J36/10 A47J37/12A A47J37/12M1](#)[Classification Explorer](#)**Cited documents:** US3463077 A, US3065855 A, US2263180 A, US1766366 A, GB618765 A, GB610605 A, FR801212 A, FR757093 A, FR625075 A, DE896409 A, CH896409 B, CH896409 A3, CH276368 A,**Forward Citations:** GB2254539, GB2254539, EP0432370,

Abstract:

Source: EP0057775A1 Cooking appliance, such as a domestic deep fryer, with an independent detachable cover (1) constituted by an upper lid (2) of plastic material, housing (37) a filter (29) as well as a latching mechanism enabling the lid handle (25, 26) to control unlatching of the lid to remove it from the vessel. This mechanism uses two like levers (8/8 min) linked at forked ends (10/10 min) to the displaceable part (26) of the handle as well as a common restoring spring (16). The other ends (12/12 min) of the levers can be hooked onto the enlarged upper rim of the vat. A metal under lid 3 closes the underside of the cover.

PatBase - EP0057775_B1



74) Family number: 55159103 (US8584894B)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME**Priority:** US20120523933 20120615

Family:	Publication number	Publication date	Application number	Application date
	<u>US8584894 BA</u>	20131119	US20120523933	20120615

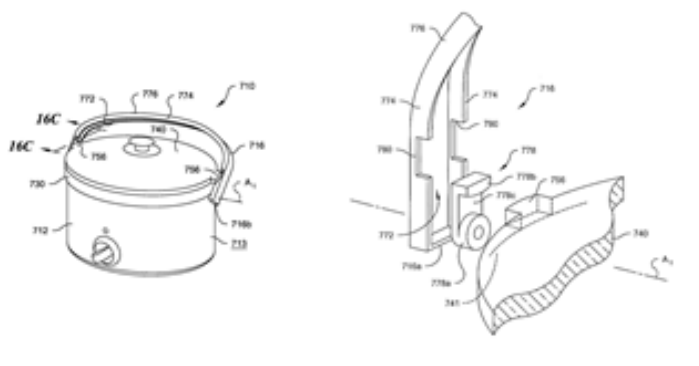
Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):^(std):** BRADY MARTIN ; GARMAN MIKE ; HAMILTON BEACH BRANDS INC ; MULVANEY PATRICK T**Inventor(s):^(std):** BRADY MARTIN ; GARMAN MIKE ; MULVANEY PATRICK T**Agent(s):** ALEXANDER D**International class** B65D45/04 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/10 A47J27/004**US class:** 220/318 220/573.1 220/756[Classification Explorer](#)

Cited documents: USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6776085 BA, US6772677 BB, US661050 A, US6606987 BB, US6587739 BA, US6237765 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5447252 A, US5415082 A, US5355777 A, US5337910 A, US5251542 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2011061545 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009039071 AA, US2008084144 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1472667 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Forward Citations: USD711679, US9526384, US9055838, US2016095467, US2015053712, US2013098922,**Abstract:**

Source: US8584894B A kitchen appliance includes a housing defining a cavity. A heating or cooling element is disposed within the housing. A container is sized and shaped to fit within the cavity. A lid is sized and shaped to at least partially cover an opening of the container. A handle is pivotally mounted to an exterior surface of the side wall of the housing. A first end of the handle is pivotally mounted to the side wall of the housing at a first location. An opposing second end of the handle is pivotally mounted to side wall of the housing at a second location diametrically opposed to the first location. The handle is pivotable between an engaged position which at least a portion of the handle retains the lid in sealing engagement with the container rim and disengage position in which the portion of the handle is spaced-apart from the lid.

PatBase - US8584894_BA



Title: PORTABLE FULLY AUTOMATIC COOKING SYSTEM**Priority:** IN2013MU03173 20131007 WO2014IN00640 20141001

Family:	Publication number	Publication date	Application number	Application date
	GB201604037 A0	20160420	GB20160004037	20141001
	<u>GB2532683 A1</u>	20160525	GB20160004037	20141001
	<u>IN03173MU2013 A</u>	20150116	IN2013MU03173	20131007
	<u>US2016235239 AA</u>	20160818	US20140025426	20141001
	<u>WO15075730 A2</u>	20150528	WO2014IN00640	20141001
	<u>WO15075730 A3</u>	20150730	WO2014IN00640	20141001

Probable Assignee: PATADIA BHAGIRATH G**Assignee(s):**^(std): BHAGIRATH GHANSHYAMBHAI PATADIA ; PATADIA BHAGIRATH G ; PATADIA BHAGIRATH GHANSHYAMBHAI**Inventor(s):**^(std): BHAGIRATH GHANSHYAMBHAI PATADIA ; PATADIA BHAGIRATH GHANSHYAMBHAI**Agent(s):** SHAH KAVITA AMISH

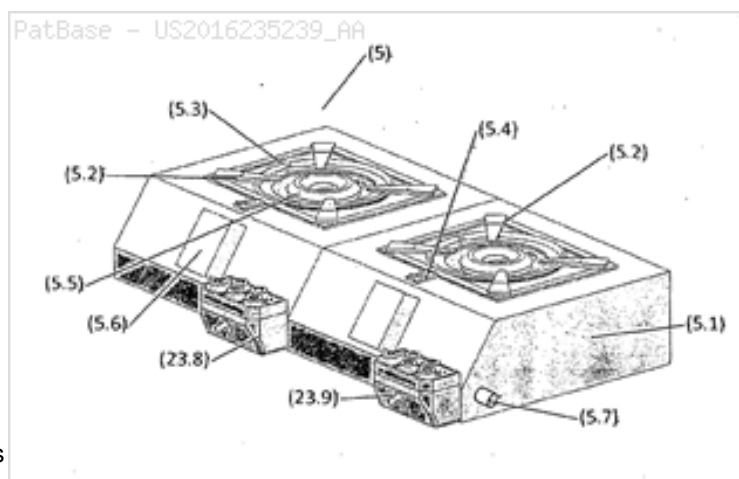
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8-9): A47J27/00 A47J27/04 A47J27/08 A47J36/00 A47J43/00 A47J44/00 G05B19/042 G06F17/00 G06F19/00 (Advanced/Invention)

CPC: A47J27/08 A47J27/0804 A47J27/09 A47J27/002 A47J27/0802 G05B19/0426 A47J2027/043 G05B2219/2643 A47J27/04 A47J44/00

US class: 99/325[Classification Explorer](#)**Cited documents:** US8145854 BA, US5832814 A, US2013226716 AA, US2004173103 AA, EP2767197 A1,**Forward Citations:** US2016328024,**Abstract:**

Source: US2016235239A The present invention is a portable fully automatic cooking system which can automatically prepare food items as per the user's demand by using recipes files, data and cooking centric algorithm software stored in user interface device or by downloading the needed recipe from remote server. This machine unit of system can be controlled by any kind of computation device, laptop, tablet, computer, smart phone etc for cooking, recording, managing which satisfies hardware and software requirement standards of system which user can control and command through physical presence or from remote location. Machine unit stores various ingredients inside it and demands for chief ingredients and cooks recipes in accordance with recipe using custom developed artificial intelligence. The scalability and flexibility of machine design, structure, components and positioning makes automated cooking possible, efficient and most practical. The capability to add custom vessels, modules and attachments adds extended efficiency in automated cooking.



76) Family number: 8445656 (EP0300306A2)

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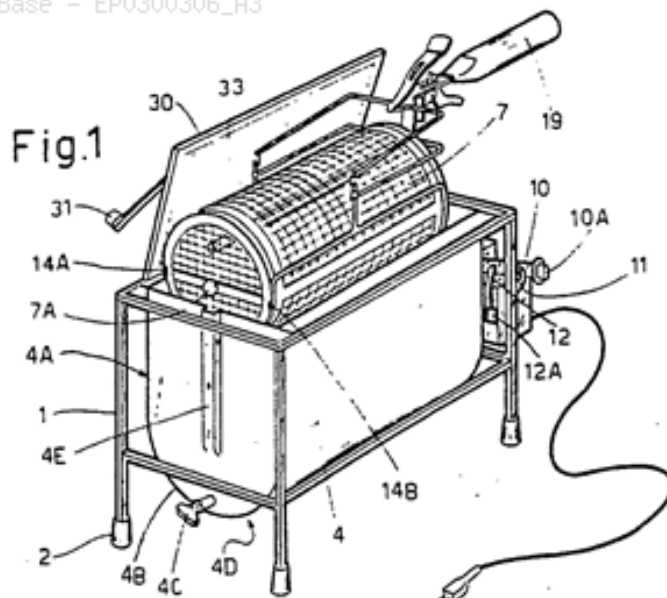
Title: FRYER WITH DRUM ROTATING ABOUT A HORIZONTAL AXIS.**Priority:** IT19870002928 19870722**Family:**

Publication number	Publication date	Application number	Application date
EP0300306 A2	19890125	EP19880111025	19880711
EP0300306 A3	19890517	EP19880111025	19880711
IT8702928 A0	19870722	IT19870002928	19870722

Probable Assignee: ALGA DI GIUDICI ANGELAMARIA AND**Assignee(s):^(std):** ALGA DI GIUDICI ANGELAMARIA AND**Assignee(s):** ALGA DI GIUDICI ANGELAMARIA AND C S N C ; ALGA DI GIUDICI ANGELAMARIA**Inventor(s):^(std):** GIUDICI ANGELAMARIA ; GIAVAZZI LUCIO ; GIAVAZZI GIANCARLO**Designated states:** AT BE CH DE ES FR GB IT LI NL SE**International class**
(IPC 8-9): [A47J37/04 A47J37/12](#) (Advanced/Invention);
[A47J37/04 A47J37/12](#) (Core/Invention)**International class**
(IPC 1-7): [A47J37/04 A47J37/12](#)**CPC:** [A47J37/047 A47J37/1214](#)**European class:** [A47J37/04G A47J37/12B](#)[Classification Explorer](#)**Cited documents:** FR2498915 A1, EP0213074 A1, EP0118157 A1,**Forward Citations:** WO05063097, WO05063097, WO03084378, WO0130220, US6453801, US6272975, US5095812, US5070222, JP5905067, JP2016101213, GB2295768, EP0344446, CN102319028, CN102239895, CN102239895, CN102119704, BG65042, BG65009,**Abstract:**

Source: EP0300306A2 A fryer, particularly for domestic use, is characterised by a metal mesh drum closed in the manner of a cage (7) for containing the food to be fried, and rotatable about a horizontal axis (15). Said drum is associated with supports (7A, 7B) which guide its rotation and which enable it to be raised relative to the level of the frying oil (5) and to be completely extracted from the interior of a box-shaped pan (4) in which the oil is contained and heated. The drum is rotated by the insertion therein of a drive nosepiece (8) provided with raised portions for its keyed engagement and implementing this function with the aid of a thrust spring (9). Said drive nosepiece is normally in a position of engagement with the drum but is disengagable therefrom by a lever (10) which when moved compresses said spring and operates a microswitch (12A) for stopping the electric motor (13). This lever is associated with means for retaining it in the position in which it disengages the drive nosepiece and stops the electric motor.

PatBase - EP0300306_A3



Title: Food extruder**Priority:** CA19810384303 19810821 JP19800114926 19800821

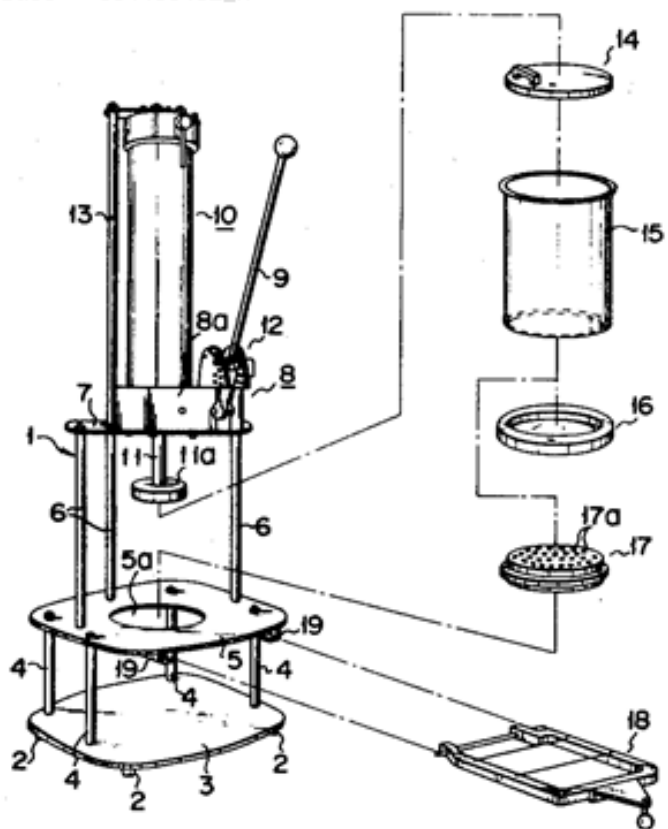
Family:	Publication number	Publication date	Application number	Application date
	<u>CA1166127 A1</u>	19840424	CA19810384303	19810821
	JP1190066 C3	19840213	JP19800114926	19800821
	<u>JP57039744 A2</u>	19820305	JP19800114926	19800821
	<u>JP58023059 B4</u>	19830512	JP19800114926	19800821
	<u>US4465452 A</u>	19840814	US19810291329	19810810

Probable Assignee: NISSHIN OIL MILLS LTD**Assignee(s):**^(std): NISSHIN OIL MILLS LIMITED THE ; NISSHIN OIL MILLS LTD**Assignee(s):** THE NISSHIN OIL MILLS LIMITED ; NISSHIN SEIYU KK ; NISSHIN OIL MILLS THE LTD ; MASUZAWA OSAMU ; NISSHIN OIL MILLS 23 1 1 CHOME SHINKAWA CHUO KU TO**Inventor(s):**^(std): MASUZAWA OSAMU**Agent(s):** FETHERSTONHAUGH AND CO**International class**
^(IPC 8-9): A21C11/18 A23L1/00 A23L1/214 A23P1/00 B26D5/00 (Advanced/Invention);
A21C11/00 A23L1/00 A23L1/214 A23P1/00 (Core/Invention)**International class**
^(IPC 1-7): A23L1/00 A23L1/216 A23P1/00 B21C3/04 B21C5/00 B26D5/00**CPC:** A21C11/18**European class:** A21C11/18**US class:** 425/308 425/377 425/464[Classification Explorer](#)**Cited documents:** US992369 A, US762128 A, US4154130 A, US4060367 A, US3890453 A, US3553776 A, US3456466 A, US3344752 A, US2634691 A, US2420616 A, US2408713 A, US2351493 A, US2149920 A, US1955342 A, US1945399 A, US1881171 A, US1857313 A, US1774671 A, US1736611 A, US1713585 A, US1591265 A, US1487378 A, JP49101582 A2, JP49101578 A2,**Forward Citations:** WO0050214, US9149046, US7475631, US7160098, US6454951, US6193498, US5124161, US5079012, US5077074, US5071668, US5030468, US5015490, US5015489, US5015488, US4999208, US4984514, US4979434, US4960043, US4957042, US4957041, US4949628, US4938127, US4738863, US2015064301, US2009214737, US2008067192, US2007245893, US2005220922, FR2576188, EP1171277, CN104068078, CN103766430, CN103478190,

Abstract:

Source: US4465452A A food extruder comprises, a molding plate provided with a multitude of perforations each having a prescribed opening area, a drum having both upper and lower ends open, fitted with said molding plate at the bottom, and containing therein molding food material, a push cover disposed on the molding food material and capable of pressing the molding food material against said molding plate, an oil hydraulic pump having a movable handle lever and supplying oil under a given pressure by moving the handle lever, an oil hydraulic cylinder having a movable piston rod capable of engaging the push cover and causing the piston rod to move so that the push cover engaging the piston rod may press the molding food material against the molding plate by means of the oil supplied by the movement of the handle lever, a regulating mechanism capable of regulating the stroke of the handle lever, and a cutting mechanism for cutting portions of the pressed molding food material extruded from the drum through the perforations.

PatBase - US4465452_A



78) Family number: 43125457 (US2009090348A)

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Title: COOKING GRILL**Priority:** US20070866691 20071003 US20090160423P 20090316 US20100697685 20100201
US20120610670 20120911**Family:**

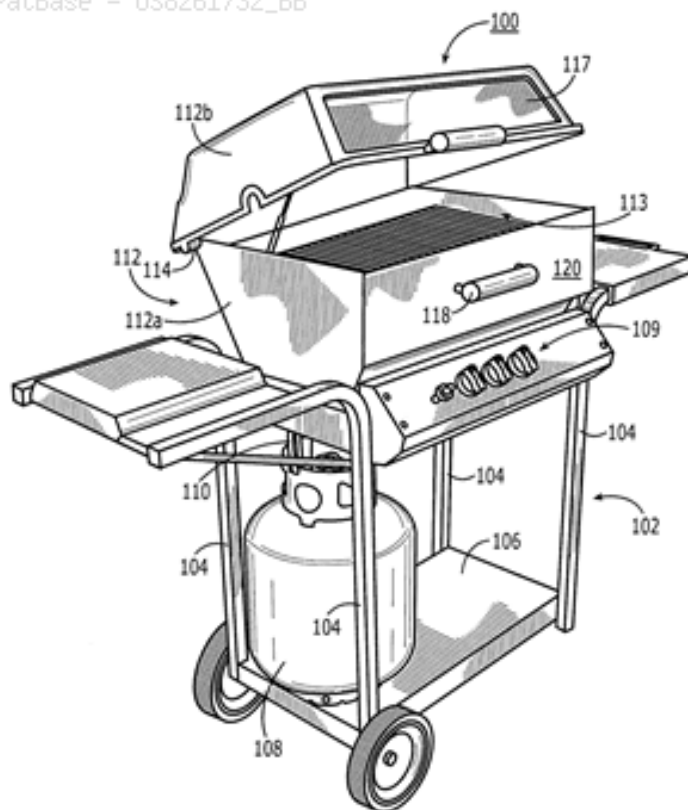
Publication number	Publication date	Application number	Application date
<u>US2009090348 AA</u>	20090409	US20070866691	20071003
<u>US2010132689 AA</u>	20100603	US20100697685	20100201
<u>US2013180412 AA</u>	20130718	US20120610670	20120911
<u>US7905225 BB</u>	20110315	US20070866691	20071003
<u>US8261732 BB</u>	20120911	US20100697685	20100201

Probable Assignee: CONTARINO ALFRED F JR**Assignee(s):^(std):** CONTARINO ALFRED F ; CONTARINO JR ALFRED F ; SEASON 4 LLC**Assignee(s):** EDISON NATION LLC ; CONTARINO ALFRED F JR**Inventor(s):^(std):** CONTARINO ALFRED F ; CONTARINO JR ALFRED F**Agent(s):** SAUL EWING LLP (PHILADELPHIA); SAUL EWING LLP PHILADELPHIA; SAUL EWING LLP; TILLMAN WRIGHT PLLC; CHAD D; JEREMY C**International class**
(IPC 8-9): A47J37/00 A47J37/07 F24B3/00 F24C15/02 (Advanced/Invention);
A47J37/07 F24C15/02 (Core/Invention)**CPC:** A47J37/07 A47J37/067 A47J37/074 A47J37/0786 A47J2037/0795**European class:** A47J37/06D A47J37/07D3 A47J37/07L K47J37/07L4**US class:** 126/190 126/190S 126/25.00BP 126/25.00R 126/25.00RP 126/25B 126/25R 126/378 126/378.1 126/38 126/39.00L 126/39H 126/39K 126/39L 126/41.00D 126/41.00R 126/41D 126/41R 99/341 99/396 99/422 99/443.00RS 99/443R 99/446 99/447 99/447S 99/450 99/450S[Classification Explorer](#)**Cited documents:** US833529 A, US7163011 BB, US6931985 BA, US6892722 BA, US6705307 BB, US6508165 BB, US6308616 BA, US6260478 BA, US6158330 A, US6153857 A, US6114665 A, US6064042 A, US6039039 A, US6029649 A, US6024081 A, US6000389 A, US5960782 A, US5911812 A, US5884555 A, US5678531 A, US5553601 A, US5404795 A, US5368009 A, US5355868 A, US5347978 A, US5333540 A, US5259299 A, US5237914 A, US5213027 A, US5186159 A, US4840118 A, US4800865 A, US4718400 A, US4598634 A, US4531505 A, US4516485 A, US4392419 A, US4362093 A, US4220133 A, US3947657 A, US3938494 A, US3802413 A, US3783855 A, US3611912 A, US3490433 A, US3443510 A, US3199438 A, US3169517 A, US3152242 A, US3000389 A, US2940381 A, US2898846 A, US2709996 A, US2430582 A, US2155654 A, US2127146 A, US2015295 A, US2009101024 AA, US2007277800 AA, US2007163568 AA, US2006112948 AA, US2006102015 AA, US2006000365 AA, US2004112226 AA, US2003213484 AA, US2002020303 AA, US2002017290 AA, US1751219 A, GB2143119 A1, DE3926182 A1,**Forward Citations:** WO15035441, USD779877, USD712190, US9492253, US9289097, US9204757, US9133985, US9004058, US8813738, US8776779, US8602018, US8522450, US8479720, US2016249650, US2016100714, US2015282669, US2015027432, US2014261377, US2012285438, US2012247448, US2012222665, US2012216686, US2011269088, US2011146658, US2011011388, US2010242943, US2009255141, KR101623599, FR2975883, FR2970633, CN105101853, CN104337409, AU2011202265,

Abstract:

Source: US2009090348A The invention is a cooking grill comprising a housing defining a cooking chamber and having a side opening therein, a heating element disposed in the cooking chamber, a drawer slidably disposed in the side opening, the drawer having a bottom tray and a front wall sized and positioned so as to substantially fill the side opening in the housing when the drawer is inserted in the housing, a grilling module adapted to sit in the drawer having a support portion for supporting a grilling surface thereon, and a removable grilling surface, wherein the drawer is adapted to be inserted into the side opening in either a first orientation in which the bottom tray is below the heating element and the support portion is above the heating element or a second orientation rotated 180 degrees from the first orientation in which the bottom tray is above the heating element and the support portion is below the heating element.

PatBase - US8261732_BB



0) EP2941986A1 – VERFAHREN FUER THERMO–KULINARISCHE ASSISTENZ T...

79) Family number: 60742116 (EP2941986A1)

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Title: VERFAHREN FUER THERMO–KULINARISCHE ASSISTENZ THERMO–CULINARY ASSISTANCE METHOD

Priority: EP20140075041 20140508 EP20140185136 20140917

Family:	Publication number	Publication date	Application number	Application date
	<u>EP2941986 A1</u>	20151111	EP20140185136	20140917

Probable Assignee: AVER DESIGN AND ENGINEERING LTD

Assignee(s):^(std): AVER DESIGN AND ENGINEERING LTD

Inventor(s):^(std): CARRERA ALONSO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class
(IPC 8–9): A47J27/08 A47J27/21 A47J27/212 A47J36/00 A47J36/06 A47J36/16 A47J37/10 A47J43/28 A47J45/06 F24C7/00 (Advanced/Invention)

CPC: A47J36/06 A47J27/0802 A47J27/21083 A47J27/21108 A47J27/212 A47J36/00 A47J36/165 A47J37/101 A47J43/28 A47J45/063 H05B2213/06 H05B6/062 F24C7/083 F24C7/085

[Classification Explorer](#)

Cited documents: WO14075923 A1, WO08154763 A1, US4518839 A, US2013302483 AA, FR1262006 A, EP2659808 A1, EP2166290 A1,
DE102012200294 A1

Abstract:

Source: EP2941986A1 Procède d'assistance thermo-culinaire realise par le recouvrement des contenants. Recouvrement caracterise par un volume de confinement thermique adapte au fonctionnement d'un systeme embarque autonome, integre dans un ensemble, constitue par l'extension(1) d'un couvercle conique central (2) muni d'une poignee bi cylindrique amovible (3) dotee d'ecrans a affichage commutable (4) et d'une telecommande moniteur multi-supports. Un ensemble thermo-generateur (5) assurant l'alimentation electrique de sondes de temperature et d'une composante optoelectronique communiquant par radiofrequences, impulsions lumineuses et ultrasons. Un logiciel assurant l'interoperabilite avec des interrupteurs radiocommandes (6), des plaques de cuisson intelligentes (7) a commande commune, dotees de cameras imageur et de capteurs sous chaque foyer et d'un ecran d'affichage/programmation a reconnaissance faciale (8). L'automatisation securisee des cuissons au gaz etant assuree par un coupe-circuit thermo fusible, un programmeur manuel a touches sonorisees et un thermocouple(9) dispose dans un boitier(10) equipe d'un systeme a commande sequencee, reliee au couvercle par une connexion filaire USB (11). Les contenants disposant d'un systeme de parametrage sans contact RFID/NFC (12) et par graphisme a code matriciel (13). Des accessoires interdependants incluant un pyrometre a piquer sans fil, (14) un support tubulaire et une unite de brassage interchangeable, FIG(1)

Fig.1

integree a la poignee et en port sur bracelet montre. Les moyens de la telephonie mobile etant mis en oeuvre avec fonction de transpondeur et procedure protocolaire. L'invention autorisant l'automatisation, la gestion energetique, l'alerte, la thermo regulation, la video transmission. Destinee a l'assistance thermo-culinaire domestique, l'invention etant facilement industrialisable. Thermal Method culinary assistance realized by the recovery of containers. Characterized by a recovery volume of thermal containment adapts the operation of an autonomous system boards, integrated in an assembly, consisting of extension (1) a central conical cover (2) provided with a removable two cylindrical handle (3) endowed with a switchable display screens (4) and a multi-media remote monitor. A heat-generator set (5) ensuring the electrical supply of temperature sensors and an optoelectronic component communicating by radio frequencies, light pulses and ultrasound. Software ensuring interoperability with radio control switches (6), smart hob (7) has joint control, equipped with imaging cameras and sensors in each home and a display screen / Programming has face recognition (8). The securisee automation of cooking gas having been satisfied by a circuit breaker thermal fuse, manual programmer with sound has keys and a thermocouple (9) has in a housing (10) a team has sequenced control system, to the cover by relisee USB wired (11). Containers with a parametrage system contactless RFID / NFC (12) and a graphic matrix code (13). Interdependent of accessories including a pyrometer has bitten Wireless, (14) a tubular support and an interchangeable mixing unit, FIG (1) Monitors / programmers being positionable on optional docking station has integrated the handle and port wristwatch. Means of mobile telephony being implemented with function transponder and protocol procedure. The invention allowing automation, energetics management, alerting, thermo regulation, the video transmission. Destinee has domestic thermo-food assistance to the invention being easily industrialized.

80) Family number: 17452485 (CN2175559Y)**Title:** Multifunction food frying pot**Priority:** CN19932031423U 19930718

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2175559 Y</u>	19940831	CN19932031423U	19930718

Probable Assignee: LI LIANGMAO**Assignee(s):^(std):** LI LIANGMAO**Inventor(s):^(std):** JIANG XIAOBO ; LI LIANGMAO ; LIANGMAO LI ; XIAOBO JIANG

International class A47J37/00 (Advanced/Invention);
 (IPC 8-9): A47J37/00 (Core/Invention)

International class A47J37/00
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: CN2175559Y The utility model relates to a multifunctional fryer with the functions of frying, roasting, swilling and heat preservation. The utility model comprises a fryer body and a fryer cover, wherein, the fryer body forms a tapered bottom drum shape, is provided with a heat-insulating layer, an exhaust pipe, a scum pipe, a heating pipe and a thermostat; the fryer cover is provided with a safety valve, a pressure limiting valve and a pressure device which is composed of a transverse beam and a leading screw; the transverse beam forms a bending arc shape, one end of the transverse beam is hinged at one side of the fryer body, the other end of the transverse beam is hinged with a bending hook hooking on the flange of the fryer body, and the middle of the transverse beam is provided with an internal thread hole; the upper end of the leading screw is provided with a handle, and the lower end of the leading screw penetrates through the internal thread hole to be arranged in the center of the fryer cover; in addition, the side of the fryer body is provided with an electric oven and an electric frying pan. The multifunctional fryer has the advantages of complete functions and safe and convenient use.

81) Family number: 44280610 (CN201379453Y)

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Title: Fryer**Priority:** CN200920051542U 20090218

Family:	Publication number	Publication date	Application number	Application date
	CN201379453 Y	20100113	CN200920051542U	20090218

Probable Assignee: XINBAO ELEC EQUIPMENTS CO LTD**Assignee(s):^(std):** GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO LTD ; XINBAO ELEC EQUIPMENTS CO LTD**Assignee(s):** GUANGDONG XINBAO ELECTRICAL EQUIPMENTS CO**Inventor(s):^(std):** JIANGANG GUO ; JINYIN ZHU ; LIJUN MIN**Inventor(s):** MIN LIJUN ; ZHU JINYIN ; GUO JIANGANG**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN102348513, CN102334908, CN102334908,**Abstract:**

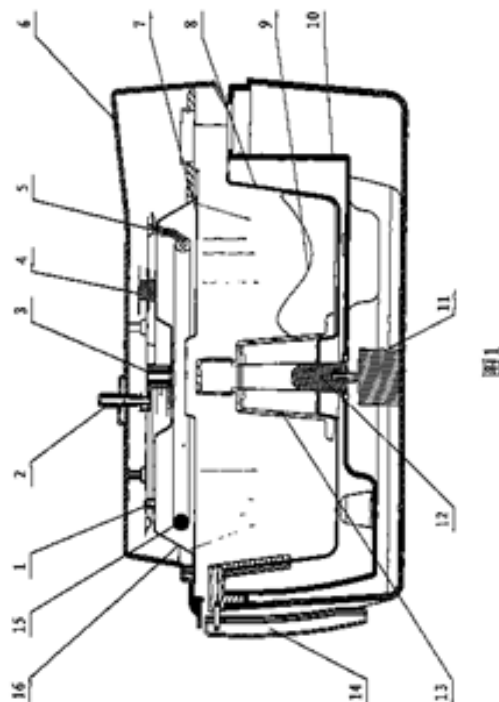
Source: CN201379453Y The utility model relates to a fryer comprising a fryer body, a liner, a top cover and an electric heating element, wherein a reflecting plate which reflects heat to the liner is arranged between the electric heating element and the top cover; the liner is provided with a stirring rod, and the stirring rod is connected with a motor arranged below the liner; the center of the liner is provided with a lug boss, one end of a rotating shaft is connected with an output shaft of the motor, and the other end of the rotating shaft is connected with the stirring rod by passing through the lug boss; the liner is provided with a rotating cover, the other end of the rotating shaft is connected to the top part of the rotating cover after passing through the lug boss, the lower part of the rotating cover is annularly sleeved on the lug boss, the bottom of the rotating cover keeps a certain distance with the bottom surface of the liner, and the stirring rod is connected to the middle-lower part of the rotating cover; one end of the liner is clamped by a handle assembly and is placed on the fryer body through the handle assembly, and the other part of the liner is directly placed on the fryer body. The utility model has the advantages of small volume, convenient operation, high heat efficiency, oil saving and healthy food.

PatBase - CN201379453_Y

200920051542.0

说明书附图

第1/2页



82) Family number: 52094017 (CN202457973U)

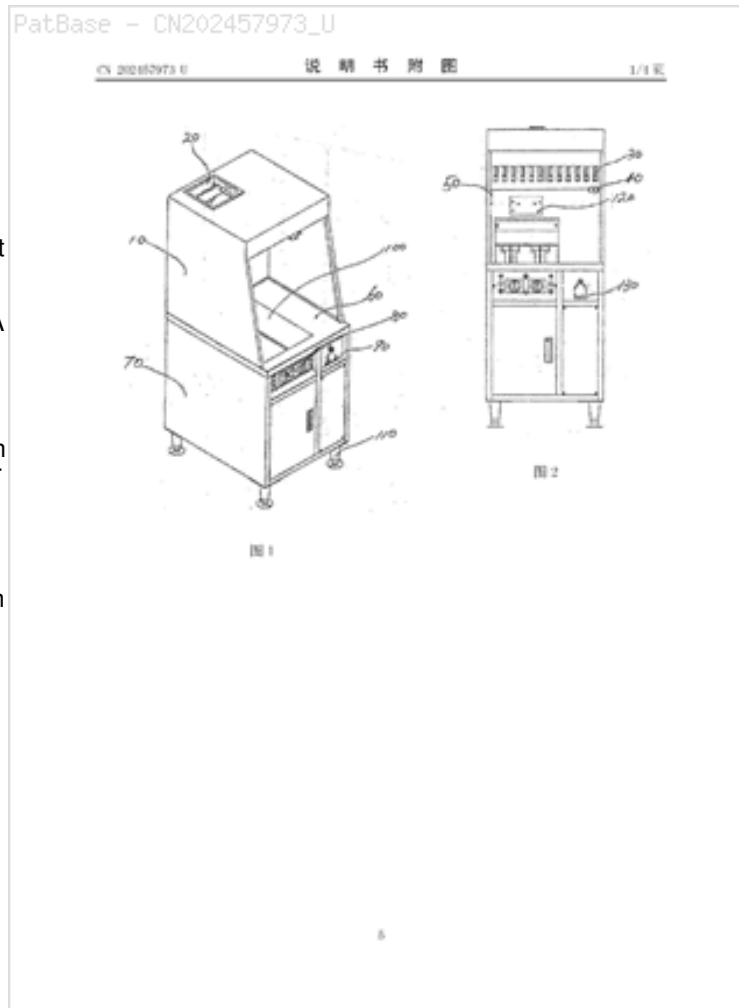
© PatBase

Title: Marine electric fryer having automatic alarming function**Priority:** CN201120363404U 20110926

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202457973 U</u>	20121003	CN201120363404U	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO LTD**Inventor(s):^(std):** XIUNAN ZHENG ; XINHUA JU ; MINGZHONG CHEN**Inventor(s):** JU XINHUA ; CHEN MINGZHONG ; ZHENG XIUNAN**International class** A47J37/12 A62C3/00 B63B29/22 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103006091,**Abstract:**

Source: CN202457973U The utility model discloses a marine electric fryer having an automatic alarming function. The marine electric fryer having the automatic alarming function is constituted by an electrothermal fryer and a fire extinguishing apparatus. An upper part of the electrothermal fryer is an upper cover body, in which is disposed a gas collection cover. A filter screen and an exhaust fan assembly are disposed in the gas collection cover, and an oil collection cup assembly is disposed under the filter screen. A nozzle assembly and a limit temperature control are disposed in the upper cover body. A frying cylinder is welded with a bench surface, and the fire extinguishing apparatus as well as an electric control box is disposed in the lower cover body. The marine electric fryer provided in the utility model is characterized in that the fire extinguishing apparatus is constituted by a fire extinguisher and a fire extinguishing implementation mechanism; a top part of the fire extinguisher is provided with a long handle and a short handle; the fire extinguishing implementation mechanism is provided with a micro-active switch provided with a torsion beam, an installation plate, and a contact control; the fire extinguishing implementation mechanism is linked to the long handle of the fire extinguisher.



83) Family number: 20300247 (GB639385A)

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Title: Improvements in and relating to cooking utensils**Priority:** GB19480020020 19480727

Family:	Publication number	Publication date	Application number	Application date
	<u>GB639385 A</u>	19500628	GB19480020020	19480727

Probable Assignee: DEMA GLASS LTD**Assignee(s):^(std):** DEMA GLASS LTD ; WOOLF WALTER KUBLIN**Assignee(s):** DEMA GLASS LIMITED

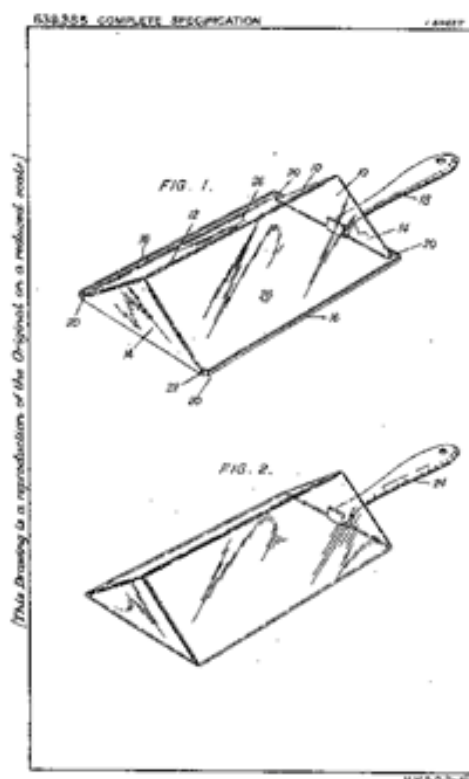
International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

International class A47J37/10
 (IPC 1-7):

CPC: A47J43/28**European class:** A47J43/28[Classification Explorer](#)**Forward Citations:** US5054467, US4064797,**Abstract:**

Source: GB639385A 20020. [Class 28(i)] [Also in Group XVII] A frying "pan" made of glass has gable ends 14 and sloping sides 10 on which bacon c. is placed so that fat can drain down into integral channels 16. The device has no bottom. A similar shaped glass cover (Fig. 2, not shown) may be superposed to prevent the food from sliding down. Both pan and cover have integral glass handles 18 secured to the gable ends. The channels 16 have pouring lips 22 at one end. The sides 10 may be curved with correspondingly shaped cover sides.

PatBase - GB639385_A



84) Family number: 42611978 (ES1068752U)

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Title: FILTRADORA DE ACEITE COMESTIBLE EDIBLE OIL Filtering (Machine translation)**Priority:** ES20080001873U 20080916

Family:	Publication number	Publication date	Application number	Application date
	ES1068752 UA	20081201	ES20080001873U	20080916
	ES1068752 Y1	20090301	ES20080001873U	20080916

Probable Assignee: COM FRUCOSOL S L**Assignee(s):^(std):** COM FRUCOSOL S L**Assignee(s):** COMERCIAL FRUCOSOL S L**Inventor(s):^(std):** DEZA SAN BAUDILIO FERNANDO ; DEZA SAN BAUDILIO FLORENTINO

International class [A47J43/00](#) (Advanced/Invention);
 (IPC 8-9): [A47J43/00](#) (Core/Invention)

[Classification Explorer](#)**Forward Citations:** WO11064427, ES2366066,**Abstract:**

Source: ES1068752U 1. Filtradora de aceite comestible, que estando prevista para filtrar y por lo tanto efectuar la limpieza de aceite procedente de una freidora, constituyendo ademas un electrodomestico suplementario a la propia freidora para poder recibir el aceite utilizado en esta, bien directamente de la freidora o bien mediante el correspondiente transvase, se caracteriza porque se constituye a partir de un cuerpo general prismatico dotado inferiormente de ruedas para su desplazamiento, mientras que superiormente presenta una camara de filtracion con una tapa superior de cierre y una base que se materializa mediante la superposicion de una junta de goma, una rejilla de filtro, un papel de filtro y un soporte de filtro, quedando todos estos componentes superpuestos y convenientemente fijados en la propia base de la camara de filtracion mediante correspondientes tornillos o vastagos roscados en correspondencia con las esquinas internas de tal camara de filtracion; habiendose previsto que bajo esta el cuerpo de la filtradora incorpore un motor de accionamiento de una motobomba, un interruptor de aire, un interruptor de apagado/encendido, asi como un conector para una manguera a traves de la cual se impulsa el aceite filtrado, bien de nuevo directamente a la freidora, o bien a un recipiente para su recogida y posterior uso. 2. Filtradora de aceite comestible, segun reivindicacion 1, caracterizada porque el conector para la manguera esta establecido lateralmente en el cuerpo de la filtradora, y conectado a la correspondiente bomba, estando dotado ese conector inferiormente de una valvula de descarga para salida que permite la evacuacion del aceite filtrado que resulte sobrante tras la impulsión mediante la bomba a traves de la manguera. 3. Filtradora de aceite comestible, segun reivindicaciones anteriores, caracterizada porque lateralmente incluye en su parte exterior un tubo vertical con una embocadura acampanada como medio de soporte para la correspondiente boquilla de lamanguera de impulsión del aceite filtrado, boquilla que se complementa con un asidero manual de manejo de la propia manguera.

Machine translation: 1. Filtering of edible oil, it being provided to filter and therefore make the cleaning of oil from a fryer, besides constituting an additional appliance to own fryer to receive the oil used in this either directly from the fryer or through transferring the relevant, because it is characterized from a generally prismatic body inferiorly equipped with wheels for their displacement, while superiorly has a filtration chamber with a top cover and a base

closure is achieved by the superposition of a board rubber, a filter mat, filter paper and a filter holder, leaving all these overlapping components and conveniently set in the very basis of the filtration chamber using appropriate screws or threaded rods corresponding to the inner corners of this camera filtration, having been scheduled under this body of the strainer incorporates a drive motor of a pump, an air switch, a switch on / off as well as a connector for a hose through which the oil is driven filtered again either directly to the fryer, or to a container for collection and subsequent use. 2. Filtering of edible oil, according to claim 1, wherein the hose connector is provided laterally on the body of the strainer, and connected to the corresponding pump connector being provided with the lower part of a valve discharge outlet allowing for the evacuation of oil remaining after filtering it through the pump's drive through the hose. 3. Filtering of edible oil, according to previous claims, wherein the side includes on the outside a vertical tube with an opening bell as a means of support for the corresponding nozzle impulsion lamanguera of oil filter, nozzle that is complemented by a management handgrip of the hose itself.

85) Family number: 53082700 (WO13025988A1)

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Title: LIQUID REMOVAL DEVICE**Priority:** US20110524840P 20110818 US20110526161P 20110822 US20110526987P 20110824

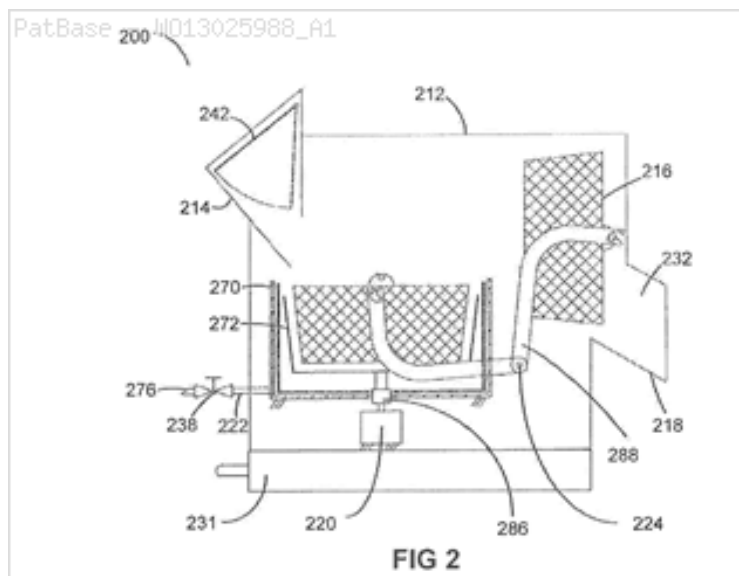
Family:	Publication number	Publication date	Application number	Application date
	<u>WO13025988 A1</u>	20130221	WO2012US51340	20120817

Probable Assignee: SPINFRY INC**Assignee(s):^(std):** MILLIKIN RORY C P ; SPINFRY INC ; MOORE DAVID J ; THEIS THOMAS J**Assignee(s):** MILLIKIN RORY CP**Inventor(s):^(std):** MILLIKIN RORY C P ; MOORE DAVID J ; THEIS THOMAS J**Inventor(s):** MILLIKIN RORY CP**Agent(s):** BOYD DAMON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A23N12/12 A47J37/04 A47J43/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A23N12/086 A23N12/125 A47J37/1295 F26B5/08 A47J36/2483[Classification Explorer](#)**Cited documents:** WO08121111 A1, US5611265 A, US3827985 A,**Forward Citations:** CN104223976, CN104223976,**Abstract:**

The present invention relates to a liquid removal device. Exemplary embodiments of the invention comprise a basket well that is configured to spin a basket containing fried food. The fryer device may also comprise a rotational mechanism, such as an electric motor or a manual crank, which rotates the basket within the basket well. The invention may further comprise a mechanism to dump food from the basket after sufficient liquid has been removed. Various embodiments also comprise a handle, which may or may not be integrated into the basket.



86) Family number: 23032315 (FR1338296A)

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Title: FRITEUSE DEEP FRYER (Machine translation)**Priority:** FR19620915278 19621113

Family:	Publication number	Publication date	Application number	Application date
	<u>FR1338296 A</u>	19630920	FR19620915278	19621113

Inventor(s):(std): PAPPAS PHILLIP MILLER

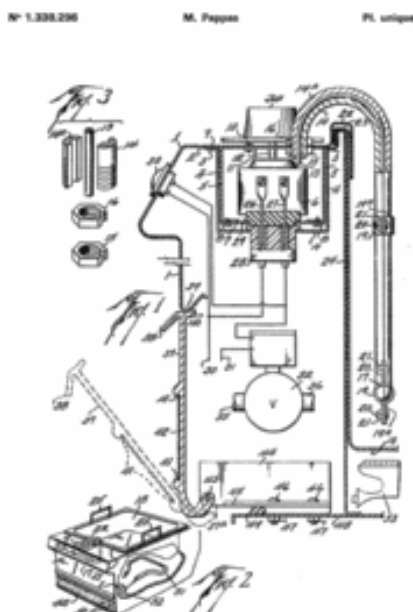
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

CPC: A47J37/1209 A47J37/1266**European class:** A47J37/12A1 A47J37/12K[Classification Explorer](#)**Forward Citations:** FR2627024, EP0663173, EP0328432,**Abstract:**

Source: FR1338296A (Claim 1) 1. La friteuse comprend un coffre general ou caisson, un moyen de chauffage commande par electro-aimant et supporte par le caisson, un bac a friture supporte par le caisson, un moyen sensible a la temperature plonge normalement dans le bain de friture et comprenant un tube capillaire relie a un interrupteur thermoplastique electrique et supporte par ce dernier qui comprend des contacts electriques demontables pour permettre d'enlever immediatement et a la main l'interrupteur thermostatique avec le tube capillaire et le moyen sensible a la temperature, un circuit electrique entre l'interrupteur thermostatique et le moyen de chauffage actionne par electro-aimant, de facon que l'enlevement de cet interrupteur interrompt le chauffage par la coupure du circuit electrique dudit moyen de chauffage;

Machine translation: (Claim 1) 1. The fryer includes a general safe or box, a heating control by electro-magnet and supports the casing, a frying pan was supported by the housing, means responsive to the temperature plunges normally in the frying oil and comprising a tube a capillary connects an electrical switch thermoplastique and supports by the latter which includes electrical contacts demountable to allow removal and immediately hand the thermostatic switch with the capillary tube and the means sensitive to temperature, an electrical circuit between the temperature switch and the heating means actuated by electro-magnet, so that the removal of this switch interrupts the heating by cutting the electrical circuit of said heating means;

PatBase - FR1338296_A



Title: Improvements in and relating to rim or flush latches and combined rim or flush locks and latches

Family:	Publication number	Publication date	Application number	Application date
	<u>GB594678 A</u>	19471117	GB19450007904	19450329

Probable Assignee: FRANCIS JOSEPH BUTTER

Assignee(s):^(std): EDWARD CAMDEN FRYER ; FRANCIS JOSEPH BUTTER ; PARKES JOSIAH AND SONS LTD

Assignee(s): JOSIAH PARKES AND SONS LTD ; JOSIAH PARKES AND SONS LIMITED

International class E05B3/06 (Advanced/Invention);
(IPC 8-9): E05B3/00 (Core/Invention)

International class E05B3/06
(IPC 1-7):

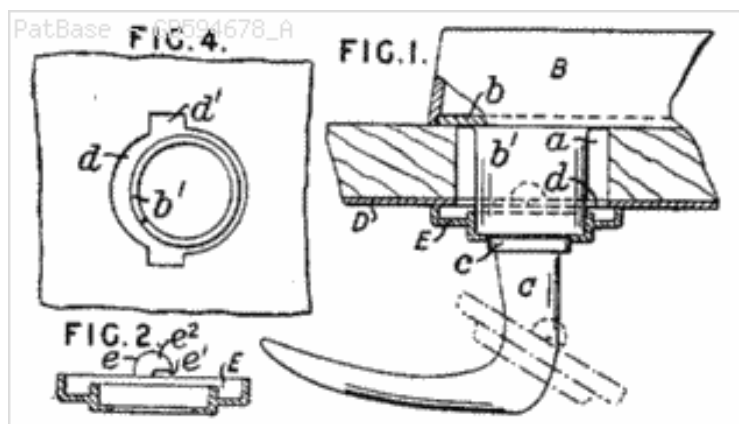
CPC: E05B3/06

European class: E05B3/06

[Classification Explorer](#)

Abstract:

Source: GB594678A 7904. [Class 44] A rim or flush lock or latch, having its handle or one of its handles already attached, is inserted by threading a handle through a bole in the lock, or through a plate covering a flush lock, and has extending from its inner face a screw or boss which either fills the hole or receives a rose or door plate which is threaded over the handle to cover the hole. When a socket is employed it may be formed on the lock, the handle shank passing through it, whereas a boss may be formed on the handle shank itself. A rim lock B has a cap plate b having on its outer face an integral socket b^{<1>} through which passes the shank of a lever handle C, on which is a boss or collar c. A hole a in the door, and a hole d in a plate D secured to or forming part of the door, are large enough for the handle C to pass through and to allow lateral displacement of the lock. A rose E has an internal diameter sufficient to permit its threading over the handle and its fitting over the boss c and an external diameter sufficient to permit its covering the hole d. Projecting inwardly from the rim of the rose are two oppositely disposed lugs e, slotted at e^{<1>} to leave overhanging parts e^{<2>} which engage under the edges of their respective notches d^{<1>} in the edge of the hole d, when the lock is displaced to the right. Instead of lugs, the rose may have an internal screw thread engaging an external thread on the socket b^{<1>}; the lock is not displaced in this case. The rose may be replaced by a door plate. Instead of the handle, C a knob capable of going through the hole in the door may be used. For use with a flush lock the socket b¹ is made much shorter.



0) US5553531A – COOKING DEVICE

88) Family number: 12760297 (US5553531A)

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Title: Cooking device

Priority: US19940361070 19941221

Family:	Publication number	Publication date	Application number	Application date
	<u>US5553531 A</u>	19960910	US19940361070	19941221

Probable Assignee: LEGION IND INC

Assignee(s):^(std): LEGION IND INC

Assignee(s): LEGION INDUSTRIES INC ; LEGION IND

Inventor(s):^(std): BROWN CHARLES A

International class
(IPC 8-9): A47J27/04 A47J27/14 (Advanced/Invention);
A47J27/04 A47J27/14 (Core/Invention)

International class
(IPC 1-7): A47J37/10

CPC: A47J27/04 A47J27/14

European class: A47J27/04 A47J27/14

US class: 99/340 99/393 99/407 99/409 99/423 993/400

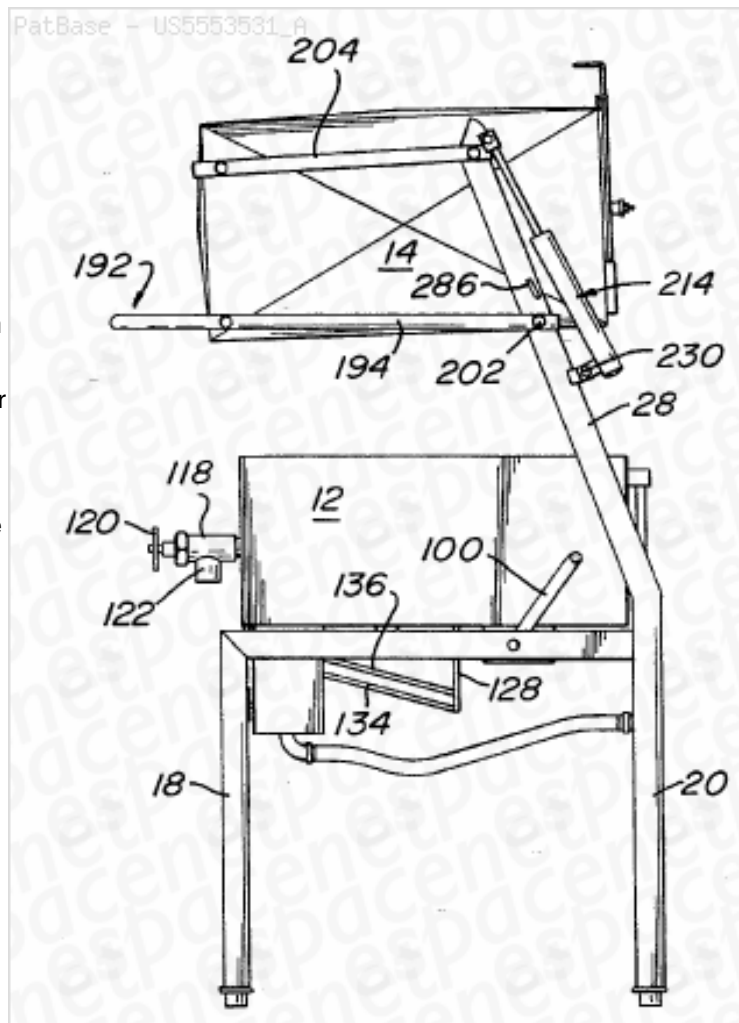
[Classification Explorer](#)

Cited documents: US4150280 A, US4138606 A, US3964378 A, US3895216 A, US3592668 A, US3432642 A, US2009791 A, US1983118 A,

Forward Citations: US8707857, US8648282, US8354620, US8074563, US8037602, US7538300, US7523697, US7147119, US6994015, US6988631, US6763965, US6726049, US6073542, US5992307, US5964145, US2011049123, US2011006054, US2010242282, US2010186603, US2010084412, US2010083949, US2008223359, US2005229792, US2004113032, GB2444698, GB2444698,

Abstract:

Source: US5553531A A multi-functional cooking device that combines a steamer, skillet, griddle, fryer, kettle and oven into a single unit. The cooking device has a hollow base and a hollow lid. The base and the lid mate to provide an enclosed space for heating food. Heating means are associated with the base, to heat the interior space. Means are provided for lifting the lid relative to the base, and for maintaining the lid at a set position relative to the base. The base is adapted to receive water, so that when it is heated, steam will be formed in the space enclosed by the lid and base. The lower edge of the lid is recessed, and receives in the recess the upper edge of the base, whereby the mating of the two edges provides a junction to maintain steam within the space formed by the lid and base. A mechanism is provided for tilting the base at a predetermined angle, to facilitate the use of the base for grilling or frying foods.



Priority: DE19800006417U 19800308**Family:**

Publication number	Publication date	Application number	Application date
DE8006417 U1	19800619	DE19800006417U	19800308

Probable Assignee: GEKA WERK REINHOLD KLEIN KG 3573 GEMUENDEN**Assignee(s):** GEKA WERK REINHOLD KLEIN KG 3573 GEMUENDEN

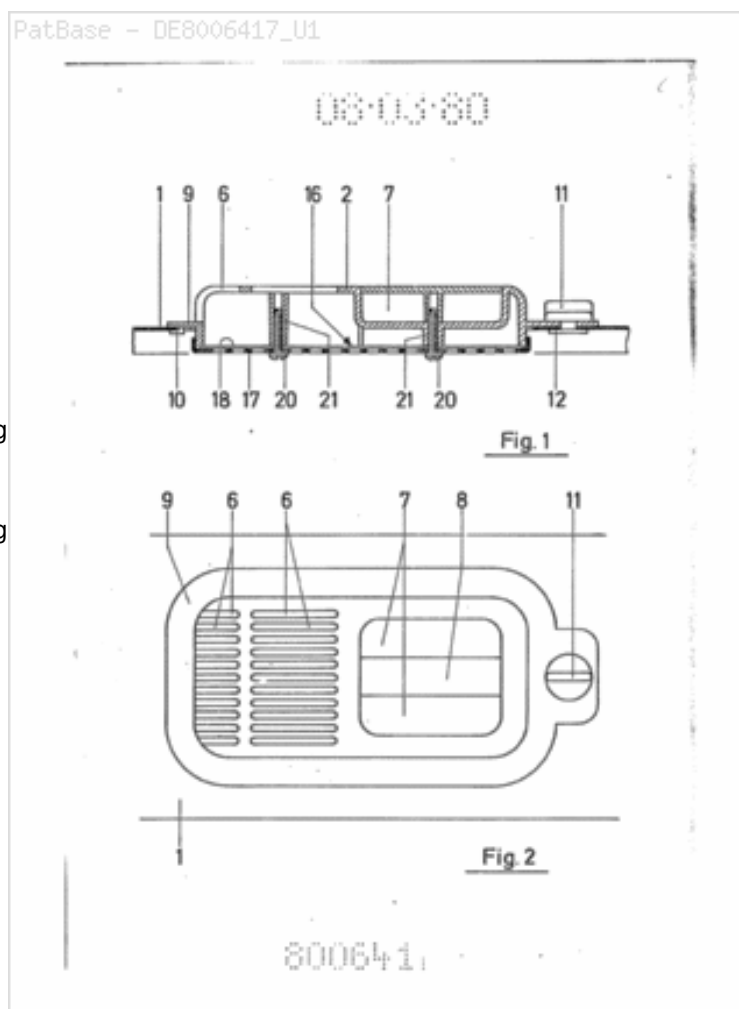
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

CPC: A47J37/128**European class:** A47J37/12M1[Classification Explorer](#)**Forward Citations:** WO9908581, US6334888, FR2767462, EP1003410,**Abstract:**

Source: DE8006417U1 (Claim 1) 1) Deckel fuer eine Friteuse, dadurch gekennzeichnet, dass er zweiteilig ausgebildet ist und aus einem auf den oberen Friteusenrand aufsetzbaren, eine Mittelloeffnung (3) aufweisenden Rahmenteil (1) und einen Einsatz (2) besteht, der auf einen die Mittelloeffnung (3) umgebenden Randabschnitt des Rahmenteils (1) aufgesetzt ist, die Mittelloeffnung (3) abdeckt und loesbar mit dem Rahmenteil (1) verriegelt ist.

Machine translation: (Claim 1) 1) cover for a deep fryer, characterized in that it is designed in two parts and consists of a on the upper Ren fryer edge can be placed, a Mittelloeffnung (3) having a frame part (1) and an insert (2) exists, which is on the one hand the Mittelloeffnung (3) surrounding edge portion of the frame part (1) is placed, the center opening (3) covering and releasably locked to the frame part (1).



0) US2002139365A – MODIFIED WHEEL RIM ARTICLES OF MANUFACTURE

90) Family number: 23978379 (US2002139365A)

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Title: Modified wheel rim articles of manufacture

Priority: US19980057931 19980409 US20010761894 20010117 US20010761895 20010117

Family:

Publication number	Publication date	Application number	Application date
US2002139365 AA	20021003	US20010761895	20010117
US2002140256 AA	20021003	US20010761894	20010117

Probable Assignee: WHEEL TOUGH COMPANY INC

Assignee(s):^(std): WHEEL TOUGH CO INC ; WHEEL TOUGH COMPANY INC

Assignee(s): THE WHEEL TOUGH COMPANY INC

Inventor(s):^(std): COLLINS JEFFREY P ; GREENE CHRIS D ; STAKEMAN RUDOLPH J ; WALKER JERRY L

International class
(IPC 8-9): [A47J37/07](#) (Advanced/Invention);
[A47J37/07](#) (Core/Invention)

International class
(IPC 1-7): [B60N2/32 F24C1/16](#)

CPC: [A47J37/0704](#)

European class: [A47J37/07B](#)

US class: [126/275 126/275R 297/118 297/451.6](#)

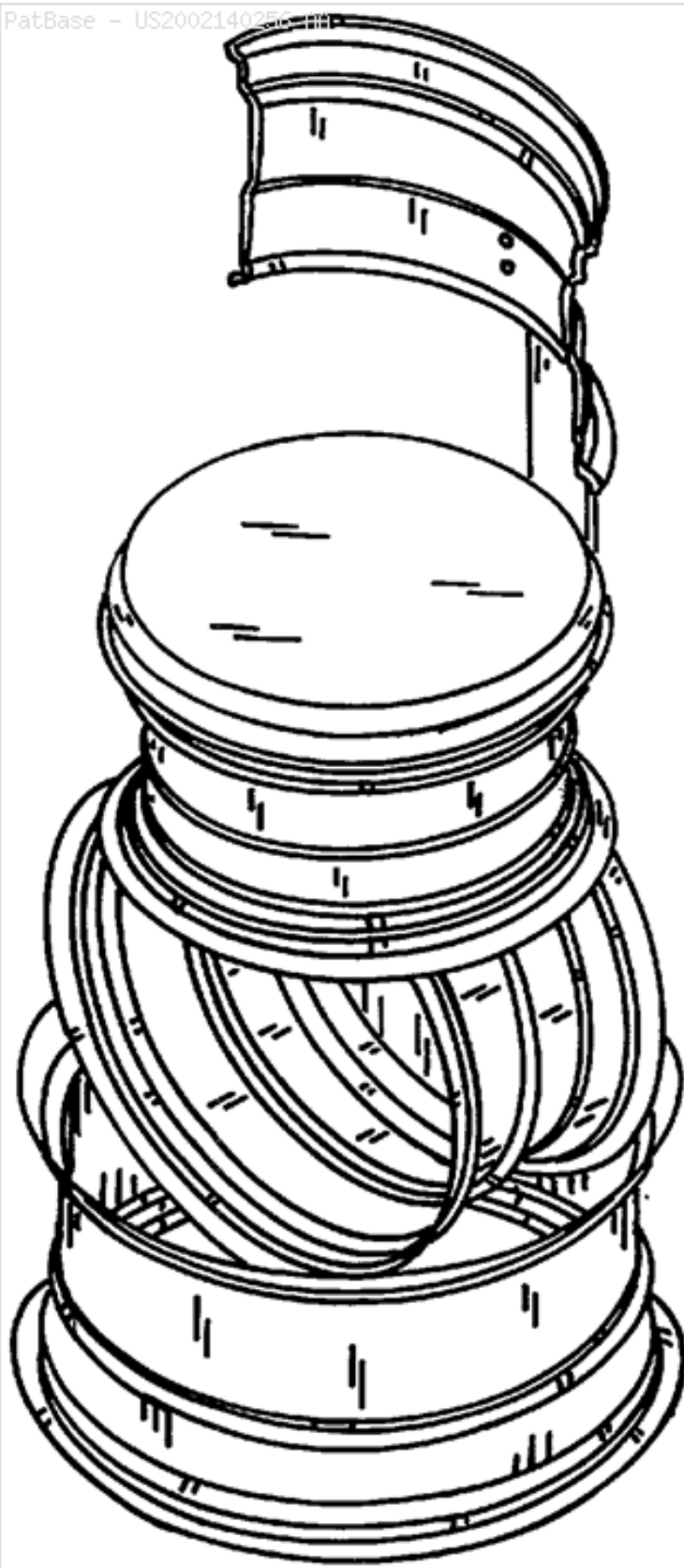
[Classification Explorer](#)

Forward Citations: US2011203570, US2006087162,

Abstract:

Source: US2002139365A An article of manufacture constructed from modified wheel rims to provide both utilitarian and esthetically pleasing articles utilizes one or more modified wheel rims. The wheel rim modifications provide an article of manufacture with a variety of functions.

PatBase - US2002140256-111



91) Family number: 31712935 (US2005039737A)

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Title: BAKING ASSEMBLY FOR BATTERED FOOD ITEMS**Priority:** US20030644405 20030819

Family:	Publication number	Publication date	Application number	Application date
	<u>US2005039737 AA</u>	20050224	US20030644405	20030819
	<u>US7024987 BB</u>	20060411	US20030644405	20030819

Probable Assignee: HABER ROBERT H**Assignee(s):^(std):** HABER ROBERT H**Inventor(s):^(std):** HABER ROBERT H**Inventor(s):** HABER ROBERT**Agent(s):** DAVID J SIMONELLI CLARK HILL PLC; CLARK HILL PLC

International class A47J37/00 A47J37/06 (Advanced/Invention);
 (IPC 8-9): A47J37/00 A47J37/06 (Core/Invention)

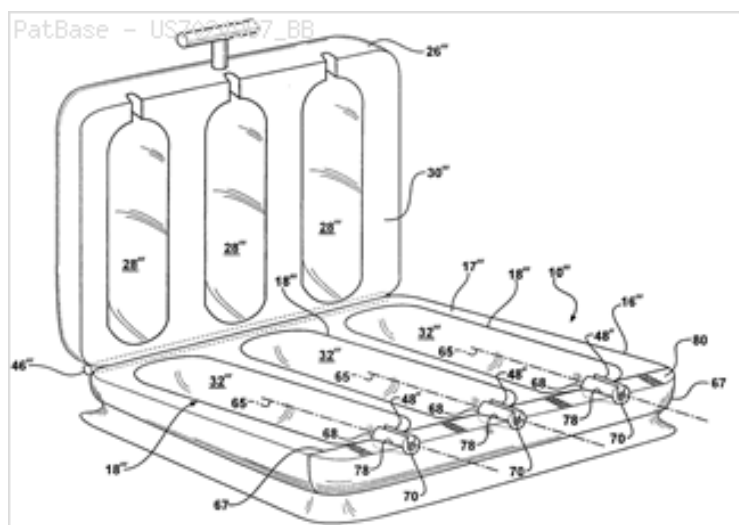
International class A47J9/00
 (IPC 1-7):

CPC: A47J37/0611**European class:** A47J37/06B**US class:** 126/3 126/30 99/372 99/374 99/384 99/419 99/441 993/840[Classification Explorer](#)**Cited documents:** US6286418 BA, US5671658 A, US4967650 A, US4175483 A, US2282500 A, US1990412 A, US1546347 A,

Forward Citations: WO12022283, USD758131, USD752387, USD751870, USD689323, US9596959, US9078541, US8915179, US8671830, US8539877, US7180034, US2014272022, US2012282385, US2012210882, US2010199858, US2006174777, US2005217495, ITPI20130102,

Abstract:

Source: US2005039737A A baking assembly bakes a food item prepared to be baked on a stick with a batter. The baking assembly includes a first heating element including a reservoir for receiving the batter and the food item therein. The reservoir defines a longitudinal axis. A second heating element includes a cavity that complements the reservoir. A hinge secures the first heating element to the second heating element allowing the second heating element to pivot over the first heating element such that the reservoir and the cavity create a heating hollow to bake the food item and the batter therein. A stick retainer receives and retains the stick in an orientation such that the food item is coaxial with the reservoir.



92) Family number: 49727668 (CN201996365U)

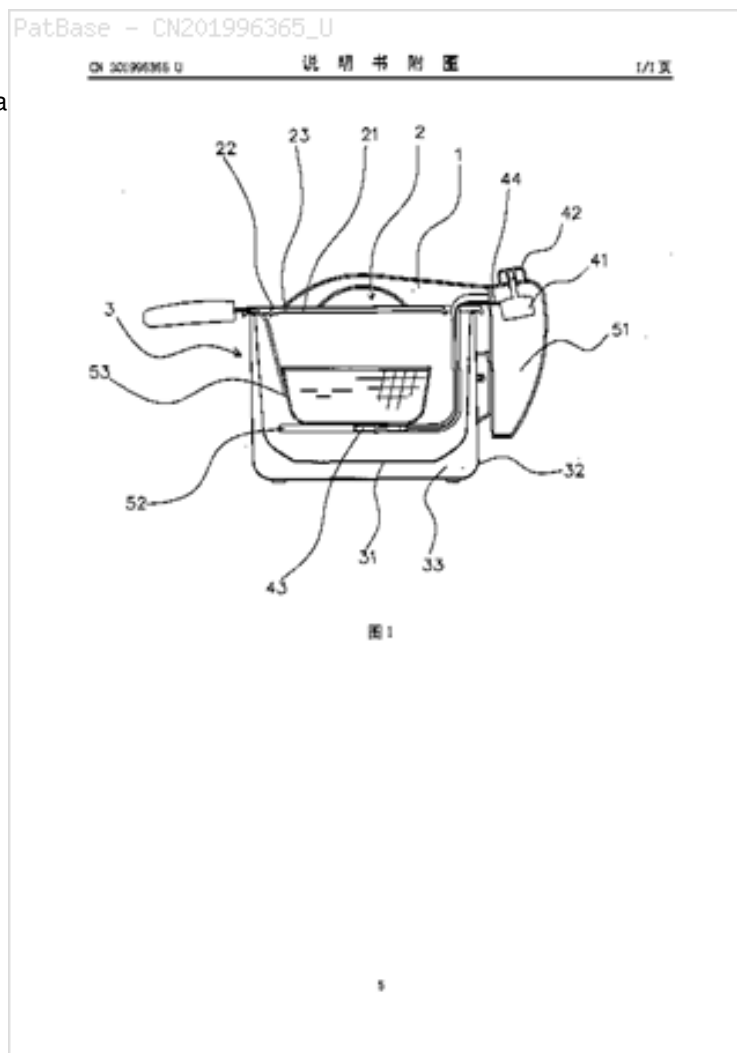
© PatBase

Title: Double-layer heat-insulation utensil used in deep fryer**Priority:** CN201120026385U 20110126

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201996365 U</u>	20111005	CN201120026385U	20110126

Probable Assignee: FOSHAN SHUNDE DISTR JIANFENGXING TRADE CO LTD**Assignee(s):^(std):** FOSHAN SHUNDE DISTR JIANFENGXING TRADE CO LTD**Assignee(s):** FOSHAN SHUNDE DISTRICT JIANFENGXING TRADE CO**Inventor(s):^(std):** QINGJIAN MA**Inventor(s):** MA QINGJIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201996365U The utility model discloses a double-layer heat-insulation utensil used in a deep fryer, which comprises a handle, a pot cover, a pot body, a temperature controller and a heating device, wherein the pot cover comprises an inner cover and an outer cover which are corresponding in the shape, the connected part of the outer cover and the inner cover is hermetically connected to form an relatively hermetic upper middle layer, and the upper middle layer is a vacuum or insulating material filling layer; and the pot body comprises an inner liner and an outer body, the inner liner is embedded into the outer body, the connected part of the inner liner and the outer body is hermetically connected to form an relatively hermetic lower middle layer, and the lower middle layer is a vacuum or insulating material filling layer. Not only is the problem that the outer wall of the deep fryer is hot solved, the work efficiency of the deep fryer is improved, and the processing time is shortened, but also a better heat preservation effect is achieved, so that the double-layer heat-insulation utensil used in the deep fryer is an energy-saving, high-efficient and safe product.



93) Family number: 50608055 (PH2010000459U)

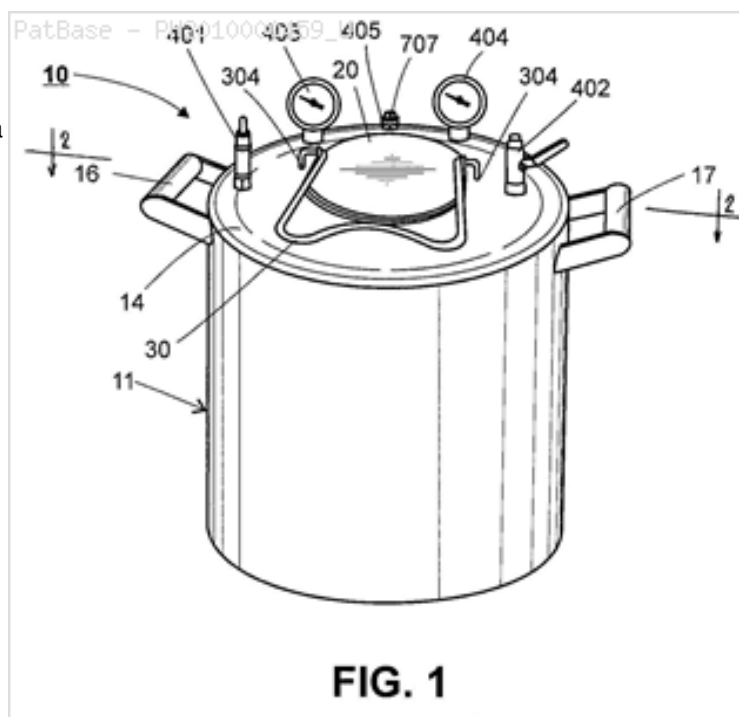
© PatBase

Title: IMPROVED MULTI-PURPOSE PRESSURE COOKER**Priority:** PH20100000459U 20100917**Family:**

Publication number	Publication date	Application number	Application date
<u>PH2010000459 U</u>	20111114	PH20100000459U	20100917

Probable Assignee: MANUEL M MALONZO**Assignee(s):** MANUEL M MALONZO**Inventor(s):^(std):** MANUEL M MALONZO**International class** A47J27/08 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: PH2010000459U The present utility model relates to improved multi-purpose pressure cooker comprising an enclosed body having a inversed cover member which have a locking means which also serves as a handle which when rotated locks the cover to the opening of the cooker by pressing the locking means against the top wall of the cooker. At pressure, the cover's sealing means is being forced against the top wall so that it will not be dislodged and to effectively secure the pressure therein. This cooker could be used for autoclave, pressure canner, pressure distiller-condenser and as a pressure deep fryer aside from cooking purpose by providing and attaching other elements thereof.



94) Family number: 56140878 (US2016270596A)

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Title: HOUSEHOLD ELECTRICAL AIR FLOW COOKING APPLIANCE
Priority: FR20120059069 20120926 WO2013FR52150 20130918

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2885909 AA</u>	20150323	CA20132885909	20130918
	<u>CN103654459 A</u>	20140326	CN201310438246	20130924
	<u>CN203619383 U</u>	20140604	CN201320589120U	20130924
	<u>EP2900112 A1</u>	20150805	EP20130774749	20130918
	<u>FR2995775 A1</u>	20140328	FR20120059069	20120926
	<u>FR2995775 B1</u>	20140926	FR20120059069	20120926
	<u>JP2015530171 T2</u>	20151015	JP20150533665T	20130918
	<u>US2016270596 AA</u>	20160922	US20130431106	20130918
	<u>WO14049231 A1</u>	20140403	WO2013FR52150	20130918

Probable Assignee: SEB SA

Assignee(s):^(std) SEB AB ; SEB SA

Assignee(s): ALLEMAND BERNARD ; PETITALLOT JOHANN

Inventor(s):^(std) ALLEMAND BERNARD ; BERNARD ALLEMAND ; JOHANN PETITALLOT ; PETITALLOT JOHANN

Agent(s): GOUDREAU GAGE DUBUC; CEMELI ERIC PHILIPPE LAURENT; SEB DEVELOPPEMENT ERIC CEMELI; SEB DEVELOPPEMENT; TANI AND ABE PC; SEB DEVELOPPEMENT CEMELI ERIC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class ^(IPC 8-9): [A47J36/06 A47J37/04 A47J37/06 A47J37/12 A47J39/00](#) (Advanced/Invention)

CPC: [A47J37/0641 A47J37/1209 A47J39/003](#)

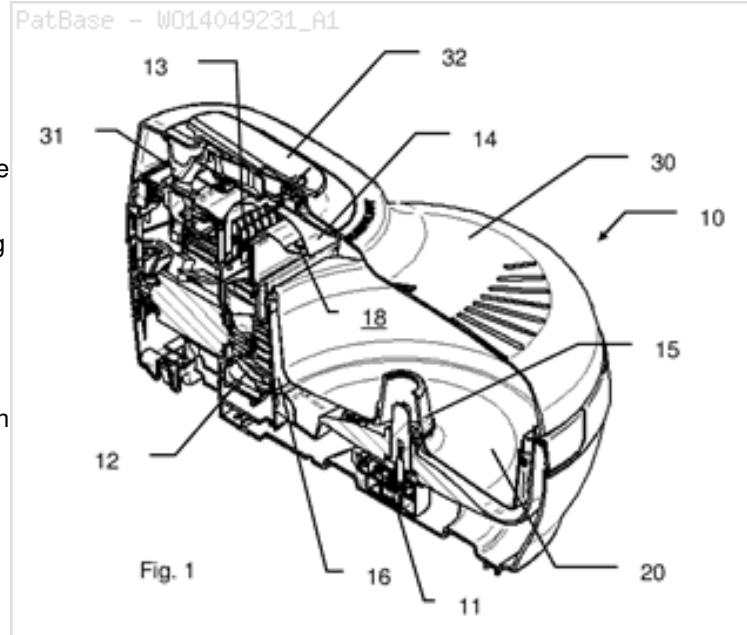
US class: [99/339](#)

[Classification Explorer](#)

Cited documents: WO8700261 A1, US2024062 A, US2011185917 AA, US2010303986 AA, US2008163764 AA, FR2945200 B1, EP2248452 A1,

Abstract:

Source: US2016270596A Provided is a household electrical appliance for cooking and/or reheating food including: a housing having a tank arranged such as to receive the food to be cooked and/or reheated; a removable cover arranged such as to close the tank while cooking and/or reheating; at least one heating element and a fan arranged such as to create a closed hot air flow while cooking and/or reheating; and a ventilation sheath that includes a suction inlet, arranged on one side of the tank, and a ventilation outlet above the tank. Said ventilation sheath is arranged such as to direct the hot air flow onto the food while cooking and/or reheating. Said appliance is characterized in that the ventilation sheath is in one piece and separated from the cover.



95) Family number: 33801354 (UY3606Q)

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Title: FREIDORA**Priority:** EM20050355128F 20050614 US20050243668F 20051129

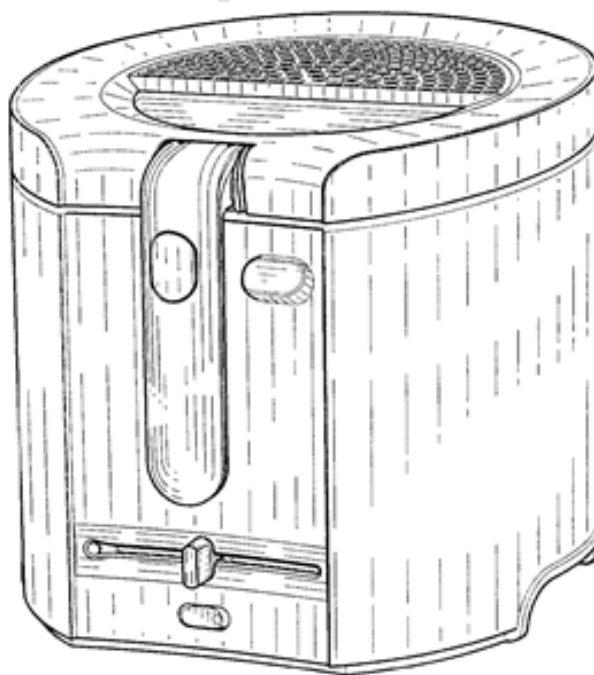
Family:	Publication number	Publication date	Application number	Application date
	CA113808 S	20070115	CA20050113808F	20051207
	IL41696 S1	20071206	IL20050041696F	20051206
	<u>TWD114928 S1</u>	20070111	TW20050307636F	20051213
	<u>USD532248 S1</u>	20061121	US20050243668F	20051129
	<u>UY3606 Q</u>	20060630	UY20050003606F	20051206

Probable Assignee: KONINKL PHILIPS ELECTRONICS NV**Assignee(s):^(std):** KONINKL PHILIPS ELECTRONICS NV ; PHILIPS ELECTRONICS LTD**Assignee(s):** KONINKLIJKE PHILIPS ELECTRONICS N V ; KONINKLIJKE PHILIPS ELECTRONICS N.V. ; PHILIPS ELECTRONICS KONINKLL NV**Inventor(s):^(std):** ALLENDE FRITSCH PAULA ANDREA**Inventor(s):** FRITSCH, PAULA ANDREA ALLENDE**Agent(s):** SMART AND BIGGAR**US class:** D7/354**Locarno class:** 07/02[Classification Explorer](#)**Cited documents:** USD489935 S1, USD473097 S1, USD465125 S1, USD464526 S1, USD452795 S1, USD436795 S1, USD432348 S1, USD423277 S1, USD422447 S1, USD419824 S1, USD414072 S1, USD386646 S1, USD374588 S1,**Forward Citations:** USD760017, USD711183, USD680802, USD680801, USD680800, USD674651, USD672600, USD664801, USD653902, USD611758, USD611757, USD610392, USD609962, USD592008, USD557552, USD552921,

Abstract:

Source: CA113808S The design is the shape, configuration and pattern of the deep fryer as shown in the drawings. The most significant features are: the cylindrical shaped body with a flattened-off front portion where the handle is positioned as seen in Figure 1; the vertically elongated approximately U-shaped handle as seen in Figure 2; the semi-circular shaped element extending downward from the cover as shown in Figure 3; the downward sloping top portion from rear to front as shown in the side views of Figures 4 and 5; and the generally circular-shaped feature within the cover as seen in the top view of Figure 6, with a portion of the generally circular-shaped feature incorporating a plurality of generally circular elements. Drawings of the design are included wherein: Fig. 1: is a perspective view of the deep fryer; Fig. 2: is a front view thereof; Fig. 3: is a rear view thereof; Fig. 4: is a left side view thereof; Fig. 5: is a right side view thereof; Fig. 6: is a top view thereof; and Fig. 7: is a bottom view thereof.

PatBase - USD532248_S1



96) Family number: 11634123 (EP1029493A1)

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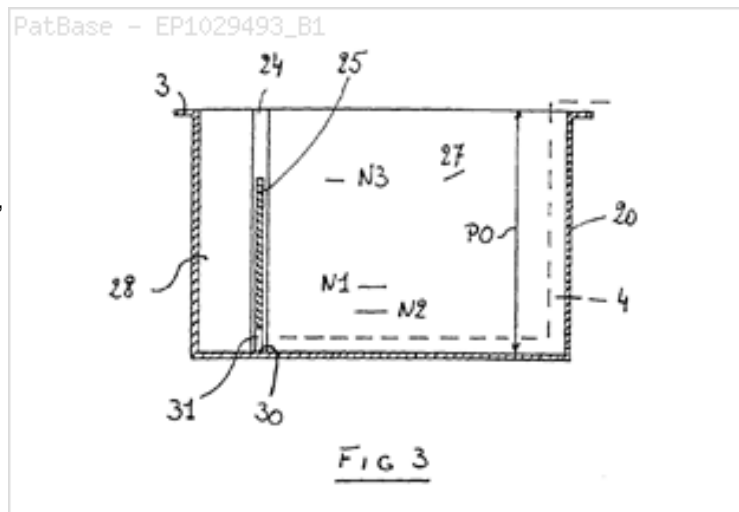
Title: Cooking device
Priority: BE19990000113 19990219
Family:

Publication number	Publication date	Application number	Application date
AT221333 E	20020815	AT20000870021T	20000216
BE1012477 AH	20001107	BE19990000113	19990219
DE60000291 D1	20020905	DE20006000291	20000216
DE60000291 T2	20030320	DE20006000291T	20000216
EP1029493 A1	20000823	EP20000870021	20000216
EP1029493 B1	20020731	EP20000870021	20000216

Probable Assignee: ARIAM S P R L
Assignee(s):^(std): ARIAM S P R L
Assignee(s): ARIAM S P R L CHASTRE
Inventor(s):^(std): JENICOT JEAN MARIE
Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
International class
 (IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)
International class
 (IPC 1-7): [A47J27/58](#) [A47J37/12](#)
CPC: [A47J37/1223](#)
European class: [A47J37/12D](#)
[Classification Explorer](#)
Cited documents: US5782164 A, US3933645 A, US3646882 A, EP0649622 A1, EP0067730 A1, DE3542909 A1,
Forward Citations: EP1224896,

Abstract:

The device has a cooking receptacle (20) for containing a cooking liquid which produces froth or foam, this receptacle having a bottom, lateral walls, and a top edge. There is a receptacle (28) for receiving this overflowing foam, or emulsion from the cooking liquid when it overflows a pre-determined level (N3), this foam is then transformed into a liquid in this receptacle and by means of a guide member is guided back below (31) the level of liquid in the receptacle. There is an arrangement (25) which prevents entry of the foam back into the cooking receptacle.



97) Family number: 21520828 (FR1510977A)

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Title: FRITEUSE ELECTRIQUE ELECTRIC FRYER (Machine translation)**Priority:** FR19660087090 19661212

Family:	Publication number	Publication date	Application number	Application date
	FR1510977 A	19680126	FR19660087090	19661212

Probable Assignee: MOULINEX SA**Assignee(s):^(std):** MOULINEX SA**Assignee(s):** MOULINEX S A

International class [A47J37/12](#) (Advanced/Invention);
 (IPC 8-9): [A47J37/12](#) (Core/Invention)

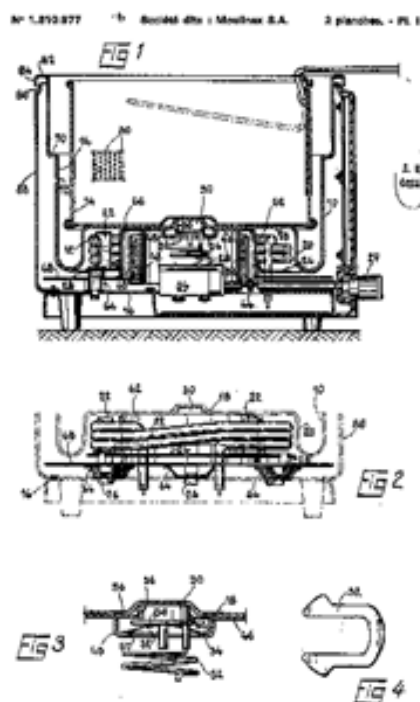
International class [A47J37/12](#)
 (IPC 1-7):

CPC: [A47J37/1209](#)**European class:** [A47J37/12A1](#)[Classification Explorer](#)**Forward Citations:** WO9604832, FR2804308, FR2723690, FR2659544, FR2657516, EP1121884, EP0587300,**Abstract:**

Source: FR1510977A (Claim 1) 1. Friteuse comprenant une cuve de cuisson chauffée par une résistance électrique et adaptée à recevoir un panier contenant des aliments à cuire, caractérisée en ce que la résistance chauffante présente la forme d'un anneau saillant sur la face supérieure d'un socle de support, tandis que le fond de la cuve présente la forme d'un chapeau adapté à coiffer ledit anneau de telle sorte que la résistance chauffante soit alors située à proximité immédiate de la paroi latérale dudit chapeau.

Machine translation: (Claim 1) 1. Fryer including a cooking vessel heated by an electrical resistance and adapted to receive a basket of food to cook, characterized in that the resistance heating presents as a raised ring on the upper surface of a support base, while the bottom of the tank presents the shape of a hat fits a style said ring so that the resistance heater is then located in the immediate vicinity of the side wall of said cap.

PatBase - FR1510977_A



98) Family number: 2767876 (US4787301A)

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Title: Deep fat cooking apparatus and method**Priority:** US19870119332 19871110

Family:	Publication number	Publication date	Application number	Application date
	<u>US4787301 A</u>	19881129	US19870119332	19871110

Probable Assignee: LITTLE CHIPPER INC**Assignee(s):^(std):** LITTLE CHIPPER INC**Inventor(s):^(std):** DECKER JOHN I ; HOATSON WILLIAM J

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

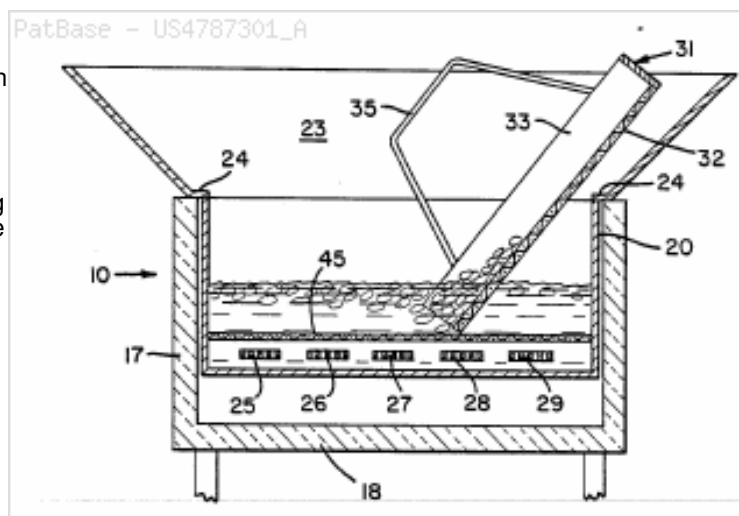
CPC: A47J37/12**European class:** A47J37/12**US class:** 219/422 99/336 99/403 99/409 99/410[Classification Explorer](#)

Cited documents: US4574183 A, US4508027 A, US4321859 A, US3919523 A, US3869972 A, US3626840 A, US3018716 A, US2848938 A, US2528776 A, US2367448 A, US2246854 A, US2196968 A, US2109212 A, US2053568 A, US1990351 A, GB190601768 A, GB1768,

Forward Citations: WO10054588, US9572455, US9220369, US8707857, US8186265, US5704279, US5595106, US5590587, US5558009, US2016058243, US2011214575, GB2476914,

Abstract:

Source: US4787301A A deep fat fryer, especially for potato chips, has a cradle screen with walls and lifting handles and means for supporting the cradle screen at a lower level within the cooking kettle, a cover screen with lifting handles being selectively insertable into the product above the cradle screen for stirring it or placed over the product and resting on the walls of the cradle screen for keeping the product submerged. When the oil is at a lower level, the cradle screen is removed from the kettle after an initial cooking period and inserted into the product for stirring it and is then supported at a higher level over the product for keeping it submerged. The cradle screen walls have an opening to permit scooping of the product into the cradle screen after cooking. The cooking method includes varying the heating rate in order to control the rate of temperature rise of the oil after it drops to its lowest point following loading of the product into the kettle.



Title: Frying pan
Priority: CN200820014184U 20080721

Family:	Publication number	Publication date	Application number	Application date
	CN201243978 Y	20090527	CN200820014184U	20080721

Probable Assignee: MINGYU SUN

Assignee(s):^(std): MINGYU SUN

Assignee(s): SUN MINGYU

Inventor(s):^(std): MINGYU SUN

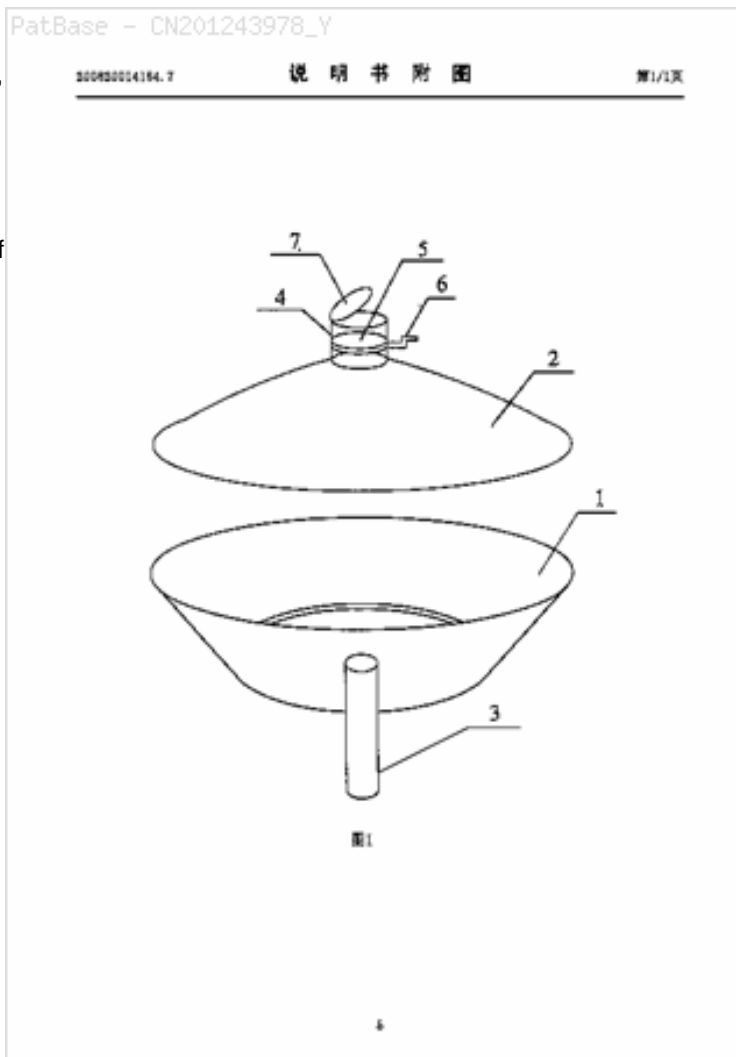
Inventor(s): SUN MINGYU

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN201243978Y The utility model relates to a fryer which comprises a fryer body, a cover and a handle, wherein the center of the cover is provided with a column bulge by the processing way, the column bulge is internally provided with a circular baffle, and a crank is vertically inserted into the column bulge and then is fixedly connected with the edge of the circular baffle; the cover is made of transparent steel glass; and the top of the column bulge is provided with an upper cover. When food is fried, edible oil is poured in the fryer, the upper cover of the column bulge is opened after the cover is covered, and food is put on the baffle of the bulge; when the temperature of the edible oil reaches the standard, a user turns the crank to drive the baffle to rotate so as to cause the food drop in the edible oil in the fryer, and the frying purpose is realized. The utility model has the advantages of attractive appearance, special function, safety and reliability, simple process and the like.



Title: Throws over Sa to dry the fryer (Machine translation)

Family:

Publication number	Publication date	Application number	Application date
<u>TW243115 S1</u>	19950311	TW19930307378F	19930903

Probable Assignee: YANG JIA INTO CORP

Assignee(s): YANG JIA INTO CORP

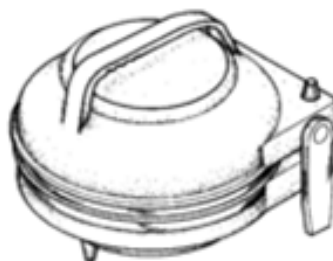
Abstract:

Source: TW243115S

Machine translation: This creation is one kind throws over Sa to dry the fryer the new model, You above Zhi one kind of pot cover the central committee has an oblate suddenly body, but on the oblate body cross is equipped with a handle suddenly, behind the pot the both sides is equipped with a sector rod-shaped stub respectively. ; Please refer various charts to show, pot cover of and the pot body the this creation respectively assumes a disc body approximately, only above the pot cover and the pot body bottom surface is equipped with an oblate suddenly body respectively, but the pot cover on the oblate body cross is equipped with a handle suddenly, the pot cover and the pot body rear area is equipped with an uprighter salient point respectively, the salient point both sides supposes a sector rod-shaped stub respectively, but this stub peak assumes the semicircle, the bottom end is gradually is narrow by the width, and some third stub supposes in the bottom of the pot front, the whole presents full, the lovable shape. ; In summary, contour of the this creation primarily extends the straight line by the circular, union shape the duplicate handle and the pot cover all has one kind of special esthetic sense, honestly is one uniquely, the outstanding new model design.

PatBase - TW243115_S1

243115



101) Family number: 11540653 (DE4338736A1)

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Title: SOLAR POWERED COOKER AND/OR HEATER WITH HEAT ENERGY STORAGE

Priority: DE19934338736 19931112

Family:	Publication number	Publication date	Application number	Application date
	<u>DE4338736 A1</u>	19950524	DE19934338736	19931112

Probable Assignee: WIETRZICHOWSKI ARNOLD PROF DIP

Assignee(s):^(std): WIETRZICHOWSKI ARNOLD PROF DIP

Assignee(s): WIETRZICHOWSKI ARNOLD PROF DIPL ING ; WIETRZICHOWSKI ARNOLD PROF DIPL ING 71229 LEONBERG DE

Inventor(s):^(std): WIETRZICHOWSKI ARNOLD PROF DIP

Inventor(s): WIETRZICHOWSKI ARNOLD PROF DIPL ING

International class
(IPC 8-9): F24J2/02 F24J2/16 F24J2/34 (Advanced/Invention);
F24J2/02 F24J2/04 F24J2/06 (Core/Invention)

International class
(IPC 1-7): F24J2/02 F24J2/52

CPC: F24J2/16 F24J2/02 F24J2/34 Y02B40/18 Y02E10/40

European class: F24J2/02 F24J2/16 F24J2/34 F24J2/36 Y02B40/18 Y02E10/40

[Classification Explorer](#)

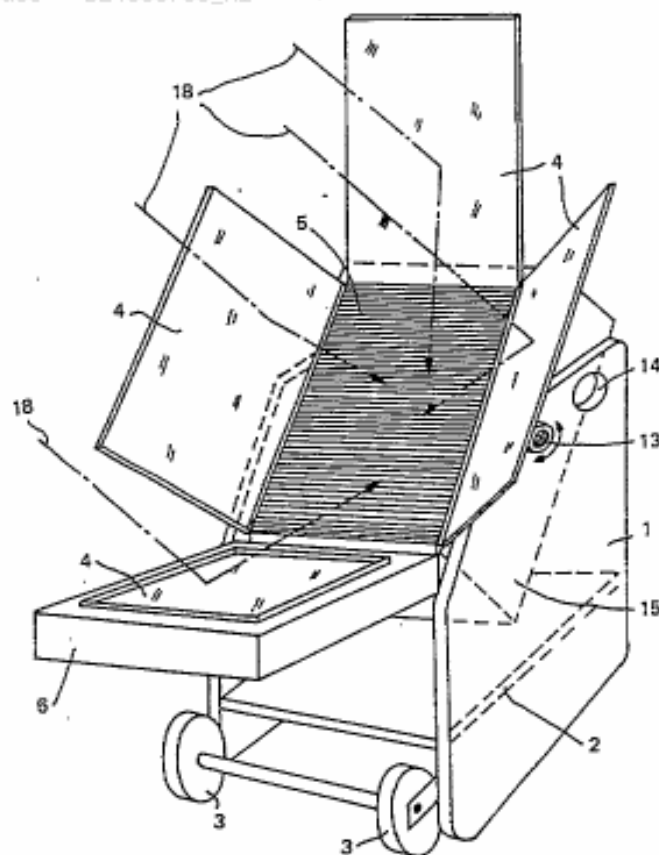
Cited documents: US4848320 A, US3025851 A, DE3706348 A1, DE3607484 A1, DE3544039 A1, DE3414442 A1, DE3226782 A1, DE3120520 A1, DE2745324 A1,

Forward Citations: WO11009200, WO11000522, WO11000522, WO09037386, WO03098125, US8127759, JP2012533370, EP2459939, EP2459939, EP2457029, EP2457029,

Abstract:

Source: DE4338736A1 The cooker or heater is connected with a solar energy absorber and with a cooking and/or roasting system thermally, for heat energy transmission. The heat energy storage has a core (11) of concrete or similar material. The cooking and roasting system (10, fig.5) is fitted on one side of the core (11). The solar absorber (5) in the form of an energy absorbing metal sheet is fitted on the opposite side, and is thermally connected. Hinged mirrors (4) are arranged on the side of the solar absorber (5) at the heat storage, for additional solar energy reception.

PatBase - DE4338736_A1



102) Family number: 20418230 (GB448053A)

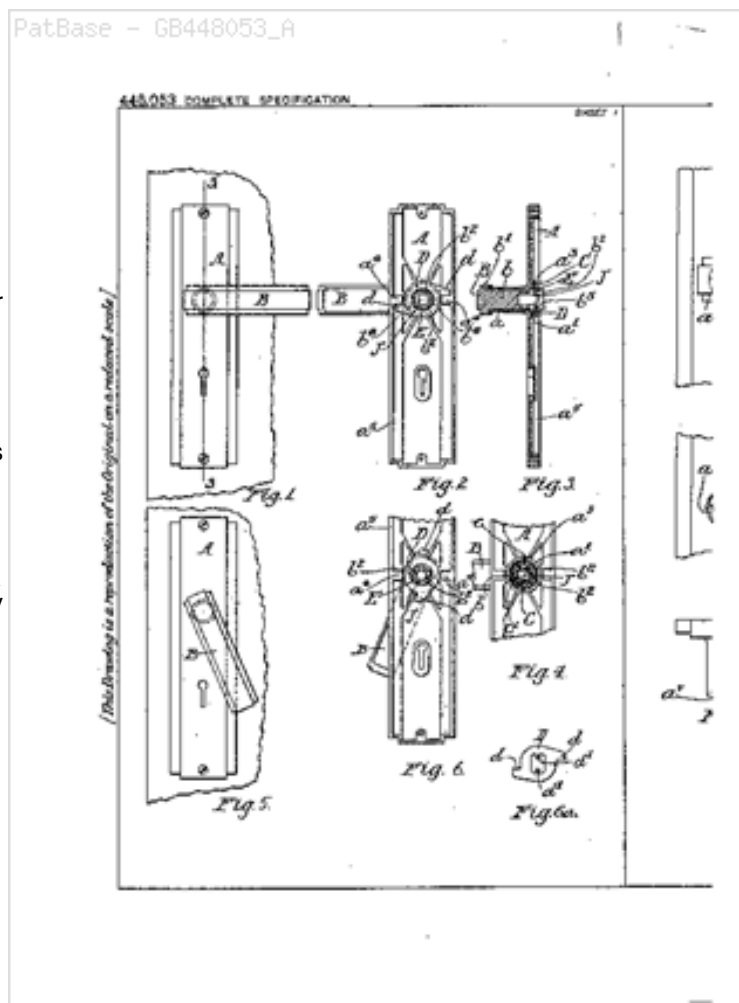
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Title: Improvements in and relating to lever and other handles used for operating latch bolts**Priority:** GB19350000389 19350105

Family:	Publication number	Publication date	Application number	Application date
	<u>GB448053 A</u>	19360602	GB19350000389	19350105

Probable Assignee: FRANCIS JOSEPH BUTTER**Assignee(s):^(std):** EDWARD CAMDEN FRYER ; FRANCIS JOSEPH BUTTER ; JOSIAH PARKES AND SONS LTD**Assignee(s):** JOSIAH PARKES AND SONS LIMITED**International class**
(IPC 8-9): E05B3/06 (Advanced/Invention);
E05B3/00 (Core/Invention)**International class**
(IPC 1-7): E05B15/02**CPC:** E05B3/065**European class:** E05B3/06S[Classification Explorer](#)**Forward Citations:** US4065165,**Abstract:**

Source: GB448053A 389. [Class 44] A lever-type door handle B is returned to its normal position by a scroll spring housed behind the door plate. The spring C surrounds the handle shank b and its ends are anchored to the shank and to the edge of the recess a <1> in which the spring is housed. The recess is closed by a stop plate D with horns d which engage fixed stops a <4> on the door plate. Extending inwardly from the inner periphery of the stop plate D are two tongues d which enter slots in the shank b and prevent relative rotation of the stop plate and the shank. The stop means may comprise a peg F on the shank which engages a cut away portion on the end of the socket a. A second cutaway portion is provided for use when the handle is fitted the opposite hand. Two washers G, H cover the spring recess, the outer washer locking the inner when turned through 90. The spring may be mounted below the shank. To permit of lateral movement between the shank and the socket, the shank takes a bearing only at the forward end.

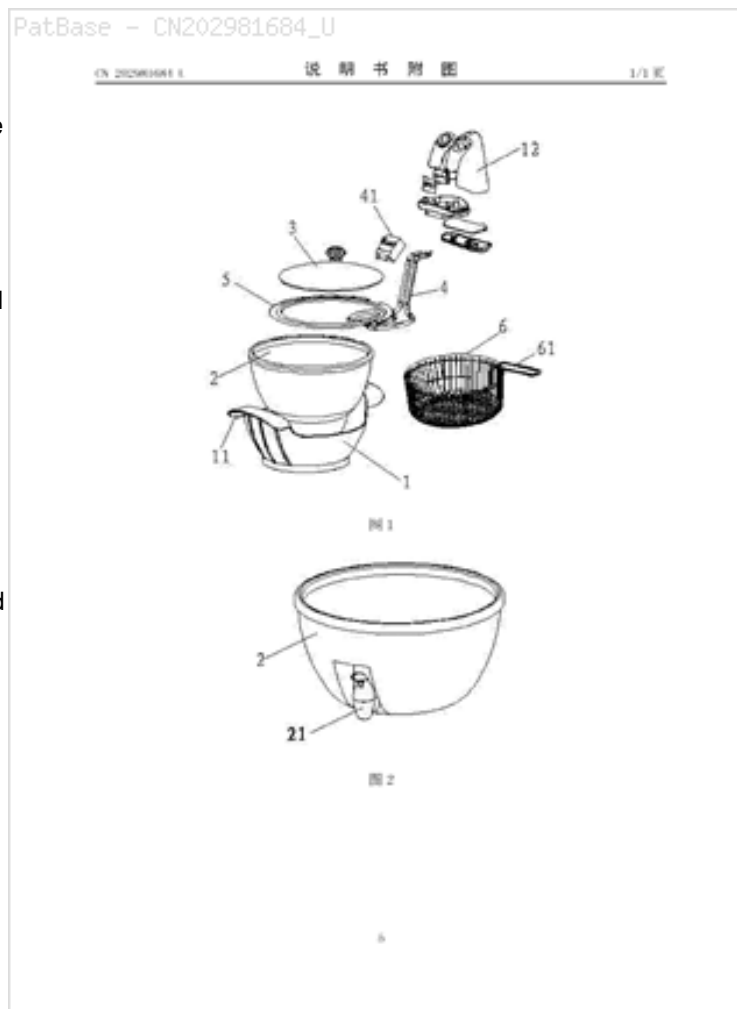


Title: GLASS FRYER WITH OIL DRAINAGE DEVICE**Priority:** CN201210577262 20121227 CN201220730126U 20121227

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102987931 A</u>	20130327	CN201210577262	20121227
	<u>CN202981684 U</u>	20130612	CN201220730126U	20121227

Probable Assignee: HU WEITIAN**Assignee(s):^(std):** HU WEITIAN**Inventor(s):^(std):** HU WEITIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Cited documents:** CN2792373 Y, CN2153309 Y, CN2144986 Y, CN202981684 U, CN102178468 A,**Forward Citations:** CN102987931,**Abstract:**

Source: CN202981684U The utility model discloses a glass fryer with an oil drainage device. The glass fryer comprises a protection base, wherein a frying cavity is installed on the protection base, a cover body is arranged at the top of the frying cavity, a heater is further arranged in the frying cavity, the top of the protection base is opened, and the protection base is a transparent container. The frying cavity is made of transparent high borosilicate glass, a through hole is arranged on the lateral side of the frying cavity, an oil drainage switch is installed in the through hole, a sealing silica gel ring is installed on the periphery of the cover body, a frying basket is arranged in the frying cavity, a handle is arranged on the lateral side of the frying basket, and two lifting handles are symmetrically arranged on two lateral sides of the protection base. A control table is further arranged on the protection base, an intelligent control circuit is installed in the control table and connected with a heater, and a temperature controller is further installed on the heater. The glass fryer is simple and reasonable in structural design, safe, reliable, environment-friendly, sanitary, convenient to use and capable of conveniently and fast monitoring the frying process at any time.



104) Family number: 63991193 (MX2015001482A)

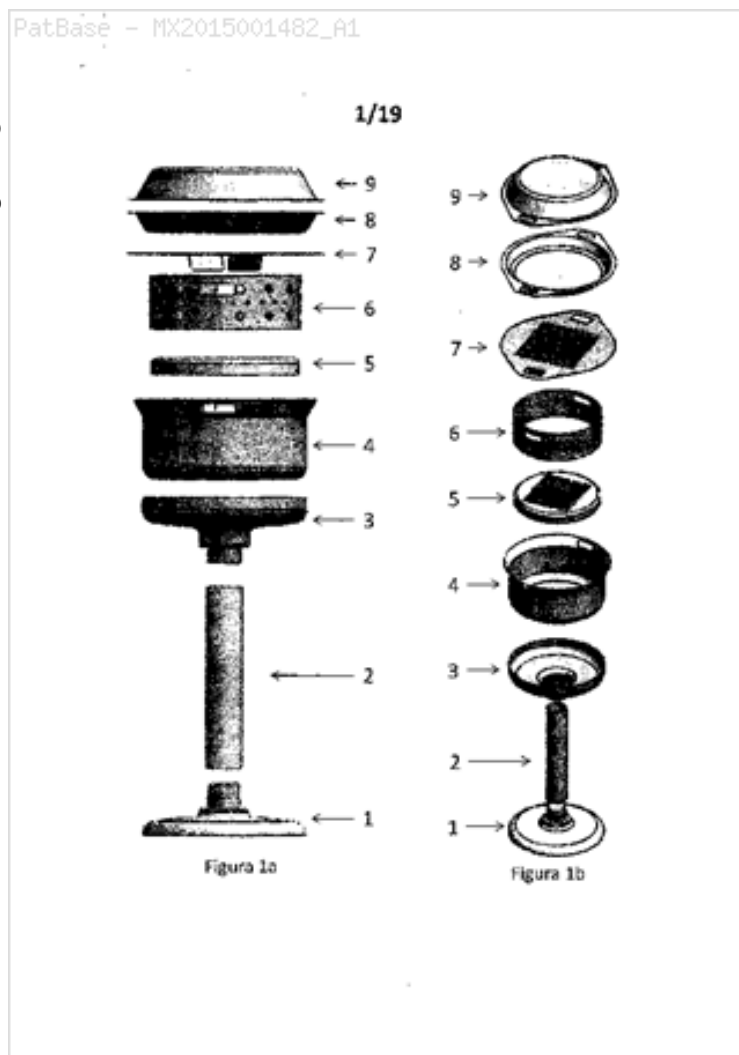
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Title: MULTIFUNCTIONAL CONVERTIBLE GRILLING DEVICE.**Priority:** MX20150001482 20150130

Family:	Publication number	Publication date	Application number	Application date
	<u>MX2015001482 A1</u>	20160729	MX20150001482	20150130

Probable Assignee: GUERRERO JORGE ALDAPE**Assignee(s):^(std):** GUERRERO JORGE ALDAPE**Assignee(s):** JORGE ALDAPE GUERRERO**Inventor(s):^(std):** GUERRERO JORGE ALDAPE**Inventor(s):** JORGE ALDAPE GUERRERO**International class** A47J37/00 (Core/Invention)
(IPC 8-9).**CPC:** A47J37/00[Classification Explorer](#)**Abstract:**

The present disclosure is related to a multifunctional convertible grilling device intended to be a useful tool with multiple configurations. The chef will have the option to use all the parts of the invention, or only those to serve his purpose. The present invention is intended to be the only tool for the person who loves the art of sharing the culinary arts and uses different ways to prepare food. The multifunctional convertible grilling device claims to be the tool that covers all the needs of the chef, allowing cooking food in different ways or techniques, as well as it can be used as garden heater. Having so many features with so few parts, allows both, space-saving storage and transportation convenience. This invention has parts with double or triple functionality, converting it into something innovative. The multifunctional convertible grilling device does not have screws or any other external fixation methods, making it something simple to configure and assemble. Therefore, the present invention is aimed to be the only tool to prepare food with different cooking techniques; such as: BBQ grill type, oven, pressure cooker type, wok pan, paella pan and even as garden heater, or any other configuration that the chef's imagination could offer him.



105) Family number: 33121859 (US2006156926A)

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Title: METHOD AND APPARATUS FOR ODOR CONTROL USING PANELS OF ACTIVATED CARBON CLOTH**Priority:** US20050287721 20051128 US20050645465P 20050120

Family:	Publication number	Publication date	Application number	Application date
	<u>US2006156926 AA</u>	20060720	US20050287721	20051128
	<u>US8192537 BB</u>	20120605	US20050287721	20051128

Probable Assignee: ALEMAO THADDEUS**Assignee(s):^(std):** ALEMAO THADDEUS**Inventor(s):^(std):** ALEMAO THADDEUS**Agent(s):** ALFRED M WALKER; LEE GROSSKENTZ; ALFRED M; JOHN F

International class B01D53/02 (Advanced/Invention);
 (IPC 8-9): B01D53/02 (Core/Invention)

CPC: A61L9/014 B01D53/0407 B01D2253/102 B01D2253/25 B01D2257/90 B01D2259/4541 B01J20/20 B01J20/28033**European class:** A61L9/014 B01D53/04C B01J20/20 B01J20/28D24 L01D253/102 L01D253/25 L01D257/90 L01D259/45P**US class:** 126/383.1 96/108 96/108P 96/134[Classification Explorer](#)

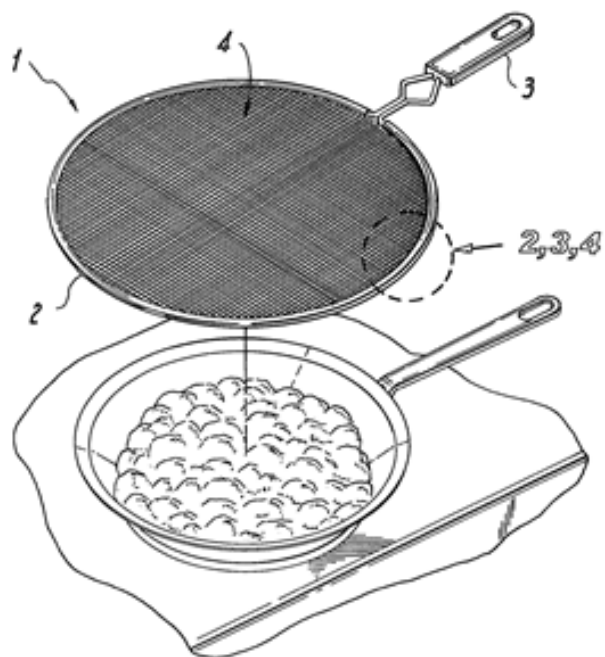
Cited documents: US6997975 BB, US6565627 BA, US6497738 BB, US6430031 BA, US6412628 BA, US6364936 BA, US6346143 BA, US6056146 A, US6029652 A, US5912423 A, US5814396 A, US5772738 A, US5690922 A, US5584234 A, US5494500 A, US5458772 A, US4944884 A, US4415342 A, US3822698 A, US3343345 A, US2999559 A, US2587773 A, US2524554 A, US2009142224 AA, US2007151877 AA, US2005172813 AA, US2004187702 AA, US2004173099 AA, US2004069154 AA, US2004055079 AA, US2003205131 AA, US2003170200 AA, US2003049187 AA, US2003010767 AA, US2002185013 AA, US2002129711 AA, US1942900 A, US1622351 A,

Forward Citations: WO15073334, USD778128, USD764225, USD727091, USD677522, US9446889, US2014290496, US2012175367, US2007266684,

Abstract:

Source: US2006156926A A method of containing and reducing unwanted odors and fumes and removing those fumes from the immediate surroundings of the apparatus.

PatBase - US8192537_BB

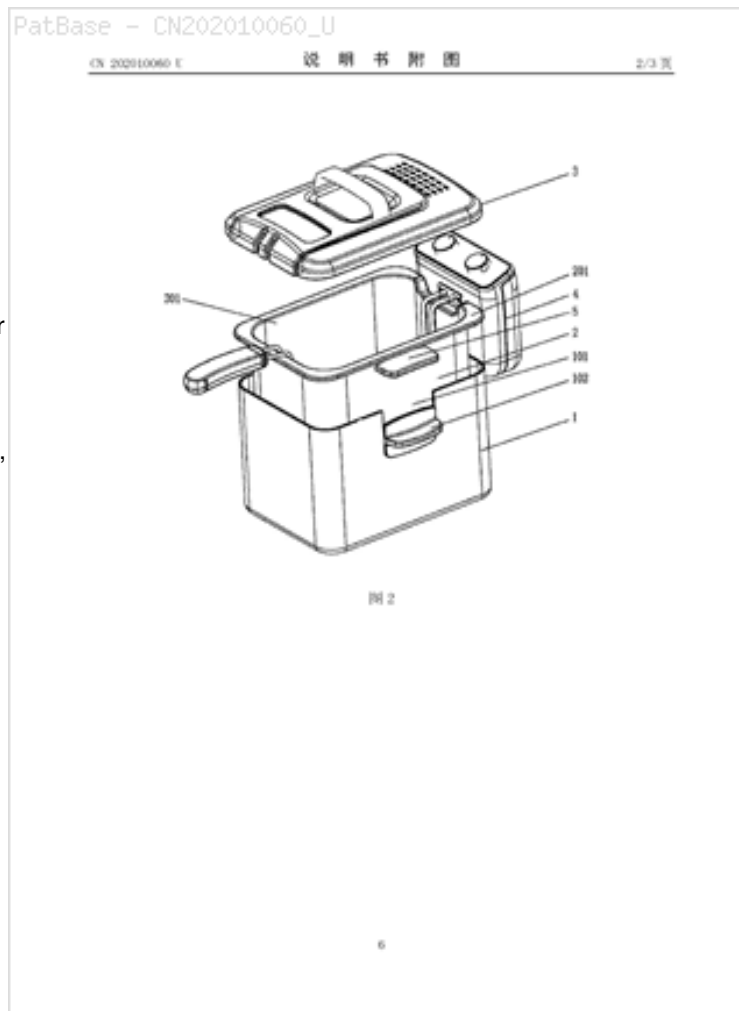


Title: Fryer with improved inner pot structure**Priority:** CN201120074934U 20110321

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202010060 U</u>	20111019	CN201120074934U	20110321

Probable Assignee: YANMIN WU**Assignee(s):^(std):** YANMIN WU**Assignee(s):** WU YANMIN**Inventor(s):^(std):** YANMIN WU**Inventor(s):** WU YANMIN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202010060U The utility model relates to a fryer with an improved inner pot structure, comprising an outer pot body, an inner pot body detachably sleeved in the outer pot body, a pot cover, and a heating apparatus. The heating apparatus is fixed and extends into the inner pot body; at least one heat insulation type inner pot handle is connected on the outer wall of the inner pot along an opening; and the outer pot corresponding to the lower portion of the inner pot handle is opened with a groove suitable for disposing the inner pot handle. When the structure of the inner pot body of a fryer is applied, an inner pot handle prepared from heat insulation materials is provided on the outer wall of the inner pot close to the opening, when the inner pot body is required to be taken out from the outer pot body, a person just needs to grasp the inner pot handle, thus burning to a human body caused by too high temperature of the pot body is effectively avoided. The structure of the fryer with an improved inner pot structure is simple, reasonable, and practical, and flexibility of product usage is raised.



107) Family number: 53087533 (KR20130018451A)

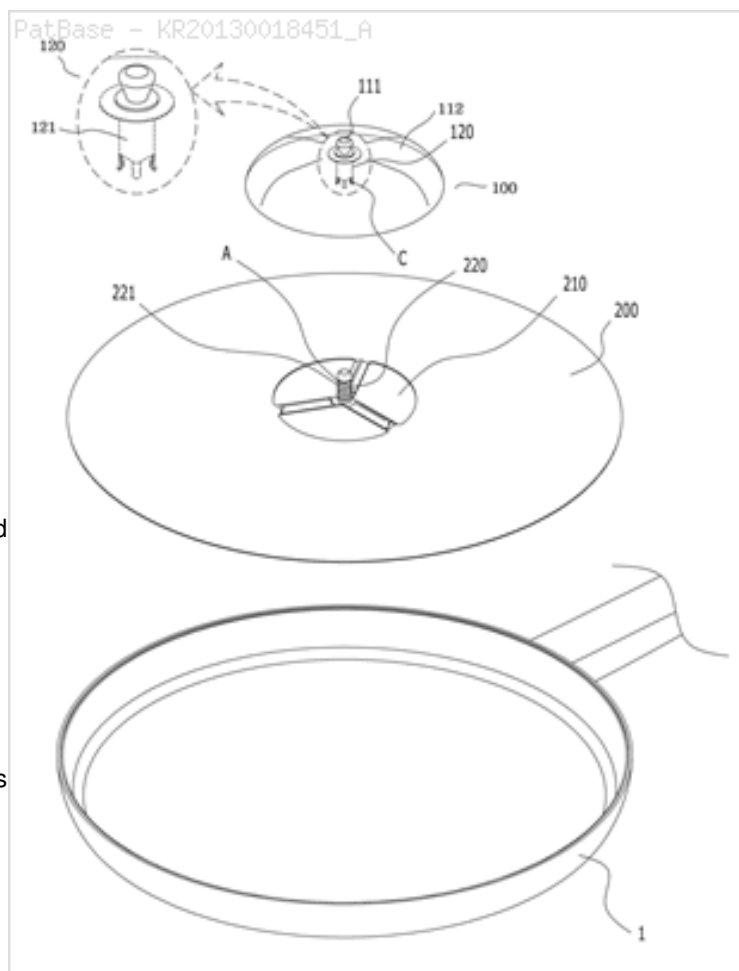
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Title: DEVICE FOR PROTECTING OIL SPATTER**Priority:** KR20110076548 20110801**Family:**

Publication number	Publication date	Application number	Application date
KR101296259 B1	20130813	KR20110078943	20110809
KR20130018451 A	20130225	KR20110078943	20110809

Probable Assignee: CHAE SOO YUN**Assignee(s):^(std):** CHAE SOO YUN**Inventor(s):^(std):** CHAE SOO YUN**International class** A47J36/06 A47J36/38 A47J37/10 (Advanced/Invention)
(IPC 8-9).**CPC:** A47J37/101 A47J36/06 A47J36/38[Classification Explorer](#)**Cited documents:** KR20090008808 U,**Abstract:**

Source: KR20130018451A PURPOSE: An oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. CONSTITUTION: An oil dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). In the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. An oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. The piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. The size of body is 1.5~2.5 times greater than the vapor outlet. In the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions.



108) Family number: 53469744 (CN103004908A)

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Title: MARINE ELECTRIC FRYER WITH DUAL FIRE EXTINGUISHING METHOD**Priority:** CN201110288931 20110926

Family:	Publication number	Publication date	Application number	Application date
	CN103004908 A	20130403	CN201110288931	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO**Inventor(s):^(std):** CHEN MINGZHONG ; JU XINHUA ; ZHENG XIUNAN**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Cited documents:** WO07040457 A1, JP9010105 A2, DE20106001 U1, CN2748110 Y, CN2368545 Y, CN2219143 Y, CN202269325 U, CN201528620 U,**Abstract:**

Source: CN103004908A The invention discloses a marine electric fryer with a dual fire extinguishing method, and the electric fryer mainly comprises an electric heating fryer and a fire extinguishing device, and is characterized in that the fire extinguishing device comprises a fire extinguisher and a fire extinguishing actuation mechanism; and a steel wire rope in the fire extinguishing actuation mechanism is connected with a fire extinguishing handle which is arranged in a lower cover body and a fusible piece which is arranged in a gas collection hood of an upper cover body. According to the marine electric fryer with the dual fire extinguishing method, the structure is reasonable, the idea is ingenious, a product is practical and is convenient to operate due to a lot of market research, not only is automatic fire extinguishment realized but also manual fire extinguishment is realized; when the oil gas temperature is 3DEG C lower or higher than the melting point (70DEG C) of the fusible piece, the fire extinguishing actuation mechanism automatically acts to extinguish the fire; and if an operator finds a fire first, the operator can pull the fire extinguishing handle to manually extinguish the fire, so that the use is safe and the electric fryer has very high popularization value.

PatBase - CN103004908_A

CN 103004908 A

说明书附图

1/3页

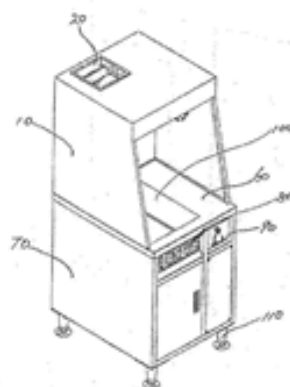


图1

109) Family number: 53529560 (TWD152825S)

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Title: The lightwave gas fryer (a) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152825 S1	20130411	TW20120302208F	20120420

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW309233, TW203432, KR300488867, KR3001105900001, JPD1130736,**Abstract:**

Source: TWD152825S

Machine translation: [Item purposes; the creation of a "light gas fryer (a)", especially a high temperature vortex cyclone to baking ingredients microcomputer control light gas fryer.; Creative Features]; shown in the drawings, the creation of "light gas fryer (a)" is mainly composed of a base and a cover; center of the base receiving a handle on both sides of the pot, the base and the cover is formed on the side of a cantilever, cantilever side power outlet other side of the key switch, the cantilever pivotally connected components can be controlled to cover body lift Kai and off whole family; cover the upper part of the body has a membrane keypad control panel and digital display, cover the lower part of the body is fully transparent heat-resistant glass lid, the lid equipped with light tube (halogen electric loop) and the rotating fan, high temperature vortex cyclone generated by the rotating fan to pot ingredients for the baking heat; the creation of sleek, with the novelty of visual effects and creative.



110) Family number: 56171429 (CN203524518U)

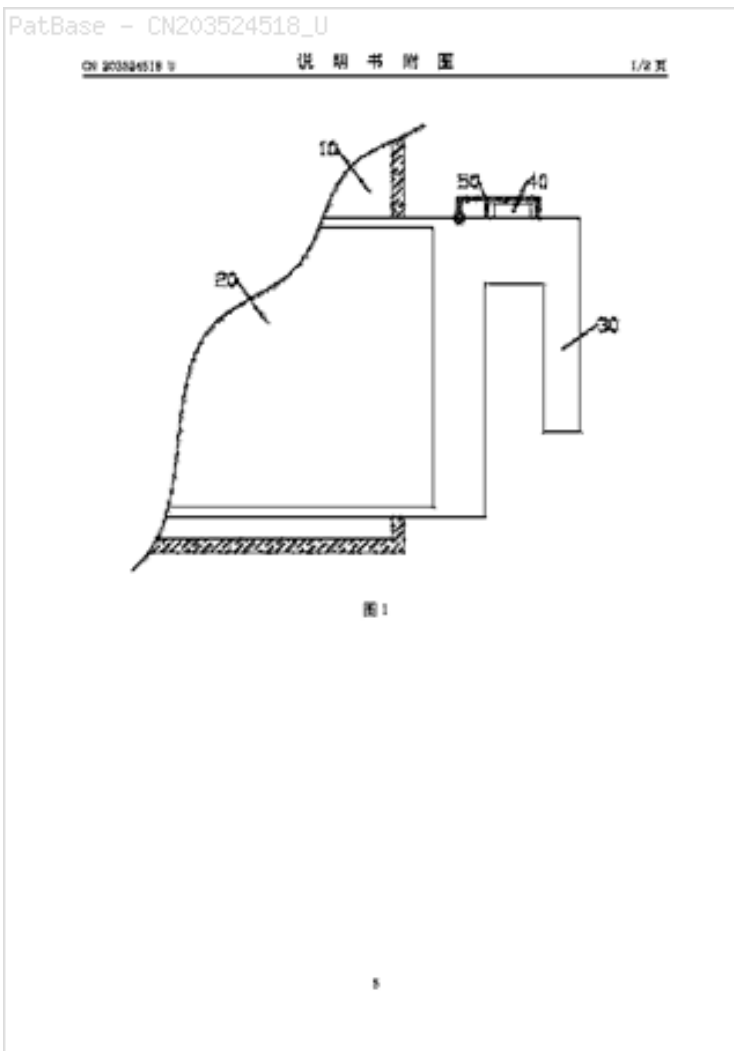
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Title: AIR FRYER WITH SWITCH PROTECTION DEVICE**Priority:** CN201320634563U 20131014**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203524518 U</u>	20140409	CN201320634563U	20131014

Probable Assignee: LIN WEI**Assignee(s):^(std):** LIN WEI**Inventor(s):^(std):** LIN WEI**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN203524518U The utility model discloses an air fryer with a switch protection device. The air fryer with the switch protection device comprises a fryer body, wherein the lower portion of the fryer body is provided with a big pot and small pot combination for containing food; the big pot and small pot combination is provided with a handle; a switch is arranged at the upper portion of the handle; the switch is provided with a button; a protective cover matched with the button is hinged to the position, located on the inner side of the button, of the handle. The air fryer with the switch protection device has the advantage that faulty operation is not caused easily.



111) Family number: 64702330 (JP2017000245A)

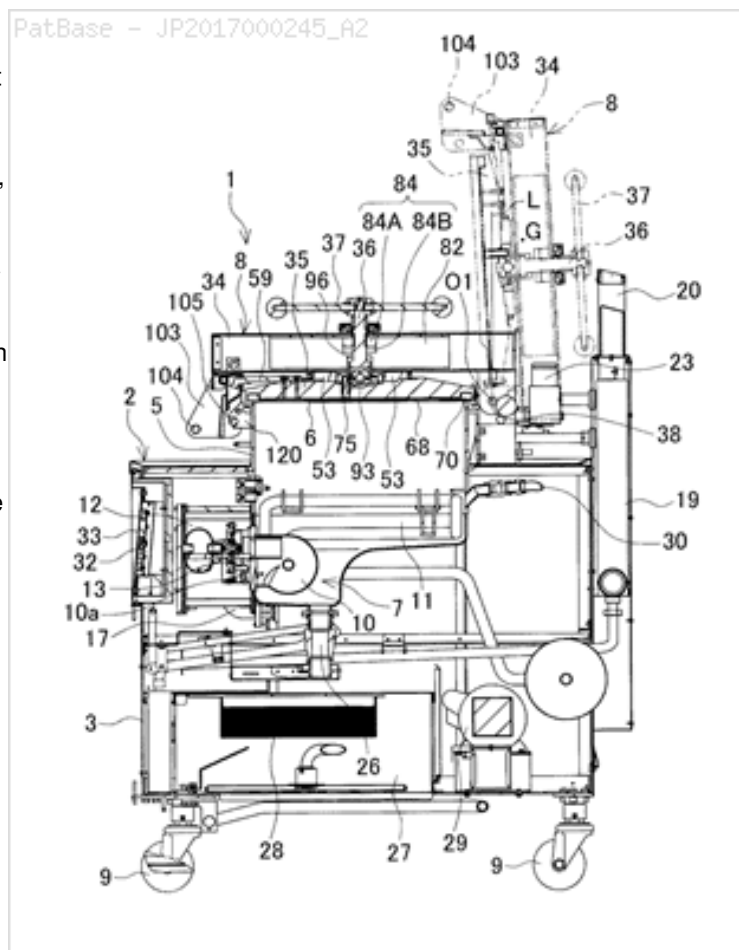
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115003 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000245 A2</u>	20170105	JP20150115003	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000245A [Problems] to prevent the packing pieces per backed by light steering with the seal of the lid and the body, provides excellent durability and operation pressure Fryer. [Solution] through orthogonal 34 arm can be ups and downs and the arm 34, pressure Fryer 1 is bound to around 38 at the rear of the tank 5 arm inside the female, 84 spiral, then, the move along with the handle shaft 36 36 37 handle using handle axis screw feed at the bottom of the handle shaft 36 with 37 handles at the top and the handle shaft 36 back opening 6 and our packing 70 border with lid body 35 and include, 36 at the lodging arm 34 handle axis screw feed the Cover the body 35 openings 6 and non-contact limit position and packing 70 opening 6 this parallel can be moved across to occlude the opening 6 a lower position and the. [Select diagram: Figure 3



Title: Bowl lid for cooking appliance**Priority:** FR19970010734 19970820 WO1998FR01822 19980819

Family:	Publication number	Publication date	Application number	Application date
	<u>CN1134239 C</u>	20040114	CN19988010276	19980819
	<u>CN1276708 A</u>	20001213	CN19988010276	19980819
	<u>DE69809250 D1</u>	20021212	DE19986009250	19980819
	<u>DE69809250 T2</u>	20030821	DE19986009250T	19980819
	<u>EP1003410 A1</u>	20000531	EP19980942755	19980819
	<u>EP1003410 B1</u>	20021106	EP19980942755	19980819
	<u>ES2186216 T3</u>	20030501	ES19980942755T	19980819
	<u>FR2767462 A1</u>	19990226	FR19970010734	19970820
	<u>FR2767462 B1</u>	20021025	FR19970010734	19970820
	<u>US6334888 BA</u>	20020101	US20000486075	20000222
	<u>WO9908581 A1</u>	19990225	WO1998FR01822	19980819

Probable Assignee: SEB SA**Assignee(s):**^(std): COLLAS GUY ; LAB SEROBIOLOGIQUES SA ; SIB S A ; LEREVEREND JEAN ; MOULINEX SA ; SEB SA**Assignee(s):** SEB S A ; MOULINEX S A ; MOULINEX ; MOULINEX S A CORMELLES LE ROYAL ; SEB S A ECULLY ; LABORATORIES SEROBIOLOGIQUES ; LABORATORIES SEROBIOLOGIQUES SOC ANONYME ; LABORATORIES SEROBIOLOGIQUES SOCIETE ANONYME**Inventor(s):**^(std): COLLAS G ; COLLAS GUY ; COLLAS GUY JACQUES ; LEREVEREND J ; LEREVEREND JEAN**Inventor(s):** G COLLAS ; J LEREVEREND**Designated states:** AT BE CH CN CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE US**International class**
^{(IPC 8-9):} [A47J37/12](#) (Advanced/Invention) ;
[A47J37/12](#) (Core/Invention)**International class**
^{(IPC 1-7):} [A47J36/06 A47J37/12](#)**CPC:** [A47J37/128](#)**European class:** [A47J37/12M1](#)**US class:** [55/385.4 55/494 96/148](#)[Classification Explorer](#)**Cited documents:** US5300139 A, US5236478 A, US5230722 A, US5029519 A, US4487117 A, US1942900 A, US1794940 A, SE9504383 A, EP1029490 A1, EP0527418 A1, EP0215768 A1, DE8006417 U, DE8006417 U, BE870418 A1,**Forward Citations:** WO02062188, US6997975, US6995821, US2004187702, US2004069154, FR2838948, FR2820299, ES2244312, ES2212924, EP1568302, EP1561408, EP1561408, DE10134006, DE10134006, CH704665,

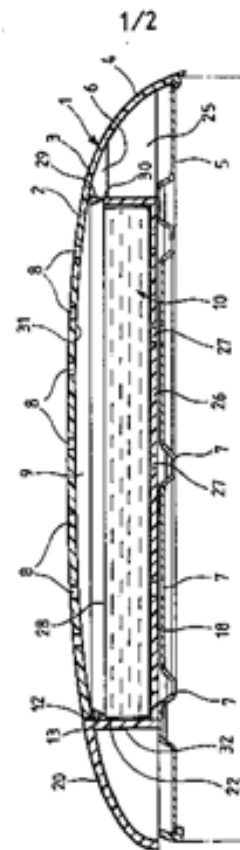
Abstract:

Source: US6334888B A lid with a housing suited for receiving a filter for absorbing odors and fats given off during cooking, and having inlets and outlets communicating externally, the housing has an opening emerging on the side of the lid, and the filter is mounted retractable and sealed through said opening.

PatBase - W09908581_A1

W09908581

PCT/99/040123



113) Family number: 22296498 (FR1461547A)

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Title: AMELIORATION DU DISPOSITIF DE FERMETURE DES FRITEUSES DES GRANDES CUISINES EN VUE DE LUTTER EFFICACEMENT CONTRE LES INCENDIES DE CES APPAREILS IMPROVING THE CLOSURE OF THE FRYING OF LARGE KITCHEN FOR EFFECTIVELY FIGHT AGAINST OF SUCH FIRES (Machine translation)

Priority: FR19655401505 19651016

Publication number	Publication date	Application number	Application date
FR1461547 A	19661209	FR19655401505	19651016

Inventor(s):^(std) BONZOM ANDRE

International class A47J37/12 (Advanced/Invention);
(IPC 8-9); A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7);

CPC: A47J37/1271

European class: A47J37/12L

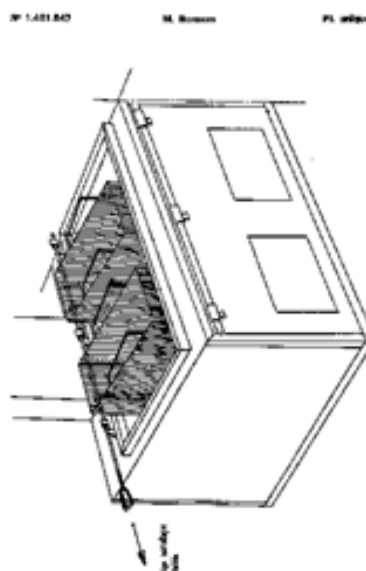
[Classification Explorer](#)

Abstract:

Source: FR1461547A (Claim 1) 1. Les paniers reposent au fond du bac: Le couvercle doit alors etre rabattu rapidement pour etouffer les flammes. Cette mise en place du couvercle est realisee de deux manieres: a. S'il y a des charnieres: rabattre simplement le couvercle avec une tige metallique eloignant l'operateur des flammes; b. Il n'y a pas de charnieres: il faut alors jeter le couvercle, qui a toujours ete depose a proximite, sur l'ouverture du bac.

Machine translation: (Claim 1) 1. The baskets are based on the tank bottom: The cover should then be folded down quickly to smother the flames. The establishment of the cover is done in two ways: a. If there are hinges: simply fold the cover with a metal rod flames AWAY the operator b. There are no hinges: you must then discard the cap, which has always been deposited nearby, on the tray opening.

PatBase - FR1461547_A



0) US2003041469A – DEVICE FOR REMOVING GREASE FROM THE SURFACE OF ...

114) Family number: 28355783 (US2003041469A)

© PatBase

Title: Device for removing grease from the surface of a food item

Priority: US20010881539 20010614

Family:	Publication number	Publication date	Application number	Application date
	US2003041469 AA	20030306	US20010881539	20010614
	US6578285 BB	20030617	US20010881539	20010614

Probable Assignee: TURTZO BRIAN G

Assignee(s):^(std): TURTZO BRIAN G

Inventor(s):^(std): TURTZO BRIAN G

International class
(IPC 8-9): [A21C15/00](#) (Advanced/Invention);
[A21C15/00](#) (Core/Invention)

International class
(IPC 1-7): [B43L17/04 F26B13/26 F26B19/00 F26B5/14](#)

CPC: [A21C15/00](#)

European class: [A21C15/00](#)

US class: [15/244.1 34/330 34/335 34/355 34/398 34/89 34/89.1 34/891 34/95 34/95.1 34/951](#)

[Classification Explorer](#)

Cited documents: US6311361 BA, US6101661 A, US6044515 A, US5960509 A, US5528791 A, US5240339 A, US5230119 A, US5159735 A, US4975999 A, US4925453 A, US4455705 A, US3784998 A,

Forward Citations: US9254074, US7097629, US2015223661, US2006288999, US2005045201, US2004220507,

Abstract:

Source: US2003041469A A device for absorbing or blotting grease from the surface of foods such as pizza comprising a support member having a handle for manually gripping the device and an absorbent or oligiophilic pad attached to such support member for blotting the surface of a food item.

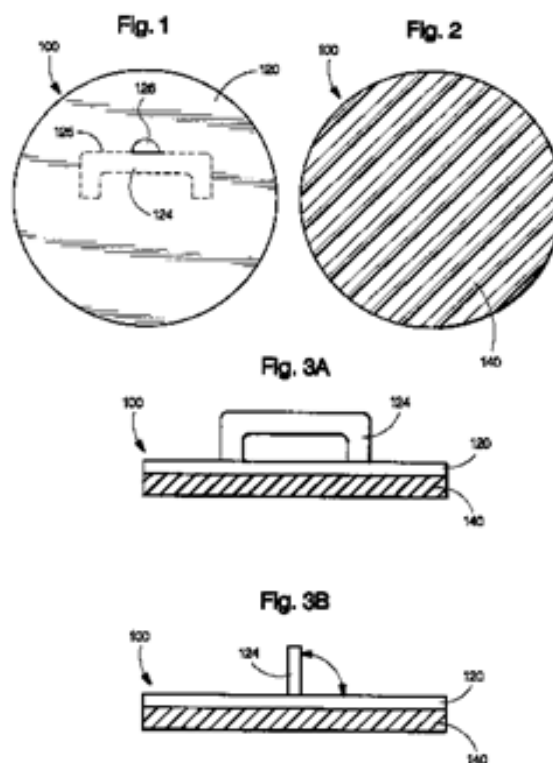
PatBase - US6578285_BB

U.S. Patent

Jan. 17, 2003

Sheet 1 of 6

US 6,578,285 B2



115) Family number: 52612248 (GB2516174B)

© PatBase

Title: DETERMINING A CHARACTERISTIC OF A COOKING APPLIANCE WITH A KEY**Priority:** GB20120018314 20121012 GB20140013615 20121012

Family:	Publication number	Publication date	Application number	Application date
	GB201218314 A0	20121128	GB20120018314	20121012
	GB201413615 A0	20140917	GB20140013615	20140731
	<u>GB2506905 A1</u>	20140416	GB20120018314	20121012
	<u>GB2506905 B2</u>	20160629	GB20120018314	20121012
	<u>GB2516174 A1</u>	20150114	GB20140013615	20121012
	<u>GB2516174 B2</u>	20160629	GB20140013615	20121012
	<u>HK1200639 A1</u>	20150807	HK20150100883	20150127

Probable Assignee: RICHARDS MORPHY N I LTD**Assignee(s):^(std):** RICHARDS MORPHY N I LTD**Assignee(s):** MORPHY RICHARDS LIMITED ; MORPHY RICHARDS LTD**Inventor(s):^(std):** GLYN HAUSER ; HAUSER GLYN ; JAMES MEDDICK ; JAMES MICHAEL ; MATTHEW ROBERTS ; MEDDICK JAMES ; MICHAEL JAMES ; ROBERTS MATTHEW

International class A47J27/00 A47J36/00 A47J36/06 F24C7/08 H05B1/02 H05B6/06
 (IPC 8-9): H05B6/12 (Advanced/Invention);
A47J F24C H05B (Subclass/Invention)

CPC: H05B6/1209 H05B6/062 H05B2213/06 H05B1/0266 A47J31/44 A47J36/00 A47J36/06
A47J37/0871 A47J37/1266 A47J29/02 F24C7/08 A47J27/002 F24C7/088 F24C7/083

[Classification Explorer](#)**Cited documents:** US2004237797 AA, GB2492591 A1,**Forward Citations:** CN105411366,

Source: GB2516174A A cooking appliance (fig 1) for a cooking hob has a vessel containing a chamber and a key having plural switch engaging regions (fig 13, 306) providing a code that identifies at least one characteristic of the appliance. A cooking hob (fig 5) comprises a controller 602 connected to a driver 604 of an inductive coil 510 and a key decoder 1012 comprising plural switches (fig 10, 1016). When the key is placed in socket 1102 of the decoder it provides a code to the controller indicating a characteristic of a cooking appliance associated with the key. The power output of the induction coil can be controlled depending on the characteristic which can relate to a type of appliance or a cooking profile including cooking temperature and time. The key can be releasable mounted in a lid or handle of the appliance and include a key-shaped position interlock. The switch key can be replaced with a magnetic key having plural magnets (fig 4, 206) to operate plural magnetic field sensors in the decoder to provide the code indicating the appliance characteristic.

1/10

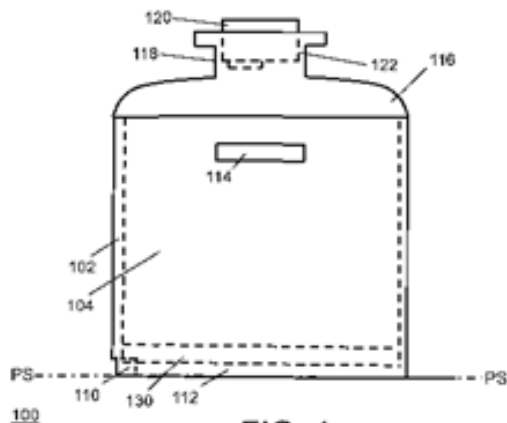


FIG. 1

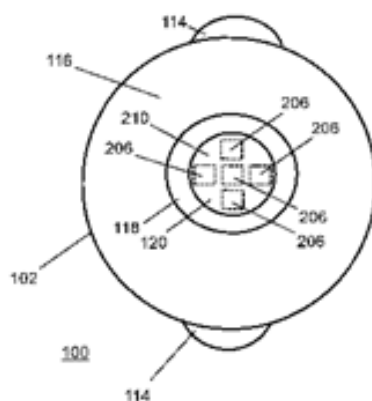


FIG. 2

116) Family number: 18827842 (GB341290A)

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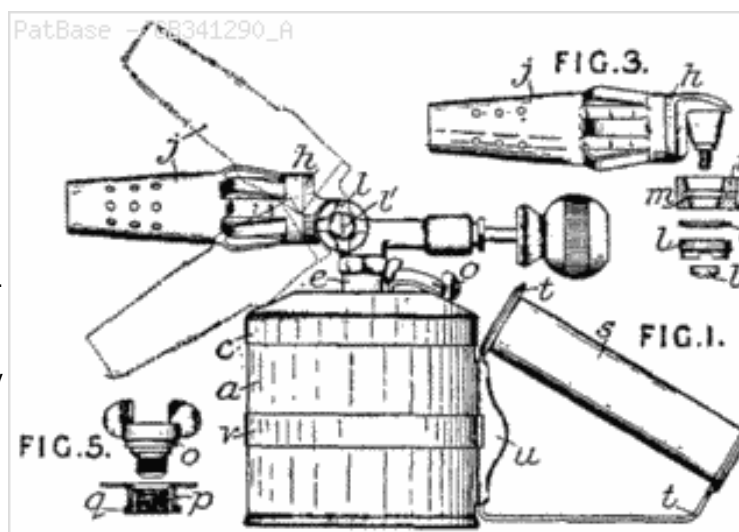
Title: IMPROVEMENTS IN OR RELATING TO BLOW-LAMPS**Priority:** GB19300003295 19300131

Family:	Publication number	Publication date	Application number	Application date
	<u>GB341290 A</u>	19310115	GB19300003295	19300131

Probable Assignee: ALBERT ALFRED MARTIN**Assignee(s):^(std):** ALBERT ALFRED MARTIN ; JOHN SHAW AND SONS WOLVERHAMPT**Assignee(s):** JOHN SHAW AND SONS WOLVERHAMPTON LIMITED ; JOHN SHAW AND SONS WOLVERHAMPTON LTD**International class** F23D99/00 (Advanced/Invention);
(IPC 8-9); F23D99/00 (Core/Invention)**International class** F23D11/22
(IPC 1-7);**CPC:** F23D91/02 F23D2206/0031**European class:** F23D21/00B R23D206/00G29[Classification Explorer](#)**Abstract:**

Source: GB341290A 341,290. Blowlamps.
SHAW and SONS WOLVERHAMPTON, Ltd.,
J. and MARTIN, A. A., Fryer Street,
Wolverhampton. Jan. 31, 1930, No. 3295.

[Classes 75 (i) and 75 (iv).] A blowlamp burning petrol or other volatile fuel is provided with a reservoir consisting of a base portion a drawn, pressed, or spun from sheet metal and a flanged cover c which is internally threaded to engage with an external thread on the base. The end of the thread on the cover is machined off to form a gap to receive solder. The burner or flame tube j is carried by a head h formed with a coned plug which is adjustably secured by nuts l, l<1> and a washer k to a socket f on a tubular fitting e screwed in a coned opening in the centre of the cover c. The fuel is vaporized in a groove m in the socket by the heat conducted back from the burner tube. The filling-plug e screws into a sleeve p which is secured in a coned orifice in the cover by nut q. A similar sleeve may be provided in the opening receiving the fitting e. The handle s is formed by a tube mounted in lugs t on a bracket u which is adjustably secured to the container by a band clip v. A key for the filling plug and a jet pricker may be housed in the handle s.



0) US2230268A – BROILER AND FRYER UNIT

117) Family number: 21440418 (US2230268A)

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Title: Broiler and fryer unit

Priority: US19370125598 19370213 US19390269388 19390422

Family:	Publication number	Publication date	Application number	Application date
	<u>US2156216 A</u>	19390425	US19370125598	19370213
	<u>US2230268 A</u>	19410204	US19390269388	19390422

Probable Assignee: WESTINGHOUSE ELECTRIC AND MFG CO

Assignee(s):^(std): WESTINGHOUSE ELECTRIC AND MFG CO

Assignee(s): WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY

Inventor(s):^(std): WOODMAN KENNETH L ; RUSSELL WILLIAM J ; JAMES RUSSELL WILLIAM

Inventor(s): RUSSELL WILLIAM JAMES

International class
(IPC 8-9): A47J37/01 A47J37/10 (Advanced/Invention);
A47J37/01 A47J37/10 (Core/Invention)

International class
(IPC 1-7): A47J37/06

CPC: A47J37/103 A47J37/015

European class: A47J37/01A A47J37/10A1

US class: 126/41E 126/41R 219/416 219/418 219/452.13 219/453.14 219/461.1 219/474 219/521 219/532 219/542 99/340 99/422 99/443R D7/354

[Classification Explorer](#)

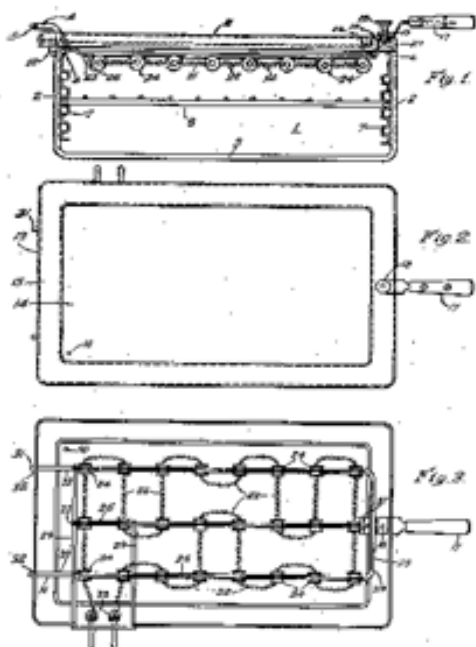
Forward Citations: WO9217102, US9220362, US9125517, US6399925, US6271504, US5682809, US3447444, US3262382, US3174863, US2817331, US2012186460, US2011185915, US2010147159, US2007157918, FR2689214, FR2682461, FR2527919, EP2133013,

Abstract:

Source: US2230268A 1. A heating unit comprising an open radiant heating element and a metal plate serving to reflect radiant heat from said heating element, said heating element being provided with a wire frame comprising a U-shaped member having two spaced projecting ends, said heating element being insulatedly mounted on said frame, said plate member having spaced openings in which said projecting ends are adapted to be inserted upon relative movement of the heating element and the plate member in a direction parallel to the plane of the plate member, and means for detachably connecting said frame to said plate member with the projecting ends inserted in said opening, whereby said heating element and said plate member may be readily attached to and detached from each other.

PatBase - US2230268_A

Feb. 4, 1941. W. J. WOODMAN, ET AL. 2,230,268
SEALING AND HEATING UNIT
Original Filed Feb. 28, 1937 2 Sheets-Sheet 1



INVENTORS
KENNETH L. WOODMAN,
WILLIAM J. WOODMAN,
BY
Attorney

Title: Electric heating frying pan
Priority: CN20012042716U 20010720

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2494643 Y</u>	20020612	CN20012042716U	20010720

Probable Assignee: JIAN WEIWEN

Assignee(s):^(std): JIAN WEIWEN

Inventor(s):^(std): HUIQUAN LI ; LI HUIQUAN

International class
^{(IPC 8-9):} A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
^{(IPC 1-7):} A47J37/12

[Classification Explorer](#)

Forward Citations: WO10054588, GB2476914, CN101933770, CN101862138,

Abstract:

Source: CN2494643Y An electric fryer includes a shell (10), a fryer (9), a frying cage (4) and an electric pipe (11), and is characterized in that the fryer (9) is arranged on a tray (5) which can be lifted; the frying cage (4) is suspended on a lifting eye arranged at the lower part of an upper cover (3) through the rotating axles (16) on both ends; the lifting eye (17) suspended on a cage cover (18) of one end is connected with a hinge axis on the upper cover by a spring (20); the lifting eye is provided with a cover opening handle (21); the other end of the frying cage is drive connected with a rotational motor (7). The fryer saves oil, can automatically turn over the fried foods, is easy to clean and can quickly unfreeze the quick-frozen foods.

119) Family number: 32274881 (FR2867669B)

© PatBase

Title: APPAREIL DE CUISSON A SYSTEME DE VIDANGE OPTIMISE**Priority:** FR20040002724 20040316

Family:	Publication number	Publication date	Application number	Application date
	<u>FR2867669 A1</u>	20050923	FR20040002724	20040316
	<u>FR2867669 B1</u>	20060707	FR20040002724	20040316

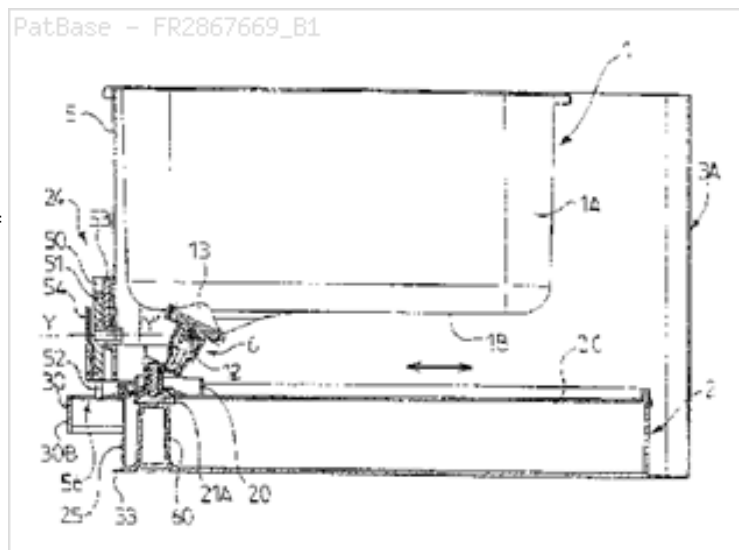
Probable Assignee: SEB SA**Assignee(s):^(std):** SEB SA**Inventor(s):^(std):** DIRAND PASCAL BERNARD**Inventor(s):** PASCAL BERNARD DIRAND**Agent(s):** CABINET DIDIER MARTIN

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

CPC: A47J37/12[Classification Explorer](#)**Cited documents:** FR2830735 A1, EP1304063 A1, EP1186269 A1, DE10236906 A1,**Abstract:**

The appliance has a cooking tub (1), and a coupling unit to couple the tub and an emptying receptacle (2) to form a single unit. The tub has an emptying unit (6) transferring liquid materials from the tub to the receptacle. The tub, receptacle and the coupling unit are functionally coupled to each other, such that preset variation of relative positioning of two of the units (1, 2) and coupling unit activates the unit (6). An independent claim is also included for a process for emptying a food cooking appliance.



120) Family number: 51324758 (CN202269325U)

© PatBase

Title: Dual–fire–extinguishing–type marine electric fryer**Priority:** CN201120363413U 20110926

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202269325 U</u>	20120613	CN201120363413U	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO**Inventor(s):^(std):** MINGZHONG CHEN ; XINHUA JU ; XIUNAN ZHENG**Inventor(s):** ZHENG XIUNAN ; CHEN MINGZHONG ; JU XINHUA**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8–9):[Classification Explorer](#)**Forward Citations:** CN103004908,**Abstract:**

Source: CN202269325U The utility model discloses a dual–fire–extinguishing–type marine electric fryer, which mainly comprises an electric heating fryer and a fire extinguishing device and is characterized in that a fire extinguisher and a fire extinguishing execution mechanism, and a steel wire rope in the fire extinguishing execution mechanism is connected with a fire extinguishing handle which is arranged in a lower cover body and a fusible piece which is arranged in a vapor collection hood of an upper cover body. The dual–fire–extinguishing–type marine electric fryer has the advantages that the structure is reasonable, the concept is ingenious, the product is practical and convenient to operate according to a great number of market researches, the electric fryer not only has an automatic fire extinguishing function but also has a manual fire extinguishing function, the fire extinguishing execution mechanism automatically acts to automatically extinguish a fire when oil vapor temperature exceeds the fusing point of the fusible piece, i.e. 70 degrees centigrade plus or minus 3 DEG C, the operator can pull the fire extinguishing handle to manually extinguish the fire if the operator firstly discovers the fire, the safety in use is ensured and the popularization value is great.

PatBase – CN202269325_U

CN 202269325 U 说明书附图 1/3 页

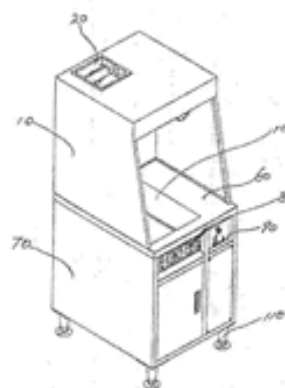


图 1

121) Family number: 53529583 (TWD152826S)

© PatBase

Title: The lightwave gas fryer (2) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152826 S1	20130411	TW20120302209F	20120420

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW309233, TW203432, KR300488867, KR3001105900001, JPD1130736,**Abstract:**

Source: TWD152826S

Machine translation: Item purposes; creation system offers a "light gas fryer (b), especially a high temperature vortex cyclone baking ingredients mechanical operation of the light gas fryer.; Creative Features]; shown in the drawings, the creation of "light gas fryer (b)" is mainly composed of a base and a cover; center of the base receiving a handle on both sides of the pot, the base and the cover body is formed at one side of a cantilever, and the cantilever the pivoted element may control the lift of Kai and related Flip lid body; cover the upper part of the body has a mechanical operation knob, the light emitting diode indicator to cover the lower body transparent heat-resistant glass lid, the lid features a light tube (halogen electric loop) and the rotating fan, high temperature vortex cyclone pot of ingredients for baking heat generated by the rotating fan; the creation of sleek with new visual effects and creative.

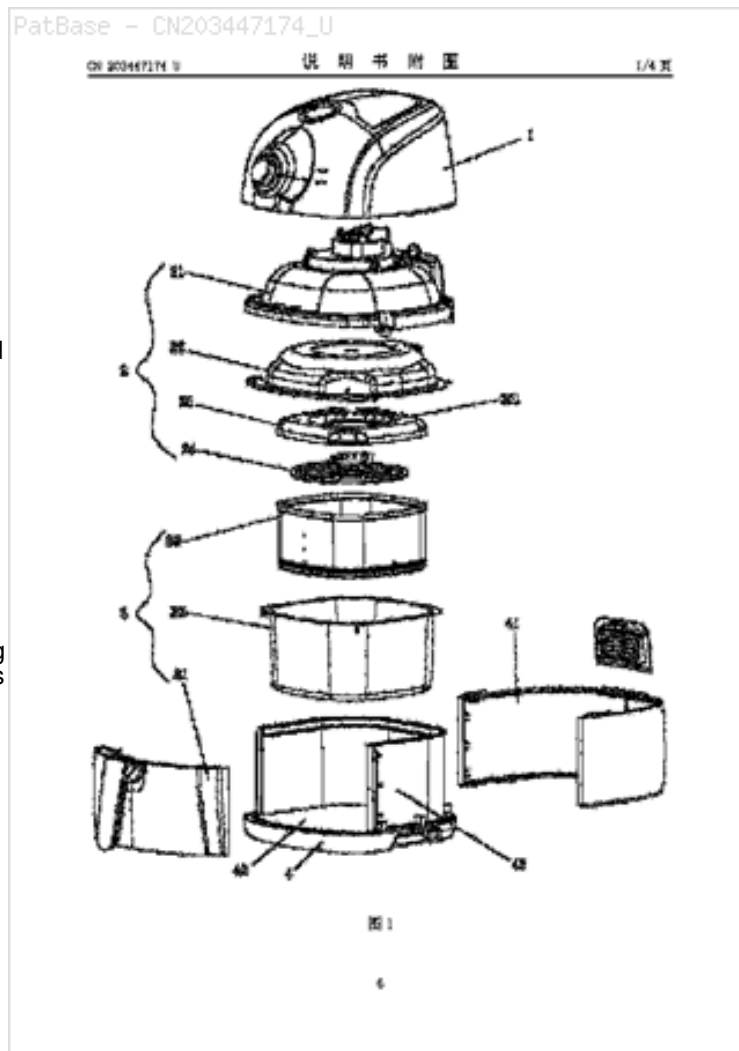


Title: HOT AIR CROSS-VENTILATION FRYER**Priority:** CN201320551098U 20130905**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203447174 U</u>	20140226	CN201320551098U	20130905

Probable Assignee: JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO LTD**Assignee(s):(std):** JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO LTD**Assignee(s):** JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO**Inventor(s):(std):** ZHENG JIANQIANG**International class** A47J37/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN104770418,**Abstract:**

Source: CN203447174U The utility model discloses a hot air cross-ventilation fryer which comprises an upper cover, a heating component, a drawer component and a base which are arranged in sequence from top to bottom. The heating component comprises an upper inner container, wherein a flow guiding hood, a fan blade and a heating pipe are arranged on the lower portion of the upper inner container in sequence, the drawer component comprises a handle piece, an oil receiving pan fixed on the handle piece and a food pan arranged in the oil receiving pan, and the flow guiding hood is in abutting joint with the oil receiving pan to form an air seal space. The fan blade and the heating pipe right faces the food pan, the side wall of the upper inner container and the side wall of the flow guiding hood are provided with grids communicated with the outer side and the airtight space, the base is provided with an outer side plate, and the outer side plate surrounds the oil receiving pan and is in abutting joint with the handle piece and the upper inner container. The hot air cross-ventilation fryer can reduce the using amount of edible oil, health of a human body is guaranteed, waste oil generated after cooking is effectively reduced, moreover, the hot air cross-ventilation fryer is convenient to use, heat dissipated to the environment in the heating process is little, direct damage to the human body is avoided, and the hot air cross-ventilation fryer is well adaptive to domestic cooking.



0) CN205094226U – DEEP FRYER

123) Family number: 61942242 (CN205094226U)

© PatBase

Title: DEEP FRYER

Priority: CN201520862560U 20151030

Family:	Publication number	Publication date	Application number	Application date
	<u>CN205094226 U</u>	20160323	CN201520862560U	20151030

Probable Assignee: DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO LTD

Assignee(s):^(std): DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO LTD

Assignee(s): JOAQUIN ELECTRIC CO LTD OF DONGGUAN CITY ; DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO

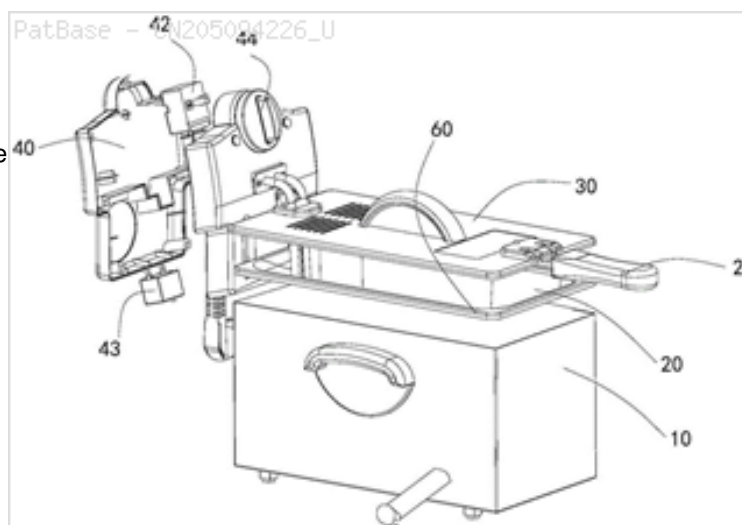
Inventor(s):^(std): HU KAN ; ZHOU GUOJING

International class A47J37/12 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN205094226U The utility model discloses a deep fryer. This deep fryer is including the pot body, deep -fry basket is located the pot internal and with pot body adaptation, be equipped with the handle on the deep -fry basket, the upper cover, the knot is located on the pot body, upper cover edge is equipped with to hold and establishes the groove, the handle by the appearance is established the groove and is passed the upper cover, the control box, with one side of the pot body is connected, be equipped with control panel, temperature controller and temperature limiter in the control box, temperature controller and temperature limiter respectively with the control panel electricity is connected, be equipped with the temperature knob on the control box, the temperature controller with the temperature knob is connected, the heating tube, by internal the extending to of pot in the control box, and with the control panel electricity is connected. Deep fryer, the potential safety hazard is lower, conveniently pour oil and conveniently take out deep -fry sediment.



124) Family number: 64469610 (CN205813419U)

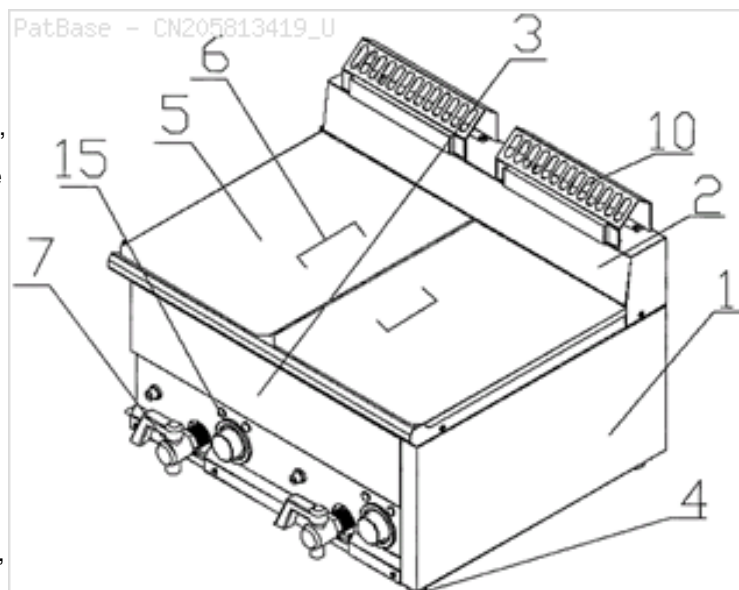
© PatBase

Title: Parallel bars for a desktop electric Fryer (Machine translation)**Priority:** CN201620261912U 20160401**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205813419 U</u>	20161221	CN201620261912U	20160401

Probable Assignee: ZHU HUAJUN**Assignee(s):** ZHU HUAJUN**International class** A21B5/08 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN205813419U This practical new public has a desktop parallel bars power fried machine, including outside box device, and oil barrels device, and Panel, and installation feet, and cover Board, and handle, and put valve, and clapboard, and support Board, and smoke tube accessories, by said outside box device Shang has oil barrels device, by said outside box device ahead has Panel, by said oil barrels device above has cover Board, by said cover Board Shang has handle, by said oil barrels device below has installation feet, by said Panel below has put valve, by said cover Board Zhijian has clapboard, by said cover Board below has support Board, The device outside the box the back-end is provided with pipe fittings, the cover plate is provided with heat protection plate, the utility uses the advanced mechanical configuration and control, keep up the good work, not only improves the yield and product quality stability, color, smell, smell unity, improves productivity, reduces unit costs.



Title: Pressure Fryer (Machine translation)

Priority: JP20150115006 20150605

Family:

Publication number	Publication date	Application number	Application date
JP2017000248 A2	20170105	JP20150115006	20150605

Probable Assignee: LTD PALOMA

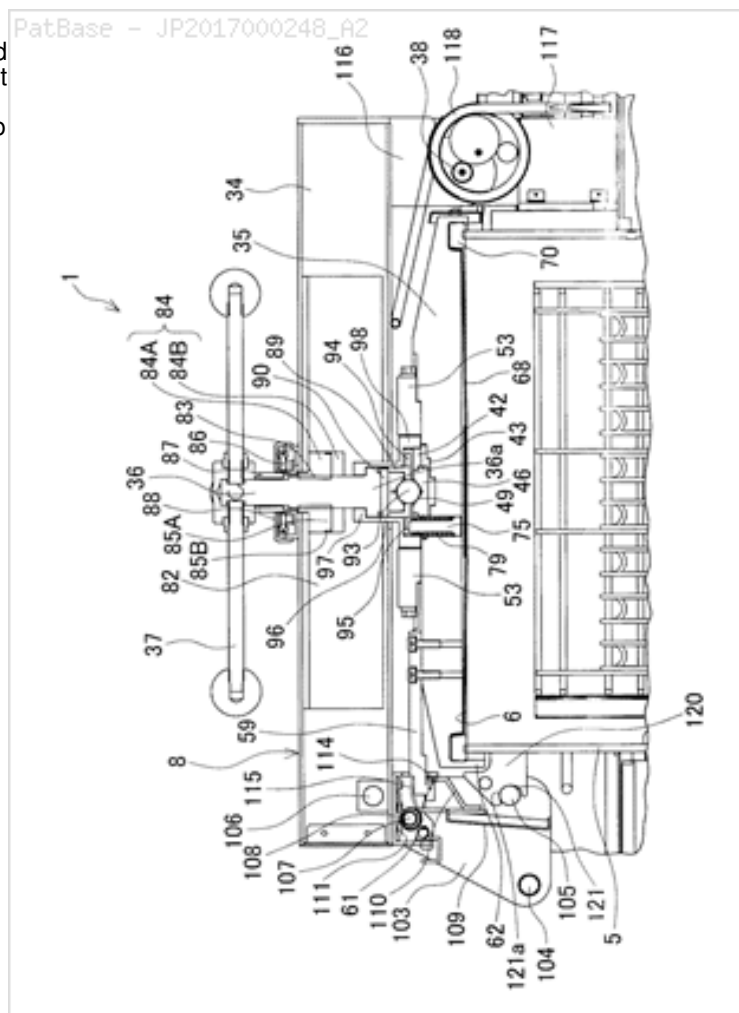
Assignee(s): LTD PALOMA

International class A47J37/12 (Advanced/Invention)
(IPC 8-9).

Classification Explorer

Abstract:

Abstract:
Source: JP2017000248A [Issue] if gap body lid and handle axes and angles to convey efficient progression of the handle shaft, even cover the body the sealing lid and the body with oil to cover. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and include, steel ball 93 to keep the bottom edge of the handle shaft 36, on top of the lid itself 35 mating the exposed part of a steel ball 93 to take recess with 49 balls saucer 46 horizontal movement kept to. [Select diagram: Figure 4



Priority: DE19880006957U 19880527

Family:

Publication number	Publication date	Application number	Application date
DE8806957 U1	19880804	DE19880006957U	19880527

Probable Assignee: WEIGELE ROLF 7321 ALBERSHAUSEN DE

Assignee(s): WEIGELE ROLF 7321 ALBERSHAUSEN DE

International class A47J37/12 A47J43/28 (Advanced/Invention);
(IPC 8-9): A47J37/12 A47J43/00 (Core/Invention)

International class A47J37/12 B01D35/28
(IPC 1-7):

CPC: A47J37/1204 A47J43/284

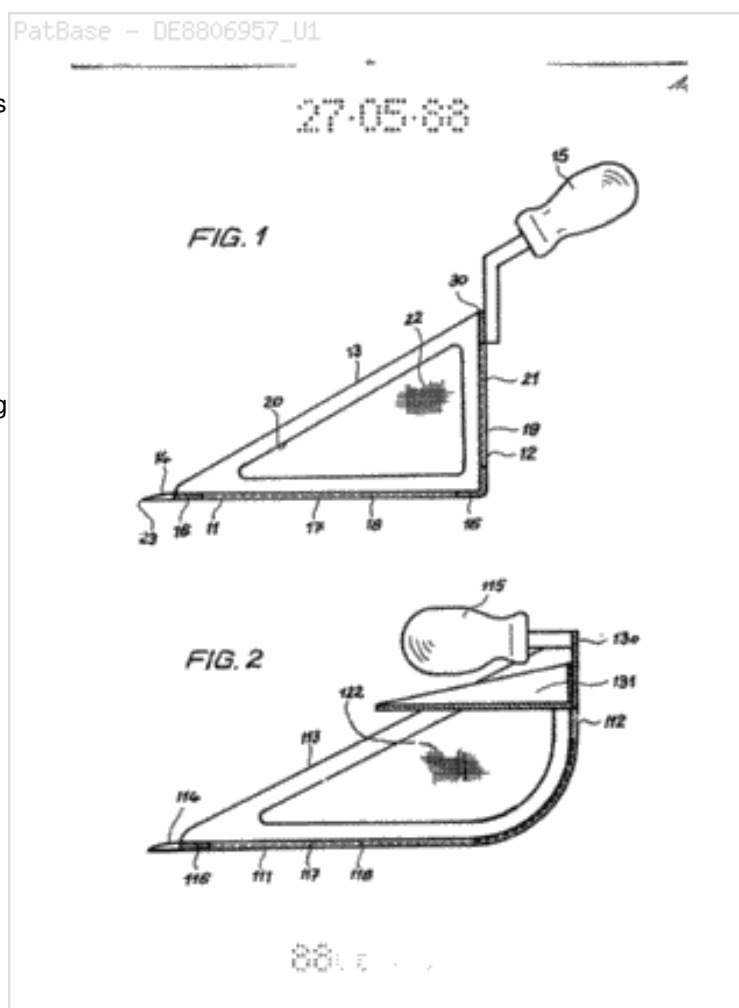
European class: A47J37/12A A47J43/28E

[Classification Explorer](#)

Abstract:

Source: DE8806957U1 (Claim 1) 1. Handgeraet zum Reinigen des im Fettbackvorrichtungen befind- lichen Backfetts von beim Ausbacken von Backgut im Backfett zurueckbleibenden Verunreinigungen, wie Backgutbroesel, Mehl- und Teigreste und dergl., g e k e n n z e i c h n e t d u r c h e i n schaufelfoermiges Sieb (18,21, 22;118,122) mit einer geradlinig ausgebildeten vorderen Schaufellippe (14;114) und einem Handgriff (15;115).

Machine translation: (Claim 1) 1 Handgeraet for cleaning of the fryer devices are-union shortening of the baking of dough in the baking fat remaining impurities, such as Backgutbroesel, flour and dough and the like, characterized by a schaufelfoermiges sieve (18.21, 22, 118.122) with a straight-trained front bucket lip (14, 114) and a handle (15, 115).



0) US2550758A – FRENCH FRYER

127) Family number: 21875999 (US2550758A)

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Title: FRENCH FRYER

Priority: US19460717877 19461223

Family:	Publication number	Publication date	Application number	Application date
	<u>US2550758 A</u>	19510501	US19460717877	19461223

Probable Assignee: BEMIS KENNETH E

Assignee(s):^(std): BEMIS KENNETH E

Inventor(s):^(std): BEMIS KENNETH E

International class
(IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/1219

European class: A47J37/12C

US class: 134/135 99/336 99/407 99/414

[Classification Explorer](#)

Cited documents: US670296 A, US2222314 A, US2175531 A, US217378 A, US2109212 A, US2097471 A, US2078719 A, US2004500 A, US1576321 A, US1277158 A, US1198374 A,

Forward Citations: USD552921, US8826807, US4580024, US4481873, US4250803, US4137834, US3975070, US3908531, US3736862, US3512473, US3273488, US2907659, US2778736, US2735355, US2675051, US2008169281,

Abstract:

Source: US2550758A (Claim 1) 1. Fig. 5 is a broken fragmentary sectional elevation of the basket bail and corresponds to a section taken along 5-5 of Fig. 1.

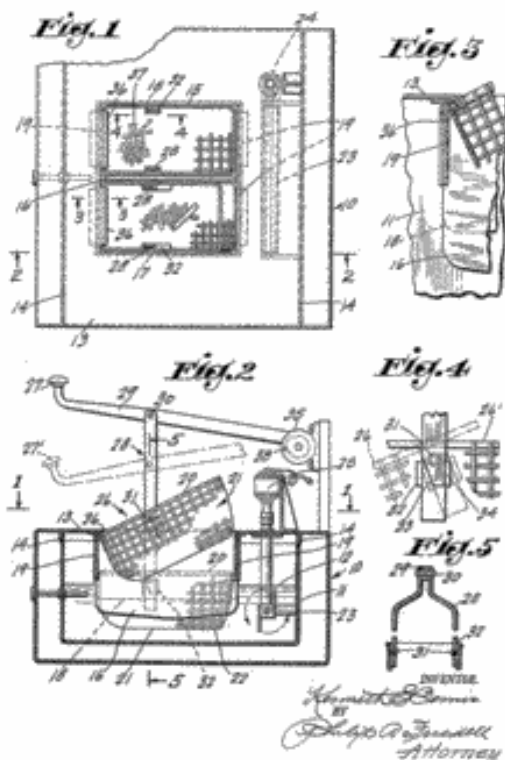
PatBase - US2550758_A

May 1, 1951

N. E. DEMIS
PATENT PRINTER

2,550,758

Filed Dec. 23, 1946



0) US6827006B – CHICKEN LEG GRILL RACK

128) Family number: 31378344 (US6827006B)

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Title: Chicken leg grill rack
Priority: US20030625139 20030723 US20040708472 20040305 US20040709779 20040527
Family:

Publication number	Publication date	Application number	Application date
US6827006 BA	20041207	US20030625139	20030723
US6945161 BA	20050920	US20040709779	20040527
US7040219 BA	20060509	US20040708472	20040305

Probable Assignee: EZ PRODUCTS LLC

Assignee(s):^(std) E AND Z PRODUCTS LLC ; BATTAGLIA JOHN ; D AMATO JIM

Assignee(s): E AMP AMP ; EZ PRODUCTS LLC ; Z PRODUCTS LLC

Inventor(s):^(std) BATTAGLIA JOHN ; D AMATO JIM

Agent(s): JOEL ESQ RICHARD A; RICHARD A

International class
(IPC 8-9): [A47J37/06 A47J43/18](#) (Advanced/Invention);
[A47J37/06 A47J43/00](#) (Core/Invention)

International class
(IPC 1-7): [A47J43/18](#)

CPC: [A47J37/0694 A47J43/18](#)

European class: [A47J37/06P A47J43/18](#)

US class: [211/181.1 99/426 99/448](#)

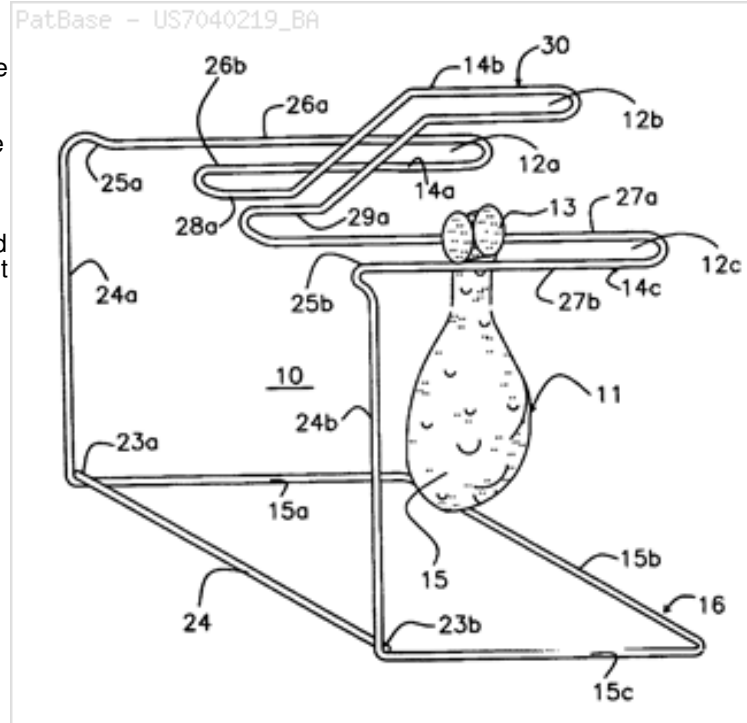
[Classification Explorer](#)

Cited documents: USD161741 S1, US5730046 A, US439569 A, US3532225 A, US3214031 A, US1514375 A, US1514345 A,

Forward Citations: WO12168044, WO12168043, WO08144837, USD774356, USD722250, USD717596, USD692722, USD690168, USD648174, USD623015, US9414715, US9155423, US8881645, US8342081, US8110237, US7543530, US7281469, US2016106266, US2014216270, US2014165853, US2013295258, US2009232952, US2009087535, US2009049995, US2008220134, US2006266227, GB2473465, GB2462791, EP2532290, EP2532289, DE202006019655,

Abstract:

Source: US6827006B A rack for grilling chicken legs comprises a unitary wire structure including a base and inclined upwardly extending members at each end of the base and a transverse/portion joining the tops of the members. A plurality of substantially U-shaped members are mounted to the transverse member at the legs forming the open end of the "U". The legs of the U-shaped members form a parallel slot between adjacent members to engage and support a plurality of chicken legs in a vertical position above grill.

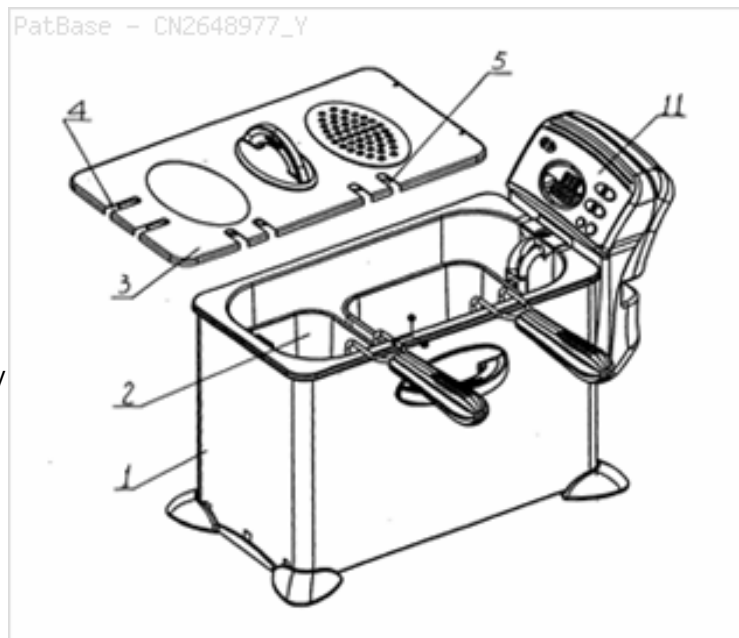


Title: Electronic deep fat fryer**Priority:** CN200320102304U 20031017

Family:	Publication number	Publication date	Application number	Application date
	CN2648977_Y	20041020	CN200320102304U	20031017

Probable Assignee: SUOLEIKE DOMESTIC ELECTRIC APP**Assignee(s):^(std):** SHENZHEN SOLAC HOUSEHOLD ELECTRICAL CO LTD ; SUOLEIKE DOMESTIC ELECTRIC APP**Assignee(s):** SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO ; SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO LTD ; SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO LTD SHENZH**Inventor(s):^(std):** ZHOU HONG**Inventor(s):** HONG ZHOU**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)**International class** A47J37/12
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: CN2648977Y A new electrical fryer pertaining to domestic electrical apparatus especially electrical cooking utensil is provided, which comprises a pan body, a pan cover and a basket and an electrical heating and controlling device arranged in the pan body. The utility model is characterized by two or more baskets are arranged in the pan body and a plurality of basket handle extending ports are provided on the pan cover. The pan body is a rectangle structure with a plurality of fryer handle extending ports arranged on the cover edge in the long direction and the wide direction, respectively. The utility model can fry kinds of food at the same time, and also can change position and number of the basket according to different requirement of user, which can save not only time needed to fry food but also electric energy and edible food used in frying.



130) Family number: 193895 (BRMU6601655U)

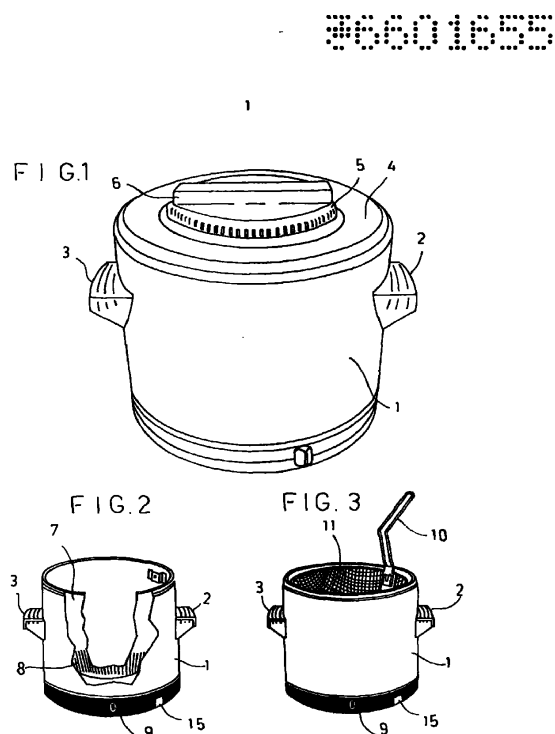
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Title: FRITADEIRA ELETRICA ELECTRIC DEEP FRYER (Machine translation)**Priority:** BR1986MU01655U 19860909**Family:**

Publication number	Publication date	Application number	Application date
<u>BRMU6601655 U</u>	19880510	BR1986MU01655U	19860909

Probable Assignee: ARNO SA**Assignee(s):^(std):** ARNO SA**Assignee(s):** ARNO S A**Inventor(s):^(std):** BESSA ANTONIO FERNANDO G**Inventor(s):** ANTONIO FERNANDO G BESSA**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)**International class** A47J37/12
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: BRMU6601655U Patente de Modelo de Utilidade "FRITA DEIRA ELETRICA", que compreende uma carcaca (1) energizavel eletricamente, controlada por termostato (9), a carcaca 1 admitindo no seu interior uma cuba filtrante (7), que recebe oleo, uma cesta (11) de portar alimentos a fritar sendo encaixavel dentro da cuba filtrante (7), a carcaca (1) podendo receber tampa (4) dotada de filtros (19,20) anti-odor; a cesta (11) e a cuba (7) podem ser manuseadas atraves de cabo (10) e fechos (12) e (14) respectivamente da cesta e da cuba. Patent of utility model "DEIRA ELECTRIC FRY", which comprises a skeleton (1) energizavel electrically controlled by thermostat (9), 1 skeleton admitting in a filter tub (7), which receives oil, a basket (11) to bear the fries being encaixavel into the filter tub (7), skeleton (1) may receive cover (4) with filters (19,20) anti-odor; the basket (11) and cuba (7) can be handled through cable (10) and (12) and (14) respectively of the basket and the tub.



131) Family number: 31370282 (US2004237801A)

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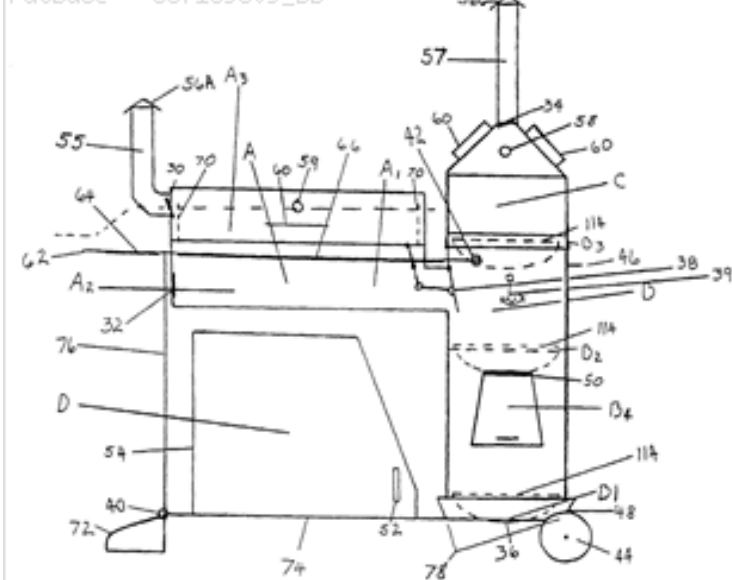
Title: OUTDOOR COOKING MACHINE**Priority:** US20030448615 20030531**Family:**

Publication number	Publication date	Application number	Application date
<u>US2004237801 AA</u>	20041202	US20030448615	20030531
<u>US7159509 BB</u>	20070109	US20030448615	20030531

Probable Assignee: STARKEY ROY WELCOME**Assignee(s):^(std):** STARKEY ROY WELCOME**Inventor(s):^(std):** STARKEY ROY WELCOME**Agent(s):** ROYLANCE ABRAMS BERDO AND GOODMAN LLP**International class**
(IPC 8-9): A47J37/00 A47J37/07 F24B1/20 (Advanced/Invention);
A47J37/00 A47J37/07 F24B1/00 (Core/Invention)**International class**
(IPC 1-7): B60H3/00**CPC:** A47J37/0704 F24B1/202**European class:** A47J37/07B F24B1/20B**US class:** 126/25R 99/339 99/340 99/480 99/482[Classification Explorer](#)**Cited documents:** US957748 A, US6209533 BA, US6039039 A, US5909729 A, US5768977 A, US5711209 A, US5359923 A, US4877011 A, US4757756 A, US4700618 A, US4665891 A, US4664026 A, US4020322 A, US2851941 A,**Forward Citations:** USD776481, USD736026, USD712189, USD662773, USD660646, US9526376, US9439536, US9155421, US9155416, US8851063, US8726896, US8707857, US8635947, US8381712, US8186265, US7900553, US7895942, US7681493, US2014311360, US2014290497, US2012260809, US2012204733, US2012156350, US2011217441, US2010192936, US2010083947, US2008278775, US2008268121, US2007166443, US2007131234, ITTV20110095,**Abstract:**

Source: US2004237801A A combination of 2 Smoker/Grills, one horizontal and one vertical. The top of the vertical Smoker/Grill #B is connected to the bottom of the horizontal Smoker/Grill #A by a tube with a damper (#38). Cooking options from the Smoker/Grill HA include: cold or slow smoking, food warmer, spit or rotisserie cooking, conventional grill, oven and tabletop. Cooking options from Smoker/Grill #B include: conventional grill, two forms of a modified conventional grill, hot smoker, steamer, double boiler, deep fryer or turkey fryer, stew pot, two forms of an oven, an outdoor fireplace, an open fire pit and a table top. Accessories from Fig. 4. need to be used with most of these options. Most options from Smoker/Grill #A can be used with most options from Smoker/Grill #B. See CHART #1 for more clarification. Some combinations can use a single fire and some combinations can combine the fires from both grills to enhance/change cooking options.

PatBase - US7159509_BB



Title: Dries the fryer (Machine translation)

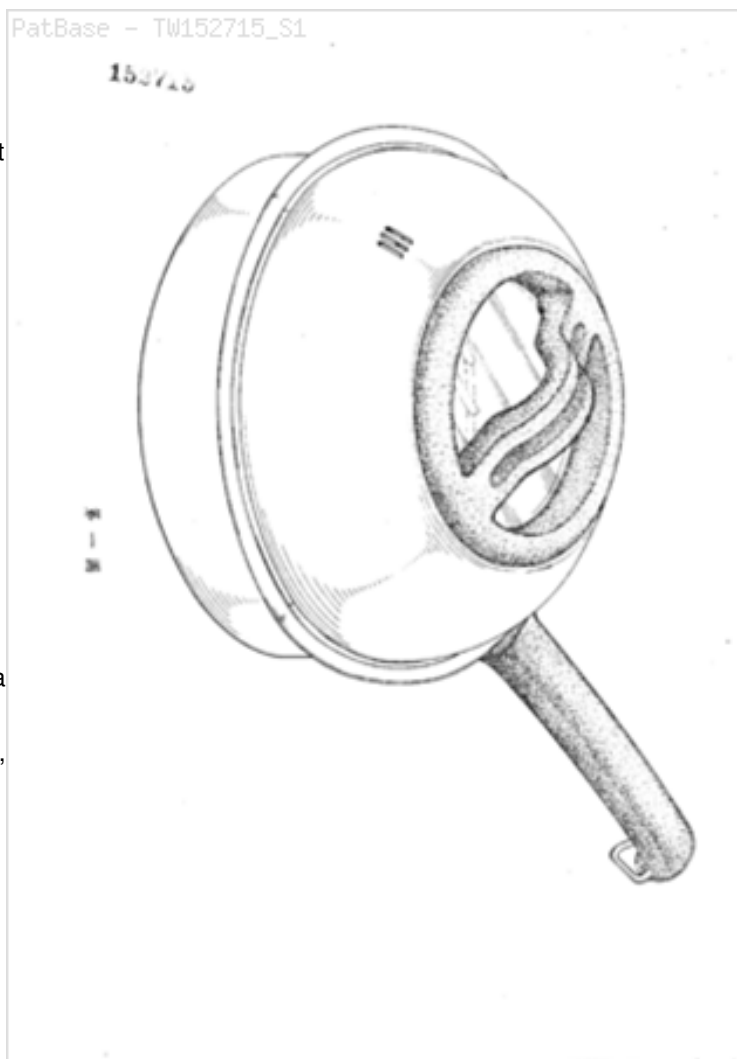
Family:

Publication number	Publication date	Application number	Application date
<u>TW152715 S1</u>	19910221	TW19900302026F	19900402

Abstract:

Source: TW152715S

Machine translation: This creation is dries innovation model the fryer about one kind, You in Zhi one kind of succinct modelling pot of the belt ? rational esthetic sense has. ; Like the chart demonstration dries the fryer, a main embody oblate pot body, its sidewall extends a long handle along the radial direction extension, the bottom surface then the ramming becomes a series of arches, this arch two ends and the bottom of the pot separate form the hole to enter for the steam, again it everywhere respectively has one long fourth stub inserting for wire table, takes advantage of this wire table persisting on the pot body, but food namely puts aside on this wire table bakes; Forecited dries the fryer and to include a half spherical pot cover, its central committee installs use heat-resisting glass to make it to pass the Windows, is advantageous for observes in the pot food roasting situation, simultaneously passes the Windows periphery by a round frame chambranle, but stretches across arched bridge of type with a round frame body formation the hand in the place above, also causes to dry the fryer to appear artistically both splendid. ; In summary, this creation dries the fryer, under the practical premise, has shape of the novel esthetic sense, should conform to the new model patent important document.



Title: Dries the fryer (Machine translation)

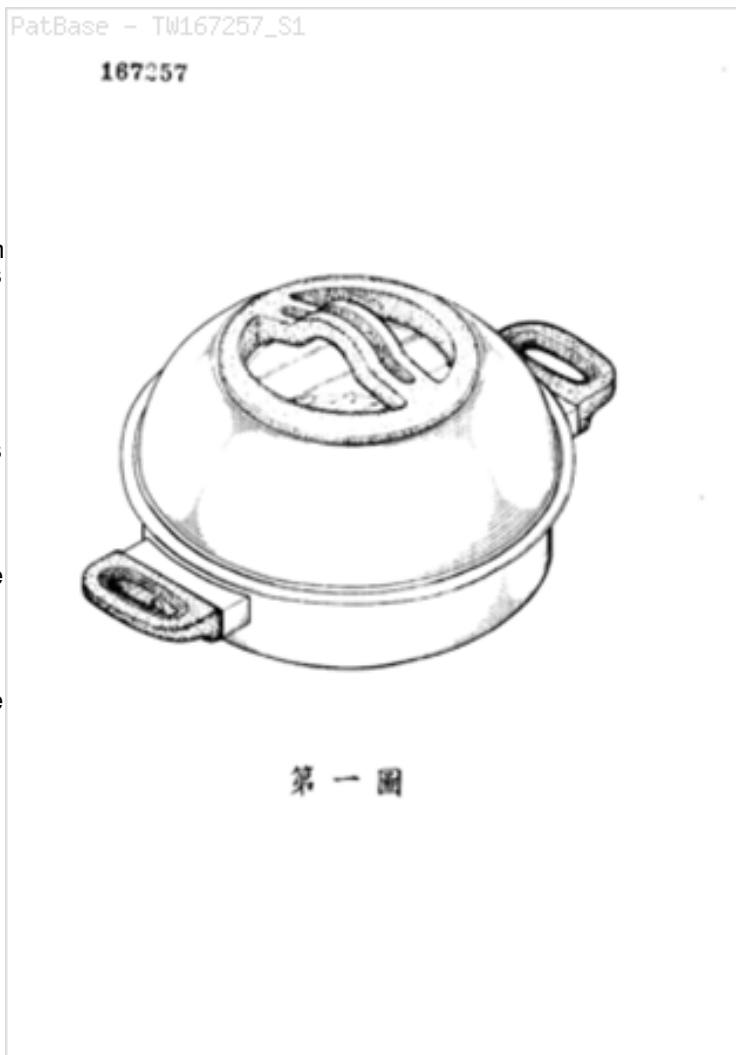
Family:

Publication number	Publication date	Application number	Application date
<u>TW167257 S1</u>	19910821	TW19900302026F	19910426

Abstract:

Source: TW167257S

Machine translation: This creation is dries fryer' about 79,302,026th 'to unite the new model, You Zhi one kind of contour and the original case type artistic splendid dries the fryer. ; The original case according to proposed the application dries the fryer, but has the length handle by the area the bottom of the pot to have oblate of pot body a series of hole, one may put aside in the pot the steel frame and central attaches thoroughly the Windows and the arched bridge type composes hemispheroid of pot cover the hand, because modelling novel artistic, therefore is in harmony with the new model patent important document. ; This creation is the original case unites the new model, it has carried on contour of characteristic the original case major part, different is, the pot body handle alters to the symmetry by the original long handle the hand, in order to use double takes portably; In addition, the bottom of the pot is the seal shape, no longer has hole of the original case, enables with by the splendid attire liquid. Is as for the whole, this creation and the original case are similarly artistic splendidly, moreover constitutes is approximate the modelling, should tally unites the new model patent important document.



134) Family number: 45958192 (TW355997Y)

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Title: STRUCTURE FOR ROASTING POT WITH UNIFORM HEAT-FLOW**Priority:** TW19950217600U 19951208

Family:	Publication number	Publication date	Application number	Application date
	<u>TW355997_Y</u>	19990411	TW19950217600U	19951208

Probable Assignee: CAI SHU YAN**Assignee(s):^(std):** CAI SHU YAN**Assignee(s):** CAI SHU YANTW**Inventor(s):^(std):** CAI SHU YAN

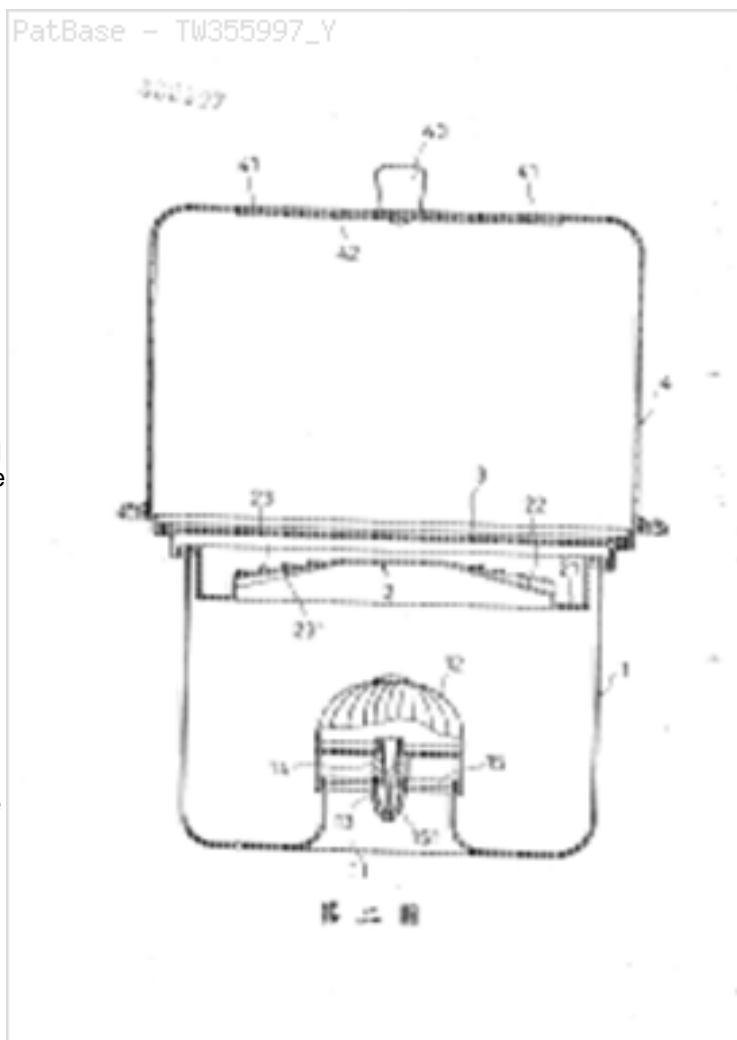
International class A47J37/00 (Advanced/Invention) ;
 (IPC 8-9) A47J37/00 (Core/Non-invention)

International class A47J37/00
 (IPC 1-7) :

[Classification Explorer](#)**Abstract:**

Source: TW355997Y

Machine translation: This creation department is one kind may cause the heat flow evenly to dry the fryer structure, it mainly is uses the warming pot base in the heating central to be equipped with an air intake port, on this air intake port supposes frame of body a central awl hole, and Yu Jiati the awl hole place above is equipped with a bearing, as soon as but causes to suppose can pass through the bearing central hole pyramidal of axis after the turbine wheel fan blade base central committee, but enters body awl Kong Deduan to cause pyramidal of axis the turbine wheel fan blade and the bearing and awl of hole the body assumes the line separately and accepts after checking touches, but causes the turbine wheel fan blade to have the revolving nimble characteristic, but this oneBut the turbine wheel fan blade enters from the air intake port hot air stream impetus revolving to be possible to cause hot air stream of even cloth the rise in to dry in the fryer, forms in the pot the temperature to be even, as soon as erects above the warming pot receives the oil disk, when should receive above the oil disk and is equipped with sets at the net plate, the roasting treats roasts the thing to put in sets at on the net plate, also because of receives on the oil disk to suppose the radiating to lead the fuel tank and in the ring-like oil pan tray contract roasting process flows out by the drop, but does not send purifier of the influence warming pot, in receives the oil disk to lead each of on boss between fuel tanks to be equipped with air vent of the certain slanting lid, causes to rise itThe hot air stream passes, Yu Zhiwu above the net plate is equipped with a top to be equipped with pot cover of the certain link row blowhole, as soon as central supposes in the pot cover top turns on lathe the handle, as soon as should turn on lathe the handle bottom end connection to suppose in the pot cover the top also the boundary assumes blowhole of the zigzag gap to turn on lathe the lid, the affiliation gyrates turns on lathe the handle to be possible to control the blowhole to turn



on lathe covers opening or the closure blowhole, adjusts in the pot the air current and the temperature, therefore, revolving this creation affiliation turbine wheel fan blade causes the hot air stream even flowing in the pot, forms the bottom of the pot and the pot goes against the temperature to be same, but may cause the roasting effect average also not send burning, as soon as actually favors the promoted use to design finely.

Title: Shower type fryer**Priority:** CN201020616631U 20101119

CN201120043590U 20110222

Family:

Publication number	Publication date	Application number	Application date
<u>CN202051567 U</u>	20111130	CN201120043590U	20110222

Probable Assignee: LINBIN ZHOU**Assignee(s):^(std):** LINBIN ZHOU**Assignee(s):** ZHOU LINBIN**Inventor(s):^(std):** LINBIN ZHOU**Inventor(s):** ZHOU LINBIN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202051567U Provided is a shower type fryer including a main body for accommodating the food to be fried, the main body is composed of an upper cover, an external casing body and a bottom cover, a pot inner container and a heater are arranged in the body of the main body, a frying basket is suspended in the pot inner container via the handle of the frying basket, an oil filling and discharging device is rotationally connected in the pot container via a motor, the oil filling and discharging device can fill oil from the bottom of the pot container through rotation, and then spray the oil in the frying basket uniformly. The motor is arranged on the external wall, the motor shaft is rotationally connected to the oil filling and discharging device arranged in the pot container via a gear. The oil filling and discharging device is in the shape of a rocking bar, one end of the device is rotationally connected to the gear, and the other end of the device extends out of an oil groove. The oil filling and discharging device of the fryer provided can fill oil from the bottom of the pot container through rotation, and then spray the oil in the frying basket uniformly. when in work, the oil consumption is greatly reduced compared with a conventional fryer, and the fryer is fast in preheating, low in energy consumption, high in cooking efficiency, less in waste oil discharge, low cost, and is in accordance with the green environmental protection concept of modern people.

PatBase - CN202051567_U

CN 202051567 U 说明书附图 1/2页

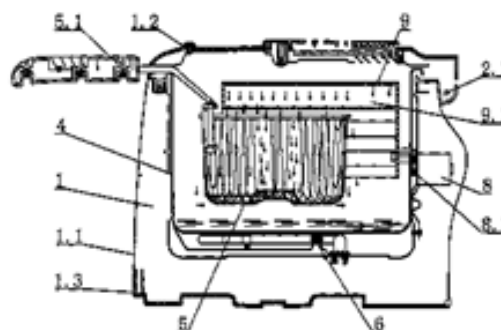


图 1

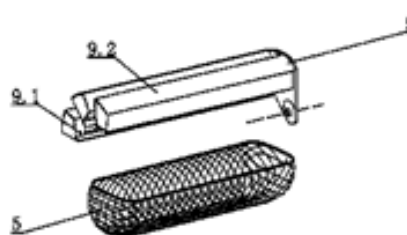


图 2

136) Family number: 54075825 (ES1082304Y)

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Title: APARATO PARA EL ESCURRIDO CENTRIFUGO DE PRODUCTOS FRITOS**Priority:** ES20130030650U 20130528

Family:	Publication number	Publication date	Application number	Application date
	ES1082304 UA	20130613	ES20130030650U	20130528
	ES1082304 Y1	20130916	ES20130030650U	20130528
	ES1082304 Y1	20130904	ES20130030650U	20130528
	ES1082304 Y1	20130916	ES20130030650U	20130528

Probable Assignee: COMPANIA ESPANOLA DE ELECTROMENAJE SA**Assignee(s):**^(std): COMPANIA ESPANOLA DE ELECTROMENAJE SA**Inventor(s):**^(std): CODINA VILANA ANTONI ; TRENCH ROCA LLUIS**Inventor(s):** ANTONI CODINA VILANA ; LLUIS TRENCH ROCA**Agent(s):** TORNER ELISABET**International class** [A47J43/00](#) (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: ES1082304U 1. Aparato para el escurrido centrifugo de productos fritos, integrado en una freidora la cual incluye: – un recipiente (10) apto para contener liquidos con una abertura (11) en su cara superior; – un dispositivo calefactor para calentar un liquido de coccion contenido en dicho recipiente; – una cesta (20) apta para ser introducida y extraida de dicho recipiente (10) a traves de dicha abertura (11) superior, y capaz de girar dentro del recipiente (10) respecto a un eje vertical; – una tapa (50) para cubrir el recipiente (10) que tiene asociado un mecanismo rotatorio (60) mecanicamente acoplable a la cesta (20), para producir su giro; caracterizado porque: – el acoplamiento mecanico entre el mecanismo rotatorio (60) de la tapa (50) y la cesta (20) se realiza mediante el contacto entre un extremo superior de la pared perimetral (21) de la cesta (20), en posicion de escurrido, extraida del liquido de coccion, y un plato giratorio (40) dispuesto y unido a la cara inferior de la tapa (50), estando dicho plato giratorio (40) mecanicamente conectado con dicho mecanismo rotatorio (60), y – la cesta (20) esta articulada por la cara inferior de su base (22) al extremo de un brazo de soporte (32) que deriva de un elemento de soporte (30) de la cesta, mediante una articulacion rotatoria (23) de eje vertical en el extremo de dicho brazo (32). 2. Aparato segun la reivindicacion 1, caracterizado porque el elemento de soporte (30), junto con la cesta (20) a la que esta unido, es extraible, y dispone de un segmento de asido (31), situado en el exterior del recipiente (10) y dotado de un asa (34), un brazo de soporte (32), el cual en situacion de montaje de la cesta en el recipiente discurre adyacente a la cara inferior de la base (22) de la cesta (20) y que termina en dicha articulacion rotatoria (23), y un segmento vertical (33) que une dicho segmento de asido (31) y dicho brazo de soporte (32), extendiendose dicho segmento vertical (33) a traves de una abertura (51) de la tapa y sobresaliendo menos o mas de la misma dependiendo de la posicion de la cesta (20) en inmersion, o en posicion de escurrido, respectivamente, estando la tapa (50) aplicada sobre la abertura (11), cerrandola. 3. Aparato segun reivindicacion 2 caracterizado porque el segmento vertical (33) del elemento de soporte (30) dispone de un apendice de anclaje (35) que permite situar y anclar dicho elemento de soporte (30), y la cesta (20) que esta unida a el, en una posicion emergida de escurrido, al

borde del recipiente (10) manteniendo la cesta (20) dentro del recipiente (10) por encima del nivel del liquido de coccion (aceite para freir). 4. Aparato segun reivindicacion 1 o 2 caracterizado porque el espacio contenido entre la base (22) y las paredes perimetrales (21) de la cesta (20) conforma un recinto libre de elementos interferentes. 5. Aparato segun una cualquiera de las reivindicaciones precedentes caracterizado porque la abertura (51) de la tapa (50) del recipiente (10) tiene poca holgura respecto al segmento (33) del elemento de soporte (30). 6. Aparato segun la reivindicacion 1, caracterizado porque el plato giratorio (40) accionado mediante el mecanismo rotatorio (60), es de un diametro al menos igual al diametro interior de la cesta (20). 7. Aparato segun reivindicacion 1 o 6, caracterizado porque la transmision mecanica entre el mecanismo rotatorio (60) y el plato giratorio (40) dispone de un mecanismo de trinquete (65) interpuesto. 8. Aparato segun la reivindicacion 7, caracterizado porque el mecanismo rotatorio (60) se acciona manualmente desde el exterior del contenedor mediante un pomo (63) giratorio. 9. Aparato segun reivindicacion 8 caracterizado porque el mecanismo rotatorio (60) dispone de un mecanismo multiplicador que tiene un factor multiplicador mayor de 10. 10. Aparato segun una cualquiera de las reivindicaciones de 6 a 9 caracterizado porque el mecanismo rotatorio (60) dispone de un pinon (61) en una posicion concentrica con el eje de rotacion de la cesta (20), estando dicho pinon (61) engranado con un arco de engranaje (62), el cual esta unido mediante un brazo con el centro de dicho arco, donde se conecta el pomo (63) mediante un eje que atraviesa la tapa (50) del recipiente (10). 11. Aparato segun reivindicacion 10 caracterizado porque el pomo (63) transmite al arco de engranaje (62) un giro maximo de 90 degrees. 1. Apparatus for centrifugal draining fried products, integrated into a fryer which includes: – a container (10) which can contain liquids with an opening (11) on its upper face, – a heating device for heating a cooking liquid content said container, – a basket (20) adapted to be inserted and extracted from said container (10) through said opening (11) top, and able to rotate within the vessel (10) about a vertical axis, – a cap (50) to cover the container (10) which is associated with a rotating mechanism (60) mechanically coupled to the basket (20) to produce its rotation, characterized in that: – the mechanical coupling between the rotating mechanism (60) of the lid (50) and the basket (20) is performed by contact between an upper end of the peripheral wall (21) of the basket (20), drained position, extracted from the cooking liquid, and a turntable (40) arranged and attached to the underside of the lid (50), said turntable (40) mechanically connected to said rotating mechanism (60), – the basket (20) is articulated on the underside of its base (22) the end of a support arm (32) which derives from a supporting element (30) of the basket, through a rotary joint (23) with vertical axis on the end of said arm (32). Two. The apparatus of claim 1, wherein the support element (30) with the basket (20) to which is attached, is removable, and has a grip segment (31), located outside the container (10) and has a handle (34), a support arm (32) which in mounting location of the basket in the vessel runs adjacent to the underside of the base (22) of the basket (20) and ending said rotary joint (23), and a vertical segment (33) connecting said gripping segment (31) and said support arm (32), said vertical segment (33) through an opening (51) cover and protruding less or more than the same depending on the position of the basket (20) Immersion, or drained position, respectively, with the cover (50) applied to the opening (11), closing. Three. Apparatus according to claim 2, wherein the vertical segment (33) of the support element (30) has an anchoring appendage (35) allowing positioning and anchoring said support element (30) and basket (20) which is attached him, in a position of drained emerged at the edge of the container (10) holding the basket (20) into the container (10) above the level of the cooking liquid (oil for frying). April. Apparatus according to claim 1 or 2 wherein the space contained between the base (22) and the perimeter walls (21) of the basket (20) forms an enclosure free of interfering elements. May. Apparatus according to any preceding claim wherein the opening (51) of the cover (50) of the container (10) has little play relative to the segment (33) of the support element (30). June. The apparatus of claim 1, wherein the turntable (40) actuated by the rotating mechanism (60) is of a diameter at least equal to the inside diameter of the basket (20). July. Apparatus according to claim 1 or 6, wherein the mechanical transmission between the rotary mechanism (60) and the turntable (40) has a ratchet mechanism (65) interposed. August. The apparatus of claim 7, wherein the rotary mechanism (60) is operated manually from outside the container through a knob (63) rotating. 9. Apparatus according to claim 8 characterized in that the rotary mechanism (60) has a multiplier mechanism which has a multiplier greater than 10. 10. Apparatus according to any of claims 6 to 9 characterized in that the rotary mechanism (60) has a pinion (61) in a concentric position with the rotation axis of the basket (20), said pinion (61) meshed with an arc of gear (62), which is attached via an arm to the center of said arc where it connects to the handle (63) by a shaft which traverses the lid (50) of the container (10). 11. Apparatus according to claim 10 wherein the handle (63) transmits arc gear (62) having a maximum of 90 degrees rotation.

137) Family number: 56861475 (CN203693390U)

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Title: DOUBLE–CYLINDER DOUBLE–BASKET ELECTRIC HEATING FRYER**Priority:** CN201420009118U 20140108**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203693390 U</u>	20140709	CN201420009118U	20140108

Probable Assignee: SHANGHAI YIXI FOOD MACHINERY CO LTD**Assignee(s):^(std):** SHANGHAI YIXI FOOD MACHINERY CO LTD**Assignee(s):** SHANGHAI A HI FOOD MACHINERY CO LTD ; SHANGHAI YIXI FOOD MACHINERY CO**Inventor(s):^(std):** DING CHAOBIAO**International class** A47J37/12 (Advanced/Invention)
(IPC 8–9).[Classification Explorer](#)**Forward Citations:** CN104958009,**Abstract:**

Source: CN203693390U The utility model discloses a double–cylinder double–basket electric heating fryer. An oil tank is placed on a bottom plate and located in space formed by a door, a right side plate, a left side plate and a rear cover plate, an oil discharge valve is placed in the oil tank, oil cylinders are arranged on the upper portion of the oil tank, a control panel is arranged on the upper portion of the door, an electric appliance box is arranged on the upper portion of the rear cover plate, a tension spring is arranged on an electric appliance box rear cover plate on the electric appliance box, a machine head box is arranged above the electric appliance box, a machine head box rear cover plate is arranged on the back of the machine head box, basket hanging plates are arranged in front of the machine head box and connected with heater which are placed on a heater support, the heater support is connected with a carrying handle, small lifting handles are arranged on the two sides of the basket hanging plates, a microprocessor is arranged inside the electric appliance box and connected with an overtemperature protector, the heater support and heating pipes can be easily detached, the sum of the oil cylinders is two, temperatures of the two oil cylinders are independently controlled, and the two oil cylinders are independently timed. Heating and timing are controlled through a microcomputer, the fryer is convenient to clean, hygienic and safe, and parameters can be automatically set according to technical requirements and operation technological processes.

PatBase – CN203693390_U

CN 203693390 U

说明书附图

1/2 页

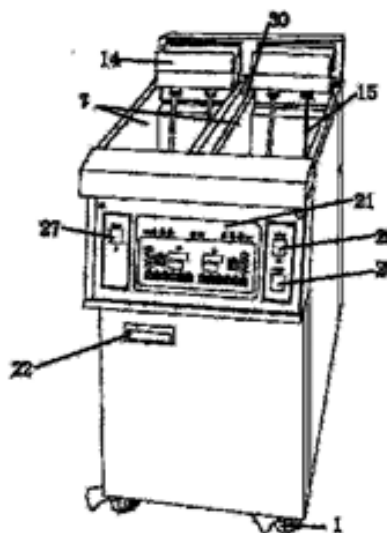


图 1

138) Family number: 58845748 (CN204232870U)

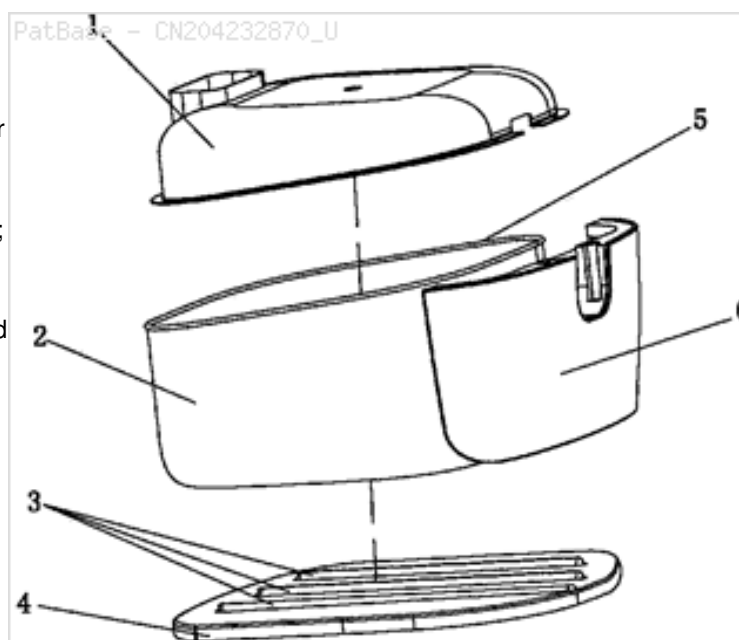
© PatBase

Title: INNER POT SEALING STRUCTURE OF AIR FRYER**Priority:** CN201420611982U 20141022**Family:**

Publication number	Publication date	Application number	Application date
<u>CN204232870 U</u>	20150401	CN201420611982U	20141022

Probable Assignee: ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO LTD**Assignee(s):^(std):** ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO LTD**Assignee(s):** ZHONGSHAN WING ELECTRIC CO LTD ; ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO**Inventor(s):^(std):** YAN SHAOJI**International class** A47J27/08 A47J36/10 A47J37/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN204232870U The utility model discloses an inner pot sealing structure of an air fryer. The inner pot sealing structure comprises an inner pot, a heat insulation cover and a pot body chassis, wherein the inner pot is arranged on the pot body chassis; the inner pot is provided with a handle; an opening end surface of the inner pot is in an inclined shape; the end surface, which is in contact with the inner pot, of the heat insulation cover, is set into an inclined end surface; the inclined end surface of the heat insulation cover is arranged on the opening end surface of the inner pot in a clamping way; the upper surface of the pot body chassis is provided with a plurality of supporting and jacking strips, and the supporting and jacking strips are used for supporting and jacking the inner pot. According to the inner pot sealing structure of the air fryer disclosed by the utility model, the opening end surface of the inner pot and the heat insulation cover are covered and sealed by inclined surfaces, and the machining is simple, and the cost is relatively low, and the sealing effect is good.



139) Family number: 63642442 (CN205597789U)

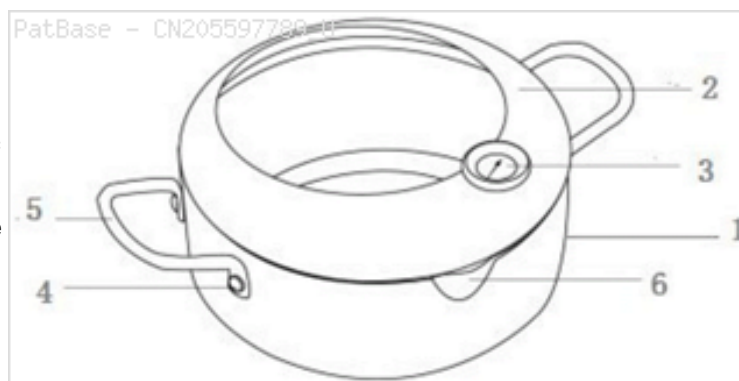
© PatBase

Title: CONTROL BY TEMPERATURE CHANGE RESPONSE DEEP FRYER**Priority:** CN201520943672U 20151124**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205597789 U</u>	20160928	CN201520943672U	20151124

Probable Assignee: XU ZHENKANG**Assignee(s):^(std):** SHANDONG TIANZHIJIN ECOLOGICAL TECH CO LTD ; XU ZHENKANG**Assignee(s):** SHANDONG TIANZHIJIN ECOLOGICAL TECHNOLOGY CO ; QU ZHEN KANG ; SHANDONG ECOLOGICAL TECHNOLOGY CO LTD KAM DAYS**Inventor(s):^(std):** CHUN ZHENKANG**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN205597789U The utility model relates to a control by temperature change response deep fryer, including the pot body, with a pot body matched with pot cover, handle, the handle is located the lateral wall of the pot body and passes through rivet and pot body fastening connection, its characterized in that: the shang yanchu of pot side wall has the water conservancy diversion mouth that can pour out deep -fry liquid, be provided with the oil thermometer on the pot cover. Deep fryer design beauty and practicability, the little oil of more saving of the pot body, and the shang yanchu of pot side wall is provided with the water conservancy diversion mouth, can effectively prevent overflowing of deep -fry liquid, and also the convenient interior liquid of pot pours out, oil thermometer on the pot cover time props the size that the duration and degree of heating can be controlled to the temperature of holding oil in the culinary art, can be easily according to fried food the desired temperature and control the oil temperature, improved the deep -fry quality of food, the bottom design of the pot body has rough and uneven in surface line, can improve the intensity in the bottom of a boiler and the heating area who increases the bottom of a boiler.



140) Family number: 64702402 (JP2017000246A)

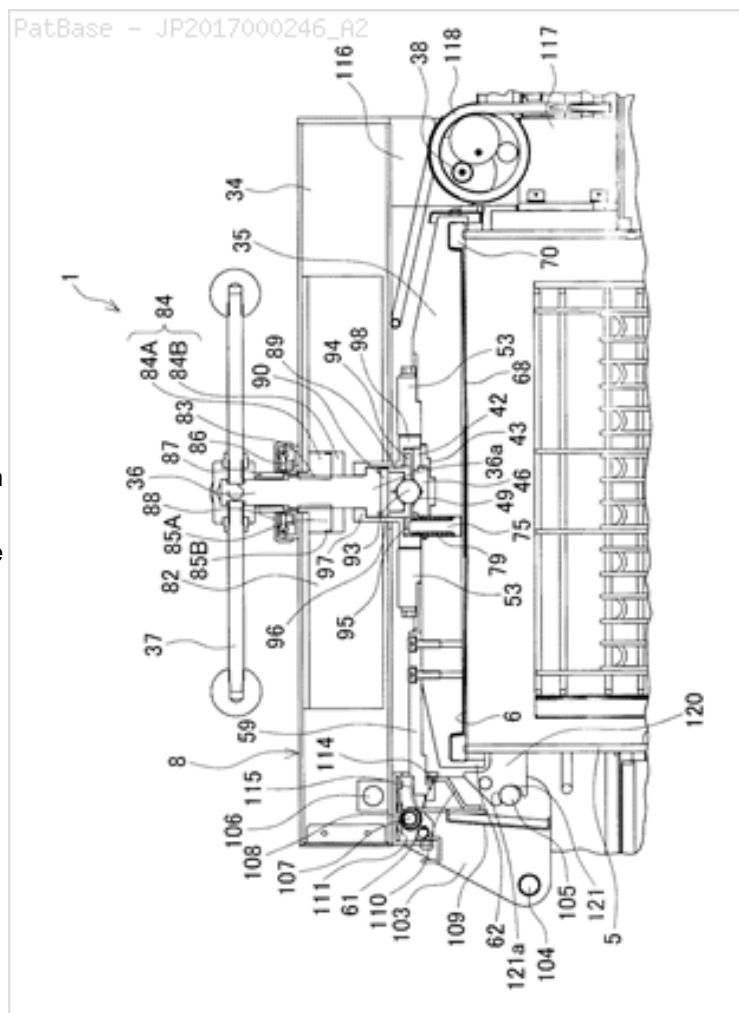
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115004 20150605

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2017000246 A2</u>	20170105	JP20150115004	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000246A [Issue] in a simple configuration, rotating handle for pressure cooking in regulating to ensure to prevent opening the lid and the body. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and contains, on the handle shaft 36 multiple notches to energising to the membrane of the 68 side flange of 94 to 96, covers the body 35 located behind the pressure safety pin 75 and cover the body 35 film body 68 and 75 pressure safety pin coil spring 79 and the During cooking increases the pressure inside the oil Terminal 5 and the membrane of the 68 was shifted upward and 75 pressure safety pin pushed upward, to the upper edge of the pressure safety pin 75 notched flanges faculty 94 96 to abort it and turn to screw the opposite direction of the handle shaft 36 can be regulated. [Select diagram: Figure 4



141) Family number: 64702618 (JP2017000249A)

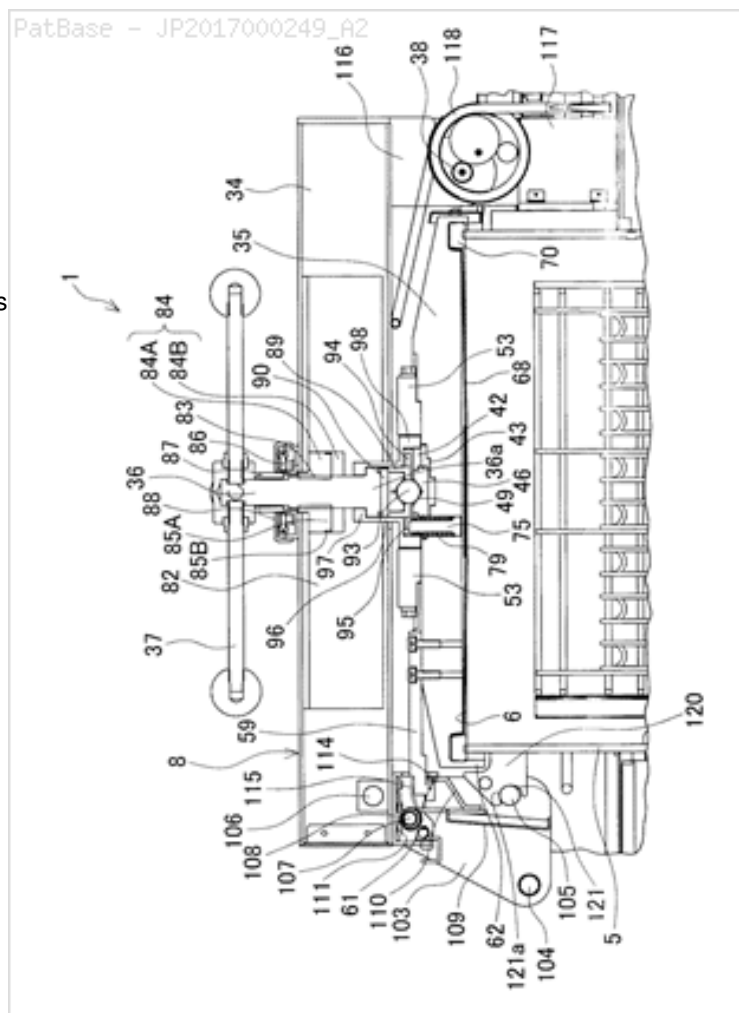
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115007 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000249 A2</u>	20170105	JP20150115007	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000249A [Issue] to maintain the adhesiveness of the lid and the body with oil, regardless of the deviation of the position of the oil due to the distortion of inclination of oil tank and its components and cover the body. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and include, playing to the handle axis 36 I interpolated in the bottom of a 36 section concatenating the lid itself 35 at the bottom of the tube-shaped arm side lift 96 encapsulate, the retainer, hanging from the handle shaft 36 35 cover body, endorsed the. [Select diagram: Figure 4



Priority: DE19780028337U 19780923

Family:

Publication number	Publication date	Application number	Application date
<u>DE7828337 U1</u>	19790712	DE19780028337U	19780923

Probable Assignee: SCHREIBER KLAUS GUENTER

Assignee(s):^(std): SCHREIBER KLAUS GUENTER

Assignee(s): SCHREIBER KLAUS GUENTER 2115 HOLM SEPPENSEN

International class A47J37/12 (Advanced/Invention);
(IPC 8-9); A47J37/12 (Core/Invention)

International class A47J29/00 A47J36/24 A47J37/12
(IPC 1-7);

CPC: A47J37/1257

European class: A47J37/12H

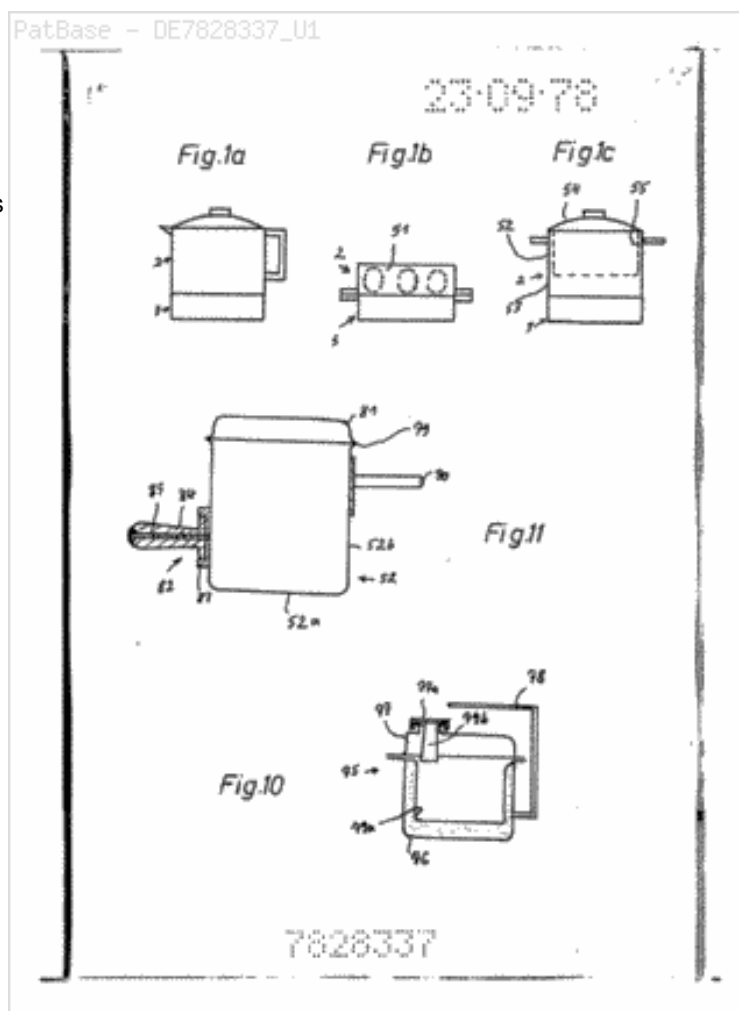
[Classification Explorer](#)

Forward Citations: DE3123881,

Abstract:

Source: DE7828337U1 (Claim 1) 1. Kuechengerat mit elektrischer Heizeinrichtung und einem Behaelter zur Waermebehandlung von Nahrungsmitteln, gekenn- zeichnet durch ein Grundgestell (3) mit regel- und steuerbarer Heizeinrichtung, das loesbar mittels eines Verbin- dungsmittels mit einem das Arbeitsgeraet enthaltenden Ar- beitsbehaelter (2) verbunden ist.

Machine translation: (Claim 1) 1 Kitchen equipment with electric heater and a tank for heat treatment of food, marked by a basic frame (3) with regular and controllable heating device, which can be solved by means of a connection by using a the tools containing Ar-beitsbehaelter (2).



143) Family number: 1952160 (WO8101106A1)

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Title: FIRE EXTINGUISHING DEVICE AGAINST FIRE IN A COOKING VESSEL
Priority: DE19792942247 19791018 DE19792948268 19791130 WO1980DE00158 19801020
Family:

Publication number	Publication date	Application number	Application date
AU198063906 A1	19810507	AU19800063906	19801020
DE2942247 A1	19810430	DE19792942247	19791018
DE2948268 A1	19810604	DE19792948268	19791130
EP0042384 A1	19811230	EP19800901933	19801020
WO8101106 A1	19810430	WO1980DE00158	19801020

Probable Assignee: LANDSRATH WALTER

Assignee(s):^(std): LANDSRATH WALTER

Assignee(s): LANDSRATH W

Inventor(s):^(std): LANDSRATH W ; LANDSRATH WALTER

Inventor(s): W LANDSRATH

Designated states: AT AU BR CH DE DK FR GB JP LU NL NO SE US

International class
^{(IPC 8-9):} [A62C3/00 F23Q25/00](#) (Advanced/Invention);
[A62C3/00 F23Q25/00](#) (Core/Invention)

International class
^{(IPC 1-7):} [A62C3/00 A62C7/00 F23Q25/00](#)

CPC: [A62C3/006](#)

European class: [A62C3/00C](#)

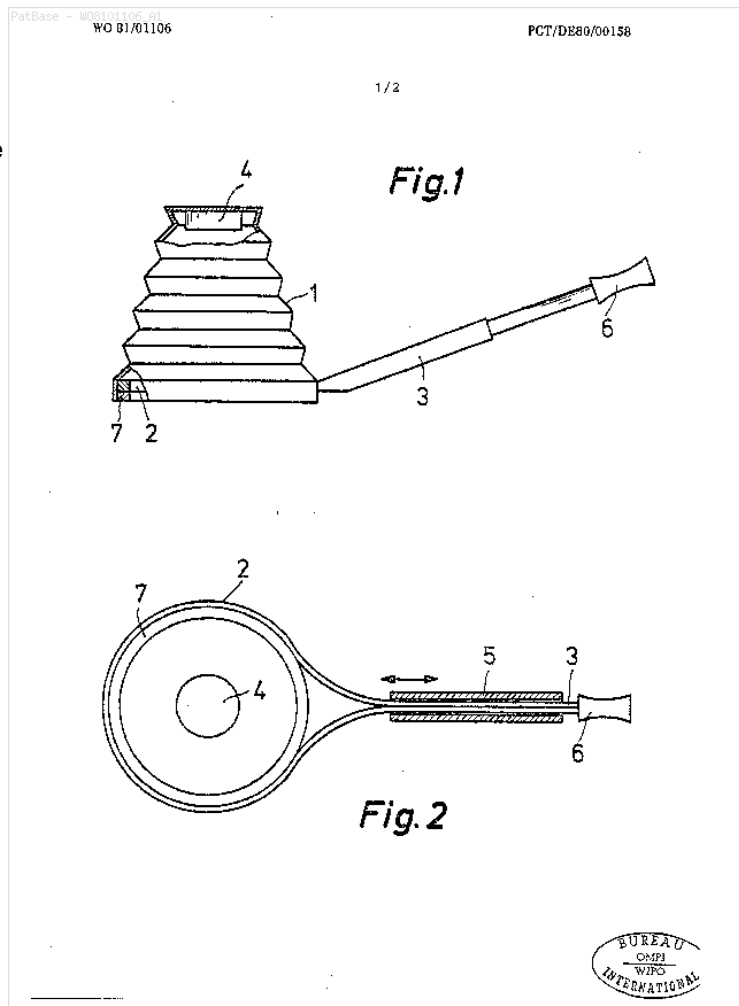
[Classification Explorer](#)

Cited documents: GB532971 A, DE907376 A, DE2218578 A1,

Forward Citations: WO9627410, WO14161963, US6749632, US5842525, GB2497820, GB2497820, GB2314267, GB2314267, GB2298574, EP2787059, EP1585411, DE102009050591, DE102009050591,

Abstract:

In order to fight against fire in a cooking vessel, for instance a deep fryer, a cover (1) with a handle (3) is provided which can be fixed on the burning vessel or a plate (10) with a handle (6) which may rest on the edge of the vessel. A material, such as powder or foam, can also be provided in the fire extinguishing device, to be spread on the burning content of the vessel in order to extinguish fire.



144) Family number: 41117738 (US2008017047A)

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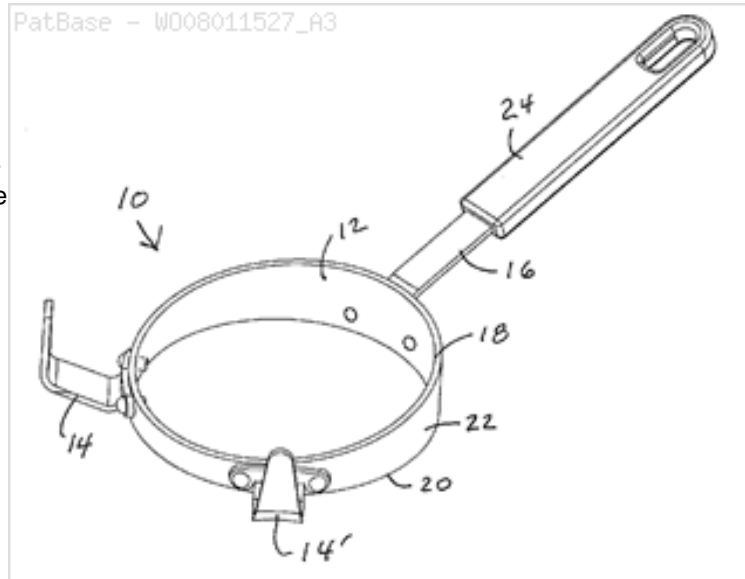
Title: SYSTEM AND METHOD FOR DIVERTING LIQUIDS FROM FOODSTUFF DURING PREPARATION IN A FRYING PAN**Priority:** US20060831815P 20060719 US20070780321 20070719

Family:	Publication number	Publication date	Application number	Application date
	<u>US2008017047 AA</u>	20080124	US20070780321	20070719
	<u>US7607387 BB</u>	20091027	US20070780321	20070719
	<u>WO08011527 A2</u>	20080124	WO2007US73908	20070719
	<u>WO08011527 A3</u>	20081002	WO2007US73908	20070719

Probable Assignee: STANCZAK EDMUND A**Assignee(s):^(std):** STANCZAK EDMUND A**Inventor(s):^(std):** STANCZAK EDMUND A**Agent(s):** THOMAS MOGA, BUTZEL LONG; THOMAS MOGA BUTZEL LONG; SHOOK HARDY AND BACON LLP; MOGA THOMAS T**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class**
(IPC 8-9): A47G23/02 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Advanced/Invention);
A47G23/00 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Core/Invention)**CPC:** A47J37/108**European class:** A47J37/10D A61N1/00**US class:** 220/573.1 426/523 99/357 99/422 99/425 99/426 99/444 99/495[Classification Explorer](#)**Cited documents:** US6844529 BB, US6182557 BA, US5967024 A, US5967022 A, US5850779 A, US5323693 A, US5315983 A, US5074777 A, US4154218 A, US4140889 A, US3452895 A, US333894 A, US3215063 A, US2903229 A, US2871848 A, US284295 A, US2772627 A, US2611510 A, US2327988 A, US2148181 A, US1974796 A, US1960 A, US1904925 A, US1522329 A,**Forward Citations:** WO13048242, US8899145, US8613250, US8353243, US2016183729, US2014238385, US2009173239, NL2007468,

Abstract:

Source: US2008017047A A system for directing cooking liquids away from cooking foodstuff in a frying pan is disclosed. The system includes a frying pan supporting structure and a shield. The frying pan supporting structure includes a bottom side for placement on a heating element and a top side upon which said frying pan rests. The bottom side and the top side are angled with respect to each other. The liquid, typically in the form of oil or grease in flowing form, substantially collects under the shield which prevents the splattering and splashing of oil and hot grease on the user.



145) Family number: 11591000 (US5908551A)

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Title: GREASE CADDIE**Priority:** US19980021447 19980210

Family:	Publication number	Publication date	Application number	Application date
	<u>US5908551 A</u>	19990601	US19980021447	19980210

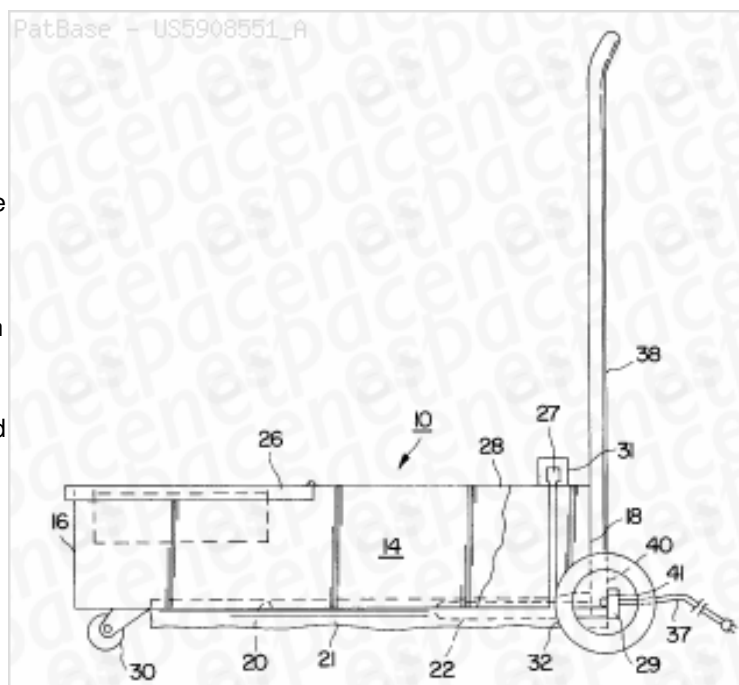
Probable Assignee: ONKEN S INC**Assignee(s):^(std):** ONKEN S INC**Assignee(s):** ONKEN'S INC ; ONKEN"S INC**Inventor(s):^(std):** ONKEN DONALD R

International class A47J37/12 B01D29/11 (Advanced/Invention) ;
 (IPC 8-9) : A47J37/12 B01D29/11 (Core/Invention)

International class A47J37/12 B01D35/027 B01D35/18 B01D35/34
 (IPC 1-7) :

CPC: Y10S210/08 A47J37/1271 B01D29/117**European class:** A47J37/12L B01D29/11G**US class:** 141/82 141/98 210/184 210/241 210/474 210/DIG.8 392/322 392/347 392/441 392/444 392/445 99/408[Classification Explorer](#)**Cited documents:** US5850503 A, US5823097 A, US5609193 A, US5340471 A, US5247876 A, US4890548 A, US4646793 A, US4444095 A, US4420006 A, US4360046 A, US3432642 A, US3294039 A, US1554589 A,**Forward Citations:** WO03014007, WO03014007, USD615111, US9592526, US9199267, US8905257, US8831413, US8648282, US8561462, US8246824, US7735526, US6365046, US6227405, US6186241, US2014349006, US2014150877, US2013017336, US2011176792, US2011174070, US2011120996, US2011006054, US2007227597, US2006065582, FR2827590,**Abstract:**

Source: US5908551A A mobile cooking oil caddy which includes in combination features of heating, filtering and transporting oil for disposal into a disposal tank. The caddy is rolled under a hot oil fry cooker and hot fats can be drained into the caddy from the cooker. A filter screen is provided in the caddy for filtering the hot fats. If the grease is to be disposed, the caddy is moved to a facility in which the oil is pumped from the caddy by a motorized pump to a disposal tank. If the grease has been stored for a time and is not in a fluid state, the heater can be activated to heat transfer mixture which in turn heats the grease to a fluid state. The filter can then be cleaned of food particles and the caddy stored until it is desired to drain the fry cooker again for receipt of hot fats from the cooker when desired.



0) GB2124073A – A FILTER LID FOR A FONDUE SET AND FOR A DEEP-FR...

146) Family number: 1507073 (GB2124073A)

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Title: A filter lid for a fondue set and for a deep-fryer

Priority: BE19820208660 19820723 BE19820893919 19820723

Family:	Publication number	Publication date	Application number	Application date
	BE893919 A1	19821116	BE19820208660	19820723
	DE3325731 A1	19840126	DE19833325731	19830716
	GB2124073 A1	19840215	GB19830019806	19830722
	GB2124073 B2	19860122	GB19830019806	19830722
	GB8319806 A0	19830824	GB19830019806	19830722
	NL8302512 A	19840216	NL19830002512	19830714

Probable Assignee: ELECTRO DOMESTIC BELGIUM

Assignee(s):^(std): ELECTRO DOMESTIC BELGIUM ; ELECTRO DOMESTIC BELGIUM S A ; ELECTRO DOMESTIC BELGIUM SA ; ELECTRO DOMESTIC BELGIUM SOCIE

Assignee(s): ELECTRO DOMESTIC BELGIUM SOCIETE ANONYME ; ELECTRO DOMESTIC BELGIUM S A TE GEMBLOUX BELGIE

Inventor(s):^(std): JENICOT JEAN MARIE

Inventor(s): JEAN MARIE JENICOT

International class
(IPC 8-9): [A47J36/38](#) [A47J37/12](#) (Advanced/Invention);
[A47J36/00](#) [A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J36/06](#) [A47J37/06](#) [A47J37/12](#)

CPC: [A47J36/38](#) [A47J37/1204](#) [A47J37/128](#)

European class: [A47J36/38](#) [A47J37/12A](#) [A47J37/12M1](#)

[Classification Explorer](#)

Cited documents: GB671981 A, GB646689 A, GB577267 A, GB1523221 A, GB1471815 A, GB1390916 A, GB1266532 A, GB1147733 A,

Forward Citations: WO07115784, USRE36072, US6997975, US5531354, FR2705878, EP1393665, DE4412843, DE19534113, CN104873110,

Abstract:

Source: GB2124073A The lid (3) intended to allow food to pass into an oil bath and be removed from the cooking container (1) is suitable both for cooking fondues and chips. Made from a high-temperature and oil resistant material it comprises an interchangeable filter cartridge (2), one or more movable flaps (4) and at least one spring returning the or each flap (4) into the plane of the wall of the lid (3) after the introduction of the food.

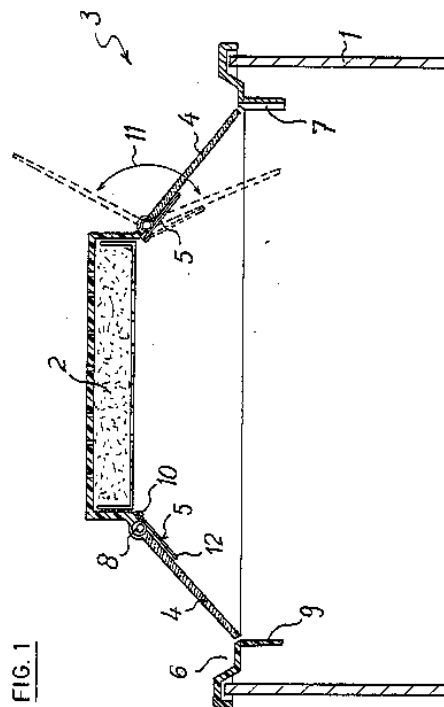


FIG. 1

8302512

147) Family number: 21407547 (FR1516970A)

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Title: PERFECTIONNEMENTS APPORTES AUX FRITEUSES POUR CUISINES COLLECTIVES IMPROVEMENTS TO FRYER FOR COLLECTIVE KITCHENS (Machine translation)

Priority: FR19670092975 19670130

Family:	Publication number	Publication date	Application number	Application date
	<u>FR1516970 A</u>	19680205	FR19670092975	19670130

Probable Assignee: MAISON LABESSE

Assignee(s):^(std) MAISON LABESSE

International class A47J37/12 (Advanced/Invention);
(IPC 8-9) A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7)

CPC: A47J37/1219

European class: A47J37/12C

[Classification Explorer](#)

Abstract:

Source: FR1516970A (Claim 1) 1. Le panier est soutenu, a son extremite superieure avant, par au moins un pivot horizontal proche de l'extremite superieure avant de la cuve et il est pourvu d'un prolongement s'etendant notablement vers le haut a partir de son bord superieur, ce prolongement etant muni d'une poignee de man uvre qui, en position normale de service du panier, repose contre une butee fixee au bati;

Machine translation: (Claim 1) 1. The basket is supported, has its upper end before, at least by a horizontal pivot near the upper end of the tank and before it is provided with an extension extending substantially upwardly from its upper edge, this being provided with an extension handle for maneuver which, in normal operating position of the cart, rests against an abutment fixed to the frame;

PatBase - FR1516970_A

IP 1.121.376 Brevet d'Invention de la Maison Labesse Pl. unique

Fig. 1

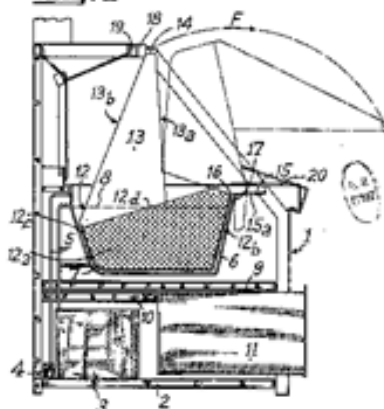
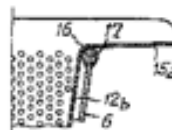


Fig. 2



Title: Frying cage of fryer and fryer**Priority:** CN20042046571U 20040603

CN200420046571U 20040603

Family:

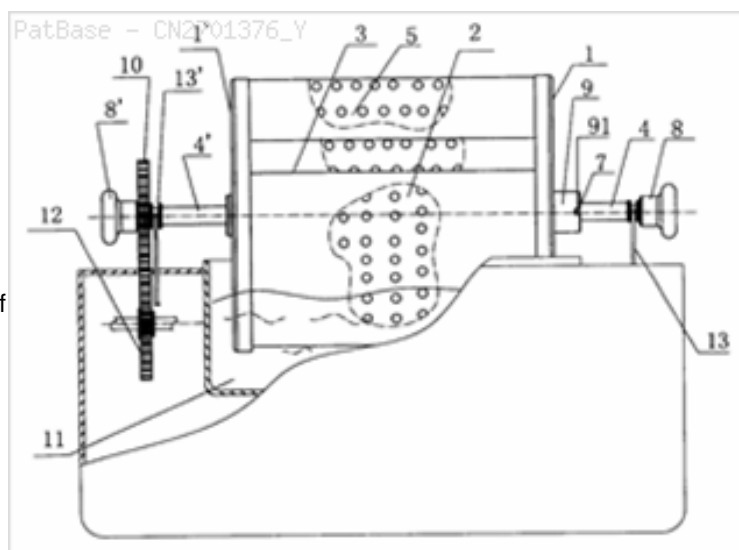
Publication number	Publication date	Application number	Application date
CN2701376 Y	20050525	CN200420046571U	20040603

Probable Assignee: JIAN WEIWEN**Assignee(s):^(std):** JIAN WEIWEN**Inventor(s):^(std):** JIAN WEIWEN**Inventor(s):** WEIWEN JIAN**International class** A47J37/00 (Advanced/Invention);
(IPC 8-9): A47J37/00 (Core/Invention)**International class** A47J37/00
(IPC 1-7):[Classification Explorer](#)**Forward Citations:** CN103479233,**Abstract:**

Source: CN2701376Y The utility model

discloses a frying cage of a fryer and a fryer, and the frying cage comprises a cage body, the open and closure cover of the frying cage and the supporting axles of the frying cage.

The surface of the frying cage comprises two end surfaces and the side surface of a surface of revolution, the two ends are provided with the center of rotations of the cage body, and the side surface part of the cage body is provided with a material inlet. The axial lines of the two supporting axles which are connected to the two end surfaces of the frying cage are coincided with the center of rotations of the cage body, and the open and closure cover of the frying cage comprises a curved surface block with is matched with the surface of revolution and the material inlet of the cage body and two supporting ends. One of the supporting axle is fixedly connected to the center of rotation of one end surface of the cage body and movably matched on the axle center of one of the supporting ends, and the other supporting axle is movably matched on the center of rotation of the other end surface of the cage body and fixedly connected to the axle center of the other supporting end. Some one supporting axle is fixedly connected with a clutch pin and a handle which can be drawn longitudinally, and the cage body end which is movably matched with the supporting axle with the pin or the supporting end is fixedly connected with a clutch seat with a groove. The open and closure device of the utility model is not easily polluted in the process of frying, and the open and closure is flexible and reliable.



Title: Frying pan**Priority:** CN200910037340 20090218

Family:	Publication number	Publication date	Application number	Application date
	CN101502392 A	20090812	CN200910037340	20090218

Probable Assignee: GUANGDONG XINBAO ELECTRIC APPL**Assignee(s):**^(std): GUANGDONG XINBAO ELECTRIC APPL ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO LTD**Assignee(s):** GUANGDONG XINBAO ELECTRIC APPLIANCES HOLDINGS CO**Inventor(s):**^(std): JIANGANG GUO ; JINYIN ZHU ; LIJUN MIN**Inventor(s):** MIN LIJUN ; ZHU JINYIN ; GUO JIANGANG**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)[Classification Explorer](#)**Forward Citations:** CN103479213,**Abstract:**

Source: CN101502392A The invention provides a fryer pan, comprising a pan body, an inner bag, a top cover and an electric heating element, wherein the electric heating element is set on the top cover and a reflection plate capable of reflecting heat to the inner bag and being set between the electric heating element and the top cover. A stirring rod is set in the inner bag and connected with an electric motor below the inner bag. A boss is set in the center of the inner bag and one end of the rotation axle is connected with the output axle of the electric motor and another end of the rotation axle is connected with the stirring rod after passing through the boss. A rotation cage is set in the inner bag and another end of the rotation axle is connected with the top of the rotation cage after passing through the boss and the lower part of the rotation cage is sleeved on the boss and the bottom of the rotation cage keeps a certain distance from the bottom surface of the inner bag and the stirring rod is connected with the middle lower part of the rotation cage. One end of the inner bag is gripped by the handle module and laid on the pan body by the handle module; the other part of the inner bag is directly laid on the pan body. The fryer pan has features of compactness, convenient operation, high heat efficiency, oil saving and health food.

PatBase - CN101502392_A

200910037340.0

说明书附图

第1/2页

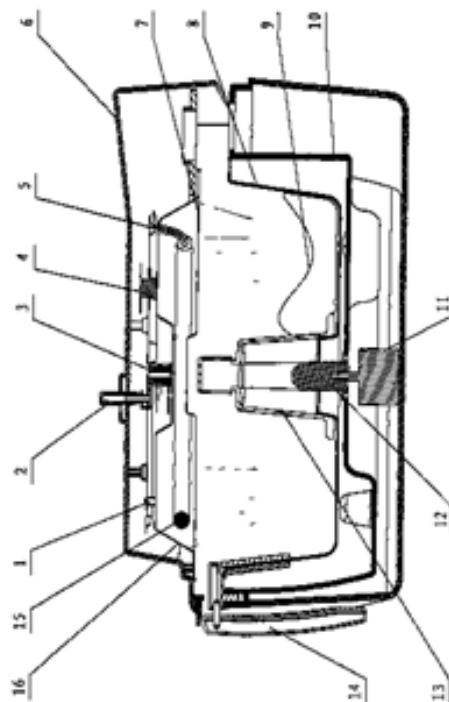


图1

Title: Fries the fryer structure (Machine translation)

Family:	Publication number	Publication date	Application number	Application date
	<u>TW214097 Y</u>	19931001	TW19930207604U	19930602

International class A47J37/10 (Advanced/Invention),
(IPC 8-9): A47J37/10 (Core/Non-invention)

International class A47J37/10
(IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: TW214097Y

Machine translation: One kind to fry the fryer structure, includes components at least and so on bottom pot, central disk, handle, pot cover, among in which bottom pot is equipped with a link terrace, the central disk establishes a link raised terrace edge in its boundary, also using this raised terrace edge joining link of terrace in the bottom pot, makes between the bottom pot kneading board and the central disk has in the one spatial, but, bottom pot rear end central upper limb then the level flushes supposes two pin connected holes, and matches the handle end to suppose the pin connected tree top, then pin connected it; Its characteristic lies in: ; Bottom pot kneading board overshooting supposes right amount to lead the gas hood and to pass the hole; ; The central disk on the raised terrace edge also flushes supposes right amount leads the gas hood and passes the hole; ; Front end the handle under hangs to extends raised has keeps off the piece; ; Affiliation it, under the bottom pot the heat source may lead its steam to pass the hole after the bottom pot to induct under the central disk within spatial, and passes Kong Jidao by the affiliation the gas hood to derive, also leads the period in the class, but rapidly central disk heating up; Keeps off the piece using the handle to be possible to team up on Yu Deguo in the raised terrace to keep off stopping.

- **search:** SS3 [SP]: device for protecting oil spatter purpose: an oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. constitution: an oil dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). in the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. an oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. the piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. the size of body is 1.5~2.5 times greater than the vapor outlet. in the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions. (Results 2)
- **List:** SS3 1-50 ([SP]: device for protecting oil spatter purpose: an oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. constitution: an oil

dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). in the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. an oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. the piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. the size of body is 1.5~2.5 times greater than the vapor outlet. in the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions.) (Results 2)

0) KR20130018451A – DEVICE FOR PROTECTING OIL SPATTER

1) Family number: 53087533 (KR20130018451A)

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Title: DEVICE FOR PROTECTING OIL SPATTER

Priority: KR20110076548 20110801

Family:

Publication number	Publication date	Application number	Application date
KR101296259 B1	20130813	KR20110078943	20110809
KR20130018451 A	20130225	KR20110078943	20110809

Probable Assignee: CHAE SOO YUN

Assignee(s):^(std): CHAE SOO YUN

Inventor(s):^(std): CHAE SOO YUN

International class A47J36/06 A47J36/38 A47J37/10 (Advanced/Invention)
(IPC 8-9).

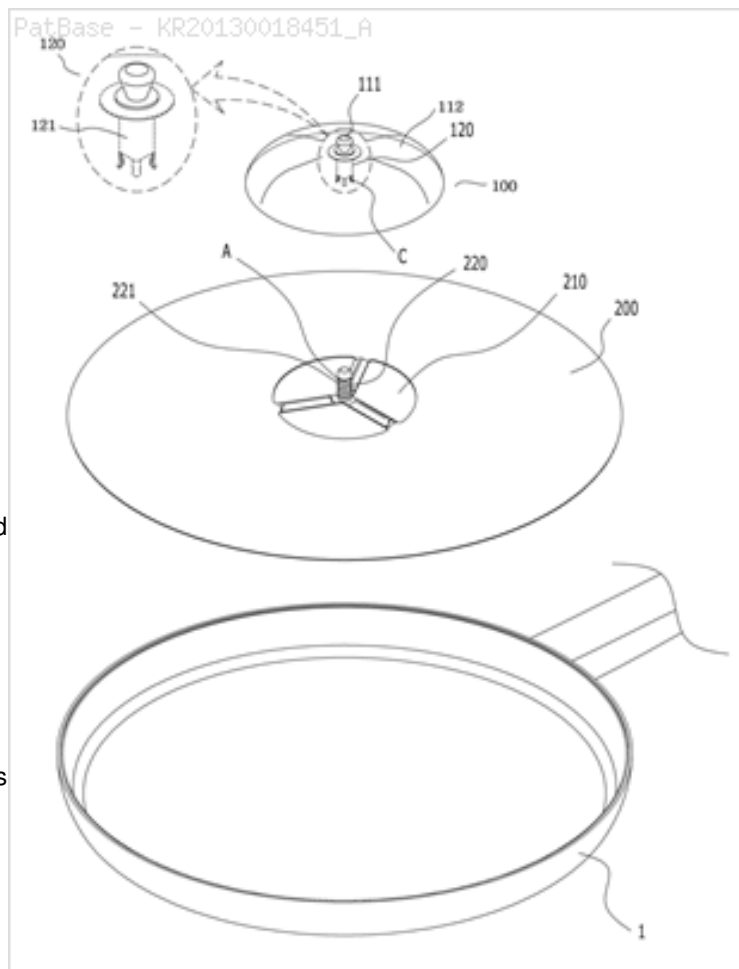
CPC: A47J37/101 A47J36/06 A47J36/38

[Classification Explorer](#)

Cited documents: KR20090008808 U,

Abstract:

Source: KR20130018451A PURPOSE: An oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. CONSTITUTION: An oil dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). In the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. An oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. The piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. The size of body is 1.5~2.5 times greater than the vapor outlet. In the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions.



0) KR20090008808U – POT LID (MACHINE TRANSLATION)

2) Family number: 43658830 (KR20090008808U)

© PatBase

Title: Pot lid (Machine translation)

Priority: KR20080002698U 20080227

Family:	Publication number	Publication date	Application number	Application date
	<u>KR20090008808 U</u>	20090901	KR20080002698U	20080227

International class (IPC 8-9): A47J27/092 A47J36/06 (Advanced/Invention);
A47J27/092 A47J36/06 (Advanced/Non-invention);
A47J27/08 A47J36/00 (Core/Invention)

CPC: A47J36/06 A47J27/092 A47J27/58 F16K17/00

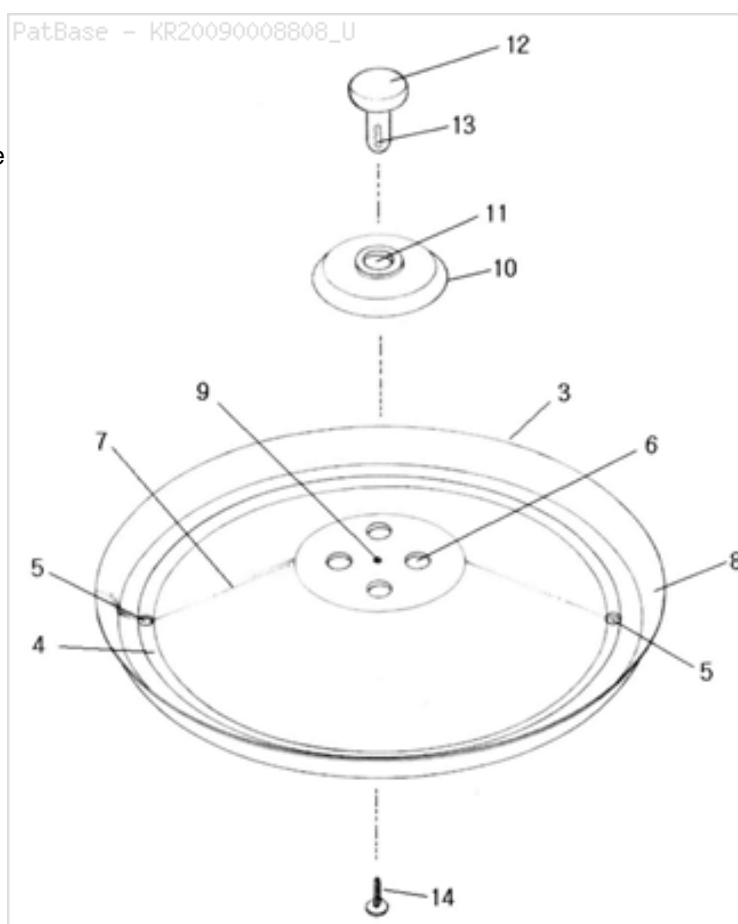
[Classification Explorer](#)

Forward Citations: KR101533070, KR101296259,

Abstract:

Source: KR20090008808U

Machine translation: Present invention the overflow preventing the pot lid on them as a pot lid in the center of the vapor discharge the ball to form a blood cooking water boiling occurs when the water vapor, and schedule pressure by the pressure flow plate opening so that the tanseol combined make a pot inside the food without overflowing the pot outside and inside of the pot to minimize the loss of heat and pressure cooking, and so was able to increase energy efficiency, water vapor also due to the user's facial jiksanghaneun up to avoid the risk of spills a pot lid that provides Its purpose is to: To this end, a pot lid (3) include a plurality of oebang inhalant (5) equipped with legionnaires receive soup (4) formation, and the pot lid (3) In the middle of the inhalant (5) greater than the vapor emissions Ball (6) is formed, naseonhom (13) and quite a handle (12) oil pressure, copper (10) Drilling (11) inserted into the pot and the lid (3) gyeolhapgong (9) Place the pot in the lid (3) of the substrate, the tightening nut (14) gyeolhapdoegehan wherein the pot lid. Copper oil pressure, geolrimteok



- List: SS2 1-50 (ft=fryer and cover and handle) (Results 212)

0) US2008237104A – FRYER DEVICE

1) Family number: 42227183 (US2008237104A)

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Title: FRYER DEVICE

Priority: AU20070350311 20070330 AU20100245993 20100505 AU20150200663 20150211
 EP20090733043 20090414 EP20070754706 20070330 AU20160238884 20161006
 US20070693143 20070329 US20080044733P 20080414 US20080193618 20080818
 US20080193615 20080818 US20090146859P 20090123 US20090175703P 20090505
 US20090243457P 20090917 EP20100718794 20100505 WO2007US08222 20070330
 WO2009US40451 20090414 US20100691064 20100121 US20090623868 20091123
 US20100782875 20100519 US20110030841 20110218 WO2010US33692 20100505
 US20110030792 20110218 US20110280177 20111024

Family:

Publication number	Publication date	Application number	Application date
AU2007350311 AA	20081009	AU20070350311	20070330
AU2009236378 AA	20091022	AU20090236378	20090414
AU2010245993 AA	20101111	AU20100245993	20100505
AU2015200663 AA	20150430	AU20150200663	20150211
AU2015200663 BB	20161103	AU20150200663	20150211
AU2016238884 AA	20161020	AU20160238884	20161006
CA2681981 AA	20081009	CA20072681981	20070330
CA2725782 AA	20091022	CA20092725782	20090414
CA2725782 C	20161115	CA20092725782	20090414
CA2797477 AA	20101111	CA20102797477	20100505
CN102625666 A	20120801	CN201080031076	20100505
DE602007042446 D1	20150917	DE200760042446T	20070330
DE602009016248 D1	20130725	DE200960016248T	20090414
DK2131706 T3	20151102	DK20070754706T	20070330
EP2131706 A1	20091216	EP20070754706	20070330
EP2131706 B1	20150805	EP20070754706	20070330
EP2288279 A1	20110302	EP20090733043	20090414
EP2288279 B1	20130605	EP20090733043	20090414
EP2427087 A2	20120314	EP20100718794	20100505
EP2449930 A2	20120509	EP20110009714	20100505
EP2449930 A3	20121017	EP20110009714	20100505
IN09411DN2011 A	20130125	IN2011DN09411	20111130
MX2009010460 A1	20100115	MX20090010460	20070330
MX2010011180 A1	20101221	MX20100011180	20090414
MX2011011783 A1	20120402	MX20110011783	20100505
US2008237104 AA	20081002	US20070693143	20070329
US2009044706 AA	20090219	US20080193618	20080818
US2010037782 AA	20100218	US20080193615	20080818
US2010206179 AA	20100819	US20100691064	20100121
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US2011061545 AA	20110317	US20100782875	20100519
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US2012017773 AA	20120126	US20110030792	20110218
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US8402885 BB	20130326	US20100691064	20100121
US8549993 BB	20131008	US20100782875	20100519

<u>WO08121111 A1</u>	20081009	WO2007US08222	20070330	
<u>WO09129209 A1</u>	20091022	WO2009US40451	20090414	
<u>WO10129651 A2</u>	20101111	WO2010US33692	20100505	
<u>WO10129651 A3</u>	20111110	WO2010US33692	20100505	
<u>WO12112839 A2</u>	20120823	WO2012US25565	20120217	
<u>WO12112839 A3</u>	20130110	WO2012US25565	20120217	

Probable Assignee: SPINFRY INC

Assignee(s):^(std): CALDERWOOD GARY ; CALDERWOOD SHAUN ; FOSTER PAUL LINCOLN ; SPINFRY INC ; MILLIKIN RORY C P ; THEIS THOMAS J ; THORNACK DEL MOFFAT ; MILLIKEN RORY C P ; THORNOCK DEL MOFFAT ; THORNOCK DEL MOFFATT

Assignee(s): MILLIKEN RORY CP ; SPINFRY INC LINCOLN ; MILLIKIN RORY CP ; MIDDLEBY CORP

Inventor(s):^(std): CALDERWOOD GARY ; CALDERWOOD SHAUN ; FOSTER PAUL LINCOLN ; THORNACK DEL MOFFAT ; THORNOCK DEL MOFFAT ; THORNOCK DEL MOFFATT ; THEIS THOMAS J ; MOFFAT THORNOCK DEL ; MILLIKEN RORY C P ; LINCOLN FOSTER PAUL ; MILLIKIN RORY C P

Inventor(s): MILLIKIN RORY CP ; FOSTER PAUL LINCOLN LINCOLN ; DEL MOFFAT THORNOCK ; MILLIKEN RORY CP ; RORY C P MILLIKIN ; PAUL LINCOLN FOSTER ; THORNOCK DEL MOFFAT CONCORD ; RORY CP MILLIKIN

Agent(s): BALDWIN INTELLECTUAL PROPERTY; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; MARKS AND CLERK LUXEMBOURG LLP; HARGREAVES TIMOTHY EDWARD; SNELL AND WILMER LLP MAIN; SNELL AND WILMER LLP; SNELL AND WILMER L L P; BOYD DAMON L; BARKER DAVID G; BOYD DAMON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A47J36/00 A47J36/38 A47J37/10 A47J37/12 F24C15/20 (Advanced/Invention);
(IPC 8-9). A47J36/00 A47J37/12 (Core/Invention)

CPC: A47J36/38 A47J37/1276 A47J36/00 A47J37/1204 A47J37/1257 A47J37/1266 A47J37/1223 A47J37/129 A47J37/1271 A47J43/24 A47J37/1219 A47J37/1295

European class: A47J36/00 A47J36/38 A47J37/12A A47J37/12C A47J37/12D A47J37/12H A47J37/12K A47J37/12L A47J37/12M A47J37/12M3 A47J37/12P K47J43/24

US class: 126/299.00EP 126/299E 210/167.28 99/325 99/336 99/336P 99/337 99/337P 99/355 99/355S 99/357 99/403 99/407 99/407P 99/409 99/409S 99/410 99/410P 99/410S 99/449 99/450 994/7

[Classification Explorer](#)

Cited documents: WO9739670 A1, WO9725910 A1, WO9619934 A1, WO9617541 A1, WO9423625 A1, WO08103056 A1, WO0191580 A1, USRE37706 E, USD462567 S1, US7681655 BB, US7387602 BA, US7154069 BA, US7018326 BB, US6834577 BB, US6772677 BB, US6732552 BB, US6705209 BB, US6322831 BA, US6196115 BA, US6186241 BA, US6173791 BA, US6112646 A, US6062132 A, US6009795 A, US5993872 A, US5988051 A, US5937741 A, US5782170 A, US5771781 A, US5650187 A, US5611265 A, US5586487 A, US5586486 A, US5543166 A, US5495795 A, US5490453 A, US5469778 A, US5403260 A, US5379684 A, US5351605 A, US5345068 A, US5301604 A, US5275090 A, US5249510 A, US5236135 A, US5223137 A, US5185168 A, US5182982 A, US5168797 A, US5165330 A, US5142968 A, US5129386 A, US5027697 A, US5018438 A, US5010805 A, US4873920 A, US4722267 A, US4719850 A, US4539898 A, US4508026 A, US4489647 A, US4426794 A, US4372980 A, US4294166 A, US4250803 A, US4215629 A, US4204464 A, US4196660 A, US4187770 A, US4155294 A, US4031820 A, US3908531 A, US3827985 A, US3827344 A, US3772499 A, US3690246 A, US3614924 A, US3525299 A, US3512473 A, US3380375 A, US3357685 A, US3279353 A, US3200737 A, US3078988 A, US3078786 A, US2858762 A, US2674938 A, US2628762 A, US2568792 A, US241631 A, US2186345 A, US2010037782 AA, US2009304878 AA, US2009044706 AA, US2009040451, US2008314261 AA, US2007163450 AA, US2006207438 AA, US2006016350 AA, US2005238770 AA, US2005011370 AA, US2004060456 AA, US2004055474 AA, US2004031396 AA, US2004007137 AA, US2003207009 AA, US2003192435 AA,

US2002088350 AA, US1759921 A, US1630787 A, US1316827 A, GB2295768 A1, GB1337547 A, GB1282713 A, FR2846218 A1, EP1248046 A2, EP1205591 A2,

DE102005052301 A1

Forward Citations: WO15198353, WO15173595, WO15112204, WO15065465, WO15006891, WO13074620, WO13025988, WO13016222, WO12112839, WO12112839, WO12040895, WO10129651, WO10129651, WO10096668, USD778687, USD695057, USD694058, US9538881, US9474410, US9380911, US9291377, US9167930, US9113743, US9021940, US8926837, US8875620, US8827101, US8726795, US8646382, US8618447, US8613969, US8584894, US8549993, US8522671, US8450655, US8402885, US8109201, US2014377417, US2014360535, US2014224132, US2014102493, US2013174747, US2013068112, US2013022719, US2012247451, US2012180673, US2011256285, US2011088564, US2011061545, US2011011278, US2011005403, US2010282095, US2010258109, US2010251902, US2010212511, US2010206179, US2010037782, US2009321333, KR101529014, JP2014521320, EP2449930, EP2398365, EP2353465, CN104825048, CN104257253, CN103713570, CN103702571, CN103690065, CN103070217, CN102499576, CN102355838,

Abstract:

Source: US2008237104A The present invention relates to a food fryer. The food fryer comprises a frying section where the food is fried in oil and an oil removal section where the oil content of the food is reduced. A basket located within the apparatus contains the food and is movable between the two sections. At least one motor is operable to remove oil content from the food and to move the basket between the two sections, and a controller communicates with the motor and other elements of the apparatus to facilitate the frying of the food. Exemplary embodiments of the invention provide methods for minimizing a cooling rate of the cooked food to prevent oil from gathering in the center of the cooked food and to increase the desirability of the cooked food. A cover that is sealably connected to the food frying apparatus aids in maintaining a temperature in the frying and oil removal environments that is higher than room temperature. A heating element in the oil removal section may also aid in maintaining a desirable temperature in the oil removal section. Systems for frying food according to embodiments of the invention comprise filtering systems, fire suppression systems, and/or ventilation systems. These systems may also comprise multiple food frying apparatuses.

PatBase - W012112839_A3

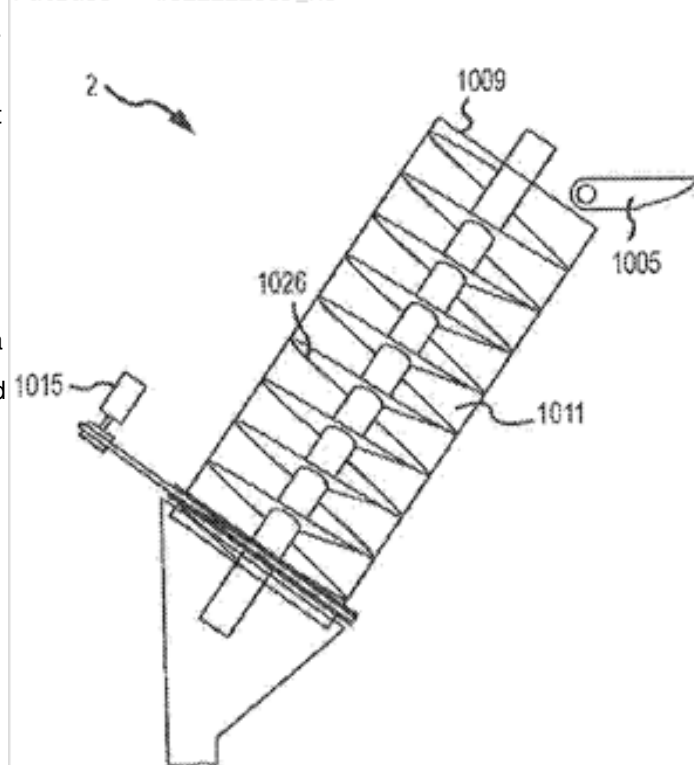


FIG. 40

0) US2007028780A – COOKING DEVICE TO DEEP FAT FRY FOODS

2) Family number: 34194809 (US2007028780A)

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Title: COOKING DEVICE TO DEEP FAT FRY FOODS

Priority: EP20060800998 20060808 EP20090820925 20090504 EP20110833471 20111014
 US20080251019 20081014 US20060539655 20061009 US20060345187 20060201
 US20050706859P 20050808 US20060425317 20060620 EP20140158428 20090504
 WO2006US30946 20060808 US20100775725 20100507 US20100856230 20100813
 WO2009US42676 20090504 US20100904803 20101014 US20110072391 20110325
 WO2011US35530 20110506 WO2011US56314 20111014 US20140253253 20140415

Family:	Publication number	Publication date	Application number	Application date
	<u>DE602006040539 D1</u>	20140417	DE200660040539T	20060808
	<u>DE602009035183 D1</u>	20160121	DE200960035183T	20090504
	<u>DE602011022351 D1</u>	20160218	DE201160022351T	20111014
	<u>EP1919335 A1</u>	20080514	EP20060800998	20060808
	<u>EP1919335 A4</u>	20100825	EP20060800998	20060808
	<u>EP1919335 B1</u>	20140305	EP20060800998	20060808
	<u>EP1919335 B9</u>	20140709	EP20060800998	20060808
	<u>EP2344014 A1</u>	20110720	EP20090820925	20090504
	<u>EP2344014 A4</u>	20130911	EP20090820925	20090504
	<u>EP2566348 A2</u>	20130313	EP20110721176	20110506
	<u>EP2627224 A2</u>	20130821	EP20110833471	20111014
	<u>EP2627224 A4</u>	20140521	EP20110833471	20111014
	<u>EP2627224 B1</u>	20151230	EP20110833471	20111014
	<u>EP2752141 A2</u>	20140709	EP20140158428	20090504
	<u>EP2752141 A3</u>	20141001	EP20140158428	20090504
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	<u>US2007028780 AA</u>	20070208	US20060345187	20060201
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	<u>US2007256571 AA</u>	20071108	US20060539655	20061009
	<u>US2009120303 AA</u>	20090514	US20080251019	20081014
	<u>US2010269712 AA</u>	20101028	US20100775725	20100507
	<u>US2010303973 AA</u>	20101202	US20100856230	20100813
	<u>US2011203570 AA</u>	20110825	US20100904803	20101014
	<u>US2012167778 AA</u>	20120705	US20110072391	20110325
	<u>US2014227411 AA</u>	20140814	US20140253253	20140415
	<u>US8186265 BB</u>	20120529	US20100775725	20100507
	<u>US8309151 BB</u>	20121113	US20100856230	20100813
	<u>US8707857 BB</u>	20140429	US20060425317	20060620
	<u>US8850965 BB</u>	20141007	US20080251019	20081014
	<u>WO07019534 A1</u>	20070215	WO2006US30946	20060808
	<u>WO10044909 A1</u>	20100422	WO2009US42676	20090504
	<u>WO11140447 A2</u>	20111110	WO2011US35530	20110506
	<u>WO11140447 A3</u>	20130321	WO2011US35530	20110506
	<u>WO12051508 A2</u>	20120419	WO2011US56314	20111014
	<u>WO12051508 A3</u>	20130801	WO2011US56314	20111014

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): A23L1/00 A23L1/01 A23L1/315 A23L13/50 A23L5/10 A47J27/00 A47J27/04 A47J36/00 A47J37/00 A47J37/07 A47J37/12 A47J43/18 (Advanced/Invention);
A23L1/00 A47J45/06 (Advanced/Non-invention);
A23L1/00 A47J37/00 A47J37/12 (Core/Invention);
A23L1/00 (Core/Non-invention)

CPC: A47J36/10 A47J37/1261 A47J37/1266 A47J37/129 A47J43/18 A23L5/11 A23L13/57 A47J37/1209 A47J37/1219

European class: A23L1/01B A47J36/10 A47J37/12A1 A47J37/12C A47J37/12H2 A47J37/12K A47J37/12M3

US class: 126/20 126/20S 126/369 219/401 219/401S 220/573.1 294/61 426/233 426/233P 426/302 426/438 426/438S 426/509 426/509S 426/523 99/330 99/336 99/339 99/339P 99/340 99/350 99/355 99/356 99/403 99/403P 99/403S 99/407 99/407P 99/408 99/409 99/410 99/411 99/412 99/413 99/414 99/415 99/419 99/427 99/444 99/449 99/449S

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Cited documents: WO10044909 A1, WO03009730 A1, USRE37955 E, USRE3795 E, USRE36147 E, USD696058 S1, USD694058 S1, USD686018 S1, USD576454 S1, USD57645 S1, USD563719 S1, USD56371 S1, USD560424 S1, USD56042 S1, USD553432 S1, USD55343 S1, USD552921 S1, USD55292 S1, USD535164 S1, USD53516 S1, USD506068 S1, USD503068 S1, USD489223 S1, USD486689 S1, USD462567 S1, USD427481 S1, USD418366 S1, USD415937 S1, USD41593 S1, USD413225 S1, USD388665 S1, USD38866 S1, USD226940 S1, USD193754 S1, USD19375 S1, US975843 A, US959715 A, US951241 A, US940557 A, US92791 A, US9220371 BA, US91899 A, US910812 A, US900398 A, US900396 A, US899244 A, US895856 A, US875972 A, US859717 A, US8535088 BB, US8497753 BB, US8435042 BB, US8348678 BB, US8309151 BB, US8186265 BB, US8177560 BB, US812546 A, US8109201 BB, US8087939 BB, US8067716 BA, US7997906 BB, US7981459 BB, US7931472 BB, US7901216 BB, US78588 A, US7771202 BB, US7762817 BB, US7739948 BB, US7736151 BA, US7645143 BB, US7641477 BB, US7640848 BA, US7626142 BB, US7517235 BB, US7500427 BB, US7464640 BB, US7442042 BA, US7424849 BB, US7412922 BB, US73692 A, US7351066 BB, US7322386 BB, US7311526 BB, US7309422 BB, US7302976 BA, US7284581 BB, US7240701 BB, US7237583 BB, US7237582 BA, US7237476 BA, US7229656 BB, US7225730 BB, US7225729 BB, US7211770 BB, US7153120 BB, US7142922 BB, US7141764 BA, US7138609 BB, US7114536 BB, US7090269 BB, US7086155 BB, US7074046 BB, US7065883 BB, US7053338 BA, US7044049 BB, US7036425 BB, US703331 A, US702525 A, US7021204 BB, US7021203 BB, US7019271 BB, US7015429 BB, US7013934 BA, US7012271 BB, US6998581 BB, US6998561 BB, US6998481 BB, US6998445 BB, US6988445 BA, US6976882 BB, US6976420 BA, US6965095 BA, US6962106 BB, US6955118 BA, US6941857 BB, US6935389 BA, US6921480 BB, US690415 A, US6900415 BA, US6874408 BB, US6868776 BB, US6867139 BB, US6865983 BB, US6851351 BB, US6845707 BA, US6841857 BB, US6840161 BB, US6840159 BA, US6837150 BB, US6834578 BA, US6834577 BB, US6831185 BB, US6823772 BB, US6820540 BA,

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US6173645 B1, US6170390 BA, US6170390 B1, US6167799 BA, US6167799 B1,
US6162481 A, US616095 A, US6152198 A, US6152022 A, US6142193 A, US6142064 A,
US6138552 A, US6131564 A, US6125738 A, US6119739 A, US6116299 A, US6112646
A, US6103291 A, US6095037 A, US6092547 A, US6085640 A, US6082249 A,
US6079319 A, US6077555 A, US6058830 A, US6055901 A, US6035907 A, US6035767
A, US6029566 A, US6009795 A, US6006658 A, US6002111 A, US5997938 A,
US5996477 A, US5996474 A, US5994672 A, US5993872 A, US5988048 A, US5988046
A, US5979516 A, US5974955 A, US5974953 A, US5973297 A, US5971690 A,
US5970853 A, US5970852 A, US5950697 A, US5947016 A, US5945024 A, US5941407
A, US5937741 A, US5931081 A, US5927353 A, US5927181 A, US5920916 A,
US5918535 A, US5902618 A, US5899246 A, US5896810 A, US5887509 A, US5882116
A, US5857504 A, US5836238 A, US5826494 A, US5816139 A, US5813321 A,
US5809870 A, US5794522 A, US5787944 A, US5782170 A, US5782165 A, US5782164
A, US5776530 A, US5771781 A, US5770252 A, US5762120 A, US5758569 A,
US5746217 A, US5746117 A, US5731012 A, US572595 A, US5722289 A, US5720991 A,
US571929 A, US5718934 A, US5718220 A, US571686 A, US5699722 A, US568914 A,
US568353 A, US5655580 A, US5651905 A, US565016 A, US5638873 A, US5632197 A,
US5629039 A, US5617777 A, US5611265 A, US5609093 A, US5607004 A, US5605091
A, US559588 A, US558816 A, US5586486 A, US5584235 A, US5584234 A, US5582093
A, US5573292 A, US5568765 A, US5560284 A, US5555793 A, US5553531 A,
US5543166 A, US5542347 A, US5535793 A, US5535665 A, US5524527 A, US5517902
A, US5515990 A, US5515892 A, US5513558 A, US5490453 A, US5469778 A,
US5465651 A, US5463943 A, US5458168 A, US5452648 A, US5445073 A, US5431092
A, US5429039 A, US5421713 A, US5421249 A, US5402712 A, US5400700 A,
US5385180 A, US5379684 A, US5375512 A, US5373781 A, US536986 A, US5363749 A,
US5359924 A, US5355776 A, US5333539 A, US5324185 A, US5313876 A, US5305686
A, US5301604 A, US5287798 A, US5277233 A, US5275094 A, US5275090 A,
US5271317 A, US5253566 A, US5247876 A, US5245902 A, US5238138 A, US5235904
A, US5232151 A, US5230279 A, US5221962 A, US5209218 A, US5200224 A,
US5197736 A, US5195145 A, US5193524 A, US5189946 A, US5182981 A, US5172328
A, US5170696 A, US5168908 A, US5168797 A, US5166886 A, US5165329 A,
US5165328 A, US5148655 A, US5142973 A, US5140711 A, US5134956 A, US5133788
A, US5106642 A, US5097753 A, US5097752 A, US5090305 A, US5078189 A,
US5074199 A, US506068 A, US5052369 A, US5038676 A, US5033453 A, US5033162 A,
US503068 A, US5030027 A, US5029519 A, US5027697 A, US502622 A, US5022773 A,
US5017143 A, US5010805 A, US5010740 A, US499615 A, US4995312 A, US498992 A,
US4968516 A, US4959144 A, US4957039 A, US4955271 A, US4951558 A, US4948106
A, US4945893 A, US4930408 A, US4913042 A, US4913041 A, US4911068 A,
US4901633 A, US4898151 A, US4898091 A, US4896707 A, US489223 A, US4873920 A,
US486689 A, US4858592 A, US4854299 A, US4854227 A, US4852471 A, US4852256 A,
US4850403 A, US4840287 A, US4838244 A, US4832226 A, US4832095 A, US4823848
A, US4817509 A, US4807862 A, US4804026 A, US4798939 A, US4789017 A,
US4787301 A, US4785725 A, US4773316 A, US475874 A, US475840 A, US4754698 A,
US474120 A, US474036 A, US4739698 A, US4738246 A, US4732081 A, US4719850 A,
US4713522 A, US4706719 A, US4704290 A, US4702160 A, US4698861 A, US4694742
A, US4691096 A, US4688549 A, US4688475 A, US4685386 A, US4668390 A,
US4658117 A, US462567 A, US4623544 A, US4617452 A, US4616625 A, US4604989 A,
US4602612 A, US4593170 A, US4580549 A, US4580024 A, US4574776 A, US4573384
A, US4571473 A, US4569280 A, US4557378 A, US4542685 A, US4542684 A,
US4535931 A, US4510361 A, US4509412 A, US4508027 A, US4508026 A, US4505193

A, US4491602 A, US4489646 A, US4485831 A, US4478140 A, US4468556 A, US4462308 A, US4436025 A, US442431 A, US4420006 A, US4401017 A, US4399743 A, US4397879 A, US4397299 A, US4385911 A, US4371623 A, US4339326 A, US4332992 A, US4331691 A, US4331251 A, US4317017 A, US427481 A, US4266813 A, US4256154 A, US4250803 A, US4238997 A, US4230238 A, US4211909 A, US4205803 A, US4203357 A, US4202386 A, US4189993 A, US418366 A, US4170252 A, US4164174 A, US4157707 A, US4143690 A, US4143680 A, US4140160 A, US4140049 A, US413225 A, US4127060 A, US4114013 A, US4108222 A, US4106486 A, US4103604 A, US4095518 A, US4091252 A, US4081647 A, US4062387 A, US4062260 A, US4059046 A, US4041852 A, US4028520 A, US4013861 A, US3998144 A, US3975997 A, US3975070 A, US3971307 A, US3971304 A, US3964628 A, US3939884 A, US3933645 A, US3885519 A, US3874429 A, US3869972 A, US3869792 A, US3853044 A, US3845702 A, US3842725 A, US3830151 A, US3821925 A, US3816703 A, US3808963 A, US3801331 A, US3800692 A, US3800649 A, US3800648 A, US3789822 A, US3789178 A, US3767884 A, US3739743 A, US3737621 A, US3735726 A, US3731038 A, US3718485 A, US3714889 A, US3713378 A, US3696778 A, US3690246 A, US3688683 A, US3667374 A, US3641923 A, US3626840 A, US3618587 A, US3613553 A, US3604340 A, US3561511 A, US3554253 A, US3547075 A, US3489267 A, US3484252 A, US3483815 A, US3469561 A, US3468355 A, US3463077 A, US3438353 A, US3434410 A, US3404659 A, US3396656 A, US3394677 A, US3375476 A, US3364845 A, US3354546 A, US3327621 A, US3283730 A, US3279353 A, US3234905 A, US3225735 A, US3225681 A, US3217633 A, US3216474 A, US3211195 A, US3201015 A, US3194662 A, US3145743 A, US3128810 A, US3127494 A, US3116770 A, US3112781 A, US3107601 A, US3095326 A, US309249 A, US3078785 A, US3065326 A, US3063843 A, US3026790 A, US300691 A, US2997566 A, US2926595 A, US2915000 A, US2906850 A, US2902062 A, US2899889 A, US2897776 A, US2855893 A, US2836212 A, US2835191 A, US2811181 A, US2805314 A, US2786502 A, US2785277 A, US2769878 A, US2751120 A, US2742850 A, US274208 A, US2740349 A, US2735357 A, US2716939 A, US2714070 A, US2703670 A, US2703522 A, US2658444 A, US2645262 A, US2625972 A, US2622187 A, US2620790 A, US2597695 A, US2588614 A, US2577433 A, US2576688 A, US2568792 A, US2563237 A, US2560229 A, US2543052 A, US2524900 A, US2517759 A, US2509533 A, US2468987 A, US2367448 A, US2342067 A, US2315473 A, US2302138 A, US2287396 A, US2269689 A, US2250910 A, US2247650 A, US2215929 A, US2196968 A, US217378 A, US213244 A, US2127749 A, US2112990 A, US211076 A, US2089158 A, US2081751 A, US2061533 A, US2032175 A, US2027146 A, US2009120303 AA, US2008265594 AA, US2008210100 AA, US2008202349 AA, US2008196596 AA, US2008169281 AA, US2008159281 AA, US2008153281 AA, US2008124438 AA, US2008102181 AA, US2008041238 AA, US2007256571 AA, US2007251517 AA, US2007221651 AA, US2007145061 AA, US2007054018 AA, US2007040559 AA, US2007028781 AA, US2007028780 AA, US2006283335 AA, US2006272633 AA, US2006272514 AA, US2006266227 AA, US2006219099 AA, US2006182862 AA, US2006091137 AA, US2005289443 AA, US2005284306 AA, US2005283335 AA, US2005276892 AA, US2005272513 AA, US2005269332 AA, US2005268792 AA, US2005268791 AA, US2005266228 AA, US2005259309 AA, US2005252504 AA, US2005247454 AA, US2005241492 AA, US2005235838 AA, US2005229791 AA, US2005229789 AA, US2005229760 AA, US2005217662 AA, US2005217494 AA, US2005207438 AA, US2005204929 AA, US2005194372 AA, US2005172949 AA, US2005151464 AA, US2005144250 AA, US2005144248 AA, US2005121020 AA, US2005115556 AA, US2005091050 AA, US2005072315 AA, US2005072309 AA, US2005061159 AA, US2005056157 AA, US2005055533 AA, US2005055130 AA, US2005051035 AA, US2005051034 AA, US2005034611 AA, US2004260018 AA, US2004237801 AA, US2004187702 AA, US2004112225 AA, US2004103795 AA, US2004069149 AA, US2004049961 AA, US2003226452 AA, US2003222112 AA, US2003205569 AA, US2003196940 AA, US2003179653 AA, US2003167932 AA, US2003132259 AA, US2003110954 AA, US2003029323 AA, US2003005828 AA, US2003003209 AA, US2002139365 AA, US2002092803 AA, US2002069767 AA, US2002050212 AA, US2002040644 AA, US2002017201 AA, US193486 A, US1909983 A, US1881549 A, US1842101 A, US1789428 A, US1733261 A, US1662147 A, US1638446 A, US1635563 A, US1599805 A, US1577856 A, US1563005 A, US1538171 A, US1487824 A, US1478939 A, US1469512 A, US1462275 A, US1461654 A, US1460639 A, US1445788 A, US1430691 A, US1396606 A, US1375028 A, US1371718 A, US1368640 A, US1339625 A, US1315665 A, US1302086 A, US1272222 A, US1264348 A, US1263151 A, US1260794 A, US1255014 A, US1228108 A, US1214992 A, US1205026 A, US1199211 A, US1189498 A, US1117277 A, US1012877 A, JP9037966 A2, JP2310425 A2, GB668613 A, FR921942 A, FR2786082 A1, EP0513817 A2, DE29512940 U1, DE29512940 U, CH285439 A, CH240760 A,

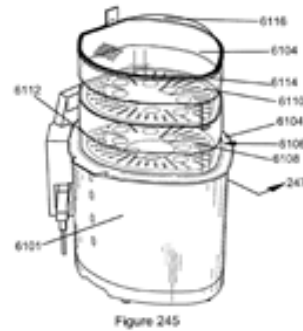
Forward Citations: WO16092445, WO15176973, WO13148622, WO12051508, WO11140447, WO11140447, WO11129875, WO10044909, USD676705, USD551897, US9545175, US9486101, US9169067, US9161650, US9060638, US9049966, US9003960, US8943953, US8875620, US8869686, US8850965, US8807022, US8721164, US8707857, US8702300, US8648282, US8642930, US8424449, US8381637, US8309151,

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Abstract:

Source: US2007028780A A cooking device include an outer housing and a cooking cavity disposed within and separate from the outer housing. The cooking cavity accommodates a volume of cooking liquid therein. The device includes a heater positioned adjacent the cooking cavity to heat the cooking liquid. A lid is movably attached to the device and is used to form a seal with the cooking cavity. The lid includes a transparent portion positioned along a top surface to enable viewing inside of the cooking cavity. A controller can be used to heat the cooking fluid for an amount of time designated by user input. A moving mechanism can be used to move a food article into and out of the cooking liquid. The moving mechanism can be automated. The device can include a drainage system for removing the cooking liquid.

PatBase - W012051508_A2



0) US2004103795A – COOKING APPARATUS

3) Family number: 30615954 (US2004103795A)

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Title: COOKING APPARATUS

Priority: US20020402912P 20020814 US20030640691 20030814 US20030640691F 20030814
US20040219017F 20041213 US20050229943F 20050516 US20040020027 20041223
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US20090336908F 20090512 US20110155666 20110608 WO2004US26382 20040813

Family:

Publication number	Publication date	Application number	Application date
CA2535012 AA	20060202	CA20042535012	20040813
CA2535012 C	20150616	CA20042535012	20040813
CN101119664 A	20080206	CN200480029879	20040813
CN101119664 B	20140702	CN200480029879	20040813
US2004103795 AA	20040603	US20030640691	20030814
US2005034611 AA	20050217	US20040917418	20040813
US2005276892 AA	20051215	US20050141194	20050601
US2006137543 AA	20060629	US20040020027	20041223
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US2012009317 AA	20120112	US20110155666	20110608
US6941857 BB	20050913	US20030640691	20030814
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US7426885 BB	20080923	US20040020027	20041223
US7703389 BB	20100427	US20060415415	20060502
US7981459 BB	20110719	US20050141194	20050601
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USD560424 S1	20080129	US20050229943F	20050516
USD616243 S1	20100525	US20090336908F	20090512
WO05016091 A1	20050224	WO2004US26382	20040813

Probable Assignee: MASTERBUILT MFG INC

Assignee(s):^(std): MASTERBUILT MFG INC ; MCLEMORE JOHN D ; MCLEMORE JOHN ; MCLEMORE DON

Assignee(s): WELLS FARGO BANK NATIONAL ASSOCIATION ; MCLEMORE JOHN DARIN ; MCLEMORE DON CALVIN ; MASTERBUILT MFG LLC ; FIFTH THIRD BANK AGENT AS ; MASTERBUILT MANUFACTURING INC

Inventor(s):^(std): MCLEMORE DON ; MCLEMORE JOHN D

Inventor(s): MCLEMORE JOHN

Agent(s): GOWLING LAFLEUR HENDERSON LLP; DEETH WILLIAMS WALL LLP; SMITH GAMBRELL AND RUSSELL LLP; SMITH GAMBRELL AND RUSSELL LLP, ATTORNEYS AT LAW; SMITH GAMBRELL AND RUSSELL LLP ATTORNEYS AT LAW; SMITH GAMBRELL AND RUSSELL

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class [A23B4/044](#) [A23L1/01](#) [A23L1/315](#) [A23L13/50](#) [A23L5/10](#) [A47J27/00](#) [A47J37/07](#) [A47J37/12](#)
(IPC 8-9): [A47J39/00](#) (Advanced/Invention);
[G01K1/08](#) (Advanced/Non-invention);

A23B4/044 A23L1/01 A47J37/07 A47J37/12 A47J39/00 (Core/Invention)

International class
(IPC 1-7):

A47J27/00 A47J37/12

CPC:

A47J37/1209 A47J37/1266 A47J37/1295 A23B4/052

European class:

A23B4/052 A47J37/12A1 A47J37/12K A47J37/12P

US class:

126/59.5 340/501 340/584 340/585 340/588 340/870.01 340/870.04 340/870.09
340/870.17 374/141 374/149 374/150 374/155 374/179 426/314 426/314S 426/438
426/438P 426/523 426/523P 426/523S 426/644 70/200 99/33 99/330 99/330S 99/339
99/340 99/342 99/343 99/344 99/403 99/403P 99/403S 99/407 99/410 99/412 99/413
99/413P 99/413S 99/414 99/415 99/418 99/418S 99/448 99/448P 99/467 99/482 99/482P
99/4130 D7/332 D7/354 D7/355 D7/360

Locarno class:

07/02

[Classification Explorer](#)

Cited documents:

WO05016091 A1, USD586608 S1, USD560424 S1, USD516374 S1, USD493328 S1, USD486351 S1, USD464526 S1, USD458507 S1, USD455040 S1, USD450528 S1, USD444666 S1, USD431150 S1, USD431149 S1, USD424366 S1, USD419824 S1, USD418361 S1, USD416434 S1, USD416166 S1, USD395980 S1, USD386646 S1, USD382767 S1, USD378647 S1, USD374791 S1, USD369505 S1, USD369270 S1, USD368621 S1, USD365723 S1, USD345281 S1, USD341056 S1, USD339957 S1, USD338132 S1, USD323762 S1, USD313530 S1, USD280064 S1, USD267769 S1, USD249924 S1, USD242947 S1, USD131468 S1, US7981459 BB, US7703452 BB, US7703389 BB, US7426885 BB, US7412922 BB, US7157668 BB, US7100497 BB, US6967900 BB, US6945160 BB, US6941857 BB, US6868777 BA, US6818869 BB, US6811308 BB, US6803065 BA, US6730890 BB, US6712505 BB, US6711992 BA, US6708604 BA, US6701829 BB, US6595197 BA, US6568848 BA, US6539842 BA, US6532865 BA, US652531 A, US6515262 BA, US6501384 BB, US6499390 BA, US6498326 BA, US6498323 BA, US6495808 BA, US6483990 BA, US6481344 BA, US6470794 BB, US6470794 B1, US6446545 BB, US6446545 B1, US6446397 BA, US6443051 BA, US6430879 BA, US6412401 BA, US6378420 BA, US6320166 BA, US6314869 BA, US6289793 BA, US6269737 BA, US6262398 BA, US6240835 BA, US6223737 BA, US6213116 BA, US6209533 BA, US6155465 A, US6138552 A, US6131564 A, US6102028 A, US6095132 A, US6085641 A, US6080972 A, US6058830 A, US6053207 A, US6035770 A, US6009794 A, US6006658 A, US6002111 A, US5983882 A, US5973297 A, US5970852 A, US5947007 A, US5931081 A, US5927181 A, US5918535 A, US5910209 A, US5896810 A, US5891498 A, US5832810 A, US5823097 A, US5813321 A, US5809870 A, US5794522 A, US5782164 A, US5776530 A, US5758569 A, US5731024 A, US5719934 A, US5718934 A, US5718165 A, US5713267 A, US5682809 A, US5651905 A, US5642660 A, US5617777 A, US5613423 A, US5590583 A, US5588352 A, US5577438 A, US5524528 A, US5429110 A, US5429039 A, US5400700 A, US5379684 A, US5365830 A, US5247876 A, US5243963 A, US5199926 A, US5172328 A, US5169223 A, US5167183 A, US5156195 A, US5138939 A, US5133266 A, US5078049 A, US5070776 A, US5045672 A, US4968516 A, US4951558 A, US4911068 A, US4866809 A, US4823684 A, US4798939 A, US4771906 A, US4770157 A, US4757755 A, US4721037 A, US4716411 A, US4697506 A, US4691096 A, US4686958 A, US464526 A, US4643162 A, US4626662 A, US458507 A, US4574183 A, US4572062 A, US4509868 A, US4503320 A, US4495860 A, US4489235 A, US4483255 A, US4475024 A, US4471748 A, US444666 A, US4422441 A, US4377733 A, US4374489 A, US4355570 A, US4347833 A, US4342259 A, US4325294 A, US4324173 A, US4321857 A, US431150 A, US4309938 A, US4258692 A, US424366 A, US4020322 A, US3973481 A, US3964637 A, US3938498 A, US3938494 A, US3908531 A, US3908111 A, US3849309 A, US3839951 A, US3801331 A, US3797563 A, US3797378 A, US3789824 A, US378647 A, US3776127 A, US3759164 A, US3722498 A, US3714889 A, US365723 A, US3539095 A, US3512473 A, US3508485 A, US3447530 A, US3229846 A, US3194662 A, US2902582 A, US2868112 A, US2851576 A, US2848894 A, US2842043 A, US2833201 A, US2785277 A, US2756321 A, US2711474 A, US2695947 A, US2614718 A, US2597695 A, US2471260 A, US2344893 A, US2273561 A, US2250729 A, US2215929 A, US2191270 A, US2080786 A, US2032175 A, US2026387 A, US2010071564 AA, US2009078127 AA, US2006137543 AA, US2005157775 AA, US2005155975 AA, US2005034611 AA, US2004103795 AA, US2004034611 AA, US2003110954 AA, US2003103795 AA, US2003003209 AA, US2002092427 AA, US2002069767 AA, US2002017201 AA, US1994909 A, US1763126 A, US1622587 A, US1534867 A, US1444647 A, US1272222 A, US1232360 A, JP62062130 A2, EP0432370 A1, EP0143885 A1, DE3437398 A1, DE3221433 A1, DE3150455 A1, DE3143863 A1, CN2051080,

Forward Citations:

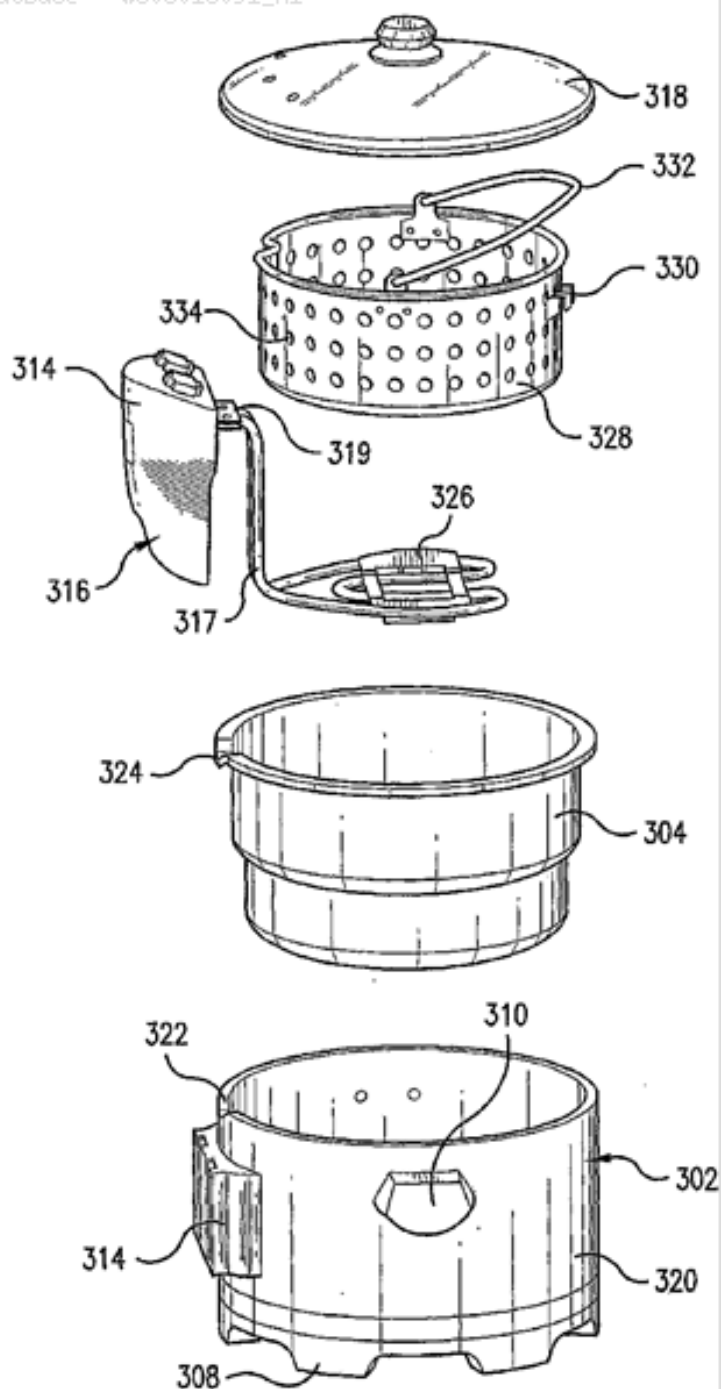
WO16200678, WO16077284, WO15138985, WO14178025, WO14095659, WO13185457, WO13063363, WO08138036, WO07146619, USD766748, USD766747, USD761673, USD761672, USD761136, USD761135, USD761134, USD755012, USD744875,

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US8006687, US7981459, US7934494, US7726234, US7703389, US7412922,
US7316180, US7211770, US7078657, US2016223205, US2016206152, US2016031106,
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US2008277558, US2008257168, US2008169281, US2007286017, US2007256571,
US2007108217, US2007028781, US2007028780, US2007012198, US2006289443,
US2006254432, US2006201336, US2006151464, US2005258163, US2005232075,
US2005034611, GB2528211, GB2462038, GB2462038, GB2414165, GB2414165,
EP3121573, EP2116829, EP1919335, CN105433752, CN105307546, CN104771056,
CN104379036,

Abstract:

Source: US2004103795A A domestic fryer assembly and method of using which includes interconnected shell and cooking pot with the shell having an interior cavity receiving the cooking pot. A heating unit as in a resistance bar heater unit is supported by the combination shell and cooking pot and extends down into the cooking pot and features a generally horizontal portion suspended above the cooking pot bottom and preferably having a configuration of a horse-shoe with outer curved sides that generally follow the curvature of the supporting pot. The cooking pot is designed to hold sufficient cooking fluid to provide for deep frying relatively large single item food pieces as in a whole turkey of, for example, 8 to 18 pounds. The food item is preferably retained in a cooking basket that is dimensioned for insertion into the cooking pot. The cooking pot also preferably includes one or more volume reduction step-ins such as a bottom or lower one for doubling as a cooking basket support and/or an upper annular ledge step-in in the pot.

PatBase - W005016091_A1



0) US2013152800A – FRYER WITH PERFORATED COVER

4) Family number: 50641120 (US2013152800A)

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Title: FRYER WITH PERFORATED COVER

Priority: EP20110767787 20110809 IT2010RM00449 20100811 WO2011IT00293 20110809

Family:

Publication number	Publication date	Application number	Application date
AP201306755 A0	20130331	AP20130006755	20110809
AP3502 A	20151231	AP20130006755	20110809
AU2011288140 AA	20120216	AU20110288140	20110809
CA2813164 AA	20130328	CA20112813164	20110809
CN103209624 A	20130717	CN201180047222	20110809
CN103209624 B	20160504	CN201180047222	20110809
DE602011016132 D1	20150611	DE201160016132T	20110809
EA024318 B1	20160930	EA20130000221	20110809
EA201300221 A1	20130830	EA20130000221	20110809
EP2603125 A1	20130619	EP20110767787	20110809
EP2603125 B1	20150429	EP20110767787	20110809
ES2543753 T3	20150821	ES20110767787T	20110809
IL224607 A0	20130324	IL20110224607	20110809
IT1401594 B1	20130726	IT2010RM00449	20100811
ITRM20100449 A1	20120212	IT2010RM00449	20100811
JP2013533089 T2	20130822	JP20130523701T	20110809
JP5946098 B2	20160705	JP20130523701T	20110809
KR20130108291 A	20131002	KR20137006229	20110809
MX2013001667 A1	20130829	MX20130001667	20110809
NZ608013 A	20141224	NZ20110608013	20110809
SG187772 A1	20130328	SG20130009618	20110809
US2013152800 AA	20130620	US20130762777	20130208
US9226616 BB	20160105	US20130762777	20130208
WO12020442 A1	20120216	WO2011IT00293	20110809
ZA201301834 A	20140528	ZA20130001834	20130311

Probable Assignee: BY ME SRL

Assignee(s):^(std): BY ME S R L ; BY ME SLR ; BY ME SRL ; FERRARI LUCIANO ; OPINION LEADERS S R L

Assignee(s): OPINION LEADERS SRL

Inventor(s):^(std): FERRARI LUCIANO ; RERRARI LUCIANO

Inventor(s): LUCIANO FERRARI

Agent(s): FREEHILLS PATENT ATTORNEYS; FPA PATENT ATTORNEYS PTY LTD; RIDOUT AND MAYBEE LLP; IANNONE CARLO LUIGI; DE ELZABURU ALBERTO; KITA AOYAMA INT PATENT BUREAU; HERSHKOVITZ AND ASSOCIATES PLLC; ABRAHAM; BANCHETTI MARINA ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
^(IPC 8-9): [A47J A47J36/38 A47J37/12](#) (Advanced/Invention);
[A47J](#) (Subclass/Invention)

CPC: A47J37/128 A47J37/1204 A47J36/38 A47J37/1266

European class: A47J36/38 A47J37/12K A47J37/12M1

US class: 1/1 99/403

[Classification Explorer](#)

Cited documents: WO201086892, WO10086892 A1, US7098427 BB, US6125842 A, US5816139 A, US4724825 A, US4482077 A, US4091956 A, US2010000418 AA, US04091956, JP63107626 U, JP63107626 U, JP2007535358 T2, JP2007535358, JP1018682 Y1, JP10018682 Y1, ITRM20090046, IT1392954 B1, CN201279079 Y, CN201018671 Y,

Forward Citations: WO14195985, ITRM20130321,

Abstract:

Source: US2013152800A The present invention relates to a fryer (10) provided with a containing structure (11) inside which at least a frying basin (15) is present, which is filled with oil up to a preset maximum level, each frying basin (15) being provided with at least one drum (17) for containing the food to be fried, the fryer (10) further being provided with a perforated lid (20) comprising pass through holes (25, 27) for the passage of vapour and gas going upwards and of condensed vapour going downwards and means for cooling (21, 22, 23) and condensing vapour passing through said holes, and support means (16) of said vapour cooling means (21, 22, 23), characterised in that it further comprises means for adjusting the vapour flow (28).

PatBase - W012020442_A1

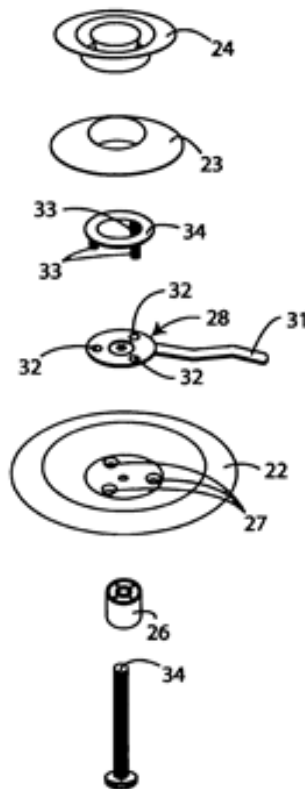


Fig. 6

0) US3610133A – APPARATUS FOR COOKING CHICKEN

5) Family number: 17916773 (US3610133A)

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Title: APPARATUS FOR COOKING CHICKEN
Priority: US19690824430 19690514 US19700024517 19700401 US19720272180 19720717
Family:

Publication number	Publication date	Application number	Application date
AU197014807 A1	19711118	AU19700014807	19700508
BE750352 A1	19701016	BE19700750352	19700513
CA918943 A1	19730116	CA19700082553	19700512
CA973754 A1	19750902	CA19710105723	19710218
DE2022337 A1	19701119	DE19702022337	19700506
DE7017113 U	19720518	DE19700017113U	19700506
FR2042635 A1	19710212	FR19700017483	19700513
GB1271161 A	19720419	GB19700023099	19700513
GB1271162 A	19720419	GB19710030748	19700513
IT1032010 A	19790530	IT19710049124	19710317
IT983069 A	19741031	IT19700050651	19700513
JP51018508 B4	19760610	JP19700041285	19700514
NL7007027 A	19701117	NL19700007027	19700514
US3610133 A	19711005	US19690824430	19690514
US3845702 A	19741105	US19720272180	19720717

Probable Assignee: MIES PRODUCTS INC

Assignee(s):^(std): MIES FILTER PROD INC ; MIES FILTER PRODUCTS INC ; NIES FILTER PRODUCTS INC

Assignee(s): MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LOUISVILLE KENTUCKY 40204 E U A ; WINSTON L SHELTON ; MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LO ; MIES PRODUCTS INC ; MIES FILTER PROD INC US ; MIES FILTER PRODUCTS ; CARL P MIES JR ; MIES CARL P

Inventor(s):^(std): MIES C ; MIES C P ; MIES CARL P ; MIES CARL P JR ; SHELTON W L ; SHELTON WINSTON L ; L SHELTON WINSTON ; P MIES CARL

Inventor(s): MIES C US ; CARL P MIES ; CP MIES ; CARL P MIES JR ; C P MIES ; WL SHELTON ; WINSTON L SHELTON ; W L SHELTON

International class
^{(IPC 8-9):} [A23L1/31](#) [A23L1/315](#) [A23L13/50](#) [A47J27/08](#) [A47J37/12](#) ^{(Advanced/Invention):}
[A23L1/31](#) [A23L1/315](#) [A47J27/08](#) [A47J37/12](#) ^{(Core/Invention):}
[A22C](#) ^(Subclass/Invention)

International class
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CPC: [Y10S210/08](#) [A47J27/0817](#) [Y10T137/86397](#)

European class: [A47J27/08R](#)

US class: [137/624.12](#) [210/162](#) [210/489](#) [210/DIG.8](#) [220/324](#) [392/459](#) [99/337](#) [99/342](#) [99/408](#) [99/410](#) [993/370](#)

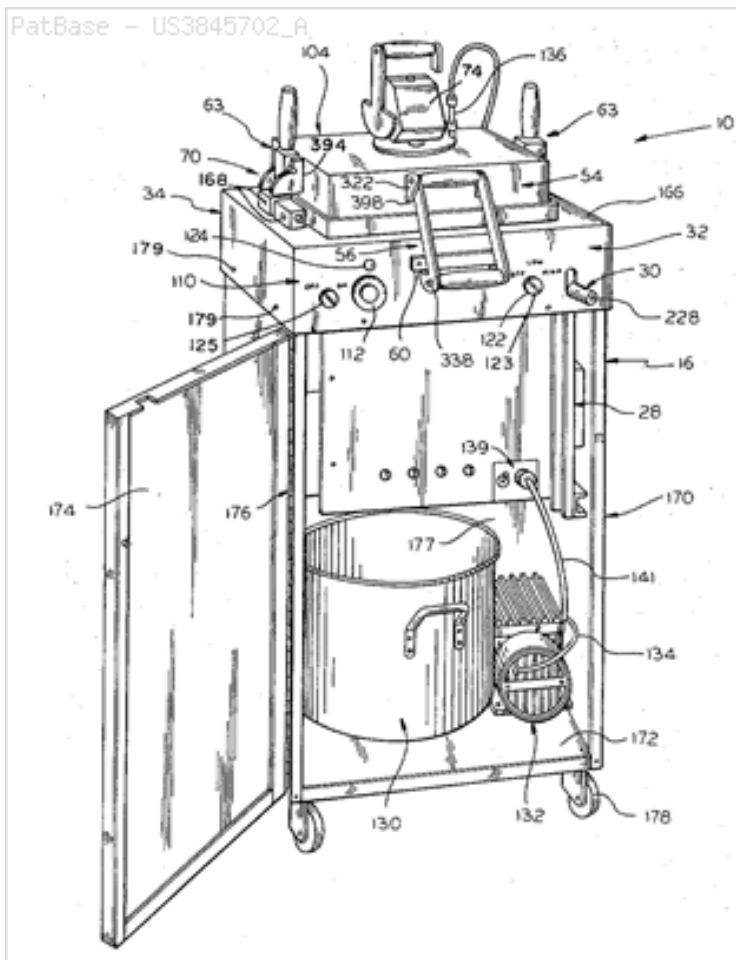
[Classification Explorer](#)

Cited documents: US3655411 A, US3363541 A, US3263596 A, US3245800 A, US3194662 A, US2914063 A, US2128738 A, US1707786 A,

Forward Citations: WO03032794, USRE33712, US8707857, US8354620, US8067717, US7856923, US7314001, US7227107, US6773237, US6711992, US6666131, US6451125, US6374835, US6328045, US6095163, US6044854, US5247878, US5002196, US4798939, US4721094, US4487691, US4325491, US4313371, US4273991, US4230574, US3977973, US3861286, US3853044, US3816703, US3793940, US3750560, US2015129509, US2011049123, US2009013879, US2009007799, US2008233257, US2006091137, US2006065582, US2004079238, US2003039557,

Abstract:

Source: US3610133A ABSTRACT OF THE DISCLOSURE This application discloses important aspects of the method disclosed in the copending application of Carl P. Mies, Jr., Ser. No. 24,517, filed Apr. 1, 1970, and assigned to the assignee of the instant application.



6) Family number: 20297038 (US5416950A)

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Title: COOKING SYSTEM AND ACCESSORIES**Priority:** US19930002213 19930108 US19930037310 19930326 US19950397948 19950303
US19930171108 19931221 WO1994US00264 19940107

Family:	Publication number	Publication date	Application number	Application date
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	<u>US5438916 A</u>	19950808	US19930037310	19930326
	<u>US5520096 A</u>	19960528	US19950397948	19950303
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Probable Assignee: AMERICAN HARVEST INC**Assignee(s):^(std):** AMERICAN HARVEST INC ; ALTERNATIVE PIONEERING SYST**Assignee(s):** ALTERNATIVE PIONEERING SYSTEMS INC ; ALTERNATIVE PIONEERING SYSTEMS INC D B A AMERICAN ; NESCO AMERICAN HARVEST CORP ; METAL WARE CORP ; NEWCO OF TWO RIVERS INC ; NORWEST BUSINESS CREDIT INC ; ALTERNATIVE PIONEERING SYSTEMS INC D B A AMERICAN HARVEST**Inventor(s):^(std):** DORNBUSH DAVID A ; ERICKSON CHAD S ; ESSON MICHAEL J ; LEE ROBERT T ; LEMON BRYCE M ; LEMON MERLIN S ; ALSETH STEVEN ; REAY STACI D ; REHMEYER THEODORE H ; SKED N PHILIP**Inventor(s):** STACI D REAY ; STEVEN ALSETH ; THEODORE H REHMEYER ; ROBERT T LEE ; SKED N ; BRYCE M LEMON ; CHAD S ERICKSON ; DAVID A DORNBUSH ; MERLIN S LEMON ; MICHAEL J ESSON ; N PHILIP SKED**Designated states:** AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LK LU LV MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA UZ VN**International class**
(IPC 8-9): A21B3/13 A47J36/06 A47J36/20 A47J36/22 A47J39/00 (Advanced/Invention);
A21B3/00 A47J36/00 A47J39/00 (Core/Invention)**International class**
(IPC 1-7): A21B1/52 A47J27/00 A47J27/04 A47J37/00 A47J37/00 A47J45/10**CPC:** A47J37/0664 A47J37/0623 A21B3/132 A47J36/06 A47J36/20 A47J36/22 A47J37/0641 Y10T16/469**European class:** A21B3/13D A47J36/06 A47J36/20 A47J36/22 A47J37/06C A47J37/06C10 A47J37/06C4D K47J37/06C10**US class:** 126/21A 126/275E 16/114A 16/422 161/14A 219/400 220/254 220/756 220/759 220/768 99/330 99/340 99/393 99/448 99/450 99/476[Classification Explorer](#)**Cited documents:** US972078 A, US941041 A, US73703 A, US5329919 A, US5329191 A, US5165424 A, US5165328 A, US5056424 A, US503756 A, US4847461 A, US4817509 A, US4735192 A, US4649053 A, US4583955 A, US4563946 A, US4554864 A, US4512495 A, US4384513 A, US4378729 A, US4360123 A, US4329977 A, US4296682 A, US4201312 A, US4185125 A, US4176591 A, US3908535 A, US3905535 A, US3610135 A, US3577908 A, US3399858 A, US3383083 A, US3349948 A, US323887 A, US3088393 A, US2914185 A, US2724764 A, US2402883 A, US2118326 A, US1997509 A, US1056237 A, US1012869 A, NO118622 A, GB661454 A, GB519884 A, GB262285 A, FR993517 A, FR2577785 A1, FR2573643 A1, FR1078213 A, DE503054 A, CH314594 A, BE537402 A,**Forward Citations:** WO12011956, WO03026469, WO03026469, USD693643, USD444342, US8960081, US8835810, US8330083, US7964824, US6796222, US6783782, US6747250, US6617554, US6286708, US6241415, US6198076, US6085442, US5680956, US5656188, US2011023724, US2010089248, US2009321410, US2009139981, US2008135719,

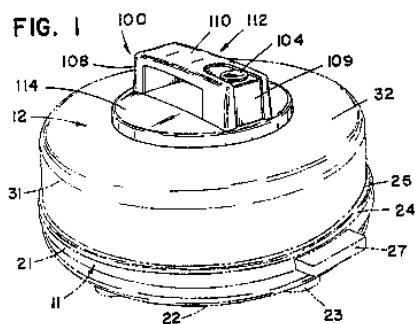
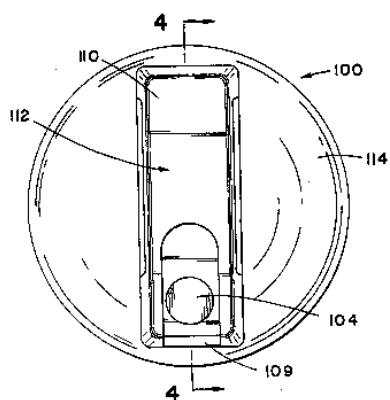
Abstract:

Source: US5416950A A handle adapted for replacing a heater and blower system removably located in a central opening defined a top enclosure of a countertop oven. The handle comprises a mounting system for removably attaching the handle to the top enclosure in order to replace the heater and blower system when the heater and blower system is removed. The handle enables a user to remove the top enclosure from the bottom enclosure by lifting up on the handle when the handle is installed in the top enclosure. In this manner, the countertop oven may be converted to a food server comprising the handle, the top enclosure, and the bottom enclosure.

WO 94/15509

PCT/US94/00264

1/16

FIG. 1**FIG. 2**

7) Family number: 55189382 (US2013306638A)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME
Priority: US20120476080 20120521 US20130080343 20131114 US20140337466 20140722
Family:

Publication number	Publication date	Application number	Application date
CN203302865 U	20131127	CN201320280280U	20130521
CN204071674 U	20150107	CN201420250548U	20140515
US2013306638 AA	20131121	US20120476080	20120521
US2014084006 AA	20140327	US20130080343	20131114
US2014319146 AA	20141030	US20140337466	20140722
US8827101 BB	20140909	US20120476080	20120521
US9113743 BB	20150825	US20130080343	20131114

Probable Assignee: HAMILTON BEACH BRANDS INC

Assignee(s):^(std): GARMAN MICHAEL ; HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX ; STEINER MARK C ; HUDGINS ARTHUR WAYNE ; SANDFORD MICHAEL G ; YE GUOYAO ; HAMILTON COMPLETED KEBU LANDERS LTD

Assignee(s): HAMILTON BEACH PROCTOR SILEX INC

Inventor(s):^(std): DAVID MATTHEW SCHANDEL ; GARMAN MICHAEL ; HUDGINS ARTHUR WAYNE ; MARK C STEINER ; MICHAEL G SANDFORD ; MICHAEL GARMAN ; SANDFORD MICHAEL G ; SCHANDEL DAVID MATTHEW ; STEINER MARK C ; YE GUOYAO ; ARTHUR WAYNE HUDGINS

Inventor(s): ARTHURWAYNEHUDGINS ; MICHAELGARMAN ; MICHAELGSANDFORD ; MARKCSTEINER

Agent(s): ALEXANDER D

International class
 (IPC 8-9): [A47J27/00](#) [A47J27/56](#) [A47J36/00](#) [A47J36/06](#) [A47J36/10](#) [A47J45/06](#) [B65D25/28](#)
[B65D45/00](#) (Advanced/Invention);
[B65D25/28](#) [B65D45/08](#) (Advanced/Non-invention)

CPC: [A47J36/10](#) [A47J27/002](#) [Y10S220/9151](#) [B65D25/2841](#) [B65D45/08](#)

US class: [1/1](#) [220/212.5](#) [220/318](#) [220/573.1](#) [220/915.1](#)

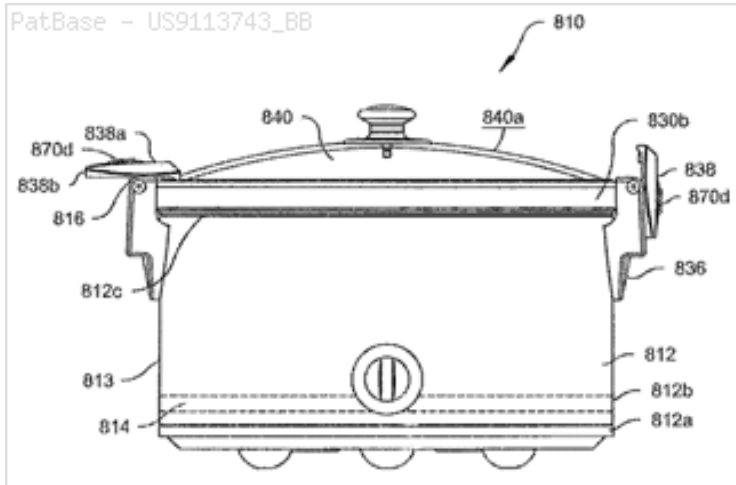
[Classification Explorer](#)

Cited documents: USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7820947 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6987247 BB, US6776085 BA, US6772677 BB, US6606987 BB, US6601726 BB, US6587739 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5476184 A, US5415082 A, US5355777 A, US5337910 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2013098922 AA, US2011061545 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009039071 AA, US2008084144 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Forward Citations: US9376232, US9067713, US9038843, US8783498, US2016095467, US2015239606, US2014299603,

Abstract:

Source: US2013306638A A kitchen appliance includes a housing that defines a cavity. The housing has a housing rim defining an opening to the cavity. A heating or cooling element is disposed within the housing to heat or cool the cavity. A container has a generally hollow interior and a container rim. A lid is sized and shaped to at least partially cover the opening of the container when placed on the container. The lid has an exterior surface and an opposing interior surface. At least one handle is pivotally mounted to one of the exterior surface of the side wall of the housing and the exterior surface of the lid. The handle is pivotable between an engaged position to retain the lid in sealing engagement with the container rim and disengage position to permit the lid to be removed from the container rim.



0) US3701313A – DEEP FAT FRYER UNIT WITH SOLENOID VALVES AND AU...

8) Family number: 1028498 (US3701313A)

© PatBase

Title: DEEP FAT FRYER UNIT WITH SOLENOID VALVES AND AUTOMATIC CONTROLS

Priority: US19710115031 19710212 US19720288073 19720911

Family:	Publication number	Publication date	Application number	Application date
	CA955416 A1	19741001	CA19720134462	19720210
	GB1367541 A	19740918	GB19720006337	19720210
	GB1367542 A	19740918	GB19730017752	19720210
	US3701313 A	19721031	US19710115031	19710212
	US3900580 A	19750819	US19720288073	19720911

Probable Assignee: FOOD RESEARCH AND EQUIPMENT CO

Assignee(s):^(std): FOOD RESEARCH AND EQUIPMENT CO ; FOOD RESEARCH AND EQUIPMENT COMP

Assignee(s): FOOD RESEARCH AND EQUIPMENT COMPANY ; FOOD RESEARCH EQUIPMENT CO ; BOGGS WELDON C

Inventor(s):^(std): BOGGS WELDON C

Inventor(s): WELDON C BOGGS

International class
(IPC 8-9): [A47J37/12 B01D29/00 B01D35/14](#) (Advanced/Invention) ;
[A47J37/12 B01D29/00 B01D35/14](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/12 B01D43/00](#)

CPC: [Y10S210/08 A47J37/1233](#)

European class: [A47J37/12F B01D29/00A34 B01D29/00A36 B01D29/34 B01D35/14](#)

US class: [210/167 210/167.28 210/DIG.8 426/417 426/438 99/100 99/330 99/342 99/408](#)

[Classification Explorer](#)

Cited documents: US3573861 A, US3483982 A, US3410199 A, US3376806 A, US3368682 A, US3363541 A, US3282197 A, US3210193 A, US3107601 A, US3100747 A, US3097589 A, US1907265 A,

Forward Citations: WO8807821, WO11109405, USD462567, USD418366, US9357881, US9215948, US8910565, US8689679, US8545699, US8163098, US7931804, US7704387, US7698994, US7317468, US7309422, US6890428, US6572764, US6254790, US6105488, US6029653, US6009795, US6009794, US5974955, US5942269, US5869806, US5865102, US5730186, US5586486, US5367949, US5354570, US5200224, US5160444, US5069116, US5060559, US4798939, US4768426, US4747944, US4732080, US4688475, US4668390, US4643824, US4623544, US4487691, US4459902, US4308011, US4210123, US4148729, US4026804, US3970558, US3894482, US3885056, US3877361, US2013220143, US2011126925, US2010192981, US2009283462, US2009084273, US2008196596, US2008121115, US2008060528, US2007062515, US2006146114, US2006065582, US2005072309, US2003196940, US2002092803, EP0273094, DE2756428,

Abstract:

Source: US3701313A A deep fat fryer unit having solenoid operated valves controlled by switches, relays and motor driven timers for controlling the various phases of operation of the unit, including the pumping of oil from a storage tank into a heater tank and then into a cooking pot, through a filter, and return to the heater tank. The oil is continuously circulated through the heater tank and may be circulated through the cooking pot or bypass the cooking pot. A removable crumb conveyor continuously removes crumbs from a crumb well at the lower end of a filter bowl opening into the cooking pot and containing the filter. A vacuum switch is connected with the inlet of the pump and is set to close when the filter is about 50 percent clogged. Closing of the vacuum switch automatically effects return of the oil from the cooking pot to the storage tank and precludes resumption of normal cooking operations until after the filter has been cleaned. Upon removal of the filter and crumb conveyor, a pump-out adapter can be mounted in the filter bowl together with a pump-out hose and the oil pumped out of the crumb-well in response to operation of a sump switch. The storage tank and heater tank can be emptied one at a time by operating separate switches. An emergency STOP switch can be operated at any time to shut down the unit. Automatic signal lights on a control panel indicate when the unit is turned on, when the unit is in operation, when the heating grids are operating, when the heating grids are not working and oil is being circulated through the filter, and when a change of the filter is required.

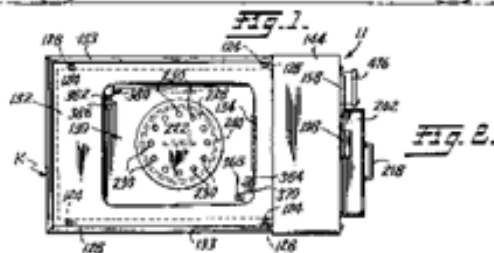
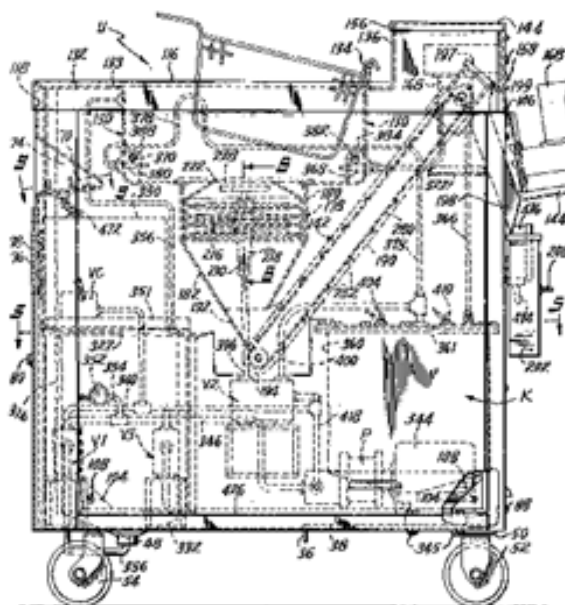
PatBase - US3900580_A

PATENTED AUG 19 1975

3,900,580

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0) US5142968A – AUTOMATED DEEP FAT FRYER

9) Family number: 11601171 (US5142968A)

© PatBase

Title: Automated deep fat fryer

Priority: US19890458982 19891229 US19910759606 19910913 WO1990US07553 19901220
US19930001733 19930107 US19920831110 19920204 US19930001188 19930107

Family:	Publication number	Publication date	Application number	Application date
	AU199171683 A1	19910724	AU19910071683	19901220
	CA2072589 AA	19920625	CA19902072589	19901220
	EP0507864 A1	19921014	EP19910902641	19901220
	EP0507864 A4	19930421	EP19910902641	19901220
	US5142968 A	19920901	US19910759606	19910913
	US5224415 A	19930706	US19920831110	19920204
	US5230279 A	19930727	US19930001275	19930107
	US5305615 A	19940426	US19930001188	19930107
	US5319939 A	19940614	US19930001733	19930107
	WO9109558 A1	19910711	WO1990US07553	19901220

Probable Assignee: GAS RES INST

Assignee(s):^(std): LITTLE INC A ; GAS RES INST

Assignee(s): GAS RESEARCH INST ; ENTERPRISE MEDICAL TECHNOLOGIES INC ; GAS RESEARCH INSTITUTE ; LITTLE ARTHUR D INC ; DIECKMANN JOHN ; MCFADDEN DAVID H ; ABLECO FINANCE LLC AS AGENT ; ARTHUR D LITTLE ENTERPRISES INC ; ARTHUR D LITTLE INC ; CAMBRIDGE CONSULTANTS LTD ; CARON RICHARD N ; COLLINS JOHN M

Inventor(s):^(std): BARNES KEVIN P ; CARON RICHARD N ; COLLINS JOHN M ; DIECKMANN JOHN ; FARRA ROBERT ; HOEKSTRA JOOP F ; HOSMER THOMAS P ; MCFADDEN DAVID H

Inventor(s): RICHARD N CARON ; JOHN DIECKMANN ; JOHN M COLLINS ; DAVID H MCFADDEN

Agent(s): MACRAE AND CO

Designated states: AT AU BB BE BF BG BJ BR CA CF CG CH CM DE DK ES FI FR GA GB GR HU IT JP KP KR LI LK LU MC MG ML MR MW NL NO RO SD SE SN SU TD TG

International class [A47J37/12](#) [B65H7/00](#) [F25B5/04](#) [F25D13/06](#) [F25D21/04](#) [F25D25/04](#) ^(Advanced/Invention) ;
^(IPC 8-9) [A47J37/12](#) [F25B5/00](#) [F25D13/00](#) ^(Core/Invention)

International class [A47H37/12](#) [A47J27/00](#) [A47J37/00](#) [A47J37/12](#) [B65B21/02](#) [B65H7/00](#) [F25D21/04](#) [F25D25/00](#) [F25D25/02](#) [F25D25/04](#) [G07F11/00](#)
^(IPC 1-7)

CPC: [A47J37/1228](#) [F25B5/04](#) [F25D13/06](#)

European class: [A47J37/12E](#) [F25B5/04](#) [F25D13/06](#)

US class: [221/150HC](#) [221/150R](#) [221/81](#) [222/146.6](#) [34/500](#) [414/331](#) [414/331.04](#) [414/404](#) [62/266](#)
[62/378](#) [62/382](#) [62/440](#) [62/63](#) [62/630](#) [623/780](#) [99/334](#) [99/357](#) [99/404](#) [99/407](#) [99/409](#)
[993/340](#) [993/570](#) [994/40](#)

[Classification Explorer](#)

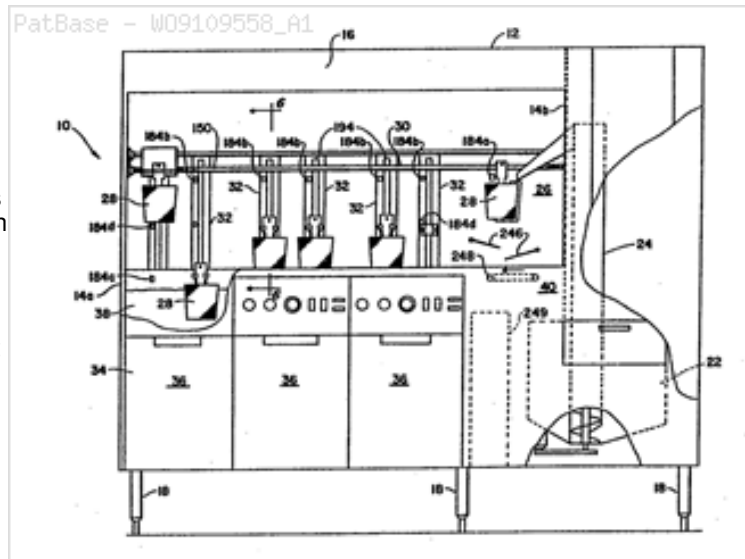
Cited documents: US5125240 A, US5105979 A, US5104002 A, US5097754 A, US5029520 A, US5029447 A, US4979864 A, US4971223 A, US4969336 A, US4928502 A, US4821633 A, US4751915 A, US4748902 A, US4732080 A, US4722267 A, US4685386 A, US4658709 A, US460489 A, US4567051 A, US4506995 A, US4502373 A, US4488478 A, US4478140 A, US4356870 A, US4346649 A, US4228730 A, US4031820 A, US3981232 A, US3908531 A, US3838790 A, US3818820 A, US3779410 A, US3685432 A, US3667373 A, US3535299 A, US3505072 A, US3448677 A, US3398672 A, US3392815 A, US3357341 A, US3315785 A, US3296954 A, US3237804 A, US3227501 A, US3225681 A, US3190489 A, US3075670 A, US2984084 A, US2836968 A, US2804982 A, US2719651 A, US2679323 A, US2497219 A, US2215929 A, FR2626741 A1, FR2593308 A1, FR2579072 A1, FR2214446 A1, EP0335698 A2, CA1257103 A1,

Forward Citations:

WO9602176, WO9520900, WO10008688, WO06043835, WO04083083, WO03089301, WO03088793, WO03061444, WO0203820, WO0078187, USRE45967, USD561530, US9339054, US9097452, US8875620, US8869680, US8850965, US8707857, US8549993, US8522671, US8434320, US8317052, US8309151, US8253581, US8251108, US8234972, US8186265, US8182191, US8034390, US7981455, US7891289, US7802593, US7703636, US7441388, US7356980, US7343719, US7337594, US7316122, US7303776, US7001626, US6960157, US6941762, US6929149, US6871676, US6869633, US6751977, US6658886, US6644174, US6560973, US6555154, US6494049, US6481226, US6427583, US6401464, US6389962, US6322831, US6308522, US6269285, US6209329, US6155071, US6152023, US6104966, US5970853, US5735192, US5723782, US5586486, US5522309, US5435685, US5404797, US5367949, US5340949, US2012017773, US2011101022, US2011061545, US2011011278, US2010316473, US2010212511, US2010092626, US2010038387, US2010015298, US2010015297, US2010015284, US2009063166, US2008292759, US2008230558, US2008220139, US2008193617, US2008188977, US2008166461, US2008166460, US2008110902, US2008063769, US2008061072, US2008038417, US2007140044, US2007140043, US2007134394, US2006093719, US2006073253, US2006062877, US2005263536, US2005193898, US2005106301, US2005061160, US2005011368, US2004154322, US2004020555, US2004011006, US2003234259, US2003207009, US2003205288, US2003205028, US2003205027, US2003196558, US2003196446, EP1496779, EP1225808, EP1225808, AU2003222654,

Abstract:

Source: US5142968A An automated system for storing and cooking french fried potatoes includes a refrigeration and storage assembly and unique transport system which is easily used with fryers of a commercial type. The transport system includes a horizontal and vertical transport assembly for moving baskets of fries to and from the one or more fryers, with the vertical transport assembly being adapted to lower the basket into the fryer as well as support the basket above the fryer after cooking so as to allow the basket to drain. In accordance with another aspect of the present invention the refrigeration system is such and the strips are oriented all in substantially the same direction before being loaded into a basket so as to enable the fries to be cooked with little or no sticking without requiring the operator to shake the potatoes during or following cooking.



0) US2001009128A – ROTISSERIE OVEN HAVING A HEAT SHIELD

10) Family number: 28328965 (US2001009128A)

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Title: ROTISSERIE OVEN HAVING A HEAT SHIELD

Priority:

CA20022366635 20020104	CA20022550036 20020104	EP20050075354 20020108
EP20020090002 20020108	US19990436614 19991109	US19980217944 19981221
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US20060370622 20060307		

Family:

Publication number	Publication date	Application number	Application date
AT295109 E	20050515	AT20020090002T	20020108
AT333230 E	20060815	AT20020075354T	20020108
AU200210080 A5	20020718	AU20020010080	20020107
AU777121 B2	20040930	AU20020010080	20020107
CA2366635 AA	20020712	CA20022366635	20020104
CA2550036 AA	20020712	CA20022550036	20020104
DE60204060 D1	20050616	DE20026004060	20020108
DE60204060 T2	20060316	DE20026004060T	20020108
DE60213291 D1	20060831	DE20026013291	20020108
EP1222889 A1	20020717	EP20020090002	20020108
EP1222889 B1	20050511	EP20020090002	20020108
EP1535556 A1	20050601	EP20050075354	20020108
EP1535556 B1	20060719	EP20050075354	20020108
EP1700550 A1	20060913	EP20060090100	20020108
HK1048240 A1	20051118	HK20030100435	20030117
KR100493601 B1	20050610	KR20020001777	20020111
KR20020061116 A	20020722	KR20020001777	20020111
US2001009128 AA	20010726	US20010783667	20010214
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US2001032547 AA	20011025	US20010783364	20010214
US2001042449 AA	20011122	US20010891019	20010625
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<u>US2005178275 AA</u>	20050818	US20050043016	20050124
<u>US2005284306 AA</u>	20051229	US20050215720	20050829
<u>US2006144248 AA</u>	20060706	US20060367831	20060303
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<u>US8017167 BB</u>	20110913	US20090401395	20090310

Probable Assignee: RONCO HOLDINGS INC

Assignee(s):^(std): POPEIL RON ; RONCO CORP ; RONCO MARKETING CORP ; RONCO ACQUISITION CORP ; ADVANTAGE PARTNERS ; ADVANTAGE PARTNERS IP LLC ; ADVANTAGE PARTNERS LLC ; BACKUS ALAN L ; RONCO HOLDING INC

Assignee(s): RONCO HOLDINGS INC ; CROSSROADS FINANCIAL LLC ; KALLINA CORP ; ALAN L BACKUS ; LAURUS MASTER FUND LTD ; ROMCO MARKETING CORP ; LV

ADMINISTRATIVE SERVICES INC ; POPEIL RONALD M ; RON POPEIL ; RONCO
AQUISITION LLC ; LV ADMINISTRATIVE SERVICES AGENT AS

Inventor(s):(std): ALAN L BACKUS ; BACKUS ALAN L ; POPEIL RON ; POPEIL RONALD M ; RON
POPEIL

Inventor(s): BACKUS ALAN ; POPEIL RONALD

Agent(s): FB RICE; FETHERSTONHAUGH AND CO; JEFFER MANGELS BUTLER AND
MARMARO LLP; CONNOLLY BOVE LODGE AND HUTZ LLP; JEFFER MANGSIS
BUTLER AND MARMARO LLP

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

International class
(IPC 8-9): A21B1/00 A21B1/22 A21B2/00 A21B3/00 A22C7/00 A23L1/01 A23L5/10 A23P1/00
A47J36/06 A47J37/00 A47J37/04 A47J37/06 A47J37/07 A47J43/18 B65D25/26
F27D11/02 F27D3/12 (Advanced/Invention);
A47J36/06 A47J37/07 F24C15/16 (Advanced/Non-invention);
A47J37/04 A47J37/06 (Core/Invention);
F24C15/16 (Core/Non-invention)

International class
(IPC 1-7): A22C7/00 A23L1/00 A23P1/00 A47J27/00 A47J27/62 A47J37/00 A47J37/04 A47J37/06
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European class: A47J37/04A A47J37/04B A47J37/04C A47J37/04G A47J37/06C A47J37/06C10
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US class: 126/190 126/194 126/198 126/273.5 126/275E 219/403 219/405 219/411 220/326
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99/427 99/427P 99/427S 99/447 993/270 993/490 993/950 994/210R

[Classification Explorer](#)

Cited documents: WO8604978 A1, WO8604978, WO0028869 A1, WO0028869, USD434939 S1,
USD434939, USD433867 S1, USD433867, USD422172 S1, USD422172, USD415923
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US6167800 BA, US6167800 B1, US6167800, US616694 A, US6142064 A, US6138553 A,
US6138553, US6131505 A, US6119586 A, US6119586, US6085642 A, US6085642,
US6080967 A, US6079322 A, US6079322, US6079319 A, US6079319, US6076453 A,
US6076453, US6047633 A, US6047633, US6041694 A, US6041694, US6038965 A,
US6038965, US6023049 A, US6023049, US6009797 A, US6009797, US5997928 A,
US5997928, US5981926 A, US5981926, US5974956 A, US5974956, US5970854 A,
US5970854, US5961866 A, US5957557 A, US5918589 A, US5918534 A, US5918534,
US5910332 A, US5910332, US5908576 A, US5887513 A, US5887513, US5881640 A,
US5881640, US5845563 A, US5845563, US5837980 A, US5819639 A, US5819639,
US5814795 A, US5809995 A, US5809995, US5802962 A, US5802962, US5801362 A,
US5801362, US5801357 A, US5801357, US5799569 A, US5799569, US5798505 A,
US5798505, US5793610 A, US5793610, US5785046 A, US5785046, US5780815 A,
US5780815, US5778766 A, US5778766, US5761991 A, US5761991, US5746116 A,
US5746116, US5740724 A, US5740724, US5740722 A, US5740722, US5735191 A,
US5735191, US5727719 A, US5727719, US5726424 A, US5720217 A, US5720217,
US5716657 A, US5716657, US5715744 A, US5715744, US5697289 A, US5697289,
US5671659 A, US5671659, US5669290 A, US5669290, US5665258 A, US5665258,
US5639497 A, US5639497, US5634559 A, US5632265 A, US5632265, US5632098 A,
US5632098, US5619909 A, US5619909, US5611265 A, US5611265, US5601070 A,
US5601070, US5598769 A, US5598769, US5598582 A, US5598582, US559720 A,
US5592869 A, US5592869, US5588353 A, US5588353, US5579681 A, US5579681,
US5575196 A, US5575196, US5566997 A, US5566997, US5562022 A, US5562022,
US5560285 A, US5560285, US5545874 A, US5545874, US553363 A, US5533440 A,

US5533440, US5518127 A, US5518127, US5515774 A, US5515774, US5515773 A,
US5497697 A, US5497697, US5485780 A, US5485780, US5477029 A, US5473977 A,
US5473977, US5471915 A, US5471915, US5471914 A, US5471914, US5469782 A,
US5469782, US5465653 A, US5465653, US5451744 A, US5451744, US5447620 A,
US5447620, US5447096 A, US5447096, US5445065 A, US5445065, US5445064 A,
US5445064, US5442999 A, US5442999, US5441037 A, US5441037, US5431093 A,
US5431093, US5429042 A, US5429042, US5427015 A, US5427015, US5417148 A,
US5417148, US5410950 A, US5410950, US5410948 A, US5410948, US5405627 A,
US5405627, US5404795 A, US5404795, US5390588 A, US5390588, US5379685 A,
US5379685, US5373809 A, US5373809, US5373778 A, US5373778, US5369497 A,
US5367950 A, US5367950, US5361686 A, US5361686, US5361685 A, US5361685,
US5325767 A, US5325767, US5297534 A, US5297534, US5275095 A, US5275095,
US5235903 A, US5235903, US5235148 A, US5235148, US5205208 A, US5205208,
US5205207 A, US5205207, US5203252 A, US5193444 A, US5193444, US5184540 A,
US5184540, US5182981 A, US5182981, US5176124 A, US5172628 A, US5172628,
US5163358 A, US5163358, US5148737 A, US5148737, US5146842 A, US5146842,
US5136933 A, US5136933, US5134927 A, US5134927, US5101715 A, US5058493 A,
US5058493, US5044262 A, US504256 A, US5039535 A, US5039535, US5038748 A,
US5038748, US5001971 A, US5001971, US4986174 A, US4986174, US4968515 A,
US4968515, US4924766 A, US4924766, US4889972 A, US4886644, US4886044 A,
US4886044, US4870896 A, US4870896, US4867051 A, US4867051, US4839186 A,
US4839186, US4817514 A, US4817514, US4743737 A, US4743737, US4726352 A,
US4726352, US4717802 A, US4688541 A, US4688541, US4661669 A, US4661669,
US4625634 A, US4625634, US4600254 A, US4600254, US4591683 A, US4591683,
US4585661 A, US4585661, US4583452 A, US4583452, US4572062 A, US4572062,
US4562771 A, US4562771, US4556046 A, US4556046, US4555986 A, US4555986,
US4548130 A, US4548130, US4520791 A, US4520791, US4508024 A, US4508024,
US4505195 A, US4505195, US4491065 A, US4491065, US4483241 A, US4483241,
US4470343 A, US4470343, US4455928 A, US4455928, US4455319 A, US4454805 A,
US4454805, US4450758 A, US4450758, US4442763 A, US4442763, US442758 A,
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US4409452 A, US4409452, US4407189 A, US4407189, US4372199 A, US4372199,
US4366750 A, US4366750, US4355626 A, US4355626, US4355569 A, US4355569,
US4335289 A, US4335289, US4327274 A, US4327274, US4321857 A, US4321857,
US4304177 A, US4304177, US4301718 A, US4301718, US4300443 A, US4300443,
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US4244979 A, US4244979, US422172 A, US4214516 A, US4214516, US4181074 A,
US4181074, US4176592 A, US4176592, US4165684 A, US4165683 A, US4165683,
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US4106473, US4103606 A, US4103606, US4103605 A, US4103605, US4089258 A,
US4089258, US4051838 A, US4051838, US4005646 A, US4005646, US3980010 A,
US3980010, US395980 A, US3959620 A, US3959620, US3943837 A, US3943837,
US3939761 A, US3939761, US3935807 A, US3935807, US3935806 A, US3935806,
US3931758 A, US3931758, US3901136 A, US3901136, US3893442 A, US3867877 A,
US3867877, US3867605 A, US3867605, US3848525, US3848522 A, US3848522,
US3838538 A, US3838538, US3812840 A, US3807292 A, US3807292, US3805762 A,
US3805762, US3802331 A, US3802331, US3797379 A, US3797379, US3782268 A,
US3782268, US3734740 A, US3734740, US3732803 A, US3693538 A, US3693538,
US3566777 A, US3566777, US3559565 A, US3559565, US3529536 A, US3529536,
US3527155 A, US3527155, US3511170 A, US3511170, US3503323 A, US3503323,
US3473464 A, US3473464, US3473463, US3362350, US3362320 A, US3362320,
US3355573 A, US3355573, US3348471 A, US3348471, US3335712 A, US3335712,
US3333529 A, US3333529, US3329082 A, US3329082, US3315591 A, US3315591,
US3298301 A, US3285238 A, US3285238, US3276351 A, US3269299 A, US3248518 A,
US3240147 A, US3235238 A, US3227405 A, US3215338 A, US3205812 A, US3196776
A, US3188939 A, US3186776 A, US3182585 A, US3181453 A, US3129653 A,
US3127889 A, US3126814 A, US3125015 A, US3121424 A, US3104605 A, US3103161
A, US3100435 A, US3085500 A, US3079208 A, US3074360 A, US3070953 A,
US3045581 A, US3025783 A, US2983218 A, US2979053 A, US2940380 A, US2939383
A, US2938450 A, US2925081 A, US2917988 A, US2898437 A, US2895408 A,
US2888872 A, US2887994 A, US2887944 A, US2885950 A, US2882812 A, US2867163
A, US2851575 A, US2846941 A, US2845941 A, US2839989 A, US2831421 A,
US2831420 A, US2828733 A, US2827847 A, US2821187 A, US2815707 A, US2811099
A, US2809579 A, US2762293 A, US2760428 A, US2759411 A, US2754401 A,
US2727315 A, US2722885 A, US2722882 A, US2705450 A, US2701516 A, US2700682
A, US2696163 A, US2681001 A, US2664490 A, US2649852 A, US2638841 A,
US2619951 A, US2618730 A, US2616360 A, US2607286 A, US257609 A, US2565967 A,
US251657 A, US2502685 A, US2501104 A, US2472164 A, US2297825 A, US2245220 A,
US2142390 A, US2136658 A, US2133667 A, US2130259 A, US2102097 A, US2085169
A, US2049481 A, US2048769 A, US2012811 A, US2007145061 AA, US2006144248 AA,
US2005178275 AA, US199712 A, US1993607 A, US1976989 A, US1786300 A,
US1723704 A, US1666394 A, US1584121 A, US1471122 A, US1282195 A, US1093883

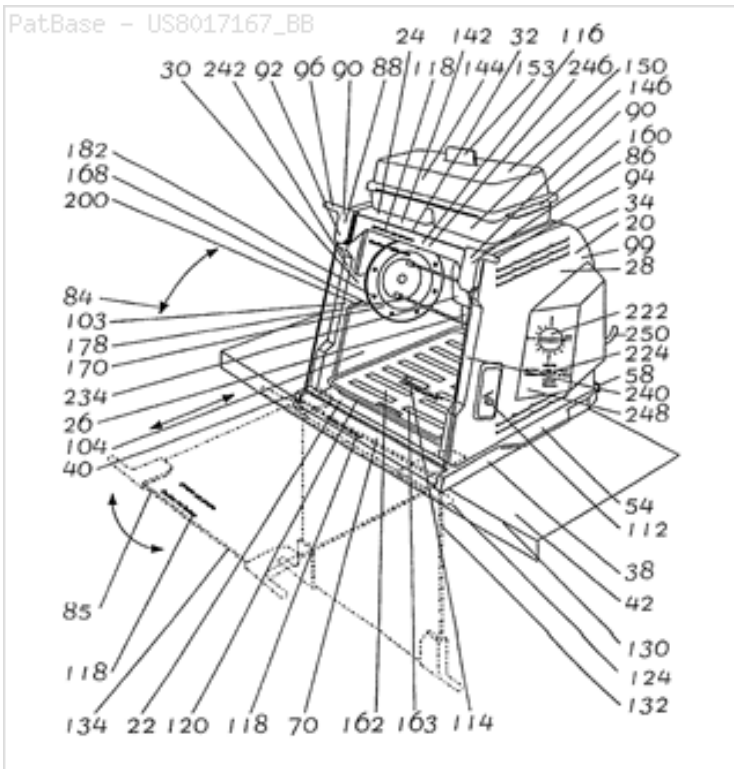
A, US1063516 A, US1045049 A, SE550872, SE500872 C2, SE500872, SE323756, SE323756, KR206810, KR100206810 B1, JPS6122133, JP61022133 A2, JP61022133, JP60049785 A2, JP60049785, JP60019785 A2, IT555893 A, IT555893, IT555893, IT555893, GB996233 A, GB996233, GB996223 A, GB880899, GB880899, GB850083 A, GB850083, GB478044, GB478044, GB1257945, GB1257945, FR853400 A, FR853400, FR2739272, FR2625668 A1, FR2625668, FR2603178 A3, FR2603178, FR2498915 A1, FR2498915, FR2477396 A1, FR2477396, FR24477396, FR2276799 A1, FR2276799, FR2078609, FR2078609, FR1300126, FR1300126, FR1265159, FR1265159, FR1218203 A, FR1218203, FR1116586 A, FR1116586, ES2029576 AF, ES2029576 a2, ES2029576, EP1700550, EP1535556, EP1222889, EP0853400, EP0853400, EP0396470 A1, EP0396470, EP0332505 A1, EP0332505, EP0281866 A1, EP0281866, DE91799 A, DE7407464, DE7407464, DE7407464, DE7213693, DE7213693, DE7213693, DE7047203, DE7047203, DE7047203, DE657089, DE657089, DE4413059, DE4413050 C1, DE4413050, DE43251, DE43251, DE43251, DE4226098 A1, DE4226098, DE4113050, DE4112325 A1, DE4112325, DE3606800 A1, DE3401002 A1, DE3401002, DE3235985 A1, DE3214818 A1, DE3214818, DE3000653 A1, DE3000653, DE29916242 U1, DE29916242 U, DE29916242, DE29916242, DE29916161 U1, DE29916161 U, DE29916161, DE29916161, DE29909108 U1, DE29909108 U, DE29909108, DE29909108, DE29602405 U1, DE29602405 U, DE29602405, DE29602405, DE2646811 A1, DE2646811, DE2601877 A1, DE2601877, DE2430233 A1, DE2430233, DE2425346 A1, DE2425346, DE2358119, DE2358119, DE2310390, DE2310390, DE2308779, DE2308779, DE2307575, DE2307575, DE2205703, DE2205703, DE1998600, DE1998600, DE1998600, DE1779063, DE1779063, DE1679001, DE1679001, DE1679001, DE1454157, DE1454157, DE1454157, DE1454014, DE1454014, DE1454014, DE1454011, DE1429829, DE1429829, DE1429829, DE1162985, DE1162985, DD2601877, DD2430233, DD2425346, DD2358119, DD2310390, DD2308779, DD2307575, CH662496, CH662496, CH603430, CH603130, CH603130, CH424144, CH424144, AU238395 A1, AU238395, AT238395, AT238395, AT223335, AT223335,

Forward Citations:

WO17021887, WO14195219, WO14195129, WO14120239, WO13043285, WO10053538, WO09105111, WO03007765, WO03007765, USD771994, USD703993, USD693643, USD650228, USD629639, USD532654, US9513016, US9480364, US9402505, US9326639, US9289543, US9288997, US9211035, US9155422, US9155421, US9096364, US9003960, US8943953, US8877064, US8850966, US8850965, US8776774, US8752538, US8739693, US8707857, US8687842, US8584580, US8575520, US8549993, US8516952, US8485176, US8438970, US8408120, US8402885, US8375848, US8330083, US8330080, US8309151, US8272321, US8186265, US8151697, US8110237, US8065954, US8053707, US8051768, US8043087, US8017167, US8015727, US7981459, US7964824, US7958650, US7937929, US7934494, US7921768, US7878111, US7823502, US7798139, US7793648, US7739948, US7626142, US7536946, US7514651, US7487716, US7478586, US7412922, US7404354, US7325484, US7306555, US7263990, US7241977, US7164850, US7060942, US6941857, US6923110, US6837151, US6782805, US6637319, US6568316, US6561083, US6509549, US6497175, US6363841, US2015375468, US2015250187, US2015164088, US2015020284, US2014299002, US2014246008, US2014245897, US2014157997, US2013233182, US2013193130, US2012260809, US2012199017, US2012174906, US2012097046, US2012076350, US2012037012, US2011283893, US2011262113, US2011220573, US2011203570, US2011142998, US2011136587, US2011061545, US2011030670, US2010313878, US2010303973, US2010270282, US2010269712, US2010258109, US2010224079, US2010206287, US2010206179, US2010199855, US2010059038, US2010037782, US2010000417, US2009282989, US2009196970, US2009191322, US2009178665, US2009178664, US2009178579, US2009178578, US2009178577, US2009173240, US2009139981, US2009126366, US2009120303, US2009090248, US2009087535, US2009087534, US2009044706, US2009032007, US2008289511, US2008250940, US2008229937, US2008223845, US2008164246, US2008145282, US2008098903, US2008092751, US2008005918, US2008002383, US2007293385, US2007283945, US2007256571, US2007102418, US2007101869, US2007045201, US2007034621, US2007028912, US2007028781, US2007028780, US2007006869, US2006289530, US2006278211, US2006225580, US2006191156, US2006124627, US2006124561, US2006112837, US2006076789, US2006031234, US2005276892, US2005268794, US2005261475, US2005102854, US2005072018, US2005022676, US2005000371, US2004250693, US2004142082, US2004103795, US2004079239, US2004055477, US2003110955, TWI554235, KR100743273, ITVI20110317, ITVI20090078, ITMO20100357, GB2461395, GB2447284, GB2412296, GB2412296, EP2482866, EP2085003, EP1994864, EP1796475, EP1700550, EP1222889, DE102009045095, DE102009045095, CN104172941, CN104172941, CN103770666, CN102920357, AU777121,

Abstract:

Source: US2001009128A Enclosed rotisserie with added convenience, including a countertop resting box-like enclosure housing a safety rear mounted heating element and a power rotated dual rod spit assembly. The gear driven spit assembly may be easily inserted and removed straight into and out of the enclosure without need for angling or coupling the assembly to a power drive socket. The spit assembly may also be mounted at various distances from the heating element to decrease cooking times. The open front of the enclosure is from time to time covered by an inclined glass panel door which may be opened in various ways to facilitate food insertion into and removal from the enclosure, and which may be easily removed for cleaning or other purposes. The embodiment's design makes efficient use of valuable counter space by recessing back and raising off the countertop its controls. A contained light as well as room light emitted through the inclined glass door illuminate the enclosure's interior to make the rotisserie cooking into a taste tempting show. Two countertop supported sizes for the embodiment are suggested, one for larger families and entertaining, and the other for small families and singles. Cooking times are decreased and manufacture simplified by the embodiment heating element remaining on constantly during the cooking process. Maintenance is minimized by various embodiment parts being removable for cleaning including a cleaning shield located behind the heating element, the glass door, and a drip pan with slotted cover. A variety of foods may be cooked using the spit and accessories that attach to the spit. Such accessories include wire baskets and a rotating stir fryer. Foods may be cooked on top of the embodiment as well using an included warming tray and an inserted steaming tray with cover. Grease-tight rotisserie/barbecue gloves make food handling easier and safer, as can also be said for a spit support platform which supports the spit assembly for food mounting and carving. Self-rotating kabob rods cook kabobs on all sides evenly and allow for increasing rotisserie capacity by increasing the length of rotating rods available for rotisserie food mounting.



11) Family number: 51169275 (US2013233183A)

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Title: COOKING APPARATUS AND SYSTEM**Priority:** US20100416333P 20101123 US20110261659 20111122 US20110449423P 20110304
US20110500226P 20110623 WO2011US61804 20111122**Family:**

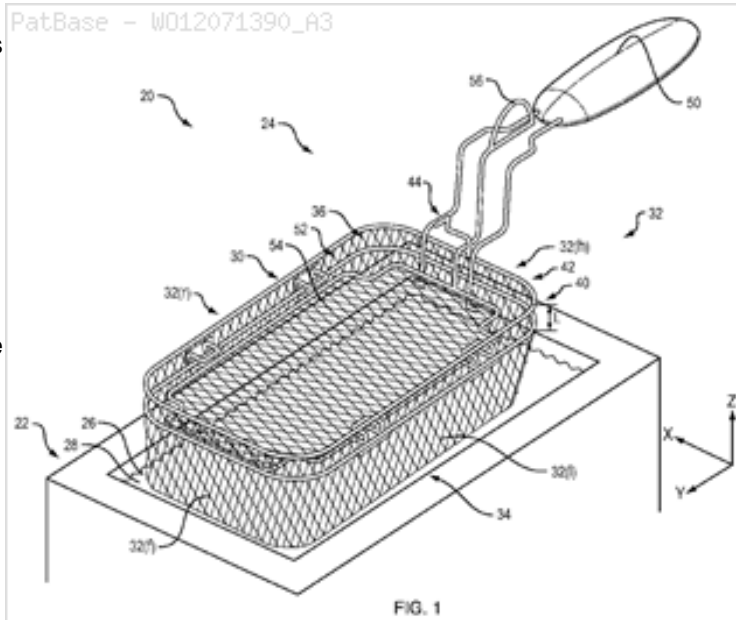
Publication number	Publication date	Application number	Application date
CN103338688 A	20131002	CN201180063652	20111122
CN103338688 B	20160601	CN201180063652	20111122
US2013233183 AA	20130912	US20110261659	20111122
WO12071390 A2	20120531	WO2011US61804	20111122
WO12071390 A3	20130117	WO2011US61804	20111122

Probable Assignee: SHARKNINJA OPERATING LLC**Assignee(s):^(std):** BRINCKERHOFF AMY TINNELL ; CUMMINGS ALLISON ; EURO PRO OPERATING LLC ; JENNINGS ARIC ; YIU SKINNER ; VRDOLJAK OGNJEN ; JENNINGS ERIC**Assignee(s):** SHARKNINJA OPERATING LLC ; BANK OF AMERICA NA AGENT AS**Inventor(s):^(std):** JENNINGS ERIC ; YIU SKINNER ; VRDOLJAK OGNJEN ; JENNINGS ARIC ; CUMMINGS ALLISON ; BRINCKERHOFF AMY TINNELL**Agent(s):** HUANG DAVID E**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class** [A47J37/12 B65D6/08](#) (Advanced/Invention)
(IPC 8-9):**CPC:** [A47J37/12 A47J37/1295](#)**US class:** [99/403](#)[Classification Explorer](#)**Cited documents:** US6176175 BA, US3613553 A, US2007251517 AA, US2007214968 AA, US2005204929 AA, JP2004201683 A2, CN201422771 Y,

Abstract:

Source: US2013233183A A cooking apparatus includes a container which defines four sides, a bottom and an open top. The cooking apparatus further includes a container handle which extends from a handle side of the four sides, and a cover which attaches to one of the four sides other than the handle side. The cover is constructed and arranged to transition between (i) an open position in which the cover substantially exposes the open top defined by the container to allow food product to enter or exit through the open top of the container and (ii) a closed position in which the cover substantially encloses the open top defined by the container to prevent food product from entering or exiting through the open top of the container.

PatBase - W012071390_A3



12) Family number: 28149715 (US2001050005A)

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Title: Electric fryer
Priority: CN20002028463U 20000608 CN20002040170U 20001116
Family:

Publication number	Publication date	Application number	Application date
CN2437266 Y	20010704	CN20002028463U	20000608
CN2448247 Y	20010919	CN20002040170U	20001116
DE20109574 U1	20010816	DE20012009574U	20010606
FR2810868 A3	20020104	FR20010007460	20010607
FR2810868 B3	20020419	FR20010007460	20010607
GB200113820 A0	20010725	GB20010013820	20010606
GB2365757 A1	20020227	GB20010013820	20010606
GB2365757 B2	20020731	GB20010013820	20010606
ITMI20010314 U0	20010607	IT2001MI00314U	20010607
ITMI20010314 U1	20021209	IT2001MI00314U	20010607
US2001050005 AA	20011213	US20010876343	20010607
US6545252 BB	20030408	US20010876343	20010607

Probable Assignee: DONGMING WANG**Assignee(s):**^(std) DONGMING WANG ; WANG DONGMING**Inventor(s):**^(std) WANG DONGMING ; DONGMING WANG

International class
^{(IPC 8-9):} [A47J27/00](#) [A47J37/10](#) [A47J37/12](#) ^{(Advanced/Invention);}
[A47J27/00](#) [A47J37/10](#) [A47J37/12](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [A23L1/00](#) [A47J37/10](#) [A47J37/12](#)

CPC: [A47J27/004](#)**European class:** [A47J27/00B](#)**US class:** [219/430](#) [219/432](#) [219/435](#) [99/331](#) [99/403](#) [99/422](#)[Classification Explorer](#)**Cited documents:** US5048402 A, EP0705554 A1, EP0328432 A1,

Forward Citations: WO16077284, WO05020772, WO05020771, USD552921, US9326637, US9320293, US9232875, US9089238, US8342367, US8067716, US7993049, US7980171, US7926418, US7872213, US7075038, US7074277, US6892629, US6772677, US2015101491, US2014366746, US2013255509, US2013236614, US2013199376, US2011162535, US2011095015, US2010097881, US2010097880, US2010095887, US2010095884, US2009304876, US2009152276, US2009013877, US2008223220, US2008169281, US2007137499, US2006107842, US2005217662, US2004123742, US2004079747, US2003161947, US2003159596, TWI436115, GB2437914, FR2858537, FR2858535, FR2858533, ES2221591, EP1651086, EP1504706, EP1504705, CN102665503, CN102665503,

Abstract:

Source: US2001050005A The invention relates to an electric fryer comprising a body comprising a housing and a container between which an insulating chamber is formed; a lid connected to the upper part of said body; a basket positionable in said container for containing food to be fried; heating means for heating the container; controlling means for controlling a heating time and a heating temperature of the heating means; and a base positioned under the body and connected separately thereto. The electric fryer according to the invention is of a novel structure, ensures safety, and can be easily cleaned and saves power.

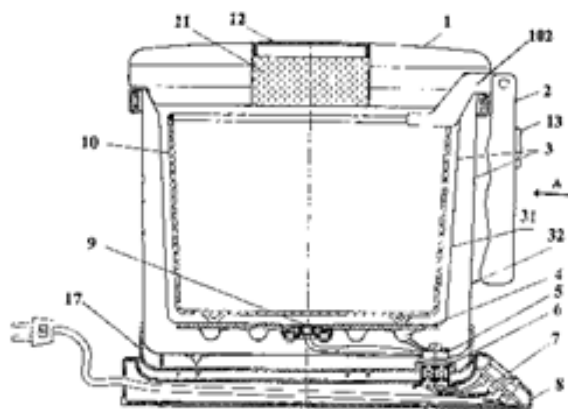
PatBase - US6545252_BB

U.S. Patent

Apr. 8, 2003

Sheet 1 of 7

US 6,545,252 B2

**Fig 1**

13) Family number: 44896931 (US2010089247A)

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Title: DEEP FRYER FOR COOKING FOODSTUFF**Priority:** US20080251215 20081014**Family:**

Publication number	Publication date	Application number	Application date
<u>CN201734548 U</u>	20110209	CN200920178982U	20091014
<u>US2010089247 AA</u>	20100415	US20080251215	20081014
<u>US8230779 BB</u>	20120731	US20080251215	20081014

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):^(std):** HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX ; YANG WEIQUN**Assignee(s):** HAMILTON BEACH PROCTOR SILEX INC**Inventor(s):^(std):** WEIQUN YANG ; YANG WEIQUN**Agent(s):** PANITCH SCHWARZE BELISARIO AND NADEL LLP

International class A47J27/04 A47J27/10 A47J36/06 A47J36/10 A47J36/38 A47J37/08
 (IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

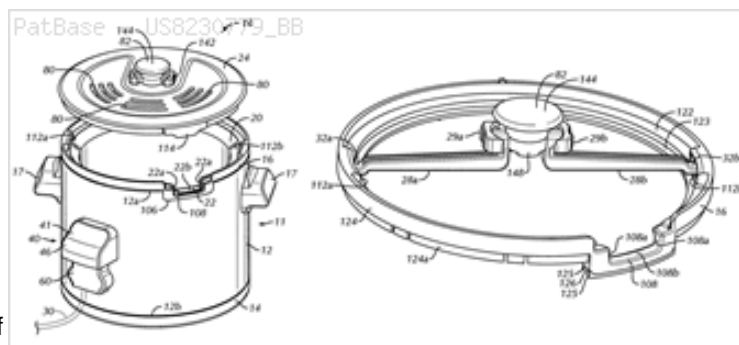
CPC: A47J37/1209 Y10S220/912**European class:** A47J37/12A1**US class:** 220/281 220/326 220/573.1 220/912 99/403 99/403P[Classification Explorer](#)

Cited documents: USD560964 S1, USD552922 S1, USD533014 S1, USD530564 S1, USD525478 S1, USD516374 S1, USD486351 S1, USD452412 S1, USD416166 S1, USD396505 S1, USD381242 S1, USD378647 S1, USD376724 S1, USD369505 S1, USD368623 S1, USD368621 S1, USD368620 S1, USD345281 S1, USD338133 S1, USD321455 S1, USD313531 S1, USD246686 S1, USD174721 S1, US7373874 BB, US7322279 BB, US7015429 BB, US6807899 BB, US6513420 BA, US6478614 BA, US6257124 BA, US6019029 A, US5911346 A, US5730045 A, US5678721 A, US5613424 A, US4627417 A, US4470515 A, US4201312 A, US2033011 A, US2009064868 AA, US2006272633 AA, US2005269309 AA, US2004250690 AA, US1241448 A,

Forward Citations: USD711679, USD710149, USD709731, USD703994, USD698197, USD695056, USD677979, USD677518, USD677517, USD673806, US8783498, US2015122136,

Abstract:

Source: US2010089247A A kitchen appliance for cooking foodstuff in a liquid including a container for receiving the foodstuff and the liquid. The container having an open end and a closed end. The open end of the container includes two spaced-apart lips. A lid is removably mountable to the open end of the container to enclose the foodstuff and the liquid therein. The lid includes two oppositely oriented elongated sliders. Each slider has a proximal and a distal end. At least one biasing member engages the proximal ends of each of the sliders. In a resting position, the at least one biasing member urges each of the distal ends of the sliders into one of the lips for selective engagement of the lid to the container.



14) Family number: 50923143 (ES1076697U)

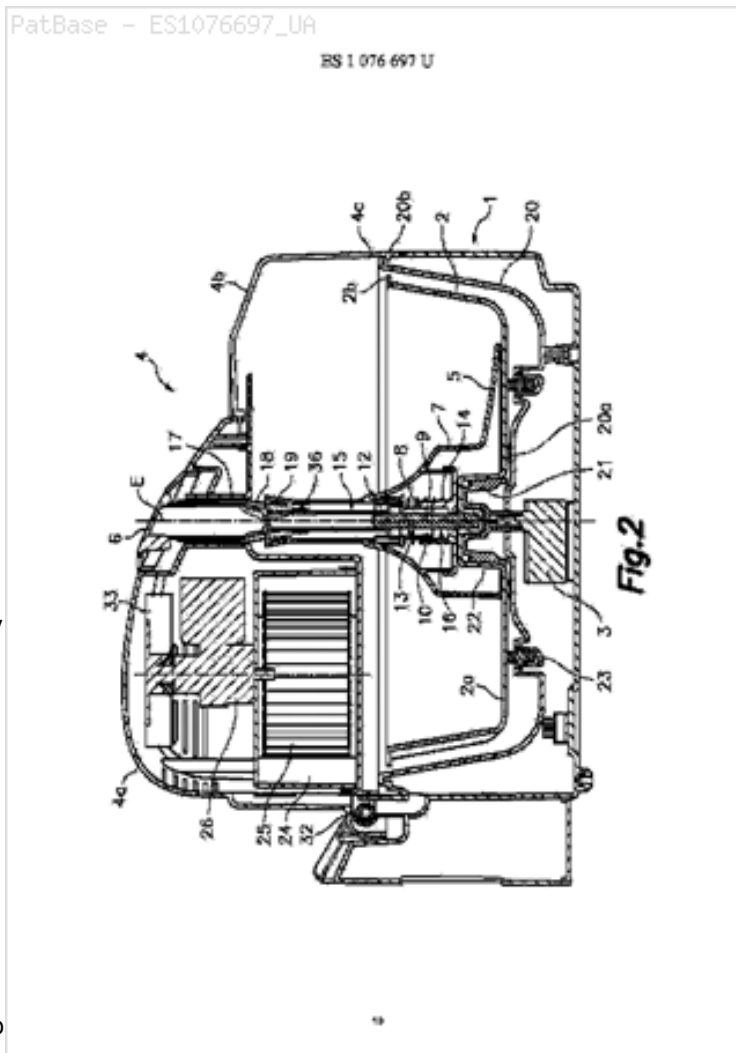
© PatBase

Title: FREIDORA DE AIRE CALIENTE HOT AIR FRYER (Machine translation)**Priority:** ES20120030252U 20120307**Family:**

Publication number	Publication date	Application number	Application date
<u>ES1076697 UA</u>	20120412	ES20120030252U	20120307
<u>ES1076697 Y1</u>	20120710	ES20120030252U	20120307

Probable Assignee: COMPANIA ESPANOLA DE ELECTROMENAJE SL**Assignee(s):^(std):** COMPANIA ESPANOLA DE ELECTROMENAJE SL**Inventor(s):^(std):** ALET VIDAL JOSEP ; TRENCH ROCA LLUIS**Inventor(s):** JOSEP ALET VIDAL ; LLUIS TRENCH ROCA**Agent(s):** TORNER ELISABET**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: ES1076697U 1. Freidora de aire caliente, comprendiendo una base (1) que soporta un recipiente de coccion (2) giratorio, un motor electrico de accionamiento (3) que hace girar dicho recipiente de coccion (2) respecto a dicha base (1), una cubierta (4) movable entre una posicion abierta, en la que dicha cubierta (4) permite el acceso al recipiente de coccion (2), y una posicion cerrada, en la que la cubierta (4) cubre el recipiente de coccion (2), unos medios de circulacion de aire caliente asociados a la cubierta (4) y configurados para hacer circular una corriente de aire caliente por el interior del recipiente de coccion (2) cuando la cubierta (4) esta en dicha posicion cerrada, y una aleta de remocion (5) dispuesta dentro del recipiente de coccion (2) con capacidad de giro relativo al recipiente de coccion (2), caracterizada porque dicha aleta de remocion (5) esta asociada a un mecanismo de arrastre comandado por un mando de activacion (6) que proporciona un modo inactivo, en el que dicho mecanismo de arrastre esta conectado y hace girar la aleta de remocion (5) junto con el recipiente de coccion (2), y un modo activo, en el que el mecanismo de arrastre esta desconectado y la aleta de remocion (5) permanece estacionaria respecto a la base (1) para remover alimentos dentro del recipiente de coccion (2) mientras este gira respecto a la base (1). 2. Freidora de aire caliente segun la reivindicacion 1, caracterizada porque el mecanismo de arrastre comprende un primer organo de conexion (15) que gira con la aleta de remocion (5) y un segundo organo de conexion (16) que gira con el recipiente de coccion (2), o viceversa, donde dicho primer organo de conexion (15) es movable entre una posicion conectada, en la que el primer organo de conexion (15) esta acoplado mediante un encaje de forma con dicho segundo organo de conexion (16) de manera que ambos giran conjuntamente, y una posicion desconectada, en la que el primer



organo de conexión (15) esta desacoplado del segundo organo de conexión (16).3. Freidora de aire caliente segun la reivindicación 2, caracterizada porque el primer organo de conexión (15) es movable en una dirección axial respecto a un eje de giro (E) del recipiente de cocción (2) entre dichas posiciones conectada y desconectada, y un elemento elastico (14) esta dispuesto de manera que empuja el primer organo de conexión (15) hacia la posición conectada.4. Freidora de aire caliente segun la reivindicación 3, caracterizada porque el mando de activación (6) es movable manualmente desde una posición inactiva, en la que el primer organo de conexión (15) es mantenido en la posición conectada por dicho elemento elastico (14), hasta una posición activa, en la que el mando de activación (6) empuja el primer organo de conexión (15) hacia la posición desconectada contra el empuje del elemento elastico (14).5. Freidora de aire caliente segun la reivindicación 4, caracterizada porque la aleta de remoción (5) esta unida a un buje (7) y dicho primer organo de conexión (15) esta instalado en dicho buje (7) de manera que puede moverse axialmente entre unos limites pero no girar respecto al buje (7).6. Freidora de aire caliente segun la reivindicación 5, caracterizada porque el primer organo de conexión (15) comprende un manguito (8) provisto de un agujero axial (9) y una ranura axial (10) formada en una superficie interior de dicho agujero axial (9), y el segundo organo de conexión (16) comprende un vástago axial (12) fijado al recipiente de cocción (2) y un saliente de arrastre (13) que sobresale radialmente de dicho vástago axial (12), donde en situación de uso dicho vástago axial (12) se inserta en el agujero axial (9) del manguito (8) y dicho saliente de arrastre (13) se inserta en dicha ranura axial (10) del manguito (8).7. Freidora de aire caliente segun la reivindicación 6, caracterizada porque donde la ranura axial (10) del manguito (8) esta dimensionada de manera que el saliente de arrastre (13) permanece en la ranura axial (10) mientras el primer organo de conexión (15) esta en la posición conectada y escapa de la ranura axial (10) cuando el primer organo de conexión (15) esta en la posición desconectada.8. Freidora de aire caliente segun la reivindicación 7, caracterizada porque el manguito (8) tiene una superficie circunferencial de apoyo (11) sobre la que se apoya y resbala el saliente de arrastre (13) despues de que el mismo haya escapado de la ranura axial (10) a consecuencia de un movimiento del primer organo de conexión (15) desde la posición conectada a la posición desconectada, y el saliente de arrastre (13) se inserta automaticamente en la ranura axial (10) permitiendo que el primer organo de conexión (15) sea retornado por el elemento elastico (14) desde la posición desconectada a la posición conectada despues de que el vástago axial (12) junto con el recipiente de cocción (2) haya realizado una vuelta completa.9. Freidora de aire caliente segun la reivindicación 8, caracterizada porque el mando de activación (6) esta instalado en dicha cubierta (4) de manera que puede moverse en una dirección axial entre dichas posiciones inactiva y activa pero no girar respecto a la cubierta (4), y el mando de activación (6) comprende en un extremo inferior del mismo un empujador (17) que se encuentra enfrentado y muy proximo o en contacto con un extremo superior del primer organo de conexión (15) cuando la cubierta (4) esta en dicha posición cerrada y el primer organo de conexión (15) esta en la posición conectada.10. Freidora de aire caliente segun la reivindicación 9, caracterizada porque el mando de activación (6) puede moverse libremente entre dichas posiciones inactiva y activa y es empujado hacia la posición inactiva por el primer organo de conexión (15) bajo la acción del elemento elastico (14).11. Freidora de aire caliente segun la reivindicación 9 o 10, caracterizada porque dicho empujador (17) del mando de activación (6) tiene un primer elemento de acoplamiento (18) que se acopla mediante un encaje de forma con un segundo elemento de acoplamiento (19) formado en un extremo superior del buje (7) inmovilizando con ello el giro de la aleta de remoción (5) respecto a la cubierta (4) cuando el mando de activación (6) es movido a la posición activa empujando el primer organo de conexión (15) a la posición desconectada.12. Freidora de aire caliente segun una cualquiera de las reivindicaciones precedentes, caracterizada porque la base (1) comprende un receptaculo (20) en el que se aloja el recipiente de cocción (2) en situación de uso, dicho motor electrico de accionamiento (3) esta situado por debajo de un fondo (20a) de dicho receptaculo (20) y conectado operativamente para hacer girar un miembro de accionamiento (21) situado centralmente por encima de dicho fondo (20a) del receptaculo (20), y el recipiente de cocción (2) tiene en su fondo (2a) una cavidad de acoplamiento (22) que se acopla mediante un encaje de forma con dicho miembro de accionamiento (21) en situación de uso.13. Freidora de aire caliente segun la reivindicación 12, caracterizada porque el fondo (20a) del receptaculo (20) incluye unos elementos de soporte de baja fricción (23) sobre los que se apoya dicho fondo (2a) del recipiente de cocción (2).14. Freidora de aire caliente segun la reivindicación 12, caracterizada porque el receptaculo (20) tiene un borde superior (20b) cercano a un borde superior (2b) del recipiente de cocción (2), y la cubierta (4) tiene un borde inferior que descansa sobre dicho borde superior (20b) del receptaculo (20) cuando la cubierta (4) esta en la posición cerrada.15. Freidora de aire caliente segun una cualquiera de las reivindicaciones 1 a 11, caracterizada porque los medios de circulación de aire caliente comprenden una turbina (25) accionada por un motor electrico de circulación de aire (26) y al menos una resistencia electrica.16. Freidora de aire caliente segun la reivindicación 15, caracterizada porque la cubierta (4) comprende una carcasa (4a) en la que estan instalados dichos medios de circulación de aire caliente y una porción de cubierta transparente (4b).17. Freidora de aire caliente segun la reivindicación 16, caracterizada porque dicha turbina (25) y dicha resistencia electrica estan instaladas en un compartimento (24) de dicha carcasa (4a), y dicho compartimento (24) tiene una entrada de aspiración de aire y una salida de impulsión de aire enfrentadas al recipiente de cocción (2) en situación de uso.18. Freidora de aire caliente segun la reivindicación 16, caracterizada porque el mando de activación (6) esta instalado en dicha carcasa (4a) de la cubierta (4).19. Freidora de aire caliente segun una cualquiera de las reivindicaciones precedentes, caracterizada porque incluye un mango accesorio (27) que comprende una porción de mango (28) y un apéndice de agarre (29) movil configurado para agarrar un borde superior (2b) del recipiente de cocción (2), estando dispuestos en dicha porción de mango (28) un mando de agarre (30) que mueve dicho apéndice de agarre (29) entre una posición liberada y una posición agarrada, un segundo elemento elastico que empuja el apéndice de agarre (29) hacia dicha posición liberada, un mecanismo de retención que inmoviliza el apéndice de agarre (29) en dicha posición agarrada contra el empuje de dicho segundo elemento elastico, y un botón de liberación (31) que libera dicho mecanismo de retención permitiendo que el segundo elemento elastico retorne el apéndice de agarre (29) a la posición liberada.

Machine translation: 1. Hot air fryer, comprising a base (1) supporting a cooking vessel (2) rotating a drive electric motor (3) which rotates said cooking vessel (2) with respect to said base (1), a cover (4) movable between

an open position in which said cover (4) allows access to the cooking vessel (2), and a closed position in which the cover (4) covering the cooking vessel (2), means for hot air circulation associated with the cover (4) and configured to circulate a current of hot air inside the cooking vessel (2) when the cover (4) is in said closed position, and a fin removal (5) disposed within the cooking vessel (2) rotatable relative to the cooking vessel (2), wherein said fin removal (5) is associated with a drive mechanism controlled by a command activation (6) that provides an idle mode, wherein said drive mechanism is connected to and rotates the removal flap (5) together with the cooking vessel (2), and an active mode, in which the drive mechanism is disconnected and removal flap (5) remains stationary relative to the base (1) to remove food within the cooking vessel (2) while it rotates relative to the base (1).

2. Hot air fryer according to claim 1, wherein the drive mechanism comprises a first connecting member (15) which rotates with removal flap (5) and a second connecting member (16) which rotates with the cooking vessel (2), or vice versa, wherein said first connecting member (15) is movable between a connected position in which the first connecting member (15) is coupled with a form fit with said second connecting member (16) so that both rotate together, and a disconnected position, in which the first connecting member (15) is decoupled from the second connecting member (16).

3. Hot air fryer according to claim 2, wherein the first connecting member (15) is movable in an axial direction about an axis of rotation (E) of the cooking vessel (2) between said positions connected and disconnected, and an elastic element (14) is arranged to push the first connecting member (15) towards the position connected.

4. Hot air fryer according to claim 3, wherein the activation control (6) is manually movable from an inactive position, wherein the first connecting member (15) is held in position by said elastic element (14) to an active position, in which the activation command (6) pushes the first connecting member (15) toward the disengaged position against the bias of the elastic element (14).

5. Hot air fryer according to claim 4, wherein the removal tab (5) is attached to a hub (7) and said first connecting member (15) is installed in said bushing (7) so that it can move axially between some limits but not rotate with respect to the hub (7).

6. Hot air fryer according to claim 5, wherein the first connecting member (15) comprises a sleeve (8) provided with an axial hole (9) and an axial slot (10) formed on an inner surface of said axial hole (9) and the second connecting member (16) comprises an axial rod (12) fixed to the cooking vessel (2) and a drive protrusion (13) protruding radially from said axial rod (12), where in situation of Use axial said rod (12) is inserted into the axial hole (9) of the sleeve (8) and drive said projection (13) is inserted into said axial groove (10) of the sleeve (8).

7. Hot air fryer according to claim 6, wherein where the axial slot (10) of the sleeve (8) is sized so that the outgoing trawl (13) remains in the axial slot (10) while the first connecting member (15) is in the connected position and escape from the axial slot (10) when the first connecting member (15) is at position disconnected.

8. Hot air fryer according to claim 7, wherein the sleeve (8) has a circumferential support surface (11) on which rests and slides the drive projection (13) after the same has escaped from the axial slot (10) as a result of movement of the first connecting member (15) from the position connected to the disconnected position, and the projection of drag (13) is automatically inserted into the axial slot (10) allowing the first connecting member (15) is returned by the elastic element (14) from the disconnected position to the connected position after the axial rod (12) together with the cooking vessel (2) has made a turn completa.

9. Hot air fryer according to claim 8, wherein the activation command (6) is installed on said cover (4) so that it can move in an axial direction between said inactive and active positions but not rotate relative to the deck (4), and the activation command (6) comprises a lower end thereof a plunger (17) that is facing and very close to or in contact with an upper end of the first connecting member (15) when the cover (4) is in said closed position and the first connecting member (15) is at position connected.

10. Hot air fryer according to claim 9, wherein the activation command (6) can move freely between said inactive and active positions and is pushed into the inactive position by the first connecting member (15) under the action of the elastic element (14).

11. Hot air fryer according to claim 9 or 10, wherein said pusher (17) of the activation command (6) has a first coupling element (18) which is engaged by a lace formed with a second coupling element (19) formed at an upper end of the hub (7) thereby immobilizing the rotation of the fin removal (5) with respect to the cover (4) when the activation command (6) is moved to the active position by pushing the first organ of connection (15) to position disconnected.

12. Hot air fryer according to any one of the preceding claims, wherein the base (1) comprises a receptacle (20) which is housed in the cooking vessel (2) in a situation of use, said electric drive motor (3) is located below a bottom (20a) of said receptacle (20) and operatively connected to rotate a drive member (21) located centrally above said bottom (20a) of the receptacle (20), and the cooking vessel (2) has at its bottom (2a) a coupling cavity (22) which is coupled by a fit of form with the drive member (21) in situation of use.

13. Hot air fryer according to claim 12, wherein the bottom (20a) of the receptacle (20) includes support elements of low friction (23) which rests on said bottom (2a) of the cooking vessel (2).

14. Fryer hot air according to claim 12, wherein the receptacle (20) has an upper edge (20b) near an upper edge (2b) of the cooking vessel (2), and the cover (4) has a lower edge rests on the top edge (20b) of the receptacle (20) when the cover (4) is in the position cerrada.

15. Hot air fryer according to any one of claims 1 to 11, characterized in that the means of hot air circulation comprise a turbine (25) driven by an electric motor for air circulation (26) and at least one electrica.

16. resistance. Hot air fryer according to claim 15, wherein the cover (4) comprises a housing (4a) in which are installed said means for circulation of hot air and a transparent cover portion (4b).

17. Hot air fryer according to claim 16, wherein said turbine (25) and electrical resistance that are installed in a compartment (24) of said housing (4a) and the compartment (24) has an air suction inlet and a air discharge outlet facing the cooking vessel (2) in situation of uso.

18. Hot air fryer according to claim 16, wherein the activation control (6) is installed in said housing (4a) of the cover (4).

19. Hot air fryer according to any one of the preceding claims, characterized in that includes a handle attachment (27) comprising a handle portion (28) and a gripping appendix (29) configured to hold a mobile upper edge (2b) of the container cooking (2), being arranged in said handle portion (28) a gripping knob (30) which moves said gripping appendix (29) between a released position and a gripping position, a second elastic element which pulls the appendix of grip (29) toward said released position, a retention mechanism that keeps the gripping appendage (29) in said gripping position against the bias of said second elastic element, and a release button (31) which releases the retention mechanism allowing that the second elastic return gripping appendix (29) to the unlocked position.

15) Family number: 18925002 (US4487117A)

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Title: Cooking appliance with lid and open work basket

Priority: BE19780057276 19780913 BE19782057276 19780913 BE19782057276 19780913
 BE19790058121 19791009 US19820373067 19820429 US19790073779 19790910
 BE19780870419 19780913 BE19792058121 19791009

Family:	Publication number	Publication date	Application number	Application date	
	<u>BE870419 A1</u>	19790313	BE19782057276	19780913	
	<u>BE879268 A4</u>	19800409	BE19792058121	19791009	
	<u>DE2967555 D1</u>	19860130	DE19792967555	19790905	
	<u>DE2967705 D1</u>	19920312	DE19792967705	19790905	
	<u>DE7925866 U1</u>	19800207	DE19790025866U	19790912	
	<u>EP0008838 A2</u>	19800319	EP19790200492	19790905	
	<u>EP0008838 A3</u>	19810204	EP19790200492	19790905	
	<u>EP0008838 B1</u>	19851218	EP19790200492	19790905	
	<u>EP0026958 A1</u>	19810415	EP19800200943	19801006	
	<u>EP0162482 A2</u>	19851127	EP19850200073	19790905	
	<u>EP0162482 A3</u>	19890628	EP19850200073	19790905	
	<u>EP0162482 B1</u>	19920129	EP19850200073	19790905	
	<u>EP0183281 A2</u>	19860604	EP19850200074	19790905	
	<u>ES245548 U</u>	19800101	ES19790245548U	19790912	
	<u>ES245548 Y</u>	19800616	ES19790245548U	19790912	
	<u>GR70231 B</u>	19820901	GR19790059969	19790905	
	<u>US4487117 A</u>	19841211	US19830540104	19831007	

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(IPC 8-9): A47J36/06 A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)**International class**
(IPC 1-7): A47J27/12 A47J36/06 A47J36/12 A47J36/38 A47J37/12 A47J45/10**CPC:** A47J36/38 A47J36/06 A47J37/1204 A47J37/128 A47J37/1295**European class:** A47J36/06 A47J36/38 A47J37/12A A47J37/12M1 A47J37/12P**US class:** 116/276 220/377 220/662 220/82R 73/334 99/341 99/403[Classification Explorer](#)**Cited documents:** US4145194 A, US4034663 A, US3964378 A, US3801331 A, US3714885 A, US3667648 A, US3463077 A, US3366035 A, US3278114 A, US3145643 A, US3128363 A, US2612154 A, US2603740 A, US2438270 A, US1836827 A, US143574 A, US1275598 A, JP48029653 U1, JP48029653 A2, GB828267 A, GB1545217 A, GB1297801 A, FR94107

Forward Citations: WO9426157, WO8403427, WO06019230, WO05079643, WO05065505, USD552921, US8016122, US7628162, US6334888, US6240837, US5873298, US5253566, US5238138, US4995312, US4636618, US2008308489, US2007068561, US2003209551, GB2345631, GB2345631, GB2139077, FR2967879, FR2928821, FR2838948, FR2818524, FR2680312, FR2657516, FR2634734, FR2525888, ES2212924, ES2058017, EP2103238, EP1568302, EP1563778, EP1563777, EP1216641, EP0891736, EP0587300, EP0527418, EP0263084, EP0149856, DE4304689, DE4304683, CH704665, BE1008015, BE1007170,

Source: US4487117A A cooking appliance including a vat for containing food during cooking, having a lid for engaging the vat. The lid has a transparent portion forming a double window consisting exclusively of an upper window and a lower window congruently placed on top of each other and an air space sealed therebetween, such that the lower window is exposed to cooking vapors emanating from the vat and the upper window is exposed to the outside atmosphere. Improved visibility through the windows is obtained during cooking. The upper and lower windows comprise a single unitary closed shell surrounding the air space.



16) Family number: 28994032 (US2003155346A)

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Title: ELECTRON SOURCE FOR FOOD TREATING APPARATUS AND METHOD

Priority: US20010014631 20011026 US20030379262 20030304 WO2002US34401 20021028
US20040999119 20041129 US20050234044 20050923

Family:	Publication number	Publication date	Application number	Application date
	<u>AT363850 E</u>	20070615	AT20020770666T	20021028
	<u>AU2002335896 AA</u>	20030526	AU20020335896	20021028
	<u>DE60220534 D1</u>	20070719	DE20026020534	20021028
	<u>DE60220534 T2</u>	20080214	DE20026020534T	20021028
	<u>EP1441625 A1</u>	20040804	EP20020770666	20021028
	<u>EP1441625 B1</u>	20070606	EP20020770666	20021028
	<u>US2003155346 AA</u>	20030821	US20030379262	20030304
	<u>US2005115948 AA</u>	20050602	US20040999119	20041129
	<u>US2006016798 AA</u>	20060126	US20050234044	20050923
	<u>US6528768 BA</u>	20030304	US20010014631	20011026
	<u>US6828527 BB</u>	20041207	US20030379262	20030304
	<u>US6949721 BB</u>	20050927	US20040999119	20041129
	<u>US7135657 BB</u>	20061114	US20050234044	20050923
	<u>WO03041545 A1</u>	20030522	WO2002US34401	20021028

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Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; RENNER OTTO BOISSELLE AND SKLAR LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): A23L1/025 A23L1/25 A23L3/32 A23L5/30 A47J27/00 A47J45/06
F27D11/00 (Advanced/Invention);
A23L1/025 A47J27/00 A47J45/00 (Core/Invention)

International class
(IPC 1-7): A23L1/25 A23L3/32 A47J27/00 F27D11/00 H05B3/03

CPC: A23L5/30 A47J27/00 A47J37/12 A47J45/06 A47J27/004 A47J45/061

European class: A23L1/025 A47J27/00 A47J27/00B A47J37/12 A47J45/06 A47J45/06A

US class: 219/386 219/438 219/441 426/237 426/244 99/431 99/451 99/483

[Classification Explorer](#)

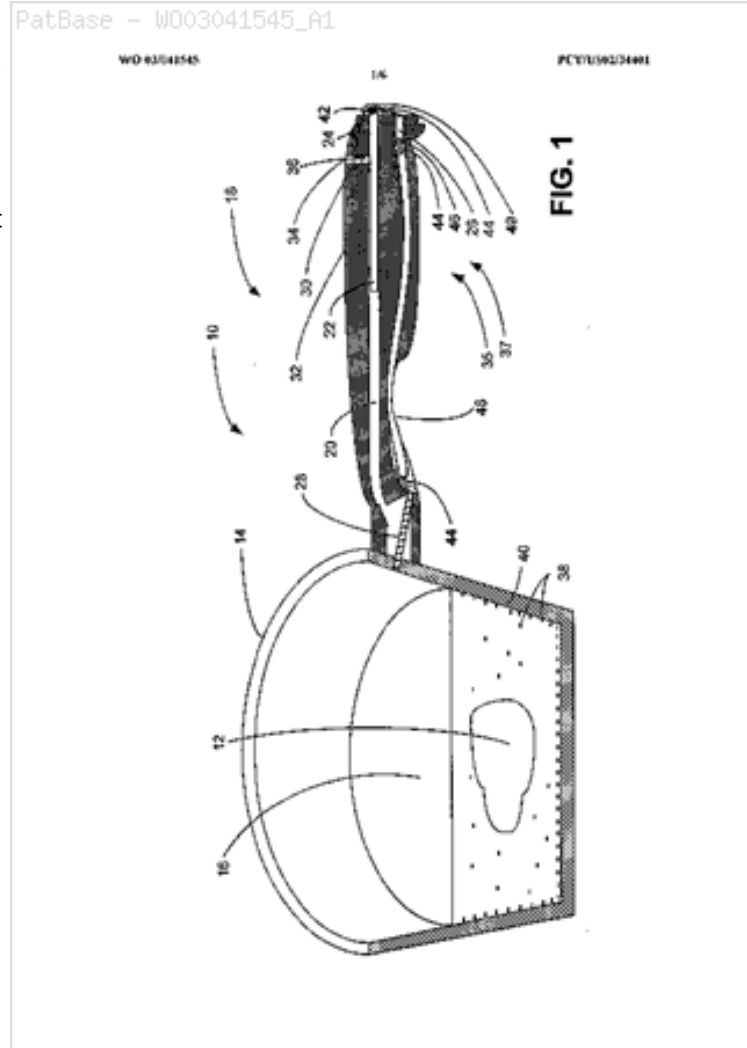
Cited documents: WO03041545 A1, WO0044269 A1, US6949721 BB, US6949721 BA, US6828527 BB, US6828527 BA, US6562386 BB, US6562386 BA, US6528768 BA, US6451364 BA, US6393973 BA, US6331321 BA, US5718934 A, US5609900 A, US5447733 A, US5356646 A, US4386110 A, US3632962 A, US3230096 A, JP8215069 A2, JP408215069,

Forward Citations: WO14191963, WO08087507, WO08081394, WO06101888, WO06101888, WO04075656, US9386881, US9247841, US9215886, US9095145, US8814863, US8814862, US8486684, US8284248, US8158175, US8124160, US8114463, US8110240, US8076620, US7867529, US7811618, US7767247, US7763306, US7763305,

US7763304, US7728263, US7706671, US7527815, US7524519, US7514113, US7393550, US7361914, US7267834, US7220440, US7189422, US7135657, US6989167, US6949721, US6914221, US2010143540, US2010119668, US2009252842, US2008312774, US2007277809, US2007235019, US2007210064, US2007178219, US2007120067, US2007108183, US2006210669, US2006207986, US2006127534, US2006057260, US2006051471, US2006051470, US2006051469, US2006051468, US2006034982, US2006016798, US2005202153, US2005118322, US2005115948, US2005102139, US2005074538, US2005064084, US2004265432, US2004265429, US2004166227, US2004166210, US2004101607, US2004081724, US2004058046, US2004058045,

Abstract:

Source: US2003155346A A food treating apparatus and method wherein a reducing DC electric current is provided by a DC electric circuit, the food treating apparatus including a vessel and a handle, and wherein at least part of the electric circuit is integral with the handle and is operative to provide electrons to food in the vessel. Further, the added electrons inhibit and/or reduce the formation of acrylamides in the food prepared in the food treating apparatus.



0) US2012145144A – SOLAR COOKING APPLIANCES

17) Family number: 48200875 (US2012145144A)

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Title: SOLAR COOKING APPLIANCES

Priority: CA20092672760 20090723 CA20092673702 20090723 WO2010CA01118 20100719
CA20092673703 20090723 US20120355201 20120120 US20150675052 20150331
WO2010CA01120 20100719 WO2010CA01119 20100719

Family:

Publication number	Publication date	Application number	Application date
<u>AP201206136 A0</u>	20120229	AP20120006136	20100719
<u>AP201206137 A0</u>	20120229	AP20120006137	20100719
<u>AP201206138 A0</u>	20120229	AP20120006138	20100719
<u>AP3087 A</u>	20150131	AP20120006138	20100719
<u>AP3386 A</u>	20150831	AP20120006136	20100719
<u>AR081123 AA</u>	20120627	AR2011P100218	20110124
<u>AU2012201047 AA</u>	20120315	AU20120201047	20120223
<u>AU2012201047 BB</u>	20140605	AU20120201047	20120223
<u>AU2012201056 AA</u>	20120315	AU20120201056	20120223
<u>AU2012201056 BB</u>	20140605	AU20120201056	20120223
<u>BR112012001546 A2</u>	20160412	BR20121101546	20100719
<u>BR112012001549 A2</u>	20160308	BR20121101549	20100719
<u>CA2672760 AA</u>	20110123	CA20092672760	20090723
<u>CA2673702 AA</u>	20110123	CA20092673702	20090723
<u>CA2673702 C</u>	20141125	CA20092673702	20090723
<u>CA2673703 AA</u>	20110123	CA20092673703	20090723
<u>CA2673703 C</u>	20150505	CA20092673703	20090723
<u>CN102575872 A</u>	20120711	CN201080033196	20100719
<u>CN102575872 B</u>	20140514	CN201080033196	20100719
<u>CN102597649 A</u>	20120718	CN201080033195	20100719
<u>CN102597649 B</u>	20150729	CN201080033195	20100719
<u>CN102741621 A</u>	20121017	CN201080033182	20100719
<u>CN102741621 B</u>	20140813	CN201080033182	20100719
<u>EA022804 B1</u>	20160331	EA20120000168	20100719
<u>EA023531 B1</u>	20160630	EA20120000169	20100719
<u>EA201200167 A1</u>	20120730	EA20120000167	20100719
<u>EA201200168 A1</u>	20120730	EA20120000168	20100719
<u>EA201200169 A1</u>	20120730	EA20120000169	20100719
<u>EP2457029 A1</u>	20120530	EP20100801820	20100719
<u>EP2457029 A4</u>	20140514	EP20100801820	20100719
<u>EP2457030 A1</u>	20120530	EP20100801822	20100719
<u>EP2457030 A4</u>	20141217	EP20100801822	20100719
<u>EP2459939 A1</u>	20120606	EP20100801821	20100719
<u>EP2459939 A4</u>	20140514	EP20100801821	20100719
<u>HK1171072 A1</u>	20160129	HK20120111936	20121122
<u>IN01471DN2012 A</u>	20150605	IN2012DN01471	20120217
<u>IN01472DN2012 A</u>	20150605	IN2012DN01472	20120217
<u>IN01474DN2012 A</u>	20150605	IN2012DN01474	20120217
<u>JP2012533369 T2</u>	20121227	JP20120520872T	20100719
<u>JP2012533370 T2</u>	20121227	JP20120520873T	20100719
<u>JP2012533371 T2</u>	20121227	JP20120520874T	20100719

JP5650214 B2	20150107	JP20120520873T	20100719	
JP5864418 B2	20160217	JP20120520874T	20100719	
JP5907868 B2	20160426	JP20120520872T	20100719	
KR20120068837 A	20120627	KR20127004552	20100719	
KR20120071383 A	20120702	KR20127004553	20100719	
KR20120071384 A	20120702	KR20127004554	20100719	
MX2012000983 A1	20120420	MX20120000983	20100719	
MX2012000985 A1	20120420	MX20120000985	20100719	
MX2012000987 A1	20120420	MX20120000987	20100719	
US2012145144 AA	20120614	US20120355094	20120120	
US2012145145 AA	20120614	US20120355201	20120120	
US2015211767 AA	20150730	US20150675052	20150331	
US8960181 BB	20150224	US20120355094	20120120	
US9182145 BB	20151110	US20120355201	20120120	
WO11009199 A1	20110127	WO2010CA01118	20100719	
WO11009200 A1	20110127	WO2010CA01119	20100719	
WO11009200 A8	20110728	WO2010CA01119	20100719	
WO11009201 A1	20110127	WO2010CA01120	20100719	
ZA201200693 A	20130227	ZA20120000693	20120127	
ZA201200694 A	20130227	ZA20120000694	20120127	
ZA201200695 A	20130227	ZA20120000695	20120127	

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): [A47J27/00](#) [A47J27/04](#) [A47J27/21](#) [A47J31/00](#) [A47J31/44](#) [A47J33/00](#) [A47J36/24](#) [A47J37/00](#) [A47J37/06](#) [A47J37/12](#) [F24C1/00](#) [F24C15/00](#) [F24C15/34](#) [F24J2/02](#) [F24J2/04](#) [F24J2/05](#) [F24J2/24](#) [F24J2/30](#) [F24J2/34](#) [F24J2/42](#) [F24J2/46](#) [F24J2/54](#) (Advanced/Invention); [A47J27/00](#) [A47J37/00](#) (Core/Invention); [A47J F24J](#) (Subclass/Invention)

International class
(IPC 1-7): [A47J27/00](#) [F24J2/02](#)

CPC: [F24J2/4649](#) [A47J37/00](#) [A47J37/0623](#) [A47J27/00](#) [A47J31/44](#) [F24J2/0023](#) [F24J2/265](#) [F24J2/32](#) [F24J2/36](#) [F24J2/02](#) [F24J2/055](#) [F24J2/34](#) [Y02B40/18](#) [Y02E10/44](#) [F24J2/46](#) [F24J2/4647](#) [A47J36/02](#) [A47J27/04](#) [F24J2/42](#)

European class: [A47J27/00](#) [A47J31/44](#) [A47J37/00](#) [A47J37/06C](#) [F24J2/00E](#) [F24J2/02](#) [F24J2/05B](#) [F24J2/26B](#) [F24J2/32](#) [F24J2/34](#) [F24J2/36](#) [Y02B40/18](#) [Y02E10/44](#)

US class: [1/1](#) [126/400](#) [126/609](#) [126/617](#) [126/620](#) [126/635](#) [126/643](#) [126/643S](#) [126/676](#) [126/681](#) [126/681S](#) [165/104.11](#) [165/104.14](#) [165/236](#) [99/279](#) [99/292](#)

[Classification Explorer](#)

Cited documents: WO09039925 A1, US7458316 BB, US742961 A, US7412976 BB, US7270049 BB, US7056371 BB, US6124575 A, US5524610 A, US5167218 A, US4853088 A, US4834066 A, US4712606 A, US4662354 A, US4597434 A, US4469088 A, US4442828 A, US4281644 A, US4281639 A, US4258695 A, US4217882 A, US4215553 A, US4203427 A, US4196721 A, US4142576 A, US4142513 A, US4042012 A, US4018212 A, US3968786 A, US3938497 A, US3915304 A, US3875926 A, US3791372 A, US3570390 A, US3236227 A, US2178049 A, US2097977 A, US2010139648 AA, US2010071686 AA, US2009165781 AA, US2009133688 AA, US2008283046 AA, US2008271731 AA, US2008156314 AA, US2007221067 AA, US1769752 A, US1442696 A, US04196721, JP9206224 A2, JP7004751 A2, JP7004751, JP63501311 T2, JP63046345 A2, JP63046345, JP6064070 U1, JP6064070 U, JP6064070 U, JP59232165 A2, JP59152359 U1, JP59152359 U, JP59152359 U, JP59152359 U, JP59014830 A2, JP59014830, JP58194377 U1, JP58194377 U, JP58194377 U, JP58194377 U, JP58078628 A2, JP58078628, JP57135310 U1, JP57135310 U, JP57135310 U, JP56500189 T2, JP56172650 U, JP56172650 U, JP56166454 U1, JP56166454 U, JP56127142 A2, JP56127142, JP2101350 A2, JP2071424 U1, JP2006217997 A2, JP2006217997, JP2005241020 A2, JP2005241020, JP2004205183 A2, JP2001238712 A2, JP2000107033 A2, JP1291060 A2, JP07004751, JP06064070 U, JP02101350, JP01291060, EP0099423 A2, DE4338736 A1, DE4142119 A1, DE3544039 A1, DE3521027 A1, DE3044192 A1, DE29500709 U1,

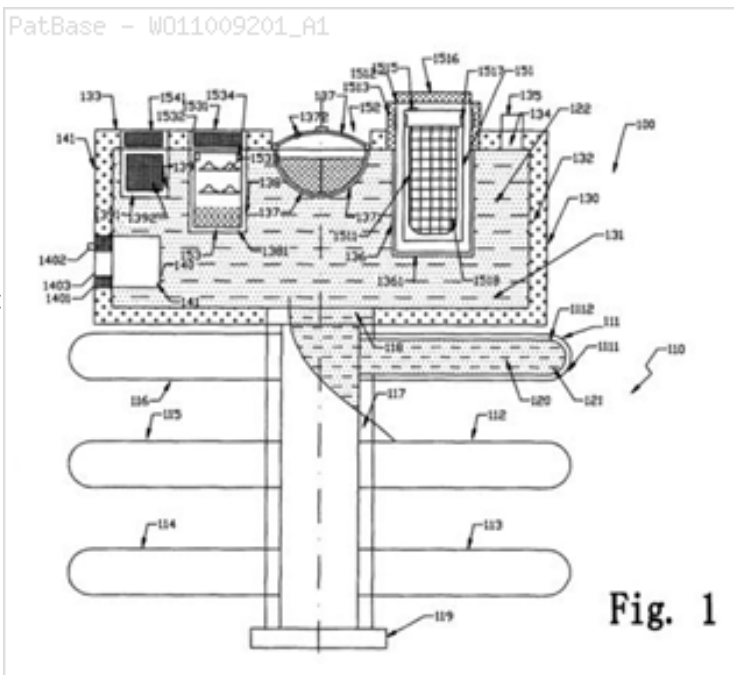
DE202007013089 U1

DE202007013089 U, CN2518037 Y, CN2451967 Y, CN2443681 Y, CN2274741 Y, CN2265509 Y, CN201206904 Y, CN201093766 Y, CN201066208 Y, CN101392961 A,

Forward Citations: WO17002127, WO13177657, WO13106901, US9291372, US9222709, US2015044345, US2014223945, US2014216439, US2014196868, US2013025821, US2011108020, ES2529364, CN104654621, CN104515304, CN103733000, CN103654380, CN103505068, CN103120544, CN103120544, CN102743109,

Abstract:

Source: US2012145144A Solar heat collector, especially an evacuated-tube solar heat collector, filled with first solid heat storage and conducting material transfers the solar heat to an electric power heat insulated utensil through second heat conducting/transferring material for cooking foods and making coffee/tea. A set of solar cooking appliance having a solar heat collector filed with a first solid heat storage and conducting material and a solar cooking range filled with third solid heat storage and conducting material. The solar cooking range having a heat insulated enclosed compartment and also having a cooktop. The cooking range having a set of cooking chambers which are in thermal contact with the first and second heat storage and conducting material for cooking food therein. The cooking appliance also has a group of removable parts that cover the cooking chambers separately. An electric power heater provides a backup energy source and electric heat storage.



18) Family number: 42647179 (US2008302353A)

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Title: REMOVABLE FLAME HEAT REGULATING APPARATUS INCLUDING AN INNER HOLLOW SHELL AND AN OUTER WALL FOR A BURNER OF A GAS STOVE

Priority: US20070811521 20070611 US20080313940 20081126 US20100660234 20100222
US20120403733 20120223

Family:	Publication number	Publication date	Application number	Application date
	CN101440972 A	20090527	CN200710181072	20070930
	CN101440972 B	20130130	CN200710181072	20070930
	CN101818896 A	20100901	CN200910127571	20090315
	CN101818896 B	20140618	CN200910127571	20090315
	CN102141255 A	20110803	CN201110046620	20110219
	CN102141255 B	20140212	CN201110046620	20110219
	CN102865609 A	20130109	CN201210345013	20070930
	CN102865609 B	20141217	CN201210345013	20070930
	CN201229012 Y	20090429	CN200720183522U	20070930
	CN201539902 U	20100804	CN200920003268U	20070930
	CN201555220 U	20100818	CN200920008464U	20090315
	CN202188530 U	20120411	CN201120047260U	20110219
	US2008302353 AA	20081211	US20070811521	20070611
	US2009078247 AA	20090326	US20080313940	20081126
	US2010154778 AA	20100624	US20100660234	20100222
	US2012180779 AA	20120719	US20120403733	20120223
	US7708006 BB	20100504	US20070811521	20070611
	US8590526 BB	20131126	US20100660234	20100222

Probable Assignee: SUN YIHUI**Assignee(s):**^(std): SUN YIHUI ; SUN YIZHONG ; YIZHONG SUN**Inventor(s):**^(std): SUN YIZHONG ; YIZHONG SUN**Agent(s):** YIZHONG SUN

International class
(IPC 8-9): [F23D14/02](#) [F23D14/46](#) [F23D14/58](#) [F23D14/70](#) [F23D14/84](#) [F24C1/16](#) [F24C15/10](#)
[F24C15/22](#) [F24C15/24](#) [F24C3/00](#) [F24C3/08](#) (Advanced/Invention);
[F24C3/14](#) (Advanced/Non-invention);
[F23D14/02](#) [F23D14/46](#) [F23D14/48](#) [F24C1/00](#) [F24C15/00](#) [F24C15/10](#) [F24C3/00](#)
[F24C3/08](#) (Core/Invention);
[F24C3/00](#) (Core/Non-invention)

CPC: [A47J36/36](#) [A47J36/34](#) [A47J37/0652](#) [F23H13/00](#) [F24B1/192](#) [F24C15/101](#) [F24C15/36](#)
[Y02B40/166](#) [F24C15/107](#)

European class: [F24C15/10D](#)

US class: [126/211](#) [126/214D](#) [126/215](#) [126/216](#) [126/22](#) [126/39.00ES](#) [126/39.00KP](#) [126/39.00RP](#)
[126/39E](#) [126/39K](#) [126/39R](#) [126/40](#) [126/50](#)

[Classification Explorer](#)

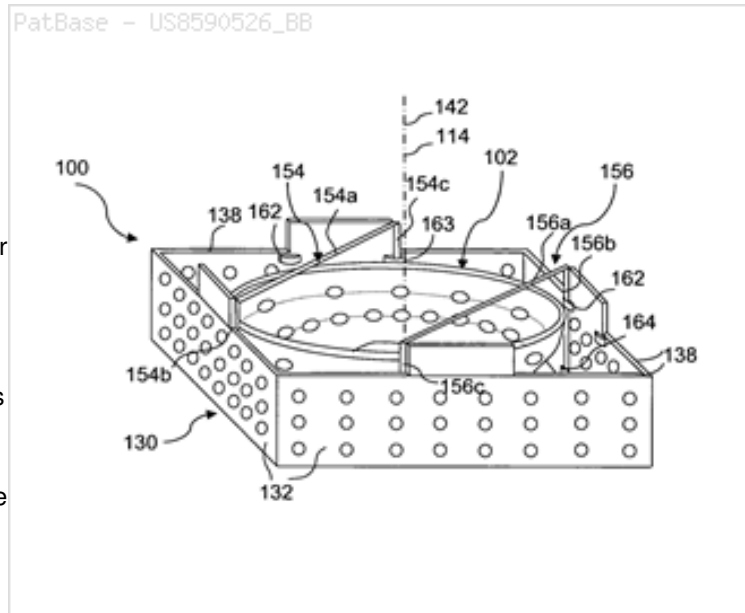
Cited documents: USD220150 S1, US936482 A, US7246614 BB, US6851420 BB, US6851419 BB, US6619280, US6505621 BB, US6244263 BA, US6146132 A, US6132205 A, US6093018 A, US6078029 A, US5797386 A, US5649822 A, US5490778 A, US5323759 A, US5201306 A, US5002039 A, US4968246 A, US4909235 A, US4850335 A, US4794906 A, US4705021 A, US4620526 A, US4448186 A, US4337752 A, US3658049 A, US3625196 A, US3187742 A, US2910930 A, US2327807 A, US2166442 A, US2009078247 AA, US2008302353 AA, US2006065264 AA, US2005115556 AA, US2005109330 AA, US2004250807 AA, US2004045542 AA, US1485292 A, US1159087 A, US1156087 A, US1091649 A, US1072115 A, JP6122111, GB2434438, CN87212558, CN2872146 Y, CN2795701, CN2731314, CN2454679, CN2292237 Y, CN201555220,

CN201344574 Y, CN201203104 Y, CN1815085, CN1409047, CN1246599, CN101440972 A, CN101285598,

Forward Citations: WO15153224, WO15108425, WO15049551, WO14174228, WO13106892, WO10132889, USD734974, USD728308, USD680371, USD667257, USD651851, USD645298, USD645297, USD645296, USD644874, USD644868, US9593854, US9523498, US9506656, US9488383, US9194578, US9138098, US9097436, US8951041, US8590526, US7694671, US2014345591, US2014106288, US2013087137, US2011311928, US2011297137, US2011232628, US2010154778, US2010024796, GB2495723, GB2482843, CN104819490, CN103292580, CN102421338, CN102141255, CN101818896,

Abstract:

Source: US2008302353A A flame heat regulating apparatus for a cooktop of a gas stove, comprising an inner hollow shell and an outer wall which are both placed onto the stove cooktop. The shell further positioned to surround a gas burner is arcuate in shape, having a smaller sized bottom side and a larger sized top side. A plurality of air passages are through the shell, wherein the air passages are more densely distributed onto a lower part of the shell, as compared with the air passages which are less densely distributed onto an upper part of the shell. The outer wall further positioned to surround the shell is comprised of a plurality of air passages which are evenly distributed therethrough. In addition, a plurality of extensions projecting upwardly are spaced on a top side of the wall to support a cookware. Application of the flame heat regulating apparatus enables increase of heating efficiency of the flame in cooking, and prevents undesirable heating of a handle of the cookware.



19) Family number: 32360599 (US2005235838A)

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Title: APPARATUS AND METHOD FOR BARRIER SUBMERSION COOKING

Priority: US20040709273 20040426 US20060821062P 20060801 US20070830957 20070731
 US20080194296 20080819 WO2007US74848 20070731 US20120345145 20120106
 US20090433946 20090501 US20070884897P 20070115

Family:	Publication number	Publication date	Application number	Application date
	CA2658702 AA	20090122	CA20072658702	20070731
	CA2658702 C	20131210	CA20072658702	20070731
	EP2046175 A2	20090415	EP20070799938	20070731
	US2005235838 AA	20051027	US20040709273	20040426
	US2008220134 AA	20080911	US20070830957	20070731
	US2008295706 AA	20081204	US20080194296	20080819
	US2009232952 AA	20090917	US20090433946	20090501
	US2012152128 AA	20120621	US20120345145	20120106
	US7543530 BB	20090609	US20070830957	20070731
	US8342081 BB	20130101	US20090433946	20090501
	US8453563 BB	20130604	US20120345145	20120106
	WO08016918 A2	20080207	WO2007US74848	20070731
	WO08016918 A3	20080403	WO2007US74848	20070731

Probable Assignee: B S C TECHNOLOGIES INC**Assignee(s):**^(std) B S C TECHNOLOGIES INC ; BSC TECHNOLOGIES INC ; COHN ROBERT ; SUCHECKI J MARK ; SUCHECKI JOSEPH M**Inventor(s):**^(std) COHN ROBERT ; SUCHECKI J MARK ; SUCHECKI JOSEPH M**Inventor(s):** SUCHECKI J**Agent(s):** GOWLING LAFLEUR HENDERSON LLP; MOORE CHRISTOPHER MARK ET AL; MITCHELL A SMOLOW; CAESAR RIVISE BERNSTEIN COHEN AND POKOTILOW LTD; SMOLOW MITCHELL**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8-9): [A23L1/01](#) [A23L1/48](#) [A23L35/00](#) [A23P1/00](#) [A47F7/00](#) [A47J27/10](#) [A47J36/02](#) [A47J36/16](#) [A47J37/00](#) [A47J37/12](#) [A47J43/28](#) [B65D33/01](#) [B65D33/14](#) [B65D81/34](#) (Advanced/Invention); [A23L1/01](#) [A23L1/48](#) [A23P1/00](#) [A47F7/00](#) [A47J27/10](#) [A47J36/00](#) [A47J36/02](#) [A47J37/00](#) [A47J37/12](#) [A47J43/00](#) [B65D33/01](#) [B65D33/14](#) [B65D81/34](#) (Core/Invention)

International class
 (IPC 1-7): [A23P1/00](#)

CPC: [A23L5/11](#) [A23L5/12](#) [A23L5/15](#) [A47J37/1295](#) [A47J36/16](#)**European class:** [A23L1/01B](#) [A23L1/01B2](#) [A23L1/01F](#) [A47J36/16](#) [A47J37/12P](#)**US class:** [211/85.4](#) [211/85.400S](#) [383/103](#) [383/103S](#) [426/395](#) [426/395P](#) [426/412](#) [426/412P](#) [99/403](#) [99/403S](#) [99/407](#) [99/407S](#) [99/410](#) [99/414](#) [99/416](#) [99/416P](#) [99/416S](#) [99/426](#) [99/450](#) [99/450S](#)[Classification Explorer](#)**Cited documents:** WO08016918 A2, USD394371 S1, USD236414 S1, US869690 A, US7543530 BB, US7040219 BA, US6884978 BB, US6048558 A, US5994672 A, US5988048 A, US5937743 A, US5871790 A, US5865103 A, US5814382 A, US5613423 A, US5431092 A, US5407611 A, US5359924 A, US5223286 A, US5086924 A, US5079020 A, US4894247 A, US4873919 A, US4762056 A, US4542685 A, US4508027 A, US4499817 A, US4462915 A, US44445428 A, US4412482 A, US4232596 A, US4215629 A,

US4211158 A, US3946654 A, US3935810 A, US3908534 A, US3891775 A, US3858496 A, US3819089 A, US374909 A, US3716369 A, US3658562 A, US3607312 A, US3578239 A, US3532225 A, US3531300 A, US3236196 A, US2912336 A, US2659362 A, US2323623 A, US2244193 A, US2204699 A, US2008199579 AA, US2007134382 AA, US2005235838 AA, US2004252921 AA, US2004115318 AA, US2003021870 AA, US1622081 A, JP11046698 A2,

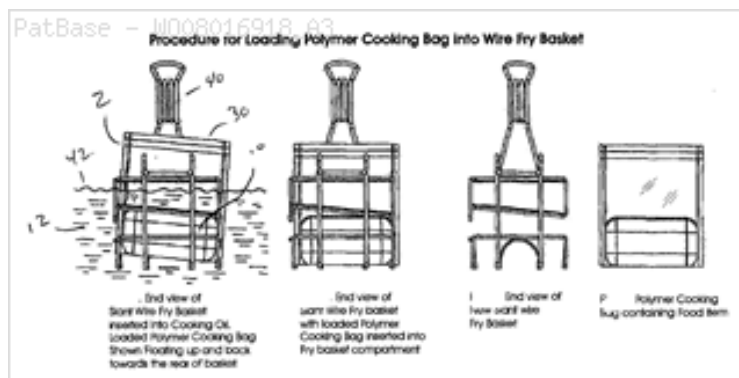
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WO08016918, WO08016918, USD763636, USD741640, USD702084, USD694057, USD691845, USD690553, USD686869, USD677972, USD676705, USD665221, USD620306, USD620305, USD613108, USD597371, USD596893, US9504356, US8850965, US8847123, US8707857, US8684600, US8596189, US8500870, US8460729, US8453563, US8342081, US8309151, US8186265, US7754261, US7543530, US2016278567, US2016081372, US2015272371, US2015197388, US2014007780, US2012137886, US2012085245, US2011235951, US2010224081, US2010071567, US2009232952, US2008295706, US2008220134, US2007256571, US2007253646, US2007212469, US2005279224, JP2013063277, EP2008556,

Abstract:

Source: US2005235838A A method and apparatus for placing a food item into a cooking vessel fabricated from a material with an effective heat transfer rate that will cause the temperature of the interior vessel wall to achieve effective frying temperature substantially instantaneously after placement into hot cooking oil. The vessel is effectively dimensioned so that it can be placed into the hot oil of the deep fryer while a vent remains above the top surface of the oil. A food item is inserted into the cooking vessel to fit snugly into a food containment area of the vessel such that it intimately contacts the interior

vessel walls. Using a rack, the vessel is lowered into the deep fryer's hot oil to an effective depth such that the food item containment area is below the surface of the oil while the vent remains above the top level of the hot oil. Due to the high heat transfer characteristics inherent in the vessel, heat is substantially instantaneously transferred from the hot oil through the cooking vessel to the food item contained within, causing the food item to start frying substantially immediately. Steam and hot vapors omitted from the food during the frying process escape through the vent opening of the cooking vessel.



0) US2006076281A – DEVICE FOR CONTINUOUSLY FILTERING DEEP FAT FRYE...

20) Family number: 32813276 (US2006076281A)

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Title: DEVICE FOR CONTINUOUSLY FILTERING DEEP FAT FRYER OIL

Priority: CA20052511845 20050704 FR20040010594 20041007

Family:	Publication number	Publication date	Application number	Application date
	CA2511845 AA	20060407	CA20052511845	20050704
	EP1645217 A1	20060412	EP20050356107	20050615
	FR2876263 A1	20060414	FR20040010594	20041007
	FR2876263 B1	20061201	FR20040010594	20041007
	US2006076281 AA	20060413	US20050168871	20050629

Probable Assignee: MORICE EQUIPEMENT

Assignee(s):^(std): MORICE EQUIPEMENT ; MORICE EQUIPEMENT SA

Assignee(s): MORICE EQUIPEMENT SOC ANONYME ; MORICE EQUIPEMENT SOCIETE ANONYME ; ALDEGUER RENE

Inventor(s):^(std): ALDEGUER RENE

Agent(s): ROBIC; OLIFF AND BERRIDGE PLC

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

International class
^(IPC 8-9): [A47J37/12 B01D29/56 B01D35/00 B01D35/02 B01D35/027 B01D35/26](#) (Advanced/Invention);
[A47J37/12 B01D29/50 B01D35/00](#) (Core/Invention)

CPC: [A47J37/1223](#)

European class: [A47J37/12D](#)

US class: [210/167 210/167.28 210/416.5 210/DIG.008 210/DIG.8](#)

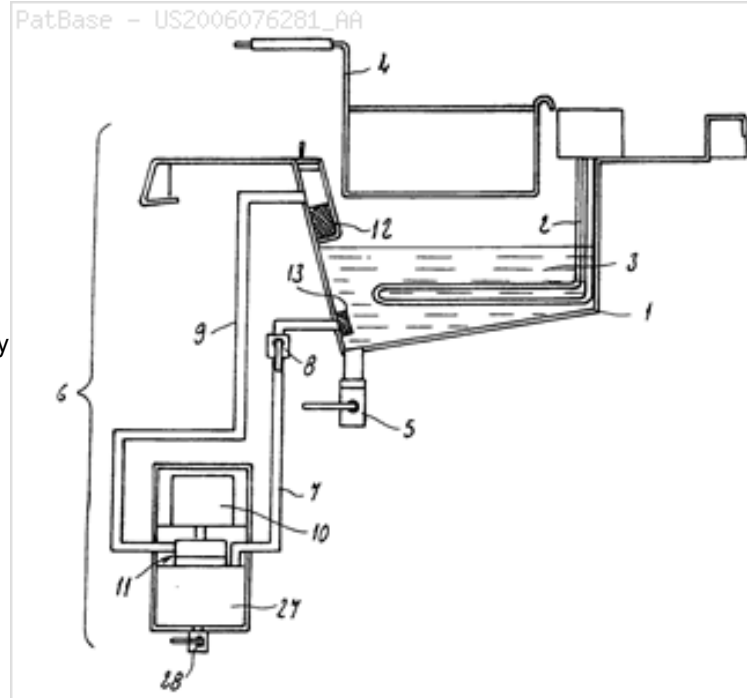
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Cited documents: US6470794 BB, US6235210 BA, US5680811 A, US5404799 A, US4945893 A, US4328097 A, US4195667 A, US3685433 A, US3667374 A, US2652767 A, US2578129 A, US2477404 A, FR2846218 A1,

Forward Citations: US9532681, US8828223, US7686952, US7566468, US2008196596, US2007170109,

Abstract:

Source: US2006076281A For a deep fat fryer comprising a vat containing a bath of heated oil, there is provided a built-in device for filtering the oil, including means for collecting the oil contained in the vat, and means for pumping, for filtering and for recirculating this oil to the vat. The filtering device comprises, on the one hand, a filtering unit situated in the upper part of the vat of the deep fat fryer, in a readily accessible location, at the downstream end of the recirculating means and, on the other hand, arranged inside the cabinet of the deep fat fryer, a motor and a pump, particularly a rotary pump, driven by the motor. The invention applies to industrial or commercial deep fat fryers.



21) Family number: 31002790 (US2004188340A)

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Title: APPARATUS FOR SEPARATING PARTICULATES FROM A SUSPENSION, AND USES THEREOF

Priority: CA20042517440 20040325 CA20042783179 20040325 US20030458520 20030328
 JP20060509261 20040325 US20030458520P 20030328 CA20122517440 20120731
 US20050293757 20051202 US20050721836P 20050928 US20050727481P 20051017
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 US20140462493 20140818

Family:

Publication number	Publication date	Application number	Application date
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<u>EP1615862 A2</u>	20060118	EP20040758275	20040325
<u>EP1615862 A4</u>	20110615	EP20040758275	20040325
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<u>EP1797023 A4</u>	20110803	EP20050803185	20050922
<u>EP1799793 A2</u>	20070627	EP20050802984	20050922
<u>EP1951618 A2</u>	20080806	EP20060815770	20060929
<u>EP1951618 A4</u>	20091118	EP20060815770	20060929
<u>EP2257510 A1</u>	20101208	EP20090714171	20090226
<u>EP2257510 A4</u>	20110928	EP20090714171	20090226
<u>HK1086815 A3</u>	20060929	HK20060108074	20060718
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<u>HK1156596 A3</u>	20120615	HK20110110760	20111011
<u>IL171084 A1</u>	20121129	IL20040171084	20040325
<u>IL182448 A0</u>	20090211	IL20050182448	20050922
<u>IL182449 A0</u>	20090211	IL20050182449	20050922
<u>IL190911 A0</u>	20081103	IL20060190911	20060929
<u>IN01810CN2007 A</u>	20070928	IN2007CN01810	20070430
<u>IN01832CN2007 A</u>	20070831	IN2007CN01832	20070430
<u>IN02440CN2008 A</u>	20090306	IN2008CN02440	20080516
<u>IN02781CN2005 A</u>	20070831	IN2005CN02781	20051027
<u>IN03485CN2007 A</u>	20080627	IN2007CN03485	20070809
<u>IN05989CN2010 A</u>	20110429	IN2010CN05989	20100923
<u>IN223477 B</u>	20081121	IN2005CN02781	20051027
<u>JP2007524498 T2</u>	20070830	JP20060509261T	20040325
<u>JP2008514421 T2</u>	20080508	JP20070534737T	20050922
<u>JP2008514422 T2</u>	20080508	JP20070534738T	20050922
<u>JP2009511734 T2</u>	20090319	JP20080536592T	20060929
<u>JP2011515509 T2</u>	20110519	JP20100547871T	20090226
<u>JP2012082434 A2</u>	20120426	JP20110268778	20111208
<u>JP5036303 B2</u>	20120926	JP20060509261T	20040325
<u>JP5486767 B2</u>	20140507	JP20070534738T	20050922
<u>KR101419756 B1</u>	20140715	KR20087011765	20060929
<u>KR20060002888 A</u>	20060109	KR20057018369	20050928
<u>KR20070058673 A</u>	20070608	KR20077009628	20070427
<u>KR20070060138 A</u>	20070612	KR20077009625	20070427
<u>KR20080063842 A</u>	20080707	KR20087011589	20080515
<u>KR20080064866 A</u>	20080709	KR20087011765	20060929
<u>KR20100122103 A</u>	20101119	KR20107021528	20090226
<u>MX2007003808 A1</u>	20070605	MX20070003808	20050922
<u>MX2007003898 A1</u>	20070607	MX20070003898	20050922
<u>MX336111 B</u>	20160108	MX20080005026	20060929
<u>MXPA05010366 A1</u>	20060308	MX2005PA10366	20040325
<u>NO20054596 A</u>	20051223	NO20050004596	20051006
<u>NO20054596 A0</u>	20051006	NO20050004596	20051006
<u>NO20071923 A</u>	20070621	NO20070001923	20070416
<u>NO20071925 A</u>	20070621	NO20070001925	20070416
<u>NO20081895 A</u>	20080708	NO20080001895	20080422
<u>NZ588214 A</u>	20121026	NZ20090588214	20090226
<u>PA8599201 A1</u>	20041008	PA20040085992	20040326

<u>PE07802006 A1</u>	20060918	PE20050001156	20050929
<u>PE07812006 A1</u>	20060915	PE20050001157	20050929
<u>PE08602007 A1</u>	20070904	PE20060001253	20061016
<u>PE10232004 A1</u>	20050210	PE20040000325	20040326
<u>RU2005133203 A</u>	20060810	RU20050133203	20040325
<u>RU2007116133 A</u>	20081110	RU20070116133	20050922
<u>RU2007116134 A</u>	20081110	RU20070116134	20050922
<u>TH70435 A</u>	20050907	TH20041001089	20040326
<u>TW200505839 A</u>	20050216	TW20040108415	20040326
<u>TW200626228 A</u>	20060801	TW20050133566	20050927
<u>TW200628600 A</u>	20060816	TW20050133564	20050927
<u>TW200732467 A</u>	20070901	TW20060136026	20060928
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<u>US7771699 BB</u>	20100810	US20060529825	20060929
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<u>US8809606 BB</u>	20140819	US20110213454	20110819
<u>US8877992 BB</u>	20141104	US20080140899	20080617
<u>WO04087619 A2</u>	20041014	WO2004US09037	20040325
<u>WO04087619 A3</u>	20060413	WO2004US09037	20040325
<u>WO06039354 A2</u>	20060413	WO2005US34880	20050922
<u>WO06039354 A3</u>	20061005	WO2005US34880	20050922
<u>WO06039355 A2</u>	20060413	WO2005US34881	20050922
<u>WO06039355 A3</u>	20081030	WO2005US34881	20050922
<u>WO07046858 A1</u>	20070426	WO2006US14867	20060420
<u>WO07047063 A2</u>	20070426	WO2006US38024	20060929
<u>WO07047063 A3</u>	20090409	WO2006US38024	20060929
<u>WO09108761 A1</u>	20090903	WO2009US35258	20090226
<u>WO09108761 A9</u>	20100218	WO2009US35258	20090226
<u>ZA200507817 A</u>	20070425	ZA20050007817	20050927
<u>ZA201006788 A</u>	20120125	ZA20100006788	20100922

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TZ UA US UG UZ VC VN YU ZA ZM ZW

International class
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International class
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US class:

201/21 201/25 201/25S 202/118 202/26 202/260 202/260S 202/262 202/262S 202/96
202/96S 208/15 208/15S 210/321.67 210/321.670S 210/321.68 210/321.680P 210/321.87
210/650 210/731 210/749 210/774 210/806 422/184.1 422/187 422/187S 422/188
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423/484 423/484P 44/605 44/606 536/55.3 536/55.300 585/1 585/15 585/16 585/16P
585/1S 585/240 585/240P 585/240S 585/241 585/241P 585/242 585/310 585/310S
585/469 585/638 585/733 585/800 585/800S

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Cited documents:

WO9521903 A1, WO9406721 A1, WO09108761 A1, WO08073186 A2, WO04087619 A2, WO0013811 A1, US8003833 BB, US7771699 BB, US7692050 BB, US7476296 BB, US7301060 BB, US7179379 BB, US7094746 BB, US7049433 BB, US6972284 BB, US6905600 BB, US6822126 BB, US6699708 BA, US6693188 BB, US6548560 BA, US6504068 BA, US6465707 BA, US6440223 BA, US6387221 BA, US6197081 BA, US6180845 BA, US6180845 B1, US6172275 BA, US6172275 B1, US5891926 A, US5888307 A, US5852062 A, US5817282 A, US5711235 A, US5685153 A, US5639934 A, US5636580 A, US5609113 A, US5608136 A, US5543061 A, US5498827 A, US5485728 A, US5466383 A, US5425925 A, US5389258 A, US5387267 A, US5360553 A, US5359061 A, US5269947 A, US5221357 A, US4983278 A, US4981579 A, US4980029 A, US4971703 A, US4961579 A, US4950309 A, US4941952 A, US4938976 A, US4938876 A, US4935038 A, US4923604 A, US4897205 A, US4891459 A, US4871462 A, US4871426 A, US4842728 A, US4842692 A, US4795841 A, US4755300 A, US4657681 A, US4636318 A, US4618735 A, US4578163 A, US4552621 A, US4515659 A, US4510038 A, US4439209 A, US4364745 A, US4344770 A, US4321151 A, US4321150 A, US4298621 A, US4289625 A, US4280817 A, US4271326 A, US4260473 A, US4192734 A, US4164396 A, US4118281 A, US4113185 A, US4094740 A, US4093516 A, US4089773 A, US4057401 A, US4054590 A, US4010098 A, US4002438 A, US3946679 A, US3933620 A, US3838199 A, US3733255 A, US3704108 A, US3558426 A, US2884411 A, US2011306808 AA, US2009062581 AA, US2007098625 AA, US2006231510 AA, US2006172392 AA, US2006004237 AA, US2005113611 AA, US2004192981 AA, US2004192980 AA, US2004077055 AA, US2003212851 AA, US2003153797 AA, US2003148998 AA, US2003121851 AA, US2002185447 AA, US2002010222 AA, SU727152 T, SU727152 D, SU1087077 D, RU727152, RU2185892 C2, RU2169075 C2, RU2022666 C1, KR20080064866 A, KR20070058673 A, JPS5369455, JP9201590 A2, JP8501492 T2, JP59047292 A2, JP59047292, JP58156023 A2, JP58156023, JP53069455 A2, JP53049855 A2, JP2002018393 A2, JP2001137812 A2, EP1117463 B1, EP0204354 A1, DE4313123 A1, CN1392224 A, CA1093102 A1,

Forward Citations:

WO16209741, WO16190759, WO16079361, WO15094436, WO15084192, WO15069845, WO14027059, WO13185778, WO13185777, WO13158438, WO13151220, WO13133868, WO13111935, WO13088267, WO13086294, WO13049918, WO13015819, WO12167793, WO12167792, WO12167791, WO12167789, WO12167252, WO12149590, WO12117319, WO12031356, WO12031356, WO12011800, WO12010223, WO1149774, WO11133615, WO11123145, WO11014686, WO11012439, WO10151361, WO10149137, WO10149137, WO10136850, WO10077961, WO10077961, WO10011671, WO10002885, WO10002885, WO09142784, WO09108761, WO09108601, WO09108601, WO09108599, WO09108599, WO09032634, WO08137473, WO08137469, WO08115777, WO08103204, WO08103204, WO08092557, WO08092557, WO08020046, WO08020046, WO07075785, WO07047063, WO07047063, WO07016504, WO06116658, WO06080994, WO04087619, WO04087619, USRE45869, US9567539, US9545650, US9512376, US9505620, US9493713, US9481833, US9464309, US9415367, US9404063, US9403732, US9388364, US9388345, US9382491, US9375731, US9339760, US9328323, US9228132, US9206453, US9206093, US9193641, US9181138, US9169597, US9163265, US9162944, US9145520, US9133078, US9115317, US9090496, US9080107, US9057029, US9028696, US9006505, US9005536, US8950199, US8937625, US8921625, US8906236, US8894818, US8882861, US8877992, US8858656, US8840995, US8840782, US8829256, US8815050, US8809606, US8808408, US8802908, US8795472, US8784732, US8759498, US8757523, US8735638, US8726538, US8715377, US8677647, US8648224, US8642822, US8627960, US8617281, US8613894, US8613838, US8563791, US8551337, US8546561, US8546560, US8545679, US8507740, US8492134, US8464437, US8454801, US8436220, US8415517, US8415512, US8409357, US8409303, US8398847, US8387274, US8367884, US8361313, US8360347, US8360242, US8350103, US8350102, US8329455, US8282810, US8282738, US8273929, US8232441, US8216345, US8201692, US8198495, US8197573, US8193403, US8192628, US8192627, US8192587, US8192586, US8188325, US8177069, US8173851, US8158902, US8138437, US8137508, US8053616, US8050782, US8043505, US8034132, US8020313, US8008535, US8006406, US8003833, US7998438, US7987613, US7968760, US7964764, US7964026, US7935261, US7926202, US7913418, US7909910, US7909895, US7895769, US7883605, US7883568,

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US2013252292, US2013206571, US2013139403, US2013121891, US2013118075,
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US2012018677, US2012011738, US2011306808, US2011283602, US2011232867,
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US2009139905, US2009127359, US2009122637, US2009120850, US2009069610,
US2009062581, US2009060803, US2009056225, US2009050525, US2009032464,
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US2008096787, US2008092734, US2008065243, US2008057173, US2008028633,
US2008022940, US2007289862, US2007224315, US2007187299, US2007113422,
US2007098625, US2007029247, US2007022653, US2007007188, US2006249021,
US2006243648, US2006191156, US2006162242, US2006112588, US2006004237,
US2005268556, US2005244567, US2005167373, US2005155288, US2005113611,
US2004192980, TWI445814, TWI444919, TWI436003, TWI400134, RU2571650,
RU2506303, RU2487158, RU2486303, KR20090105952, KR101611142, KR101600545,
KR101419756, KR101368797, KR101167872, KR101146582, KR100972103,
KR100919924, KR100679500, JP2015516147, JP2014518906, JP2014511254,
JP2013170191, JP2010514881, JP2010511750, JP2007112925, JP2007038144,
ITMI20110333, GB2458271, ES2526716, EP3059295, EP2942433, EP2791349,
EP2697239, EP2697239, EP2582835, EP2582835, EP2551025, EP2551025,
EP2483374, EP2290035, EP2135688, EP2106435, EP2106435, EP2100857,
EP1889870, EP1870171, EP1841842, EP1799796, EP1797023, EP1797023,
DE102012019659, DE102010017334, DE102009045399, CN105754631, CN105217263,
CN105214581, CN104619985, CN104531194, CN104114031, CN103476782,
CN103435380, CN103420690, CN103402930, CN103402930, CN103194071,
CN103194071, CN103128092, CN103128092, CN102911691, CN102899063,
CN102899063, CN102889600, CN102754800, CN102719293, CN102719293,
CN102679368, CN102679368, CN102603144, CN102603144, CN102590410,
CN102471696, CN102084058, CN101962599, CN101838286, AU2011258646,
AU2011240449, AU2009249565, AU2006303016, AP3791,

Abstract:

Source: US2004188340A The present invention includes an apparatus for separating particulates from a fluid in a suspension, comprising: a housing defining a frusto-conically shaped inner chamber with an inner wall, an inlet and a first outlet communicating with the chamber, and a second outlet; and a spinning assembly with a hollow interior mounted in the chamber, the assembly being shaped to define an annular gap with the chamber inner wall, the hollow interior communicating with the second outlet, and the hollow interior communicating with the annular gap for flow of fluid materials from the gap into the interior and out of the second outlet in response to rotation of the spinning assembly. The separator finds application in the preparation of waste products such as municipal sewage sludge for processes that produce useful materials including gas, oil, specialty chemicals, fertilizer, and carbon solids, in reliable purities and compositions, and with high energy efficiency.

PatBase - W009108761_A9

WI 2009/08761

REPLACEMENT SHEET

PCT/US2004/018834

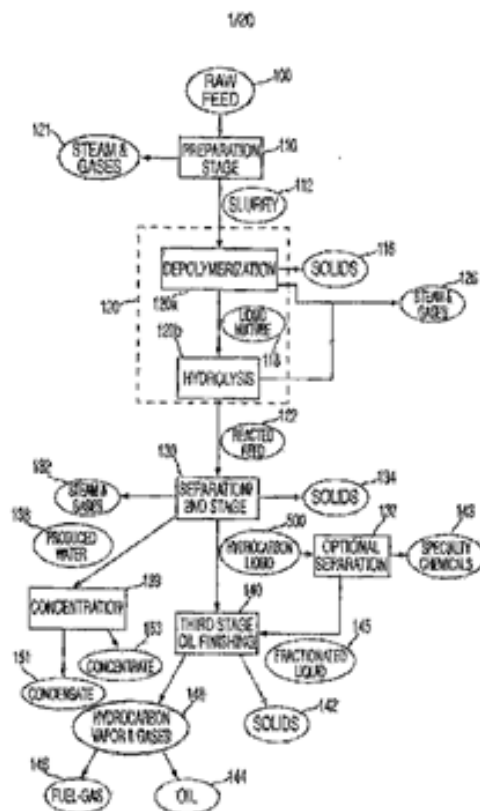


FIG. 1

SUBSTITUTE SHEET (RULE 26)

0) DE2931859A1 – ELEKTRISCHES FRITIERGERAET COUNTER TOP ELECTRIC...

22) Family number: 1816571 (DE2931859A1)

© PatBase

Title: ELEKTRISCHES FRITIERGERAET COUNTER TOP ELECTRIC DEEP FRYER – HAS SIDE ATTACHMENTS PROVIDING HANDLES, HINGE MOUNTINGS FOR COVER AND BASKET AND HOUSING CONTROL CIRCUIT

Priority: DE19792931859 19790806

Family:	Publication number	Publication date	Application number	Application date
	<u>DE2931859 A1</u>	19810226	DE19792931859	19790806

Probable Assignee: KRUPS ROBERT FA

Assignee(s):^(std): KRUPS FA ROBERT ; KRUPS ROBERT FA

Assignee(s): FA ROBERT KRUPS ; FAROBER T KRUPS

Inventor(s):^(std): BEANTRAGT NICHTNENNUNG

International class
^(IPC 8-9): A47J36/18 A47J36/38 A47J37/12 ^(Advanced/Invention);
A47J36/00 A47J37/12 ^(Core/Invention)

International class
^(IPC 1-7): A47J37/12

CPC: A47J36/18 A47J36/38 A47J37/1209

European class: A47J36/18 A47J36/38 A47J37/12A1

[Classification Explorer](#)

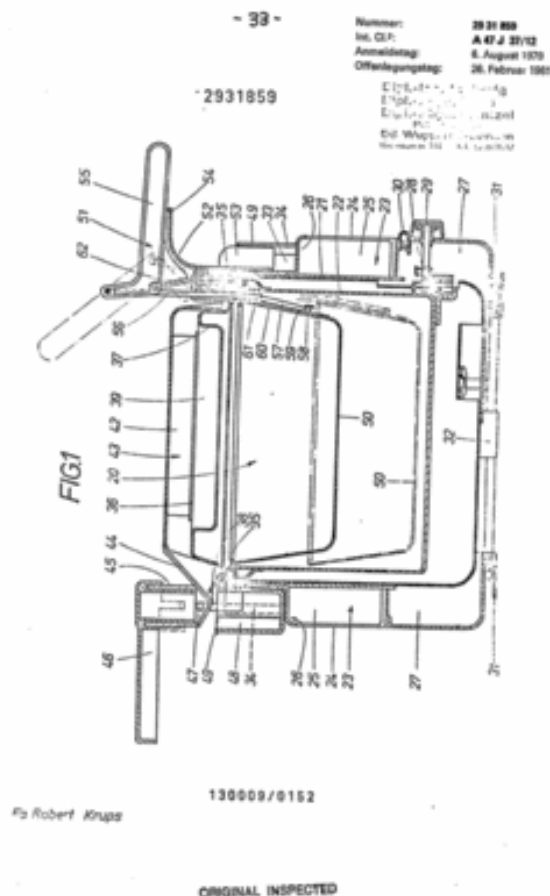
Forward Citations: WO8403427, WO0048497, US4636618, FR2789876, FR2551645, FR2473868, EP1561408, EP1152681, EP0145511, EP0037562, DE3150455,

Abstract:

Source: DE2931859A1 Kennwort: "Friteuse"

Ansprueche Elektrisches Fritiergeraet mit einem topfartigen, eine Heizeinrichtung aufweisenden Behaelter mit einem den Behaelter verschliessenden Deckel mit einem in den Behaelter einsetzbaren Fritierkorb und mit an der Behaelteraussenwand an zwei gegenueberliegenden Seiten angeordneten Handgrifcn, d a d u r c h g e k e n n z e i c h n e t, dass die Handgriffe (24) als axial des topfartigen Behaelters (21) verlaufende Ansaetze (23) ausgebildet sind, die eine Griffmulde (25) und eine zur Aufnahme der die Heizeinrichtung steuernden elektrischen und elektronischen Bauteile (2) bestimmte Kammer (27) aufweisen 2. The deep-fryer has a deeply dished container incorporating an electric heating element, a cover and a frying basket, which fits into the container. The latter has two axial attachments at diametrically opposite points, providing handles for lifting the container and also defining a chamber for housing the electric and electronic control circuit for the heating element. Pref. the handles are formed by cylindrical radial recesses, their inner cylindrical surfaces having rear cut-outs at the side adjacent the container opening. The axial attachments may also have a hooked nose near the base of the container, to allow the lead cable to be wound round them during storage and the frying basket is pref. hinged to the top of one attachment and the cover hinged to the top of the other.

PatBase - DE2931859_A1



23) Family number: 11641759 (US5333539A)

© PatBase

Title: MICROWAVE ENHANCED DEEP FAT FRYER

Priority: US19900494588 19900316 US19920893591 19920602 US19930150279 19931110
US19930118122 19930907

Family:	Publication number	Publication date	Application number	Application date
	<u>US5333539 A</u>	19940802	US19930150279	19931110
	<u>US5363749 A</u>	19941115	US19930118122	19930907

Probable Assignee: TECOGEN INC

Assignee(s):^(std): TECOGEN INC

Inventor(s):^(std): CHILDS PAUL J ; HURLEY JAMES R ; NORMAN TIMOTHY J

International class
(IPC 8-9): A23L1/01 A23L5/10 A47J37/12 H05B6/70 H05B6/72 H05B6/76 H05B6/80 (Advanced/Invention);
A23L1/01 A47J37/12 H05B6/70 H05B6/72 H05B6/76 H05B6/80 (Core/Invention)

International class
(IPC 1-7): A23L1/025 A47J37/12

CPC: Y10S99/14 H05B6/76 A47J37/1271 A47J37/1295 H05B6/70 H05B6/72 A23L5/11 A23L5/15

European class: A23L1/01B A23L1/01F A47J37/12L A47J37/12P H05B6/70 H05B6/72 H05B6/76 H05B6/80D3F

US class: 219/725 219/728 219/731 219/748 99/337 99/403 99/418 99/451 99/DIG.14

[Classification Explorer](#)

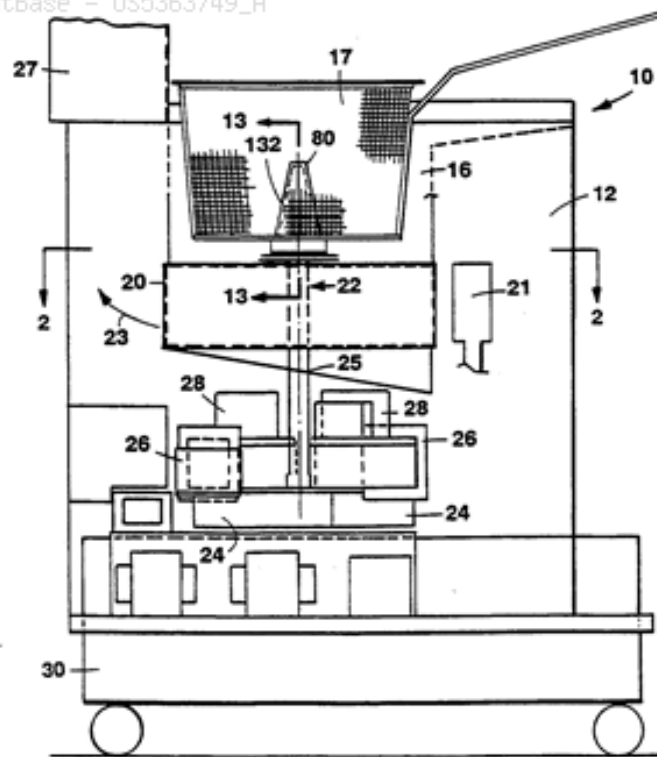
Cited documents: US5052369 A, US4945893 A, US4859822 A, US4831224 A, US4704290 A, US4593170 A, US4580024 A, US4571473 A, US4510361 A, US4416906 A, US4339326 A, US4332992 A, US4280032 A, US4211909 A, US4114013 A, US4091252 A, US4081647 A, US4041852 A, US4028520 A, US4013861 A, US3789178 A, US3767884 A, US3731038 A, US3375476 A, US3127494 A, US2997566 A, US2906850 A, US2856497 A, US2805314 A, US2714070 A, US2622187 A,

Forward Citations: WO08020912, WO06079464, USRE37706, US8707857, US8229804, US7538303, US7432482, US7053346, US7012574, US5771786, US5697291, US5568765, US5476084, US2010057540, US2009134152, US2008128410, US2007095823, US2006289502, US2006006171, US2005258170, US2004060456, US2004056821, US2003089243, GB2344501, EP1842397, EP0704188, AU673307,

Abstract:

Source: US5333539A A microwave radiation source is introduced into a fry basket within the fry tank of a deep fat fryer to reduce the cooking time of food products within the fry basket. Microwave energy is generated outside the fry tank and coupled into the fry basket by a microwave tuned transition, waveguide and antenna. Microwave chokes seal the basket top cover and microwave antenna to basket interface to confine the microwave energy to the fry basket. An electrical safety interlock prevents generation of microwave energy unless the fry basket is sealed.

PatBase - US5363749_A



24) Family number: 57894530 (CN203970196U)

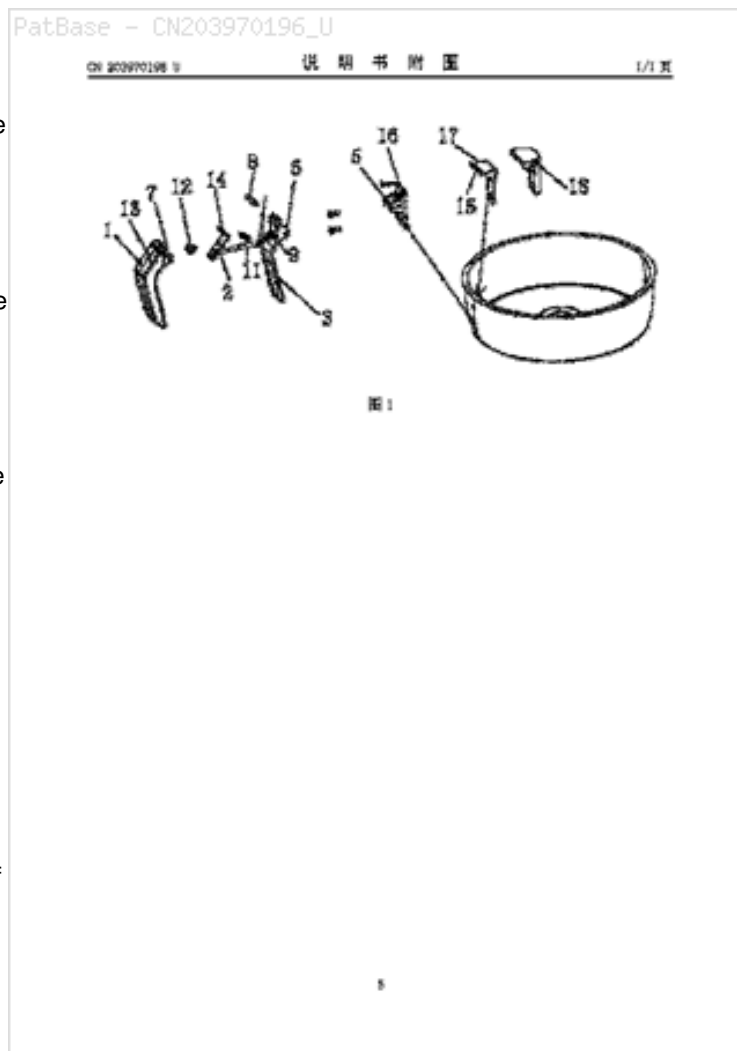
© PatBase

Title: FRYER BODY HANDLE STRUCTURE OF AIR FRYER**Priority:** CN201420126180U 20140319

Family:	Publication number	Publication date	Application number	Application date
	CN203970196 U	20141203	CN201420126180U	20140319

Probable Assignee: ZHEJIANG WUYI WJL PLASTIC IND CO LTD**Assignee(s):^(std):** ZHEJIANG WUYI WJL PLASTIC IND CO LTD**Assignee(s):** ZHEJIANG WUYI TEN THOUSAND LUNG PLASTIC CO LTD ; ZHEJIANG WUYI WJL PLASTIC IND CO**Inventor(s):^(std):** WANG JIANMIN**International class** A47J45/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN203970196U A fryer body handle structure of an air fryer comprises an upper handle cover, a button plate, a lower handle cover and a handle cover connecting base, the handle cover connecting base is fixedly arranged on the wall face of a fryer body, the upper portion of the handle cover connecting base is higher than the top face of the fryer body, two first pin holes are formed in the position which is higher than the top face of the fryer body and close to the outer wall of the fryer body, two second pin holes are formed in the upper end of the lower handle cover, two third pin holes are formed in the upper end of the upper handle cover, a hinge pin sequentially penetrates through the third pin holes, the second pin holes and the first pin holes from middle to exterior, the upper handle cover and the lower handle cover are in a breaking-angle shape, a spring column and a pin column are arranged on the breaking-angle-shaped upper portion of the lower handle cover, the spring column is sleeved with a spring, the upper end of the spring abuts against the button plate, a positioning hole allowing the pin column to penetrate is formed in the button plate, a button is arranged on the upper portion of the button plate, a clamping hook is arranged at the upper end of the button plate, and a clamping groove matched with the clamping hook is formed in the upper end of the handle cover connecting base. According to the fryer body handle structure, the transverse space of the fryer body can be effectively reduced, the packaging size of the whole fryer is reduced, and the transportation cost is reduced.



25) Family number: 41798728 (US2008110350A)

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Title: ELECTRIC HEATING APPARATUS WITH AN AUTOMATIC ROTATING FOOD BASKET**Priority:** CN200620067665U 20061114

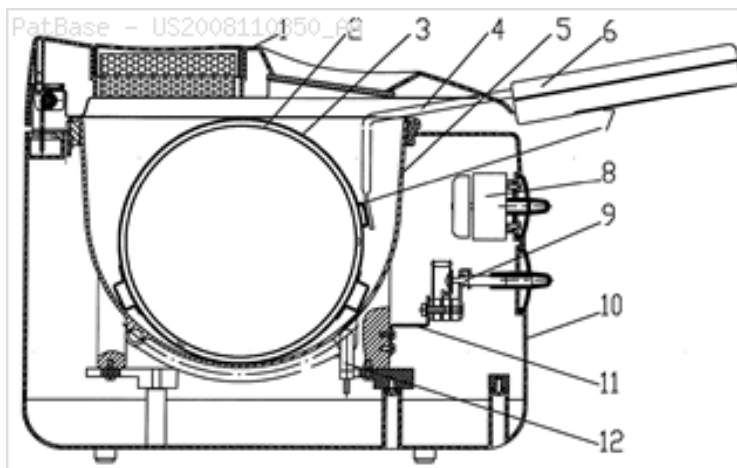
Family:	Publication number	Publication date	Application number	Application date
	CN201205224 Y	20090311	CN200620067665U	20061114
	US2008110350 AA	20080515	US20070938943	20071113

Probable Assignee: DONGLEI WANG**Assignee(s):^(std):** DONGLEI WANG ; WANG DONG LEI**Assignee(s):** WANG DONGLEI**Inventor(s):^(std):** DONGLEI WANG ; WANG DONG LEI**Inventor(s):** WANG DONGLEI**Agent(s):** ALLEN DYER DOPPELT MILBRATH AND GILCHRIST PA

International class [A47J37/12](#) (Advanced/Invention);
 (IPC 8-9): [A47J37/12](#) (Core/Invention)

CPC: [A47J37/1295](#)**European class:** [A47J37/12P](#)**US class:** [99/409](#)[Classification Explorer](#)**Cited documents:** US6834577 BB, US6079319 A, US5543166 A, US5027697 A, US3221566 A, US2705450 A, US2007251517 AA,**Forward Citations:** CN102342761, CN101862136,**Abstract:**

Source: US2008110350A The present invention provides an electric heating apparatus with an automatic rotating food basket. With the present invention, the food basket assembly is suspended inside the fryer body, and the food basket assembly is driven by the rotating mechanism to rotate 360 degrees in the fryer body. Therefore, during the process of frying food, the food and the basket rotate together and the food is immersed fully in the hot oil, which results in even frying with less oil, and more quantity of food can be cooked.



0) ES2158747A – DOMESTIC FRYING PAN FREIDORA DOMESTICA.

26) Family number: 15499535 (ES2158747A)

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Title: Domestic frying pan

Priority: ES19980000980 19980511

Family:

Publication number	Publication date	Application number	Application date
ES2158747 AA	20010901	ES19980000980	19980511
ES2158747 BA	20020316	ES19980000980	19980511

Probable Assignee: UNION FABRICANTES ELECTRODOMES

Assignee(s):^(std): UNION FABRICANTES ELECTRODOMES ; UNION FABRICANTES ELECTRODOMESTICOS S A UFESA ; UNION FABRICANTES ELECTRODOMESTICOS UFESA SA

Inventor(s):^(std): VAL LARREDONDA PEDRO ANGEL

International class
(IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/12](#)

[Classification Explorer](#)

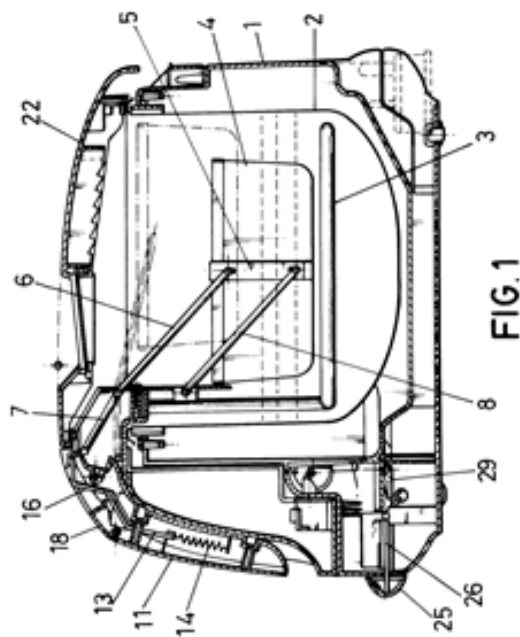
Cited documents: US5746117, FR2701377, FR2701376, EP0891736, EP0149856,

Abstract:

The domestic frying pan comprises a joined and articulated basket (4) with a top brace (6) and an extension (7), and a low brace (8). Both connect to a handle (11) that has angular movement. It is the movement of this handle that raises or lowers the basket (4). The extension (7) of the top brace (6) is directly connected to the main handle (11) in such a way that the basket (4) is lowered and raised by operating the handle. (11). The trigger (13, 15 and 16) is activated by pressing a button (18), which causes the longitudinal movement of the basket, locking or freeing the handle from its horizontal position.

PatBase - ES2158747_BA

ES 2 158 747 B1



27) Family number: 65151905 (US2017071407A)

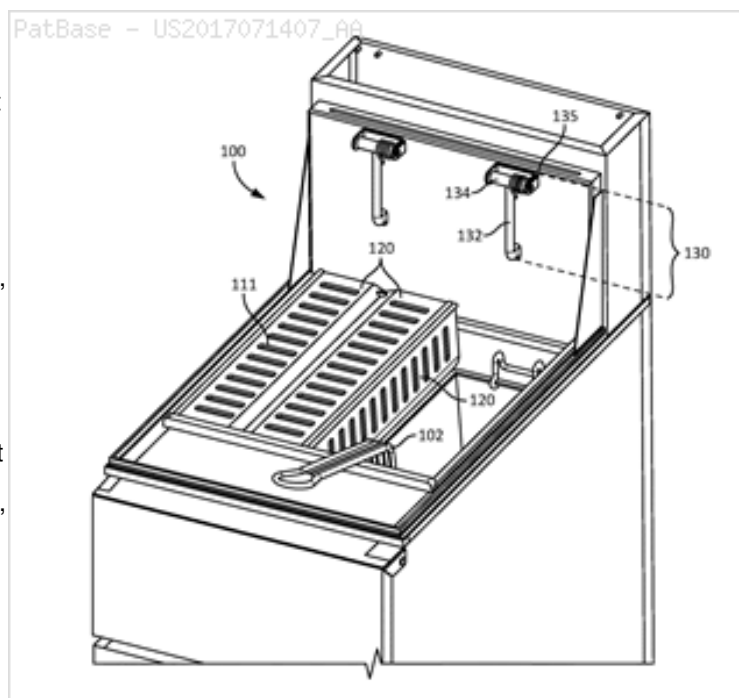
© PatBase

Title: FIRE EXTINGUISHING COVER FOR COOKING SYSTEMS**Priority:** US20130818302P 20130501 US20130889854P 20131013 US20150853714 20150914
US20150821658 20150807 US20140267523 20140501

Family:	Publication number	Publication date	Application number	Application date
	<u>US2017071407 AA</u>	20170316	US20150853714	20150914

Probable Assignee: MILLIKIN RORY CHESLEY PATRICK**Assignee(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**Inventor(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/128 A47J37/1266[Classification Explorer](#)**Abstract:**

Source: US2017071407A Systems, methods and apparatuses for making fryers and deep-fryers safer and/or more energy efficient are disclosed. Different embodiments generally comprise a cover, having a number of flaps, doors or plates that open upwardly or downwardly. Flaps/doors may be solid, perforated or the like. The cover can be maintained in a suitably rigid closed locked position, for example, by a locking mechanism, preventing the basket(s), body parts, or other items from unintentionally being placed in the fryer. In such embodiments, the cover also prevents the loss of heat from the oil. In various embodiments, the cover and/or the door may be maintained in a closed position, though not necessarily locked, preventing heat loss from the oil. In such embodiments, the cover may be vented. In various embodiments, the cover and/or the door may include an attachable or an integrated fire extinguishing mechanism.



28) Family number: 28140238 (US2001054358A)

© PatBase

Title: FOOD COOKING APPARATUS WITH DRAIN SPIGOT
Priority: US20000593223 20000614 US20010853146 20010510 US20020210944 20020802
 WO2001US19169 20010614

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2376407 AA</u>	20011228	CA20012376407	20010614
	<u>US2001054358 AA</u>	20011227	US20010853146	20010510
	<u>US2003003209 AA</u>	20030102	US20020210944	20020802
	<u>US6269737 BA</u>	20010807	US20000593223	20000614
	<u>US6446545 BB</u>	20020910	US20010853146	20010510
	<u>WO0195740 A1</u>	20011220	WO2001US19169	20010614

Probable Assignee: EMPIRE COMFORT SYSTEMS INC

Assignee(s):^(std): EMPIRE COMFORT SYSTEMS INC ; RIGNEY DONALD P

Assignee(s): BANK OF AMERICA NA ; CHRISTENSEN DAVID M ; EMPIRE COMFORT SYSTEMS

Inventor(s):^(std): CHRISTENSEN DAVID M ; RIGNEY DONALD P

Agent(s): OSLER HOSKIN AND HARCOURT LLP

Designated states: CA

International class
^{(IPC 8-9):} A23L1/00 A47J27/04 A47J27/10 A47J36/20 A47J37/12 (Advanced/Invention);
A47J27/04 A47J27/10 A47J36/00 A47J37/12 (Core/Invention)

International class
^{(IPC 1-7):} A23L1/00 A47J27/00 A47J27/04 A47J27/10 A47J37/12

CPC: Y10S220/912 A47J36/20 A47J27/04 A47J27/10 A47J37/1285 A47J37/1295

European class: A47J27/04 A47J27/10 A47J36/20 A47J37/12M2 A47J37/12P

US class: 126/369 126/912 220/912 426/438 426/438P 99/336 99/337 99/339 99/34 99/340 99/403 99/407 99/41 99/410 99/413 99/414 99/417 99/450 993/390

[Classification Explorer](#)

Cited documents: US99415 A, US6269737 BA, US5896810 A, US5896710 A, US575869 A, US5758569 A, US5651905 A, US5584235 A, US5560284 A, US5470011 A, US5431092 A, US5320028 A, US5301604 A, US5235904 A, US5211105 A, US5106642 A, US4958117 A, US4957039 A, US4951558 A, US4658117 A, US4626352 A, US4604989 A, US4574776 A, US4542685 A, US4366920 A, US4250803 A, US3998144 A, US3971304 A, US3853044 A, US3808963 A, US3713378 A, US3263596 A, US2926595 A, US2890577 A, US2809577 A, US2350623 A, US1909983 A, US1554612 A, US1272222 A, US1260794 A, IT333782 A, CH178687 A,

Forward Citations: WO11038262, WO11038262, WO08077836, WO04034861, USD755012, USD752913, USD730106, USD693067, USD687257, USD687256, USD662761, USD658425, USD658424, USD653074, USD653073, USD642421, USD612658, USD553432, USD552921, USD552410, USD505589, US9572362, US9016190, US8850965, US8828467, US8826806, US8763170, US8707860, US8707859, US8707857, US8616121, US8309151, US8186265, US8067716, US7981459, US7412922, US7316180, US7185766, US7172705, US6941857, US6820536, US6748851, US6711992, US6532865, US6446545, US2014020569, US2013125765, US2012222562, US2012009317, US2010255168, US2010186236, US2009087534, US2009025702, US2008277558, US2008169281, US2008073356, US2007256571, US2007108217, US2007028781, US2006272633, US2006272514, US2006201336, US2006175247, US2006134273, US2006134272, US2006134271, US2005276892, US2005230326, US2005172949, US2005034611, US2004200359, US2004163547, US2004103795, US2003132221, US2003110954, GB2410680, GB2410680, EP1459664,

Source: US2001054358A A cooking apparatus includes a container, a spigot, a lid, and a food support. The container has a bottom surface and a side wall that extends upwardly from the bottom surface to a top edge of the side wall. The spigot is attached to the container side wall and has a valve member that is selectively positionable between opened and closed positions. The spigot valve member allows liquid contents of the container to drain from the container when in the opened position, and prevents the contents from draining out of the container when in the closed position. The food support is comprised of a perforated horizontal member with a perforated side wall extending upwardly from the horizontal member. A plurality of vertical members spaced around the periphery of the horizontal member extend upwardly from the horizontal member. The food support is dimensioned to fit within the interior of the container and some of the vertical members have top ends with integral support connectors that are adapted to engage with the side wall top edge to suspend the food support in a spaced relation from the container bottom surface. The lid has a handle and lid connectors that are complementary to and selectively connectable to the support connectors. The lid connectors can selectively connect with the food support and allow the food support to be lifted by the lid and lowered into or removed from the container. The lid shields the user from the hot contents of the container when the food support is lowered into or removed from the container. The lid top and bottom surfaces slant downwardly as the lid top and bottom surfaces extends inwardly from the lid peripheral edge toward the center of the lid. The slanting forms a central depression in the lid which promotes liquid accumulated on the lid bottom surface to drip from the apex of the central depression.

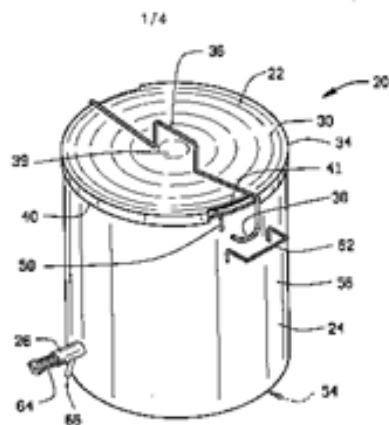


FIG. 1

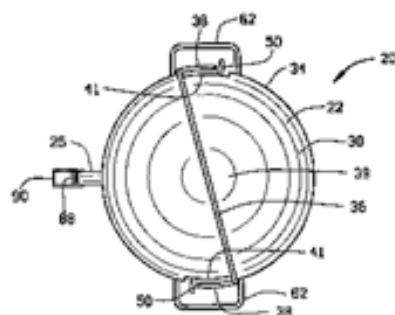


FIG. 2

Title: COMBINATION PRESSURE AND OPEN FRYING APPARATUS**Priority:** US20150139537P 20150327

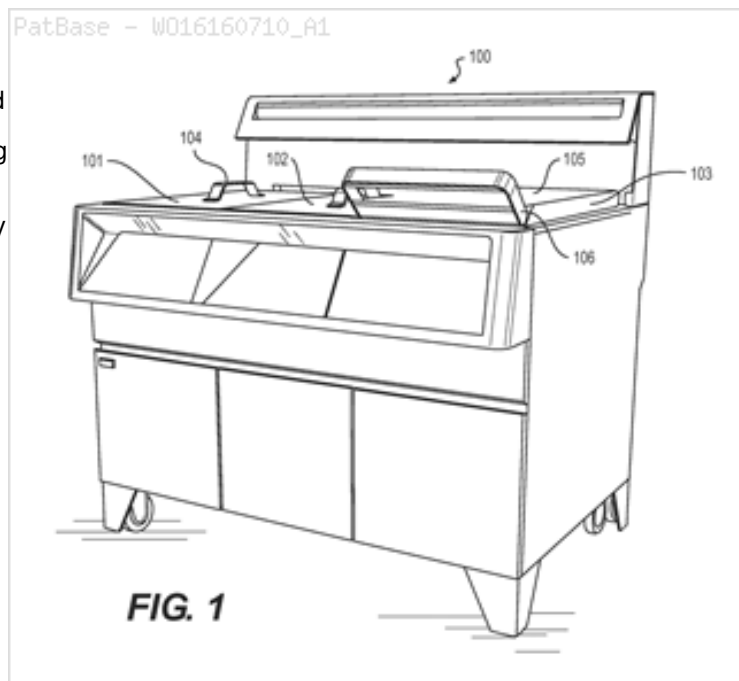
Family:	Publication number	Publication date	Application number	Application date
	WO16160710 A1	20161006	WO2016US24530	20160328

Probable Assignee: HENNY PENNY CORP**Assignee(s):**^(std): HENNY PENNY CORP**Inventor(s):**^(std): CARTWRIGHT RICHARD W ; EROS KIMBERLY ; LONG STEVEN J**Agent(s):** FOSTER WILLIAM S JR

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A47J36/10 A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/10 A47J37/128[Classification Explorer](#)**Cited documents:** US2014076904 AA, US2011005403 AA, JP6058824 U1, JP2004254855 A2, CN102415826 A,**Abstract:**

A fryer apparatus includes a selectively closeable frypot to alternate a mechanism of operation between an open frying platform and a pressure frying platform. The selectively closeable frypot includes a cover with a locking mechanism disposed within the cover that is actuated by rotation of a handle such that the footprint of the selectively closeable frypot may be sized comparable with a typical open fryer to accommodate space constraints of limited service restaurants. The fryer apparatus may also include a pressure assist feature so that the selectively closeable frypot to efficiently reaches a desired pressure for smaller batches of food product when used as a pressure frying platform.

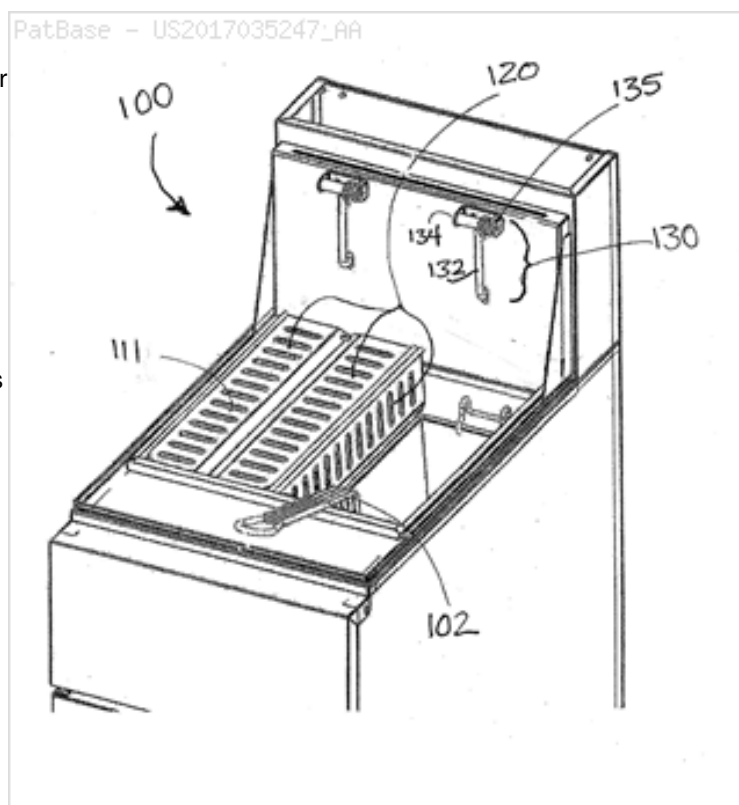


Title: UPWARD OPENING FRYER COVER**Priority:** US20150821658 20150807**Family:**

Publication number	Publication date	Application number	Application date
<u>US2017035247 AA</u>	20170209	US20150821658	20150807

Probable Assignee: MILLIKIN RORY CHESLEY PATRICK**Assignee(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**Inventor(s):^(std):** MILLIKIN RORY CHESLEY PATRICK**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/128 A47J37/1266 A47J37/1219[Classification Explorer](#)**Abstract:**

Source: US2017035247A Systems, methods and apparatuses for making fryers safer and/or more energy efficient are disclosed. Methods and devices in accordance with the present disclosure generally comprise a cover, having a number of flaps, doors or plates that open upwardly or downwardly to receive a basket. Flaps/doors may be solid, perforated or the like. The cover can be maintained in a suitably rigid closed locked position, for example, by a locking mechanism, preventing the basket(s), body parts, or other items from unintentionally being placed in the fryer. In such embodiments, the cover also prevents the loss of heat from the oil. Alternatively, the cover may be maintained in a closed position, though not necessarily locked, with a primary purpose of preventing heat loss from the oil. In such embodiments, the cover may be vented.



0) US3646882A – FILTER FOR DEEP FRYER

31) Family number: 393309 (US3646882A)

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Title: FILTER FOR DEEP FRYER

Priority: US19690828672 19690528

Family:	Publication number	Publication date	Application number	Application date
	CA921270 A1	19730220	CA19700076532	19700305
	DE2014072 A1	19701203	DE19702014072	19700324
	DE2014072 B2	19730215	DE19702014072	19700324
	DE2014072 C3	19730906	DE19702014072	19700324
	FR2048909 A5	19710319	FR19700019451	19700527
	GB1302117 A	19730104	GB19700018332	19700416
	US3646882 A	19720307	US19690828672	19690528

Probable Assignee: KEATING RICHARD

Assignee(s):^(std): KEATING R T ; KEATING RICHARD ; KEATING RICHARD THOMAS ; RICHARD T KEATING

Inventor(s):^(std): KEATING R T ; KEATING RICHARD T ; KEATING RICHARD THOMAS

Inventor(s): RICHARD T KEATING

International class
(IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/00 A47J37/12 B01D23/02](#)

CPC: [A47J37/1223](#)

European class: [A47J37/12D](#)

US class: [210/167 210/167.28 99/408 994/80](#)

[Classification Explorer](#)

Cited documents: US3495525 A, US3447685 A, US3415181 A, US3263596 A, US3210193 A, US3203754 A, US3099623 A, US3049240 A, US2578129 A, US2335532 A, US2073442 A,

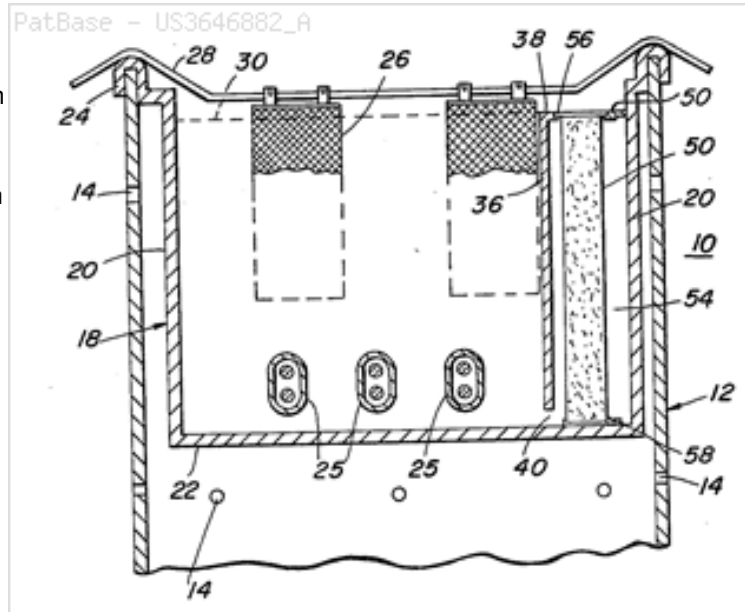
Forward Citations: WO07055980, WO07055980, US9452374, US6874642, US6378420, US6363840, US5782164, US4487691, US4328097, US4041852, US3984447, US3968741, US3909291, US2013075347, GB2231478, GB2146547, EP1029493, DE2756428,

Abstract:

Source: US3646882A A multilayered filter element for deep fryers characterized by both the efficiency of filtering and sweetening action and ease of replacement. In one embodiment the filter element is formed as an elongated member having layers of filtering media of different particle size or porosity through which the liquid to be filtered is passed. In another embodiment the filter element has a combination of a fibrous filtering media and a finely divided absorbent material in alternate layers. A tubular filter element is disclosed having a wall composed of an inner layer of coarse filter paper, an intermediate layer of medium filter paper and an outer layer of fine filter paper, with diatomaceous earth or the equivalent interposed between the layers. The filter element is provided with a wall having engaging means whereby the filter can be readily removed from the fryer. In another embodiment a filter trough is provided into which the liquid fat overflows and passes through interposed layers of graded filter media. Other embodiments are disclosed.

BACKGROUND OF THE INVENTION It was customary in deep fryers to locate the direct fire-heating elements for the frying fat at or adjacent the base of the vessel and depend upon convection currents to circulate the fat into contact with the food to be cooked, which is generally suspended in baskets within the top part of the vessel. The lower portion of the vessel nearest the heat source, becomes superheated, and any food particles that are dropped or are carried into the liquid fat from the fryer baskets ultimately contact the lower reaches of the vessel where excessive heat causes the rapid formation of charred or carbonized food particles and other decomposition products. Such products accumulate rapidly and cause the discoloration of the fat, hasten the need to replace the fat, and often adversely affect the taste and appearance of the food being treated. Wide mesh screens have been used in early types of deep fryers, such as described in U.S. Pat. No. 2,061,533, to keep the food particles from settling into the heated base of the vessel. Something more than screens is necessary to meet the modern standards of commercial deep fryers since the fat must now be kept free of food particles and materials causing contamination of the fat by unwanted tastes and odors. The use of fine filters has not been desirable because they impede the required rapid convection flow of liquid fat through the vessel. More costly pumps and bypass filters have been used to solve this problem as disclosed in U.S. Pat. No. 2,578,129. Indirect heat exchange elements in the form of combustion tubes extending through the fat, as shown in U.S. Pat. No. 2,712,308 have eliminated the formation of superheated zones in the vessel and prevented to some extent the accumulation of food particles adjacent high temperature heating surfaces. However, even and rapid circulatory flow of the liquid fat is necessary to the proper heat balance within the vessel and the use of fine filters in the main circulatory path of the fat upsets this heat balance. Also there is danger of fire due to clogging of the filters and overheating of the stagnated fat. One solution to this problem is disclosed in U.S. Pat. No. 3,263,596 wherein the filter screens are located below the heating elements as a bottom wall by means of thermal barrier side plates forming an inner receptacle within an outer vessel. The top edges of the barrier plates act as a weir allowing the circulating fat to pass over and down as an auxiliary flow, during cooking or on-off cycles, into a space between the plates and the sides of the outer vessel, up through the filter, past the heating elements and into contact with the food basket. If the filter becomes clogged circulation of the liquid fat can still take place within the confines of the inner receptacle defined by the plates and the top of the filter. However, in a deep fryer of this construction there is no provision for replacement of the filter screen and filter paper, without draining the vessel. Thus, the tendency is to use the filters to the extent of their filtering action because of the time and labor involved in replacement. Not all of the liquid fat is subjected to filtering, that is, the filtering action is intermittent and in order to maintain a pressure differential across the filter the auxiliary stream is cooled. This represents added and unnecessary parts and heat losses.

SUMMARY OF THE INVENTION In accordance with this invention, the foregoing disadvantages are eliminated and efficient filtering action maintained upon all of the circulating liquid fat by the use of filter cartridges which are effectively placed in the circulating stream and conveniently replaced without the necessity of draining the vessel or for that matter even stopping the cooking process. This invention also concerns the use of multiple layer filter means having greatly increased filtering action which prolongs the useful life of the cooking oil or fat. In one embodiment the deep fryer is an open-topped vessel adapted to contain the liquid fat and into which the food is suspended in baskets, and is provided with an overflow filter chamber having an open top and an opening at the bottom communicating with the bottom zone of the vessel wherein are located the heating elements. The open top of the filter chamber is in communication with the liquid fat ebullating from the top of the vessel and the bottom of the chamber communicates with the lower heated zone of the liquid fat. A multiple removable layered filter element is interposed in the filter chamber so that the overflowing liquid fat passes through the filter element in its cyclic passage through the chamber. The filter means is characterized by providing a multilayer filter media wall through which all of the bypassed portion of liquid fat is conducted by natural convection flow. In one embodiment the filter means is in the form of a tubular element adapted to fit within the bypass chamber and spaced from the walls thereof so that the liquid fat flows from within the tubular element radially outward into the space around the filter element and thence into the heating zone. The bypass chamber is a section of the vessel separated from the main heating zone by a discontinuous wall that has an opening at the bottom communicating with the heating



zone. The filter means may also comprise a trough-shaped cover member for part or all of the bypass section to catch the overflowing stream of liquid fat as it passes over the wall, subject it to filtration and allow the filtrate to descend and pass under the wall to the heating zone. Means are provided whereby the filter elements can be engaged and easily removed from the deep fryer.

32) Family number: 27917157 (US6490872B)

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Title:	Apparatus and a method for clean-in-place for a semi-frozen food dispensing machine			
Priority:	US19990135063P 19990520 US20010031643 20011102 US20020979534 20020416 US20020979693 20020219 WO2000US13825 20000519 WO2000US14029 20000519 WO2000US13781 20000519 WO2000US14005 20000519 WO2000US14035 20000519			
Family:	Publication number	Publication date	Application number	Application date
	AR024049 AA	20020904	AR2000P102467	20000519
	AR024050 AA	20020904	AR2000P102468	20000519
	AR024051 AA	20020904	AR2000P102469	20000519
	AR024052 AA	20020904	AR2000P102470	20000519
	AR024554 AA	20021016	AR2000P102471	20000519
	AU200048589 A5	20001212	AU20000048589D	20000519
	AU200050317 A5	20001212	AU20000050317D	20000519
	AU200051449 A5	20001212	AU20000051449D	20000519
	AU200052805 A5	20001212	AU20000052805D	20000519
	AU200058674 A5	20001212	AU20000058674D	20000519
	DE60016586 D1	20050113	DE20006016586	20000519
	DE60016586 T2	20051222	DE20006016586T	20000519
	DE60024254 D1	20051229	DE20006024254	20000519
	DE60024254 T2	20060727	DE20006024254T	20000519
	DE60033515 D1	20070405	DE20006033515	20000519
	DE60033515 T2	20071108	DE20006033515T	20000519
	EP1178734 A1	20020213	EP20000930835	20000519
	EP1178734 A4	20020731	EP20000930835	20000519
	EP1178734 B1	20070221	EP20000930835	20000519
	EP1178735 A1	20020213	EP20000937663	20000519
	EP1178735 A4	20020731	EP20000937663	20000519
	EP1178735 B1	20051123	EP20000937663	20000519
	EP1179168 A1	20020213	EP20000936084	20000519
	EP1179168 A4	20020731	EP20000936084	20000519
	EP1179168 B1	20041208	EP20000936084	20000519
	ES2233385 T3	20050616	ES20000936084T	20000519
	ES2254186 T3	20060616	ES20000937663T	20000519
	ES2282110 T3	20071016	ES20000930835T	20000519
	JP2003500034 T2	20030107	JP20000619282T	20000519
	JP2003505011 T2	20030212	JP20000619283T	20000519
	JP2003521884 T2	20030722	JP20000620304T	20000519
	US6490872 BA	20021210	US20020979693	20020219
	US6494055 BA	20021217	US20020979534	20020416
	US6553779 BA	20030429	US20010031643	20011102
	WO0070961 A1	20001130	WO2000US13825	20000519
	WO0070962 A1	20001130	WO2000US14029	20000519
	WO0070963 A1	20001130	WO2000US14035	20000519
	WO0071946 A2	20001130	WO2000US14005	20000519
	WO0071946 A3	20010301	WO2000US14005	20000519
	WO0071959 A1	20001130	WO2000US13781	20000519

Probable Assignee: SPECIALTY EQUIPMENT COMPANIES INC

Assignee(s):^(std): BECK NORMAN L ; BOYER GEORGE C ; CARRIER CORP ; DUNCAN DAVID C ; MESEROLE MICHAEL ; MRUGALA RONALD J ; SCHWITTERS STEPHEN W ; SPECIALITY EQUIP CO ; WOHLER JACK D

Assignee(s): SPECIALTY EQUIPMENT COMPANIES INC ; CARRIER CORP FARMINGTON

Inventor(s):^(std): BECK L ; BOYER C ; BOYER GEORGE ; DUNCAN C ; MRUGALA J ; WOHLER JACK D ; SCHWITTERS STEPHEN W ; MRUGALA RONALD J ; MESEROLE MICHAEL ; DUNCAN DAVID C ; BOYER GEORGE C ; BECK NORMAN L

Inventor(s): STEPHEN W SCHWITTERS ; MICHAEL MESEROLE ; JACK D WOHLER ; RONALD J MRUGALA ; NORMAN L BECK ; GEORGE C BOYER ; DAVID C DUNCAN

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

International class
(IPC 8-9): A23G9/04 A23G9/12 A23G9/14 A23G9/16 A23G9/20 A23G9/22 A23G9/28 A23G9/30 B01F15/00 B01F15/02 B01F15/06 B01F7/02 F25D11/00 (Advanced/Invention);
B01F15/00 B01F15/02 B01F7/02 F25D11/00 (Advanced/Non-invention)

International class
(IPC 1-7): A23G9/00 A23G9/12 A23G9/14 A23G9/16 A23G9/20 A23G9/22 A23G9/28 A23G9/30 A26G9/12 B01F15/00 B01F15/02 B01F15/06 B01F7/02 B08B3/00 F25B5/02 F25D11/00 F25D31/00 F28G13/00 F28G9/00

CPC: F25B5/02 F25B40/00 F25B41/043 A23G9/30 A23G9/045 A23G9/16 A23G9/163 A23G9/20 A23G9/22 A23G9/224 A23G9/225 A23G9/228 A23G9/28 A23G9/281

European class: A23G9/04D A23G9/16 A23G9/16D A23G9/20 A23G9/22 A23G9/22H A23G9/22J A23G9/22N A23G9/28 A23G9/28D A23G9/30

US class: 222/146.6 251/335.2 366/305 366/310 366/312 62/303 62/342 62/66 62/660

[Classification Explorer](#)

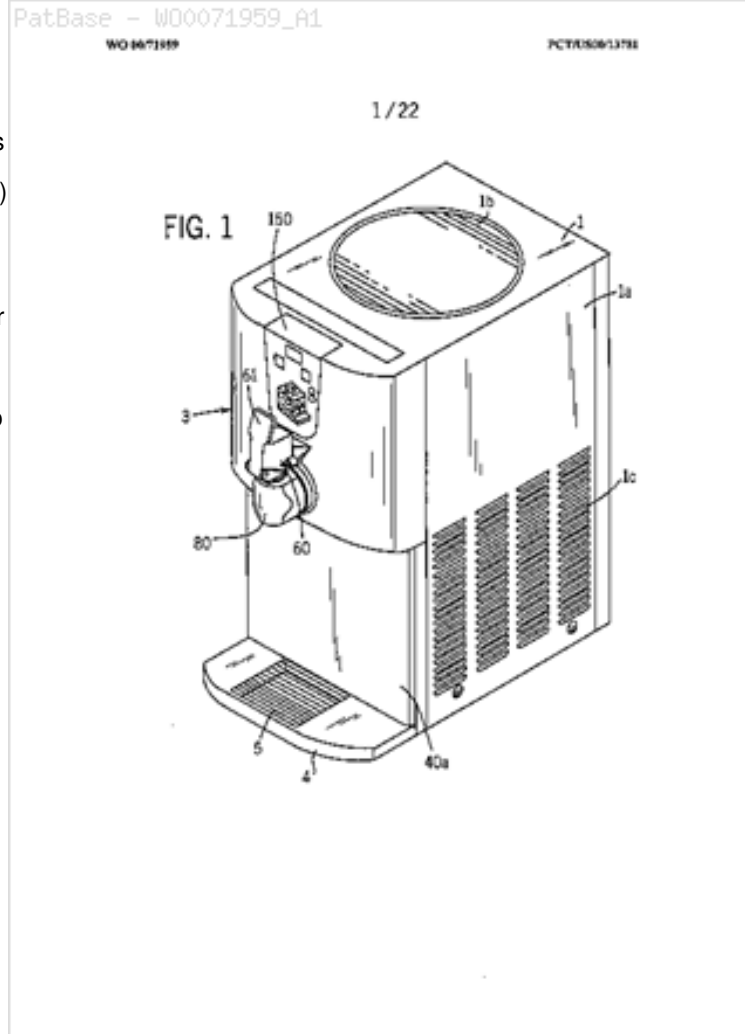
Cited documents: US5771924 A, US5752393 A, US5706720 A, US5603229 A, US5538343 A, US5465591 A, US5463877 A, US5419150 A, US5410888 A, US5406805 A, US5400309 A, US5386709 A, US5323618 A, US5285812 A, US5016446 A, US4962648 A, US4959972 A, US4916920 A, US4907417 A, US4860550 A, US4817396 A, US4711376 A, US4703628 A, US4649746 A, US4644757 A, US4637219 A, US4567761 A, US4522041 A, US4363223 A, US4275567 A, US4201558 A, US4162127 A, US4129389 A, US3995770 A, US3898859 A, US3874189 A, US3797268 A, US3733840 A, US3729177 A, US3721104 A, US3698206 A, US3660988 A, US3641783 A, US3638448 A, US3468137 A, US3367126 A, US3333828 A, US3273585 A, US3256100 A, US3145017 A, US3029613 A, US2977097 A, US2972239 A, US2867994 A, US2867944 A, US2754664 A, US2281944 A, US2185022 A, US2121625 A, EP0503274 A1, EP0287194 A2, DE3726836 A1,

Forward Citations: WO15197754, WO14003881, WO13121421, WO11048568, WO10135284, WO10135284, WO10077699, WO09034592, WO09029161, WO09007672, WO08068124, WO07042028, WO07025253, WO07025253, WO05020703, USRE43998, USRE43805, USD649984, USD625952, US9528740, US9523090, US9518769, US9516889, US9512398, US9511333, US9492404, US9457386, US9402803, US9364114, US9335082, US9326531, US9272000, US9240745, US9233829, US9198929, US9173521, US9125426, US9034195, US9011922, US9004743, US8980325, US8962700, US8944289, US8899058, US8887522, US8875732, US8869540, US8863992, US8857667, US8823314, US8815292, US8810190, US8784898, US8784897, US8723488, US8721162, US8698447, US8698446, US8685477, US8672534, US8619443, US8617616, US8609148, US8606396, US8597689, US8591957, US8534501, US8479531, US8470893, US8459176, US8449172, US8445546, US8410182, US8349191, US8292858, US8205460, US8120307, US8085010, US8085009, US8079230, US8074837, US8070023, US8004255, US7919534, US7887698, US7857910, US7832920, US7813834, US7806584, US7770814, US7690569, US7681761, US7654728, US7603870, US7401613, US7290682, US7272894, US6948327, US6918258, US6878392, US6852351, US6817749, US6735967, US6678628, US6650962, US6637214, US2017049127, US2016213025, US2015276286, US2015239726, US2015101357, US2015034668, US2014231047, US2013068331, US2013045311, US2012240611, US2012222434, US2012217264, US2012031135, US2011271690, US2011217440, US2011168738, US2011010133, US2010323071, US2010320956, US2010314410, US2010314407, US2010293965, US2010192607, US2010139493, US2010101235, US2010058772, US2009321443, US2009302038, US2009261129, US2009246074, US2009200981, US2009140006,

US2009133429, US2009126581, US2009071177, US2009051344, US2009030379, US2008217362, US2008217361, US2008140437, US2008092580, US2008041876, US2007268128, US2007251260, US2007102448, US2007062212, US2006276932, US2006243310, US2006175355, US2006134275, US2006123802, US2006123653, US2005098575, US2005064077, US2004194811, US2004079095, US2004060307, US2002115433, JP2013081395, JP2006516109, ITMO20090259, ITBO20130612, ITBO20130020, GB2427673, GB2427673, EP3127431, EP2936992, EP2896298, EP2578119, EP1931457, EP1716760, EP1716760, EP1588981, EP1283013, EP1254603, EP1212948, CN104080356, CN103423944, CN103190520, CN102573509, CN102573509, CN102177533, CN101842022,

Abstract:

Source: US6490872B A softserve product refrigeration and dispensing machine (1) having numerous novel features to make the machine and the operation thereof more efficient; a novel supply method and apparatus provides raw product mix and gaseous matter at the proper ratios to the freezing cylinder (17) of the machine. Additionally, and also in conjunction with a novel door and product dispensing apparatus (40, 40a), the special design features enable the maintenance of a dispenser (60), beater (110), freezing chamber and other parts of the machine capable of easy flushing with a cleaning and/or sanitizing solution via the supply method and apparatus without requiring machine disassembly with no retention of the food stuffs and the like.



33) Family number: 22695790 (FR1489236A)

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Title: POIGNEE POUR BASSINE HANDLE BOWL (Machine translation)**Priority:** FR19660065140 19660611

Family:	Publication number	Publication date	Application number	Application date
	FR1489236 A	19670721	FR19660065140	19660611

Probable Assignee: ARTICLE MENAGER L**Assignee(s):^(std):** ARTICLE MENAGER L**Assignee(s):** L ARTICLE MENAGER

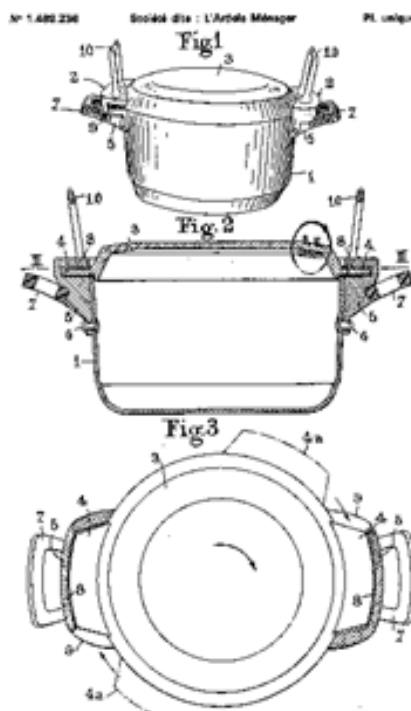
International class A47J36/06 A47J45/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J45/00 (Core/Invention)

International class A47J45/06
 (IPC 1-7):

CPC: A47J36/06 A47J45/062**European class:** A47J36/06 A47J45/06B[Classification Explorer](#)**Forward Citations:** FR2543423,**Abstract:**

Source: FR1489236A [Source: Claim 1] 1. De plus, la forme et la dimension des rainures 8, ainsi prévues dans les embases des deux poignées, sont telles que chacune d'elles puisse servir de logement à l'une des oreilles de prehension 4 du couvercle 3. Pour permettre l'introduction de ces oreilles dans les rainures 8, ces dernières sont par ailleurs ouvertes à l'une de leurs extrémités. En effet, l'un des cotés de chaque embase 5 comporte une ouverture 9, débouchant dans la rainure correspondante. Toutefois, ces rainures sont fermées sur le côté opposé des embases 5. À sa partie supérieure, l'embase de chaque poignée porte une anse 10, susceptible de servir de support à une des oreilles de prehension du panier d'égouttage prévu dans la bassine à friture 1. Ces anses s'étendent verticalement de façon à pouvoir maintenir le panier d'égouttage à quelque distance au-dessus du fond de la bassine 1, lorsque les oreilles de celui-ci reposent sur les anses 10 des deux poignées. Ce panier, qui peut être de type quelconque, n'est pas représenté sur le dessin annexe. De préférence, l'embase 5 et l'anse 10 de chaque poignée selon l'invention, sont constituées par une pièce monobloc, réalisée par moulage en métal, ou en alliage métallique. Ainsi, seule la poignée de prehension 7 proprement dite est fabriquée indépendamment et rapportée ensuite sur l'embase correspondante 5. Ainsi qu'il a déjà été indiqué, les deux poignées 2 prévues sur la bassine sont diamétralement opposées. Les ouvertures 9 des rainures 8 prévues dans les embases de ces deux poignées, sont tournées dans la même direction. Dans ces conditions, pour loger les oreilles 4 du couvercle 3 dans ces rainures, il convient tout d'abord de placer ce couvercle sur le dessus de la bassine, ses

PatBase - FR1489236_A



oreilles de prehension occupant par exemple la position 4a representee en traits mixtes sur la figure 3. Puis en imprimant un mouvement de rotation au couvercle 3 dans le sens de la fleche F, on peut ainsi engager ses deux oreilles de prehension dans les ouvertures 9 des rainures 8 des deux poignees. En fin de mouvement, ces deux oreilles se trouvent completement logees a l'interieur desdites rainures et elles viennent buter contre l'extremite fermee de ces dernieres. Ainsi, les deux oreilles du couvercle se trouvent en quelque sorte escamotees a l'interieur des poignees de la bassine, de sorte que cette derniere comporte, en tout et pour tout, les deux saillies formees par ses poignees. Ceci facilite donc le rangement de la presente bassine. Par ailleurs, il convient de noter que le couvercle 3 se trouve maintenu en place sur la bassine, du fait meme que ses oreilles 4 sont logees dans les rainures 8 des deux poignees de celle-ci. Dans ces conditions, le couvercle ne risque pas de se soulever de facon intempestive, lorsque la bassine est rangee en place. Cependant, ce couvercle n'est pas fixe a proprement parler sur la bassine. En effet, il est simplement maintenu en place. Pour le retirer, il suffit de lui imprimer une rotation dans le sens inverse a la fleche F, afin de degager les oreilles 4 hors des rainures 8 des deux poignees de la bassine. Apres quoi, ce couvercle peut etre degage par simple soulevement. Les poignees selon l'invention, presentent donc des avantages incontestables par rapport aux poignees de type usuel. Cependant, il va de soi que ces poignees ne sont pas limitees a l'exemple qui a ete decrit ci-dessus, et qui est represente sur le dessin annexe a simple titre indicatif. Ainsi, les poignees selon l'invention, pourraient etre conques pour equiper des bassines de cuisine autres que des bassines a friture, auquel cas, les anses 10 seraient supprimees. Par ailleurs, la forme de ces poignees peut evidemment etre modifiee, en fonction notamment de la forme des oreilles de prehension du couvercle de la bassine correspondante.

RESUME 1. Une poignee pour bassine destinee a recevoir un couvercle muni d'oreilles de prehension, cette poignee etant caracterisee en ce que son embase de fixation comporte une rainure s'etendant au-dessus du bord de la bassine, parallelement a ce bord, et qui est adaptee a servir de logement a l'une des oreilles du couvercle qui peut y etre introduite par rotation de ce couvercle apres sa mise en place sur le dessus de la bassine; [Source: Claim 1] 1. In addition, the shape and size of the grooves 8, as provided for in the bases of the two handles, are such that each of them can serve as housing has one of prehension 4 ears of the lid 3. To allow introduction of the lugs in the grooves 8, the latter are also open to the one of their ends. Indeed, one of the coordinates of each base 5 has an opening 9 which opens into the corresponding groove. However, these grooves are closed on the opposite side of the sockets 5. At its upper part, the base of each door handle cove 10, could serve as a support has a prehension of the ears of the basket of planned dewatering in the basin a frying 1. These handles extend vertically for a way to maintain the basket of dewatering at some distance above the bottom of the basin 1, when the ears of the latter based on the handles 10 of the two handles. This basket, which can be of any type, is not represented on the attached drawing. Preferably, the base 5 and the handle 10 of each handle of the invention, consist of a monobloc piece, made by casting metal, or metal alloy. Thus, only the handle of prehension 7 itself is produced independently and then attached to the corresponding seat 5. As has already been indicated, the two handles 2 provided for the basin are diametrically opposed. The openings 9 provided for the 8 slots in the bases of the two handles are tournees in the same direction. In these conditions, to house 4 ears of the cover 3 in the grooves, it is first necessary to place the lid on top of the basin, ears of prehension occupying such position 4a represented in broken lines in Figure 3. Then by printing a rotational movement to the cover 3 in the direction of the arrow F, one can thus engage both ears prehension in the openings 9 of the grooves 8 of the two handles. At the end of movement, both ears are completely housed inside said grooves and they abut against the extremity of the latest closed. Thus both ears cover are somewhat retracted inside the handles of the pan, so that the latter includes, all in all, the two projections formed by its handles. This therefore facilitates storage of this basin. Furthermore, it should be noted that the lid 3 is held in place on the bowl, the very fact that his ears 4 are housed in the grooves 8 of the two handles thereof. Under these conditions, the cover does not raise risk of untimely way when the basin is up row. However, this cover is not fixed properly speaking on the basin. Indeed, it is simply held in place. To remove, simply print it to rotate in the opposite direction to the arrow F, in order to clear the ears 4 out of the grooves 8 of the two handles of the pan. After which, the cover can be by simply clears uprising. The handles of the invention thus have undeniable advantages over conventional type handles. However, it is obvious that these handles are not limited to the example which has been described above, which is represented on the attached drawing a mere indication. Thus, the handles of the invention could be designed to equip kitchen bowls other than a frying pans, in which case, the handles 10 would be eliminated. Furthermore, the shape of these handles can obviously be modified, depending in particular on the shape of the ears of prehension of the corresponding bowl lid.

SUMMARY 1. A handle for bowl destiny to receive a cover with prehension ears, this handle being characterized in that the mounting base has a groove extending over the edge of the basin, parallel to that edge, and is adapted to serve housing has one of the cover ears that can be brought by rotation of the cover after setting it up on top of the bowl;

34) Family number: 33400020 (WO06100151A1)

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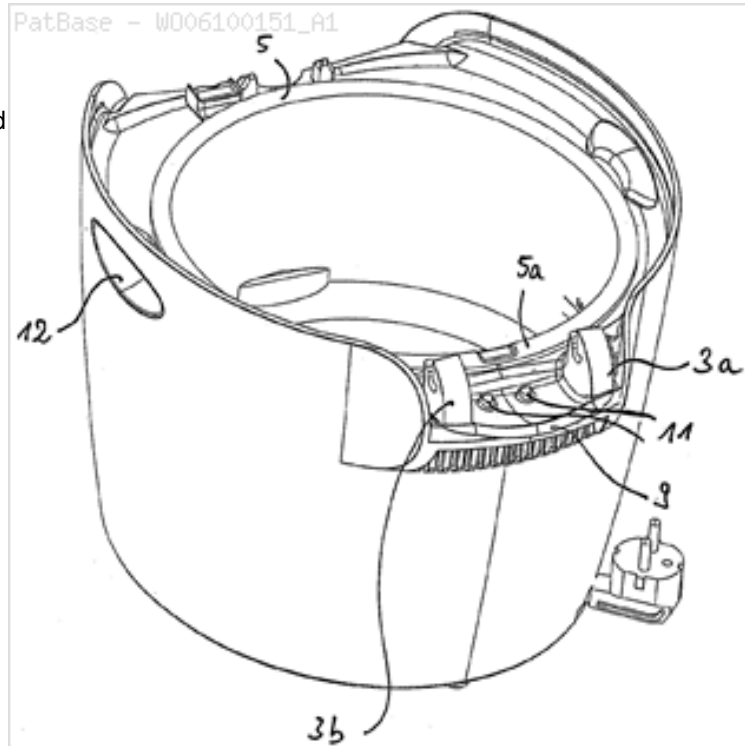
Title: DEEP FRYER**Priority:** DE200510013805 20050324 WO2006EP50678 20060206

Family:	Publication number	Publication date	Application number	Application date
	<u>AT415121 E</u>	20081215	AT20060704123T	20060206
	<u>CN100518600 C</u>	20090729	CN200680000834	20060206
	<u>CN101031229 A</u>	20070905	CN200680000834	20060206
	<u>DE102005013805 A1</u>	20060928	DE200510013805	20050324
	<u>DE502006002183 D1</u>	20090108	DE200650002183T	20060206
	<u>EP1788918 A1</u>	20070530	EP20060704123	20060206
	<u>EP1788918 B1</u>	20081126	EP20060704123	20060206
	<u>WO06100151 A1</u>	20060928	WO2006EP50678	20060206

Probable Assignee: BSH BOSCH SIEMENS HAUSGERAETE**Assignee(s):^(std):** BSH BOSCH AND SIEMENS HOME APPLIANCE GMBH ; BSH BOSCH SIEMENS HAUSGERAETE ; MIKULIK FRANTISEK ; MUEHLBACHER RICHARD ; SEDLAK JOSEF ; STEFFL MICHAEL**Assignee(s):** BSH BOSCH SIEMENS HAUSGERAETE GMBH ; BSH BOSCH U SIEMENS HAUSGERAETE GMBH ; BSH BOSCH UND SIEMENS HAUSGERAETE GMBH**Inventor(s):^(std):** FRANTISEK MIKULIK ; JOSEF SEDLAK ; MICHAEL MIKULIK FRANTISEK MUEH ; MICHAEL STEFFL ; MIKULIK FRANTISEK ; MUEHLBACHER RICHARD ; RICHARD MUEHLBACHER ; SEDLAK JOSEF ; STEFFL MICHAEL**Inventor(s):** MIKULIK FRANTISEK MUEHLBACHER RICHARD SEDLAK**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**International class**
(IPC 8-9): [A47J37/12](#) (Advanced/Invention) ;
[A47J37/12](#) (Core/Invention)**CPC:** [A47J36/14](#) [A47J37/1285](#)**European class:** [A47J37/12A1](#) [A47J37/12M2](#) [A47J37/12M3](#) [K47J36/14](#)[Classification Explorer](#)**Cited documents:** US6365878 BA, US2004112227 AA, EP1504706 A1, EP1224896 A1,

Abstract:

The invention relates to a deep fryer (1) which comprises a heated container (5) for receiving a frying bath, a housing (2, 2a), a spout (9) for pouring out the frying bath and a lid (4), hinged to the deep fryer (1), for closing and opening the container. The inventive deep fryer, in the area where the lid (4) is hinged, is configured as the spout (9) for pouring out the frying bath.



0) CN101862136A – ROTARY FRYING BASKET OF FRYER

35) Family number: 47419075 (CN101862136A)

© PatBase

Title: ROTARY FRYING BASKET OF FRYER

Priority: CN201010204735 20100618

Family:	Publication number	Publication date	Application number	Application date
	CN101862136 A	20101020	CN201010204735	20100618
	CN101862136 B	20120201	CN201010204735	20100618

Probable Assignee: MIDEA HOLDING CO LTD

Assignee(s):^(std): MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD

Assignee(s): MIDEA HOLDING CO

Inventor(s):^(std): MINQIANG FENG ; TIANBING GAO ; YUN YANG

Inventor(s): YANG YUN ; FENG MINQIANG ; GAO TIANBING

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Cited documents: US5771600 A, CN2655789 Y, CN201743536 U, CN201205224 Y,

Forward Citations: CN102319028, CN102239895, CN102239895,

Abstract:

Source: CN101862136A The invention discloses a rotary frying basket of a fryer. The rotary frying basket comprises a basket body, a front cover, a rear cover and a handle, wherein the front cover and the rear cover are firmly connected with the basket body; the rotary frying basket is characterized by further comprising a bearing, a bearing housing and a handle seat, wherein an inner ring of the bearing is fixedly connected with the front cover, and an outer ring of the bearing is fixedly connected with the bearing housing and the handle seat; and the handle is arranged on the handle seat. Because the bearing is arranged between the front cover and the handle of the frying basket and non-interference 360-degree rotation can be realized by using the inner ring and the outer ring of the bearing, the inner ring of the bearing is fixed with the front cover and the outer ring of the bearing is fixed with the handle seat, the handle arranged on the frying basket does not rotate relatively to the frying basket so as not to cause interference to the frying basket when the basket body of the frying basket rotates; and the frying basket is suitable for the fryer with rotatable frying basket.

PatBase - CN101862136_B

CN 101862136 B

说明书附图

1/1 页

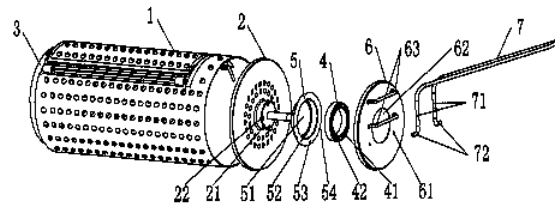


图 1

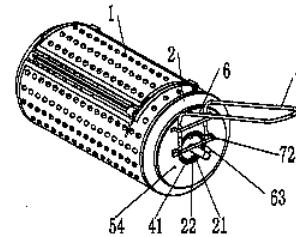


图 2

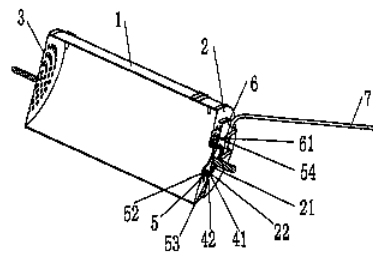


图 3

5

36) Family number: 3063888 (DE3150455A1)

© PatBase

Title: Deep-fat fryer with an electrically heatable frying pot

Priority: DE19813150455 19811219

Family:	Publication number	Publication date	Application number	Application date
	<u>DE3150455 A1</u>	19830630	DE19813150455	19811219

Probable Assignee: KRUPS STIFTUNG

Assignee(s):^(std): KRUPS STIFTUNG

Assignee(s): ROBERT KRUPS STIFTUNG AND CO KG

Inventor(s): VERZICHT DES ERFINDERS AUF NENNUNG

International class
(IPC 8-9): A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J36/38 A47J37/1209

European class: A47J36/38 A47J37/12A1

[Classification Explorer](#)

Cited documents: DE2931859 A1, DE2508263 A1, DE1804842 U,

Forward Citations: USD552921, US7981459, US7412922, US6941857, FR2804309, ES2244312, EP1563778, EP1563777, EP1561408, EP1561408, EP0432370,

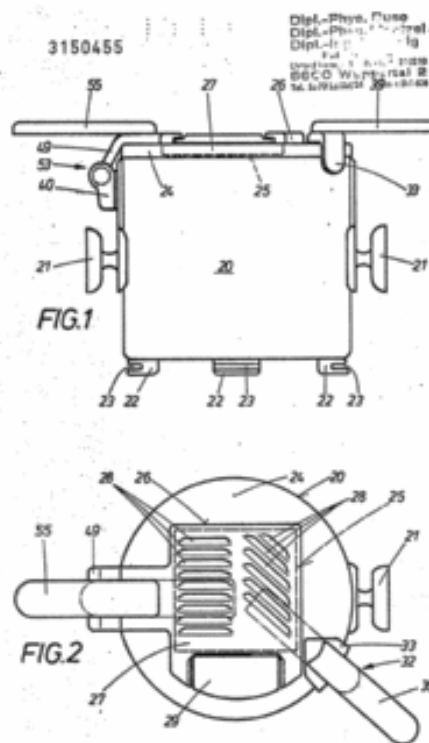
Abstract:

Source: DE3150455A1 In a deep-fat fryer with an electrically heatable frying pot provided with carrying handles, the lid closing said frying pot is fastened thereto via a hinge. In this case, the lid has a filter chamber provided with openings for receiving a vapour filter and is furthermore fitted with a condensation container connected detachably to the frying pot below the hinge. Additionally, a frying basket is inserted in the frying pot, the handle of which frying basket is arranged on the outside and is fixed to the frying basket via connectors penetrating the lid. In order to provide a hinge connection of the lid to the frying pot by simple means and in a simple construction whilst being able to remove the lid from the frying pot and to assign it thereto again easily, the hinge is formed from one hinge half connected to the lid and one hinge half integrated with the condensation container.

PatBase - DE3150455_A1

23.

Number: 3150455
Int. Cl. A47J 37/12
Anmeldungs- 15. Dezember 1981
Offenlegungstermin: 30. Juni 1983



37) Family number: 32126941 (EP1561408A1)

© PatBase

Title: Fryer**Priority:** ES20040000348 20040205

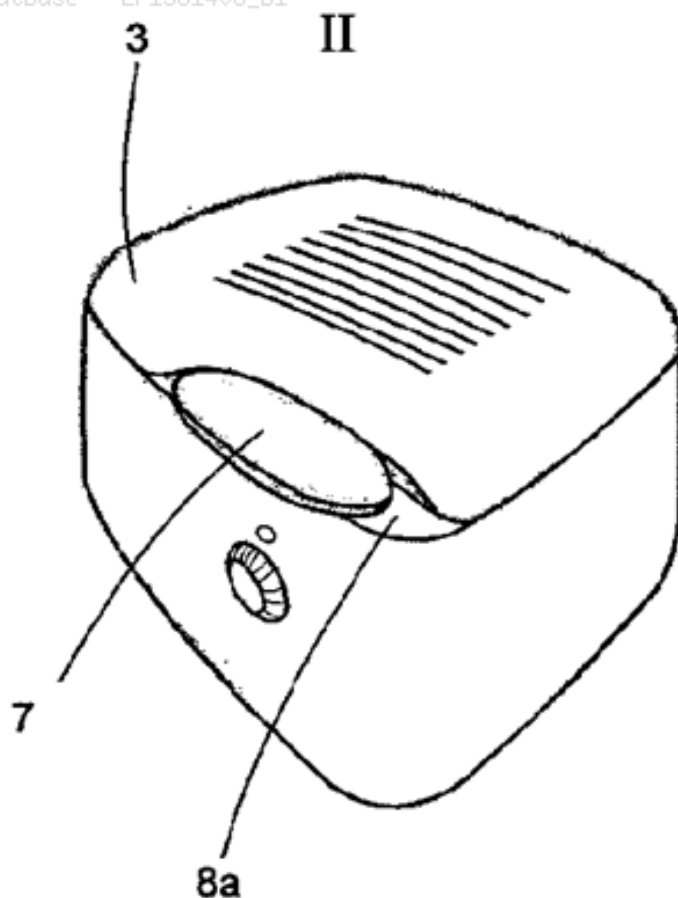
Family:	Publication number	Publication date	Application number	Application date
	AT426349 E	20090415	AT20050100783T	20050204
	DE502005006915 D1	20090507	DE200550006915T	20050204
	EP1561408 A1	20050810	EP20050100783	20050204
	EP1561408 B1	20090325	EP20050100783	20050204
	ES2244312 AA	20051201	ES20040000348	20040205
	ES2244312 BA	20070216	ES20040000348	20040205

Probable Assignee: BSH UFESA IND S A**Assignee(s):^(std):** BSH BOSCH UND SIEMENS HAUSGER ; BSH BOSCH SIEMENS HAUSGERAETE ; BSH UFESA IND S A**Assignee(s):** BSH UFESA INDUSTRIAL S A ; BSH BOSCH U SIEMENS HAUSGERAETE GMBH ; BSH BOSCH U SIEMENS HAUSGERATE GMBH ; BSH BOSCH UND SIEMENS HAUSGERAETE GMBH ; BSH BOSCH UND SIEMENS HAUSGERATE GMBH ; BSH UFESA INDUSTRIAL SA**Inventor(s):^(std):** ARIZNABALETA JOSEBA ; ARIZNABARRETA GARABIETA JOSEBA ; KLEMM JOCHEN**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR**International class**
(IPC 8-9): [A47J37/12](#) (Advanced/Invention) ; [A47J37/12](#) (Core/Invention)**International class**
(IPC 1-7): [A47J37/12](#)**CPC:** [A47J37/1295](#) [A47J37/1219](#) [A47J37/128](#) [A47J37/1276](#)**European class:** [A47J37/12C](#) [A47J37/12M](#) [A47J37/12M1](#) [A47J37/12P](#)[Classification Explorer](#)**Cited documents:** US6334888 BA, ES2186216 T3, ES2084453 T3, ES1039813 UA, ES1024420 UA, EP162482, EP0891736 A1, EP0587300 A1, DE4304689, DE3150455 A1, DE2931859,

Abstract:

The deep fryer has a base, into which the frying basket fits, and a lid (3). This has a cut-out (8a) near the front, into which the handle (7) of the basket fits for storage.

PatBase - EP1561408_B1

**FIG.2**

0) ES1024420Y – ASA PARA CESTILLOS DE FREIDORAS.

38) Family number: 29373754 (ES1024420Y)

© PatBase

Title: ASA PARA CESTILLOS DE FREIDORAS.

Priority: ES19930000921U 19930402

Family:	Publication number	Publication date	Application number	Application date
	ES1024420 UA	19930816	ES19930000921U	19930402
	ES1024420 Y1	19940416	ES19930000921U	19930402
	ES1024420 YA	19940416	ES19930000921U	19930402

Probable Assignee: UNION FABRICANTES ELECTRODOMES

Assignee(s):^(std): UNION FABRICANTES ELECTRODOMES

Assignee(s): UNION FABRICANTES ELECTRODOMESTICOS S A UFESA

Inventor(s):^(std): BERGARECHE BUSTINDUY ; BERGARECHE BUSTINDUY JAVIER

International class [A47J37/00](#) (Advanced/Invention);
(IPC 8-9): [A47J37/00](#) (Core/Invention)

International class [A47J37/00](#)
(IPC 1-7):

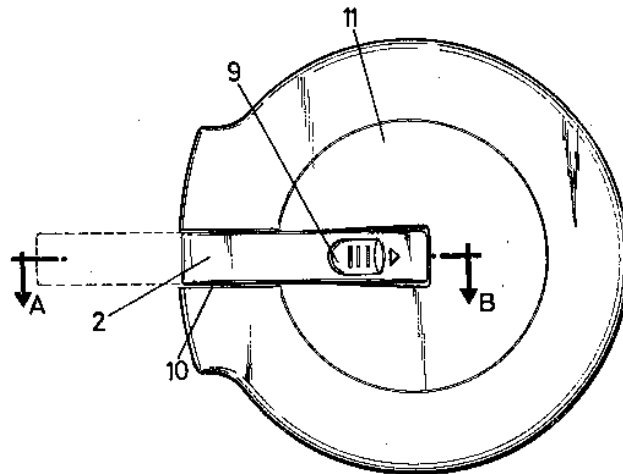
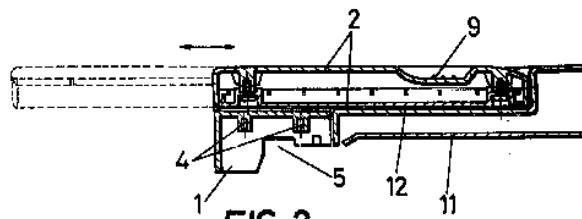
[Classification Explorer](#)

Forward Citations: ES2244312,

Abstract:

Source: ES1024420U 1. Asa para cestillos de freidoras, que estando prevista para jarse al correspondiente cestillo para posibilitar al manejo de este en su introduccion y/o extraccion respecto de la freidora, esencialmente se caracteriza porque esta constituida por la asociacion de dos piezas (1) y (2), la primera de las cuales dotada de medios para su jacion al correspondiente cestillo y con unas muescas (5) para apoyo sobre el borde superior de la respectiva freidora, en tanto que la pieza (2) es alargada y cuenta con unas ranuras laterales (3) en funciones de guias de desplazamiento respecto de la pieza (1), contando esta al efecto en sus caras laterales con alas (7) proyectadas hacia el interior, las cuales se alojan en las ranuras o guias laterales (3), para el desplazamiento de la pieza alargada (2) respecto de dicha pieza (1), quedando ambas piezas vinculadas, sin posibilidad de independizarse, por medio de unos pivotes (8) emergentes de las alas (7) de guiado, pivotes (8) que hacen tope contra el borde superior e interno de las propias ranuras o guias (3), con la particularidad de que esa pieza alargada (2) en su desplazamiento hacia delante o hacia atras determina las posiciones de reposo o de uso, respectivamente, de manera que en la posicion de reposo o de plegado la pieza (2) queda situada sobre una depresion (12) prevista en la superficie superior de la correspondiente tapa (11) de la freidora, bloqueando a esta en la posicion de cierre, mientras que en la posicion desplegada hacia atras de esa pieza (2) se determina el elemento de agarre y la liberacion de la propia tapa (11) para su correspondiente apertura.

1. Handle buckets fryers, which being provided for Jarse the corresponding rack to enable the handling of this in his introduction and / or removal in respect of the fryer, essentially characterized estac ons – tituida by the association of two parts (one) and (2), the first of which is provided with means for its jaci on the corresponding rack and notches (5) for support on the upper edge of the respective fryer, while part (2) is elongated and has a lateral grooves (3) acting as guides to offset from part (1), counting this purpose on its sides with wings (7) has projected inwards, which are accommodated in the og lateral slots or as (3) for the displacement of the elongated part (2) in respect of that part (1), both being linked parts, without possibility of independence, by means of pivots (8) emerging wings (7) guided pivots (8) which abut against the upper and inner edge of the slots themselves or guides (3), with the particularity that the elongated part (2) in their forward displacement or backward determines the positions of rest or use, respectively, so that the position of repos ood ol ap er eplegad can starts (2) as Qued ocated on a depression (12) provided in the upper super–cie the corresponding cover (11) from the fryer, blocking is in the position of closure, while in the deployed position to the rear of that part (2) the gripper and the release of the cover itself is determined (11) to its corresponding opening.

**FIG.1****FIG.2**
A-B

39) Family number: 53536597 (US2013098251A)

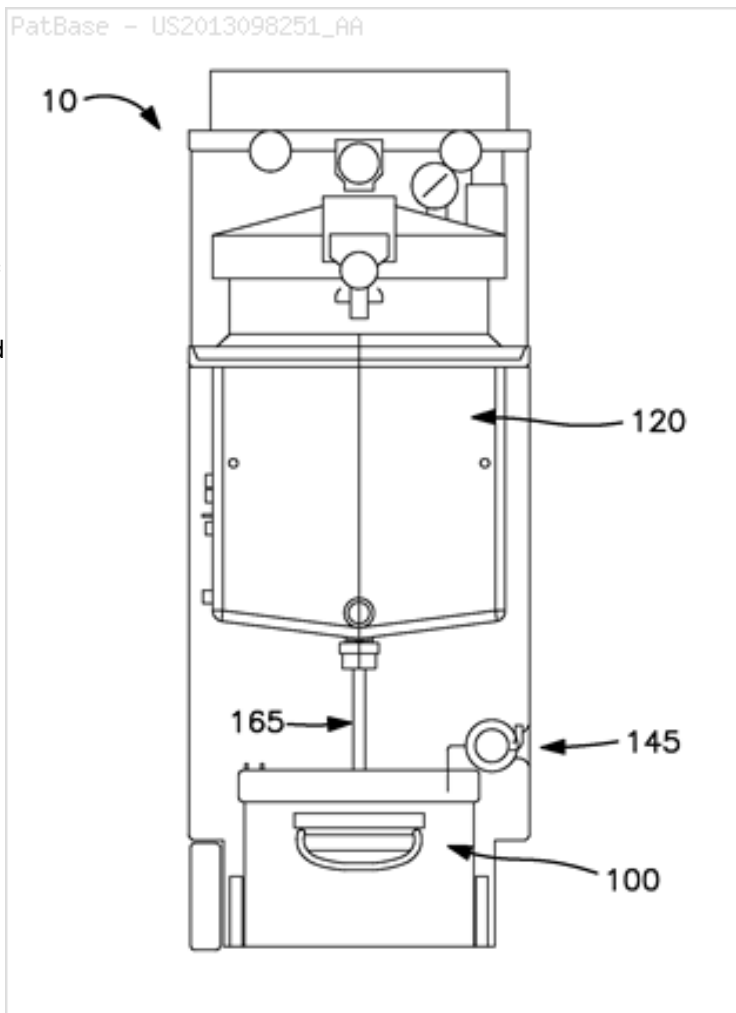
© PatBase

Title: FILTER PANS FOR USE IN FRYER APPARATUS AND FRYER APPARATUS**Priority:** US20110279032 20111021

Family:	Publication number	Publication date	Application number	Application date
	<u>US2013098251 AA</u>	20130425	US20110279032	20111021

Probable Assignee: HENNY PENNY CORP**Assignee(s):**^(std): BROOKS BRIAN ; GORT TOM ; HENNY PENNY CORP ; KILLION MARK ; LAMBERT KEITH**Inventor(s):**^(std): BROOKS BRIAN ; GORT TOM ; KILLION MARK ; LAMBERT KEITH**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/1223**US class:** 99/408[Classification Explorer](#)**Cited documents:** US6378420, US2009309619, US2009084273, US2009049994, US2005072309,**Abstract:**

Source: US2013098251A A fryer apparatus includes a cooking chamber and a filter pan. The filter pan includes an outlet passage, formed through a bottom portion of the filter pan, configured to allow cooking media to be discharged; a groove formed in the bottom portion of the filter pan and surrounding the outlet passage; and a removable, two-sided filter screen having an adaptor configured to couple the filter screen to the bottom portion of the filter pan at the outlet passage. The adaptor includes an engaging portion protruding from the filter screen and configured to fit at least partially into the outlet passage and a raised segment configured to fit at least partially in the groove, such that the filter screen does not contact the bottom portion of the filter pan. Further, the engaging portion includes a connector configured to create a seal between the adaptor and the outlet passage.



40) Family number: 50625045 (EP2420168A1)

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Title: Fryer fitted with means for filtering and purifying oil and a method carried out through said means

Priority: IT2010VR00167 20100806

Family:	Publication number	Publication date	Application number	Application date
	<u>EP2420168 A1</u>	20120222	EP20110176756	20110805
	<u>IT1401638 B1</u>	20130726	IT2010VR00167	20100806
	<u>ITVR20100167 A1</u>	20120207	IT2010VR00167	20100806

Probable Assignee: INOXPIU S R L

Assignee(s):^(std): INOXPIU S R L

Assignee(s): INOXPIU SRL

Inventor(s):^(std): ZUCCATTI ANDREA

Agent(s): SANDRI SANDRO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class A47J37/12 (Advanced/Invention)
(IPC 8-9):

CPC: A47J37/1223

European class: A47J37/12D

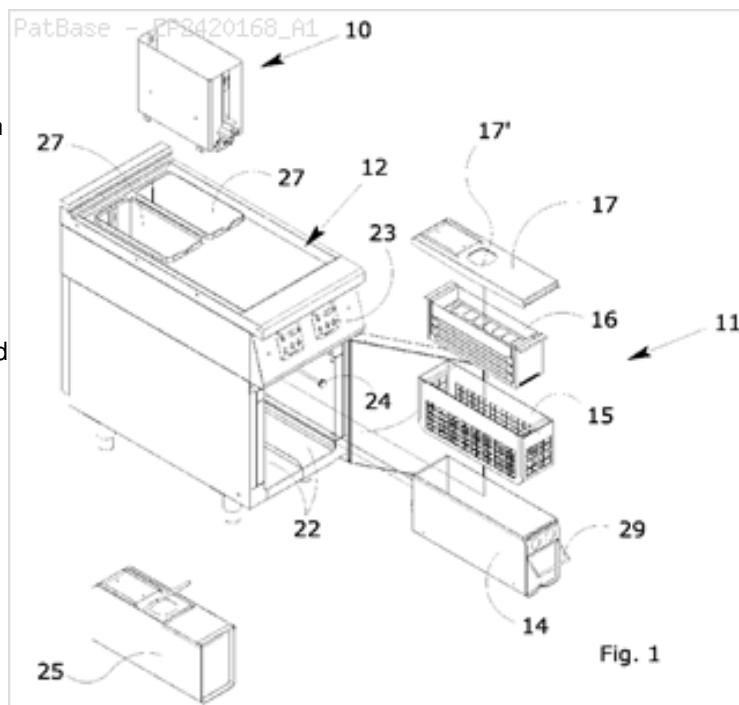
[Classification Explorer](#)

Cited documents: WO09014562 A1, US5782164 A, US2007062515 AA, US2005223909 AA, GB2427154 A1,

Forward Citations: EP3130386, DE102015113186,

Abstract:

Source: EP2420168A1 A fryer fitted with means for filtering and purifying frying oil, in which the means substantially comprise two components (10, 11) which can be installed on a new fryer (12) or retrofitted to an existing fryer, and in which the first of the two filtering components comprises a basket holder prefilter (10) inserted inside the main cooking tank of the frying machine designed to receive the frying basket (13), while the second component comprises a filtering element (11) comprising a series of micromesh elements which enable gravity-fed filtering of the oil, and where all the filtering elements are contained inside a holding tank (14) closed by a cover (17), the fryer being installable close to a discharge pipe (S) and connected to this in order to enable draining of the cleaning mix and the products for washing the tank and/or the filters.

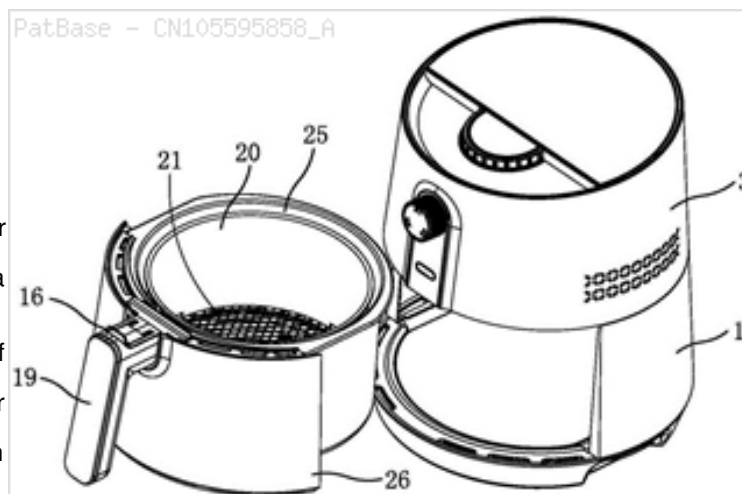


Title: AIR FRYER**Priority:** CN201610104960 20160226**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105595858 A</u>	20160525	CN201610104960	20160226

Probable Assignee: NINGBO BIYI ELECTRIC APPLIANCE CO LTD**Assignee(s):^(std):** NINGBO BIYI ELECTRIC APPLIANCE CO LTD**Assignee(s):** BY APPLIANCE CO LTD NINGBO RATIO ; NINGBO BIYI ELECTRIC APPLIANCE CO**Inventor(s):^(std):** WEN JIWANG**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN105595858A The invention relates to an air fryer which is designed in order to solve the technical problems that for existing similar products, the structural design is poor, and the safety and oil filtration structure need to be further improved. A fryer cover, an inner fryer, an outer fryer and a handle of the air fryer are connected into a whole to form a fryer body, and an upper machine shell, a lower machine shell and a base are connected into a whole to form a machine body; the air fryer is characterized in that an oil-filter screen is arranged at the bottom of the inner diameter of the inner fryer, the oil-filter screen is fixed to an elastic sheet arranged at the inner diameter of a port of the inner fryer; the handle and the fryer cover are connected into a whole through a lock hook plate which is shaped like an L, one end of the hook part extends into the fryer cover and is buckled with sheet metal of the inner wall of the fryer cover, the other end abuts against a lock piece through a cocked sleeve, and the handle side of the lock piece is cocked; when the lock piece is pressed, the warped sleeve drives the lock hook plate to rotate. When the fryer body is put into the machine body, a shell hook of the fryer cover is buckled with a hook hole of the base; a sphere cylinder plate is arranged on the upper machine shell corresponding to a limiting diagonal bar of the handle, a limiting sphere cylinder in the upper machine shell extends out of the sphere cylinder plate through a spring and abuts against the inclined plane side of the limiting diagonal bar.



Title: Electric fryer

Priority: BE19830896081 19830304 BE19830210258 19830304 WO1984BE00005 19840302

Family:

Publication number	Publication date	Application number	Application date
BE896081 A1	19830701	BE19830210258	19830304
EP0137809 A1	19850424	EP19840900845	19840302
US4636618 A	19870113	US19840674955	19841030
WO8403427 A1	19840913	WO1984BE00005	19840302

Probable Assignee: ELECTRO DOMESTIC BELGIUM SOC ANONYME

Assignee(s):^(std): ELECTRO DOMESTIC BELGIUM ; JENICOT JEAN MARIE ; ELECTRO DOMESTIC BELGIUM SOCIE

Assignee(s): ELECTRO DOMESTIC BELGIUM SOCIETE ANONYME ; ELECTRO DOMESTIC BELGIUM S A ; ELECTRO DOMESTIC BELGIUM SA ; ELECTRO DOMESTIC BELGIUM SOC ; ELECTRO DOMESTIC BELGIUM SOC ANONYME

Inventor(s):^(std): JENICOT JEAN MARIE

Designated states: AT CH DE FR GB LI NL US

International class
(IPC 8-9): [A47J36/38 A47J37/12](#) (Advanced/Invention) ;
[A47J36/00 A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J27/00 A47J36/38 A47J37/12 F27D11/00](#)

CPC: [A47J36/38 A47J37/1209](#)

European class: [A47J36/38 A47J37/12A1](#)

US class: [219/438 219/441 220/368 220/662 220/82R D7/354](#)

[Classification Explorer](#)

Cited documents: US4487117 A, US4148250 A, US1452018 A, GB2119635 A1, FR94107 E, FR94105 E, FR2239224 A1, FR1517736 A, FR1465655 A, FR1151736 A, DE682723 A, DE2931859 A1, DE2435447 A1, DE2155541 A1, DE1753812 A1, BE870419 A1,

Forward Citations: WO02062188, US8381637, US7307243, US6851351, US6526875, US5595108, US5523104, US2012325799, US2010018411, US2004250688, US2004007136, US2003209551, GB2245188, FR2820299, ES2165264, EP0263084,

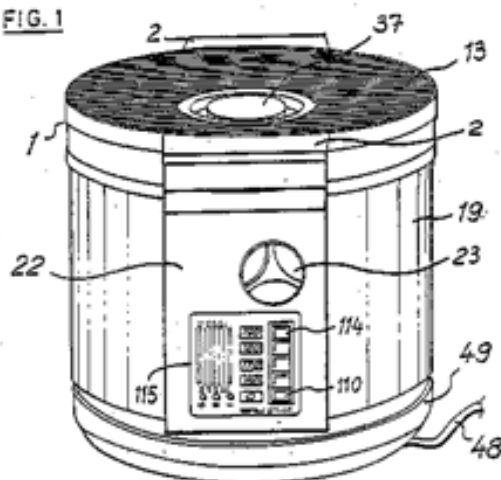
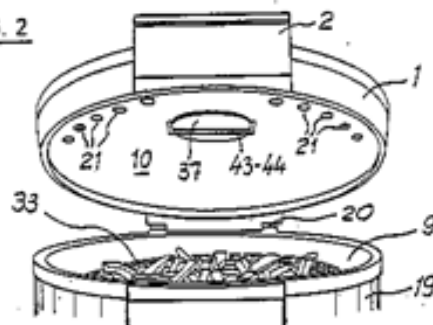
Abstract:

Source: US4636618A PCT No. PCT/BE84/00005 Sec. 371 Date Oct. 30, 1984 Sec. 102(e) Date Oct. 30, 1984 PCT Filed Mar. 2, 1984 PCT Pub. No. WO84/03427 PCT Pub. Date Sep. 13, 1984. An electric fryer includes a filtering lid with upper and lower condensation walls which define between them a condensation chamber. A reflector is located between the lower condensation wall and the cooking chamber and a filter is carried by the upper condensation wall. The lid also includes a rotatable window with a scraper.

PatBase - W08403427_A1

WO 84/03427

PCT/BE84/00005

FIG. 1**FIG. 2**

0) US3789822A – HINGED COVER DEEP FAT FRYER, GRIDDLE AND BARBEQ...

43) Family number: 7628083 (US3789822A)

© PatBase

Title: HINGED COVER DEEP FAT FRYER, GRIDDLE AND BARBEQUE

Priority: US19720310774 19721130

Family:	Publication number	Publication date	Application number	Application date
	<u>US3789822 A</u>	19740205	US19720310774	19721130

Probable Assignee: SCHANTZ S

Assignee(s):^(std): SCHANTZ R ; SCHANTZ S

Assignee(s): SCHANTZ S US ; SCHANTZ R US

Inventor(s):^(std): SCHANTZ J

Inventor(s): SCHANTZ J US

International class A47J37/12 F24C3/14 (Advanced/Invention);
A47J37/12 F24C3/00 (Core/Invention);
(IPC 8-9):

International class A47J37/00 A47J37/06 F24C3/04
(IPC 1-7):

CPC: F24C3/14 A47J37/1242 Y10T16/53615

European class: A47J37/12G F24C3/14

US class: 126/25R 126/41R 16/267 99/340

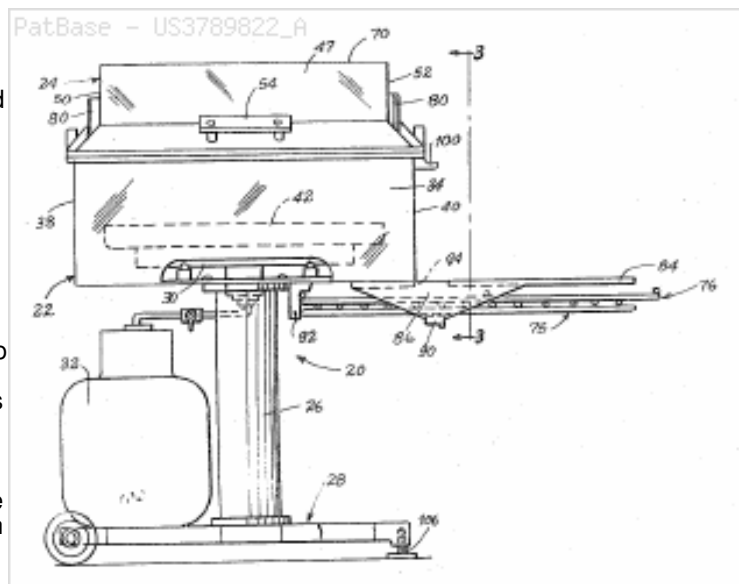
[Classification Explorer](#)

Cited documents: US3489132, US3388421, US3289801, US3244163, US3027887, US2817331,

Forward Citations: WO0002474, USRE32754, USD552407, USD541101, USD539395, USD536206, US8707857, US7798057, US6711992, US6418923, US5979431, US5941229, US5896810, US5758569, US5632265, US4909235, US4718399, US4446846, US4331123, US4322049, US4321857, US4245505, US4108142, US4062341, US4043312, US3915146, US2012204733, US2011067685, US2007028781, US2006266228,

Abstract:

Source: US3789822A A portable gas stove supporting for separate use a deep fat fryer, griddle and barbeque with a uniquely designed cover which serves as a griddle when in a closed position, a deep fat fryer in a reversed or inverted position and a barbeque heat reflector and windshield when opened to a vertically extending position. The stove has an open top within which a gas burner is provided. The open top of the stove supports the cover in a closed position where the flat top surface of the cover acts as a griddle. Hinge means enable the cover to be opened to a vertical position acting as a heat reflector and windshield. When the cover is reversed its open box like structure enables it to receive grease to act as a deep fat fryer. Hinged means are provided enabling the cover to rest upon the open top housing of the stove and be quickly hinged to a vertically extending in open position for use as a barbeque and to further enable the cover to be removed and reversed to act as a deep fat fryer.



44) Family number: 3825437 (US4995312A)

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Title: Cooking appliance with electric heating

Priority: CA19880566461 19880511 EP19880401155 19880511 FR19870006728 19870513
US19900488504 19900305 US19880191864 19880509 EP19880401155 19880511

Family:	Publication number	Publication date	Application number	Application date
	<u>AT57297 E</u>	19901015	AT19880401155T	19880511
	<u>CA1294141 A1</u>	19920114	CA19880566461	19880511
	<u>CN1005529 B</u>	19891025	CN19881002897	19880513
	<u>CN88102897 A</u>	19881130	CN19881002897	19880513
	<u>DE0295159 T1</u>	19890511	DE19880401155T	19880511
	<u>DE3860773 D1</u>	19901115	DE19883860773	19880511
	<u>EP0295159 A1</u>	19881214	EP19880401155	19880511
	<u>EP0295159 B1</u>	19901010	EP19880401155	19880511
	<u>ES2006435 A4</u>	19890501	ES19880401155T	19880511
	<u>FR2615274 A1</u>	19881118	FR19870006728	19870513
	<u>FR2615274 B1</u>	19890908	FR19870006728	19870513
	<u>GR3001116 T3</u>	19920512	GR19900400979T	19901128
	<u>GR89300023 T1</u>	19890412	GR19890300023T	19890412
	JP1788688 C3	19930910	JP19880113692	19880512
	<u>JP4076692 B4</u>	19921204	JP19880113692	19880512
	<u>JP63292917 A2</u>	19881130	JP19880113692	19880512
	<u>MX169771 B</u>	19930726	MX19880011466	19880513
	<u>US4995312 A</u>	19910226	US19900574529	19900828
	<u>US4995312 C1</u>	20100302	US19900574529	19900828

Probable Assignee: SEB SA

Assignee(s):^(std): SEB SA ; SEILER SA LTD CO

Assignee(s): LEIROS ERNEST ; S A SOCIETE AONYME ; SEB S A ; SEB S A SELONGEY COTE D OR FR

Inventor(s):^(std): LAROS ONEST ; LEIROS ERNEST ; ERUNESU RERO

Inventor(s): ERNEST LEIROS ; LEIROS ERNEST F 21000 DIJON FR ; ONEST LAROS

Agent(s): FETHERSTONHAUGH AND CO

Designated states: AT BE CH DE ES GB GR IT LI NL SE

International class
(IPC 8-9): A47J27/00 A47J36/36 A47J37/12 (Advanced/Invention);
A47J27/00 A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J27/00 A47J27/08 A47J27/66 A47J36/36 A47J37/12 F24C15/08 F24C15/34 F24C7/04

CPC: A47J27/004 A47J37/1209

European class: A47J27/00B A47J37/12A1

US class: 219/436 219/439 99/403 99/411 99/413 D7/354

[Classification Explorer](#)

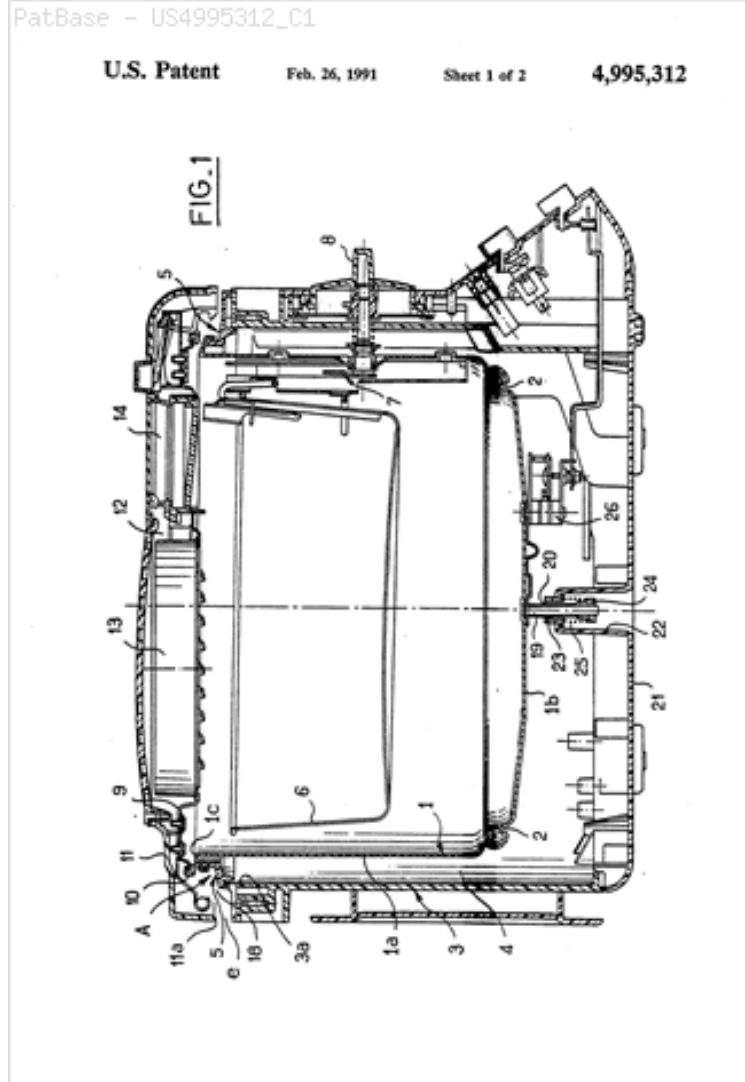
Cited documents: US4728778 A, US4672179 A, US4622230 A, US4560850 A, US4487117 A, US4258695 A, US4189993 A, US4148250 A, US4138606 A, US4011431 A, US3801331 A, US3746837 A, US3725641 A, US3577908 A, US3463077 A, US3433150 A, US2863037 A, US2753436 A, US2597695 A, US2219949 A, GB1595750 A, FR2120637 A5, FR2046681 A5, ES290283 U,

Forward Citations:

WO9604832, WO9302609, WO10092951, WO04054417, WO03017813, USD636629, USD583616, USD552921, USD432348, US9018566, US8850965, US8707857, US8381637, US8309151, US8297181, US8186265, US7312425, US7105780, US7105780, US7075038, US6851351, US6742444, US6546848, US6536333, US6240837, US6002111, US5996474, US5873298, US5809870, US5794522, US5730308, US5590583, US5584234, US5526734, US5524527, US5400700, US2011266273, US2010303973, US2010269712, US2010089246, US2010018411, US2008169281, US2007256571, US2007028781, US2007028780, US2006065130, US2005217662, US2005184048, US2004245238, US2004007136, GB2407255, GB2407255, GB2306878, GB2306878, GB2255002, GB2255002, FR2848404, FR2848402, FR2820298, FR2789873, FR2737649, FR2723690, FR2720254, FR2679751, EP1029490, EP0815785, EP0757901, EP0587300, DE4418239,

Abstract:

Source: US4995312A A plastic skirt (3) surrounding a metal pan (1) is employed for external heat-insulation of electrically-heated cooking appliances and in particular deep fryers. The skirt (3) is of plastic material which does not continuously withstand the temperature of the pan wall (1a, 1b) and is separated from this wall by an air space (4) of sufficient width to limit the temperature of the skirt (3). The skirt is completely free with respect to the pan (1) with the exception of a ring (5) which joins the top edge (3a) of the skirt to the top edge (1c) of the pan and to which this latter is attached. The ring (5) is of heat-insulating material which affords continuous resistance to the temperature of the top edge (1c) of the pan (1).



Title: MANDOLINE SLICER
Priority: CA20122767647 20120210 EP20120156820 20120224 US20110042050 20110307
Family:

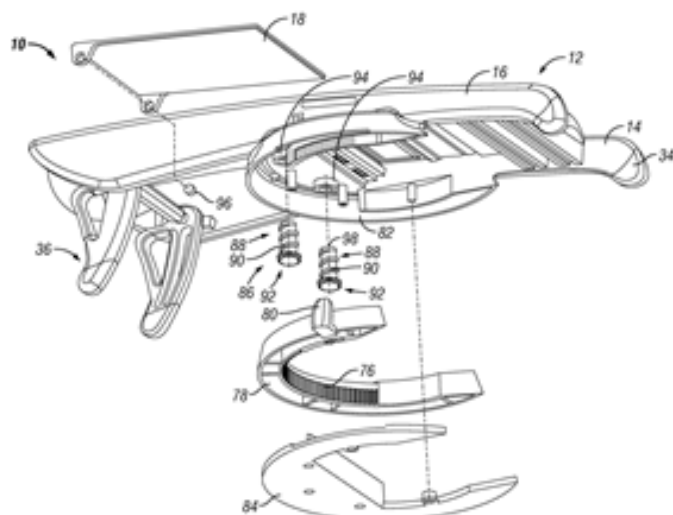
Publication number	Publication date	Application number	Application date
CA2767647 AA	20120907	CA20122767647	20120210
CA2767647 C	20160531	CA20122767647	20120210
DE602012000382 D1	20131219	DE201260000382T	20120224
EP2497400 A1	20120912	EP20120156820	20120224
EP2497400 B1	20131016	EP20120156820	20120224
US2012227564 AA	20120913	US20110042050	20110307
US8893602 BB	20141125	US20110042050	20110307

Probable Assignee: CONAIR
Assignee(s):^(std): CONAIR ; FUNG KAM FAI
Assignee(s): CONAIR CORP ; CONAIR CORP STAMFORD
Inventor(s):^(std): FUNG KAM FAI
Inventor(s): FUNG KAM FAI STAMFORD
Agent(s): SIM AND MCBURNEY; AIRD AND BERLIS IP PARTNERSHIP LTD; AIRD AND MCBURNEY LP; STANNERS DAVID RALPH; MCCORMICK PAULDING AND HUBER LLP
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR
International class [A47J17/00 A47J43/25 B26B3/03 B26D1/02 B26D3/28 B27B29/08](#) (Advanced/Invention)
(IPC 8-9).
CPC: [Y10S83/932 A47J43/25 B26D3/283 Y10T83/6531 Y10T83/9493](#)
European class: [A47J43/25 B26D3/28E](#)
US class: [83/727 83/856 83/932](#)
[Classification Explorer](#)
Cited documents: US7621207 BB, US7143677 BB, US7107890 BB, US4273013 A, US2010122465 AA, US2007125207 AA, US2006283299 AA, GB2375950 A1,
DE202008002233 U1
DE102007007308 A1
Forward Citations: WO15119664, WO15090475, USD752388, USD751352, USD734107, US9446530, US9296115, US2016101535, US2015246457, GB2542211, CN105252576,

Abstract:

Source: US2012227564A A mandoline slicer 10 for slicing a food product, the slicer 10 comprising a frame 12 having opposed sidewalls 14,16, a first support plate 18 and a second support plate 20 positioned between the opposed sidewalls 14,16, a slicing member 22 having a slicing edge 58 positioned between the first and said second support plates 18,20, and a slice thickness adjustment mechanism 26 having a lever 80 movable between a first position and a second position and configured to vary a vertical distance between the slicing edge 58 of said slicing member 22 and an edge 42 of said first support plate 16.

PatBase - US8893602_BB



0) EP0145511A1 – FRYER WITH A HANDLE FOR MANIPULATING THE BASKET...

46) Family number: 5757036 (EP0145511A1)

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Title: Fryer with a handle for manipulating the basket.

Priority: FR19830014364 19830909

Family:	Publication number	Publication date	Application number	Application date
	DE0145511 T1	19850926	DE19840401731T	19840829
	EP0145511 A1	19850619	EP19840401731	19840829
	FR2551645 A1	19850315	FR19830014364	19830909
	FR2551645 B1	19851213	FR19830014364	19830909

Probable Assignee: SEB SA

Assignee(s):^(std): SEB SA

Assignee(s): SEB S A ; SEB S A SELONGEY COTE D OR FR

Inventor(s):^(std): AUBRY GERARD

Inventor(s): GERARD AUBRY ; AUBRY GERARD F 70310 FAUCOGNEY FR

Designated states: BE DE NL

International class
(IPC 8-9): [A47J37/12](#) (Advanced/Invention)

International class
(IPC 1-7): [A47J37/12](#)

CPC: [A47J37/1209](#) [A47J37/1219](#)

European class: [A47J37/12A1](#) [A47J37/12C](#)

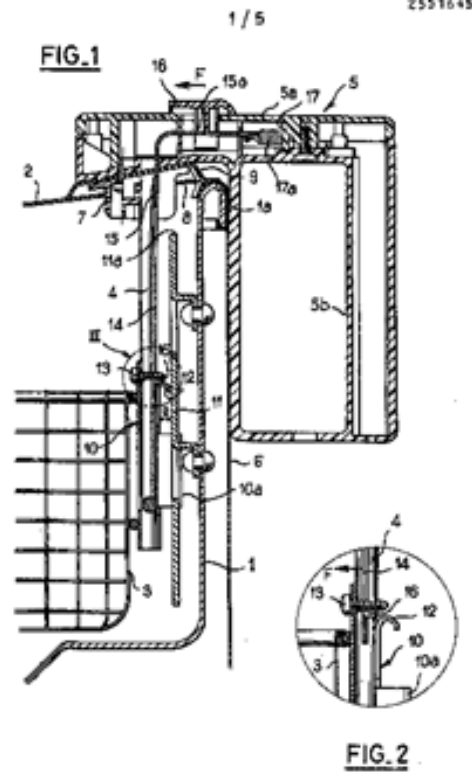
[Classification Explorer](#)

Cited documents: FR2473868 A1, DE8020281 U, DE2931859 A1,

Forward Citations: US4951558, GB2345631, GB2345631, FR2754163, FR2633818, EP0350340, BE1011829,

Abstract:

The fryer comprises a vessel (1) closed by a lid (2) and containing a frying basket (3) which is connected by a rod (4) passing through the lid to a handle (5) which enables the basket to be moved between a low position and a high position. The handle (5) is connected to the rod (4) by slide means (10) which, when the basket (3) is in the high position, enable the handle (5) to be moved towards the basket in order to press the seal (9) of the handle against the lid (2). Use in fryers equipped with an anti-smell filter.



0) US6305270B – ELECTRIC FRYER WITH AN ELEVATING MECHANISM

47) Family number: 17786662 (US6305270B)

© PatBase

Title: Electric fryer with an elevating mechanism

Priority: CN19992038903U 19990927

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2392471 Y</u>	20000823	CN19992038903U	19990927
	<u>US6305270 BA</u>	20011023	US20000579129	20000530

Probable Assignee: WANG DONGLEI

Assignee(s):^(std): WANG DONGLEI

Inventor(s):^(std): DONGLEI WANG ; WANG DONGLEI

International class A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7):

CPC: A47J37/1219

European class: A47J37/12C

US class: 99/336 99/348 99/407 99/409 99/410 993/360

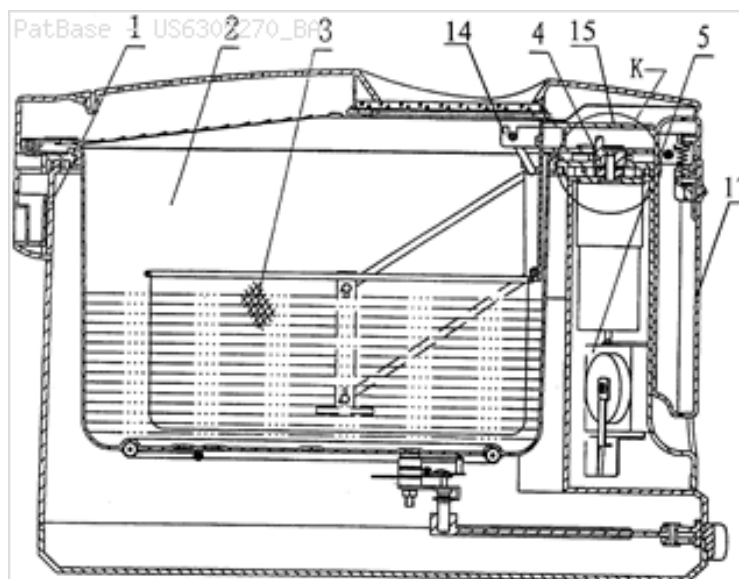
[Classification Explorer](#)

Cited documents: US6006658 A, US5931081 A, US5771781 A, US5500237 A,

Forward Citations: WO07019534, WO05063098, US8875620, US8783170, US8707857, US8522671, US7075038, US7036425, US6976420, US6593551, US2011011278, US2008110349, US2005268792, US2005217662, US2005139207, US2004154474, EP1703828, CN102355838,

Abstract:

Source: US6305270B An electric fryer with an elevating mechanism, includes a housing, a top cover, a fryer body, heating elements, a food basket assembly, a temperature controller, a cutout fuse and a timer. The electric fryer also includes an elevating mechanism. It is capable of lifting or lowering the food basket automatically, thus realizing the automation of the frying process.



48) Family number: 12980715 (US5611265A)

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Title: Combination charbroiler and fryer with spinning food basket**Priority:** US19960713836 19960913

Family:	Publication number	Publication date	Application number	Application date
	<u>US5611265 A</u>	19970318	US19960713836	19960913

Probable Assignee: SPINFRY INC**Assignee(s):**^(std): PEPIN ALAN P ; RONCI FERNANDO F**Assignee(s):** SPINFRY INC ; MIDDLEBY CORP**Inventor(s):**^(std): PEPIN ALAN P ; RONCI FERNANDO F

International class
^(IPC 8-9): A47J37/10 A47J37/12 A47J43/24 (Advanced/Invention);
A47J37/10 A47J37/12 A47J43/00 (Core/Invention)

International class
^(IPC 1-7): A47J37/10 A47J37/12

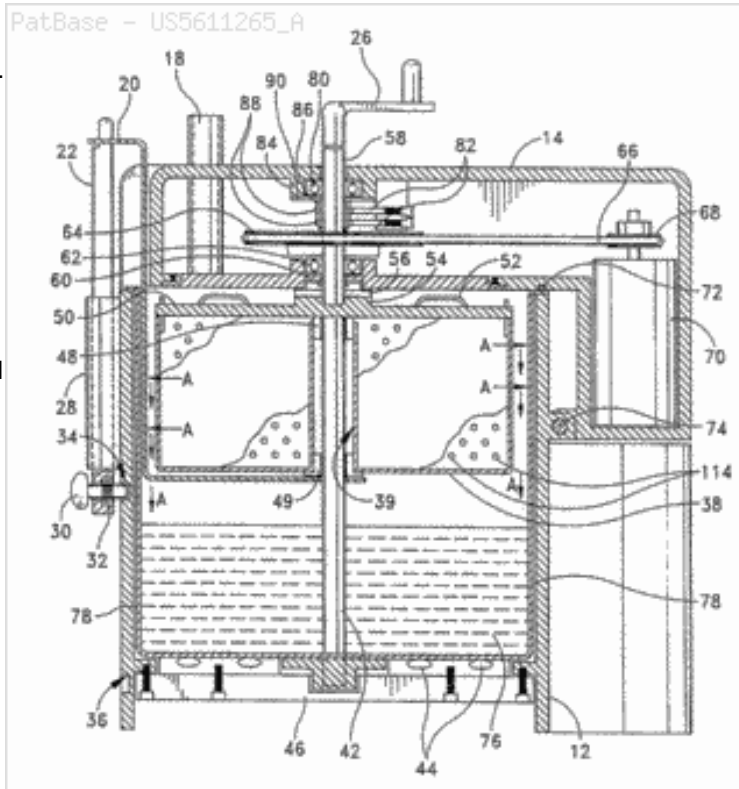
CPC: A47J37/103 A47J37/1219 A47J43/24**European class:** A47J37/10A1 A47J37/12C A47J43/24**US class:** 99/353 99/357 99/407 99/409 99/410 99/511 993/530[Classification Explorer](#)

Cited documents: US5168797 A, US5010805 A, US4196660 A, US4187770 A, US3357685 A, US3279353 A, US3200737 A, US3078986 A, US2858762 A, US2628762 A, US241631 A, US2186345 A, US1759921 A,

Forward Citations: WO13074620, WO13025988, WO12040895, WO11041641, WO09129209, WO08121111, WO08103056, WO04002280, WO02078501, USD702188, US9380911, US9301644, US9297705, US9267850, US8926837, US8726795, US8677890, US8616765, US8549993, US8528468, US8402885, US8382370, US8262287, US8100583, US8065954, US8017167, US7878111, US7739948, US7626142, US7514651, US7484455, US7424849, US7225730, US7225729, US7021203, US6976420, US6874408, US6845707, US6837150, US6834577, US6782806, US6782805, US6742445, US6708603, US6658991, US6568316, US6568315, US6536334, US6514554, US6453801, US6450087, US6408742, US6343546, US6165525, US6136358, US6077555, US5993872, US5904090, US2013174747, US2012291636, US2012180673, US2012055345, US2011203462, US2011061545, US2010294137, US2010286842, US2010284438, US2010282163, US2010258109, US2010206179, US2010145547, US2010083847, US2010071565, US2010037782, US2009321333, US2009208621, US2009052498, US2009044706, US2008282904, US2008237104, US2008213447, US2008202349, US2007029247, US2007028780, US2006144250, US2006144248, US2005284306, US2005229789, US2005178275, US2005056633, US2005011370, US2004221725, US2004194635, US2004060456, US2002062742, EP1351595, AU2015200663,

Abstract:

Source: US5611265A A combination fryer and charbroiler food cooking apparatus is provided. The food basket is slideably mounted to a centering rod mounted to a cooking oil container. The basket is moveable from a lower frying position to an upper spinning and/or charbroiling position. In the upper position, the basket is spun about its central axis to spin out unwanted excess fat, oil and grease. The food basket accommodates an insert food support for receiving a charbroil cover which includes charbroiling cooking elements. Upon installation of a charbroil cover, the charbroiling elements are positioned between upstanding food items residing in the insert food support. As a result, effective frying, charbroiling and removal of fat can be achieved.



Priority: DE19800020281U 19800729

Family:

Publication number	Publication date	Application number	Application date
DE8020281 U1	19801113	DE19800020281U	19800729

Probable Assignee: A SEVERIN AND CO GMBH 5768 SUNDERN

Assignee(s): A SEVERIN AND CO GMBH 5768 SUNDERN

International class A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7):

CPC: A47J37/1219

European class: A47J37/12C

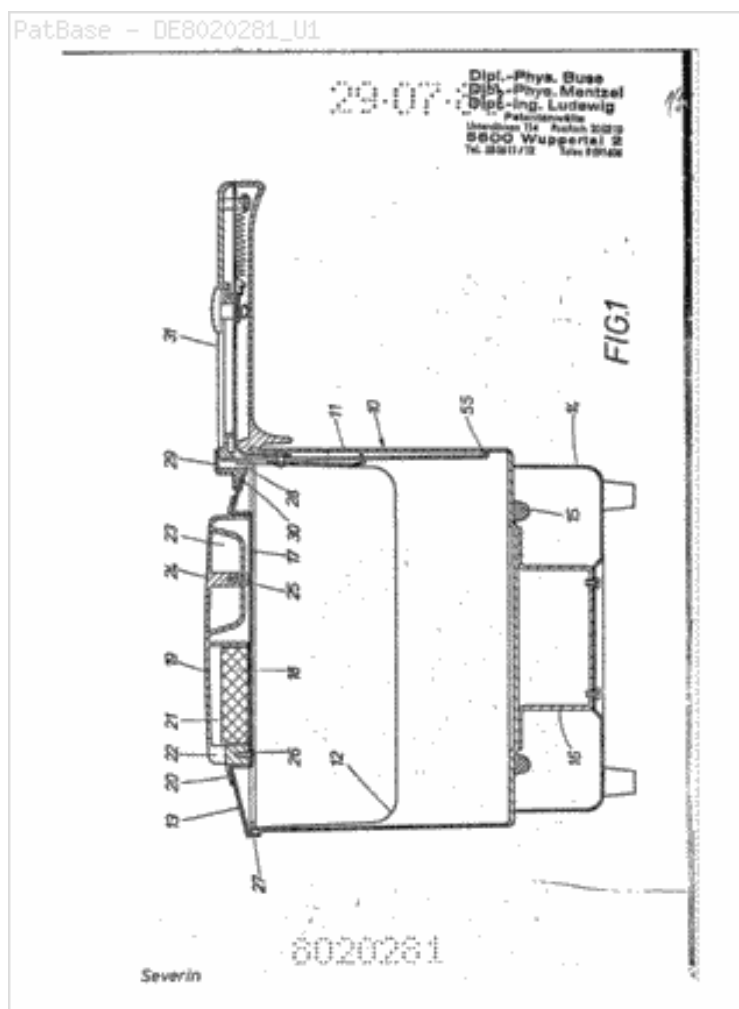
[Classification Explorer](#)

Forward Citations: FR2754163, FR2551645, EP0145511, BE1011829,

Abstract:

Source: DE8020281U1 (Claim 1) 1. Friteuse mit einer Vorrichtung zum Senken und Heben des Fritierkorbes und mit einem abnehmbaren Deckel, d a d u r c h g e k e n n z e i c h n e t, dass die Vorrichtung einen Griff (31) aufweist, der einen Fritierkorb (12) unter Zwischenschaltung eines, im Griff (31) verschiebbar gefuehrten, biegsamen Bandes (35) vorzugs- weise aus Metall traegt.

Machine translation: (claim 1) 1 Fryer with a device for lowering and raising the Fritierkorbes and with a removable cover characterized in that the apparatus comprises a handle (31) having a frying basket (12) with interposition of a, in the handle (31) displaceably guided, flexible belt (35) preferably made of metal-wears.



50) Family number: 31306445 (US4250803A)

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Title: Deep fryer
Priority: DE19782833327 19780729

Family:	Publication number	Publication date	Application number	Application date
	AT132579 A	19810515	AT19790001325	19790221
	AT365058 B	19811210	AT19790001325	19790221
	BE876405 A1	19790917	BE19790195279	19790521
	DE2833327 B1	19791122	DE19782833327	19780729
	DE2833327 C2	19800731	DE19782833327	19780729
	FR2433326 A1	19800314	FR19790019158	19790725
	FR2433326 B1	19830701	FR19790019158	19790725
	NL174012 C	19840416	NL19790002684	19790405
	NL7902684 A	19800131	NL19790002684	19790405
	PT69304 A	19790401	PT19790069304	19790302
	US4250803 A	19810217	US19790051582	19790625

Probable Assignee: ROWENTA WERKE GMBH

Assignee(s):^(std): ROWENTA WERKE GMBH ; ROWENTA WERKE GES MIT BESCHRAENKTER HAFTU

Assignee(s): ROWENTA WERKE GESELLSCHAFT MIT BESCHRAENKTER HAFTU ; ROWENTA WERKE GESELLSCHAFT MIT BESCHRAENKTER HAFTUNG ; ROWENTA WERKE G M B H ; ROWENTA WERKE GMBH 6050 OFFENBACH ; ROWENTA WERKE GMBH TE OFFENBACH A D MAIN BONDSREPU ; ROWENTA WERKE GMBH TE OFFENBACH AM MAIN BONDSREPUB ; ROWENTA WERKE GMBH TE OFFENBACH A D MAIN BONDSREPUBLIEK DUITSLAND ; ROWENTA WERKE GMBH TE OFFENBACH AM MAIN BONDSREPUBLIEK DUITSLAND

Inventor(s):^(std): WOHLFART KURT ING ; WOHLFART KURT

Inventor(s): WOHLFART KURT ING GRAD 6050 OFFENBACH

International class
 (IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)

International class
 (IPC 1-7): [A47J37/12](#)

CPC: [A47J37/1219](#)

European class: [A47J37/12C](#)

US class: [99/407 99/409 99/427](#)

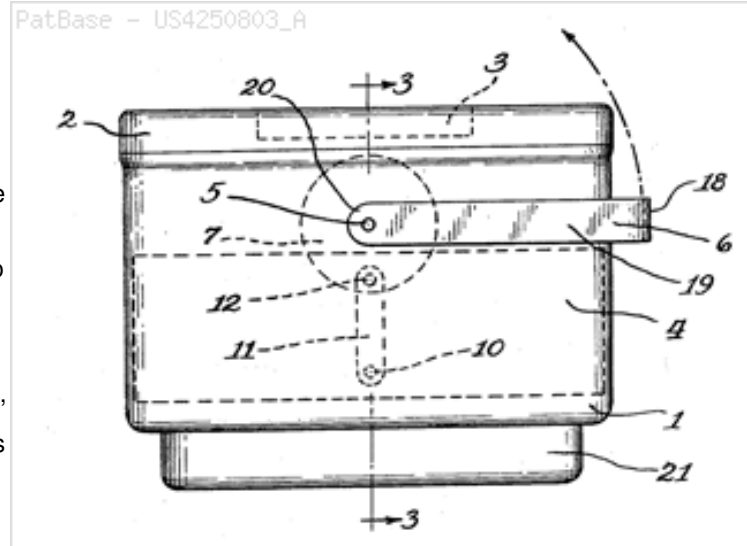
[Classification Explorer](#)

Cited documents: US4103604 A, US4031820 A, US3534677 A, US3463077 A, US3430553 A, US3071064 A, US2805314 A, US2550758 A, US2546464 A, US2222314 A, US2215929 A, US2202602 A, FR1517736 A, DE1110834 B, BE802372 A1,

Forward Citations: US8826807, US8707857, US8549993, US8402885, US6446545, US6269737, US5896810, US5758569, US5027697, US4404899, US2011061545, US2010258109, US2010206179, US2007256571, US2007028781, US2003003209, DE3542909, DE3224910,

Abstract:

Source: US4250803A In a deep fryer of a compact, portable type comprising a vessel, a handle, which is mounted to the vessel, a basket, which is adapted to be lowered and raised within the basket, a cover, which fits removably onto the vessel so as to cover the vessel, and means for lowering and raising the basket within the vessel while the vessel remains covered by the cover, wherein the handle has opposite ends mounted pivotally to opposite sides of the vessel, an improvement is disclosed wherein the basket lowering and raising means comprises a pair of pins, each of which is attached to one of the ends of the handle so as to rotate as the handle is pivoted, and which are linked to the basket so as to lower and raise the basket within the vessel as the handle is pivoted oppositely.



Title: COOKING APPLIANCE LID**Priority:** FR20050002735 20050318 WO2006FR00577 20060315**Family:**

Publication number	Publication date	Application number	Application date
BRPI0608744 A2	20100126	BR2006PI08744	20060315
BRPI0608744 B1	20170207	BR2006PI08744	20060315
CA2601198 AA	20070914	CA20062601198	20060315
CA2601198 C	20100914	CA20062601198	20060315
CN100574688 C	20091230	CN200680008725	20060315
CN101141904 A	20080312	CN200680008725	20060315
DE602006007972 D1	20090903	DE200660007972T	20060315
EP1871206 A1	20080102	EP20060743577	20060315
EP1871206 B1	20090722	EP20060743577	20060315
ES2328733 T3	20091117	ES20060743577T	20060315
FR2883151 A1	20060922	FR20050002735	20050318
FR2883151 B1	20070511	FR20050002735	20050318
HK1116372 A1	20100827	HK20080106994	20080624
HK1116372 A3	20081224	HK20080106994	20080624
JP2008532669 T2	20080821	JP20080501371T	20060315
JP5074376 B2	20121114	JP20080501371T	20060315
KR101257965 B1	20130424	KR20077023673	20060315
KR20080002834 A	20080104	KR20077023673	20060315
MX2007011419 A1	20071205	MX20070011419	20060315
RU2007134515 A	20090427	RU20070134515	20060315
RU2363369 C2	20090810	RU20070134515	20060315
US2009020531 AA	20090122	US20060886630	20060315
US8544679 BB	20131001	US20060886630	20060315
WO06097630 A1	20060921	WO2006FR00577	20060315

Probable Assignee: SEB SA**Assignee(s):**^(std): SEB SA ; SEB SA SA ; CUILLERY PASCAL ; SEB AB**Assignee(s):** SEB S A ; SEB SOC ANONYME SA ; SEB SA SOCIETE ANONYME**Inventor(s):**^(std): CUILLERY PASCAL ; KJUIILLERI PASKAL ; PASCAL CUILLERY**Inventor(s):** KJUIILLERI PASKAL'**Agent(s):** SMART AND BIGGAR; GENDRON VINCENT CHRISTIAN; YOUNG AND THOMPSON**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class [A47J27/00](#) [A47J36/06](#) [A47J37/10](#) [A47J45/06](#) [B65D25/28](#) [B65D43/03](#) (Advanced/Invention);
^(IPC 8-9): [A47J36/06](#) (Advanced/Non-invention);
[A47J27/00](#) [A47J36/00](#) [A47J37/10](#) [A47J45/00](#) [B65D25/28](#) [B65D43/02](#) (Core/Invention);
[A47J](#) (Subclass/Invention)

CPC: [A47J45/063](#)**European class:** [A47J45/06C](#)

US class: 220/212.5 220/380 220/756 220/762 220/772

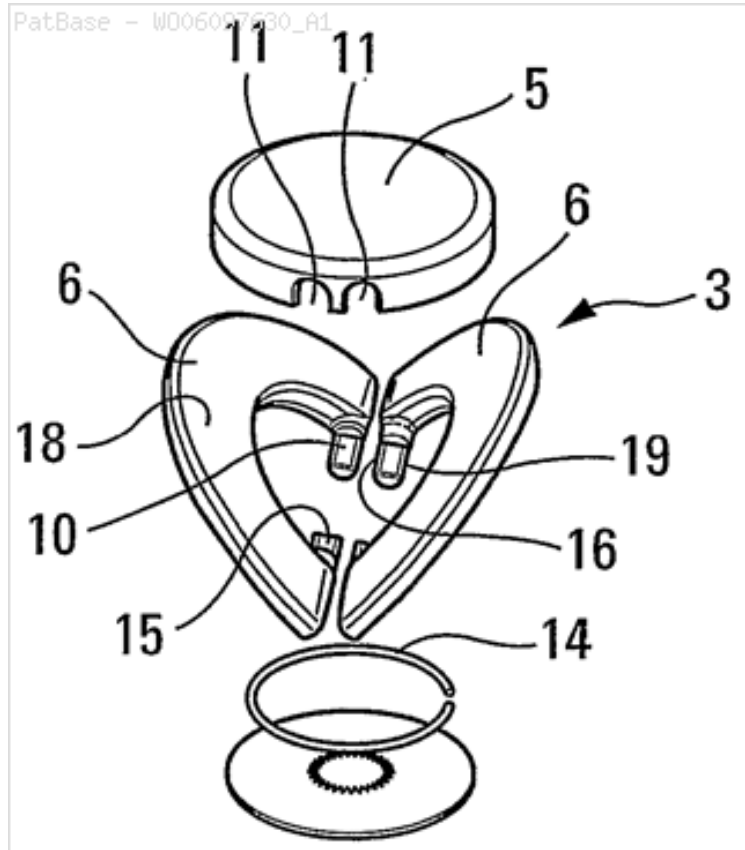
[Classification Explorer](#)

Cited documents: US7090094 BB, US6665911 BA, US6230925 BA, US5794557 A, US5251774 A, US5232112 A, US5154114 A, US4944399 A, US361903 A, US25466 A, US1717538 A, RU2221473 C2, JPS6091138, JPS418298 B1, JPS3517181 Y1, JP6091138 A2, JP60091138 U1, JP60091138 U, JP60091138 A2, JP41008298 Y1, JP41008298 B4, JP41008298 B1, JP35017181 Y1, JP35017181 Y, GB2142868 A1, FR1203589 A,

Forward Citations: WO14176026, WO13110977, US2014319159, US2014069948, RU2567228, KR200460594, ITMI20121512, EP2708171, EP2404537, EP1792556, CN103705130, CN102309249,

Abstract:

Source: US2009020531A A lid includes a grip member (3) capable of being at least in a stacked state wherein it does not prevent stacking of the lid with another similar lid, and a gripping state wherein it has a released surface for gripping the lid. The lid includes at least one elastic member (14) moving the grip member (3) from its stacked state to its gripping state.



52) Family number: 44695091 (ES1071682U)

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Title: MAQUINA FREIDORA PARA HACER CREPES RELLENOS FRYER MACHINE TO MAKE PANCAKES STUFFED (Machine translation)

Priority: ES20090030630U 20091110

Family:	Publication number	Publication date	Application number	Application date
	<u>ES1071682 UA</u>	20100326	ES20090030630U	20091110
	<u>ES1071682 Y1</u>	20100622	ES20090030630U	20091110

Probable Assignee: GARCELAN VAZQUEZ ANA ISABEL

Assignee(s):^(std): GARCELAN VAZQUEZ ANA ISABEL

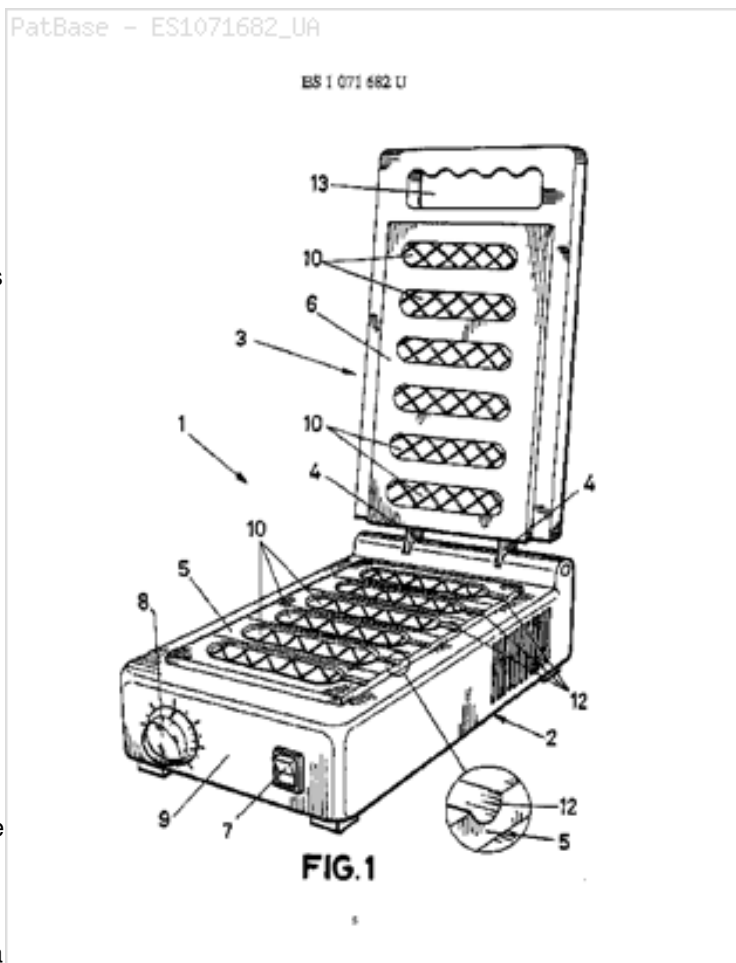
Inventor(s):^(std): GARCELAN VAZQUEZ ANA ISABEL

International class A47J37/06 (Advanced/Invention);
(IPC 8-9): A47J37/06 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: ES1071682U 1. Maquina freidora para hacer crepes rellenos, caracterizada por el hecho de comprender una carcasa, compuesta por una base (2) y una tapa (3) vinculadas entre si mediante una union articulada (4), en cuyas respectivas caras internas y enfrentadas, existen sendas planchas metalicas (5 y 6) capacitadas para calentarse de forma controlada tanto en tiempo como en potencia, mediante elementos electricos convencionales alojados en el interior de la carcasa, los cuales se controlan mediante un interruptor (7) y, al menos, mando de potencia graduable (8) previstos en la zona frontal (9) de la base (2), estando convenientemente conectados a un cable de alimentacion electrica que permite su conexionado a la red, contando dichas planchas (5 y 6) con una serie de huecos (10), dispuestos en coincidencia los de la plancha de la base respecto a los de la plancha de la tapa y que actuan como un molde para realizar los crepes, ya que estan destinados a acoger la masa del crepe asi como a alojar el relleno insertado en un palillo (11) que facilita su colocacion asi como la extraccion del crepe una vez frito. 2. Maquina freidora para hacer crepes rellenos, segun la reivindicacion 1, caracterizada por el hecho de que, para facilitar la colocacion de los palillos (11), en, al menos uno, de los laterales de los huecos (10), preferentemente en la plancha de la base (5), se ha previsto unas acanaladuras (12), de forma que al cerrarse la tapa (3) contra la base (2), el volumen del palillo (11) queda enrasado dentro de dicha acanaladura (12) y ambas planchas (5 y 6) de la base y de la tapa se cierran ajustando perfectamente una contra otra. 3. Maquina freidora para hacer crepes rellenos, segun la reivindicacion 1, caracterizada por el hecho de que los huecos (10) de las planchas (5 y 6) son de configuracion alargada y tiene su superficie ranurada para evitar que la masa se pegue al cocerse. 4. Maquina freidora para hacer crepes rellenos, segun las reivindicaciones anteriores, caracterizada por el hecho de que, opcionalmente, la plancha de la base (5) y la plancha de la tapa (6) estan recubiertas con una cobertura de material antiadherente. 5. Maquina freidora para hacer crepes rellenos, segun las reivindicaciones anteriores, caracterizada por el hecho de que la tapa (3) cuenta con un asa (13) que facilita su asidero para bajarla sobre la base (2).



Machine translation: 1. Fryer machine for stuffed crepes, characterized in that it comprises a housing, comprising a base (2) and a cover (3) linked together by an articulated joint (4), whose respective opposing inner sides and there are paths metal plates (5 and 6) capable heated in a controlled manner both in time and power, by conventional electric element housed inside the casing, which are controlled by a switch (7) and at least power control adjustable (8) provided at the front (9) of the base (2), being conveniently connected to an electrical power supply cable that allows connection to the network, counting those plates (5 and 6) with a series of holes (10), disposed in coincidence of the baseplate relative to those of the cover plate and which act as a mold for making pancakes, and which is intended to accommodate the mass of the crepe filling so as to alojarel inserted into a stick (11) for easy placement and extraction once fried crepe. 2. Machine for making pancakes filled fryer according to claim 1, characterized by the fact that, to facilitate placement of the sticks (11), in at least one of the sides of the recesses (10), preferably on the plate the base (5), is provided with grooves (12), so that on closing the lid (3) against the base (2), the volume of the stick (11) is flush within said groove (12) and both plates (5 and 6) of the base and lid are closed against each other perfectly adjusted. 3. Machine for making pancakes filled fryer according to claim 1, characterized by the fact that the holes (10) of the plates (5 and 6) are of elongated configuration and has a grooved surface to prevent the dough from sticking during cooking. 4. Fryer machine for stuffed crepes, according to previous claims, characterized in that, optionally, the baseplate (5) and the cover plate (6) are coated with a nonstick material coverage. 5. Fryer machine for stuffed crepes, according to previous claims, characterized in that the cover (3) has a handle (13) for easy handle to lower on the base (2).

53) Family number: 49290611 (CN201894154U)

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Title: Pressure oil deep fryer
Priority: CN201020653844U 20101210
Family:

Publication number	Publication date	Application number	Application date
<u>CN201894154 U</u>	20110713	CN201020653844U	20101210

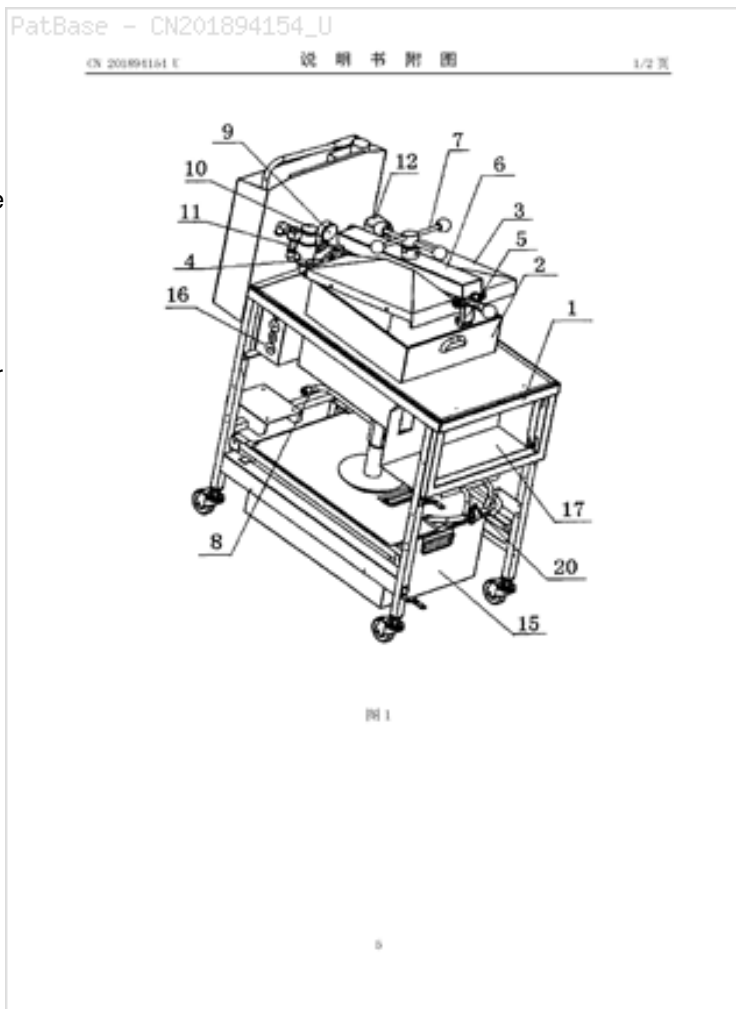
Probable Assignee: SHANGHAI MINGGU MACHINERY MFG CO LTD
Assignee(s):^(std): SHANGHAI MINGGU MACHINERY MFG CO LTD
Assignee(s): SHANGHAI MINGGU MACHINERY MANUFACTURING CO
Inventor(s):^(std): ZHANGLIN CAO
Inventor(s): CAO ZHANGLIN
International class A21B5/08 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Forward Citations: CN102428978,

Abstract:

Source: CN201894154U The utility model discloses a pressure oil deep fryer consisting of a bracket, a fryer body internally provided with a heating device, and a fryer cover, wherein the fryer body is installed on the bracket, one side of the fryer body is provided with a side frame, the other corresponding side of the fryer body is provided with a hook, the side frame is articulated on a fryer cover pressure beam of the fryer cover, the center of the fryer cover pressure beam is provided with a through hole, a cruciform handle is screwed in the through hole, an oil delivery pipe and a safety air pipe are communicated with the fryer body, the safety air pipe is sequentially provided with a pressure gauge, a pressure limiting valve, a manual relief valve and an electromagnetic relief valve, one end of the electromagnetic relief valve is connected with a muffler, the lower part of the fryer body is provided with an oil relief valve, the lower part of the oil relief valve is provided with an oil storage tank which is provided with a filter screen and arranged on the bracket, and two sides of the fryer body are respectively provided with a main power distribution box and an electrical control box which are arranged on the bracket. The pressure oil deep fryer can minimize the requirements on an operator in cooking process to always achieve the same flavor by using the pressure oil deep fryer, improve production efficiency and reduce production cost.



54) Family number: 22800687 (US3207059A)**Title:** BACON FRYER**Priority:** US19620232783 19621024

Family:	Publication number	Publication date	Application number	Application date
	<u>US3207059 A</u>	19650921	US19620232783	19621024

Probable Assignee: HIRONS WILLIAM H**Assignee(s):**^(std): HIRONS WILLIAM H**Inventor(s):**^(std): HIRONS WILLIAM H

International class A47J37/06 (Advanced/Invention);
^{(IPC 8-9):} A47J37/06 (Core/Invention)

International class A47J37/06
^{(IPC 1-7):}

CPC: A47J37/0694 Y10T16/549**European class:** A47J37/06P**US class:** 16/373 99/349 99/402 99/416 99/426 99/450 D7/361[Classification Explorer](#)**Cited documents:** US914159 A, US3019721 A, US2895406 A, US2868112 A, US2542109 A, US2469595 A, US244060 A, US223929 A, US1783792 A, US1699221 A, US1648335 A, US1201704 A,

Forward Citations: WO10036527, WO07005575, USD689344, USD655980, USD614003, US9332878, US8601940, US7966928, US7586067, US6415934, US4653468, US4181073, US4006675, US3738255, US3412674, US3389651, US2016100712, US2015313412, US2014007780, US2012085245, US2011303098, US2010077929, US2008184897, US2008124438, US2007000391, JP2009500109, FR2850007, AU2006265978,

Abstract:

Source: US3207059A (Claim 1) 1. A cooking utensil for deep fat frying bacon comprising, a heavy wire mesh base plate; wire mesh cover plate; at least one intermediate wire mesh plate, all of said plates having substantially the same dimensions; an encircling rim of wire attached to the peripheral edge of each of said base and cover plates only, the gage of said rim of wire being heavier than the gage of the wire forming the meshes of said plates; a combined handle and support member comprising a continuous run of heavy gage wire formed intermediate its ends into a handle loop, that has a downwardly directed portion, said support portion being terminated in a support portion fixed to the bottom of said base plate, and providing at one side of said base plate a pair of vertically elongated upstanding loops, and means fixed to said intermediate and cover plates and slidably cooperating with said elongated loops for holding said plates to said base plate.

PatBase - US3207059_A

Sept. 21, 1965

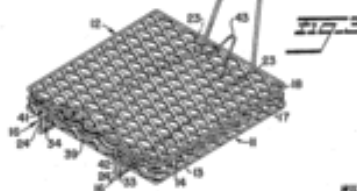
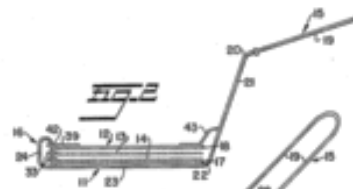
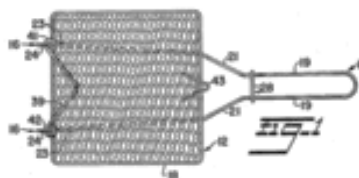
W. H. HIRONS

3,207,059

Filed Oct. 24, 1962

BACON FRYER

2 Sheets-Sheet 1

INVENTOR
WILLIAM H. HIRONS*Harold M. Smith*
ATTORNEY

0) PH2013000358Y – DEEP FRYER

55) Family number: 59409692 (PH2013000358Y)

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Title: DEEP FRYER
Priority: PH20130000358U 20130730

Family:	Publication number	Publication date	Application number	Application date
	PH2013000358 U	20150603	PH20130000358U	20130730
	PH2013000358 Y	20150603	PH20130000358U	20130730

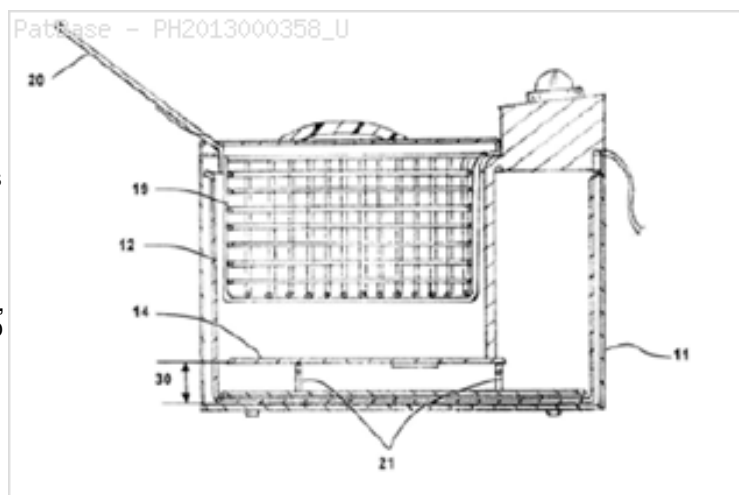
Probable Assignee: PHILKRAFT WELLNESS CORP
Assignee(s):^(std): PHILKRAFT WELLNESS CORP
Inventor(s):^(std): CONDES MANOLO M
Inventor(s): MANOLO M CONDES
Agent(s): ESTRELLITA BELTRAN ABELARDO

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: PH2013000358Y The utility model discloses a deep fryer which comprises a metal housing, an oil pan disposed inside the metal housing, a strainer being disposed inside said oil pan, said strainer having a pair of seats on top. The deep fryer also comprises a heating element disposed on top of said seats whereby said heating element and said oil pan defining a cold zone therebetween. Further, the deep fryer comprises a basket being disposed on top of said heating element, a lid disposed on top of said basket adapted to cover said metal housing, and a control box being disposed outside the metal housing.



56) Family number: 11406838 (US5910264A)

© PatBase

Title: Electrical cooking apparatus for cooking precooked, deep-frozen or fresh food, of the fryer type, with no oil bath

Priority: FR19940007866 19940627 WO1995FR00855 19950627

Family:	Publication number	Publication date	Application number	Application date
	<u>AT183905 E</u>	19990915	AT19950924372T	19950627
	<u>DE69511866 D1</u>	19991007	DE19956011866	19950627
	<u>DE69511866 T2</u>	20000413	DE19956011866T	19950627
	<u>EP0767618 A1</u>	19970416	EP19950924372	19950627
	<u>EP0767618 B1</u>	19990901	EP19950924372	19950627
	<u>FR2721493 A1</u>	19951229	FR19940007866	19940627
	<u>FR2721493 B1</u>	19960906	FR19940007866	19940627
	<u>US5910264 A</u>	19990608	US19970765322	19970520
	<u>WO9600027 A1</u>	19960104	WO1995FR00855	19950627

Probable Assignee: NODAVIC LLC

Assignee(s):^(std): DAULIACH MICHEL HENRI

Assignee(s): NODAVIC LLC

Inventor(s):^(std): DAULIACH MICHEL HENRI

Designated states: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE US

International class
(IPC 8-9): A47J37/04 (Advanced/Invention);
A47J37/04 (Core/Invention)

International class
(IPC 1-7): A47J37/04 A47J37/12 F27B7/12 F27D1/18 F27D3/12

CPC: A47J37/047

European class: A47J37/04G

US class: 126/21A 219/389 219/392 219/400 219/411 99/443R

[Classification Explorer](#)

Cited documents: WO9321809 A1, WO9318349 A1, US5676870 A, US5545874 A, US5182981 A, US5148737 A, US4960977 A, US4945212 A, US4450758 A, US445075 A, US4304177 A, US4173925 A, US1993607 A, FR2682009 A1, FR2452906 A1, DE3519964 A1,

Forward Citations: WO14154775, WO11025370, WO10137982, WO0124673, US9357877, US9332877, US9301644, US8122815, US7901721, US7411159, US7307243, US6812433, US6657167, US6444955, US6373029, US6367371, US6204484, US6097002, US2010310717, US2008286429, US2008257168, US2008213447, US2008163764, US2007096352, US2006280825, US2005183716, US2004250688, US2003159687, EP1550392, EP0774004, CN102458132,

Abstract:

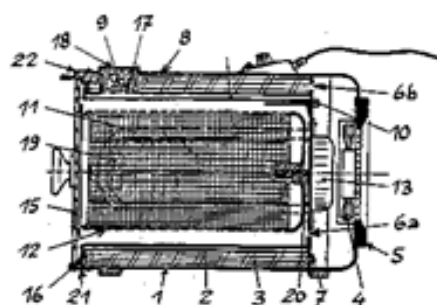
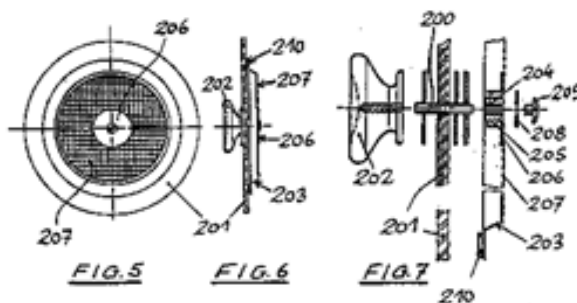
Source: US5910264A PCT No. PCT/FR95/00855 Sec. 371 Date May 20, 1997 Sec. 102(e) Date May 20, 1997 PCT Filed Jun. 27, 1995 PCT Pub. No. WO96/01259 PCT Pub. Date Jan. 18, 1996 The invention relates to a household electric cooking apparatus, of the frying type, without oil bath, intended to cook frozen or fresh food products such as french fries, etc, without unpleasant smell, without smoke and in a dietetic way. It is comprised of a body which contains a metal housing (2). The cooking is performed by short wavelength infrared radiations. Inside said housing, a removable basket (12) made of perforated metal, rotating upon itself, is driven by an electric motor (13). Between the inner housing (2) and the resistors (11), is provided a removable reflector (14) to facilitate the cleaning of the frying unit. The apparatus is light, has reduced dimensions and cooks very rapidly food lproducts without the risks and disadvantages related to the manipulation of boiling oil.

PatBase - W09600027_A1

W09600027

PCT/FR95/00855

1 / 5

FIG. 1FIG. 5FIG. 6FIG. 7

57) Family number: 14988931 (US6202543B)

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Title: REMOVAL OF PARTICULATES FROM FRYING OILS**Priority:** US19990399014 19990921**Family:**

Publication number	Publication date	Application number	Application date
<u>US6202543 BA</u>	20010320	US19990399014	19990921

Probable Assignee: CLAUDE LAVAL CORP**Assignee(s):^(std):** CLAUDE LAVAL CORP**Inventor(s):^(std):** FORD STEVEN D ; LISY THOMAS ; MOYA EMMANUEL G

International class A23L1/01 A23L5/10 A47J37/12 B01D29/27 B01D35/30 B01D37/00 (Advanced/Invention);
 (IPC 8-9): A23L1/01 A47J37/12 B01D29/13 B01D35/30 B01D37/00 (Core/Invention)

International class A23L1/00 A47J37/00 A47J37/12 B01D36/00
 (IPC 1-7):

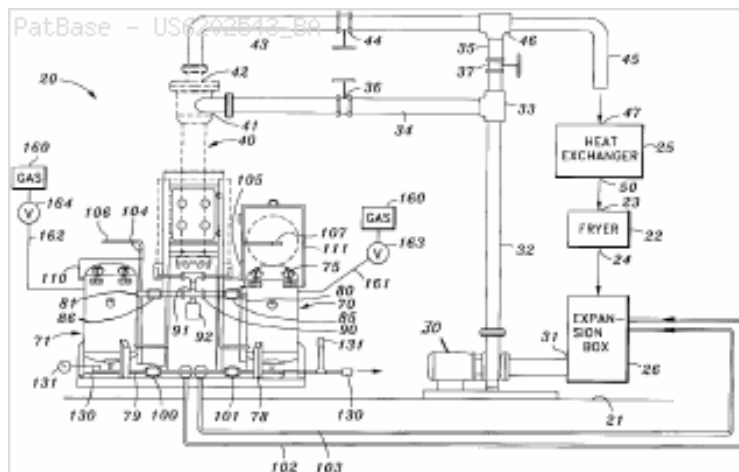
CPC: Y10S210/08 A47J37/1223 B01D29/27 B01D35/30 B01D37/00 B01D2201/301 A23L5/11**European class:** A23L1/01B A47J37/12D B01D29/27 B01D35/30 B01D37/00 L01D201/30C**US class:** 210/167 210/167.28 210/DIG.8 99/330 99/337 99/403 99/408 993/300[Classification Explorer](#)

Cited documents: US5811006 A, US4945893 A, US4751915 A, US4722267 A, US4684412 A, US4668390 A, US4602612 A, US4599990 A, US4481873 A, US4444095 A, US4210123 A, US3760793 A, US3722498 A,

Forward Citations: WO11059434, WO09086531, US9532681, US9528510, US9414727, US9357881, US9149166, US9114336, US8992773, US8980102, US8828223, US8709260, US8551331, US7938959, US7461587, US7335313, US7318374, US7025890, US2013183421, US2010326288, US2010300980, US2010116345, US2009321333, US2008277325, US2008121578, US2007062376, US2006201892, US2004211734, US2004182247, US2004117665,

Abstract:

Source: US6202543B A system for use with a hot oil fryer of the type which cooks food products in hot oil, in which particulates from the food are shed into the hot oil in the fry during the cooking operation, the fryer having an inlet to receive hot oil, and an outlet for recirculation of hot oil.

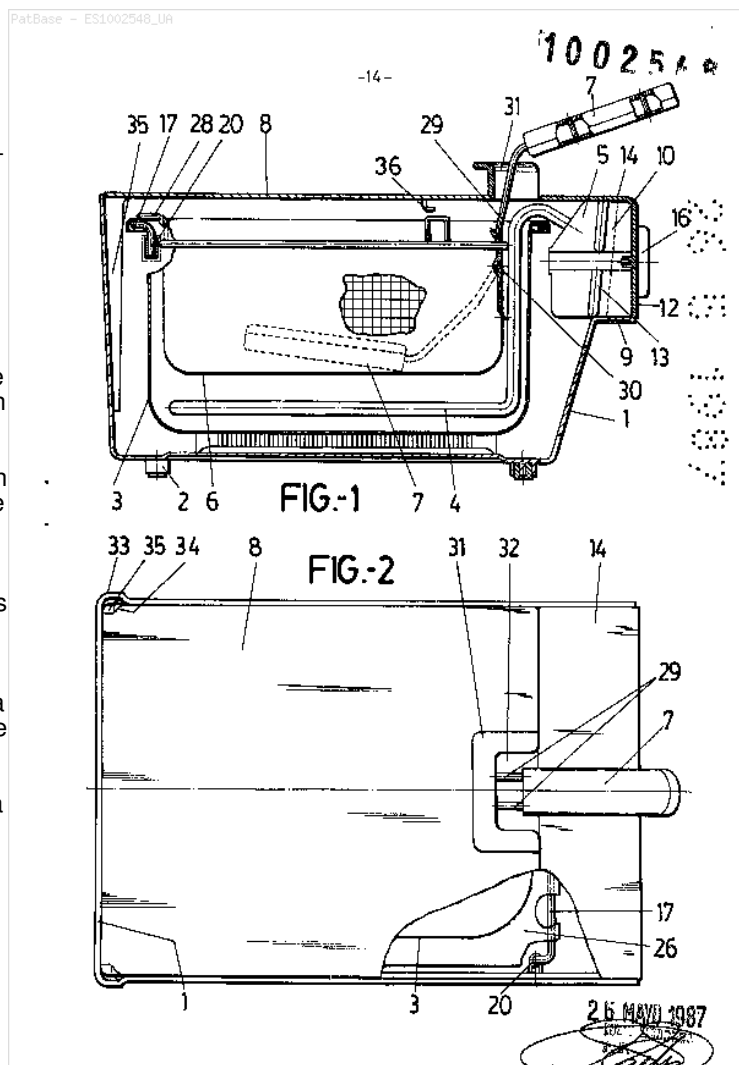


Title: FREIDORA PERFECCIONADA**Priority:** ES19870001759U 19870526**Family:**

Publication number	Publication date	Application number	Application date
<u>ES1002548 UA</u>	19880616	ES19870001759U	19870526
<u>ES1002548 Y1</u>	19890201	ES19870001759U	19870526
<u>ES1002548 YA</u>	19890201	ES19870001759U	19870526

Probable Assignee: OFICINA DE INVESTIGACION AGRUPADA S A**Assignee(s):**^(std) OFICINA DE INVESTIGACION AGRUPADA S A**Inventor(s):**^(std) LABADIA DEL FRESNO MIGUEL**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)**International class** A47J37/12
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: ES1002548U 1. Freidora perfeccionada, que siendo del tipo de las que se constituyen a partir de una carcasa en la que se establece una cubeta contenedora del aceite, debidamente jada a dicha carcasa, cubeta en la que a su vez se establece la resistencia electrica calefactora, asociada al correspondiente bloque portamandos, as como el cesto enrejillado e ne lq u eh ad ea l o j a r s ee lp r o d u c t o a f r e r, asis- tido por el correspondiente asa, y estando complementada la citada carcasa por una tapa, esencial- mente se caracteriza porque la mencionada car- casa incorpora sobre una de sus paredes laterales, en correspondencia con la zona de ubicacion del bloque portamandos, una escotadura abierta ha- cia su embocadura y prolongada exteriormente en un corto cuello acanalado, de seccion coincidente con la de dicho bloque, habiendose previsto que el mencionado cuello estep r o v i s t o e ns ue m b o - cadura externa de un rebaje escalonado y en sus caras laterales de sendas guas internas, mientras que el bloque portamandos incorpora a su vez en sus paredes laterales nervios complementarios de dichas guas y es solidario de una semicarcasa que, ademas de complementar en situacion de montaje a la carcasa de la freidora, estableciendo continui- dad con esta ultima, dene con respecto al bloque portamandos una pesta~ na prolongacion lateral de su pared lateral, destinada a encajar en los esca- lonamientos laterales de la embocadura de la car- casa, con la particularidad ademas de que tanto las guas del cuello de la carcasa como los nervios del portamandos adoptan una disposicion incli- nada que favorece el acoplamiento de dicho por- tamandos a la carcasa, con amplia holgura, esta- bleciendose un progresivo ajuste, a medida que se progresa en la penetracion, hasta una situacion li- mite en la que el portamandos queda rgidamente bloqueado con respecto a la carcasa, en situacion



inamovible y totalmente estable. 1. Improved fryer, which is of the type which is constituted from a casing in which an oil container tray duly jada to said housing, in the cuvette which in turn provides electrical resistance heating is set, I associated with the corresponding PORTAMANDOS block, as well as the basket grating e ne lq u eh ad ea l oj ars ee lp roduct oaf rer, assisted by the corresponding handle, and being comple-mented said housing by, essentially cover characterized in that said housing incorporates on one of its side walls, in correspondence with the area of location of PORTAMANDOS block, an open recess towards its mouth and the outside was prolonged in a short grooved neck matching section to that of said block, having foreseen that said neck ue Estep mbo rovist ns oe - external cadura a stepped recess and in the side faces of respective inner guides, while the block PORTAMANDOS turn incorporates in its side walls of said guides complementary ribs and is secured to a half-shell that situation in addition to complement the housing assembly from the fryer, establishing continuity with the latter, with respect to block dene PORTAMANDOS a flange lateral prolongation of the lateral wall, designed to fit on the sides of the mouth of the housing, with the special addition that both guides the neck of the casing as the nerves of PORTAMANDOS adopt a provision-scale inclined lonamientos favoring coupling to the at-tamandos housing, with ample clearance, this-bleciendose a progressive adjustment, as you progress in the penetration, to a li-mite situation in which the PORTAMANDOS is rgidamente locked with respect to the housing, unmovable and totally stable situation.

0) ES1036924Y – FREIDORA DOMESTICA.

59) Family number: 34651379 (ES1036924Y)

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Title:	FREIDORA DOMESTICA.			
Priority:	ES19970000883U 19970407			
Family:	Publication number	Publication date	Application number	Application date
	ES1036924 UA	19971201	ES19970000883U	19970407
	ES1036924 Y1	19980501	ES19970000883U	19970407
	ES1036924 YA	19980501	ES19970000883U	19970407

Probable Assignee: SOLAC ELECTRODOMESTICOS

Assignee(s):(std): SOLAC ELECTRODOMESTICOS

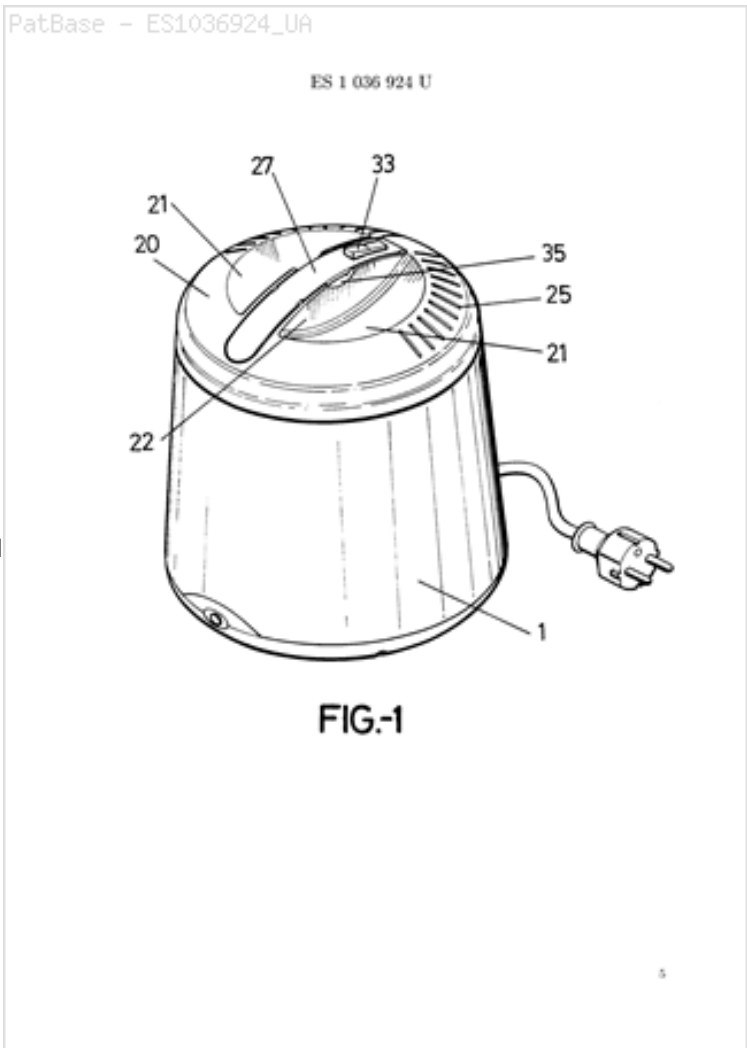
Assignee(s): ELECTRODOMESTICOS SOLAC S A ; ELECTRODOMESTICOS SOLAC SA

International class (IPC 8-9): A47J37/00 (Advanced/Invention);
A47J37/00 (Core/Invention)

International class (IPC 1-7): A47J37/00

[Classification Explorer](#)

Abstract:
Source: ES1036924U 1. Freidora domestica, del tipo de las que in- corporan una carcasa en la que se establece una cuba con un cestillo en su interior, cuba asisti- da por una resistencia calefactora inferior y que se cierra mediante una tapa superior, caracteri- zada porque la carcasa esta constituida mediante un cuerpo tubular, de conguraci on tronco-coni- ca, convergente en sentido ascendente, cuya em- bocadura inferior se cierra mediante una tapa- base convenientemente jada a la misma, mien- tras que su embocadura superior se acopla a la cuba, as como la tapa que adopta una congu- racion en casquete esferico con una tapeta interior y plana, a nivel de su embocadura, y con rejillas tanto en dicha tapeta como en la citada tapa, que facilitan la disipacion termica y que permiten el agarre manual de dicha tapa, a traves de una pa- reja de rehundidos superiores que delimitan un puente transversal en funciones de asidero. 1. Domestica Fryer, of the type that incorporate a housing in which a Cuba with a basket inside, power-assisted Cuba by a lower heating element and is closed by a top cover Zada characterized, establishing that the housing is constituted by a tubular body, conguraci on truncated conical convergent upstream, the lower em-bocadura is closed by a cap-base conveniently jada to it, whereas its upper opening is coupled to the Cuba, as well as the cover which assumes a CONGU-ration in a spherical cap with a flat inner flap, at the level of its opening, and both said flap vents and said cap, to facilitate heat dissipation and allow manual gripping of said cover, through a pair of upper recesses delimiting a gantry serving as a grip.



60) Family number: 48327699 (CN201743536U)

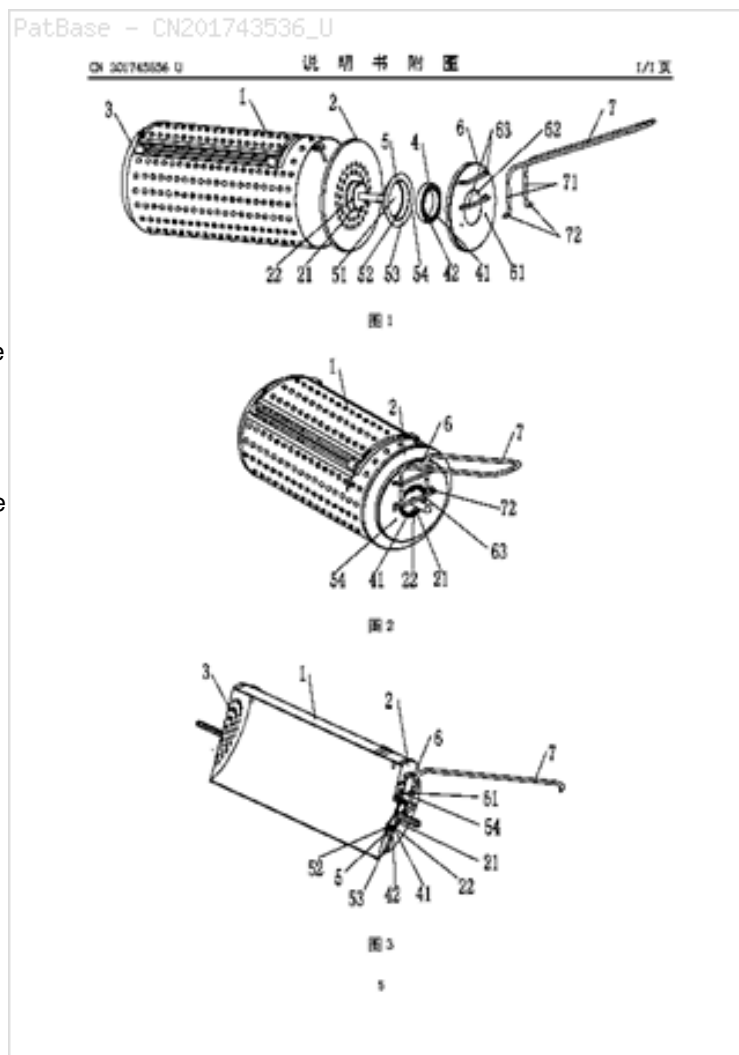
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Title: Rotatable frying cage of deep fryer**Priority:** CN201020231416U 20100618

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201743536 U</u>	20110216	CN201020231416U	20100618

Probable Assignee: MIDEA HOLDING CO LTD**Assignee(s):^(std):** MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD**Assignee(s):** MIDEA HOLDING CO**Inventor(s):^(std):** MINQIANG FENG ; TIANBING GAO ; YUN YANG**Inventor(s):** YANG YUN ; FENG MINQIANG ; GAO TIANBING**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** CN101862136,**Abstract:**

Source: CN201743536U The utility model relates to a rotatable frying cage of a deep fryer, which comprises a cage body, a front cover, a rear cover and a handle. The front cover, the rear cover and the cage body are tightly connected. The rotatable frying cage of the deep fryer is characterized by also comprising a bearing, a bearing sleeve and a handle seat, wherein an inner ring of the bearing is fixedly connected with the front cover; an outer ring of the bearing is fixedly connected with the bearing sleeve and the handle seat; and the handle is arranged on the handle seat. In the utility model, the bearing is arranged between the front cage and the handle of the frying cage, the inner ring of the bearing is fixed with the front cover and the outer ring of the bearing is fixed with the handle seat by utilizing the characteristic of the bearing that the inner ring and the outer ring can carry out 360 degrees of rotation without interference so as to reach the effect that when the cage body of the frying cage rotates, the handle arranged on the frying cage cannot rotate relative to the frying cage without causing interference to the frying cage. The utility model is suitable for the deep fryer with the rotatable frying cage.



61) Family number: 5356077 (US4686958A)

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Title: Versatile outdoor cooker
Priority: US19850808986 19851216

Family:	Publication number	Publication date	Application number	Application date
	<u>US4686958 A</u>	19870818	US19850808986	19851216

Probable Assignee: SKELTON DELORES J

Assignee(s):^(std): SKELTON DELORES J ; SKELTON MAYNARD A

Inventor(s):^(std): SKELTON DELORES J ; SKELTON MAYNARD A

International class
 (IPC 8-9): A47J37/06 A47J37/07 F24C3/14 (Advanced/Invention);
A47J37/06 A47J37/07 F24C3/00 (Core/Invention)

International class
 (IPC 1-7): F24D1/00

CPC: A47J37/06 A47J37/0713 F24C3/14

European class: A47J37/06 A47J37/07B3 F24C3/14

US class: 126/25R 126/348 126/369.2 126/41R 99/339 99/410 99/415

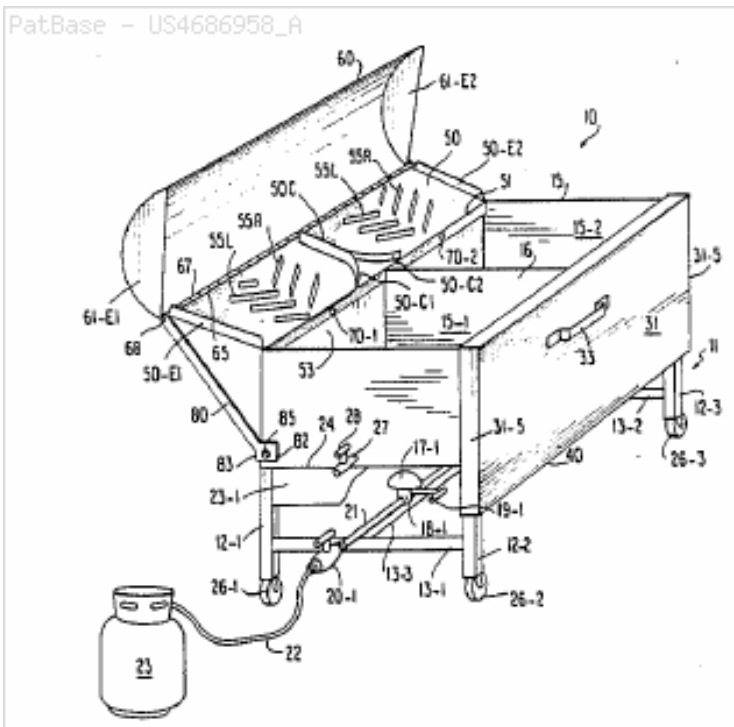
[Classification Explorer](#)

Cited documents: US943152 A, US4397299 A, US4350140 A, US3869972 A, US3771510 A, US3722498 A, US3714889 A, US2848938 A, US2794897 A, US2600234 A, US2109212 A,

Forward Citations: US9155421, US7188617, US6684757, US6557547, US6289792, US6240915, US6131562, US5934184, US5873355, US5765469, US5632265, US5628242, US5325843, US5195423, US5123337, US5097759, US4984515, US4979437, US2015152974, US2012260809, US2012204733, US2010242943, US2009087534, US2004069149, US2003196555,

Abstract:

Source: US4686958A An outdoor cooker has a rectangular metal cooking tank for holding a cooking liquid to be heated by a flame from a burner mounted beneath the cooking tank and includes a cooked food drain plate having an edge secured at a predetermined angle to the rear upper edge of the cooking tank so that cooking liquid from cooked food on the drain plate drains into the cooking tank with the cooked food drain plate being adapted to being heated by wasted heat from the burner. A domed cover minimizes heat loss from cooked food on the cooked food drain tray and prevents access to the cooked food by insects, grass, dirt, leaves, etc. The domed cover is preferably hingably connected to the edge of the drain plate remote from the upper edge of the cooking tank. A cooking tank cover, constituted by a flat metal plate having an area complementary to the cross-sectional area of the open top of the cooking tank has a handle on the upper surface thereof and at least one depending flange for hooking the cooking tank cover from the front edge of the cooking tank while the cook is inspecting food being cooked. Several cooking tanks may be provided, each with a separate burner for each tank, and separate control for each burner so that different foods and different preparation styles may be used in each tank.



0) US2013233950A – KITCHEN APPLIANCE FOR PROCESSING FOODSTUFF AND ...

62) Family number: 54623993 (US2013233950A)

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Title: KITCHEN APPLIANCE FOR PROCESSING FOODSTUFF AND METHOD OF OPERATING SAME

Priority: US20120608193P 20120308 US20120707640 20121207 US20130774043 20130222
US20130057149 20131018 US20150741781 20150617

Family:	Publication number	Publication date	Application number	Application date	
	CN203138173 U	20130821	CN201320106877U	20130308	
	CN203328502 U	20131211	CN201320390464U	20130702	
	US2013233950 AA	20130912	US20130774043	20130222	
	US2013233952 AA	20130912	US20120707640	20121207	
	US2014157995 AA	20140612	US20130057149	20131018	
	US2015297034 AA	20151022	US20150741781	20150617	
	US9084508 BB	20150721	US20130774043	20130222	
	US9433324 BB	20160906	US20150741781	20150617	

Probable Assignee: HAMILTON BEACH BRANDS INC

Assignee(s):^(std): HAMILTON BEACH BRANDS INC ; HAMILTON BEACH PROCTOR SILEX

Assignee(s): HAMILTON BEACH PROCTOR SILEX INC

Inventor(s):^(std): BRADY MARTIN ; ERNEST B PRYOR JR ; GARMAN MICHAEL ; MICHAEL G SANFORD ; MULVANEY PATRICK T ; PRYOR ERNEST B ; PRYOR JR E B ; PRYOR JR ERNEST B ; SANDFORD M G ; SANDFORD MICHAEL G

Inventor(s): MICHAELGSANFORD ; ERNESTBPRYOR JR

Agent(s): ALEXANDER D

International class
^(IPC 8-9): [A47J27/00](#) [A47J36/00](#) [A47J36/10](#) [A47J43/00](#) [A47J43/046](#) [A47J43/07](#) [A47J43/08](#)
[A47J45/06](#) (Advanced/Invention)

CPC: [A47J43/046](#) [A47J43/085](#) [A47J43/0722](#) [A47J43/0772](#) [A47J36/10](#)

US class: [1/1](#) [220/322](#) [241/27](#) [241/282.1](#) [241/282.2](#) [241/36](#) [99/337](#)

[Classification Explorer](#)

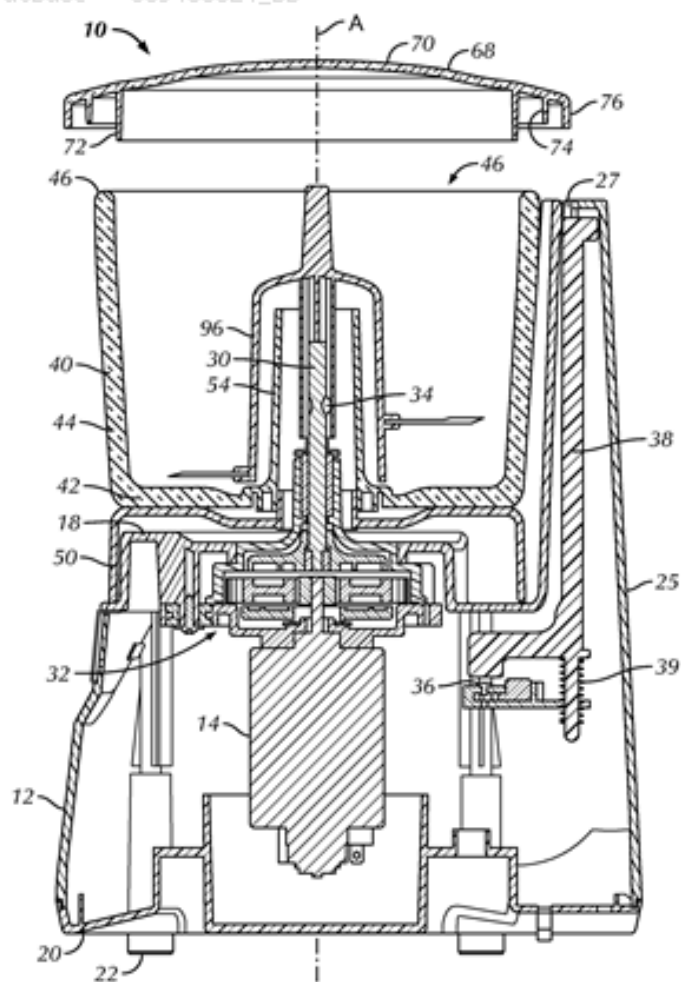
Cited documents: WO05011454 A1, USD683180 S1, USD644478 S1, USD445636 S1, USD426423 S1, USD395573 S1, USD394183 S1, USD311659 S1, USD290677 S1, US9198540 BB, US9084508 BB, US8403556 BB, US8157435 BB, US7566186 BB, US7530510 BB, US7387269 BB, US6907819 BB, US6669124 BB, US6637681 BA, US6568843 BA, US6513966 BA, US6510784 BA, US6474578 BA, US6338569 BA, US5934179 A, US5875706 A, US5567049 A, US5486665 A, US5454299 A, US5213028 A, US4741482 A, US4706896 A, US4629131 A, US4623097 A, US4506836 A, US4396159 A, US4226373 A, US4216917 A, US4143824 A, US3612126 A, US2014021278 AA, US2014001296 AA, US2013233950 AA, US2012206995 AA, US2012055303 AA, US2011210195 AA, US2011068204 AA, US2010206701 AA, US2010149909 AA, US2008135654 AA, US2008105684 AA, US2007210062 AA, US2006201341 AA, US2005145615 AA, US2005035231 AA, US2005000370 AA, US2004042338 AA, US2004042337 AA, US2003205635 AA, US2003193833 AA, US2001036124 AA, EP1153563 A1, CH417237 A,

Forward Citations: USD767327, US9526384, US9307860, US9055838, US2016256005, US2016158956, US2015053712, US2013233952, US2013098922,

Abstract:

Source: US2013233950A A kitchen appliance includes a housing enclosing a motor and a switch mechanism. A bowl is removably mountable onto the housing. At least one actuation member is movable between a first position and a second position. A bowl lid is removably mountable onto the upper rim of the bowl. When the bowl lid is properly positioned onto the upper rim of the bowl, the motor is actuated or permitted to be actuated by pressing downwardly on the lid such that at least a portion of one of a plurality of flanges of the bowl contacts at least a portion of the actuation member to force the actuation member to the second position.

PatBase - US9433324_BB



0) US4181073A – CHALUPA FRYING UTENSIL

63) Family number: 7604540 (US4181073A)

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Title: Chalupa frying utensil

Priority: US19780877662 19780214

Family:	Publication number	Publication date	Application number	Application date
	<u>US4181073 A</u>	19800101	US19780877662	19780214

Probable Assignee: CHAPA ABEL A SR

Assignee(s):^(std): CHAPA ABEL A SR

Inventor(s):^(std): CHAPA ABEL A SR

International class
(IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/1295

European class: A47J37/12P

US class: 99/416 99/426

[Classification Explorer](#)

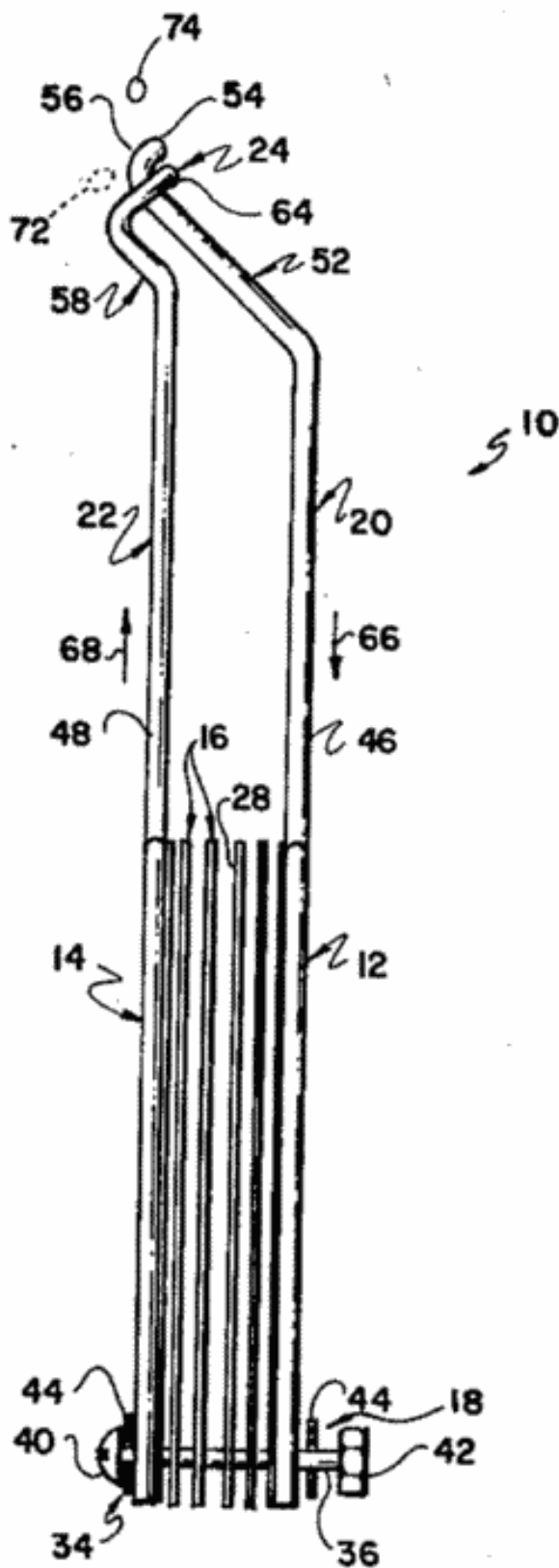
Cited documents: US883432 A, US709048 A, US3207059 A, US2814981 A, US2216984 A, US1470521 A, US1195370 A,

Forward Citations: USD696058, US5706718, US4535688, US4517887, US4494453, US2014007780,

Abstract:

Source: US4181073A There is disclosed a chalupa frying utensil usable in conjunction with either deep fat fryers, deep sauce pans, or relatively flat skillets. The utensil comprises a multiplicity of thin perforate sheet metal plates connected together for opening and closing movement upon manipulation of a pair of handle sections connected to the outermost plates. Means are provided to secure the handle sections together. The perforate plates are selected to prevent sticking of the chalupas to the plates.

PatBase - US4181073_A



64) Family number: 1890114 (DE3009041A1)

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Title: DECKEL FUER EINE FRITEUSE COVER FOR FRYING PAN – CONSISTS OF FRAME SECTION WITH CENTRE OPENING AND SUPERIMPOSED INSET ALSO RECESSES FOR FONDUE FORKS

Priority: DE19803009041 19800206 DE19803009041 19800308

Family:	Publication number	Publication date	Application number	Application date
	DE3009041 A1	19810827	DE19803009041	19800308

Probable Assignee: KLEIN REINHOLD GEKA WERK

Assignee(s):^(std): GEKA WERK REINHOLD KLEIN KG ; KLEIN REINHOLD GEKA WERK

Inventor(s):^(std): KLUTE HERTA

International class
(IPC 8-9): A47J36/38 A47J37/12 (Advanced/Invention);
A47J36/00 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/128 A47J36/38

European class: A47J36/38 A47J37/12M1

[Classification Explorer](#)

Abstract:

Source: DE3009041A1 AnsprUche Deckel fuer eine Friteuse, dadurch gekennzeichnet, dass er zweiteilig ausgebildet ist und aus einem auf den oberen Friteusenrand aufsetzbaren, eine Mittelloeffnung (3) aufweisenden Rahmenteil (1) und einen Einsatz (2) besteht, der auf einen die Mittelloeffnung (3) umgebenden Randabschnitt des Rahmenteils (1) aufgesetzt ist, die Mittel oeffnung (3) abdeckt und loesbar mit dem Rahmenteil (1) verriegelt ist 2) Deckel nach Anspruch 1, dadurch gekennzeichnet, dass in dem die Mittelloeffnung (3) umgebenden und vom Einsatz (2) abgedeckten Randabschnitt des Rahmenteils (1) Aussparungen (4) zum Einlegen von Fonduegabeln vorgesehen sind 3) Deckel nach Anspruch 1 oder 2, dadurch gekennzeichnet, dass der Einsatz (2) eine Mehrzahl von Luftaustrittsoeffnungen (6) aufweist, die auf der Innenseite von einem Fett- und Geruchsfilter (16) abgedeckt sind 4) Deckel nach einem der Ansprueche 1 bis 3, dadurch gekennzeichnet, dass der Geruchsfilter (16) aus einem mit Luftdurchgang soeffnungen (19) versehenen, platt enfoelmnigen Traeger (7) und einem Filterelement (18) besteht 5) Deckel nach Anspruch 4, dadurch gekennzeichnet, dass das Filterelement (18) auf der von der Friteuse abgewandten Seite des Traegers (17) angeordnet ist 6) Deckel nach einem der Ansprueche 1 bis 5, dadurch gekennzeichnet, dass der Einsatz (2) einen Handgriff (8) aufweist 7) Deckel nach einem der Ansprueche 3 bis 6, dadurch gekennzeichnet, dass der Einsatz (2) haubenfoermig ausgebildet ist, wobei ein Haubenteil die Luftaustrittsoeffnungen (6) und ein anderer Haubenteil den Handgriff (8) enthaelt 8) Deckel nach einem der Ansprueche 4 bis 7,

PatBase - DE3009041_A1

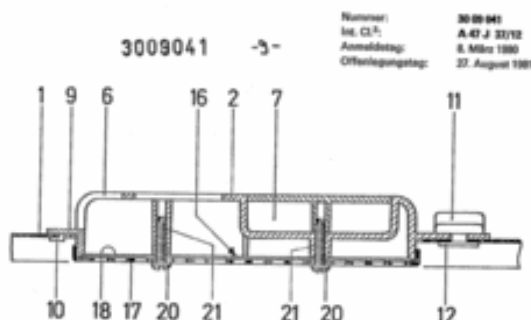


Fig. 1

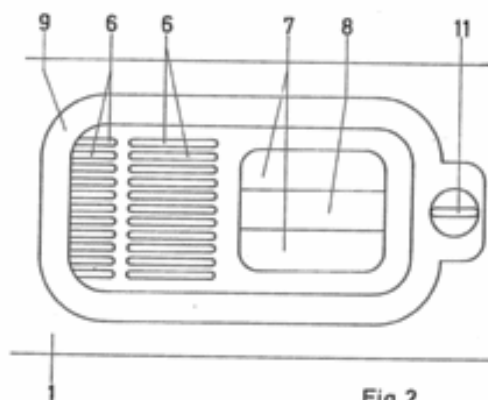


Fig. 2

130035/0314

dadurch gekennzeichnet, dass der Träger (17) lösbar am Einsatz (2) befestigt ist 9) Deckel nach Anspruch 8, dadurch gekennzeichnet, dass der Einsatz (2) wenigstens eine zur Aufnahme des Rahmenteilrandes bestimmte Lasche (10) und einen auf der gegenüberliegenden Seite der Lasche (10) angeordneten, zum Zusammenwirken mit dem Rahmenteil (1) bestimmten Verschlusskopf (11) aufweist. The frying pan cover is made in two parts and consists of a frame section (1) fitted with a centre opening and which can be placed on to the upper edge of the pan and of an insert (2) which is superimposed on to an edge section of the frame (1) enclosing the centre opening. The insert covers the centre opening and is detachably locked to the frame section (1). In that edge section of the frame section (1) enclosing the centre opening and covered by the insert (2) there are recesses for the insertion of fondue forks.

0) US6834578B – OIL–CASTING DEVICE FOR DEEP–FRYING BASKET

65) Family number: 31422182 (US6834578B)

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Title: Oil–casting device for deep–frying basket

Priority: US20040855710 20040528

Family:	Publication number	Publication date	Application number	Application date
	<u>US6834578 BA</u>	20041228	US20040855710	20040528

Probable Assignee: LYU JAN CO LTD

Assignee(s):^(std): LYU JAN CO LTD

Inventor(s):^(std): WU CHANG LI CHEN

International class
(IPC 8–9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1–7): A23L1/00 A47J37/00 A47J37/12

CPC: A47J37/1219 A47J37/1295

European class: A47J37/12C A47J37/12P

US class: 366/110 366/128 99/403 99/407 99/411 99/413 994/130

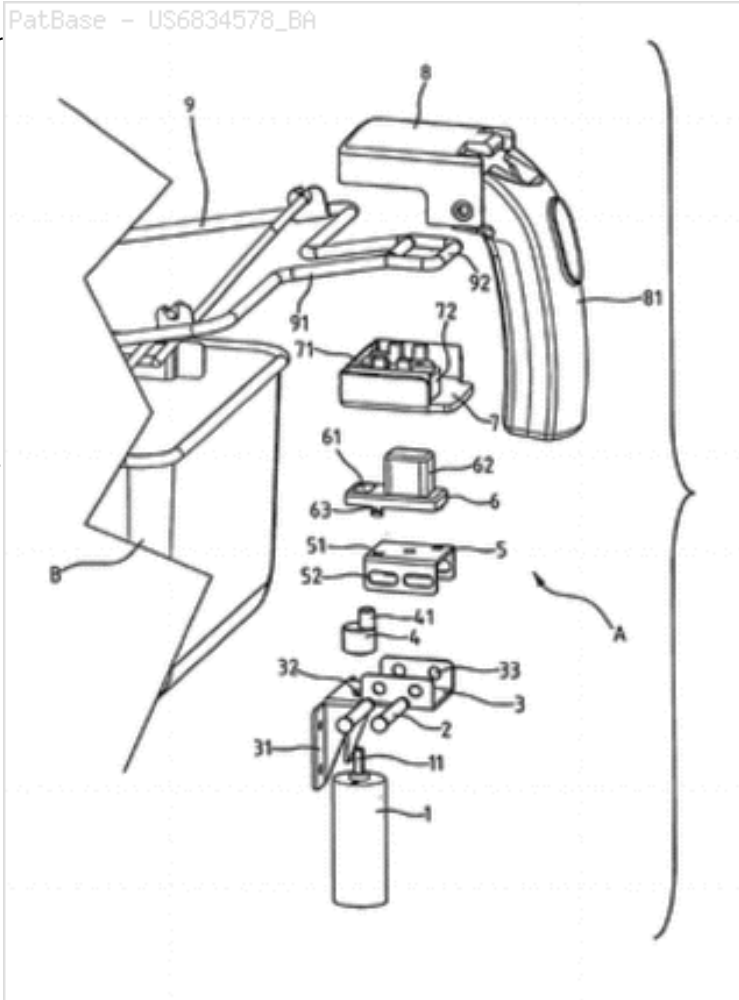
[Classification Explorer](#)

Cited documents: US6732636, US6250213, US6240837, US6006658, US5746117, US5379684, US4852471, US3799048, US3731614, US3078786, US1198374,

Forward Citations: WO09109144, WO08122210, USD740070, US8783170, US8707857, US2008110349, EP1922965,

Abstract:

Source: US6834578B An oil-casting device for deep-frying basket includes a vibration device, which is provided with a motor. A central spindle of the motor is arranged penetrating a through hole of a movable member seat to joint with an eccentric wheel. The movable member seat is combined with a movable member by insertion pins, and the top end of the movable member is in connection with an eccentric wheel seat. An eccentric axle of the eccentric wheel is penetratingly disposed in an axle hole in front of the eccentric wheel seat. An eccentric lever is arranged in rear of the axle hole and inserted in an eccentric lever seat inside a hook lower cover, and the outer circumference of the eccentric lever seat is sheathed on a grip of a supporting rack of deep-frying basket. And finally, the hook lower cover is combined with a handle of deep fryer having a hook upper cover to complete the architecture of the device.



66) Family number: 56195521 (US2014116260A)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME**Priority:** CN201320665689U 20131025 US20120718351P 20121025 US20130059879 20131022
US20140513643 20141014 US20160370399 20161206

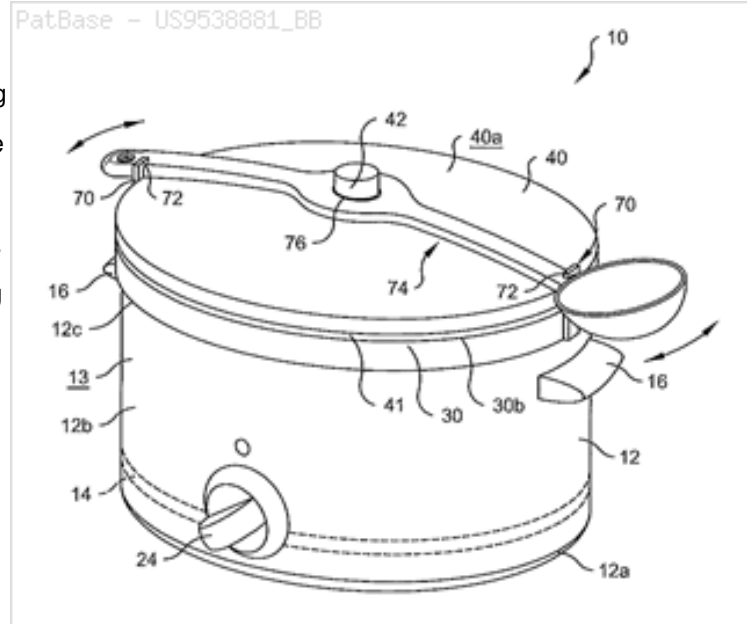
Family:	Publication number	Publication date	Application number	Application date
	<u>CN203506365 U</u>	20140402	CN201320665689U	20131025
	<u>CN204071671 U</u>	20150107	CN201420224740U	20131025
	<u>US2014116260 AA</u>	20140501	US20130059879	20131022
	<u>US2016183718 AA</u>	20160630	US20140513643	20141014
	<u>US2017079472 AA</u>	20170323	US20160370399	20161206
	<u>US9474410 BB</u>	20161025	US20130059879	20131022
	<u>US9538881 BB</u>	20170110	US20140513643	20141014

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):**^(std) HAMILTON BEACH BRANDS INC ; HAMILTON COMPLETED KEBU LANDERS LTD**Inventor(s):**^(std) STAMPER GEORGE ; PRYOR JR ERNEST B ; MULVANEY PATRICK T ; STEINER MARK C ; OLSON YVONNE ; RARING ALEXANDER D ; SANDFORD MICHAEL G ; MARTIN BRADY ; MICHAEL G SANDFORD ; MICHAEL GARMAN ; MARK C STEINER ; PATRICK T MULVANEY ; GARMAN MICHAEL ; HUDGINS ARTHUR W ; GUOYAO YE ; JOHN D BARNES ; ERNEST B PRYOR ; GEORGE STAMPER ; ERNEST B PRYOR JR ; BARNES JOHN D ; BRADY MARTIN ; ARTHUR W HUDGINS ; ALEXANDER D RARING ; YE GUOYAO ; YVONNE OLSON**Inventor(s):** ALEXANDER DRARING ; ARTHUR WHUDGINS ; ERNEST BPRYOR JR ; MARK CSTEINER ; MICHAEL GSANDFORD ; JOHN DBARNES ; PATRICK TMULVANEY**Agent(s):** ALEXANDER D**International class** A47J27/00 A47J27/08 A47J36/00 A47J36/10 A47J45/06 H05B6/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/10 A47J27/004**US class:** 1/1 99/324[Classification Explorer](#)**Cited documents:** USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6776085 BA, US6772677 BB, US6606987 BB, US6587739 BA, US6237765 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5447252 A, US5415082 A, US5355777 A, US5337910 A, US5251542 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4581989 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769902 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2011061545 AA, US2010251902 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009158940 AA, US2009039071 AA, US2008290092 AA, US2008084144 AA, US2007295221 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Abstract:

Source: US2014116260A A kitchen appliance includes a housing that defines a cavity. The housing has a housing rim defining an opening to the cavity. A heating or cooling element is disposed within the housing to heat or cool the cavity. A container has a generally hollow interior and a container rim. A lid is sized and shaped to at least partially cover the opening of the container when placed on the container. The lid has an exterior surface and an opposing interior surface. At least one latching mechanism or handle is operable to seal the contents of the appliance within the appliance.

PatBase - US9538881_BB



Title: DEEP FRYERS
Priority: GB19710030601 19710630

Family:	Publication number	Publication date	Application number	Application date
	<u>GB1390916 A</u>	19750416	GB19710030601	19710630

Probable Assignee: MILLE CO LTD NOEL DE

Assignee(s):^(std): MILLE CO LTD NOEL DE

Assignee(s): DE MILLE CO LTD NOEL

International class
 (IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
 (IPC 1-7): A47J37/12

CPC: A47J37/1209

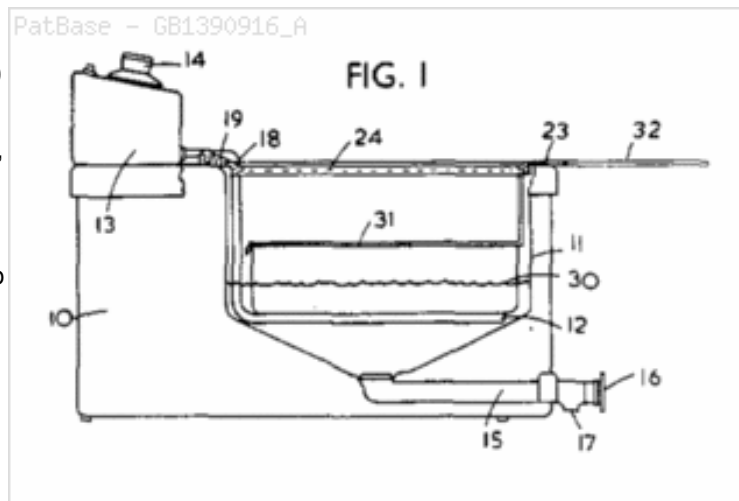
European class: A47J37/12A1

[Classification Explorer](#)

Forward Citations: WO07115784, GB2124073,

Abstract:

Source: GB1390916A 1390916 Deep fryers NOEL DE MILLE and CO Ltd 18 July 1972 [30 June 1971] 30601/71 Heading A4D A deep fryer has a cooking oil receptacle 11, a perforate cover therefor, and a food basket 31, such that when the basket is put in the receptacle, the cover can be put on before the basket is lowered below the normal oil level in the receptacle. In the Fig, the cover comprises a ring 18 with hinge lugs 19 and handles 23, to which a wire mesh grid 24 is attached. The basket handle 32 passes out of the receptacle between the handles 23. A further lid fitting over the perforate part of the cover acts as a dust cover when the fryer is not in use.



68) Family number: 48523075 (CN201767809U)

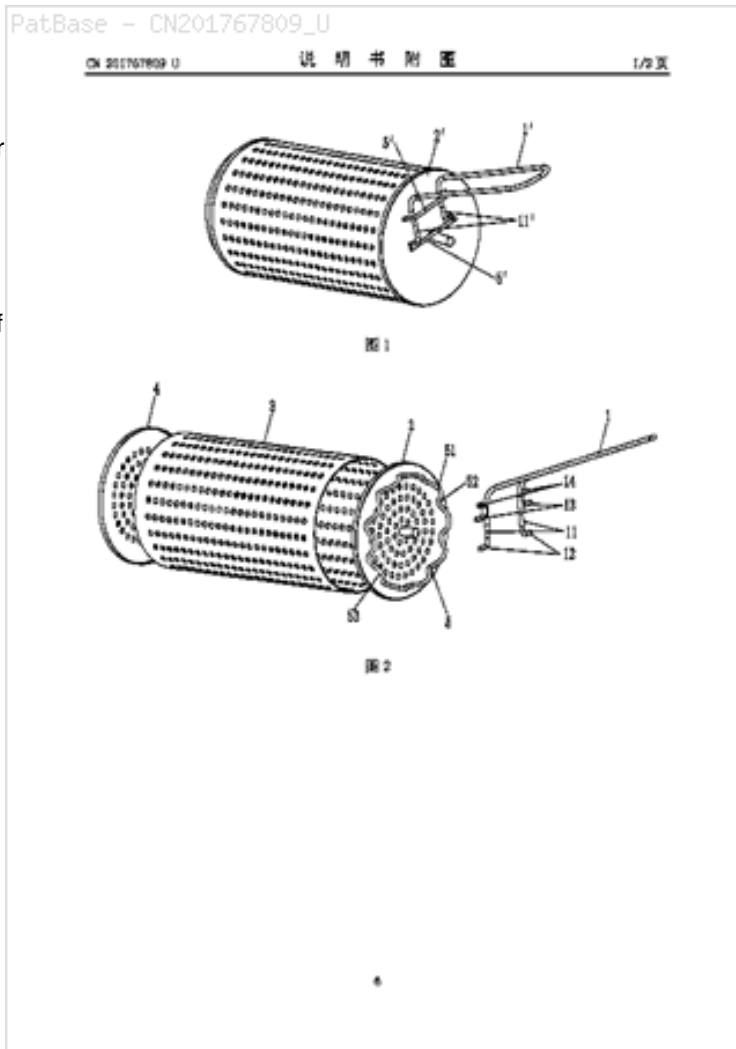
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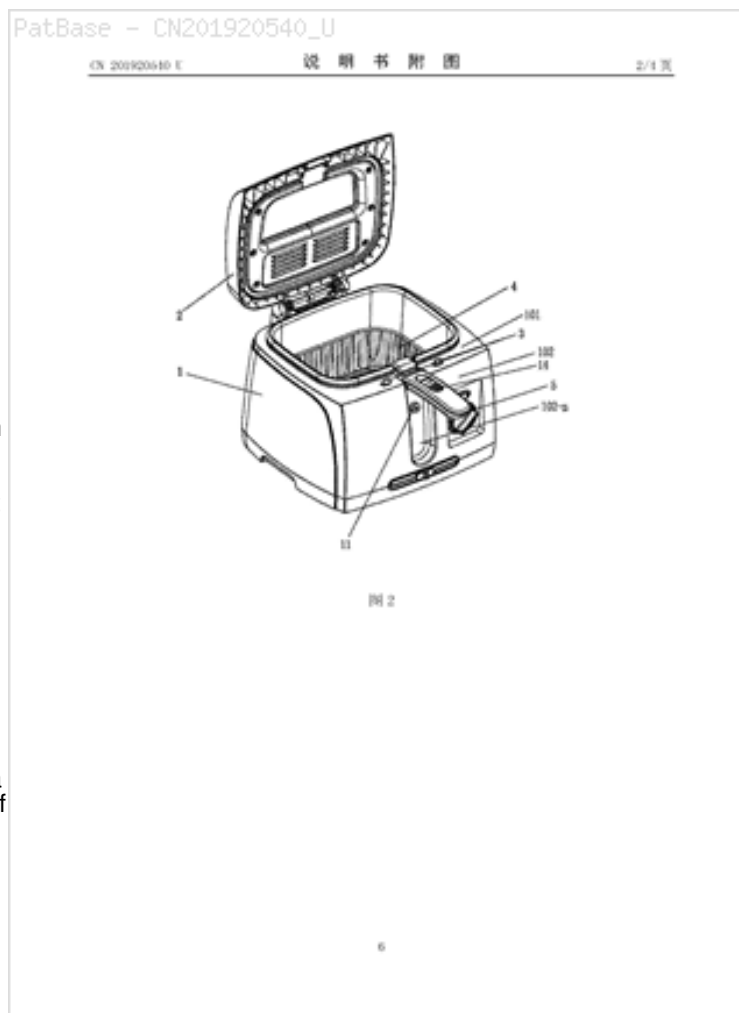
Title: Conveniently taken and put frying cage for fryer**Priority:** CN201020248181U 20100705

Family:	Publication number	Publication date	Application number	Application date
	CN201767809 U	20110323	CN201020248181U	20100705

Probable Assignee: MIDEA HOLDING CO LTD**Assignee(s):^(std):** MIDEA GROUP CO LTD ; MIDEA HOLDING CO LTD**Assignee(s):** MIDEA HOLDING CO**Inventor(s):^(std):** MINQIANG FENG ; TIANBING GAO ; YUN YANG**Inventor(s):** YANG YUN ; FENG MINQIANG ; GAO TIANBING**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201767809U The utility model provides a conveniently taken and put frying cage for a fryer. The frying cage comprises a front end cover, a cage body and a rear end cover, wherein the front end cover and the rear end cover are fixed at the ends on the two sides of the cage body respectively; a handle seat is fixed on the outer end face of the front end cover; a handle is detachably arranged in the handle seat; the frying cage is characterized in that the handle seat is an annular wavelike handle seat which consists of a plurality of groups of bumps and recesses at equal intervals, wherein a hole for inserting a hand is formed between each bump and the front end cover. By using the annular wavelike handle seat, the diversification in the assembling direction on the handle seat is realized, and the hand can be smoothly inserted into the handle seat for assembling after the frying cage stops rotation in any direction.





70) Family number: 50660443 (US2012223067A)

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Title: KITCHEN APPLIANCE AND METHOD OF ASSEMBLING SAME
Priority: US20110386630F 20110303 US20120406043 20120227
Family:

Publication number	Publication date	Application number	Application date
<u>CN301812325 S</u>	20120125	CN201130283616F	20110817
<u>US2012223067 AA</u>	20120906	US20120406043	20120227
<u>US9351606 BB</u>	20160531	US20120406043	20120227
<u>USD657611 S1</u>	20120417	US20110386630F	20110303

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):**^(std): BARNES JOHN D ; BOCK BRIAN ; GAYNOR JAMES ROBERT ; HAMILTON BEACH BRANDS INC ; STEINER MARK C**Assignee(s):** WELLS FARGO BANK NATIONAL ASSOCIATION**Inventor(s):**^(std): BARNES JOHN D ; GAYNOR JAMES ROBERT ; STEINER MARK C ; BOCK BRIAN**Agent(s):** PANITCH SCHWARZE BELISARIO AND NADEL LLP; ALEXANDER D**International class**
(IPC 8-9): A47J27/00 A47J36/10 A47J36/12 B23P11/00 F27D11/00 (Advanced/Invention)**CPC:** A47J36/10 A47J36/12 Y10T29/49947**European class:** A47J36/10 A47J36/12**US class:** 1/1 219/438 220/573.4 29/525.01 D7/354 D7/358**Locarno class:** 07/02[Classification Explorer](#)

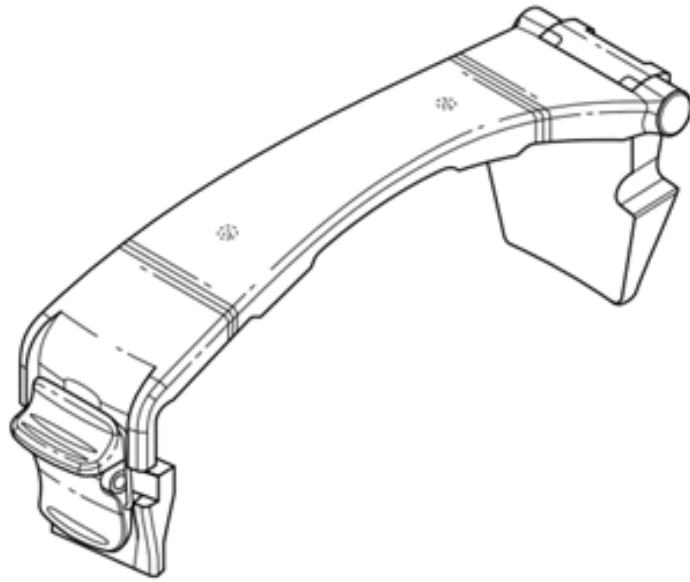
Cited documents: USD642856 S1, USD641204 S1, USD626784 S1, USD611758 S1, USD607267 S1, USD594694 S1, USD590204 S1, USD549517 S1, USD537670 S1, USD534759 S1, USD508817 S1, USD507718 S1, USD507452 S1, USD506350 S1, USD503584 S1, USD496555 S1, USD492882 S1, USD486352 S1, USD476191 S1, USD468163 S1, USD444993 S1, USD444664 S1, USD434940 S1, USD434266 S1, USD429596 S1, USD427483 S1, USD425360 S1, USD420246 S1, USD418360 S1, USD416434 S1, USD395980 S1, USD380504 S1, USD370827 S1, USD370826 S1, USD370381 S1, USD347963 S1, USD345886 S1, USD345485 S1, USD341058 S1, USD338370 S1, USD332549 S1, USD329570 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US7789015 BB, US7717028 BB, US7485831 BB, US7284733 BB, US7175041 BB, US7012221 BB, US6998581 BB, US6987247 BB, US6884971 BB, US6872921 BA, US6851351 BB, US6802429 BA, US6748853 BA, US6705209 BB, US6686569 BB, US6624392 BB, US6601726 BB, US6571975 BA, US6509550 BA, US6435358 BA, US6429408 BB, US6262398 BA, US6234067 BA, US6175105 BA, US6172339 BA, US6129234 A, US6105810 A, US6102238 A, US6032822 A, US6002111 A, US5957323 A, US5951899 A, US5834046 A, US5829342 A, US5683010 A, US5678790 A, US5643481 A, US5632403 A, US5472271 A, US5429039 A, US5415082 A, US5337910 A, US5129314 A, US5097107 A, US5046633 A, US4847949 A, US4617452 A, US4492853 A, US4375711 A, US4315139 A, US4148250 A, US3842725 A, US3801331 A, US3791368 A, US3769899 A, US3577908 A, US2010251902 AA, US2009218355 AA, US2008083730 AA, US2005167435 AA, US2005145615 AA, US2004079747 AA, US2003024936 AA, US1866874 A, US1837232 A, US1698928 A, US1661294 A, GB1446895 A, FR1024229 A, DE311246 A, DE301471 A, DE2934215 A1, CH245961 A,

Forward Citations: USD697750, US9538881, US9474410, US9375056, US9113743, US9055838, US8827101, US8640908, US8584894, US2016214633, US2016095467, US2015283034, US2014076174, US2013236614, US2013098922, US2013043253, CN103393343, CN103393340,

Abstract:

Source: US2012223067A A kitchen appliance includes a housing with a base, a side wall and a cavity. The housing has a housing rim defining an opening to the cavity. A hinge base is mounted to the side wall. A container has a generally hollow interior and a container rim defining an opening. The container fits within the cavity of the housing. A lid at least partially covers the opening of the container when placed on the container rim. The lid has an exterior surface, and an opposing interior surface facing the interior of the container when the lid is placed on the container rim. A bracket is mounted to the exterior surface of the lid. At least a portion of the bracket is rotatably and selectively removably received within at least a portion of the hinge base to rotatably and selectively removably mount to the lid of the housing.

PatBase - USD657611_S1



71) Family number: 52534865 (WO12163958A2)

© PatBase

Title: AN APPARATUS FOR COOLING A HOT FLUID**Priority:** US20110492879P 20110603**Family:**

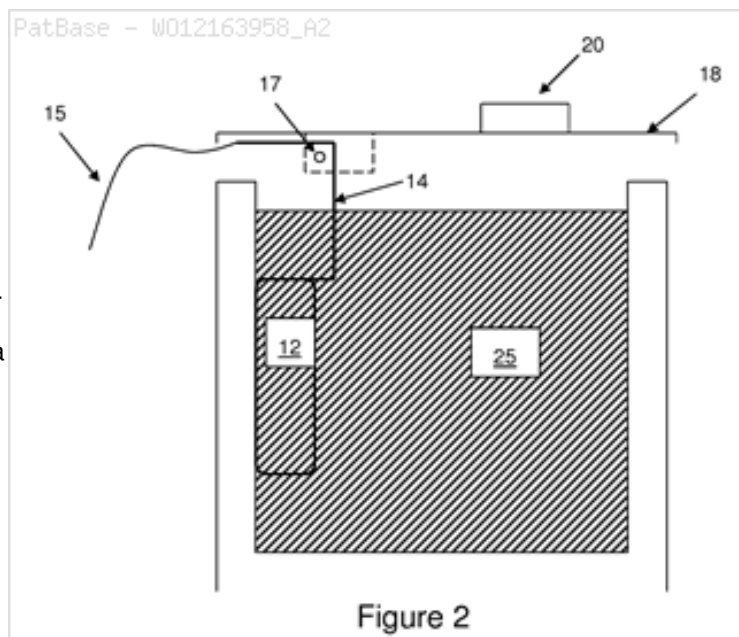
Publication number	Publication date	Application number	Application date
<u>WO12163958 A2</u>	20121206	WO2012EP60124	20120530
<u>WO12163958 A3</u>	20131114	WO2012EP60124	20120530

Probable Assignee: EX BURN APS**Assignee(s):^(std):** EX BURN APS ; LARSEN KENT FROEBERG ; LARSEN MARTIN LILLESOE ; OLESEN PETER HOULBERG ABILDHAUGE**Inventor(s):^(std):** LARSEN KENT FROEBERG ; LARSEN MARTIN LILLESOE ; OLESEN PETER HOULBERG ABILDHAUGE**Agent(s):** FOGED SOEREN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A62C3/06 A62C99/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A62C3/006 A62C3/06**European class:** A62C3/06[Classification Explorer](#)**Cited documents:** US4006606 A, US3422839 A, US2926731 A, JP2010023916 A2, GB801566 A, DE20106001 U1,**Forward Citations:** US2015267974,**Abstract:**

An apparatus for cooling a hot fluid, the apparatus comprising a hollow cooler for introduction into the fluid, an elongate, hollow element for connecting the hollow cooler to a fluid supply, a cradle for holding the cooler when not in use, and a valve element adapted to prevent fluid supply to the cooler through the elongate element when the cooler is in the cradle and allow fluid supply when the cooler is not in the cradle. An apparatus for cooling a hot fluid, the apparatus comprising a cooler for introduction into the fluid, a cradle for holding the cooler when not in use, the cradle having a cover with a handle attached to one side thereof, where the cooler is attached to a side of the cover opposite to the side on which the handle is attached.

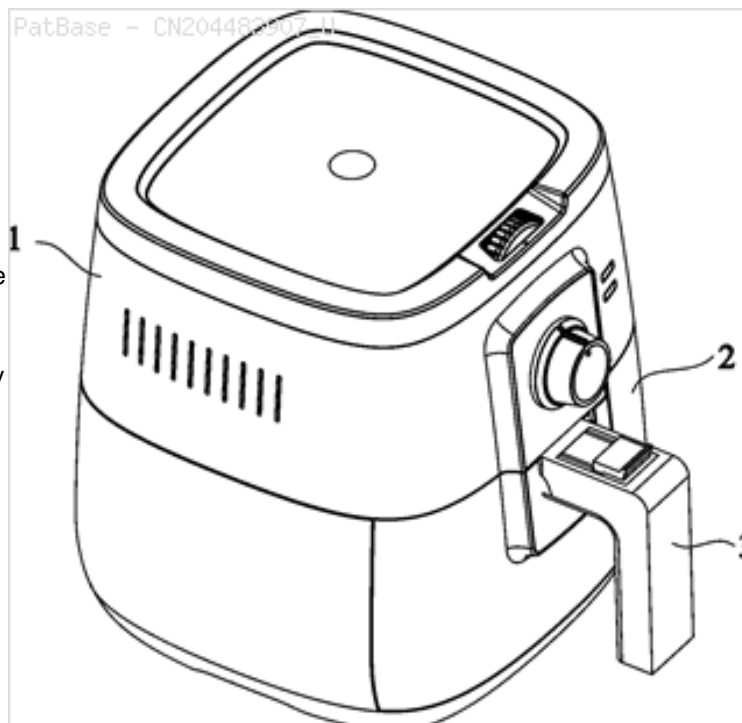


Title: AIR FRYER**Priority:** CN201520128030U 20150306**Family:**

Publication number	Publication date	Application number	Application date
<u>CN204483907 U</u>	20150722	CN201520128030U	20150306

Probable Assignee: JOYOUNG CO LTD**Assignee(s):^(std):** JOYOUNG CO LTD**Assignee(s):** JOYOUNG CO**Inventor(s):^(std):** JIN ENLAI ; WANG TIANHONG ; ZHU ZECHUN**International class** A47J37/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN204483907U The utility model relates to the technical field of kitchen appliances, in particular to a button protecting device for an air fryer. The air fryer comprises a fryer body and a frying basket arranged in the fryer body and connected with the fryer body, wherein a button controlling the frying basket to be connected with the fryer body is arranged on a handle of the frying basket, and a slidable protecting cover which can cover the button is arranged on the handle. The protecting cover is arranged above the button to cover and protect the button, so that people are prevented from being injured or scalded by the fryer body which falls off accidentally when the button is touched by accident during operation. An elastic part is further arranged on the protecting cover to enable the protecting cover to restore automatically.



73) Family number: 1505534 (EP0057775A1)

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Title: Cooking appliance with detachable lid.**Priority:** EP19810200155 19810209

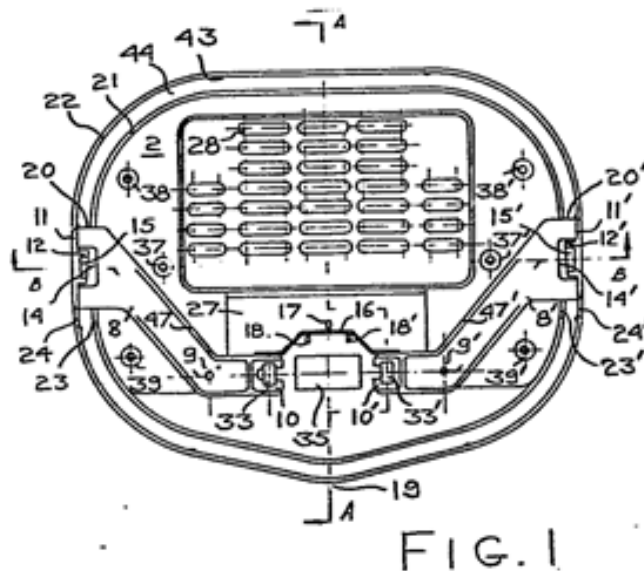
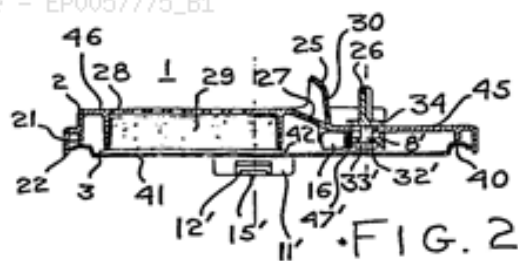
Family:	Publication number	Publication date	Application number	Application date
	<u>BE892063 A1</u>	19820809	BE19822059575	19820209
	<u>DE3174377 D1</u>	19860522	DE19813174377	19810209
	<u>EP0057775 A1</u>	19820818	EP19810200155	19810209
	<u>EP0057775 B1</u>	19860416	EP19810200155	19810209

Probable Assignee: ITT INDUSTRIES BELGIUM SOCIETE ANONYME**Assignee(s):**^(std) ITT ; ITT IND BELGIUM ; ITT IND GMBH DEUTSCHE**Assignee(s):** ITT IND INC ; ITT INDUSTRIES INC ; ITT INDUSTRIES BELGIUM SOCIETE ANONYME ; ITT INDUSTRIES BELGIUM S A ; ITT IND BELGIUM SOC ANONYME ; DEUTSCHE ITT IND GMBH ; DEUTSCHE ITT INDUSTRIES GMBH**Inventor(s):**^(std) VRYDAGS A ; VRYDAGS ANDRE PIERRE JOSEPH**Inventor(s):** A VRYDAGS**Designated states:** AT BE CH DE FR GB IT LU NL SE**International class**
(IPC 8-9): [A47J36/10 A47J37/12](#) (Advanced/Invention);
[A47J36/00 A47J37/12](#) (Core/Invention)**International class**
(IPC 1-7): [A47J36/10 A47J37/12](#)**CPC:** [A47J36/10 A47J37/1204 A47J37/128](#)**European class:** [A47J36/10 A47J37/12A A47J37/12M1](#)[Classification Explorer](#)**Cited documents:** US3463077 A, US3065855 A, US2263180 A, US1766366 A, GB618765 A, GB610605 A, FR801212 A, FR757093 A, FR625075 A, DE896409 A, CH896409 B, CH896409 A3, CH276368 A,**Forward Citations:** GB2254539, GB2254539, EP0432370,

Abstract:

Source: EP0057775A1 Cooking appliance, such as a domestic deep fryer, with an independent detachable cover (1) constituted by an upper lid (2) of plastic material, housing (37) a filter (29) as well as a latching mechanism enabling the lid handle (25, 26) to control unlatching of the lid to remove it from the vessel. This mechanism uses two like levers (8/8 min) linked at forked ends (10/10 min) to the displaceable part (26) of the handle as well as a common restoring spring (16). The other ends (12/12 min) of the levers can be hooked onto the enlarged upper rim of the vat. A metal under lid 3 closes the underside of the cover.

PatBase - EP0057775_B1



74) Family number: 55159103 (US8584894B)

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Title: KITCHEN APPLIANCE AND METHOD OF USING SAME**Priority:** US20120523933 20120615

Family:	Publication number	Publication date	Application number	Application date
	<u>US8584894 BA</u>	20131119	US20120523933	20120615

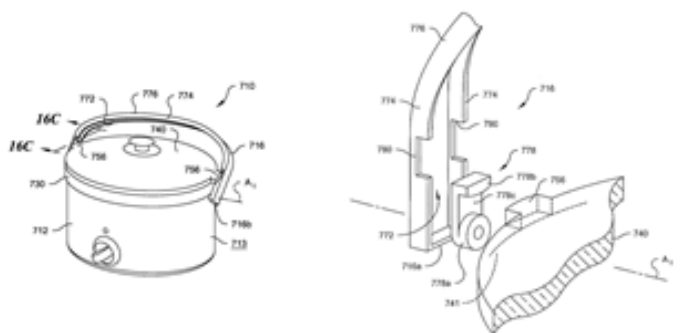
Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):^(std):** BRADY MARTIN ; GARMAN MIKE ; HAMILTON BEACH BRANDS INC ; MULVANEY PATRICK T**Inventor(s):^(std):** BRADY MARTIN ; GARMAN MIKE ; MULVANEY PATRICK T**Agent(s):** ALEXANDER D**International class** B65D45/04 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/10 A47J27/004**US class:** 220/318 220/573.1 220/756[Classification Explorer](#)

Cited documents: USRE3080 E, USRE17398 E, USD657611 S1, USD649831 S1, USD642856 S1, USD528353 S1, USD388657 S1, USD370826 S1, USD368620 S1, USD341058 S1, USD338370 S1, USD313727 S1, USD307531 S1, USD298899 S1, USD129108 S1, US961963 A, US951916 A, US899084 A, US862908 A, US8109201 BB, US7947928 BB, US7717028 BB, US7706671 BB, US7485831 BB, US7167642 BA, US7140506 BA, US6776085 BA, US6772677 BB, US661050 A, US6606987 BB, US6587739 BA, US6237765 BA, US6109169 A, US6102238 A, US6062130 A, US5945024 A, US5829342 A, US5786568 A, US5715570 A, US5687879 A, US5678790 A, US5643481 A, US5567458 A, US5447252 A, US5415082 A, US5355777 A, US5337910 A, US5251542 A, US5129314 A, US5097107 A, US5046633 A, US466648 A, US4545501 A, US4492853 A, US4375711 A, US4307287 A, US4241846 A, US4095830 A, US398539 A, US3791368 A, US3769899 A, US3746837 A, US3746205 A, US3674298 A, US3635371 A, US3589760 A, US3577908 A, US3363924 A, US3291515 A, US323101 A, US3174787 A, US3140795 A, US3133665 A, US3124381 A, US2974990 A, US2846257 A, US2817552 A, US2636639 A, US2526050 A, US223013 A, US2223432 A, US2011061545 AA, US2010059460 AA, US2009272279 AA, US2009218355 AA, US2009039071 AA, US2008084144 AA, US2005145615 AA, US2003234205 AA, US2002073851 AA, US192453 A, US1802557 A, US1771294 A, US1765135 A, US1698928 A, US1531772 A, US1513581 A, US1483255 A, US148130 A, US1472667 A, US1451545 A, US1438706 A, US1410515 A, US1367739 A, US1336491 A, US1300712 A, US1271230 A, US1232385 A, US1207974 A, US1204715 A, US1084817 A, US1065667 A, EP0168985,

Forward Citations: USD711679, US9526384, US9055838, US2016095467, US2015053712, US2013098922,**Abstract:**

Source: US8584894B A kitchen appliance includes a housing defining a cavity. A heating or cooling element is disposed within the housing. A container is sized and shaped to fit within the cavity. A lid is sized and shaped to at least partially cover an opening of the container. A handle is pivotally mounted to an exterior surface of the side wall of the housing. A first end of the handle is pivotally mounted to the side wall of the housing at a first location. An opposing second end of the handle is pivotally mounted to side wall of the housing at a second location diametrically opposed to the first location. The handle is pivotable between an engaged position which at least a portion of the handle retains the lid in sealing engagement with the container rim and disengage position in which the portion of the handle is spaced-apart from the lid.

PatBase - US8584894_BA



Title: PORTABLE FULLY AUTOMATIC COOKING SYSTEM**Priority:** IN2013MU03173 20131007 WO2014IN00640 20141001

Family:	Publication number	Publication date	Application number	Application date
	GB201604037 A0	20160420	GB20160004037	20141001
	<u>GB2532683 A1</u>	20160525	GB20160004037	20141001
	<u>IN03173MU2013 A</u>	20150116	IN2013MU03173	20131007
	<u>US2016235239 AA</u>	20160818	US20140025426	20141001
	<u>WO15075730 A2</u>	20150528	WO2014IN00640	20141001
	<u>WO15075730 A3</u>	20150730	WO2014IN00640	20141001

Probable Assignee: PATADIA BHAGIRATH G**Assignee(s):**^(std): BHAGIRATH GHANSHYAMBHAI PATADIA ; PATADIA BHAGIRATH G ; PATADIA BHAGIRATH GHANSHYAMBHAI**Inventor(s):**^(std): BHAGIRATH GHANSHYAMBHAI PATADIA ; PATADIA BHAGIRATH GHANSHYAMBHAI**Agent(s):** SHAH KAVITA AMISH

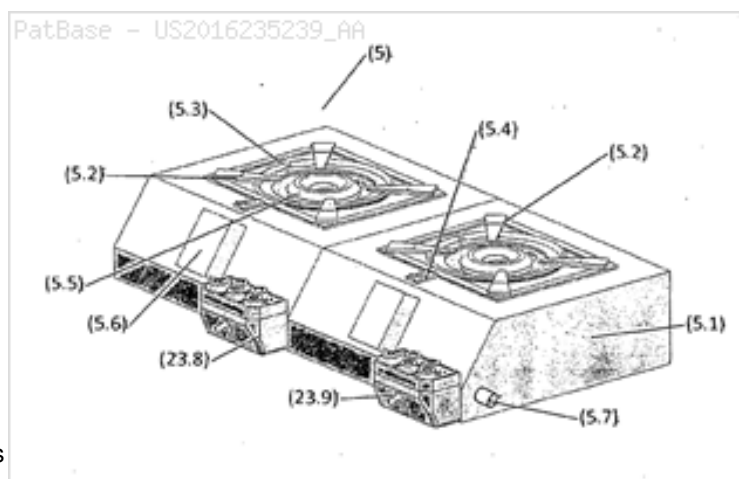
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8-9): A47J27/00 A47J27/04 A47J27/08 A47J36/00 A47J43/00 A47J44/00 G05B19/042 G06F17/00 G06F19/00 (Advanced/Invention)

CPC: A47J27/08 A47J27/0804 A47J27/09 A47J27/002 A47J27/0802 G05B19/0426 A47J2027/043 G05B2219/2643 A47J27/04 A47J44/00

US class: 99/325[Classification Explorer](#)**Cited documents:** US8145854 BA, US5832814 A, US2013226716 AA, US2004173103 AA, EP2767197 A1,**Forward Citations:** US2016328024,**Abstract:**

Source: US2016235239A The present invention is a portable fully automatic cooking system which can automatically prepare food items as per the user's demand by using recipes files, data and cooking centric algorithm software stored in user interface device or by downloading the needed recipe from remote server. This machine unit of system can be controlled by any kind of computation device, laptop, tablet, computer, smart phone etc for cooking, recording, managing which satisfies hardware and software requirement standards of system which user can control and command through physical presence or from remote location. Machine unit stores various ingredients inside it and demands for chief ingredients and cooks recipes in accordance with recipe using custom developed artificial intelligence. The scalability and flexibility of machine design, structure, components and positioning makes automated cooking possible, efficient and most practical. The capability to add custom vessels, modules and attachments adds extended efficiency in automated cooking.



76) Family number: 8445656 (EP0300306A2)

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Title: FRYER WITH DRUM ROTATING ABOUT A HORIZONTAL AXIS.**Priority:** IT19870002928 19870722

Family:	Publication number	Publication date	Application number	Application date
	EP0300306 A2	19890125	EP19880111025	19880711
	EP0300306 A3	19890517	EP19880111025	19880711
	IT8702928 A0	19870722	IT19870002928	19870722

Probable Assignee: ALGA DI GIUDICI ANGELAMARIA AND**Assignee(s):^(std):** ALGA DI GIUDICI ANGELAMARIA AND**Assignee(s):** ALGA DI GIUDICI ANGELAMARIA AND C S N C ; ALGA DI GIUDICI ANGELAMARIA**Inventor(s):^(std):** GIUDICI ANGELAMARIA ; GIAVAZZI LUCIO ; GIAVAZZI GIANCARLO**Designated states:** AT BE CH DE ES FR GB IT LI NL SE

International class [A47J37/04](#) [A47J37/12](#) (Advanced/Invention);
 (IPC 8-9): [A47J37/04](#) [A47J37/12](#) (Core/Invention)

International class [A47J37/04](#) [A47J37/12](#)
 (IPC 1-7):

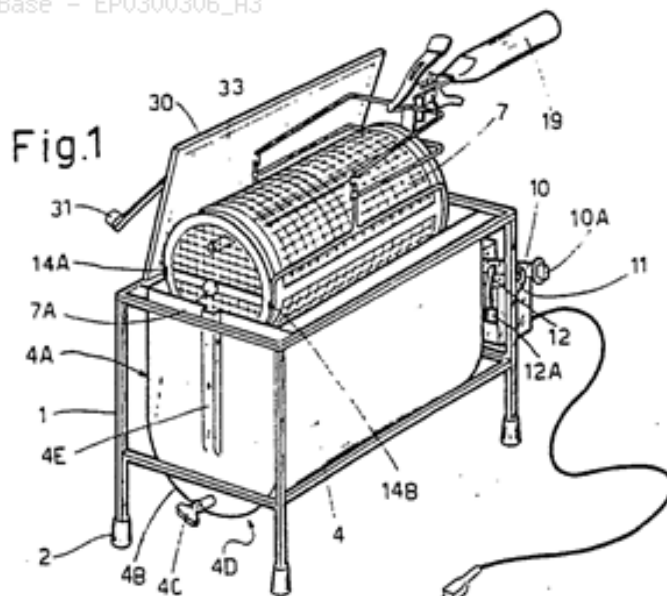
CPC: [A47J37/047](#) [A47J37/1214](#)**European class:** [A47J37/04G](#) [A47J37/12B](#)[Classification Explorer](#)**Cited documents:** FR2498915 A1, EP0213074 A1, EP0118157 A1,

Forward Citations: WO05063097, WO05063097, WO03084378, WO0130220, US6453801, US6272975, US5095812, US5070222, JP5905067, JP2016101213, GB2295768, EP0344446, CN102319028, CN102239895, CN102239895, CN102119704, BG65042, BG65009,

Abstract:

Source: EP0300306A2 A fryer, particularly for domestic use, is characterised by a metal mesh drum closed in the manner of a cage (7) for containing the food to be fried, and rotatable about a horizontal axis (15). Said drum is associated with supports (7A, 7B) which guide its rotation and which enable it to be raised relative to the level of the frying oil (5) and to be completely extracted from the interior of a box-shaped pan (4) in which the oil is contained and heated. The drum is rotated by the insertion therein of a drive nosepiece (8) provided with raised portions for its keyed engagement and implementing this function with the aid of a thrust spring (9). Said drive nosepiece is normally in a position of engagement with the drum but is disengagable therefrom by a lever (10) which when moved compresses said spring and operates a microswitch (12A) for stopping the electric motor (13). This lever is associated with means for retaining it in the position in which it disengages the drive nosepiece and stops the electric motor.

PatBase - EP0300306_A3



Title: Food extruder**Priority:** CA19810384303 19810821 JP19800114926 19800821

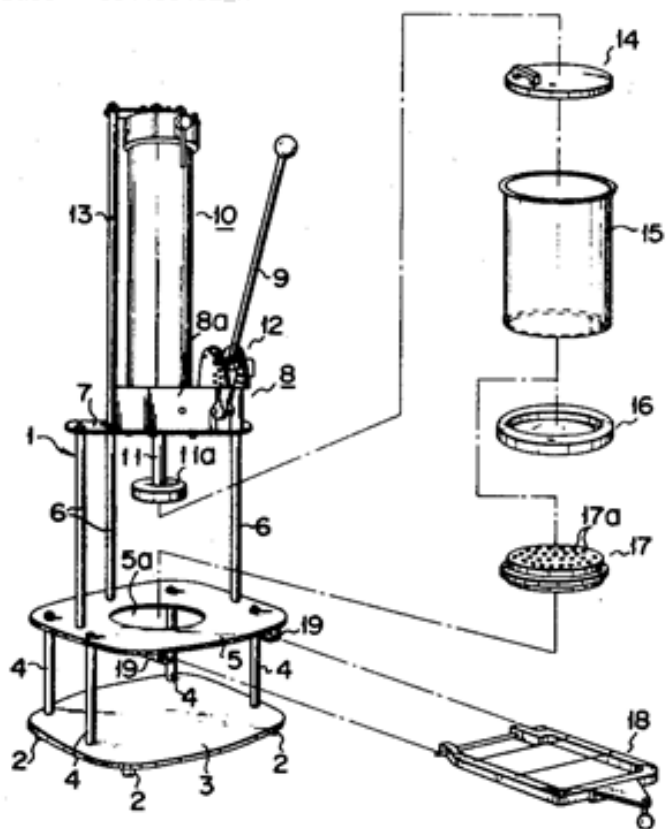
Family:	Publication number	Publication date	Application number	Application date
	<u>CA1166127 A1</u>	19840424	CA19810384303	19810821
	JP1190066 C3	19840213	JP19800114926	19800821
	<u>JP57039744 A2</u>	19820305	JP19800114926	19800821
	<u>JP58023059 B4</u>	19830512	JP19800114926	19800821
	<u>US4465452 A</u>	19840814	US19810291329	19810810

Probable Assignee: NISSHIN OIL MILLS LTD**Assignee(s):^(std):** NISSHIN OIL MILLS LIMITED THE ; NISSHIN OIL MILLS LTD**Assignee(s):** THE NISSHIN OIL MILLS LIMITED ; NISSHIN SEIYU KK ; NISSHIN OIL MILLS THE LTD ; MASUZAWA OSAMU ; NISSHIN OIL MILLS 23 1 1 CHOME SHINKAWA CHUO KU TO**Inventor(s):^(std):** MASUZAWA OSAMU**Agent(s):** FETHERSTONHAUGH AND CO**International class**
(IPC 8-9): A21C11/18 A23L1/00 A23L1/214 A23P1/00 B26D5/00 (Advanced/Invention);
A21C11/00 A23L1/00 A23L1/214 A23P1/00 (Core/Invention)**International class**
(IPC 1-7): A23L1/00 A23L1/216 A23P1/00 B21C3/04 B21C5/00 B26D5/00**CPC:** A21C11/18**European class:** A21C11/18**US class:** 425/308 425/377 425/464[Classification Explorer](#)**Cited documents:** US992369 A, US762128 A, US4154130 A, US4060367 A, US3890453 A, US3553776 A, US3456466 A, US3344752 A, US2634691 A, US2420616 A, US2408713 A, US2351493 A, US2149920 A, US1955342 A, US1945399 A, US1881171 A, US1857313 A, US1774671 A, US1736611 A, US1713585 A, US1591265 A, US1487378 A, JP49101582 A2, JP49101578 A2,**Forward Citations:** WO0050214, US9149046, US7475631, US7160098, US6454951, US6193498, US5124161, US5079012, US5077074, US5071668, US5030468, US5015490, US5015489, US5015488, US4999208, US4984514, US4979434, US4960043, US4957042, US4957041, US4949628, US4938127, US4738863, US2015064301, US2009214737, US2008067192, US2007245893, US2005220922, FR2576188, EP1171277, CN104068078, CN103766430, CN103478190,

Abstract:

Source: US4465452A A food extruder comprises, a molding plate provided with a multitude of perforations each having a prescribed opening area, a drum having both upper and lower ends open, fitted with said molding plate at the bottom, and containing therein molding food material, a push cover disposed on the molding food material and capable of pressing the molding food material against said molding plate, an oil hydraulic pump having a movable handle lever and supplying oil under a given pressure by moving the handle lever, an oil hydraulic cylinder having a movable piston rod capable of engaging the push cover and causing the piston rod to move so that the push cover engaging the piston rod may press the molding food material against the molding plate by means of the oil supplied by the movement of the handle lever, a regulating mechanism capable of regulating the stroke of the handle lever, and a cutting mechanism for cutting portions of the pressed molding food material extruded from the drum through the perforations.

PatBase - US4465452_A



78) Family number: 43125457 (US2009090348A)

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Title: COOKING GRILL**Priority:** US20070866691 20071003 US20090160423P 20090316 US20100697685 20100201
US20120610670 20120911

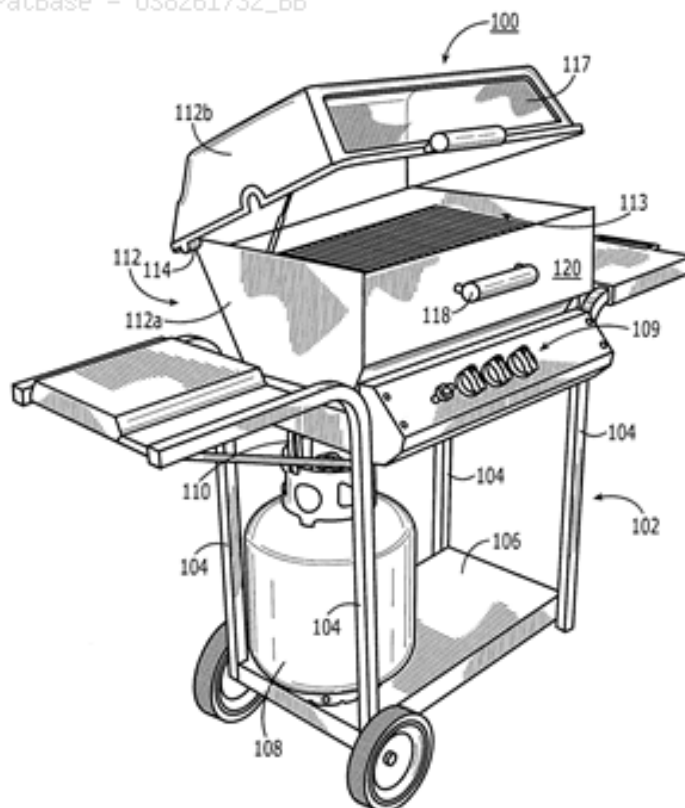
Family:	Publication number	Publication date	Application number	Application date
	<u>US2009090348 AA</u>	20090409	US20070866691	20071003
	<u>US2010132689 AA</u>	20100603	US20100697685	20100201
	<u>US2013180412 AA</u>	20130718	US20120610670	20120911
	<u>US7905225 BB</u>	20110315	US20070866691	20071003
	<u>US8261732 BB</u>	20120911	US20100697685	20100201

Probable Assignee: CONTARINO ALFRED F JR**Assignee(s):^(std):** CONTARINO ALFRED F ; CONTARINO JR ALFRED F ; SEASON 4 LLC**Assignee(s):** EDISON NATION LLC ; CONTARINO ALFRED F JR**Inventor(s):^(std):** CONTARINO ALFRED F ; CONTARINO JR ALFRED F**Agent(s):** SAUL EWING LLP (PHILADELPHIA); SAUL EWING LLP PHILADELPHIA; SAUL EWING LLP; TILLMAN WRIGHT PLLC; CHAD D; JEREMY C**International class**
(IPC 8-9): A47J37/00 A47J37/07 F24B3/00 F24C15/02 (Advanced/Invention);
A47J37/07 F24C15/02 (Core/Invention)**CPC:** A47J37/07 A47J37/067 A47J37/074 A47J37/0786 A47J2037/0795**European class:** A47J37/06D A47J37/07D3 A47J37/07L K47J37/07L4**US class:** 126/190 126/190S 126/25.00BP 126/25.00R 126/25.00RP 126/25B 126/25R 126/378 126/378.1 126/38 126/39.00L 126/39H 126/39K 126/39L 126/41.00D 126/41.00R 126/41D 126/41R 99/341 99/396 99/422 99/443.00RS 99/443R 99/446 99/447 99/447S 99/450 99/450S[Classification Explorer](#)**Cited documents:** US833529 A, US7163011 BB, US6931985 BA, US6892722 BA, US6705307 BB, US6508165 BB, US6308616 BA, US6260478 BA, US6158330 A, US6153857 A, US6114665 A, US6064042 A, US6039039 A, US6029649 A, US6024081 A, US6000389 A, US5960782 A, US5911812 A, US5884555 A, US5678531 A, US5553601 A, US5404795 A, US5368009 A, US5355868 A, US5347978 A, US5333540 A, US5259299 A, US5237914 A, US5213027 A, US5186159 A, US4840118 A, US4800865 A, US4718400 A, US4598634 A, US4531505 A, US4516485 A, US4392419 A, US4362093 A, US4220133 A, US3947657 A, US3938494 A, US3802413 A, US3783855 A, US3611912 A, US3490433 A, US3443510 A, US3199438 A, US3169517 A, US3152242 A, US3000389 A, US2940381 A, US2898846 A, US2709996 A, US2430582 A, US2155654 A, US2127146 A, US2015295 A, US2009101024 AA, US2007277800 AA, US2007163568 AA, US2006112948 AA, US2006102015 AA, US2006000365 AA, US2004112226 AA, US2003213484 AA, US2002020303 AA, US2002017290 AA, US1751219 A, GB2143119 A1, DE3926182 A1,**Forward Citations:** WO15035441, USD779877, USD712190, US9492253, US9289097, US9204757, US9133985, US9004058, US8813738, US8776779, US8602018, US8522450, US8479720, US2016249650, US2016100714, US2015282669, US2015027432, US2014261377, US2012285438, US2012247448, US2012222665, US2012216686, US2011269088, US2011146658, US2011011388, US2010242943, US2009255141, KR101623599, FR2975883, FR2970633, CN105101853, CN104337409, AU2011202265,

Abstract:

Source: US2009090348A The invention is a cooking grill comprising a housing defining a cooking chamber and having a side opening therein, a heating element disposed in the cooking chamber, a drawer slidably disposed in the side opening, the drawer having a bottom tray and a front wall sized and positioned so as to substantially fill the side opening in the housing when the drawer is inserted in the housing, a grilling module adapted to sit in the drawer having a support portion for supporting a grilling surface thereon, and a removable grilling surface, wherein the drawer is adapted to be inserted into the side opening in either a first orientation in which the bottom tray is below the heating element and the support portion is above the heating element or a second orientation rotated 180 degrees from the first orientation in which the bottom tray is above the heating element and the support portion is below the heating element.

PatBase - US8261732_BB



0) EP2941986A1 – VERFAHREN FUER THERMO–KULINARISCHE ASSISTENZ T...

79) Family number: 60742116 (EP2941986A1)

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Title: VERFAHREN FUER THERMO–KULINARISCHE ASSISTENZ THERMO–CULINARY ASSISTANCE METHOD

Priority: EP20140075041 20140508 EP20140185136 20140917

Family:	Publication number	Publication date	Application number	Application date
	<u>EP2941986 A1</u>	20151111	EP20140185136	20140917

Probable Assignee: AVER DESIGN AND ENGINEERING LTD

Assignee(s):^(std): AVER DESIGN AND ENGINEERING LTD

Inventor(s):^(std): CARRERA ALONSO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class
(IPC 8–9): A47J27/08 A47J27/21 A47J27/212 A47J36/00 A47J36/06 A47J36/16 A47J37/10 A47J43/28 A47J45/06 F24C7/00 (Advanced/Invention)

CPC: A47J36/06 A47J27/0802 A47J27/21083 A47J27/21108 A47J27/212 A47J36/00 A47J36/165 A47J37/101 A47J43/28 A47J45/063 H05B2213/06 H05B6/062 F24C7/083 F24C7/085

[Classification Explorer](#)

Cited documents: WO14075923 A1, WO08154763 A1, US4518839 A, US2013302483 AA, FR1262006 A, EP2659808 A1, EP2166290 A1,
DE102012200294 A1

Abstract:

Source: EP2941986A1 Procédé d'assistance thermo-culinaire réalisé par le recouvrement des contenants. Recouvrement caractérisé par un volume de confinement thermique adapté au fonctionnement d'un système embarqué autonome, intégré dans un ensemble, constitué par l'extension (1) d'un couvercle conique central (2) muni d'une poignée bi cylindrique amovible (3) dotée d'écrans à affichage commutable (4) et d'une télécommande moniteur multi-supports. Un ensemble thermo-générateur (5) assurant l'alimentation électrique de sondes de température et d'une composante optoelectronique communiquant par radiofréquences, impulsions lumineuses et ultrasons. Un logiciel assurant l'interopérabilité avec des interrupteurs radiocommandés (6), des plaques de cuisson intelligentes (7) à commande commune, dotées de caméras imageur et de capteurs sous chaque foyer et d'un écran d'affichage/programmation à reconnaissance faciale (8). L'automatisation sécurisée des cuissons au gaz étant assurée par un coupe-circuit thermo fusible, un programmeur manuel à touches sonorisées et un thermocouple (9) dispose dans un boîtier (10) équipé d'un système à commande séquentielle, reliée au couvercle par une connexion filaire USB (11). Les contenants disposant d'un système de paramétrage sans contact RFID/NFC (12) et par graphisme à code matriciel (13). Des accessoires interdépendants incluant un pyromètre à piquer sans fil, (14) un support tubulaire et une unité de brassage interchangeable, FIG(1) Des moniteurs/programmeurs optionnels étant positionnables sur station d'accueil

intégrée à la poignée et en port sur bracelet montre. Les moyens de la téléphonie mobile étant mis en œuvre avec fonction de transpondeur et procédure protocolaire. L'invention autorisant l'automatisation, la gestion énergétique, l'alerte, la thermo régulation, la vidéo transmission. Destinée à l'assistance thermo-culinaire domestique, l'invention étant facilement industrialisable. Thermal Method culinary assistance realized by the recovery of containers. Characterized by a recovery volume of thermal containment adapts the operation of an autonomous system boards, integrated in an assembly, consisting of extension (1) a central conical cover (2) provided with a removable two cylindrical handle (3) endowed with a switchable display screens (4) and a multi-media remote monitor. A heat-generator set (5) ensuring the electrical supply of temperature sensors and an optoelectronic component communicating by radio frequencies, light pulses and ultrasound. Software ensuring interoperability with radio control switches (6), smart hob (7) has joint control, equipped with imaging cameras and sensors in each home and a display screen / Programming has face recognition (8). The securissee automation of cooking gas having been satisfied by a circuit breaker thermal fuse, manual programmer with sound has keys and a thermocouple (9) has in a housing (10) a team has sequenced control system, to the cover by relise USB wired (11). Containers with a parametrag system contactless RFID / NFC (12) and a graphic matrix code (13). Interdependent of accessories including a pyrometer has bitten Wireless, (14) a tubular support and an interchangeable mixing unit, FIG (1) Monitors / programmers being positionable on optional docking station has integrated the handle and port wristwatch. Means of mobile telephony being implemented with function transponder and protocol procedure. The invention allowing automation, energetics management, alerting, thermo regulation, the video transmission. Destinée has domestic thermo-food assistance to the invention being easily industrialized.

PatBase - EP2941986_A1

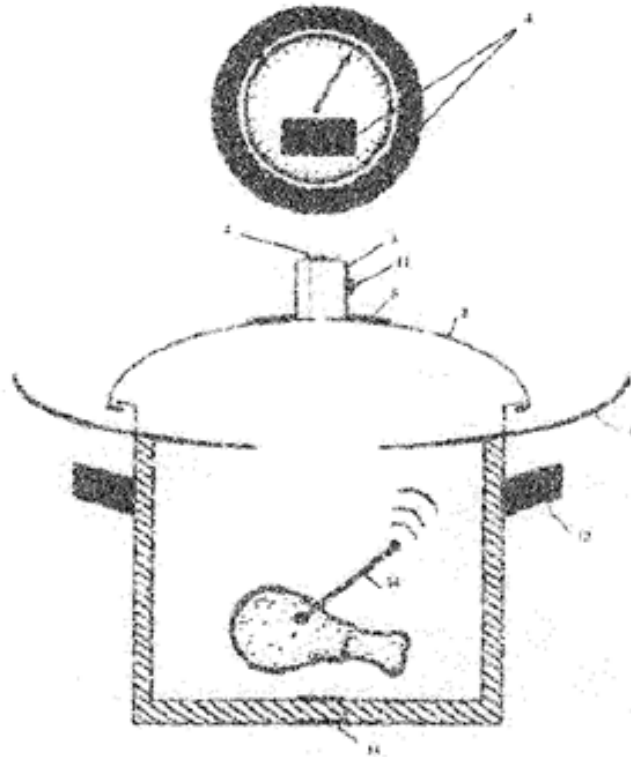


Fig.1

Title: Multifunction food frying pot**Priority:** CN19932031423U 19930718

Family:	Publication number	Publication date	Application number	Application date
	CN2175559 Y	19940831	CN19932031423U	19930718

Probable Assignee: LI LIANGMAO**Assignee(s):**^(std): LI LIANGMAO**Inventor(s):**^(std): JIANG XIAOBO ; LI LIANGMAO ; LIANGMAO LI ; XIAOBO JIANG

International class A47J37/00 (Advanced/Invention);
^{(IPC 8-9):} A47J37/00 (Core/Invention)

International class A47J37/00
^{(IPC 1-7):}

[Classification Explorer](#)**Abstract:**

Source: CN2175559Y The utility model relates to a multifunctional fryer with the functions of frying, roasting, swilling and heat preservation. The utility model comprises a fryer body and a fryer cover, wherein, the fryer body forms a tapered bottom drum shape, is provided with a heat-insulating layer, an exhaust pipe, a scum pipe, a heating pipe and a thermostat; the fryer cover is provided with a safety valve, a pressure limiting valve and a pressure device which is composed of a transverse beam and a leading screw; the transverse beam forms a bending arc shape, one end of the transverse beam is hinged at one side of the fryer body, the other end of the transverse beam is hinged with a bending hook hooking on the flange of the fryer body, and the middle of the transverse beam is provided with an internal thread hole; the upper end of the leading screw is provided with a handle, and the lower end of the leading screw penetrates through the internal thread hole to be arranged in the center of the fryer cover; in addition, the side of the fryer body is provided with an electric oven and an electric frying pan. The multifunctional fryer has the advantages of complete functions and safe and convenient use.

81) Family number: 44280610 (CN201379453Y)

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Title: Fryer**Priority:** CN200920051542U 20090218

Family:	Publication number	Publication date	Application number	Application date
	CN201379453 Y	20100113	CN200920051542U	20090218

Probable Assignee: XINBAO ELEC EQUIPMENTS CO LTD**Assignee(s):^(std):** GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO LTD ; XINBAO ELEC EQUIPMENTS CO LTD**Assignee(s):** GUANGDONG XINBAO ELECTRICAL EQUIPMENTS CO**Inventor(s):^(std):** JIANGANG GUO ; JINYIN ZHU ; LIJUN MIN**Inventor(s):** MIN LIJUN ; ZHU JINYIN ; GUO JIANGANG**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN102348513, CN102334908, CN102334908,**Abstract:**

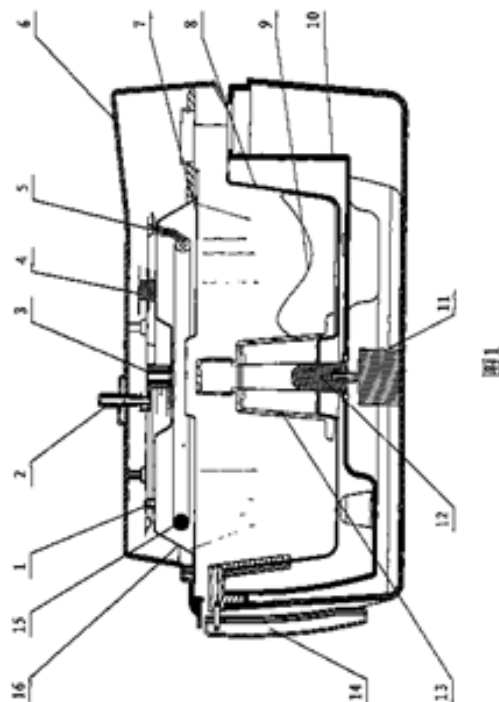
Source: CN201379453Y The utility model relates to a fryer comprising a fryer body, a liner, a top cover and an electric heating element, wherein a reflecting plate which reflects heat to the liner is arranged between the electric heating element and the top cover; the liner is provided with a stirring rod, and the stirring rod is connected with a motor arranged below the liner; the center of the liner is provided with a lug boss, one end of a rotating shaft is connected with an output shaft of the motor, and the other end of the rotating shaft is connected with the stirring rod by passing through the lug boss; the liner is provided with a rotating cover, the other end of the rotating shaft is connected to the top part of the rotating cover after passing through the lug boss, the lower part of the rotating cover is annularly sleeved on the lug boss, the bottom of the rotating cover keeps a certain distance with the bottom surface of the liner, and the stirring rod is connected to the middle-lower part of the rotating cover; one end of the liner is clamped by a handle assembly and is placed on the fryer body through the handle assembly, and the other part of the liner is directly placed on the fryer body. The utility model has the advantages of small volume, convenient operation, high heat efficiency, oil saving and healthy food.

PatBase - CN201379453_Y

200920051542.0

说明书附图

第1/2页



82) Family number: 52094017 (CN202457973U)

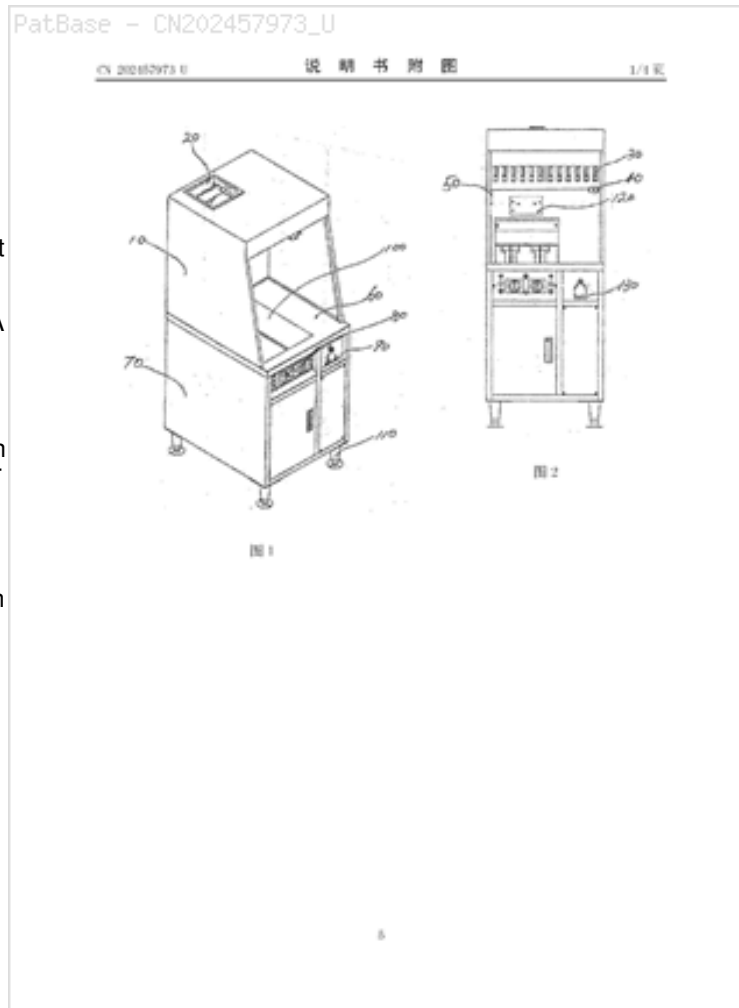
© PatBase

Title: Marine electric fryer having automatic alarming function**Priority:** CN201120363404U 20110926

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202457973 U</u>	20121003	CN201120363404U	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO LTD**Inventor(s):^(std):** XIUNAN ZHENG ; XINHUA JU ; MINGZHONG CHEN**Inventor(s):** JU XINHUA ; CHEN MINGZHONG ; ZHENG XIUNAN**International class** A47J37/12 A62C3/00 B63B29/22 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103006091,**Abstract:**

Source: CN202457973U The utility model discloses a marine electric fryer having an automatic alarming function. The marine electric fryer having the automatic alarming function is constituted by an electrothermal fryer and a fire extinguishing apparatus. An upper part of the electrothermal fryer is an upper cover body, in which is disposed a gas collection cover. A filter screen and an exhaust fan assembly are disposed in the gas collection cover, and an oil collection cup assembly is disposed under the filter screen. A nozzle assembly and a limit temperature control are disposed in the upper cover body. A frying cylinder is welded with a bench surface, and the fire extinguishing apparatus as well as an electric control box is disposed in the lower cover body. The marine electric fryer provided in the utility model is characterized in that the fire extinguishing apparatus is constituted by a fire extinguisher and a fire extinguishing implementation mechanism; a top part of the fire extinguisher is provided with a long handle and a short handle; the fire extinguishing implementation mechanism is provided with a micro-active switch provided with a torsion beam, an installation plate, and a contact control; the fire extinguishing implementation mechanism is linked to the long handle of the fire extinguisher.



83) Family number: 20300247 (GB639385A)

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Title: Improvements in and relating to cooking utensils**Priority:** GB19480020020 19480727

Family:	Publication number	Publication date	Application number	Application date
	<u>GB639385 A</u>	19500628	GB19480020020	19480727

Probable Assignee: DEMA GLASS LTD**Assignee(s):^(std):** DEMA GLASS LTD ; WOOLF WALTER KUBLIN**Assignee(s):** DEMA GLASS LIMITED

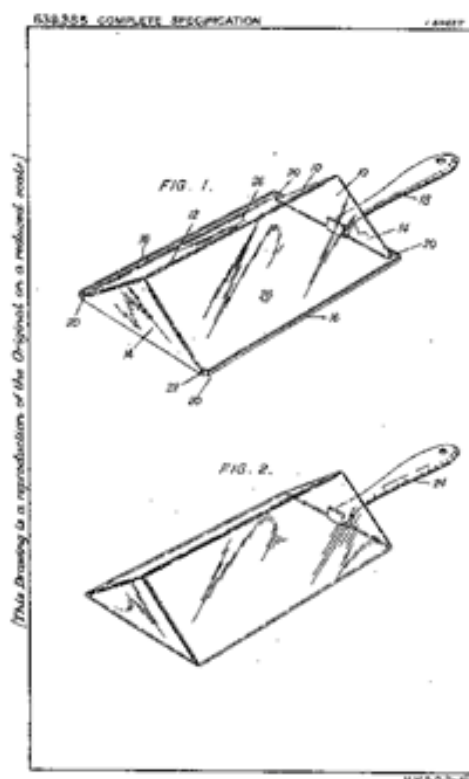
International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

International class A47J37/10
 (IPC 1-7):

CPC: A47J43/28**European class:** A47J43/28[Classification Explorer](#)**Forward Citations:** US5054467, US4064797,**Abstract:**

Source: GB639385A 20020. [Class 28(i)] [Also in Group XVII] A frying "pan" made of glass has gable ends 14 and sloping sides 10 on which bacon c. is placed so that fat can drain down into integral channels 16. The device has no bottom. A similar shaped glass cover (Fig. 2, not shown) may be superposed to prevent the food from sliding down. Both pan and cover have integral glass handles 18 secured to the gable ends. The channels 16 have pouring lips 22 at one end. The sides 10 may be curved with correspondingly shaped cover sides.

PatBase - GB639385_A



84) Family number: 42611978 (ES1068752U)

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Title: FILTRADORA DE ACEITE COMESTIBLE EDIBLE OIL Filtering (Machine translation)**Priority:** ES20080001873U 20080916

Family:	Publication number	Publication date	Application number	Application date
	ES1068752 UA	20081201	ES20080001873U	20080916
	ES1068752 Y1	20090301	ES20080001873U	20080916

Probable Assignee: COM FRUCOSOL S L**Assignee(s):^(std):** COM FRUCOSOL S L**Assignee(s):** COMERCIAL FRUCOSOL S L**Inventor(s):^(std):** DEZA SAN BAUDILIO FERNANDO ; DEZA SAN BAUDILIO FLORENTINO

International class [A47J43/00](#) (Advanced/Invention);
 (IPC 8-9): [A47J43/00](#) (Core/Invention)

[Classification Explorer](#)**Forward Citations:** WO11064427, ES2366066,**Abstract:**

Source: ES1068752U 1. Filtradora de aceite comestible, que estando prevista para filtrar y por lo tanto efectuar la limpieza de aceite procedente de una freidora, constituyendo ademas un electrodomestico suplementario a la propia freidora para poder recibir el aceite utilizado en esta, bien directamente de la freidora o bien mediante el correspondiente transvase, se caracteriza porque se constituye a partir de un cuerpo general prismatico dotado inferiormente de ruedas para su desplazamiento, mientras que superiormente presenta una camara de filtracion con una tapa superior de cierre y una base que se materializa mediante la superposicion de una junta de goma, una rejilla de filtro, un papel de filtro y un soporte de filtro, quedando todos estos componentes superpuestos y convenientemente fijados en la propia base de la camara de filtracion mediante correspondientes tornillos o vastagos roscados en correspondencia con las esquinas internas de tal camara de filtracion; habiendose previsto que bajo esta el cuerpo de la filtradora incorpore un motor de accionamiento de una motobomba, un interruptor de aire, un interruptor de apagado/encendido, asi como un conector para una manguera a traves de la cual se impulsa el aceite filtrado, bien de nuevo directamente a la freidora, o bien a un recipiente para su recogida y posterior uso. 2. Filtradora de aceite comestible, segun reivindicacion 1, caracterizada porque el conector para la manguera esta establecido lateralmente en el cuerpo de la filtradora, y conectado a la correspondiente bomba, estando dotado ese conector inferiormente de una valvula de descarga para salida que permite la evacuacion del aceite filtrado que resulte sobrante tras la impulsión mediante la bomba a traves de la manguera. 3. Filtradora de aceite comestible, segun reivindicaciones anteriores, caracterizada porque lateralmente incluye en su parte exterior un tubo vertical con una embocadura acampanada como medio de soporte para la correspondiente boquilla de lamanguera de impulsión del aceite filtrado, boquilla que se complementa con un asidero manual de manejo de la propia manguera.

Machine translation: 1. Filtering of edible oil, it being provided to filter and therefore make the cleaning of oil from a fryer, besides constituting an additional appliance to own fryer to receive the oil used in this either directly from the fryer or through transferring the relevant, because it is characterized from a generally prismatic body inferiorly equipped with wheels for their displacement, while superiorly has a filtration chamber with a top cover and a base

closure is achieved by the superposition of a board rubber, a filter mat, filter paper and a filter holder, leaving all these overlapping components and conveniently set in the very basis of the filtration chamber using appropriate screws or threaded rods corresponding to the inner corners of this camera filtration, having been scheduled under this body of the strainer incorporates a drive motor of a pump, an air switch, a switch on / off as well as a connector for a hose through which the oil is driven filtered again either directly to the fryer, or to a container for collection and subsequent use. 2. Filtering of edible oil, according to claim 1, wherein the hose connector is provided laterally on the body of the strainer, and connected to the corresponding pump connector being provided with the lower part of a valve discharge outlet allowing for the evacuation of oil remaining after filtering it through the pump's drive through the hose. 3. Filtering of edible oil, according to previous claims, wherein the side includes on the outside a vertical tube with an opening bell as a means of support for the corresponding nozzle impulsion lamanguera of oil filter, nozzle that is complemented by a management handgrip of the hose itself.

85) Family number: 53082700 (WO13025988A1)

© PatBase

Title: LIQUID REMOVAL DEVICE**Priority:** US20110524840P 20110818 US20110526161P 20110822 US20110526987P 20110824

Family:	Publication number	Publication date	Application number	Application date
	<u>WO13025988 A1</u>	20130221	WO2012US51340	20120817

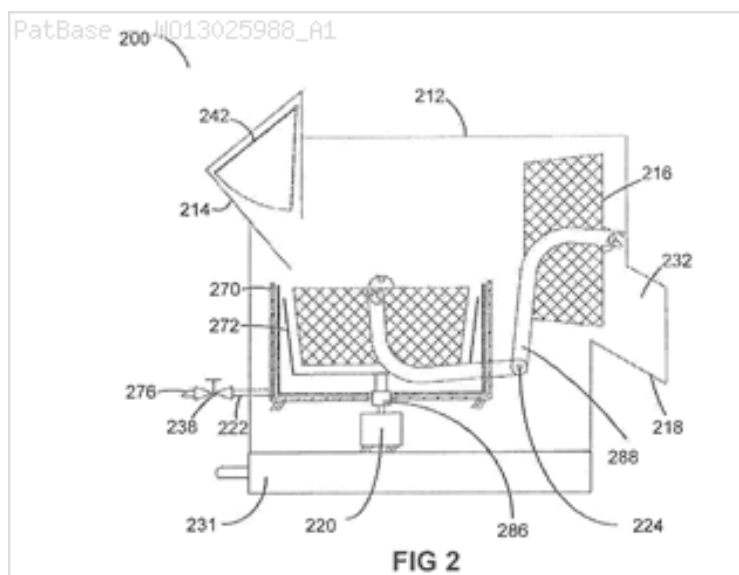
Probable Assignee: SPINFRY INC**Assignee(s):^(std):** MILLIKIN RORY C P ; SPINFRY INC ; MOORE DAVID J ; THEIS THOMAS J**Assignee(s):** MILLIKIN RORY CP**Inventor(s):^(std):** MILLIKIN RORY C P ; MOORE DAVID J ; THEIS THOMAS J**Inventor(s):** MILLIKIN RORY CP**Agent(s):** BOYD DAMON

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A23N12/12 A47J37/04 A47J43/00 (Advanced/Invention)
(IPC 8-9):

CPC: A23N12/086 A23N12/125 A47J37/1295 F26B5/08 A47J36/2483[Classification Explorer](#)**Cited documents:** WO08121111 A1, US5611265 A, US3827985 A,**Forward Citations:** CN104223976, CN104223976,**Abstract:**

The present invention relates to a liquid removal device. Exemplary embodiments of the invention comprise a basket well that is configured to spin a basket containing fried food. The fryer device may also comprise a rotational mechanism, such as an electric motor or a manual crank, which rotates the basket within the basket well. The invention may further comprise a mechanism to dump food from the basket after sufficient liquid has been removed. Various embodiments also comprise a handle, which may or may not be integrated into the basket.



86) Family number: 23032315 (FR1338296A)

© PatBase

Title: FRITEUSE DEEP FRYER (Machine translation)**Priority:** FR19620915278 19621113

Family:	Publication number	Publication date	Application number	Application date
	<u>FR1338296 A</u>	19630920	FR19620915278	19621113

Inventor(s):(std): PAPPAS PHILLIP MILLER

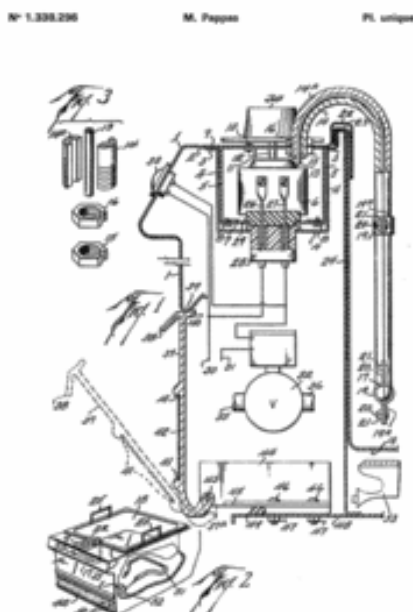
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

CPC: A47J37/1209 A47J37/1266**European class:** A47J37/12A1 A47J37/12K[Classification Explorer](#)**Forward Citations:** FR2627024, EP0663173, EP0328432,**Abstract:**

Source: FR1338296A (Claim 1) 1. La friteuse comprend un coffre general ou caisson, un moyen de chauffage commande par electro-aimant et supporte par le caisson, un bac a friture supporte par le caisson, un moyen sensible a la temperature plonge normalement dans le bain de friture et comprenant un tube capillaire relie a un interrupteur thermosplastique electrique et supporte par ce dernier qui comprend des contacts electriques demontables pour permettre d'enlever immediatement et a la main l'interrupteur thermostatique avec le tube capillaire et le moyen sensible a la temperature, un circuit electrique entre l'interrupteur thermostatique et le moyen de chauffage actionne par electro-aimant, de facon que l'enlevement de cet interrupteur interrompe le chauffage par la coupure du circuit electrique dudit moyen de chauffage;

Machine translation: (Claim 1) 1. The fryer includes a general safe or box, a heating control by electro-magnet and supports the casing, a frying pan was supported by the housing, means responsive to the temperature plunges normally in the frying oil and comprising a tube a capillary connects an electrical switch thermosplastique and supports by the latter which includes electrical contacts demountable to allow removal and immediately hand the thermostatic switch with the capillary tube and the means sensitive to temperature, an electrical circuit between the temperature switch and the heating means actuated by electro-magnet, so that the removal of this switch interrupts the heating by cutting the electrical circuit of said heating means;

PatBase - FR1338296_A



87) Family number: 19685608 (GB594678A)

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Title: Improvements in and relating to rim or flush latches and combined rim or flush locks and latches

Family:	Publication number	Publication date	Application number	Application date
	<u>GB594678 A</u>	19471117	GB19450007904	19450329

Probable Assignee: FRANCIS JOSEPH BUTTER

Assignee(s):^(std): EDWARD CAMDEN FRYER ; FRANCIS JOSEPH BUTTER ; PARKES JOSIAH AND SONS LTD

Assignee(s): JOSIAH PARKES AND SONS LTD ; JOSIAH PARKES AND SONS LIMITED

International class E05B3/06 (Advanced/Invention);
(IPC 8-9): E05B3/00 (Core/Invention)

International class E05B3/06
(IPC 1-7):

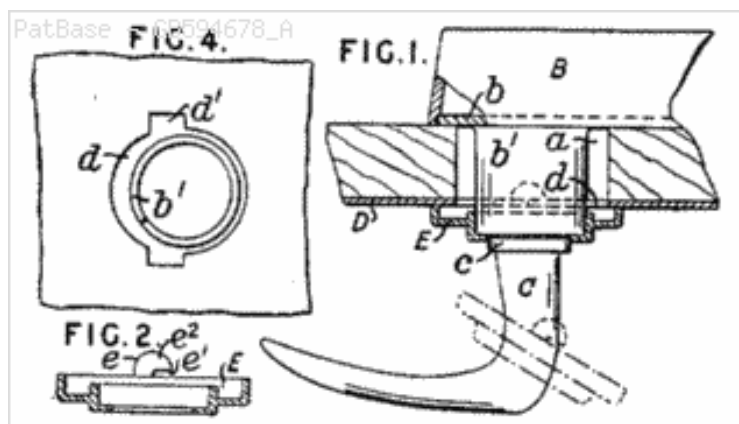
CPC: E05B3/06

European class: E05B3/06

[Classification Explorer](#)

Abstract:

Source: GB594678A 7904. [Class 44] A rim or flush lock or latch, having its handle or one of its handles already attached, is inserted by threading a handle through a bole in the lock, or through a plate covering a flush lock, and has extending from its inner face a screw or boss which either fills the hole or receives a rose or door plate which is threaded over the handle to cover the hole. When a socket is employed it may be formed on the lock, the handle shank passing through it, whereas a boss may be formed on the handle shank itself. A rim lock B has a cap plate b having on its outer face an integral socket b^{<1>} through which passes the shank of a lever handle C, on which is a boss or collar c. A hole a in the door, and a hole d in a plate D secured to or forming part of the door, are large enough for the handle C to pass through and to allow lateral displacement of the lock. A rose E has an internal diameter sufficient to permit its threading over the handle and its fitting over the boss c and an external diameter sufficient to permit its covering the hole d. Projecting inwardly from the rim of the rose are two oppositely disposed lugs e, slotted at e^{<1>} to leave overhanging parts e^{<2>} which engage under the edges of their respective notches d^{<1>} in the edge of the hole d, when the lock is displaced to the right. Instead of lugs, the rose may have an internal screw thread engaging an external thread on the socket b^{<1>}; the lock is not displaced in this case. The rose may be replaced by a door plate. Instead of the handle, C a knob capable of going through the hole in the door may be used. For use with a flush lock the socket b¹ is made much shorter.



0) US5553531A – COOKING DEVICE

88) Family number: 12760297 (US5553531A)

© PatBase

Title: Cooking device

Priority: US19940361070 19941221

Family:	Publication number	Publication date	Application number	Application date
	<u>US5553531 A</u>	19960910	US19940361070	19941221

Probable Assignee: LEGION IND INC

Assignee(s):^(std): LEGION IND INC

Assignee(s): LEGION INDUSTRIES INC ; LEGION IND

Inventor(s):^(std): BROWN CHARLES A

International class
(IPC 8-9): A47J27/04 A47J27/14 (Advanced/Invention);
A47J27/04 A47J27/14 (Core/Invention)

International class
(IPC 1-7): A47J37/10

CPC: A47J27/04 A47J27/14

European class: A47J27/04 A47J27/14

US class: 99/340 99/393 99/407 99/409 99/423 993/400

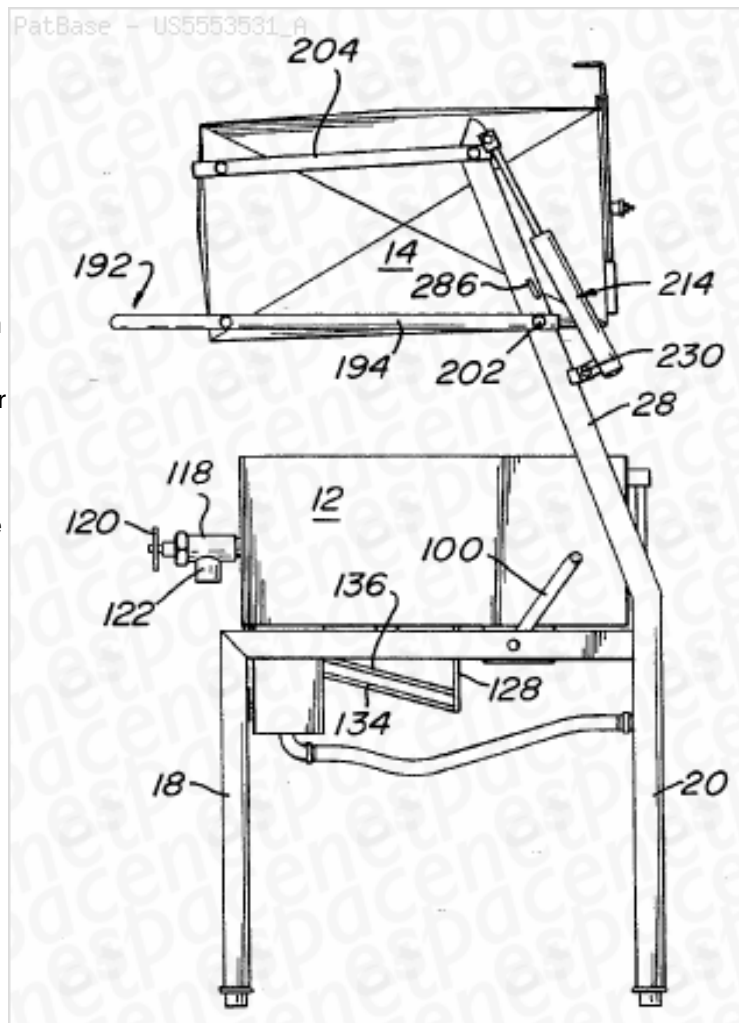
[Classification Explorer](#)

Cited documents: US4150280 A, US4138606 A, US3964378 A, US3895216 A, US3592668 A, US3432642 A, US2009791 A, US1983118 A,

Forward Citations: US8707857, US8648282, US8354620, US8074563, US8037602, US7538300, US7523697, US7147119, US6994015, US6988631, US6763965, US6726049, US6073542, US5992307, US5964145, US2011049123, US2011006054, US2010242282, US2010186603, US2010084412, US2010083949, US2008223359, US2005229792, US2004113032, GB2444698, GB2444698,

Abstract:

Source: US5553531A A multi-functional cooking device that combines a steamer, skillet, griddle, fryer, kettle and oven into a single unit. The cooking device has a hollow base and a hollow lid. The base and the lid mate to provide an enclosed space for heating food. Heating means are associated with the base, to heat the interior space. Means are provided for lifting the lid relative to the base, and for maintaining the lid at a set position relative to the base. The base is adapted to receive water, so that when it is heated, steam will be formed in the space enclosed by the lid and base. The lower edge of the lid is recessed, and receives in the recess the upper edge of the base, whereby the mating of the two edges provides a junction to maintain steam within the space formed by the lid and base. A mechanism is provided for tilting the base at a predetermined angle, to facilitate the use of the base for grilling or frying foods.



Priority: DE19800006417U 19800308**Family:**

Publication number	Publication date	Application number	Application date
DE8006417 U1	19800619	DE19800006417U	19800308

Probable Assignee: GEKA WERK REINHOLD KLEIN KG 3573 GEMUENDEN**Assignee(s):** GEKA WERK REINHOLD KLEIN KG 3573 GEMUENDEN

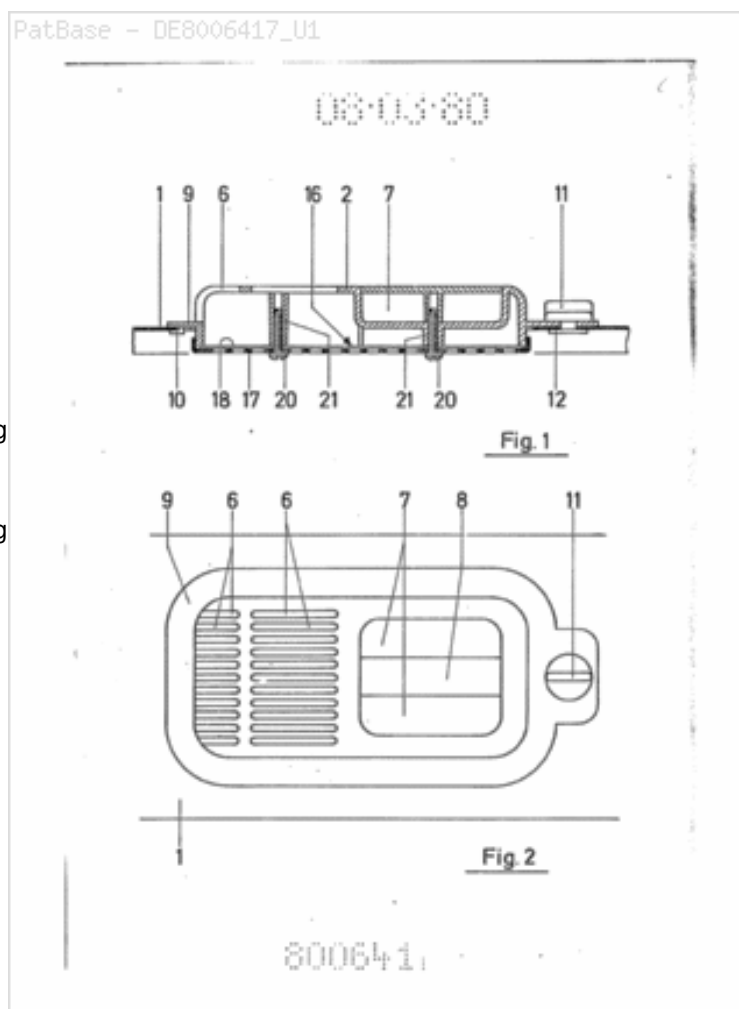
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

CPC: A47J37/128**European class:** A47J37/12M1[Classification Explorer](#)**Forward Citations:** WO9908581, US6334888, FR2767462, EP1003410,**Abstract:**

Source: DE8006417U1 (Claim 1) 1) Deckel fuer eine Friteuse, dadurch gekennzeichnet, dass er zweiteilig ausgebildet ist und aus einem auf den oberen Friteusenrand aufsetzbaren, eine Mittelloeffnung (3) aufweisenden Rahmenteil (1) und einen Einsatz (2) besteht, der auf einen die Mittelloeffnung (3) umgebenden Randabschnitt des Rahmenteils (1) aufgesetzt ist, die Mittelloeffnung (3) abdeckt und loesbar mit dem Rahmenteil (1) verriegelt ist.

Machine translation: (Claim 1) 1) cover for a deep fryer, characterized in that it is designed in two parts and consists of a on the upper Ren fryer edge can be placed, a Mittelloeffnung (3) having a frame part (1) and an insert (2) exists, which is on the one hand the Mittelloeffnung (3) surrounding edge portion of the frame part (1) is placed, the center opening (3) covering and releasably locked to the frame part (1).



0) US2002139365A – MODIFIED WHEEL RIM ARTICLES OF MANUFACTURE

90) Family number: 23978379 (US2002139365A)

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Title: Modified wheel rim articles of manufacture

Priority: US19980057931 19980409 US20010761894 20010117 US20010761895 20010117

Family:

Publication number	Publication date	Application number	Application date
US2002139365 AA	20021003	US20010761895	20010117
US2002140256 AA	20021003	US20010761894	20010117

Probable Assignee: WHEEL TOUGH COMPANY INC

Assignee(s):^(std): WHEEL TOUGH CO INC ; WHEEL TOUGH COMPANY INC

Assignee(s): THE WHEEL TOUGH COMPANY INC

Inventor(s):^(std): COLLINS JEFFREY P ; GREENE CHRIS D ; STAKEMAN RUDOLPH J ; WALKER JERRY L

International class
(IPC 8-9): [A47J37/07](#) (Advanced/Invention);
[A47J37/07](#) (Core/Invention)

International class
(IPC 1-7): [B60N2/32 F24C1/16](#)

CPC: [A47J37/0704](#)

European class: [A47J37/07B](#)

US class: [126/275 126/275R 297/118 297/451.6](#)

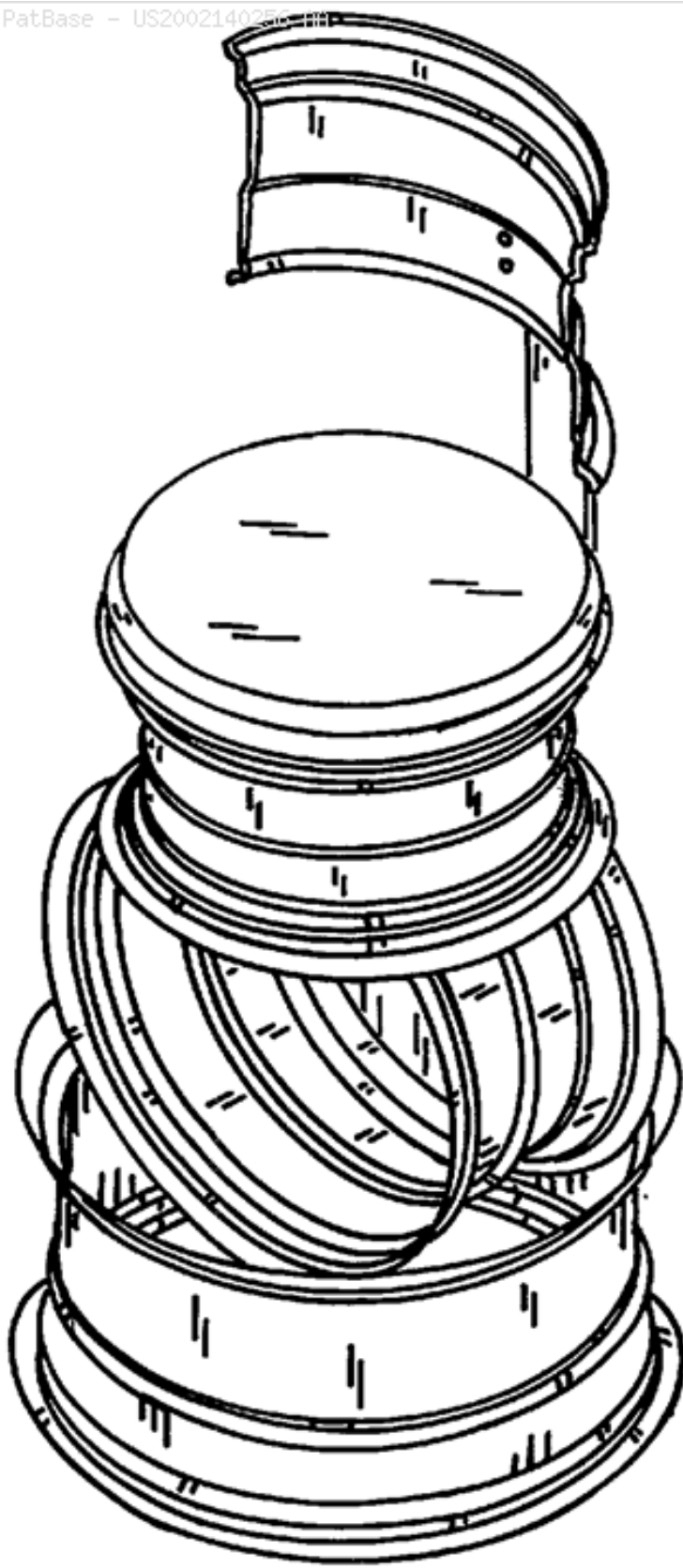
[Classification Explorer](#)

Forward Citations: US2011203570, US2006087162,

Abstract:

Source: US2002139365A An article of manufacture constructed from modified wheel rims to provide both utilitarian and esthetically pleasing articles utilizes one or more modified wheel rims. The wheel rim modifications provide an article of manufacture with a variety of functions.

PatBase - US2002140256-1



91) Family number: 31712935 (US2005039737A)

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Title: BAKING ASSEMBLY FOR BATTERED FOOD ITEMS**Priority:** US20030644405 20030819

Family:	Publication number	Publication date	Application number	Application date
	<u>US2005039737 AA</u>	20050224	US20030644405	20030819
	<u>US7024987 BB</u>	20060411	US20030644405	20030819

Probable Assignee: HABER ROBERT H**Assignee(s):^(std):** HABER ROBERT H**Inventor(s):^(std):** HABER ROBERT H**Inventor(s):** HABER ROBERT**Agent(s):** DAVID J SIMONELLI CLARK HILL PLC; CLARK HILL PLC

International class A47J37/00 A47J37/06 (Advanced/Invention);
 (IPC 8-9): A47J37/00 A47J37/06 (Core/Invention)

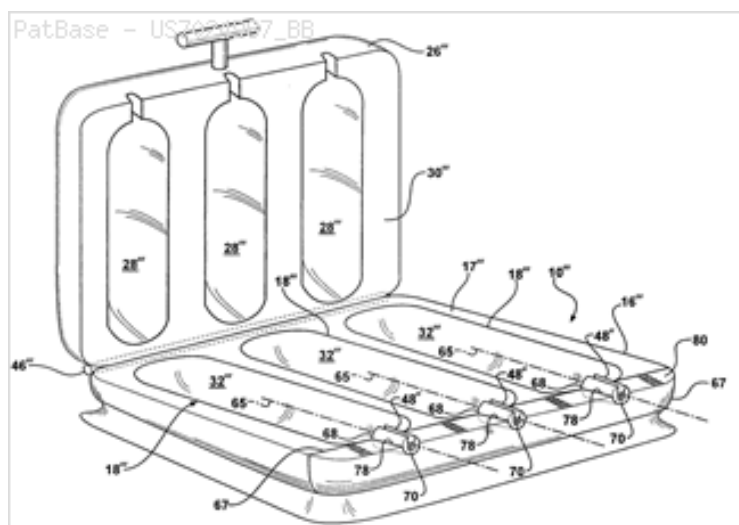
International class A47J9/00
 (IPC 1-7):

CPC: A47J37/0611**European class:** A47J37/06B**US class:** 126/3 126/30 99/372 99/374 99/384 99/419 99/441 993/840[Classification Explorer](#)**Cited documents:** US6286418 BA, US5671658 A, US4967650 A, US4175483 A, US2282500 A, US1990412 A, US1546347 A,

Forward Citations: WO12022283, USD758131, USD752387, USD751870, USD689323, US9596959, US9078541, US8915179, US8671830, US8539877, US7180034, US2014272022, US2012282385, US2012210882, US2010199858, US2006174777, US2005217495, ITPI20130102,

Abstract:

Source: US2005039737A A baking assembly bakes a food item prepared to be baked on a stick with a batter. The baking assembly includes a first heating element including a reservoir for receiving the batter and the food item therein. The reservoir defines a longitudinal axis. A second heating element includes a cavity that complements the reservoir. A hinge secures the first heating element to the second heating element allowing the second heating element to pivot over the first heating element such that the reservoir and the cavity create a heating hollow to bake the food item and the batter therein. A stick retainer receives and retains the stick in an orientation such that the food item is coaxial with the reservoir.



92) Family number: 49727668 (CN201996365U)

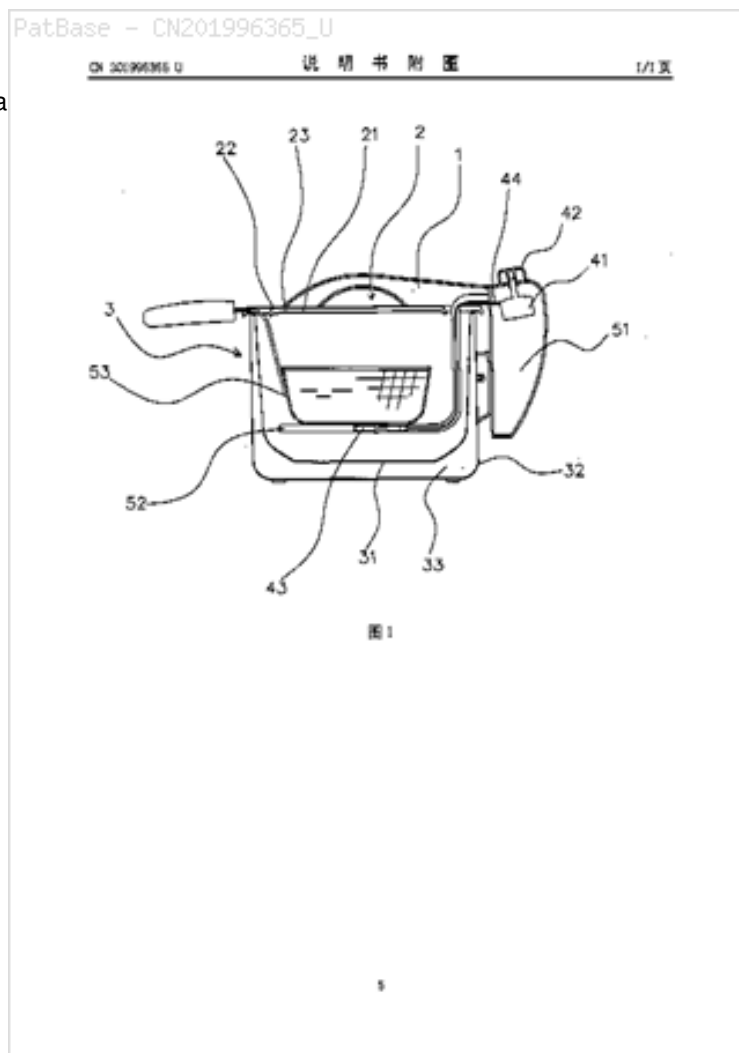
© PatBase

Title: Double-layer heat-insulation utensil used in deep fryer**Priority:** CN201120026385U 20110126

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201996365 U</u>	20111005	CN201120026385U	20110126

Probable Assignee: FOSHAN SHUNDE DISTR JIANFENGXING TRADE CO LTD**Assignee(s):^(std):** FOSHAN SHUNDE DISTR JIANFENGXING TRADE CO LTD**Assignee(s):** FOSHAN SHUNDE DISTRICT JIANFENGXING TRADE CO**Inventor(s):^(std):** QINGJIAN MA**Inventor(s):** MA QINGJIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201996365U The utility model discloses a double-layer heat-insulation utensil used in a deep fryer, which comprises a handle, a pot cover, a pot body, a temperature controller and a heating device, wherein the pot cover comprises an inner cover and an outer cover which are corresponding in the shape, the connected part of the outer cover and the inner cover is hermetically connected to form an relatively hermetic upper middle layer, and the upper middle layer is a vacuum or insulating material filling layer; and the pot body comprises an inner liner and an outer body, the inner liner is embedded into the outer body, the connected part of the inner liner and the outer body is hermetically connected to form an relatively hermetic lower middle layer, and the lower middle layer is a vacuum or insulating material filling layer. Not only is the problem that the outer wall of the deep fryer is hot solved, the work efficiency of the deep fryer is improved, and the processing time is shortened, but also a better heat preservation effect is achieved, so that the double-layer heat-insulation utensil used in the deep fryer is an energy-saving, high-efficient and safe product.



93) Family number: 50608055 (PH2010000459U)

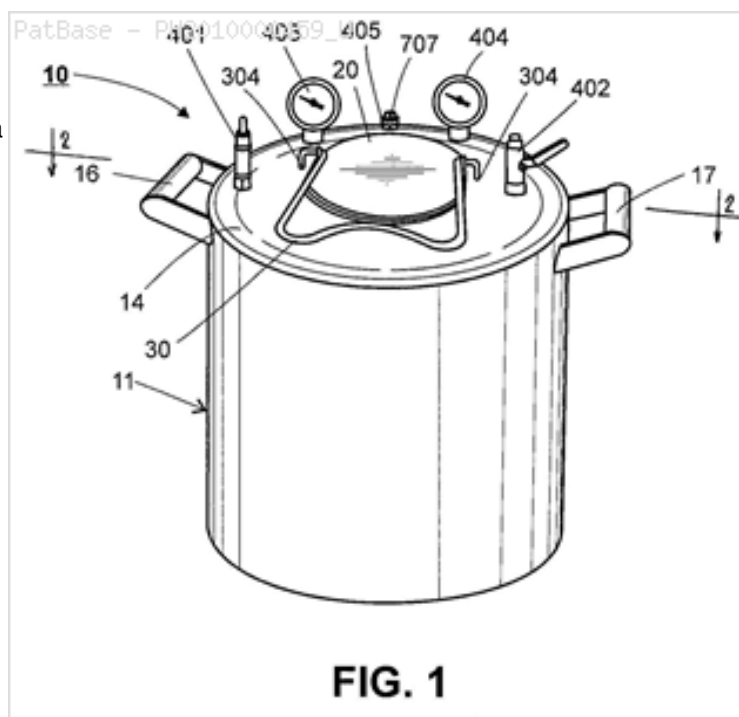
© PatBase

Title: IMPROVED MULTI-PURPOSE PRESSURE COOKER**Priority:** PH20100000459U 20100917**Family:**

Publication number	Publication date	Application number	Application date
<u>PH2010000459 U</u>	20111114	PH20100000459U	20100917

Probable Assignee: MANUEL M MALONZO**Assignee(s):** MANUEL M MALONZO**Inventor(s):^(std):** MANUEL M MALONZO**International class** A47J27/08 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: PH2010000459U The present utility model relates to improved multi-purpose pressure cooker comprising an enclosed body having a inversed cover member which have a locking means which also serves as a handle which when rotated locks the cover to the opening of the cooker by pressing the locking means against the top wall of the cooker. At pressure, the cover's sealing means is being forced against the top wall so that it will not be dislodged and to effectively secure the pressure therein. This cooker could be used for autoclave, pressure canner, pressure distiller-condenser and as a pressure deep fryer aside from cooking purpose by providing and attaching other elements thereof.



94) Family number: 56140878 (US2016270596A)

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Title: HOUSEHOLD ELECTRICAL AIR FLOW COOKING APPLIANCE
Priority: FR20120059069 20120926 WO2013FR52150 20130918

Family:	Publication number	Publication date	Application number	Application date
	CA2885909 AA	20150323	CA20132885909	20130918
	CN103654459 A	20140326	CN201310438246	20130924
	CN203619383 U	20140604	CN201320589120U	20130924
	EP2900112 A1	20150805	EP20130774749	20130918
	FR2995775 A1	20140328	FR20120059069	20120926
	FR2995775 B1	20140926	FR20120059069	20120926
	JP2015530171 T2	20151015	JP20150533665T	20130918
	US2016270596 AA	20160922	US20130431106	20130918
	WO14049231 A1	20140403	WO2013FR52150	20130918

Probable Assignee: SEB SA

Assignee(s):^(std) SEB AB ; SEB SA

Assignee(s): ALLEMAND BERNARD ; PETITALLOT JOHANN

Inventor(s):^(std) ALLEMAND BERNARD ; BERNARD ALLEMAND ; JOHANN PETITALLOT ; PETITALLOT JOHANN

Agent(s): GOUDREAU GAGE DUBUC; CEMELI ERIC PHILIPPE LAURENT; SEB DEVELOPPEMENT ERIC CEMELI; SEB DEVELOPPEMENT; TANI AND ABE PC; SEB DEVELOPPEMENT CEMELI ERIC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class ^(IPC 8-9): [A47J36/06](#) [A47J37/04](#) [A47J37/06](#) [A47J37/12](#) [A47J39/00](#) (Advanced/Invention)

CPC: [A47J37/0641](#) [A47J37/1209](#) [A47J39/003](#)

US class: [99/339](#)

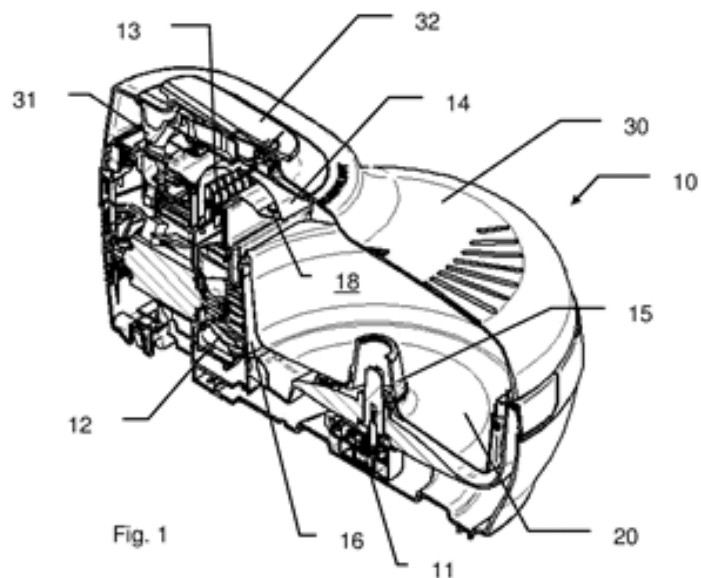
[Classification Explorer](#)

Cited documents: WO8700261 A1, US2024062 A, US2011185917 AA, US2010303986 AA, US2008163764 AA, FR2945200 B1, EP2248452 A1,

Abstract:

Source: US2016270596A Provided is a household electrical appliance for cooking and/or reheating food including: a housing having a tank arranged such as to receive the food to be cooked and/or reheated; a removable cover arranged such as to close the tank while cooking and/or reheating; at least one heating element and a fan arranged such as to create a closed hot air flow while cooking and/or reheating; and a ventilation sheath that includes a suction inlet, arranged on one side of the tank, and a ventilation outlet above the tank. Said ventilation sheath is arranged such as to direct the hot air flow onto the food while cooking and/or reheating. Said appliance is characterized in that the ventilation sheath is in one piece and separated from the cover.

PatBase - W014049231_A1



95) Family number: 33801354 (UY3606Q)

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Title: FREIDORA**Priority:** EM20050355128F 20050614 US20050243668F 20051129

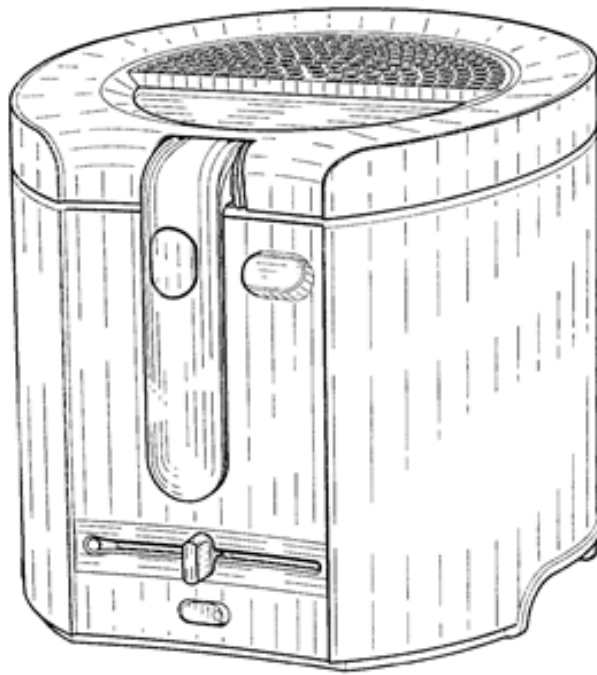
Family:	Publication number	Publication date	Application number	Application date
	CA113808 S	20070115	CA20050113808F	20051207
	IL41696 S1	20071206	IL20050041696F	20051206
	<u>TWD114928 S1</u>	20070111	TW20050307636F	20051213
	<u>USD532248 S1</u>	20061121	US20050243668F	20051129
	<u>UY3606 Q</u>	20060630	UY20050003606F	20051206

Probable Assignee: KONINKL PHILIPS ELECTRONICS NV**Assignee(s):^(std):** KONINKL PHILIPS ELECTRONICS NV ; PHILIPS ELECTRONICS LTD**Assignee(s):** KONINKLIJKE PHILIPS ELECTRONICS N V ; KONINKLIJKE PHILIPS ELECTRONICS N.V. ; PHILIPS ELECTRONICS KONINKLL NV**Inventor(s):^(std):** ALLENDE FRITSCH PAULA ANDREA**Inventor(s):** FRITSCH, PAULA ANDREA ALLENDE**Agent(s):** SMART AND BIGGAR**US class:** D7/354**Locarno class:** 07/02[Classification Explorer](#)**Cited documents:** USD489935 S1, USD473097 S1, USD465125 S1, USD464526 S1, USD452795 S1, USD436795 S1, USD432348 S1, USD423277 S1, USD422447 S1, USD419824 S1, USD414072 S1, USD386646 S1, USD374588 S1,**Forward Citations:** USD760017, USD711183, USD680802, USD680801, USD680800, USD674651, USD672600, USD664801, USD653902, USD611758, USD611757, USD610392, USD609962, USD592008, USD557552, USD552921,

Abstract:

Source: CA113808S The design is the shape, configuration and pattern of the deep fryer as shown in the drawings. The most significant features are: the cylindrical shaped body with a flattened-off front portion where the handle is positioned as seen in Figure 1; the vertically elongated approximately U-shaped handle as seen in Figure 2; the semi-circular shaped element extending downward from the cover as shown in Figure 3; the downward sloping top portion from rear to front as shown in the side views of Figures 4 and 5; and the generally circular-shaped feature within the cover as seen in the top view of Figure 6, with a portion of the generally circular-shaped feature incorporating a plurality of generally circular elements. Drawings of the design are included wherein: Fig. 1: is a perspective view of the deep fryer; Fig. 2: is a front view thereof; Fig. 3: is a rear view thereof; Fig. 4: is a left side view thereof; Fig. 5: is a right side view thereof; Fig. 6: is a top view thereof; and Fig. 7: is a bottom view thereof.

PatBase - USD532248_S1



96) Family number: 11634123 (EP1029493A1)

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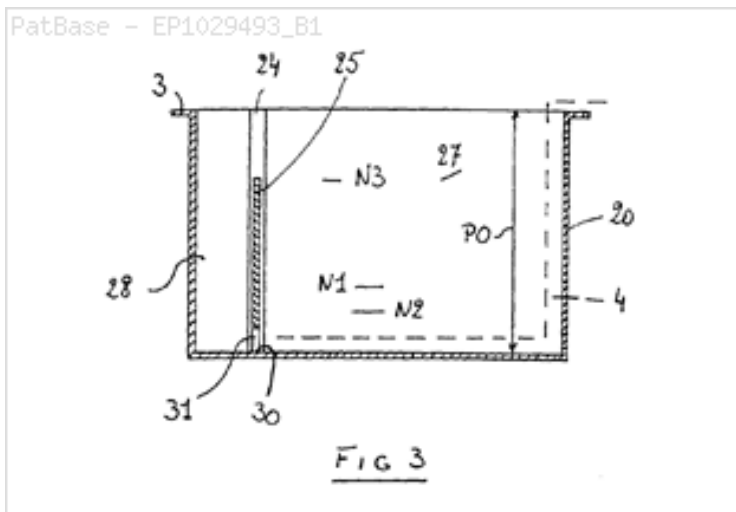
Title: Cooking device
Priority: BE19990000113 19990219
Family:

Publication number	Publication date	Application number	Application date
AT221333 E	20020815	AT20000870021T	20000216
BE1012477 AH	20001107	BE19990000113	19990219
DE60000291 D1	20020905	DE20006000291	20000216
DE60000291 T2	20030320	DE20006000291T	20000216
EP1029493 A1	20000823	EP20000870021	20000216
EP1029493 B1	20020731	EP20000870021	20000216

Probable Assignee: ARIAM S P R L
Assignee(s):^(std): ARIAM S P R L
Assignee(s): ARIAM S P R L CHASTRE
Inventor(s):^(std): JENICOT JEAN MARIE
Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
International class
 (IPC 8-9): [A47J37/12](#) (Advanced/Invention);
[A47J37/12](#) (Core/Invention)
International class
 (IPC 1-7): [A47J27/58](#) [A47J37/12](#)
CPC: [A47J37/1223](#)
European class: [A47J37/12D](#)
[Classification Explorer](#)
Cited documents: US5782164 A, US3933645 A, US3646882 A, EP0649622 A1, EP0067730 A1, DE3542909 A1,
Forward Citations: EP1224896,

Abstract:

The device has a cooking receptacle (20) for containing a cooking liquid which produces froth or foam, this receptacle having a bottom, lateral walls, and a top edge. There is a receptacle (28) for receiving this overflowing foam, or emulsion from the cooking liquid when it overflows a pre-determined level (N3), this foam is then transformed into a liquid in this receptacle and by means of a guide member is guided back below (31) the level of liquid in the receptacle. There is an arrangement (25) which prevents entry of the foam back into the cooking receptacle.



97) Family number: 21520828 (FR1510977A)

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Title: FRITEUSE ELECTRIQUE ELECTRIC FRYER (Machine translation)**Priority:** FR19660087090 19661212

Family:	Publication number	Publication date	Application number	Application date
	FR1510977 A	19680126	FR19660087090	19661212

Probable Assignee: MOULINEX SA**Assignee(s):^(std):** MOULINEX SA**Assignee(s):** MOULINEX S A

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

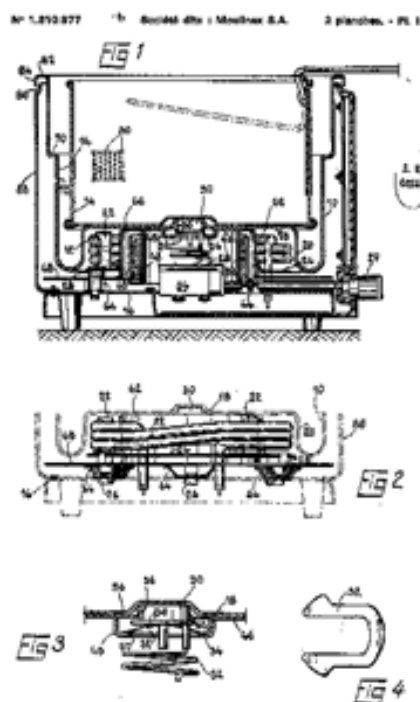
International class A47J37/12
 (IPC 1-7):

CPC: A47J37/1209**European class:** A47J37/12A1[Classification Explorer](#)**Forward Citations:** WO9604832, FR2804308, FR2723690, FR2659544, FR2657516, EP1121884, EP0587300,**Abstract:**

Source: FR1510977A (Claim 1) 1. Friteuse comprenant une cuve de cuisson chauffée par une résistance électrique et adaptée à recevoir un panier contenant des aliments à cuire, caractérisée en ce que la résistance chauffante présente la forme d'un anneau saillant sur la face supérieure d'un socle de support, tandis que le fond de la cuve présente la forme d'un chapeau adapté à coiffer ledit anneau de telle sorte que la résistance chauffante soit alors située à proximité immédiate de la paroi latérale dudit chapeau.

Machine translation: (Claim 1) 1. Fryer including a cooking vessel heated by an electrical resistance and adapted to receive a basket of food to cook, characterized in that the resistance heating presents as a raised ring on the upper surface of a support base, while the bottom of the tank presents the shape of a hat fits a style said ring so that the resistance heater is then located in the immediate vicinity of the side wall of said cap.

PatBase - FR1510977_A



Title: Deep fat cooking apparatus and method**Priority:** US19870119332 19871110

Family:	Publication number	Publication date	Application number	Application date
	<u>US4787301 A</u>	19881129	US19870119332	19871110

Probable Assignee: LITTLE CHIPPER INC**Assignee(s):^(std):** LITTLE CHIPPER INC**Inventor(s):^(std):** DECKER JOHN I ; HOATSON WILLIAM J

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

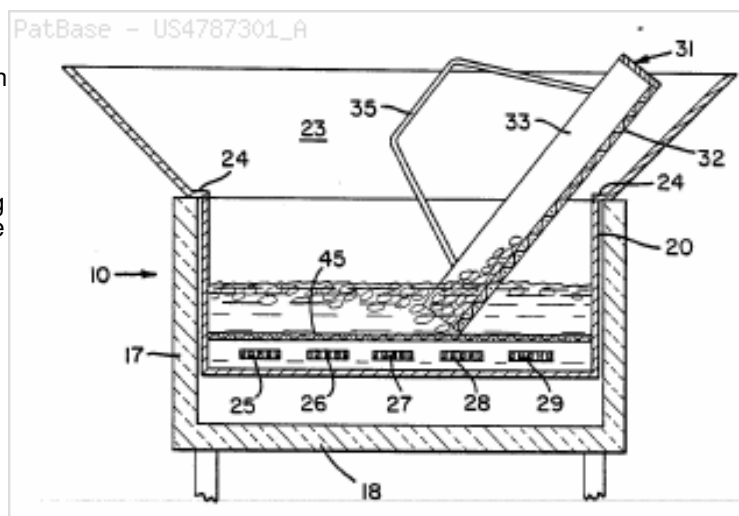
CPC: A47J37/12**European class:** A47J37/12**US class:** 219/422 99/336 99/403 99/409 99/410[Classification Explorer](#)

Cited documents: US4574183 A, US4508027 A, US4321859 A, US3919523 A, US3869972 A, US3626840 A, US3018716 A, US2848938 A, US2528776 A, US2367448 A, US2246854 A, US2196968 A, US2109212 A, US2053568 A, US1990351 A, GB190601768 A, GB1768,

Forward Citations: WO10054588, US9572455, US9220369, US8707857, US8186265, US5704279, US5595106, US5590587, US5558009, US2016058243, US2011214575, GB2476914,

Abstract:

Source: US4787301A A deep fat fryer, especially for potato chips, has a cradle screen with walls and lifting handles and means for supporting the cradle screen at a lower level within the cooking kettle, a cover screen with lifting handles being selectively insertable into the product above the cradle screen for stirring it or placed over the product and resting on the walls of the cradle screen for keeping the product submerged. When the oil is at a lower level, the cradle screen is removed from the kettle after an initial cooking period and inserted into the product for stirring it and is then supported at a higher level over the product for keeping it submerged. The cradle screen walls have an opening to permit scooping of the product into the cradle screen after cooking. The cooking method includes varying the heating rate in order to control the rate of temperature rise of the oil after it drops to its lowest point following loading of the product into the kettle.



Title: Frying pan
Priority: CN200820014184U 20080721

Family:	Publication number	Publication date	Application number	Application date
	CN201243978 Y	20090527	CN200820014184U	20080721

Probable Assignee: MINGYU SUN

Assignee(s):^(std): MINGYU SUN

Assignee(s): SUN MINGYU

Inventor(s):^(std): MINGYU SUN

Inventor(s): SUN MINGYU

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

[Classification Explorer](#)

Abstract:

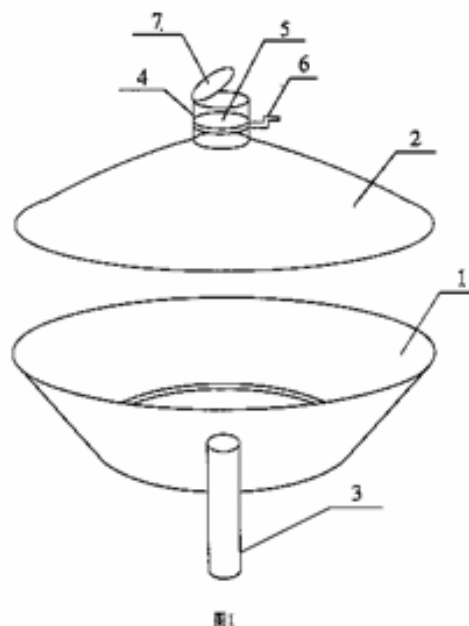
Source: CN201243978Y The utility model relates to a fryer which comprises a fryer body, a cover and a handle, wherein the center of the cover is provided with a column bulge by the processing way, the column bulge is internally provided with a circular baffle, and a crank is vertically inserted into the column bulge and then is fixedly connected with the edge of the circular baffle; the cover is made of transparent steel glass; and the top of the column bulge is provided with an upper cover. When food is fried, edible oil is poured in the fryer, the upper cover of the column bulge is opened after the cover is covered, and food is put on the baffle of the bulge; when the temperature of the edible oil reaches the standard, a user turns the crank to drive the baffle to rotate so as to cause the food drop in the edible oil in the fryer, and the frying purpose is realized. The utility model has the advantages of attractive appearance, special function, safety and reliability, simple process and the like.

PatBase - CN201243978_Y

200820014184.7

说明书附图

第1/1页



Title: Throws over Sa to dry the fryer (Machine translation)

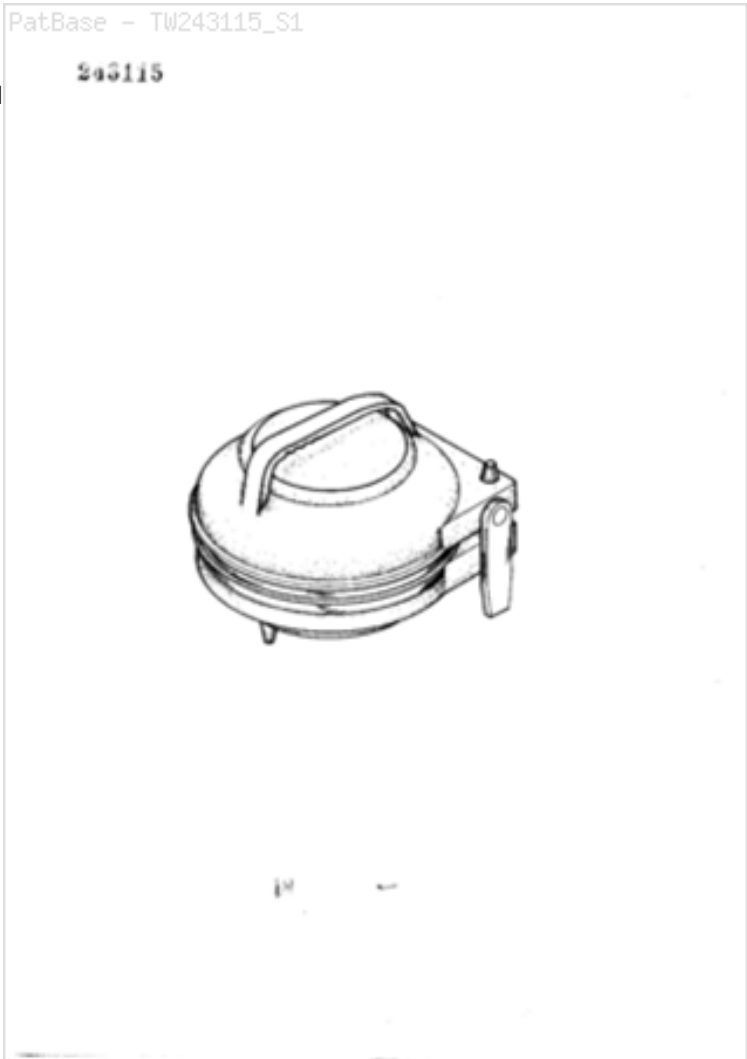
Family:	Publication number	Publication date	Application number	Application date
	<u>TW243115 S1</u>	19950311	TW19930307378F	19930903

Probable Assignee: YANG JIA INTO CORP

Assignee(s): YANG JIA INTO CORP

Abstract:
Source: TW243115S

Machine translation: This creation is one kind throws over Sa to dry the fryer the new model, You above Zhi one kind of pot cover the central committee has an oblate suddenly body, but on the oblate body cross is equipped with a handle suddenly, behind the pot the both sides is equipped with a sector rod-shaped stub respectively. ; Please refer various charts to show, pot cover of and the pot body the this creation respectively assumes a disc body approximately, only above the pot cover and the pot body bottom surface is equipped with an oblate suddenly body respectively, but the pot cover on the oblate body cross is equipped with a handle suddenly, the pot cover and the pot body rear area is equipped with an uprighter salient point respectively, the salient point both sides supposes a sector rod-shaped stub respectively, but this stub peak assumes the semicircle, the bottom end is gradually is narrow by the width, and some third stub supposes in the bottom of the pot front, the whole presents full, the lovable shape. ; In summary, contour of the this creation primarily extends the straight line by the circular, union shape the duplicate handle and the pot cover all has one kind of special esthetic sense, honestly is one uniquely, the outstanding new model design.



0) DE4338736A1 – SOLAR POWERED COOKER AND/OR HEATER WITH HEAT EN...

101) Family number: 11540653 (DE4338736A1)

© PatBase

Title: SOLAR POWERED COOKER AND/OR HEATER WITH HEAT ENERGY STORAGE

Priority: DE19934338736 19931112

Family:	Publication number	Publication date	Application number	Application date
	<u>DE4338736 A1</u>	19950524	DE19934338736	19931112

Probable Assignee: WIETRZICHOWSKI ARNOLD PROF DIP

Assignee(s):^(std): WIETRZICHOWSKI ARNOLD PROF DIP

Assignee(s): WIETRZICHOWSKI ARNOLD PROF DIPL ING ; WIETRZICHOWSKI ARNOLD PROF DIPL ING 71229 LEONBERG DE

Inventor(s):^(std): WIETRZICHOWSKI ARNOLD PROF DIP

Inventor(s): WIETRZICHOWSKI ARNOLD PROF DIPL ING

International class
(IPC 8-9): F24J2/02 F24J2/16 F24J2/34 (Advanced/Invention);
F24J2/02 F24J2/04 F24J2/06 (Core/Invention)

International class
(IPC 1-7): F24J2/02 F24J2/52

CPC: F24J2/16 F24J2/02 F24J2/34 Y02B40/18 Y02E10/40

European class: F24J2/02 F24J2/16 F24J2/34 F24J2/36 Y02B40/18 Y02E10/40

[Classification Explorer](#)

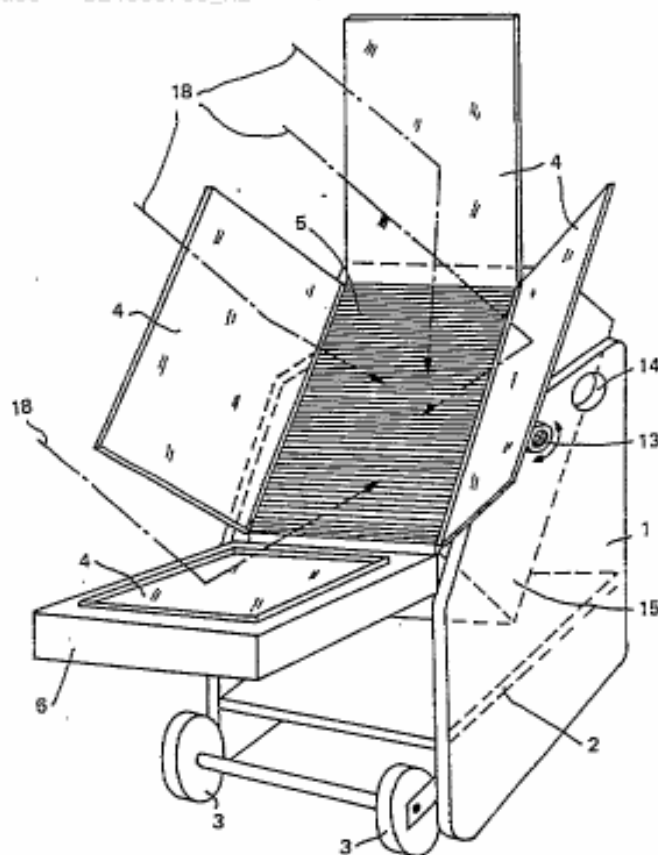
Cited documents: US4848320 A, US3025851 A, DE3706348 A1, DE3607484 A1, DE3544039 A1, DE3414442 A1, DE3226782 A1, DE3120520 A1, DE2745324 A1,

Forward Citations: WO11009200, WO11000522, WO11000522, WO09037386, WO03098125, US8127759, JP2012533370, EP2459939, EP2459939, EP2457029, EP2457029,

Abstract:

Source: DE4338736A1 The cooker or heater is connected with a solar energy absorber and with a cooking and/or roasting system thermally, for heat energy transmission. The heat energy storage has a core (11) of concrete or similar material. The cooking and roasting system (10, fig.5) is fitted on one side of the core (11). The solar absorber (5) in the form of an energy absorbing metal sheet is fitted on the opposite side, and is thermally connected. Hinged mirrors (4) are arranged on the side of the solar absorber (5) at the heat storage, for additional solar energy reception.

PatBase - DE4338736_A1



Title: Improvements in and relating to lever and other handles used for operating latch bolts

Priority: GB19350000389 19350105

Family:	Publication number	Publication date	Application number	Application date
	<u>GB448053 A</u>	19360602	GB19350000389	19350105

Probable Assignee: FRANCIS JOSEPH BUTTER

Assignee(s):^(std): EDWARD CAMDEN FRYER ; FRANCIS JOSEPH BUTTER ; JOSIAH PARKES AND SONS LTD

Assignee(s): JOSIAH PARKES AND SONS LIMITED

International class
(IPC 8-9): E05B3/06 (Advanced/Invention);
E05B3/00 (Core/Invention)

International class
(IPC 1-7): E05B15/02

CPC: E05B3/065

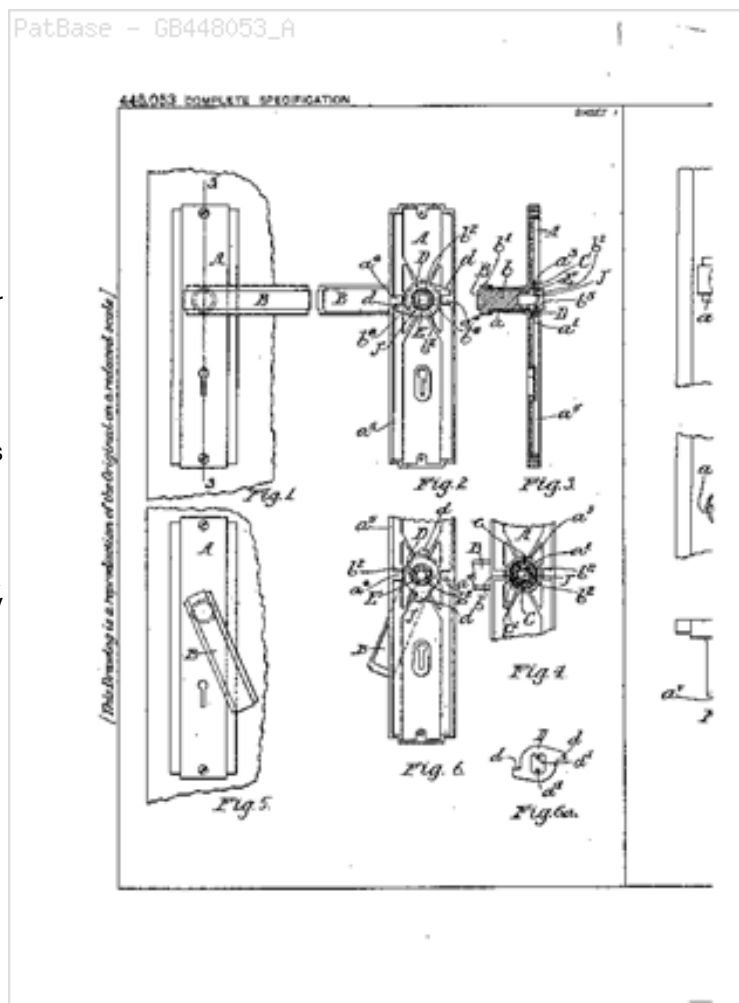
European class: E05B3/06S

[Classification Explorer](#)

Forward Citations: US4065165,

Abstract:

Source: GB448053A 389. [Class 44] A lever-type door handle B is returned to its normal position by a scroll spring housed behind the door plate. The spring C surrounds the handle shank b and its ends are anchored to the shank and to the edge of the recess a <1> in which the spring is housed. The recess is closed by a stop plate D with horns d which engage fixed stops a <4> on the door plate. Extending inwardly from the inner periphery of the stop plate D are two tongues d which enter slots in the shank b and prevent relative rotation of the stop plate and the shank. The stop means may comprise a peg F on the shank which engages a cut away portion on the end of the socket a. A second cutaway portion is provided for use when the handle is fitted the opposite hand. Two washers G, H cover the spring recess, the outer washer locking the inner when turned through 90. The spring may be mounted below the shank. To permit of lateral movement between the shank and the socket, the shank takes a bearing only at the forward end.

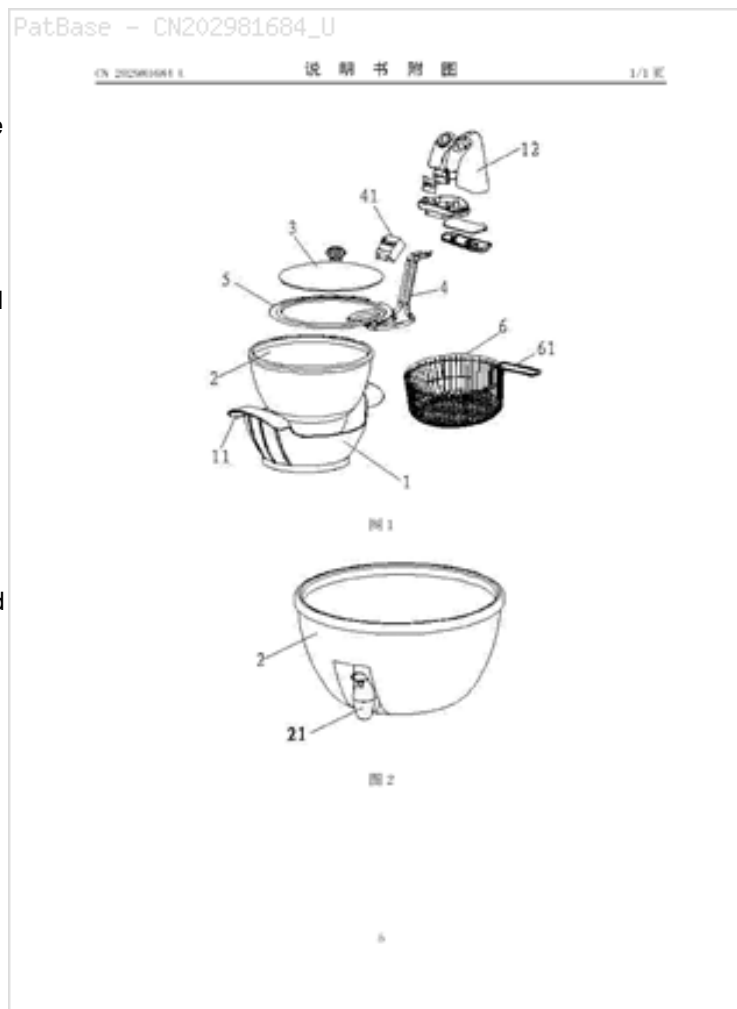


Title: GLASS FRYER WITH OIL DRAINAGE DEVICE**Priority:** CN201210577262 20121227 CN201220730126U 20121227

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102987931 A</u>	20130327	CN201210577262	20121227
	<u>CN202981684 U</u>	20130612	CN201220730126U	20121227

Probable Assignee: HU WEITIAN**Assignee(s):^(std):** HU WEITIAN**Inventor(s):^(std):** HU WEITIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Cited documents:** CN2792373 Y, CN2153309 Y, CN2144986 Y, CN202981684 U, CN102178468 A,**Forward Citations:** CN102987931,**Abstract:**

Source: CN202981684U The utility model discloses a glass fryer with an oil drainage device. The glass fryer comprises a protection base, wherein a frying cavity is installed on the protection base, a cover body is arranged at the top of the frying cavity, a heater is further arranged in the frying cavity, the top of the protection base is opened, and the protection base is a transparent container. The frying cavity is made of transparent high borosilicate glass, a through hole is arranged on the lateral side of the frying cavity, an oil drainage switch is installed in the through hole, a sealing silica gel ring is installed on the periphery of the cover body, a frying basket is arranged in the frying cavity, a handle is arranged on the lateral side of the frying basket, and two lifting handles are symmetrically arranged on two lateral sides of the protection base. A control table is further arranged on the protection base, an intelligent control circuit is installed in the control table and connected with a heater, and a temperature controller is further installed on the heater. The glass fryer is simple and reasonable in structural design, safe, reliable, environment-friendly, sanitary, convenient to use and capable of conveniently and fast monitoring the frying process at any time.



104) Family number: 63991193 (MX2015001482A)

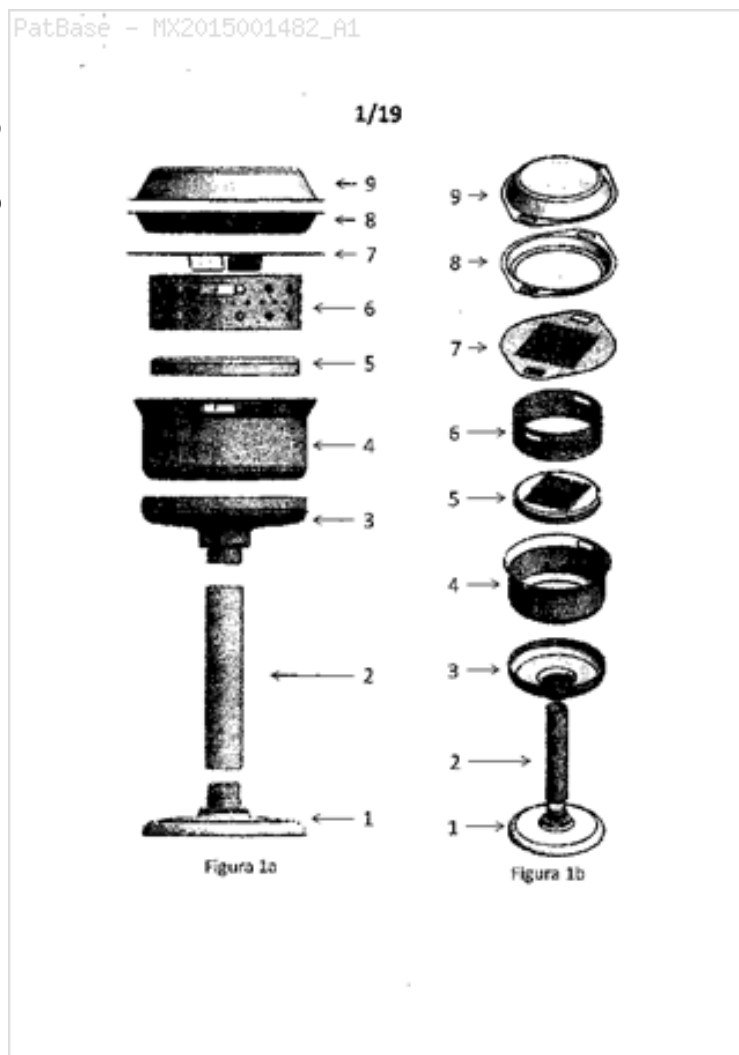
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Title: MULTIFUNCTIONAL CONVERTIBLE GRILLING DEVICE.**Priority:** MX20150001482 20150130

Family:	Publication number	Publication date	Application number	Application date
	<u>MX2015001482 A1</u>	20160729	MX20150001482	20150130

Probable Assignee: GUERRERO JORGE ALDAPE**Assignee(s):^(std):** GUERRERO JORGE ALDAPE**Assignee(s):** JORGE ALDAPE GUERRERO**Inventor(s):^(std):** GUERRERO JORGE ALDAPE**Inventor(s):** JORGE ALDAPE GUERRERO**International class** A47J37/00 (Core/Invention)
(IPC 8-9).**CPC:** A47J37/00[Classification Explorer](#)**Abstract:**

The present disclosure is related to a multifunctional convertible grilling device intended to be a useful tool with multiple configurations. The chef will have the option to use all the parts of the invention, or only those to serve his purpose. The present invention is intended to be the only tool for the person who loves the art of sharing the culinary arts and uses different ways to prepare food. The multifunctional convertible grilling device claims to be the tool that covers all the needs of the chef, allowing cooking food in different ways or techniques, as well as it can be used as garden heater. Having so many features with so few parts, allows both, space-saving storage and transportation convenience. This invention has parts with double or triple functionality, converting it into something innovative. The multifunctional convertible grilling device does not have screws or any other external fixation methods, making it something simple to configure and assemble. Therefore, the present invention is aimed to be the only tool to prepare food with different cooking techniques; such as: BBQ grill type, oven, pressure cooker type, wok pan, paella pan and even as garden heater, or any other configuration that the chef's imagination could offer him.



105) Family number: 33121859 (US2006156926A)

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Title: METHOD AND APPARATUS FOR ODOR CONTROL USING PANELS OF ACTIVATED CARBON CLOTH**Priority:** US20050287721 20051128 US20050645465P 20050120

Family:	Publication number	Publication date	Application number	Application date
	<u>US2006156926 AA</u>	20060720	US20050287721	20051128
	<u>US8192537 BB</u>	20120605	US20050287721	20051128

Probable Assignee: ALEMAO THADDEUS**Assignee(s):^(std):** ALEMAO THADDEUS**Inventor(s):^(std):** ALEMAO THADDEUS**Agent(s):** ALFRED M WALKER; LEE GROSSKTENZ; ALFRED M; JOHN F

International class B01D53/02 (Advanced/Invention);
 (IPC 8-9): B01D53/02 (Core/Invention)

CPC: A61L9/014 B01D53/0407 B01D2253/102 B01D2253/25 B01D2257/90 B01D2259/4541 B01J20/20 B01J20/28033**European class:** A61L9/014 B01D53/04C B01J20/20 B01J20/28D24 L01D253/102 L01D253/25 L01D257/90 L01D259/45P**US class:** 126/383.1 96/108 96/108P 96/134[Classification Explorer](#)

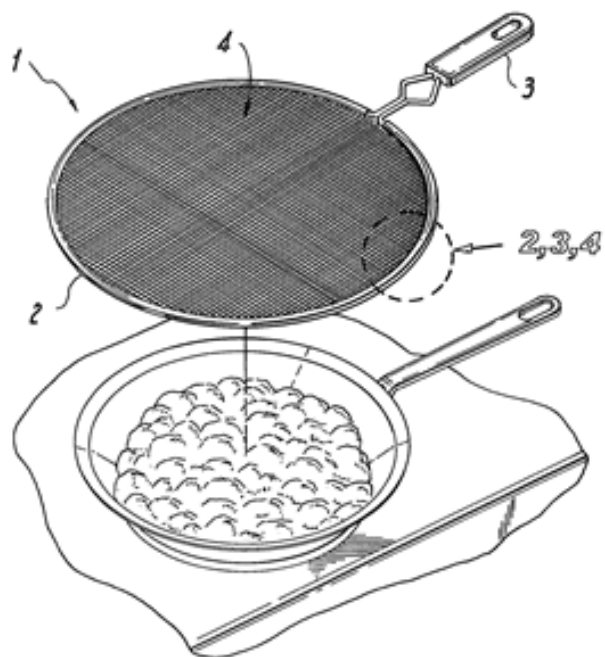
Cited documents: US6997975 BB, US6565627 BA, US6497738 BB, US6430031 BA, US6412628 BA, US6364936 BA, US6346143 BA, US6056146 A, US6029652 A, US5912423 A, US5814396 A, US5772738 A, US5690922 A, US5584234 A, US5494500 A, US5458772 A, US4944884 A, US4415342 A, US3822698 A, US3343345 A, US2999559 A, US2587773 A, US2524554 A, US2009142224 AA, US2007151877 AA, US2005172813 AA, US2004187702 AA, US2004173099 AA, US2004069154 AA, US2004055079 AA, US2003205131 AA, US2003170200 AA, US2003049187 AA, US2003010767 AA, US2002185013 AA, US2002129711 AA, US1942900 A, US1622351 A,

Forward Citations: WO15073334, USD778128, USD764225, USD727091, USD677522, US9446889, US2014290496, US2012175367, US2007266684,

Abstract:

Source: US2006156926A A method of containing and reducing unwanted odors and fumes and removing those fumes from the immediate surroundings of the apparatus.

PatBase - US8192537_BB



106) Family number: 49815931 (CN202010060U)

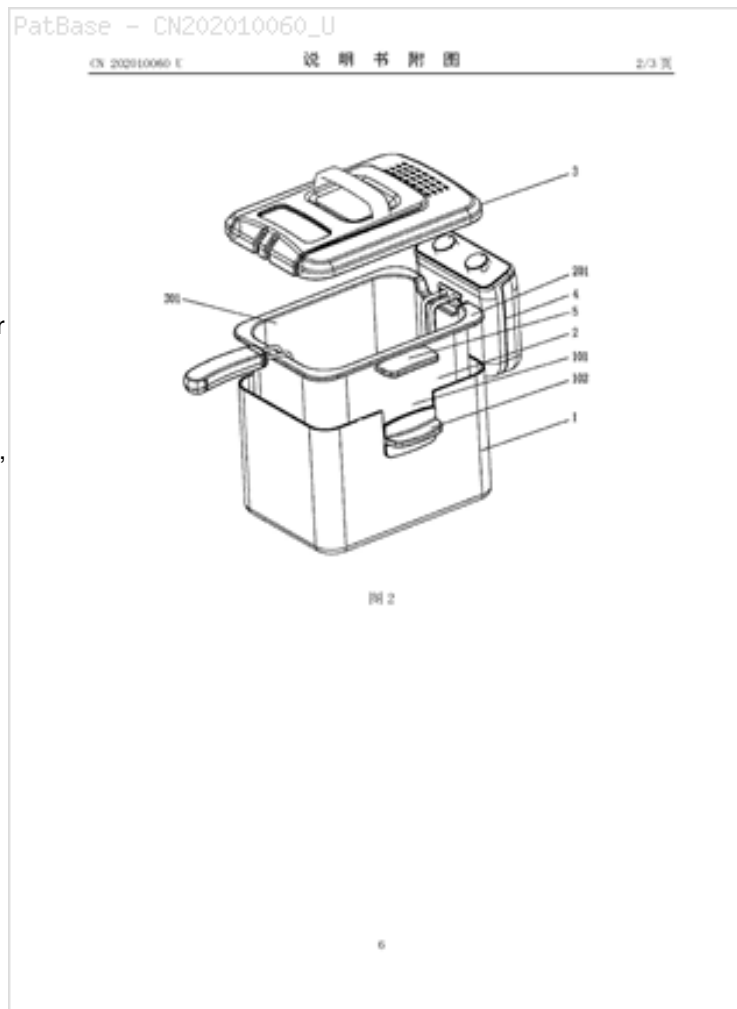
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Title: Fryer with improved inner pot structure**Priority:** CN201120074934U 20110321

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202010060 U</u>	20111019	CN201120074934U	20110321

Probable Assignee: YANMIN WU**Assignee(s):^(std):** YANMIN WU**Assignee(s):** WU YANMIN**Inventor(s):^(std):** YANMIN WU**Inventor(s):** WU YANMIN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202010060U The utility model relates to a fryer with an improved inner pot structure, comprising an outer pot body, an inner pot body detachably sleeved in the outer pot body, a pot cover, and a heating apparatus. The heating apparatus is fixed and extends into the inner pot body; at least one heat insulation type inner pot handle is connected on the outer wall of the inner pot along an opening; and the outer pot corresponding to the lower portion of the inner pot handle is opened with a groove suitable for disposing the inner pot handle. When the structure of the inner pot body of a fryer is applied, an inner pot handle prepared from heat insulation materials is provided on the outer wall of the inner pot close to the opening, when the inner pot body is required to be taken out from the outer pot body, a person just needs to grasp the inner pot handle, thus burning to a human body caused by too high temperature of the pot body is effectively avoided. The structure of the fryer with an improved inner pot structure is simple, reasonable, and practical, and flexibility of product usage is raised.



107) Family number: 53087533 (KR20130018451A)

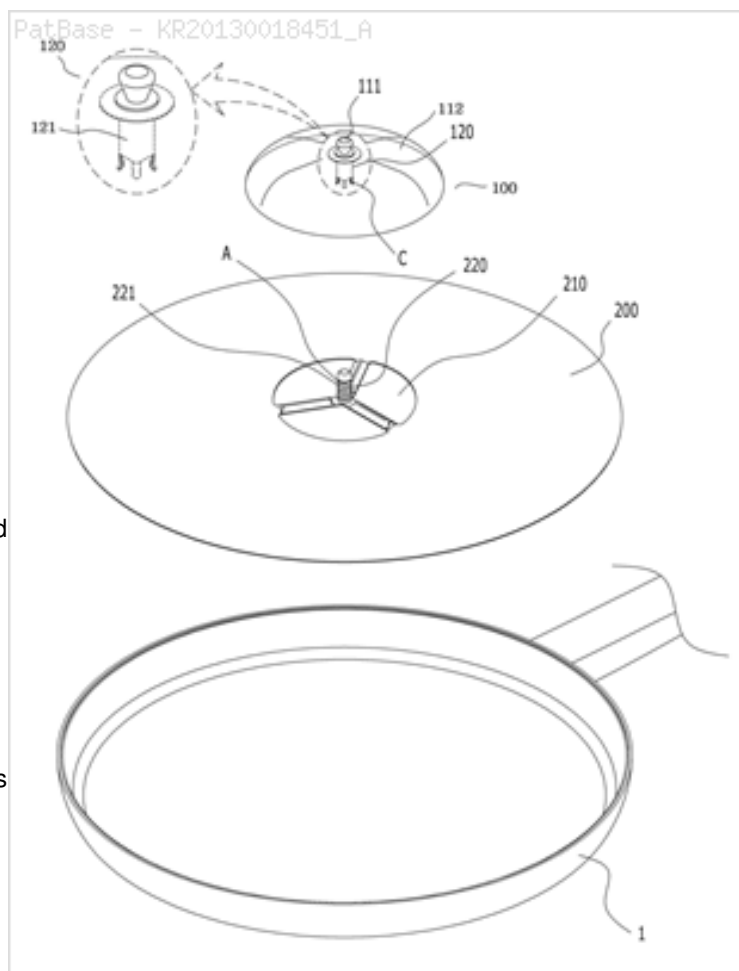
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Title: DEVICE FOR PROTECTING OIL SPATTER**Priority:** KR20110076548 20110801

Family:	Publication number	Publication date	Application number	Application date
	<u>KR101296259 B1</u>	20130813	KR20110078943	20110809
	<u>KR20130018451 A</u>	20130225	KR20110078943	20110809

Probable Assignee: CHAE SOO YUN**Assignee(s):^(std):** CHAE SOO YUN**Inventor(s):^(std):** CHAE SOO YUN**International class** A47J36/06 A47J36/38 A47J37/10 (Advanced/Invention)
(IPC 8-9).**CPC:** A47J37/101 A47J36/06 A47J36/38[Classification Explorer](#)**Cited documents:** KR20090008808 U,**Abstract:**

Source: KR20130018451A PURPOSE: An oil dispersion preventing apparatus of a fryer is provided to obtain an effect such as cooking with the pan closed, by preventing vapor from exhausting from the fryer by adhering the oil dispersion preventing cover to the fryer when boiling food in the fryer. CONSTITUTION: An oil dispersion preventing apparatus of a fryer comprises a frying pan(100) and an oil dispersion preventing cover(200). In the frying pan, a handle(111) is formed in the central upper part of the body(112) and a piston type connection rod(120) are formed in the central bottom part of the body. An oil dispersion preventing cover comprises a vapor outlet(210) which emits vapor or oil produced when cooking out of the fryer, and a connection part(220) which is connected in order to flow up and bottom with the piston type connection rod. The piston connection rod is manufactured with the metal is formed with the cylindrical body(121) in which the flange is formed in the top, and an elastic spring of a structure in which it is formed in the body bottom part and combine well to the connecting part. The size of body is 1.5~2.5 times greater than the vapor outlet. In the connection part, five or twenty convex regions(221) of constant interval and constant height are formed, and a fixed convex region is formed in the very top of the connection part, which is formed more deeper than the convex regions.



108) Family number: 53469744 (CN103004908A)

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Title: MARINE ELECTRIC FRYER WITH DUAL FIRE EXTINGUISHING METHOD**Priority:** CN201110288931 20110926

Family:	Publication number	Publication date	Application number	Application date
	CN103004908 A	20130403	CN201110288931	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO**Inventor(s):^(std):** CHEN MINGZHONG ; JU XINHUA ; ZHENG XIUNAN**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Cited documents:** WO07040457 A1, JP9010105 A2, DE20106001 U1, CN2748110 Y, CN2368545 Y, CN2219143 Y, CN202269325 U, CN201528620 U,**Abstract:**

Source: CN103004908A The invention discloses a marine electric fryer with a dual fire extinguishing method, and the electric fryer mainly comprises an electric heating fryer and a fire extinguishing device, and is characterized in that the fire extinguishing device comprises a fire extinguisher and a fire extinguishing actuation mechanism; and a steel wire rope in the fire extinguishing actuation mechanism is connected with a fire extinguishing handle which is arranged in a lower cover body and a fusible piece which is arranged in a gas collection hood of an upper cover body. According to the marine electric fryer with the dual fire extinguishing method, the structure is reasonable, the idea is ingenious, a product is practical and is convenient to operate due to a lot of market research, not only is automatic fire extinguishment realized but also manual fire extinguishment is realized; when the oil gas temperature is 3DEG C lower or higher than the melting point (70DEG C) of the fusible piece, the fire extinguishing actuation mechanism automatically acts to extinguish the fire; and if an operator finds a fire first, the operator can pull the fire extinguishing handle to manually extinguish the fire, so that the use is safe and the electric fryer has very high popularization value.

PatBase - CN103004908_A

CN 103004908 A

说明书附图

1/3页

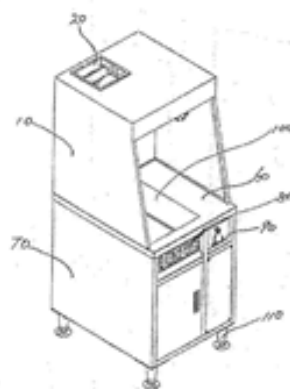


图1

109) Family number: 53529560 (TWD152825S)

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Title: The lightwave gas fryer (a) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152825 S1	20130411	TW20120302208F	20120420

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW309233, TW203432, KR300488867, KR3001105900001, JPD1130736,**Abstract:**

Source: TWD152825S

Machine translation: [Item purposes; the creation of a "light gas fryer (a)", especially a high temperature vortex cyclone to baking ingredients microcomputer control light gas fryer.; Creative Features]; shown in the drawings, the creation of "light gas fryer (a)" is mainly composed of a base and a cover; center of the base receiving a handle on both sides of the pot, the base and the cover is formed on the side of a cantilever, cantilever side power outlet other side of the key switch, the cantilever pivotally connected components can be controlled to cover body lift Kai and off whole family; cover the upper part of the body has a membrane keypad control panel and digital display, cover the lower part of the body is fully transparent heat-resistant glass lid, the lid equipped with light tube (halogen electric loop) and the rotating fan, high temperature vortex cyclone generated by the rotating fan to pot ingredients for the baking heat; the creation of sleek, with the novelty of visual effects and creative.



0) CN203524518U – AIR FRYER WITH SWITCH PROTECTION DEVICE

110) Family number: 56171429 (CN203524518U)

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Title: AIR FRYER WITH SWITCH PROTECTION DEVICE

Priority: CN201320634563U 20131014

Family:	Publication number	Publication date	Application number	Application date
	<u>CN203524518 U</u>	20140409	CN201320634563U	20131014

Probable Assignee: LIN WEI

Assignee(s):^(std): LIN WEI

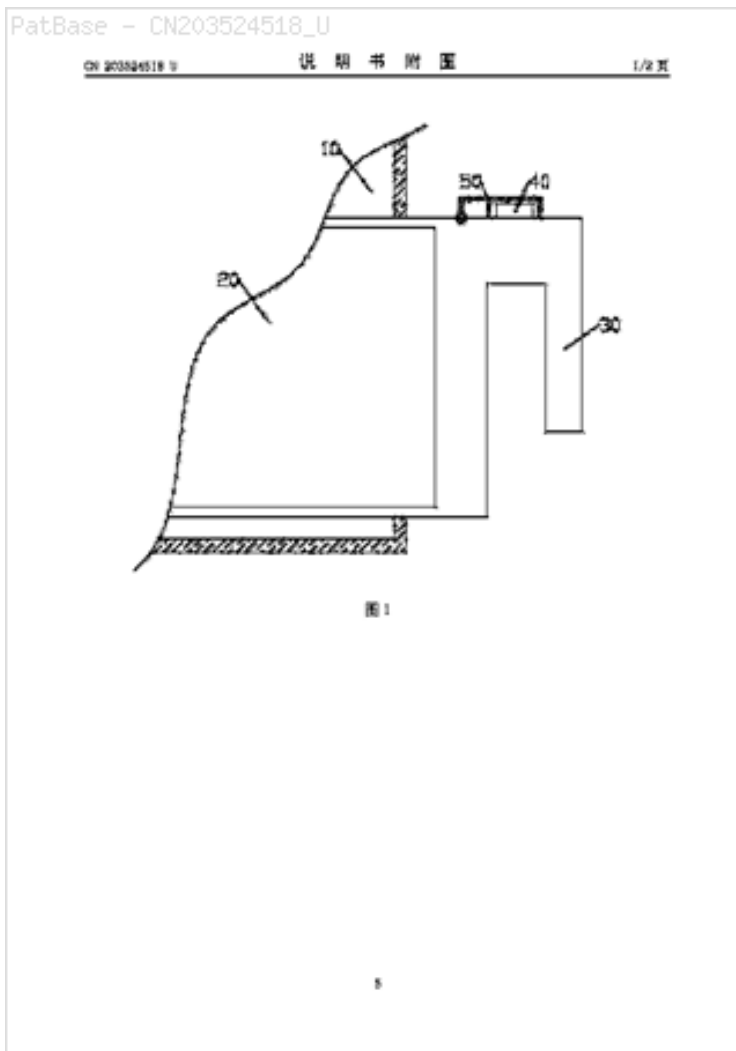
Inventor(s):^(std): LIN WEI

International class A47J37/12 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN203524518U The utility model discloses an air fryer with a switch protection device. The air fryer with the switch protection device comprises a fryer body, wherein the lower portion of the fryer body is provided with a big pot and small pot combination for containing food; the big pot and small pot combination is provided with a handle; a switch is arranged at the upper portion of the handle; the switch is provided with a button; a protective cover matched with the button is hinged to the position, located on the inner side of the button, of the handle. The air fryer with the switch protection device has the advantage that faulty operation is not caused easily.



111) Family number: 64702330 (JP2017000245A)

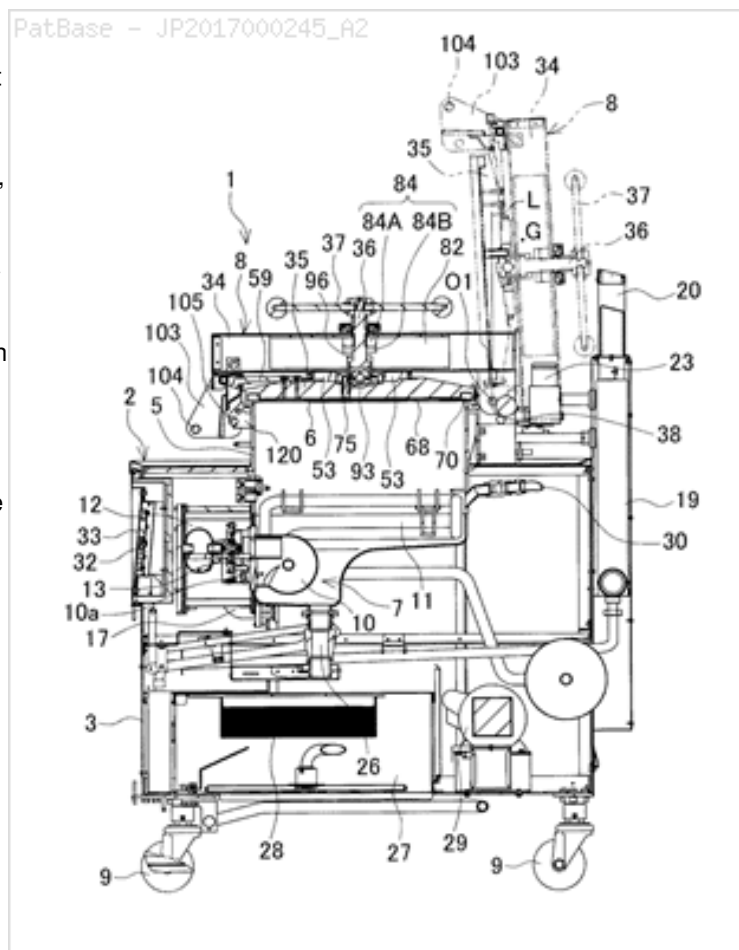
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115003 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000245 A2</u>	20170105	JP20150115003	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000245A [Problems] to prevent the packing pieces per backed by light steering with the seal of the lid and the body, provides excellent durability and operation pressure Fryer. [Solution] through orthogonal 34 arm can be ups and downs and the arm 34, pressure Fryer 1 is bound to around 38 at the rear of the tank 5 arm inside the female, 84 spiral, then, the move along with the handle shaft 36 36 37 handle using handle axis screw feed at the bottom of the handle shaft 36 with 37 handles at the top and the handle shaft 36 back opening 6 and our packing 70 border with lid body 35 and include, 36 at the lodging arm 34 handle axis screw feed the Cover the body 35 openings 6 and non-contact limit position and packing 70 opening 6 this parallel can be moved across to occlude the opening 6 a lower position and the. [Select diagram: Figure 3



Title: Bowl lid for cooking appliance**Priority:** FR19970010734 19970820 WO1998FR01822 19980819

Family:	Publication number	Publication date	Application number	Application date
	CN1134239 C	20040114	CN19988010276	19980819
	CN1276708 A	20001213	CN19988010276	19980819
	DE69809250 D1	20021212	DE19986009250	19980819
	DE69809250 T2	20030821	DE19986009250T	19980819
	EP1003410 A1	20000531	EP19980942755	19980819
	EP1003410 B1	20021106	EP19980942755	19980819
	ES2186216 T3	20030501	ES19980942755T	19980819
	FR2767462 A1	19990226	FR19970010734	19970820
	FR2767462 B1	20021025	FR19970010734	19970820
	US6334888 BA	20020101	US20000486075	20000222
	WO9908581 A1	19990225	WO1998FR01822	19980819

Probable Assignee: SEB SA**Assignee(s):**^(std): COLLAS GUY ; LAB SEROBIOLOGIQUES SA ; SIB S A ; LEREVEREND JEAN ; MOULINEX SA ; SEB SA**Assignee(s):** SEB S A ; MOULINEX S A ; MOULINEX ; MOULINEX S A CORMELLES LE ROYAL ; SEB S A ECULLY ; LABORATOIRES SEROBIOLOGIQUES ; LABORATOIRES SEROBIOLOGIQUES SOC ANONYME ; LABORATOIRES SEROBIOLOGIQUES SOCIETE ANONYME**Inventor(s):**^(std): COLLAS G ; COLLAS GUY ; COLLAS GUY JACQUES ; LEREVEREND J ; LEREVEREND JEAN**Inventor(s):** G COLLAS ; J LEREVEREND**Designated states:** AT BE CH CN CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE US**International class**
^(IPC 8-9): [A47J37/12](#) (Advanced/Invention) ;
[A47J37/12](#) (Core/Invention)**International class**
^(IPC 1-7): [A47J36/06](#) [A47J37/12](#)**CPC:** [A47J37/128](#)**European class:** [A47J37/12M1](#)**US class:** [55/385.4](#) [55/494](#) [96/148](#)[Classification Explorer](#)**Cited documents:** US5300139 A, US5236478 A, US5230722 A, US5029519 A, US4487117 A, US1942900 A, US1794940 A, SE9504383 A, EP1029490 A1, EP0527418 A1, EP0215768 A1, DE8006417 U, DE8006417 U, BE870418 A1,**Forward Citations:** WO02062188, US6997975, US6995821, US2004187702, US2004069154, FR2838948, FR2820299, ES2244312, ES2212924, EP1568302, EP1561408, EP1561408, DE10134006, DE10134006, CH704665,

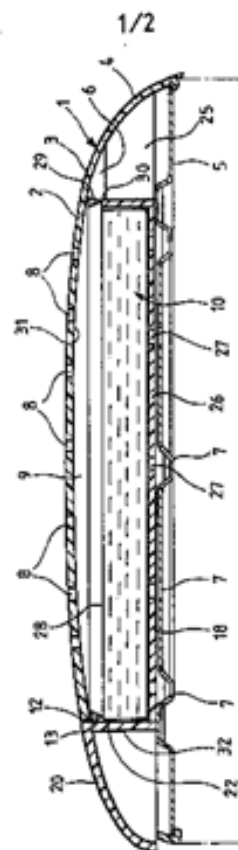
Abstract:

Source: US6334888B A lid with a housing suited for receiving a filter for absorbing odors and fats given off during cooking, and having inlets and outlets communicating externally, the housing has an opening emerging on the side of the lid, and the filter is mounted retractable and sealed through said opening.

PatBase - W09908581_A1

W09908581

PCT/99/040123

**FIG. 1**

113) Family number: 22296498 (FR1461547A)

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Title: AMELIORATION DU DISPOSITIF DE FERMETURE DES FRITEUSES DES GRANDES CUISINES EN VUE DE LUTTER EFFICACEMENT CONTRE LES INCENDIES DE CES APPAREILS IMPROVING THE CLOSURE OF THE FRYING OF LARGE KITCHEN FOR EFFECTIVELY FIGHT AGAINST OF SUCH FIRES (Machine translation)

Priority: FR19655401505 19651016

Publication number	Publication date	Application number	Application date
FR1461547 A	19661209	FR19655401505	19651016

Inventor(s):^(std) BONZOM ANDRE

International class A47J37/12 (Advanced/Invention);
(IPC 8-9); A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7);

CPC: A47J37/1271

European class: A47J37/12L

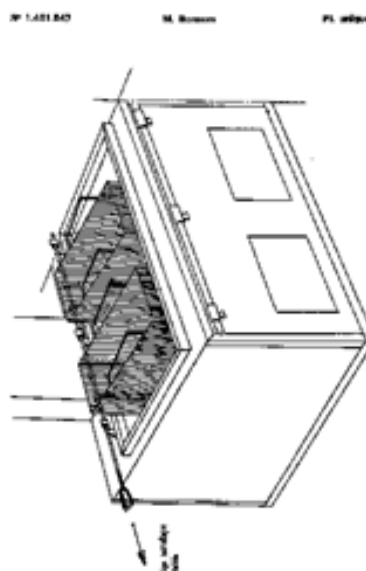
[Classification Explorer](#)

Abstract:

Source: FR1461547A (Claim 1) 1. Les paniers reposent au fond du bac: Le couvercle doit alors etre rabattu rapidement pour etouffer les flammes. Cette mise en place du couvercle est realisee de deux manieres: a. S'il y a des charnieres: rabattre simplement le couvercle avec une tige metallique eloignant l'operateur des flammes; b. Il n'y a pas de charnieres: il faut alors jeter le couvercle, qui a toujours ete depose a proximite, sur l'ouverture du bac.

Machine translation: (Claim 1) 1. The baskets are based on the tank bottom: The cover should then be folded down quickly to smother the flames. The establishment of the cover is done in two ways: a. If there are hinges: simply fold the cover with a metal rod flames AWAY the operator b. There are no hinges: you must then discard the cap, which has always been deposited nearby, on the tray opening.

PatBase - FR1461547_A



0) US2003041469A – DEVICE FOR REMOVING GREASE FROM THE SURFACE OF ...

114) Family number: 28355783 (US2003041469A)

© PatBase

Title: Device for removing grease from the surface of a food item

Priority: US20010881539 20010614

Family:	Publication number	Publication date	Application number	Application date
	US2003041469 AA	20030306	US20010881539	20010614
	US6578285 BB	20030617	US20010881539	20010614

Probable Assignee: TURTZO BRIAN G

Assignee(s):^(std): TURTZO BRIAN G

Inventor(s):^(std): TURTZO BRIAN G

International class
(IPC 8-9): [A21C15/00](#) (Advanced/Invention);
[A21C15/00](#) (Core/Invention)

International class
(IPC 1-7): [B43L17/04](#) [F26B13/26](#) [F26B19/00](#) [F26B5/14](#)

CPC: [A21C15/00](#)

European class: [A21C15/00](#)

US class: [15/244.1](#) [34/330](#) [34/335](#) [34/355](#) [34/398](#) [34/89](#) [34/89.1](#) [34/891](#) [34/95](#) [34/95.1](#) [34/951](#)

[Classification Explorer](#)

Cited documents: US6311361 BA, US6101661 A, US6044515 A, US5960509 A, US5528791 A, US5240339 A, US5230119 A, US5159735 A, US4975999 A, US4925453 A, US4455705 A, US3784998 A,

Forward Citations: US9254074, US7097629, US2015223661, US2006288999, US2005045201, US2004220507,

Abstract:

Source: US2003041469A A device for absorbing or blotting grease from the surface of foods such as pizza comprising a support member having a handle for manually gripping the device and an absorbent or oligiophilic pad attached to such support member for blotting the surface of a food item.

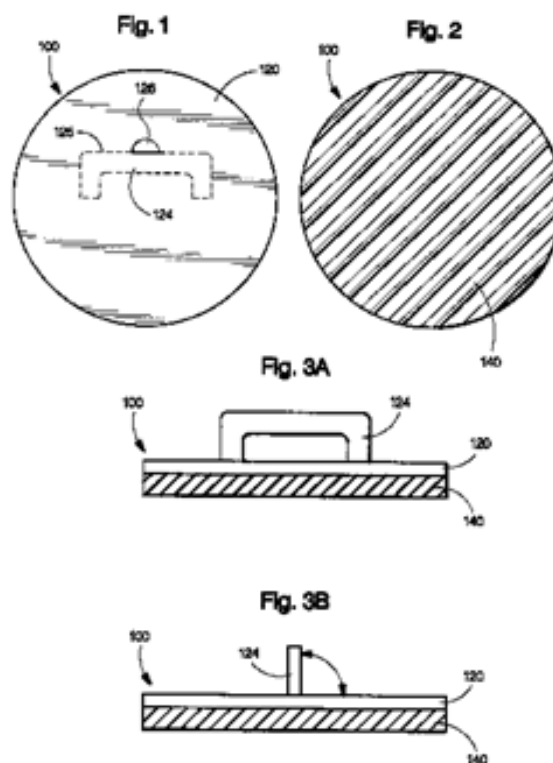
PatBase - US6578285_BB

U.S. Patent

Jan. 17, 2003

Sheet 1 of 6

US 6,578,285 B2



115) Family number: 52612248 (GB2516174B)

© PatBase

Title: DETERMINING A CHARACTERISTIC OF A COOKING APPLIANCE WITH A KEY**Priority:** GB20120018314 20121012 GB20140013615 20121012

Family:	Publication number	Publication date	Application number	Application date
	GB201218314 A0	20121128	GB20120018314	20121012
	GB201413615 A0	20140917	GB20140013615	20140731
	<u>GB2506905 A1</u>	20140416	GB20120018314	20121012
	<u>GB2506905 B2</u>	20160629	GB20120018314	20121012
	<u>GB2516174 A1</u>	20150114	GB20140013615	20121012
	<u>GB2516174 B2</u>	20160629	GB20140013615	20121012
	<u>HK1200639 A1</u>	20150807	HK20150100883	20150127

Probable Assignee: RICHARDS MORPHY N I LTD**Assignee(s):^(std):** RICHARDS MORPHY N I LTD**Assignee(s):** MORPHY RICHARDS LIMITED ; MORPHY RICHARDS LTD**Inventor(s):^(std):** GLYN HAUSER ; HAUSER GLYN ; JAMES MEDDICK ; JAMES MICHAEL ; MATTHEW ROBERTS ; MEDDICK JAMES ; MICHAEL JAMES ; ROBERTS MATTHEW

International class A47J27/00 A47J36/00 A47J36/06 F24C7/08 H05B1/02 H05B6/06
 (IPC 8-9): H05B6/12 (Advanced/Invention);
A47J F24C H05B (Subclass/Invention)

CPC: H05B6/1209 H05B6/062 H05B2213/06 H05B1/0266 A47J31/44 A47J36/00 A47J36/06
A47J37/0871 A47J37/1266 A47J29/02 F24C7/08 A47J27/002 F24C7/088 F24C7/083

[Classification Explorer](#)**Cited documents:** US2004237797 AA, GB2492591 A1,**Forward Citations:** CN105411366,

Source: GB2516174A A cooking appliance (fig 1) for a cooking hob has a vessel containing a chamber and a key having plural switch engaging regions (fig 13, 306) providing a code that identifies at least one characteristic of the appliance. A cooking hob (fig 5) comprises a controller 602 connected to a driver 604 of an inductive coil 510 and a key decoder 1012 comprising plural switches (fig 10, 1016). When the key is placed in socket 1102 of the decoder it provides a code to the controller indicating a characteristic of a cooking appliance associated with the key. The power output of the induction coil can be controlled depending on the characteristic which can relate to a type of appliance or a cooking profile including cooking temperature and time. The key can be releasable mounted in a lid or handle of the appliance and include a key-shaped position interlock. The switch key can be replaced with a magnetic key having plural magnets (fig 4, 206) to operate plural magnetic field sensors in the decoder to provide the code indicating the appliance characteristic.

1/10

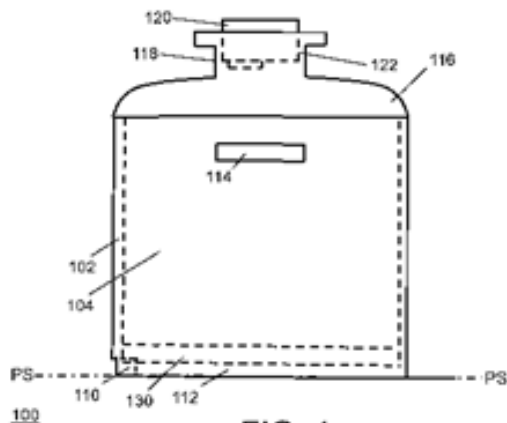


FIG. 1

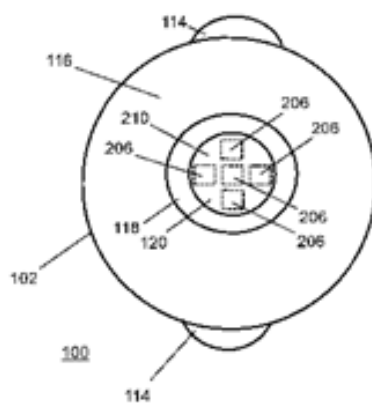


FIG. 2

116) Family number: 18827842 (GB341290A)

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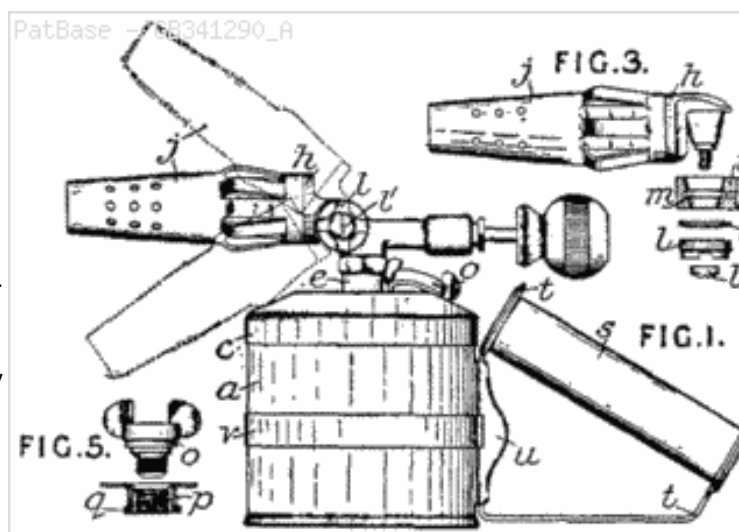
Title: IMPROVEMENTS IN OR RELATING TO BLOW-LAMPS**Priority:** GB19300003295 19300131

Family:	Publication number	Publication date	Application number	Application date
	<u>GB341290 A</u>	19310115	GB19300003295	19300131

Probable Assignee: ALBERT ALFRED MARTIN**Assignee(s):^(std):** ALBERT ALFRED MARTIN ; JOHN SHAW AND SONS WOLVERHAMPT**Assignee(s):** JOHN SHAW AND SONS WOLVERHAMPTON LIMITED ; JOHN SHAW AND SONS WOLVERHAMPTON LTD**International class** F23D99/00 (Advanced/Invention);
(IPC 8-9); F23D99/00 (Core/Invention)**International class** F23D11/22
(IPC 1-7);**CPC:** F23D91/02 F23D2206/0031**European class:** F23D21/00B R23D206/00G29[Classification Explorer](#)**Abstract:**

Source: GB341290A 341,290. Blowlamps.
SHAW and SONS WOLVERHAMPTON, Ltd.,
J. and MARTIN, A. A., Fryer Street,
Wolverhampton. Jan. 31, 1930, No. 3295.

[Classes 75 (i) and 75 (iv).] A blowlamp burning petrol or other volatile fuel is provided with a reservoir consisting of a base portion a drawn, pressed, or spun from sheet metal and a flanged cover c which is internally threaded to engage with an external thread on the base. The end of the thread on the cover is machined off to form a gap to receive solder. The burner or flame tube j is carried by a head h formed with a coned plug which is adjustably secured by nuts l, l<1> and a washer k to a socket f on a tubular fitting e screwed in a coned opening in the centre of the cover c. The fuel is vaporized in a groove m in the socket by the heat conducted back from the burner tube. The filling-plug e screws into a sleeve p which is secured in a coned orifice in the cover by nut q. A similar sleeve may be provided in the opening receiving the fitting e. The handle s is formed by a tube mounted in lugs t on a bracket u which is adjustably secured to the container by a band clip v. A key for the filling plug and a jet pricker may be housed in the handle s.



0) US2230268A – BROILER AND FRYER UNIT

117) Family number: 21440418 (US2230268A)

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Title: Broiler and fryer unit

Priority: US19370125598 19370213 US19390269388 19390422

Family:	Publication number	Publication date	Application number	Application date
	<u>US2156216 A</u>	19390425	US19370125598	19370213
	<u>US2230268 A</u>	19410204	US19390269388	19390422

Probable Assignee: WESTINGHOUSE ELECTRIC AND MFG CO

Assignee(s):^(std): WESTINGHOUSE ELECTRIC AND MFG CO

Assignee(s): WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY

Inventor(s):^(std): WOODMAN KENNETH L ; RUSSELL WILLIAM J ; JAMES RUSSELL WILLIAM

Inventor(s): RUSSELL WILLIAM JAMES

International class
(IPC 8-9): A47J37/01 A47J37/10 (Advanced/Invention);
A47J37/01 A47J37/10 (Core/Invention)

International class
(IPC 1-7): A47J37/06

CPC: A47J37/103 A47J37/015

European class: A47J37/01A A47J37/10A1

US class: 126/41E 126/41R 219/416 219/418 219/452.13 219/453.14 219/461.1 219/474 219/521 219/532 219/542 99/340 99/422 99/443R D7/354

[Classification Explorer](#)

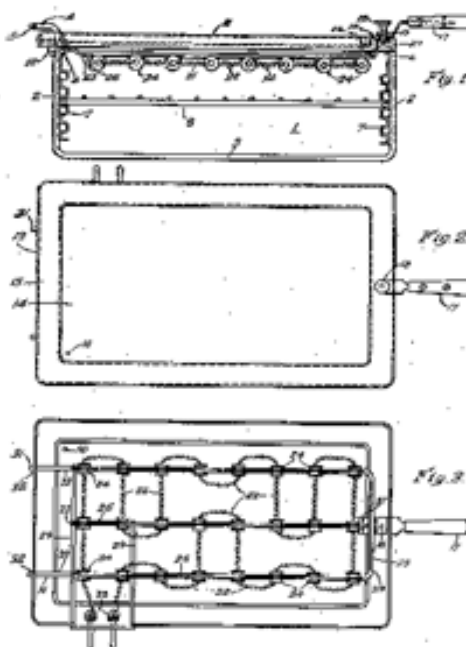
Forward Citations: WO9217102, US9220362, US9125517, US6399925, US6271504, US5682809, US3447444, US3262382, US3174863, US2817331, US2012186460, US2011185915, US2010147159, US2007157918, FR2689214, FR2682461, FR2527919, EP2133013,

Abstract:

Source: US2230268A 1. A heating unit comprising an open radiant heating element and a metal plate serving to reflect radiant heat from said heating element, said heating element being provided with a wire frame comprising a U-shaped member having two spaced projecting ends, said heating element being insulatedly mounted on said frame, said plate member having spaced openings in which said projecting ends are adapted to be inserted upon relative movement of the heating element and the plate member in a direction parallel to the plane of the plate member, and means for detachably connecting said frame to said plate member with the projecting ends inserted in said opening, whereby said heating element and said plate member may be readily attached to and detached from each other.

PatBase - US2230268_A

Feb. 4, 1941. W. J. WOODMAN, ET AL. 2,230,268
SEALING AND HEATING UNIT
Original Filed Feb. 28, 1937 2 Sheets-Sheet 1



INVENTORS
KENNETH L. WOODMAN,
WILLIAM J. WOODMAN,
BY
Attorneys

Title: Electric heating frying pan
Priority: CN20012042716U 20010720

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2494643 Y</u>	20020612	CN20012042716U	20010720

Probable Assignee: JIAN WEIWEN

Assignee(s):^(std): JIAN WEIWEN

Inventor(s):^(std): HUIQUAN LI ; LI HUIQUAN

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

[Classification Explorer](#)

Forward Citations: WO10054588, GB2476914, CN101933770, CN101862138,

Abstract:

Source: CN2494643Y An electric fryer includes a shell (10), a fryer (9), a frying cage (4) and an electric pipe (11), and is characterized in that the fryer (9) is arranged on a tray (5) which can be lifted; the frying cage (4) is suspended on a lifting eye arranged at the lower part of an upper cover (3) through the rotating axles (16) on both ends; the lifting eye (17) suspended on a cage cover (18) of one end is connected with a hinge axis on the upper cover by a spring (20); the lifting eye is provided with a cover opening handle (21); the other end of the frying cage is drive connected with a rotational motor (7). The fryer saves oil, can automatically turn over the fried foods, is easy to clean and can quickly unfreeze the quick-frozen foods.

119) Family number: 32274881 (FR2867669B)

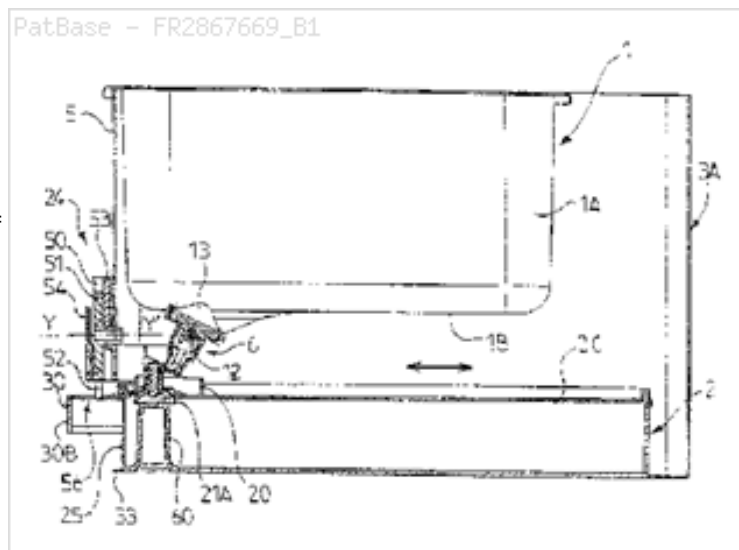
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Title: APPAREIL DE CUISSON A SYSTEME DE VIDANGE OPTIMISE**Priority:** FR20040002724 20040316**Family:**

Publication number	Publication date	Application number	Application date
FR2867669 A1	20050923	FR20040002724	20040316
FR2867669 B1	20060707	FR20040002724	20040316

Probable Assignee: SEB SA**Assignee(s):^(std):** SEB SA**Inventor(s):^(std):** DIRAND PASCAL BERNARD**Inventor(s):** PASCAL BERNARD DIRAND**Agent(s):** CABINET DIDIER MARTIN**International class** [A47J37/12](#) (Advanced/Invention);
(IPC 8-9): [A47J37/12](#) (Core/Invention)**International class** [A47J37/12](#)
(IPC 1-7):**CPC:** [A47J37/12](#)[Classification Explorer](#)**Cited documents:** FR2830735 A1, EP1304063 A1, EP1186269 A1, DE10236906 A1,**Abstract:**

The appliance has a cooking tub (1), and a coupling unit to couple the tub and an emptying receptacle (2) to form a single unit. The tub has an emptying unit (6) transferring liquid materials from the tub to the receptacle. The tub, receptacle and the coupling unit are functionally coupled to each other, such that preset variation of relative positioning of two of the units (1, 2) and coupling unit activates the unit (6). An independent claim is also included for a process for emptying a food cooking appliance.



120) Family number: 51324758 (CN202269325U)

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Title: Dual-fire-extinguishing-type marine electric fryer**Priority:** CN201120363413U 20110926

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202269325 U</u>	20120613	CN201120363413U	20110926

Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SET NANXIANG FACTORY CO LTD**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING COMPLETE SETNANXIANG FACTORY CO**Inventor(s):^(std):** MINGZHONG CHEN ; XINHUA JU ; XIUNAN ZHENG**Inventor(s):** ZHENG XIUNAN ; CHEN MINGZHONG ; JU XINHUA**International class** A21B5/08 A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103004908,**Abstract:**

Source: CN202269325U The utility model discloses a dual-fire-extinguishing-type marine electric fryer, which mainly comprises an electric heating fryer and a fire extinguishing device and is characterized in that a fire extinguisher and a fire extinguishing execution mechanism, and a steel wire rope in the fire extinguishing execution mechanism is connected with a fire extinguishing handle which is arranged in a lower cover body and a fusible piece which is arranged in a vapor collection hood of an upper cover body. The dual-fire-extinguishing-type marine electric fryer has the advantages that the structure is reasonable, the concept is ingenious, the product is practical and convenient to operate according to a great number of market researches, the electric fryer not only has an automatic fire extinguishing function but also has a manual fire extinguishing function, the fire extinguishing execution mechanism automatically acts to automatically extinguish a fire when oil vapor temperature exceeds the fusing point of the fusible piece, i.e. 70 degrees centigrade plus or minus 3 DEG C, the operator can pull the fire extinguishing handle to manually extinguish the fire if the operator firstly discovers the fire, the safety in use is ensured and the popularization value is great.

PatBase - CN202269325_U

CN 202269325 U 说明书附图 1/3 页

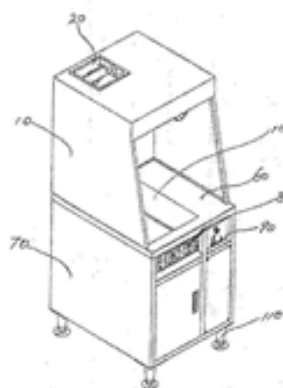


图 1

121) Family number: 53529583 (TWD152826S)

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Title: The lightwave gas fryer (2) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152826 S1	20130411	TW20120302209F	20120420

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW309233, TW203432, KR300488867, KR3001105900001, JPD1130736,**Abstract:**

Source: TWD152826S

Machine translation: Item purposes; creation system offers a "light gas fryer (b), especially a high temperature vortex cyclone baking ingredients mechanical operation of the light gas fryer.; Creative Features]; shown in the drawings, the creation of "light gas fryer (b)" is mainly composed of a base and a cover; center of the base receiving a handle on both sides of the pot, the base and the cover body is formed at one side of a cantilever, and the cantilever the pivoted element may control the lift of Kai and related Flip lid body; cover the upper part of the body has a mechanical operation knob, the light emitting diode indicator to cover the lower body transparent heat-resistant glass lid, the lid features a light tube (halogen electric loop) and the rotating fan, high temperature vortex cyclone pot of ingredients for baking heat generated by the rotating fan; the creation of sleek with new visual effects and creative.

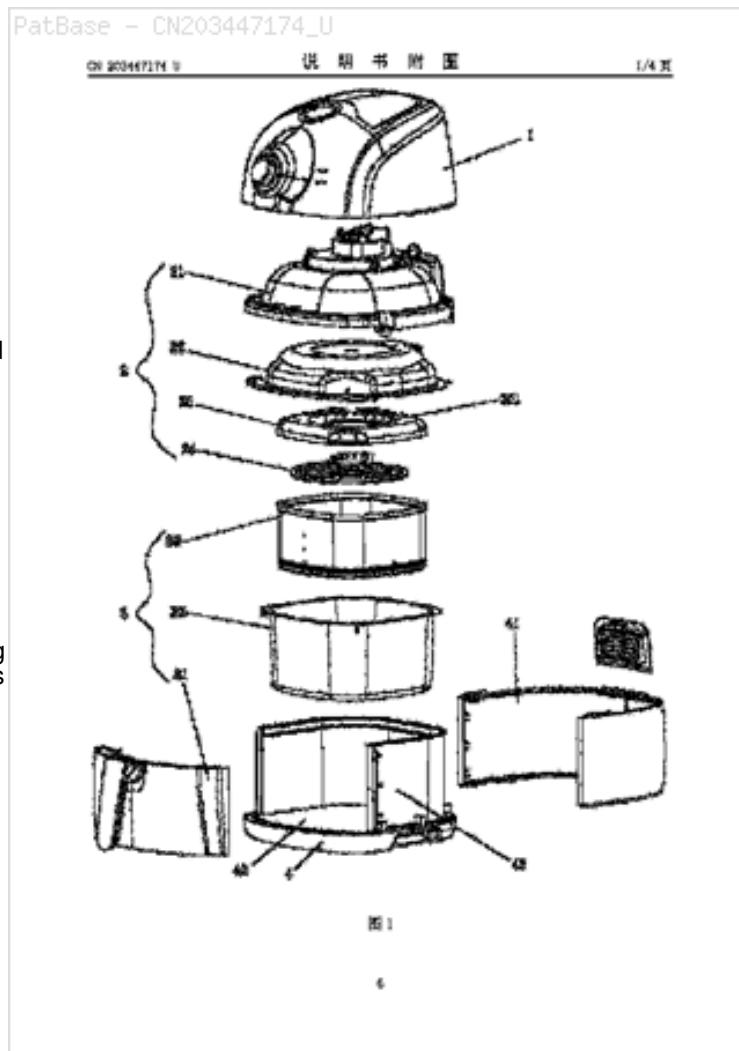


Title: HOT AIR CROSS-VENTILATION FRYER**Priority:** CN201320551098U 20130905**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203447174 U</u>	20140226	CN201320551098U	20130905

Probable Assignee: JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO LTD**Assignee(s):^(std):** JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO LTD**Assignee(s):** JIANGMEN BAONENG HARDWARE AND ELECTRIC MFG CO**Inventor(s):^(std):** ZHENG JIANQIANG**International class** A47J37/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN104770418,**Abstract:**

Source: CN203447174U The utility model discloses a hot air cross-ventilation fryer which comprises an upper cover, a heating component, a drawer component and a base which are arranged in sequence from top to bottom. The heating component comprises an upper inner container, wherein a flow guiding hood, a fan blade and a heating pipe are arranged on the lower portion of the upper inner container in sequence, the drawer component comprises a handle piece, an oil receiving pan fixed on the handle piece and a food pan arranged in the oil receiving pan, and the flow guiding hood is in abutting joint with the oil receiving pan to form an air seal space. The fan blade and the heating pipe right faces the food pan, the side wall of the upper inner container and the side wall of the flow guiding hood are provided with grids communicated with the outer side and the airtight space, the base is provided with an outer side plate, and the outer side plate surrounds the oil receiving pan and is in abutting joint with the handle piece and the upper inner container. The hot air cross-ventilation fryer can reduce the using amount of edible oil, health of a human body is guaranteed, waste oil generated after cooking is effectively reduced, moreover, the hot air cross-ventilation fryer is convenient to use, heat dissipated to the environment in the heating process is little, direct damage to the human body is avoided, and the hot air cross-ventilation fryer is well adaptive to domestic cooking.



0) CN205094226U – DEEP FRYER

123) Family number: 61942242 (CN205094226U)

© PatBase

Title: DEEP FRYER

Priority: CN201520862560U 20151030

Family:

Publication number	Publication date	Application number	Application date
CN205094226 U	20160323	CN201520862560U	20151030

Probable Assignee: DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO LTD

Assignee(s):^(std): DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO LTD

Assignee(s): JOAQUIN ELECTRIC CO LTD OF DONGGUAN CITY ; DONGGUAN HUAJIN ELECTRICAL APPLIANCE CO

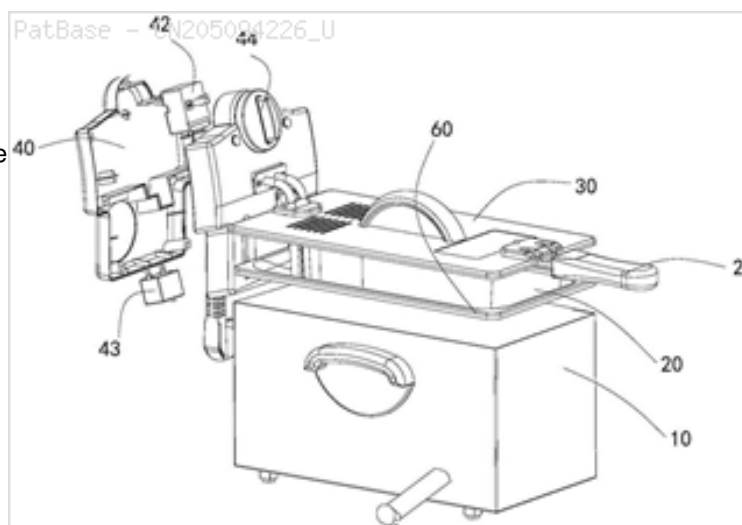
Inventor(s):^(std): HU KAN ; ZHOU GUOJING

International class [A47J37/12](#) (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN205094226U The utility model discloses a deep fryer. This deep fryer is including the pot body, deep -fry basket is located the pot internal and with pot body adaptation, be equipped with the handle on the deep -fry basket, the upper cover, the knot is located on the pot body, upper cover edge is equipped with to hold and establishes the groove, the handle by the appearance is established the groove and is passed the upper cover, the control box, with one side of the pot body is connected, be equipped with control panel, temperature controller and temperature limiter in the control box, temperature controller and temperature limiter respectively with the control panel electricity is connected, be equipped with the temperature knob on the control box, the temperature controller with the temperature knob is connected, the heating tube, by internal the extending to of pot in the control box, and with the control panel electricity is connected. Deep fryer, the potential safety hazard is lower, conveniently pour oil and conveniently take out deep -fry sediment.



124) Family number: 64469610 (CN205813419U)

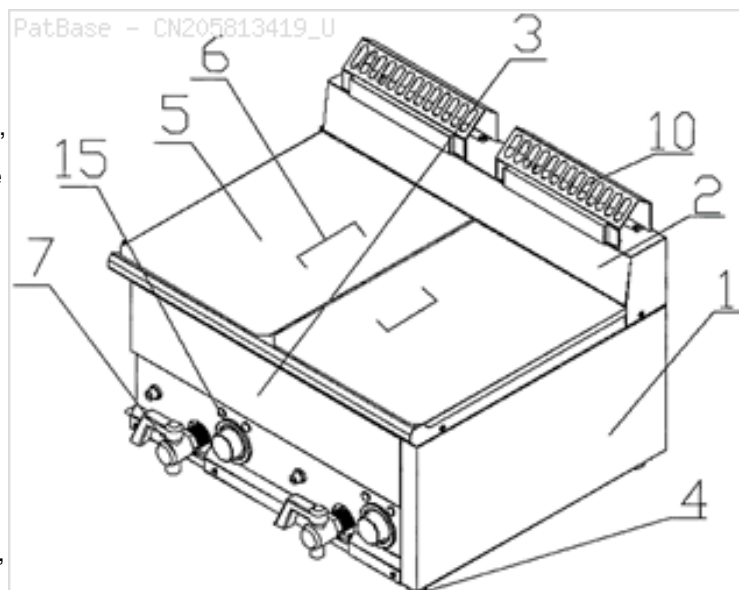
© PatBase

Title: Parallel bars for a desktop electric Fryer (Machine translation)**Priority:** CN201620261912U 20160401**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205813419 U</u>	20161221	CN201620261912U	20160401

Probable Assignee: ZHU HUAJUN**Assignee(s):** ZHU HUAJUN**International class** A21B5/08 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN205813419U This practical new public has a desktop parallel bars power fried machine, including outside box device, and oil barrels device, and Panel, and installation feet, and cover Board, and handle, and put valve, and clapboard, and support Board, and smoke tube accessories, by said outside box device Shang has oil barrels device, by said outside box device ahead has Panel, by said oil barrels device above has cover Board, by said cover Board Shang has handle, by said oil barrels device below has installation feet, by said Panel below has put valve, by said cover Board Zhijian has clapboard, by said cover Board below has support Board, The device outside the box the back-end is provided with pipe fittings, the cover plate is provided with heat protection plate, the utility uses the advanced mechanical configuration and control, keep up the good work, not only improves the yield and product quality stability, color, smell, smell unity, improves productivity, reduces unit costs.



125) Family number: 64702548 (JP2017000248A)

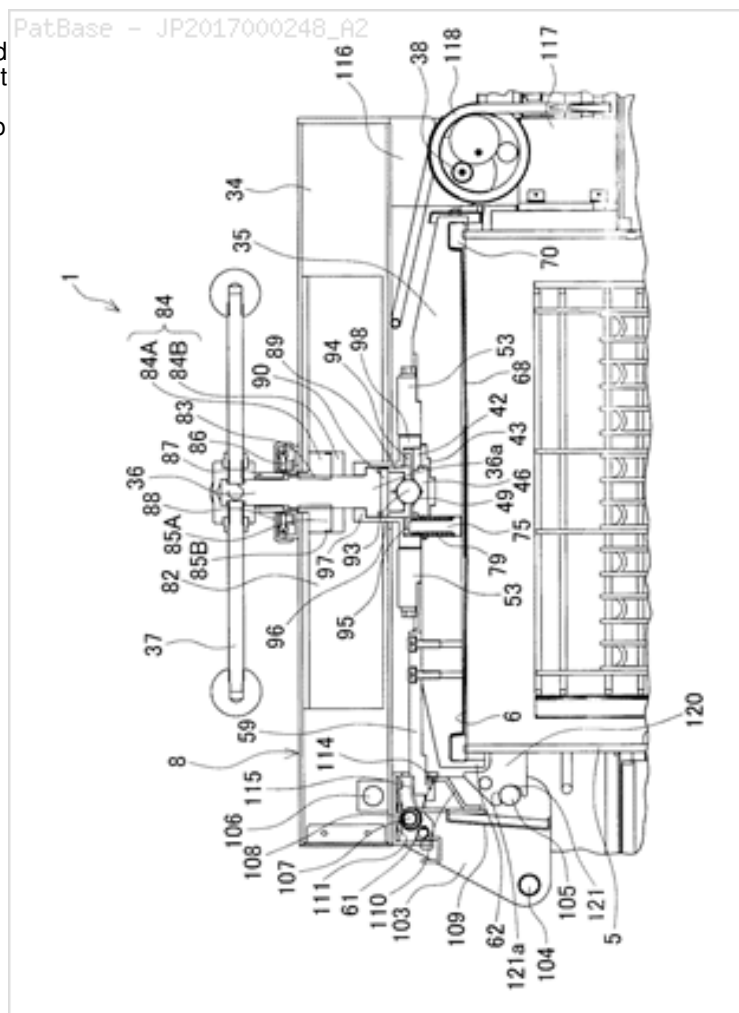
© PatBase

Title: Pressure Fryer (Machine translation)**Priority:** JP20150115006 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000248 A2</u>	20170105	JP20150115006	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000248A [Issue] if gap body lid and handle axes and angles to convey efficient progression of the handle shaft, even cover the body the sealing lid and the body with oil to cover. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and include, steel ball 93 to keep the bottom edge of the handle shaft 36, on top of the lid itself 35 mating the exposed part of a steel ball 93 to take recess with 49 balls saucer 46 horizontal movement kept to. [Select diagram: Figure 4



Priority: DE19880006957U 19880527

Family:

Publication number	Publication date	Application number	Application date
DE8806957 U1	19880804	DE19880006957U	19880527

Probable Assignee: WEIGELE ROLF 7321 ALBERSHAUSEN DE

Assignee(s): WEIGELE ROLF 7321 ALBERSHAUSEN DE

International class A47J37/12 A47J43/28 (Advanced/Invention);
(IPC 8-9): A47J37/12 A47J43/00 (Core/Invention)

International class A47J37/12 B01D35/28
(IPC 1-7):

CPC: A47J37/1204 A47J43/284

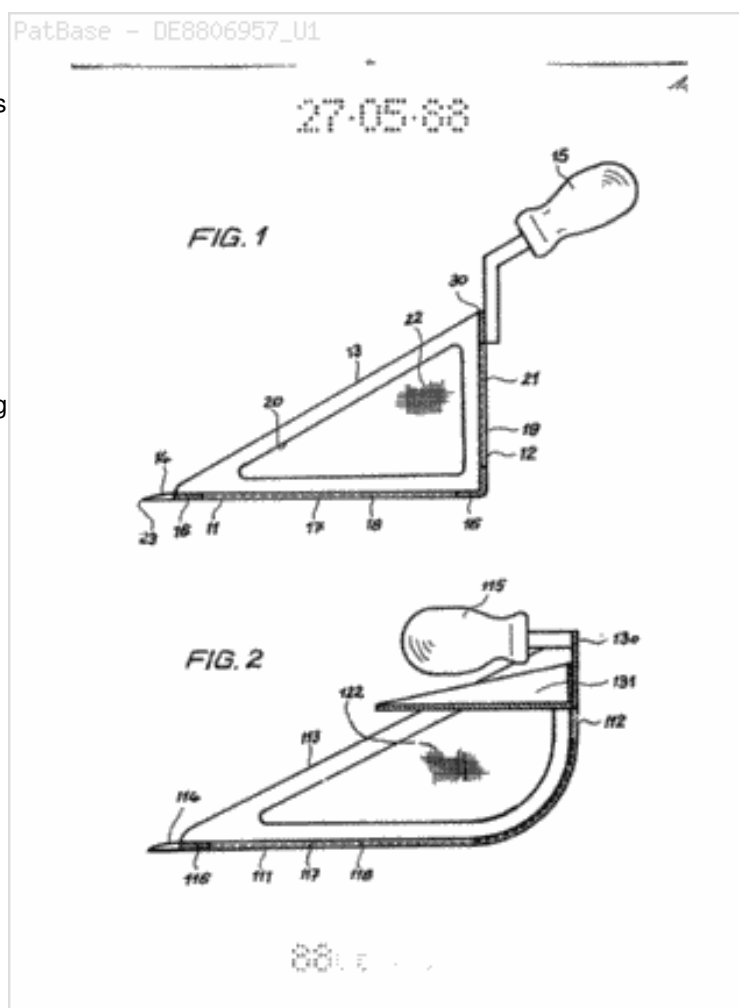
European class: A47J37/12A A47J43/28E

[Classification Explorer](#)

Abstract:

Source: DE8806957U1 (Claim 1) 1. Handgeraet zum Reinigen des im Fettbackvorrichtungen befind- lichen Backfetts von beim Ausbacken von Backgut im Backfett zurueckbleibenden Verunreinigungen, wie Backgutbroesel, Mehl- und Teigreste und dergl., g e k e n n z e i c h n e t d u r c h e i n schaufelfoermiges Sieb (18,21, 22;118,122) mit einer geradlinig ausgebildeten vorderen Schaufellippe (14;114) und einem Handgriff (15;115).

Machine translation: (Claim 1) 1 Handgeraet for cleaning of the fryer devices are-union shortening of the baking of dough in the baking fat remaining impurities, such as Backgutbroesel, flour and dough and the like, characterized by a schaufelfoermiges sieve (18.21, 22, 118.122) with a straight-trained front bucket lip (14, 114) and a handle (15, 115).



0) US2550758A – FRENCH FRYER

127) Family number: 21875999 (US2550758A)

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Title: FRENCH FRYER

Priority: US19460717877 19461223

Family:	Publication number	Publication date	Application number	Application date
	<u>US2550758 A</u>	19510501	US19460717877	19461223

Probable Assignee: BEMIS KENNETH E

Assignee(s):^(std): BEMIS KENNETH E

Inventor(s):^(std): BEMIS KENNETH E

International class
(IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/1219

European class: A47J37/12C

US class: 134/135 99/336 99/407 99/414

[Classification Explorer](#)

Cited documents: US670296 A, US2222314 A, US2175531 A, US217378 A, US2109212 A, US2097471 A, US2078719 A, US2004500 A, US1576321 A, US1277158 A, US1198374 A,

Forward Citations: USD552921, US8826807, US4580024, US4481873, US4250803, US4137834, US3975070, US3908531, US3736862, US3512473, US3273488, US2907659, US2778736, US2735355, US2675051, US2008169281,

Abstract:

Source: US2550758A (Claim 1) 1. Fig. 5 is a broken fragmentary sectional elevation of the basket bail and corresponds to a section taken along 5-5 of Fig. 1.

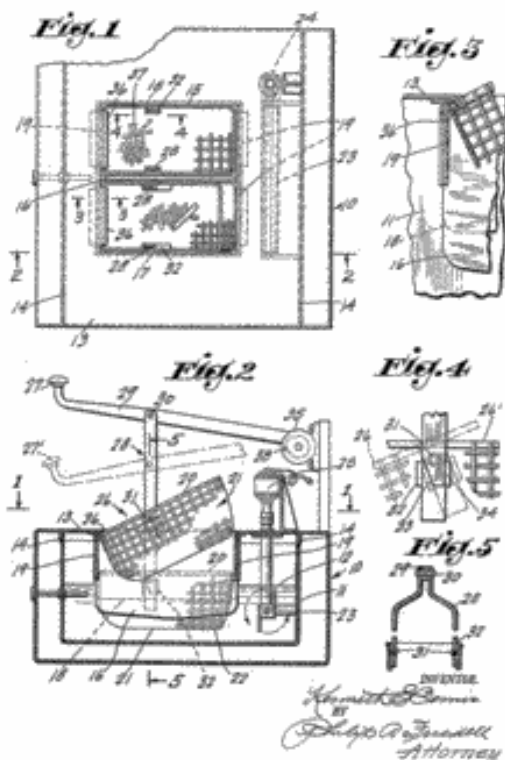
PatBase - US2550758_A

May 1, 1951

N. E. DEMIS
FARMER PRINTER

2,550,758

Filed Dec. 23, 1946



0) US6827006B – CHICKEN LEG GRILL RACK

128) Family number: 31378344 (US6827006B)

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Title: Chicken leg grill rack
Priority: US20030625139 20030723 US20040708472 20040305 US20040709779 20040527
Family:

Publication number	Publication date	Application number	Application date
US6827006 BA	20041207	US20030625139	20030723
US6945161 BA	20050920	US20040709779	20040527
US7040219 BA	20060509	US20040708472	20040305

Probable Assignee: EZ PRODUCTS LLC

Assignee(s):^(std) E AND Z PRODUCTS LLC ; BATTAGLIA JOHN ; D AMATO JIM

Assignee(s): E AMP AMP ; EZ PRODUCTS LLC ; Z PRODUCTS LLC

Inventor(s):^(std) BATTAGLIA JOHN ; D AMATO JIM

Agent(s): JOEL ESQ RICHARD A; RICHARD A

International class
^{(IPC 8-9):} [A47J37/06 A47J43/18](#) (Advanced/Invention);
[A47J37/06 A47J43/00](#) (Core/Invention)

International class
^{(IPC 1-7):} [A47J43/18](#)

CPC: [A47J37/0694 A47J43/18](#)

European class: [A47J37/06P A47J43/18](#)

US class: [211/181.1 99/426 99/448](#)

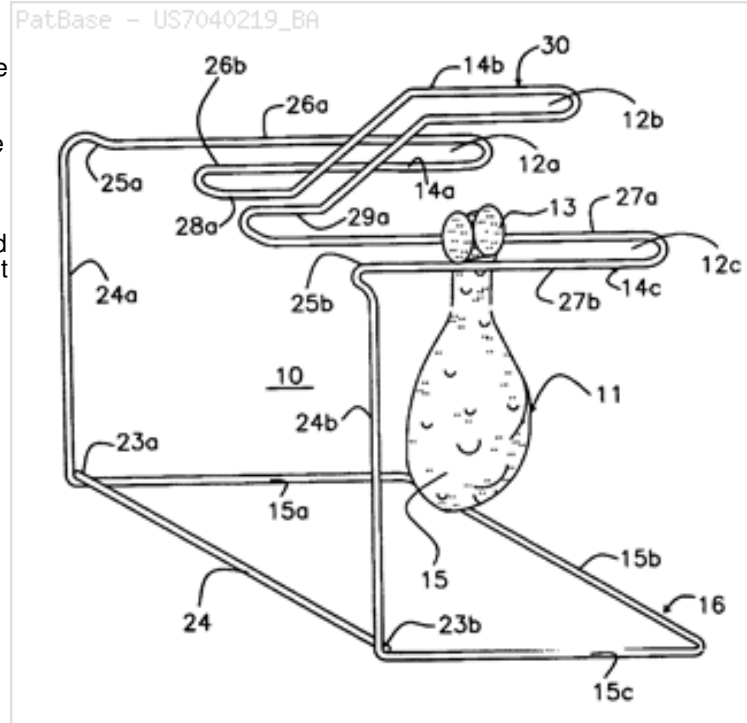
[Classification Explorer](#)

Cited documents: USD161741 S1, US5730046 A, US439569 A, US3532225 A, US3214031 A, US1514375 A, US1514345 A,

Forward Citations: WO12168044, WO12168043, WO08144837, USD774356, USD722250, USD717596, USD692722, USD690168, USD648174, USD623015, US9414715, US9155423, US8881645, US8342081, US8110237, US7543530, US7281469, US2016106266, US2014216270, US2014165853, US2013295258, US2009232952, US2009087535, US2009049995, US2008220134, US2006266227, GB2473465, GB2462791, EP2532290, EP2532289, DE202006019655,

Abstract:

Source: US6827006B A rack for grilling chicken legs comprises a unitary wire structure including a base and inclined upwardly extending members at each end of the base and a transverse/portion joining the tops of the members. A plurality of substantially U-shaped members are mounted to the transverse member at the legs forming the open end of the "U". The legs of the U-shaped members form a parallel slot between adjacent members to engage and support a plurality of chicken legs in a vertical position above grill.



Title: Electronic deep fat fryer
Priority: CN200320102304U 20031017
Family:

Publication number	Publication date	Application number	Application date
<u>CN2648977_Y</u>	20041020	CN200320102304U	20031017

Probable Assignee: SUOLEIKE DOMESTIC ELECTRIC APP

Assignee(s):^(std): SHENZHEN SOLAC HOUSEHOLD ELECTRICAL CO LTD ; SUOLEIKE DOMESTIC ELECTRIC APP

Assignee(s): SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO ; SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO LTD ; SUOLEIKE DOMESTIC ELECTRIC APPLIANCE CO LTD SHENZH

Inventor(s):^(std): ZHOU HONG

Inventor(s): HONG ZHOU

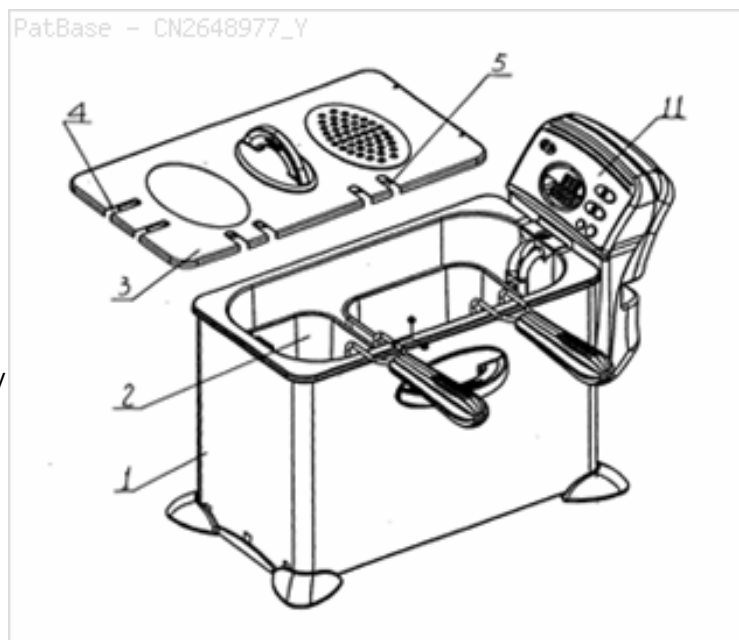
International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: CN2648977Y A new electrical fryer pertaining to domestic electrical apparatus especially electrical cooking utensil is provided, which comprises a pan body, a pan cover and a basket and an electrical heating and controlling device arranged in the pan body. The utility model is characterized by two or more baskets are arranged in the pan body and a plurality of basket handle extending ports are provided on the pan cover. The pan body is a rectangle structure with a plurality of fryer handle extending ports arranged on the cover edge in the long direction and the wide direction, respectively. The utility model can fry kinds of food at the same time, and also can change position and number of the basket according to different requirement of user, which can save not only time needed to fry food but also electric energy and edible food used in frying.



130) Family number: 193895 (BRMU6601655U)

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Title: FRITADEIRA ELETRICA ELECTRIC DEEP FRYER (Machine translation)**Priority:** BR1986MU01655U 19860909

Family:	Publication number	Publication date	Application number	Application date
	<u>BRMU6601655 U</u>	19880510	BR1986MU01655U	19860909

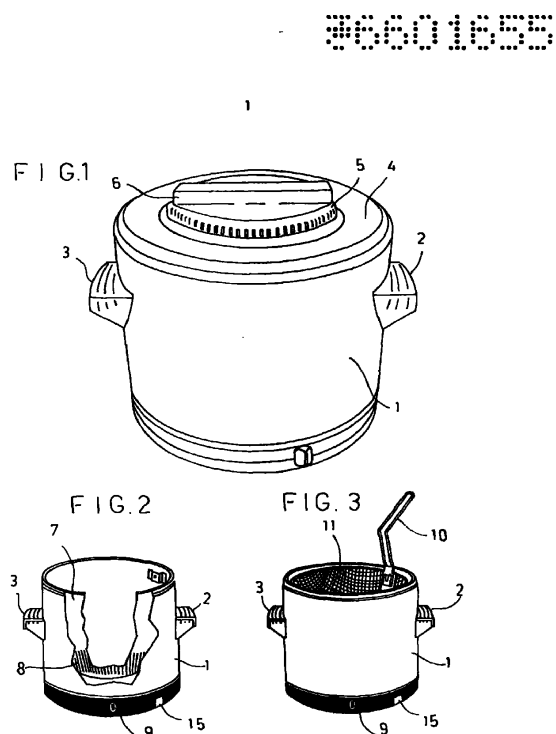
Probable Assignee: ARNO SA**Assignee(s):^(std):** ARNO SA**Assignee(s):** ARNO S A**Inventor(s):^(std):** BESSA ANTONIO FERNANDO G**Inventor(s):** ANTONIO FERNANDO G BESSA

International class A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: BRMU6601655U Patente de Modelo de Utilidade "FRITA DEIRA ELETRICA", que compreende uma carcaca (1) energizavel eletricamente, controlada por termostato (9), a carcaca 1 admitindo no•seu interior uma cuba filtrante (7), que rece- be oleo, uma cesta (11) de portar alimentos a fritar sendo encaixavel dentro da cuba filtrante (7), a carcaca (1) po- dendo receber tampa (4) dotada de filtros (19,20) anti-odor; a cesta (11) e a cuba (7) podem ser manuseadas atraves de cabo (10) e fechos (12) e (14) respectivamente da cesta e da cuba. Patent of utility model "DEIRA ELECTRIC FRY", which comprises a skeleton (1) energizavel electrically controlled by thermostat (9), 1 skeleton admitting in a filter tub • (7), which rece-be oil, a basket (11) to bear the fries being encaixavel into the filter tub (7), skeleton (1) po-g receive cover (4) with filters (19.20) anti-odor; the basket (11) and cuba (7) can be handled through cable (10) and (12) and (14) respectively of the basket and the tub.



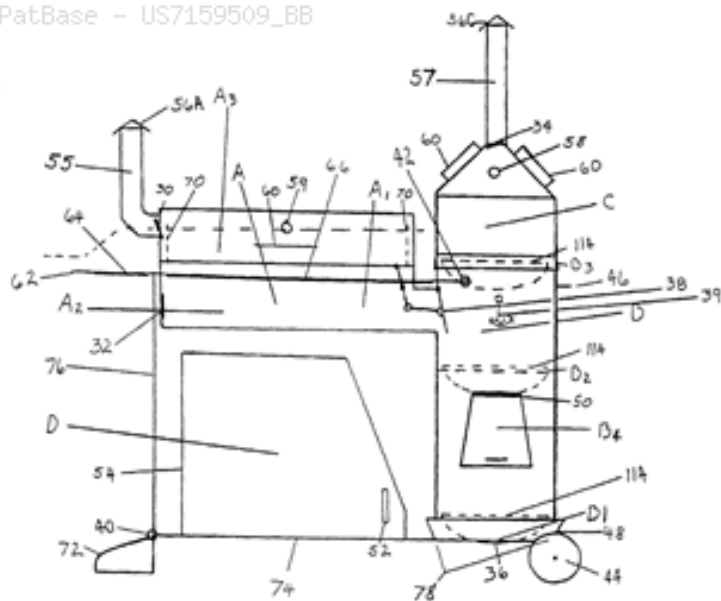
Title: OUTDOOR COOKING MACHINE**Priority:** US20030448615 20030531**Family:**

Publication number	Publication date	Application number	Application date
<u>US2004237801 AA</u>	20041202	US20030448615	20030531
<u>US7159509 BB</u>	20070109	US20030448615	20030531

Probable Assignee: STARKEY ROY WELCOME**Assignee(s):^(std):** STARKEY ROY WELCOME**Inventor(s):^(std):** STARKEY ROY WELCOME**Agent(s):** ROYLANCE ABRAMS BERDO AND GOODMAN LLP**International class**
(IPC 8-9): A47J37/00 A47J37/07 F24B1/20 (Advanced/Invention);
A47J37/00 A47J37/07 F24B1/00 (Core/Invention)**International class**
(IPC 1-7): B60H3/00**CPC:** A47J37/0704 F24B1/202**European class:** A47J37/07B F24B1/20B**US class:** 126/25R 99/339 99/340 99/480 99/482[Classification Explorer](#)**Cited documents:** US957748 A, US6209533 BA, US6039039 A, US5909729 A, US5768977 A, US5711209 A, US5359923 A, US4877011 A, US4757756 A, US4700618 A, US4665891 A, US4664026 A, US4020322 A, US2851941 A,**Forward Citations:** USD776481, USD736026, USD712189, USD662773, USD660646, US9526376, US9439536, US9155421, US9155416, US8851063, US8726896, US8707857, US8635947, US8381712, US8186265, US7900553, US7895942, US7681493, US2014311360, US2014290497, US2012260809, US2012204733, US2012156350, US2011217441, US2010192936, US2010083947, US2008278775, US2008268121, US2007166443, US2007131234, ITTV20110095,**Abstract:**

Source: US2004237801A A combination of 2 Smoker/Grills, one horizontal and one vertical. The top of the vertical Smoker/Grill #B is connected to the bottom of the horizontal Smoker/Grill #A by a tube with a damper (#38). Cooking options from the Smoker/Grill #A include: cold or slow smoking, food warmer, spit or rotisserie cooking, conventional grill, oven and tabletop. Cooking options from Smoker/Grill #B include: conventional grill, two forms of a modified conventional grill, hot smoker, steamer, double boiler, deep fryer or turkey fryer, stew pot, two forms of an oven, an outdoor fireplace, an open fire pit and a table top. Accessories from Fig. 4. need to be used with most of these options. Most options from Smoker/Grill #A can be used with most options from Smoker/Grill #B. See CHART #1 for more clarification. Some combinations can use a single fire and some combinations can combine the fires from both grills to enhance/change cooking options.

PatBase - US7159509_BB



Title: Dries the fryer (Machine translation)

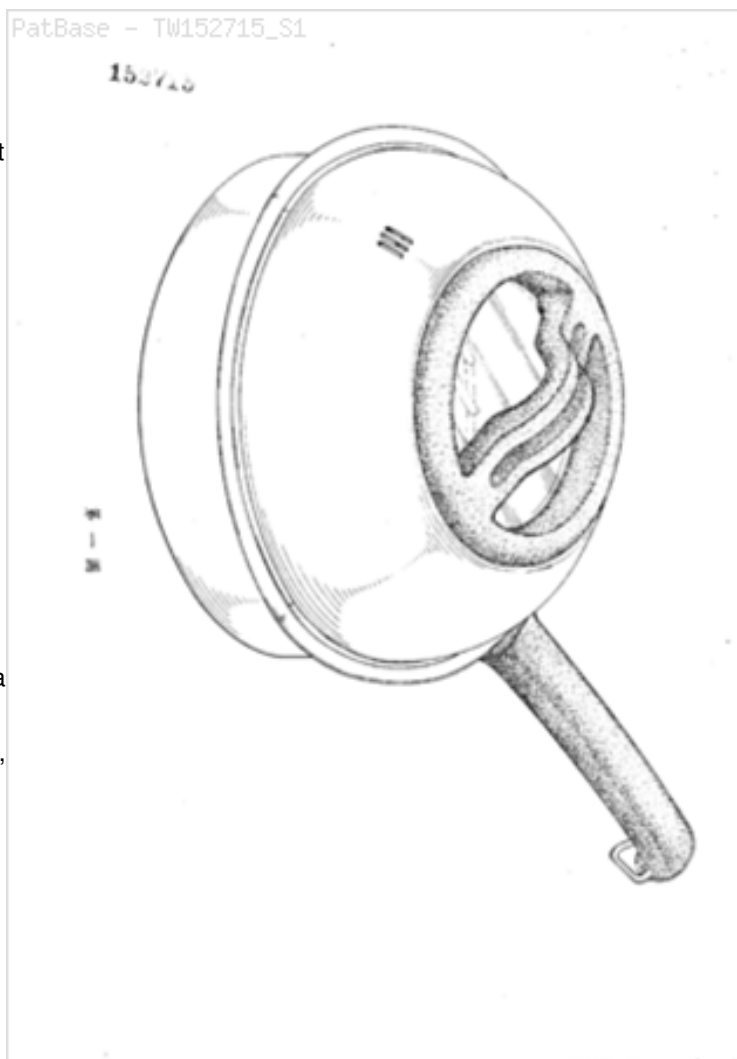
Family:

Publication number	Publication date	Application number	Application date
<u>TW152715 S1</u>	19910221	TW19900302026F	19900402

Abstract:

Source: TW152715S

Machine translation: This creation is dries innovation model the fryer about one kind, You in Zhi one kind of succinct modelling pot of the belt ? rational esthetic sense has. ; Like the chart demonstration dries the fryer, a main embody oblate pot body, its sidewall extends a long handle along the radial direction extension, the bottom surface then the ramming becomes a series of arches, this arch two ends and the bottom of the pot separate form the hole to enter for the steam, again it everywhere respectively has one long fourth stub inserting for wire table, takes advantage of this wire table persisting on the pot body, but food namely puts aside on this wire table bakes; Forecited dries the fryer and to include a half spherical pot cover, its central committee installs use heat-resisting glass to make it to pass the Windows, is advantageous for observes in the pot food roasting situation, simultaneously passes the Windows periphery by a round frame chambranle, but stretches across arched bridge of type with a round frame body formation the hand in the place above, also causes to dry the fryer to appear artistically both splendid. ; In summary, this creation dries the fryer, under the practical premise, has shape of the novel esthetic sense, should conform to the new model patent important document.



Title: Dries the fryer (Machine translation)

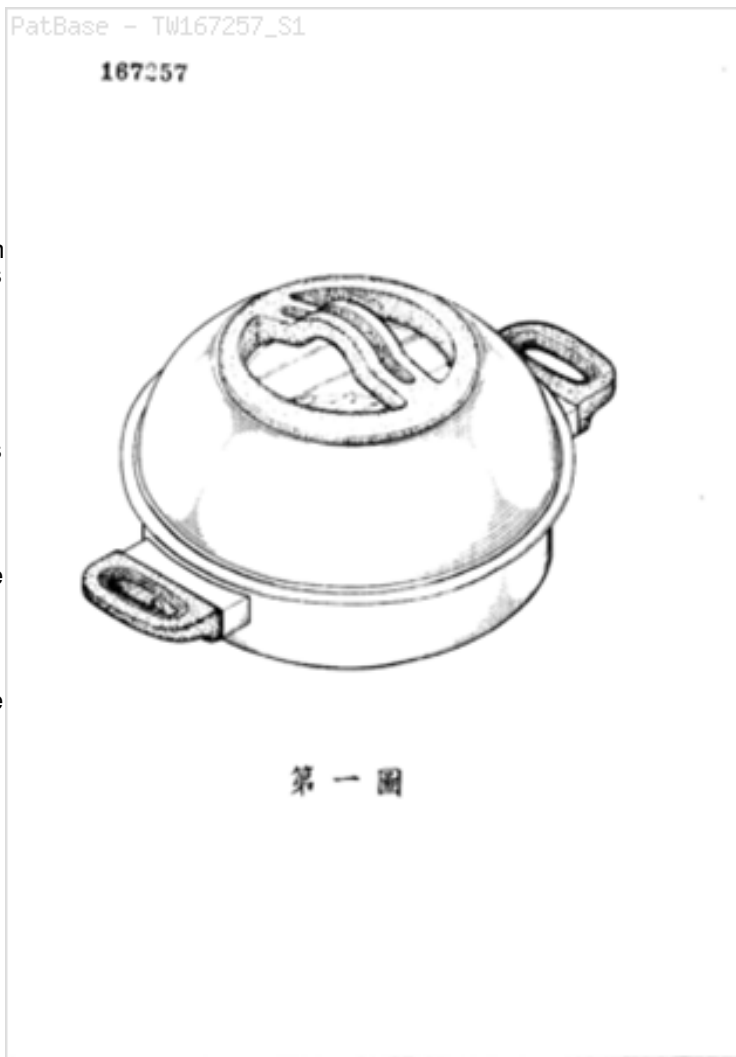
Family:

Publication number	Publication date	Application number	Application date
<u>TW167257 S1</u>	19910821	TW19900302026F	19910426

Abstract:

Source: TW167257S

Machine translation: This creation is dries fryer' about 79,302,026th 'to unite the new model, You Zhi one kind of contour and the original case type artistic splendid dries the fryer. ; The original case according to proposed the application dries the fryer, but has the length handle by the area the bottom of the pot to have oblate of pot body a series of hole, one may put aside in the pot the steel frame and central attaches thoroughly the Windows and the arched bridge type composes hemispheroid of pot cover the hand, because modelling novel artistic, therefore is in harmony with the new model patent important document. ; This creation is the original case unites the new model, it has carried on contour of characteristic the original case major part, different is, the pot body handle alters to the symmetry by the original long handle the hand, in order to use double takes portably; In addition, the bottom of the pot is the seal shape, no longer has hole of the original case, enables with by the splendid attire liquid. Is as for the whole, this creation and the original case are similarly artistic splendidly, moreover constitutes is approximate the modelling, should tally unites the new model patent important document.



134) Family number: 45958192 (TW355997Y)

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Title: STRUCTURE FOR ROASTING POT WITH UNIFORM HEAT-FLOW**Priority:** TW19950217600U 19951208

Family:	Publication number	Publication date	Application number	Application date
	<u>TW355997_Y</u>	19990411	TW19950217600U	19951208

Probable Assignee: CAI SHU YAN**Assignee(s):^(std):** CAI SHU YAN**Assignee(s):** CAI SHU YANTW**Inventor(s):^(std):** CAI SHU YAN

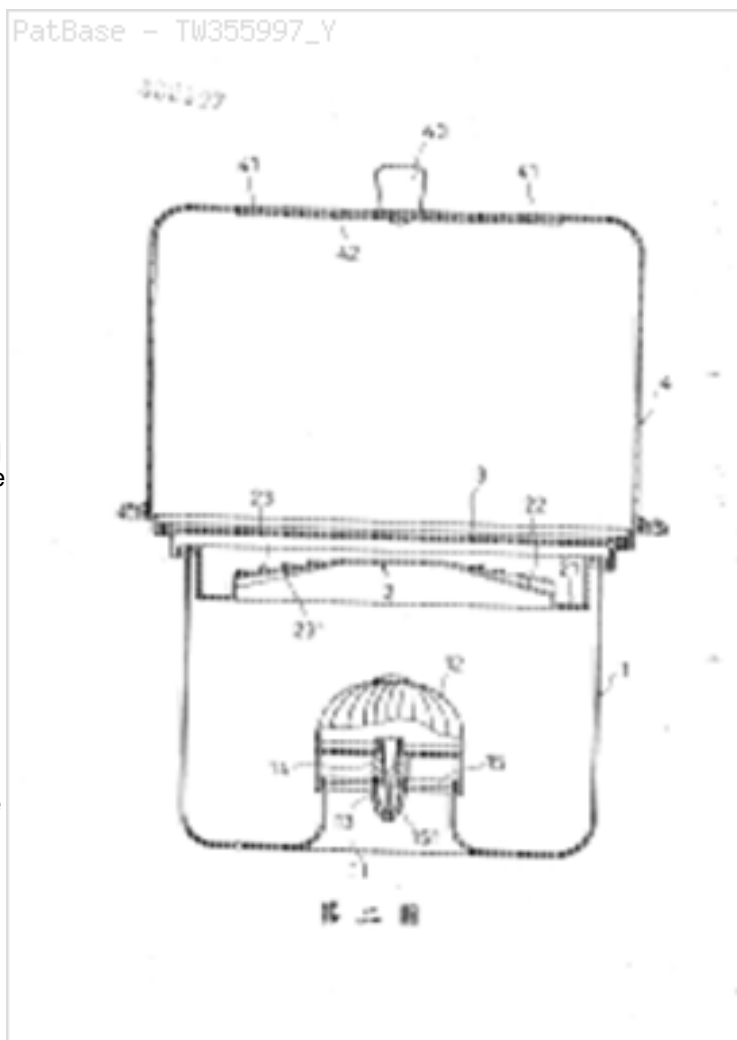
International class A47J37/00 (Advanced/Invention) ;
 (IPC 8-9) : A47J37/00 (Core/Non-invention)

International class A47J37/00
 (IPC 1-7) :

[Classification Explorer](#)**Abstract:**

Source: TW355997Y

Machine translation: This creation department is one kind may cause the heat flow evenly to dry the fryer structure, it mainly is uses the warming pot base in the heating central to be equipped with an air intake port, on this air intake port supposes frame of body a central awl hole, and Yu Jiati the awl hole place above is equipped with a bearing, as soon as but causes to suppose can pass through the bearing central hole pyramidal of axis after the turbine wheel fan blade base central committee, but enters body awl Kong Deduan to cause pyramidal of axis the turbine wheel fan blade and the bearing and awl of hole the body assumes the line separately and accepts after checking touches, but causes the turbine wheel fan blade to have the revolving nimble characteristic, but this oneBut the turbine wheel fan blade enters from the air intake port hot air stream impetus revolving to be possible to cause hot air stream of even cloth the rise in to dry in the fryer, forms in the pot the temperature to be even, as soon as erects above the warming pot receives the oil disk, when should receive above the oil disk and is equipped with sets at the net plate, the roasting treats roasts the thing to put in sets at on the net plate, also because of receives on the oil disk to suppose the radiating to lead the fuel tank and in the ring-like oil pan tray contract roasting process flows out by the drop, but does not send purifier of the influence warming pot, in receives the oil disk to lead each of on boss between fuel tanks to be equipped with air vent of the certain slanting lid, causes to rise itThe hot air stream passes, Yu Zhiwu above the net plate is equipped with a top to be equipped with pot cover of the certain link row blowhole, as soon as central supposes in the pot cover top turns on lathe the handle, as soon as should turn on lathe the handle bottom end connection to suppose in the pot cover the top also the boundary assumes blowhole of the zigzag gap to turn on lathe the lid, the affiliation gyrates turns on lathe the handle to be possible to control the blowhole to turn



on lathe covers opening or the closure blowhole, adjusts in the pot the air current and the temperature, therefore, revolving this creation affiliation turbine wheel fan blade causes the hot air stream even flowing in the pot, forms the bottom of the pot and the pot goes against the temperature to be same, but may cause the roasting effect average also not send burning, as soon as actually favors the promoted use to design finely.

Title: Shower type fryer**Priority:** CN201020616631U 20101119 CN201120043590U 20110222

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202051567 U</u>	20111130	CN201120043590U	20110222

Probable Assignee: LINBIN ZHOU**Assignee(s):^(std):** LINBIN ZHOU**Assignee(s):** ZHOU LINBIN**Inventor(s):^(std):** LINBIN ZHOU**Inventor(s):** ZHOU LINBIN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202051567U Provided is a shower type fryer including a main body for accommodating the food to be fried, the main body is composed of an upper cover, an external casing body and a bottom cover, a pot inner container and a heater are arranged in the body of the main body, a frying basket is suspended in the pot inner container via the handle of the frying basket, an oil filling and discharging device is rotationally connected in the pot container via a motor, the oil filling and discharging device can fill oil from the bottom of the pot container through rotation, and then spray the oil in the frying basket uniformly. The motor is arranged on the external wall, the motor shaft is rotationally connected to the oil filling and discharging device arranged in the pot container via a gear. The oil filling and discharging device is in the shape of a rocking bar, one end of the device is rotationally connected to the gear, and the other end of the device extends out of an oil groove. The oil filling and discharging device of the fryer provided can fill oil from the bottom of the pot container through rotation, and then spray the oil in the frying basket uniformly. when in work, the oil consumption is greatly reduced compared with a conventional fryer, and the fryer is fast in preheating, low in energy consumption, high in cooking efficiency, less in waste oil discharge, low cost, and is in accordance with the green environmental protection concept of modern people.

PatBase - CN202051567_U

CN 202051567 U 说明书附图 1/2页

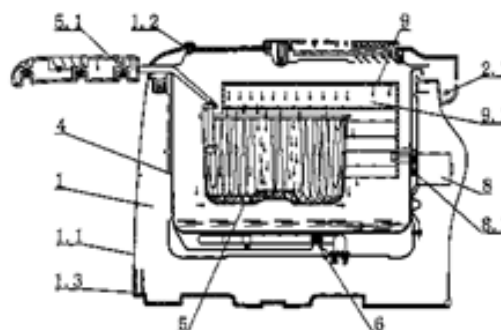


图 1

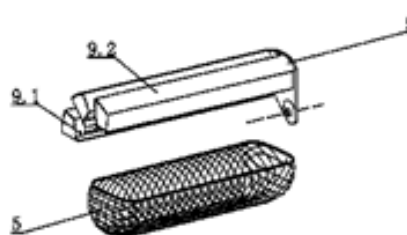


图 2

136) Family number: 54075825 (ES1082304Y)

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Title: APARATO PARA EL ESCURRIDO CENTRIFUGO DE PRODUCTOS FRITOS**Priority:** ES20130030650U 20130528**Family:**

Publication number	Publication date	Application number	Application date
ES1082304 UA	20130613	ES20130030650U	20130528
ES1082304 Y1	20130916	ES20130030650U	20130528
ES1082304 Y1	20130904	ES20130030650U	20130528
ES1082304 Y1	20130916	ES20130030650U	20130528

Probable Assignee: COMPANIA ESPANOLA DE ELECTROMENAJE SA**Assignee(s):**^(std): COMPANIA ESPANOLA DE ELECTROMENAJE SA**Inventor(s):**^(std): CODINA VILANA ANTONI ; TRENCH ROCA LLUIS**Inventor(s):** ANTONI CODINA VILANA ; LLUIS TRENCH ROCA**Agent(s):** TORNER ELISABET**International class** [A47J43/00](#) (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: ES1082304U 1. Aparato para el escurrido centrifugo de productos fritos, integrado en una freidora la cual incluye: – un recipiente (10) apto para contener liquidos con una abertura (11) en su cara superior; – un dispositivo calefactor para calentar un liquido de coccion contenido en dicho recipiente; – una cesta (20) apta para ser introducida y extraida de dicho recipiente (10) a traves de dicha abertura (11) superior, y capaz de girar dentro del recipiente (10) respecto a un eje vertical; – una tapa (50) para cubrir el recipiente (10) que tiene asociado un mecanismo rotatorio (60) mecanicamente acoplable a la cesta (20), para producir su giro; caracterizado porque: – el acoplamiento mecanico entre el mecanismo rotatorio (60) de la tapa (50) y la cesta (20) se realiza mediante el contacto entre un extremo superior de la pared perimetral (21) de la cesta (20), en posicion de escurrido, extraida del liquido de coccion, y un plato giratorio (40) dispuesto y unido a la cara inferior de la tapa (50), estando dicho plato giratorio (40) mecanicamente conectado con dicho mecanismo rotatorio (60), y – la cesta (20) esta articulada por la cara inferior de su base (22) al extremo de un brazo de soporte (32) que deriva de un elemento de soporte (30) de la cesta, mediante una articulacion rotatoria (23) de eje vertical en el extremo de dicho brazo (32). 2. Aparato segun la reivindicacion 1, caracterizado porque el elemento de soporte (30), junto con la cesta (20) a la que esta unido, es extraible, y dispone de un segmento de asido (31), situado en el exterior del recipiente (10) y dotado de un asa (34), un brazo de soporte (32), el cual en situacion de montaje de la cesta en el recipiente discurre adyacente a la cara inferior de la base (22) de la cesta (20) y que termina en dicha articulacion rotatoria (23), y un segmento vertical (33) que une dicho segmento de asido (31) y dicho brazo de soporte (32), extendiendose dicho segmento vertical (33) a traves de una abertura (51) de la tapa y sobresaliendo menos o mas de la misma dependiendo de la posicion de la cesta (20) en inmersion, o en posicion de escurrido, respectivamente, estando la tapa (50) aplicada sobre la abertura (11), cerrandola. 3. Aparato segun reivindicacion 2 caracterizado porque el segmento vertical (33) del elemento de soporte (30) dispone de un apendice de anclaje (35) que permite situar y anclar dicho elemento de soporte (30), y la cesta (20) que esta unida a el, en una posicion emergida de escurrido, al

borde del recipiente (10) manteniendo la cesta (20) dentro del recipiente (10) por encima del nivel del liquido de coccion (aceite para freir). 4. Aparato segun reivindicacion 1 o 2 caracterizado porque el espacio contenido entre la base (22) y las paredes perimetrales (21) de la cesta (20) conforma un recinto libre de elementos interferentes. 5. Aparato segun una cualquiera de las reivindicaciones precedentes caracterizado porque la abertura (51) de la tapa (50) del recipiente (10) tiene poca holgura respecto al segmento (33) del elemento de soporte (30). 6. Aparato segun la reivindicacion 1, caracterizado porque el plato giratorio (40) accionado mediante el mecanismo rotatorio (60), es de un diametro al menos igual al diametro interior de la cesta (20). 7. Aparato segun reivindicacion 1 o 6, caracterizado porque la transmision mecanica entre el mecanismo rotatorio (60) y el plato giratorio (40) dispone de un mecanismo de trinquete (65) interpuesto. 8. Aparato segun la reivindicacion 7, caracterizado porque el mecanismo rotatorio (60) se acciona manualmente desde el exterior del contenedor mediante un pomo (63) giratorio. 9. Aparato segun reivindicacion 8 caracterizado porque el mecanismo rotatorio (60) dispone de un mecanismo multiplicador que tiene un factor multiplicador mayor de 10. 10. Aparato segun una cualquiera de las reivindicaciones de 6 a 9 caracterizado porque el mecanismo rotatorio (60) dispone de un pinon (61) en una posicion concentrica con el eje de rotacion de la cesta (20), estando dicho pinon (61) engranado con un arco de engranaje (62), el cual esta unido mediante un brazo con el centro de dicho arco, donde se conecta el pomo (63) mediante un eje que atraviesa la tapa (50) del recipiente (10). 11. Aparato segun reivindicacion 10 caracterizado porque el pomo (63) transmite al arco de engranaje (62) un giro maximo de 90 degrees. 1. Apparatus for centrifugal draining fried products, integrated into a fryer which includes: – a container (10) which can contain liquids with an opening (11) on its upper face, – a heating device for heating a cooking liquid content said container, – a basket (20) adapted to be inserted and extracted from said container (10) through said opening (11) top, and able to rotate within the vessel (10) about a vertical axis, – a cap (50) to cover the container (10) which is associated with a rotating mechanism (60) mechanically coupled to the basket (20) to produce its rotation, characterized in that: – the mechanical coupling between the rotating mechanism (60) of the lid (50) and the basket (20) is performed by contact between an upper end of the peripheral wall (21) of the basket (20), drained position, extracted from the cooking liquid, and a turntable (40) arranged and attached to the underside of the lid (50), said turntable (40) mechanically connected to said rotating mechanism (60), – the basket (20) is articulated on the underside of its base (22) the end of a support arm (32) which derives from a supporting element (30) of the basket, through a rotary joint (23) with vertical axis on the end of said arm (32). Two. The apparatus of claim 1, wherein the support element (30) with the basket (20) to which is attached, is removable, and has a grip segment (31), located outside the container (10) and has a handle (34), a support arm (32) which in mounting location of the basket in the vessel runs adjacent to the underside of the base (22) of the basket (20) and ending said rotary joint (23), and a vertical segment (33) connecting said gripping segment (31) and said support arm (32), said vertical segment (33) through an opening (51) cover and protruding less or more than the same depending on the position of the basket (20) Immersion, or drained position, respectively, with the cover (50) applied to the opening (11), closing. Three. Apparatus according to claim 2, wherein the vertical segment (33) of the support element (30) has an anchoring appendage (35) allowing positioning and anchoring said support element (30) and basket (20) which is attached him, in a position of drained emerged at the edge of the container (10) holding the basket (20) into the container (10) above the level of the cooking liquid (oil for frying). April. Apparatus according to claim 1 or 2 wherein the space contained between the base (22) and the perimeter walls (21) of the basket (20) forms an enclosure free of interfering elements. May. Apparatus according to any preceding claim wherein the opening (51) of the cover (50) of the container (10) has little play relative to the segment (33) of the support element (30). June. The apparatus of claim 1, wherein the turntable (40) actuated by the rotating mechanism (60) is of a diameter at least equal to the inside diameter of the basket (20). July. Apparatus according to claim 1 or 6, wherein the mechanical transmission between the rotary mechanism (60) and the turntable (40) has a ratchet mechanism (65) interposed. August. The apparatus of claim 7, wherein the rotary mechanism (60) is operated manually from outside the container through a knob (63) rotating. 9. Apparatus according to claim 8 characterized in that the rotary mechanism (60) has a multiplier mechanism which has a multiplier greater than 10. 10. Apparatus according to any of claims 6 to 9 characterized in that the rotary mechanism (60) has a pinion (61) in a concentric position with the rotation axis of the basket (20), said pinion (61) meshed with an arc of gear (62), which is attached via an arm to the center of said arc where it connects to the handle (63) by a shaft which traverses the lid (50) of the container (10). 11. Apparatus according to claim 10 wherein the handle (63) transmits arc gear (62) having a maximum of 90 degrees rotation.

137) Family number: 56861475 (CN203693390U)

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Title: DOUBLE-CYLINDER DOUBLE-BASKET ELECTRIC HEATING FRYER**Priority:** CN201420009118U 20140108**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203693390 U</u>	20140709	CN201420009118U	20140108

Probable Assignee: SHANGHAI YIXI FOOD MACHINERY CO LTD**Assignee(s):^(std):** SHANGHAI YIXI FOOD MACHINERY CO LTD**Assignee(s):** SHANGHAI A HI FOOD MACHINERY CO LTD ; SHANGHAI YIXI FOOD MACHINERY CO**Inventor(s):^(std):** DING CHAOBIAO**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** CN104958009,**Abstract:**

Source: CN203693390U The utility model discloses a double-cylinder double-basket electric heating fryer. An oil tank is placed on a bottom plate and located in space formed by a door, a right side plate, a left side plate and a rear cover plate, an oil discharge valve is placed in the oil tank, oil cylinders are arranged on the upper portion of the oil tank, a control panel is arranged on the upper portion of the door, an electric appliance box is arranged on the upper portion of the rear cover plate, a tension spring is arranged on an electric appliance box rear cover plate on the electric appliance box, a machine head box is arranged above the electric appliance box, a machine head box rear cover plate is arranged on the back of the machine head box, basket hanging plates are arranged in front of the machine head box and connected with heater which are placed on a heater support, the heater support is connected with a carrying handle, small lifting handles are arranged on the two sides of the basket hanging plates, a microprocessor is arranged inside the electric appliance box and connected with an overtemperature protector, the heater support and heating pipes can be easily detached, the sum of the oil cylinders is two, temperatures of the two oil cylinders are independently controlled, and the two oil cylinders are independently timed. Heating and timing are controlled through a microcomputer, the fryer is convenient to clean, hygienic and safe, and parameters can be automatically set according to technical requirements and operation technological processes.

PatBase - CN203693390_U

CN 203693390 U

说明书附图

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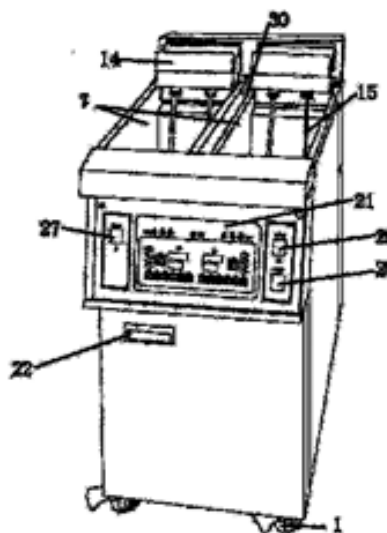


图 1

138) Family number: 58845748 (CN204232870U)

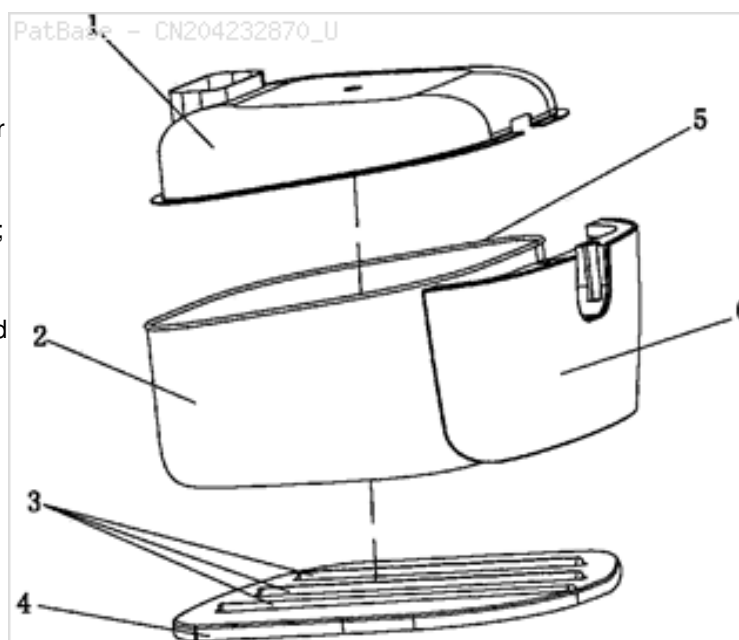
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Title: INNER POT SEALING STRUCTURE OF AIR FRYER**Priority:** CN201420611982U 20141022

Family:	Publication number	Publication date	Application number	Application date
	<u>CN204232870 U</u>	20150401	CN201420611982U	20141022

Probable Assignee: ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO LTD**Assignee(s):^(std):** ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO LTD**Assignee(s):** ZHONGSHAN WING ELECTRIC CO LTD ; ZHONGSHAN YONGANBAO ELECTRIC APPLIANCES CO**Inventor(s):^(std):** YAN SHAOJI**International class** A47J27/08 A47J36/10 A47J37/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN204232870U The utility model discloses an inner pot sealing structure of an air fryer. The inner pot sealing structure comprises an inner pot, a heat insulation cover and a pot body chassis, wherein the inner pot is arranged on the pot body chassis; the inner pot is provided with a handle; an opening end surface of the inner pot is in an inclined shape; the end surface, which is in contact with the inner pot, of the heat insulation cover, is set into an inclined end surface; the inclined end surface of the heat insulation cover is arranged on the opening end surface of the inner pot in a clamping way; the upper surface of the pot body chassis is provided with a plurality of supporting and jacking strips, and the supporting and jacking strips are used for supporting and jacking the inner pot. According to the inner pot sealing structure of the air fryer disclosed by the utility model, the opening end surface of the inner pot and the heat insulation cover are covered and sealed by inclined surfaces, and the machining is simple, and the cost is relatively low, and the sealing effect is good.



139) Family number: 63642442 (CN205597789U)

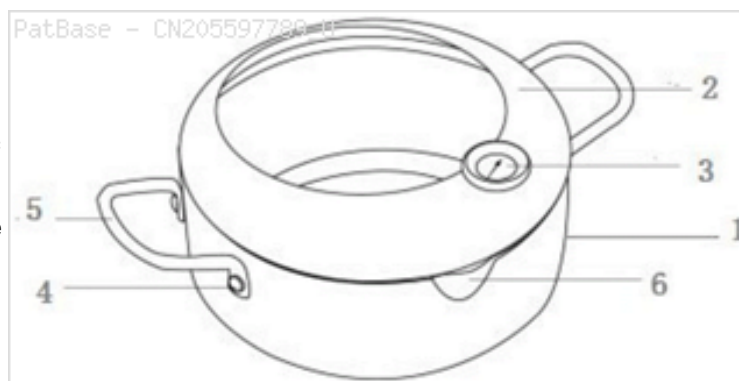
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Title: CONTROL BY TEMPERATURE CHANGE RESPONSE DEEP FRYER**Priority:** CN201520943672U 20151124**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205597789 U</u>	20160928	CN201520943672U	20151124

Probable Assignee: XU ZHENKANG**Assignee(s):^(std):** SHANDONG TIANZHIJIN ECOLOGICAL TECH CO LTD ; XU ZHENKANG**Assignee(s):** SHANDONG TIANZHIJIN ECOLOGICAL TECHNOLOGY CO ; QU ZHEN KANG ; SHANDONG ECOLOGICAL TECHNOLOGY CO LTD KAM DAYS**Inventor(s):^(std):** CHUN ZHENKANG**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN205597789U The utility model relates to a control by temperature change response deep fryer, including the pot body, with a pot body matched with pot cover, handle, the handle is located the lateral wall of the pot body and passes through rivet and pot body fastening connection, its characterized in that: the shang yanchu of pot side wall has the water conservancy diversion mouth that can pour out deep -fry liquid, be provided with the oil thermometer on the pot cover. Deep fryer design beauty and practicability, the little oil of more saving of the pot body, and the shang yanchu of pot side wall is provided with the water conservancy diversion mouth, can effectively prevent overflowing of deep -fry liquid, and also the convenient interior liquid of pot pours out, oil thermometer on the pot cover time props the size that the duration and degree of heating can be controlled to the temperature of holding oil in the culinary art, can be easily according to fried food the desired temperature and control the oil temperature, improved the deep -fry quality of food, the bottom design of the pot body has rough and uneven in surface line, can improve the intensity in the bottom of a boiler and the heating area who increases the bottom of a boiler.



140) Family number: 64702402 (JP2017000246A)

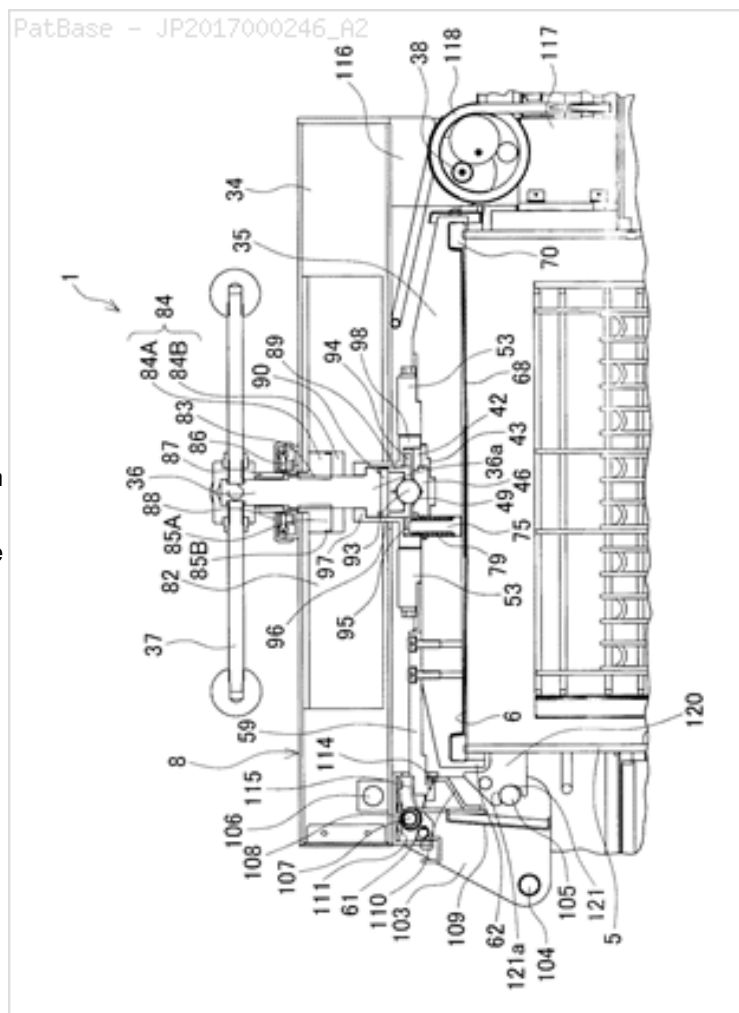
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115004 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000246 A2</u>	20170105	JP20150115004	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000246A [Issue] in a simple configuration, rotating handle for pressure cooking in regulating to ensure to prevent opening the lid and the body. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and contains, on the handle shaft 36 multiple notches to energising to the membrane of the 68 side flange of 94 to 96, covers the body 35 located behind the pressure safety pin 75 and cover the body 35 film body 68 and 75 pressure safety pin coil spring 79 and the During cooking increases the pressure inside the oil Terminal 5 and the membrane of the 68 was shifted upward and 75 pressure safety pin pushed upward, to the upper edge of the pressure safety pin 75 notched flanges faculty 94 96 to abort it and turn to screw the opposite direction of the handle shaft 36 can be regulated. [Select diagram: Figure 4



141) Family number: 64702618 (JP2017000249A)

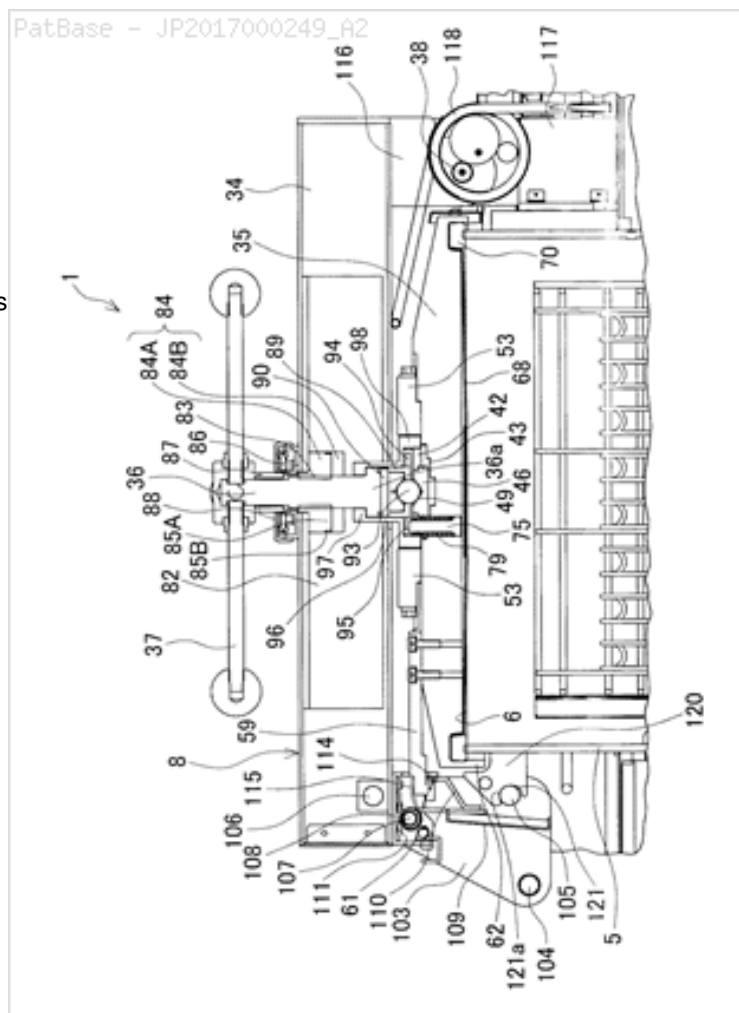
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115007 20150605**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2017000249 A2</u>	20170105	JP20150115007	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000249A [Issue] to maintain the adhesiveness of the lid and the body with oil, regardless of the deviation of the position of the oil due to the distortion of inclination of oil tank and its components and cover the body. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the handle shaft 36, and is bound to around 38 at the rear of the oil tanker 5, female, 84 34 arm can be ups and downs and the arm inside the screwed handle shaft 36 and include, playing to the handle axis 36 I interpolated in the bottom of a 36 section concatenating the lid itself 35 at the bottom of the tube-shaped arm side lift 96 encapsulate, the retainer, hanging from the handle shaft 36 35 cover body, endorsed the. [Select diagram: Figure 4



Priority: DE19780028337U 19780923

Family:

Publication number	Publication date	Application number	Application date
DE7828337 U1	19790712	DE19780028337U	19780923

Probable Assignee: SCHREIBER KLAUS GUENTER

Assignee(s):^(std): SCHREIBER KLAUS GUENTER

Assignee(s): SCHREIBER KLAUS GUENTER 2115 HOLM SEPPENSEN

International class A47J37/12 (Advanced/Invention);
(IPC 8-9); A47J37/12 (Core/Invention)

International class A47J29/00 A47J36/24 A47J37/12
(IPC 1-7);

CPC: A47J37/1257

European class: A47J37/12H

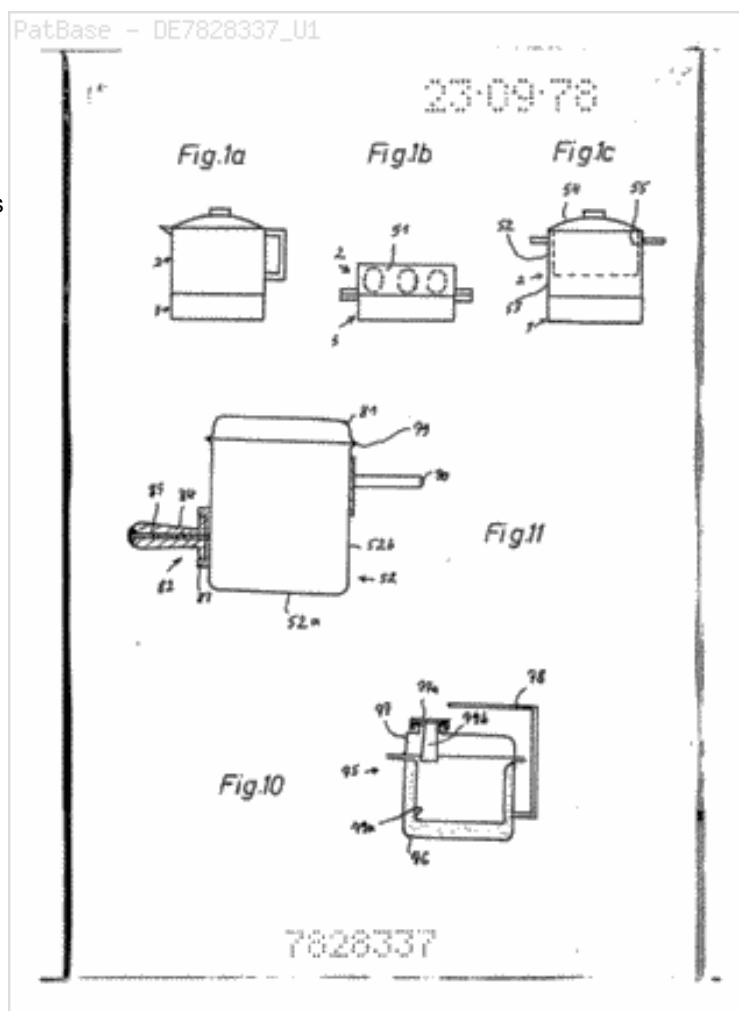
[Classification Explorer](#)

Forward Citations: DE3123881,

Abstract:

Source: DE7828337U1 (Claim 1) 1. Kuechengerat mit elektrischer Heizeinrichtung und einem Behaelter zur Waermebehandlung von Nahrungsmitteln, gekenn- zeichnet durch ein Grundgestell (3) mit regel- und steuerbarer Heizeinrichtung, das loesbar mittels eines Verbin- dungsmittels mit einem das Arbeitsgeraet enthaltenden Ar- beitsbehaelter (2) verbunden ist.

Machine translation: (Claim 1) 1 Kitchen equipment with electric heater and a tank for heat treatment of food, marked by a basic frame (3) with regular and controllable heating device, which can be solved by means of a connection by using a the tools containing Ar-beitsbehaelter (2).



143) Family number: 1952160 (WO8101106A1)

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Title: FIRE EXTINGUISHING DEVICE AGAINST FIRE IN A COOKING VESSEL
Priority: DE19792942247 19791018 DE19792948268 19791130 WO1980DE00158 19801020
Family:

Publication number	Publication date	Application number	Application date
AU198063906 A1	19810507	AU19800063906	19801020
DE2942247 A1	19810430	DE19792942247	19791018
DE2948268 A1	19810604	DE19792948268	19791130
EP0042384 A1	19811230	EP19800901933	19801020
WO8101106 A1	19810430	WO1980DE00158	19801020

Probable Assignee: LANDSRATH WALTER

Assignee(s):^(std): LANDSRATH WALTER

Assignee(s): LANDSRATH W

Inventor(s):^(std): LANDSRATH W ; LANDSRATH WALTER

Inventor(s): W LANDSRATH

Designated states: AT AU BR CH DE DK FR GB JP LU NL NO SE US

International class
 (IPC 8-9): [A62C3/00 F23Q25/00](#) (Advanced/Invention);
[A62C3/00 F23Q25/00](#) (Core/Invention)

International class
 (IPC 1-7): [A62C3/00 A62C7/00 F23Q25/00](#)

CPC: [A62C3/006](#)

European class: [A62C3/00C](#)

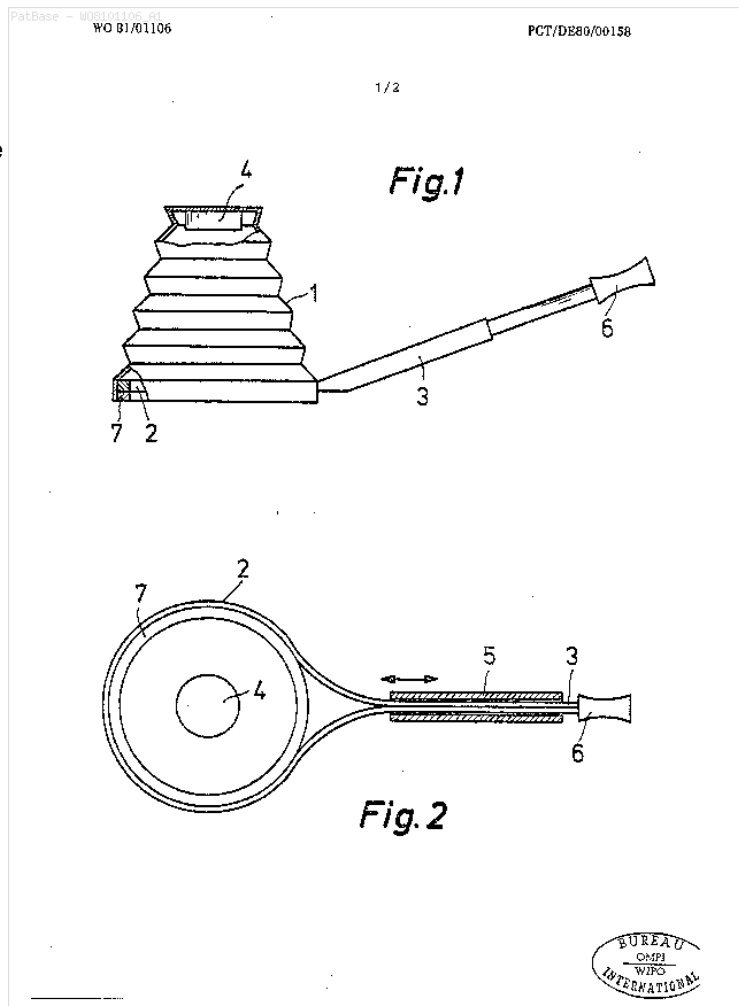
[Classification Explorer](#)

Cited documents: GB532971 A, DE907376 A, DE2218578 A1,

Forward Citations: WO9627410, WO14161963, US6749632, US5842525, GB2497820, GB2497820, GB2314267, GB2314267, GB2298574, EP2787059, EP1585411, DE102009050591, DE102009050591,

Abstract:

In order to fight against fire in a cooking vessel, for instance a deep fryer, a cover (1) with a handle (3) is provided which can be fixed on the burning vessel or a plate (10) with a handle (6) which may rest on the edge of the vessel. A material, such as powder or foam, can also be provided in the fire extinguishing device, to be spread on the burning content of the vessel in order to extinguish fire.



144) Family number: 41117738 (US2008017047A)

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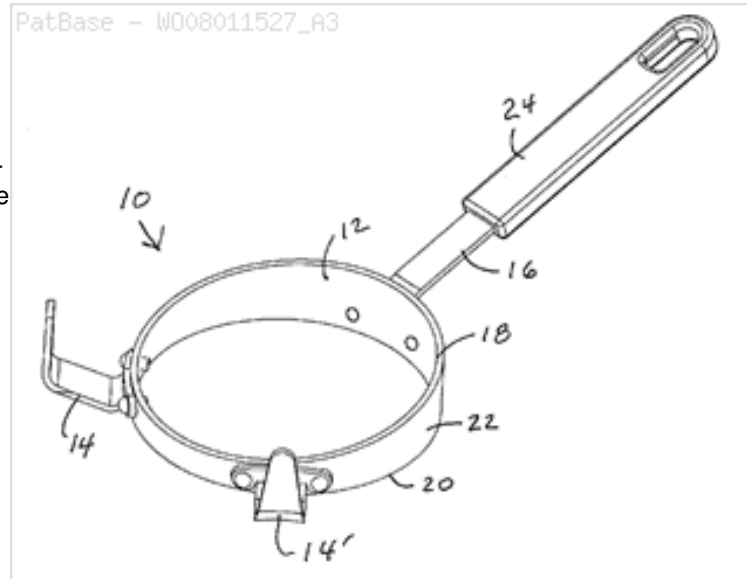
Title: SYSTEM AND METHOD FOR DIVERTING LIQUIDS FROM FOODSTUFF DURING PREPARATION IN A FRYING PAN**Priority:** US20060831815P 20060719 US20070780321 20070719

Family:	Publication number	Publication date	Application number	Application date
	<u>US2008017047 AA</u>	20080124	US20070780321	20070719
	<u>US7607387 BB</u>	20091027	US20070780321	20070719
	<u>WO08011527 A2</u>	20080124	WO2007US73908	20070719
	<u>WO08011527 A3</u>	20081002	WO2007US73908	20070719

Probable Assignee: STANCZAK EDMUND A**Assignee(s):^(std):** STANCZAK EDMUND A**Inventor(s):^(std):** STANCZAK EDMUND A**Agent(s):** THOMAS MOGA, BUTZEL LONG; THOMAS MOGA BUTZEL LONG; SHOOK HARDY AND BACON LLP; MOGA THOMAS T**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class**
(IPC 8-9): A47G23/02 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Advanced/Invention);
A47G23/00 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Core/Invention)**CPC:** A47J37/108**European class:** A47J37/10D A61N1/00**US class:** 220/573.1 426/523 99/357 99/422 99/425 99/426 99/444 99/495[Classification Explorer](#)**Cited documents:** US6844529 BB, US6182557 BA, US5967024 A, US5967022 A, US5850779 A, US5323693 A, US5315983 A, US5074777 A, US4154218 A, US4140889 A, US3452895 A, US333894 A, US3215063 A, US2903229 A, US2871848 A, US284295 A, US2772627 A, US2611510 A, US2327988 A, US2148181 A, US1974796 A, US1960 A, US1904925 A, US1522329 A,**Forward Citations:** WO13048242, US8899145, US8613250, US8353243, US2016183729, US2014238385, US2009173239, NL2007468,

Abstract:

Source: US2008017047A A system for directing cooking liquids away from cooking foodstuff in a frying pan is disclosed. The system includes a frying pan supporting structure and a shield. The frying pan supporting structure includes a bottom side for placement on a heating element and a top side upon which said frying pan rests. The bottom side and the top side are angled with respect to each other. The liquid, typically in the form of oil or grease in flowing form, substantially collects under the shield which prevents the splattering and splashing of oil and hot grease on the user.



145) Family number: 11591000 (US5908551A)

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Title: GREASE CADDIE**Priority:** US19980021447 19980210

Family:	Publication number	Publication date	Application number	Application date
	<u>US5908551 A</u>	19990601	US19980021447	19980210

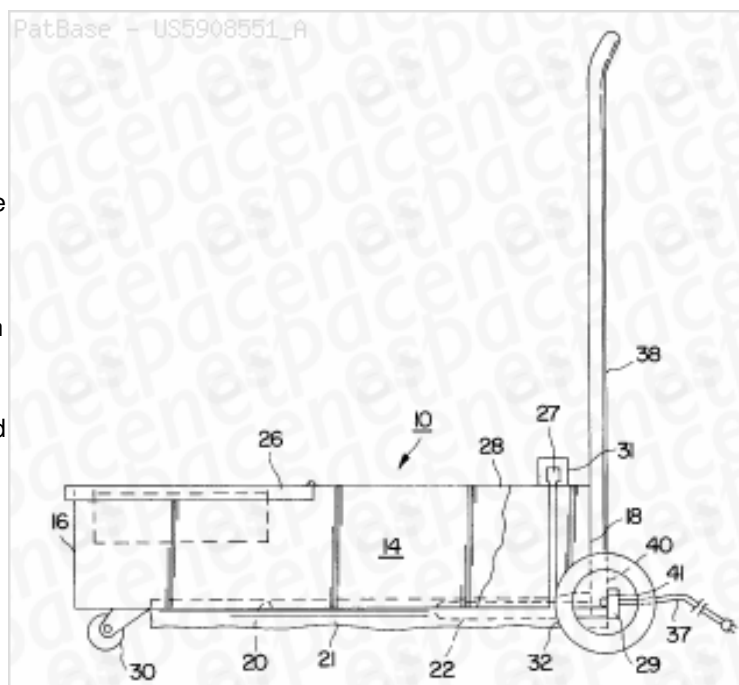
Probable Assignee: ONKEN S INC**Assignee(s):^(std):** ONKEN S INC**Assignee(s):** ONKEN'S INC ; ONKEN"S INC**Inventor(s):^(std):** ONKEN DONALD R

International class A47J37/12 B01D29/11 (Advanced/Invention) ;
 (IPC 8-9) : A47J37/12 B01D29/11 (Core/Invention)

International class A47J37/12 B01D35/027 B01D35/18 B01D35/34
 (IPC 1-7) :

CPC: Y10S210/08 A47J37/1271 B01D29/117**European class:** A47J37/12L B01D29/11G**US class:** 141/82 141/98 210/184 210/241 210/474 210/DIG.8 392/322 392/347 392/441 392/444 392/445 99/408[Classification Explorer](#)**Cited documents:** US5850503 A, US5823097 A, US5609193 A, US5340471 A, US5247876 A, US4890548 A, US4646793 A, US4444095 A, US4420006 A, US4360046 A, US3432642 A, US3294039 A, US1554589 A,**Forward Citations:** WO03014007, WO03014007, USD615111, US9592526, US9199267, US8905257, US8831413, US8648282, US8561462, US8246824, US7735526, US6365046, US6227405, US6186241, US2014349006, US2014150877, US2013017336, US2011176792, US2011174070, US2011120996, US2011006054, US2007227597, US2006065582, FR2827590,**Abstract:**

Source: US5908551A A mobile cooking oil caddy which includes in combination features of heating, filtering and transporting oil for disposal into a disposal tank. The caddy is rolled under a hot oil fry cooker and hot fats can be drained into the caddy from the cooker. A filter screen is provided in the caddy for filtering the hot fats. If the grease is to be disposed, the caddy is moved to a facility in which the oil is pumped from the caddy by a motorized pump to a disposal tank. If the grease has been stored for a time and is not in a fluid state, the heater can be activated to heat transfer mixture which in turn heats the grease to a fluid state. The filter can then be cleaned of food particles and the caddy stored until it is desired to drain the fry cooker again for receipt of hot fats from the cooker when desired.



0) GB2124073A – A FILTER LID FOR A FONDUE SET AND FOR A DEEP-FR...

146) Family number: 1507073 (GB2124073A)

© PatBase

Title: A filter lid for a fondue set and for a deep-fryer

Priority: BE19820208660 19820723 BE19820893919 19820723

Family:	Publication number	Publication date	Application number	Application date
	BE893919 A1	19821116	BE19820208660	19820723
	DE3325731 A1	19840126	DE19833325731	19830716
	GB2124073 A1	19840215	GB19830019806	19830722
	GB2124073 B2	19860122	GB19830019806	19830722
	GB8319806 A0	19830824	GB19830019806	19830722
	NL8302512 A	19840216	NL19830002512	19830714

Probable Assignee: ELECTRO DOMESTIC BELGIUM

Assignee(s):^(std): ELECTRO DOMESTIC BELGIUM ; ELECTRO DOMESTIC BELGIUM S A ; ELECTRO DOMESTIC BELGIUM SA ; ELECTRO DOMESTIC BELGIUM SOCIE

Assignee(s): ELECTRO DOMESTIC BELGIUM SOCIETE ANONYME ; ELECTRO DOMESTIC BELGIUM S A TE GEMBLOUX BELGIE

Inventor(s):^(std): JENICOT JEAN MARIE

Inventor(s): JEAN MARIE JENICOT

International class
(IPC 8-9): [A47J36/38](#) [A47J37/12](#) (Advanced/Invention);
[A47J36/00](#) [A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J36/06](#) [A47J37/06](#) [A47J37/12](#)

CPC: [A47J36/38](#) [A47J37/1204](#) [A47J37/128](#)

European class: [A47J36/38](#) [A47J37/12A](#) [A47J37/12M1](#)

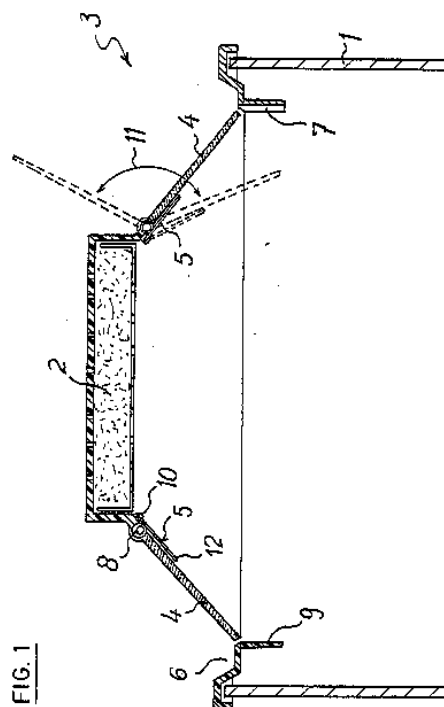
[Classification Explorer](#)

Cited documents: GB671981 A, GB646689 A, GB577267 A, GB1523221 A, GB1471815 A, GB1390916 A, GB1266532 A, GB1147733 A,

Forward Citations: WO07115784, USRE36072, US6997975, US5531354, FR2705878, EP1393665, DE4412843, DE19534113, CN104873110,

Abstract:

Source: GB2124073A The lid (3) intended to allow food to pass into an oil bath and be removed from the cooking container (1) is suitable both for cooking fondues and chips. Made from a high-temperature and oil resistant material it comprises an interchangeable filter cartridge (2), one or more movable flaps (4) and at least one spring returning the or each flap (4) into the plane of the wall of the lid (3) after the introduction of the food.



147) Family number: 21407547 (FR1516970A)

© PatBase

Title: PERFECTIONNEMENTS APPORTES AUX FRITEUSES POUR CUISINES COLLECTIVES IMPROVEMENTS TO FRYER FOR COLLECTIVE KITCHENS (Machine translation)

Priority: FR19670092975 19670130

Family:	Publication number	Publication date	Application number	Application date
	FR1516970 A	19680205	FR19670092975	19670130

Probable Assignee: MAISON LABESSE

Assignee(s):^(std) MAISON LABESSE

International class A47J37/12 (Advanced/Invention);
(IPC 8-9) A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7)

CPC: A47J37/1219

European class: A47J37/12C

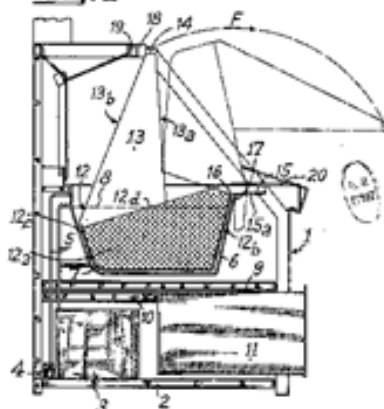
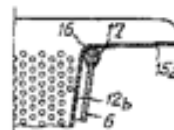
[Classification Explorer](#)

Abstract:

Source: FR1516970A (Claim 1) 1. Le panier est soutenu, a son extremite superieure avant, par au moins un pivot horizontal proche de l'extremite superieure avant de la cuve et il est pourvu d'un prolongement s'etendant notablement vers le haut a partir de son bord superieur, ce prolongement etant muni d'une poignee de man uvre qui, en position normale de service du panier, repose contre une butee fixee au bati;

Machine translation: (Claim 1) 1. The basket is supported, has its upper end before, at least by a horizontal pivot near the upper end of the tank and before it is provided with an extension extending substantially upwardly from its upper edge, this being provided with an extension handle for maneuver which, in normal operating position of the cart, rests against an abutment fixed to the frame;

PatBase - FR1516970_A

D^e 1.412.876 Brevet d'Invention d^e la Maison Labesse Pl. unique**Fig. 1****Fig. 2**

Title: Frying cage of fryer and fryer**Priority:** CN20042046571U 20040603

CN200420046571U 20040603

Family:

Publication number	Publication date	Application number	Application date
CN2701376 Y	20050525	CN200420046571U	20040603

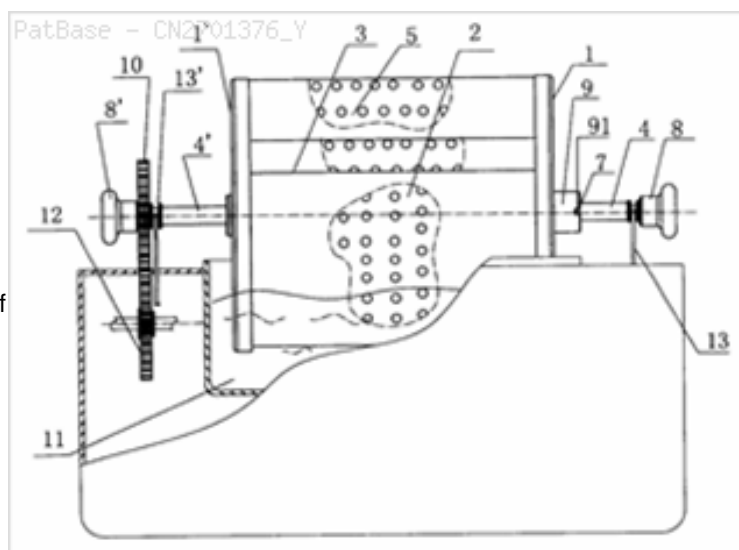
Probable Assignee: JIAN WEIWEN**Assignee(s):^(std):** JIAN WEIWEN**Inventor(s):^(std):** JIAN WEIWEN**Inventor(s):** WEIWEN JIAN**International class** A47J37/00 (Advanced/Invention);
(IPC 8-9): A47J37/00 (Core/Invention)**International class** A47J37/00
(IPC 1-7):[Classification Explorer](#)**Forward Citations:** CN103479233,**Abstract:**

Source: CN2701376Y The utility model

discloses a frying cage of a fryer and a fryer, and the frying cage comprises a cage body, the open and closure cover of the frying cage and the supporting axles of the frying cage.

The surface of the frying cage comprises two end surfaces and the side surface of a surface of revolution, the two ends are provided with the center of rotations of the cage body, and the side surface part of the cage body is provided with a material inlet. The axial lines of the two supporting axles which are connected to the two end surfaces of the frying cage are coincided with the center of rotations of the cage body, and the open and closure cover of the frying cage comprises a curved surface block with is matched with the surface of revolution and the material inlet of the cage body and two supporting ends. One of the supporting axle is fixedly connected to the center of rotation of one end surface of the cage body and movably matched on the axle center of one of the supporting ends, and the other supporting axle

is movably matched on the center of rotation of the other end surface of the cage body and fixedly connected to the axle center of the other supporting end. Some one supporting axle is fixedly connected with a clutch pin and a handle which can be drawn longitudinally, and the cage body end which is movably matched with the supporting axle with the pin or the supporting end is fixedly connected with a clutch seat with a groove. The open and closure device of the utility model is not easily polluted in the process of frying, and the open and closure is flexible and reliable.



Title: Frying pan**Priority:** CN200910037340 20090218

Family:	Publication number	Publication date	Application number	Application date
	CN101502392 A	20090812	CN200910037340	20090218

Probable Assignee: GUANGDONG XINBAO ELECTRIC APPL**Assignee(s):^(std):** GUANGDONG XINBAO ELECTRIC APPL ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO ; GUANGDONG XINBAO ELECTRICAL APPLIANCES HOLDINGS CO LTD**Assignee(s):** GUANGDONG XINBAO ELECTRIC APPLIANCES HOLDINGS CO**Inventor(s):^(std):** JIANGANG GUO ; JINYIN ZHU ; LIJUN MIN**Inventor(s):** MIN LIJUN ; ZHU JINYIN ; GUO JIANGANG**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)[Classification Explorer](#)**Forward Citations:** CN103479213,**Abstract:**

Source: CN101502392A The invention provides a fryer pan, comprising a pan body, an inner bag, a top cover and an electric heating element, wherein the electric heating element is set on the top cover and a reflection plate capable of reflecting heat to the inner bag and being set between the electric heating element and the top cover. A stirring rod is set in the inner bag and connected with an electric motor below the inner bag. A boss is set in the center of the inner bag and one end of the rotation axle is connected with the output axle of the electric motor and another end of the rotation axle is connected with the stirring rod after passing through the boss. A rotation cage is set in the inner bag and another end of the rotation axle is connected with the top of the rotation cage after passing through the boss and the lower part of the rotation cage is sleeved on the boss and the bottom of the rotation cage keeps a certain distance from the bottom surface of the inner bag and the stirring rod is connected with the middle lower part of the rotation cage. One end of the inner bag is gripped by the handle module and laid on the pan body by the handle module; the other part of the inner bag is directly laid on the pan body. The fryer pan has features of compactness, convenient operation, high heat efficiency, oil saving and health food.

PatBase - CN101502392_A

200910037340.0

说明书附图

第1/2页

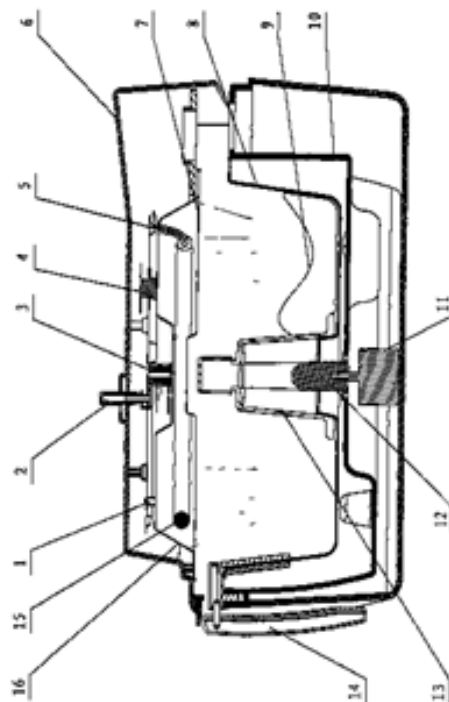


图1

150) Family number: 45764803 (TW214097Y)

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Title: Fries the fryer structure (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TW214097 Y	19931001	TW19930207604U	19930602

International class A47J37/10 (Advanced/Invention),
 (IPC 8-9): A47J37/10 (Core/Non-invention)

International class A47J37/10
 (IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: TW214097Y

Machine translation: One kind to fry the fryer structure, includes components at least and so on bottom pot, central disk, handle, pot cover, among in which bottom pot is equipped with a link terrace, the central disk establishes a link raised terrace edge in its boundary, also using this raised terrace edge joining link of terrace in the bottom pot, makes between the bottom pot kneading board and the central disk has in the one spatial, but, bottom pot rear end central upper limb then the level flushes supposes two pin connected holes, and matches the handle end to suppose the pin connected tree top, then pin connected it; Its characteristic lies in: ; Bottom pot kneading board overshooting supposes right amount to lead the gas hood and to pass the hole; ; The central disk on the raised terrace edge also flushes supposes right amount leads the gas hood and passes the hole; ; Front end the handle under hangs to extends raised has keeps off the piece; ; Affiliation it, under the bottom pot the heat source may lead its steam to pass the hole after the bottom pot to induct under the central disk within spatial, and passes Kong Jidao by the affiliation the gas hood to derive, also leads the period in the class, but rapidly central disk heating up; Keeps off the piece using the handle to be possible to team up on Yu Deguo in the raised terrace to keep off stopping.

151) Family number: 63218742 (CN105852674A)

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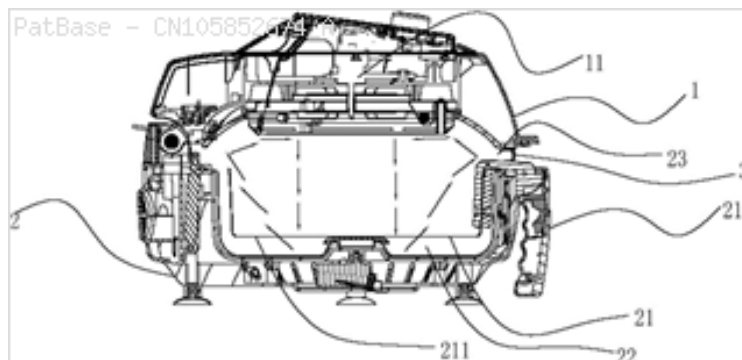
Title: MULTIFUNCTIONAL FLIP TYPE AIR FRYER**Priority:** CN201610404384 20160607

Family:	Publication number	Publication date	Application number	Application date
	<u>CN105852674 A</u>	20160817	CN201610404384	20160607

Probable Assignee: JOYOUNG CO LTD**Assignee(s):^(std):** JOYOUNG CO LTD**Assignee(s):** JOYOUNG CO**Inventor(s):^(std):** GAN WEI ; WANG HUAILIANG ; WANG XUNING**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN105852674A The invention relates to the technical field of electric appliances for kitchens, in particular to a multifunctional flip type air fryer which comprises a container, a cover and an elastic wind-shield device. The cover is connected with the container rotationally; the container comprises a cavity for accommodating a frying basket; the container and/or the cover is provided with a recess for accommodating a handle of the frying basket; the elastic wind-shield device comprises a wind-shield plate arranged at the position of the recess; and the wind-shield plate covers the recess when the frying basket is removed.

When users place food in the cavity directly and cook the food without the frying basket, the elastic wind-shield device closes the recess to prevent airflow in the cavity from exhausting from the recess, and thus, cooking efficiency is guaranteed while the users are protected against scald by the hot airflow. The multifunctional flip type air fryer can be used for cooking with or without the frying basket.



152) Family number: 65320619 (DE102015116460A1)

© PatBase

Title: VORRICHTUNG ZUM REDUZIEREN VON GERUCHS-, RAUCH- UND/ODER DAMPFEMISSIONEN DEVICE TO REDUCE ODOR, SMOKE AND / OR STEAM EMISSIONS (Machine translation)

Priority: DE201510116460 20150929

Publication number	Publication date	Application number	Application date
<u>DE102015116460 A1</u>	20170330	DE201510116460	20150929

Probable Assignee: SMARTCAP GMBH

Assignee(s):^(std): SMARTCAP GMBH

Inventor(s):^(std): STOBER MATTHIAS

International class F24C15/20 (Advanced/Invention)
(IPC 8-9):

CPC: F24C15/20 F24C15/2028 F24C15/2042

[Classification Explorer](#)

Abstract:

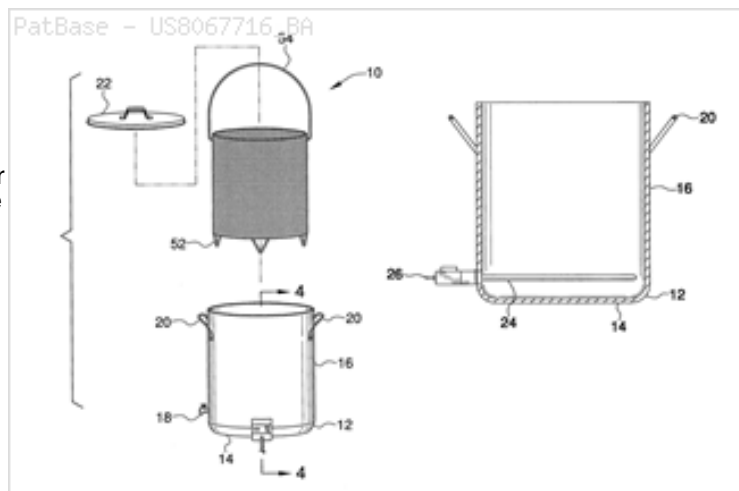
Source: DE102015116460A1 Die Erfindung betrifft eine Vorrichtung zum Reduzieren von Geruchs-, Rauch- und/oder Dampfemissionen (1) bei einem Gar-, Koch- und/oder Bratvorgang aus einem Lebensmittel (2) an einem Arbeitsbereich (3), aufweisend den Arbeitsbereich (3) zum Zubereiten und/oder Vorhalten des Lebensmittels (2), eine den Arbeitsbereich (3) wenigstens teilweise bedeckende Haube (7), einen Abzug (8), welcher zum Absaugen wenigstens von dem Lebensmittel stammenden (2) Geruchs-, Rauch- und/oder Dampfemissionen (1) ausgestaltet ist, eine Austrittsdüse (12) ausgestaltet zum gerichteten Emittieren ionisierter Luft und eine Umluftreinigungseinrichtung (13), wobei zwischen dem Arbeitsbereich (3) und der Haube (7) bedienseitig (10) eine Arbeitsoeffnung (11) ausgebildet ist, durch welche eine Bediener Zugriff zu dem Arbeitsbereich (3) hat, die Umluftreinigungseinrichtung (13) ausgestaltet ist, die abgesaugten Geruchs-, Rauch- und/oder Dampfemissionen (2) und/oder Umgebungsluft zu filtern und wenigstens einen Teil der gefilterten Luft ionisiert der Austrittsdüse (12) zuzufuehren, und die Austrittsdüse (12) bedienseitig derart angeordnet und ausgestaltet ist, dass die ionisierte Luft in eine Richtung (14) ausstroemt, welche mit der Normalen des Arbeitsbereiches (3) einen Winkel von greater than or equal to 0 degrees und less than or equal to 60 degrees bildet, und einen Luftschleier (15) bildend die Geruchs-, Rauch- und/oder Dampfemissionen (1) von einem Entweichen wenigstens aus der Arbeitsoeffnung (11) hindert. Concerning invention a device to reduce odor, smoke or steam emissions (1) in the case of a trolling, cooking or roasting process of a food (2) to a work area (3), showing up the working area (3) to prepare and/or holding stocks of the food (2), a hood (7), at least in part to cover the work area (3) one trigger (8), which, at least by the food to absorb (2) odour, Smoke or steam emissions (1) designed, a nozzle (12) designed for targeted emitting ionized air and a circulating air cleaning equipment (13), where between the working area (3) and the hood (7) handle side (10) a work opening (11) is trained, through which a user has access to the work area (3), the circulating air cleaning equipment (13) is designed to filter the aspirated smell, smoke or steam emissions (2) and/or ambient air and ionized to feed at least part of the filtered air outlet nozzle (12), the nozzle (12) side handle so arranged and decorated, that emanates the ionized air in one direction (14), which with the normal of working area (3) an angle of greater than or equal to 0 degrees and less than or equal to is 60 degrees, and is making the smell, smoke, or steam emissions (1) by an escape at least from the work opening (11) prevents an air curtain (15).

Title: COOKING APPARATUS**Priority:** US20050049390 20050203

Family:	Publication number	Publication date	Application number	Application date
	<u>US8067716 BA</u>	20111129	US20050049390	20050203

Probable Assignee: LLOYD ERNEST L**Assignee(s):^(std):** LLOYD ERNEST L**Inventor(s):^(std):** LLOYD ERNEST L**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/1209**European class:** A47J37/12A1**US class:** 219/433 219/439 99/331 99/332 99/403 99/415[Classification Explorer](#)**Cited documents:** USD345281 S1, US6941857 BB, US6684757 BB, US6545252 BB, US6446545 BB, US6283014 BA, US5896810 A, US5813320 A, US5628242 A, US5596514 A, US5524527 A, US5363746 A, US5039535 A, US4521183 A, US3722498 A, US3618587 A, US2915000 A, US2753436 A, US2749427 A, US2005172949 AA,**Forward Citations:** USD755012, USD730106, USD687257, USD687256, USD658425, USD658424, US8733235, US8616121, US2007256571,**Abstract:**

Source: US8067716B A cooking apparatus includes an outer pot that has a bottom wall and a peripheral wall that is attached to and extends upwardly from the bottom wall. A heating assembly is attached to the outer pot and is adapted for selectively heating the outer pot. An actuator is operationally coupled to the heating assembly for selectively turning the heating assembly on or off. The actuator includes a timer for turning off the heating assembly after a selectable amount of time has expired. An inner pot has a lower wall and a perimeter wall that is attached to and extends upwardly from the lower wall. The inner pot has a size adapted for being removably positionable in the outer pot. The perimeter wall has a plurality of apertures extending therethrough.



Title: POTATO DOUGH EXTRUDER**Priority:** US19650462239 19650608 US19650517505 19651215

Family:	Publication number	Publication date	Application number	Application date
	DE1532332 A1	19700115	DE19661532332	19660607
	FR1500024 A	19671103	FR19660064740	19660608
	GB1152747 A	19690521	GB19660024802	19660603
	US3344752 A	19671003	US19650517505	19651215

Probable Assignee: JAMES ILINES LAURENCE**Assignee(s):**^(std): ILINES LAURENCE JAMES ; JAMES ILINES LAURENCE**Assignee(s):** LAURENCE JAMES ILINES**Inventor(s):**^(std): ILINES LAURENCE JAMES ; ILLINES LAURENCE JAMES ; JAMES ILINES LAURENCE**Inventor(s):** LAURENCE JAMES ILINES

International class
^{(IPC 8-9):} [A21C11/10](#) [A21C11/16](#) [A21C11/18](#) [A47J19/00](#) [B26D3/18](#) ^(Advanced/Invention);
[A21C11/00](#) [A47J19/00](#) [B26D3/00](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [A21C11/16](#) [A21C11/18](#) [A47J19/00](#) [A47J19/02](#) [B26D3/18](#)

CPC: [A21C11/10](#) [A21C11/16](#) [A21C11/18](#) [A47J19/00](#) [B26D3/18](#)**European class:** [A21C11/10](#) [A21C11/16](#) [A21C11/18](#) [A47J19/00](#) [B26D3/18](#)**US class:** [425/182](#) [425/307](#) [425/308](#) [425/382R](#)[Classification Explorer](#)**Cited documents:** US883263 A, US409734 A, US3215094 A, US2994106 A, US2974613 A, US2820423 A, US2351493 A, US1955342 A, US1405049 A, IT464613 A, FR838050 A,**Forward Citations:** WO10002246, US5427517, US5244370, US4800094, US4731006, US4620838, US4465452, US4060367, US3937608, US3776671, US3726149, US3611951, US3470830, US2011088530, US2009214737, NL2001748, FR2336888, FR2316884, FR2316884, DE1921935, CN104690111, CN104365716, CN104365711, CN103329953, CN102687737,

Abstract:

Source: US3344752A ABSTRACT OF THE DISCLOSURE This specification discloses apparatus for forming potato chips with the apparatus comprising: a cylindrical container for dough; an extrusion die secured to the bottom of the container and having a plurality of extrusion openings; a pressure plate movable within the container; and manual means for applying pressure to said pressure plate.

PatBase - US3344752_A

Oct. 3, 1967

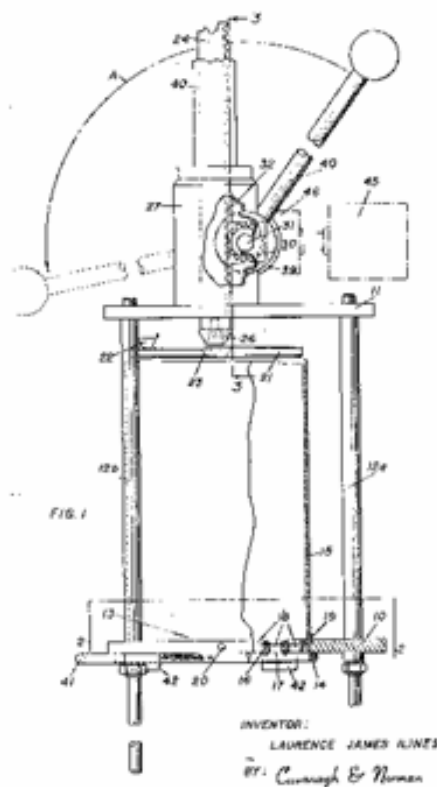
L. J. LINES

3,344,752

POTATO CHIP PRESS

Filed Dec. 15, 1965

3 Sheets-Sheet 1



Title: Mobile domestic deep fryer**Priority:** CN20032037549U 20030911

Family:	Publication number	Publication date	Application number	Application date
	CN2805630 Y	20060816	CN20032037549U	20030911

Probable Assignee: HUALIMEI MACAO COMMERCIAL OFFS**Assignee(s):^(std):** HUALIMEI MACAO COMMERCIAL OFFS**Assignee(s):** HUALIMEI MACAO COMMERCIAL OFFSHORE CO ; HUALIMEI COMMERCIAL OFFSHORE CO LTD**Inventor(s):^(std):** ZHENQUAN SHEN**Inventor(s):** SHEN ZHENQUAN**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)[Classification Explorer](#)**Forward Citations:** CN103479233,**Abstract:**

Source: CN2805630Y The utility model relates to a mobile type domestic deep fryer, which comprises a casing with an opening, a cover of a basically sealed frying cavity which is formed in the casing because the cover is placed on the opening, an oil pan installed in the frying cavity, at least one heat insulation fixing part with the function of separation between the oil pan and the casing, a heater close to the oil pan and at least two oil frying baskets capable of being movably contained on the oil pan. The deep fryer is designed into an arrangement that the oil frying baskets are placed in the oil pan side by side, each oil frying basket is provided with a basket part and a handle which are connected through a hinge mechanism, and each basket part can be singly lift and descend in the oil pan.

0) JP3100896U – DEEP FRYER WITH A LID AND THE LID MEMBER (MAC...

156) Family number: 42340849 (JP3100896U)

© PatBase

Title: Deep fryer with a lid and the lid member (Machine translation)

Priority: JP20030271661U 20031007

Family:

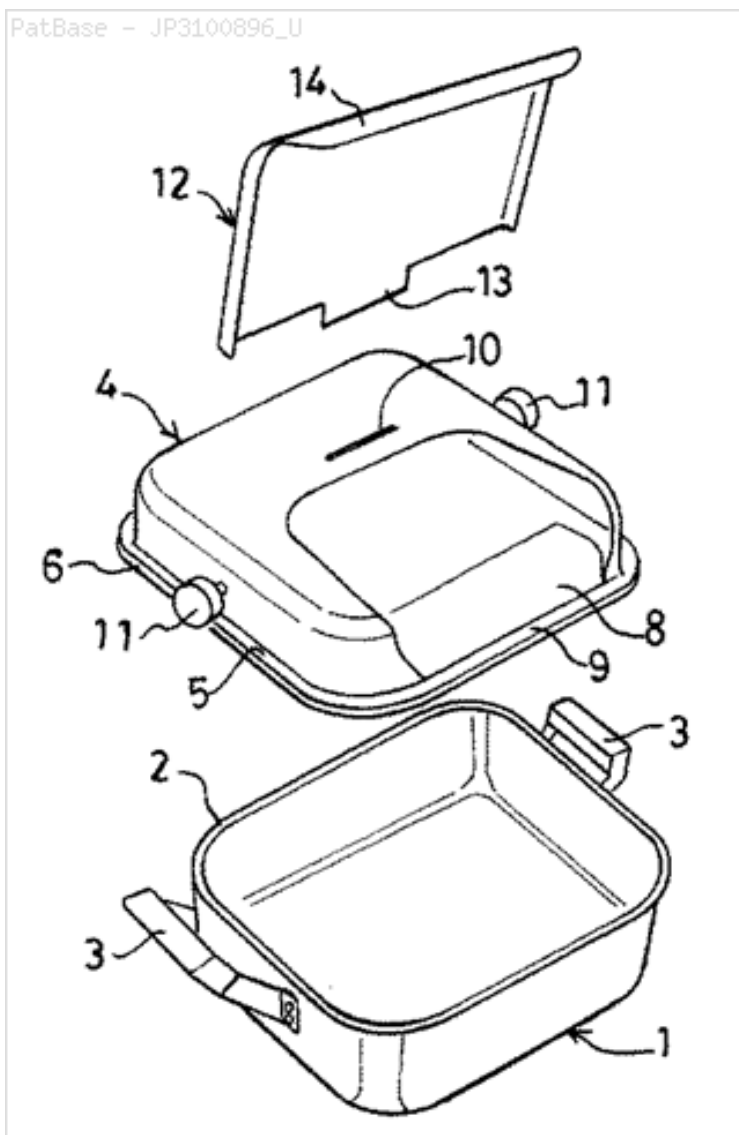
Publication number	Publication date	Application number	Application date
JP3100896 U	20040527	JP20030271661U	20031007

International class A47J36/06 A47J37/12
(IPC 1-7):

Abstract:

Source: JP3100896U

Machine translation: [summary] So it is possible to prevent burns oil when fried wings moisture [challenge] is attached, such as fried tempura fry in a safe condition, can be reduced by the scattering of oil stains It is intended to provide a deep fryer with a lid with the lid member and the lid member you. In deep fryer with a lid and the lid member body consisting of pot with a handle means [resolution], the lid member is provided with a window portion for cooking in the front part and at the time of use, wherein the window for cooking that by having a cover with an openable cover portion, provided on the plate to prevent splashing oil fly inside of the lid member of the above, to prevent oil feather burns, deep fry the tempura and other fried food in a safe condition as well as possible, to reduce contamination from oil splatters.



157) Family number: 53032677 (KR200465390Y)

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Title: FRIED FOOD OIL CLARIFIER**Priority:** KR20110007570U 20110822**Family:**

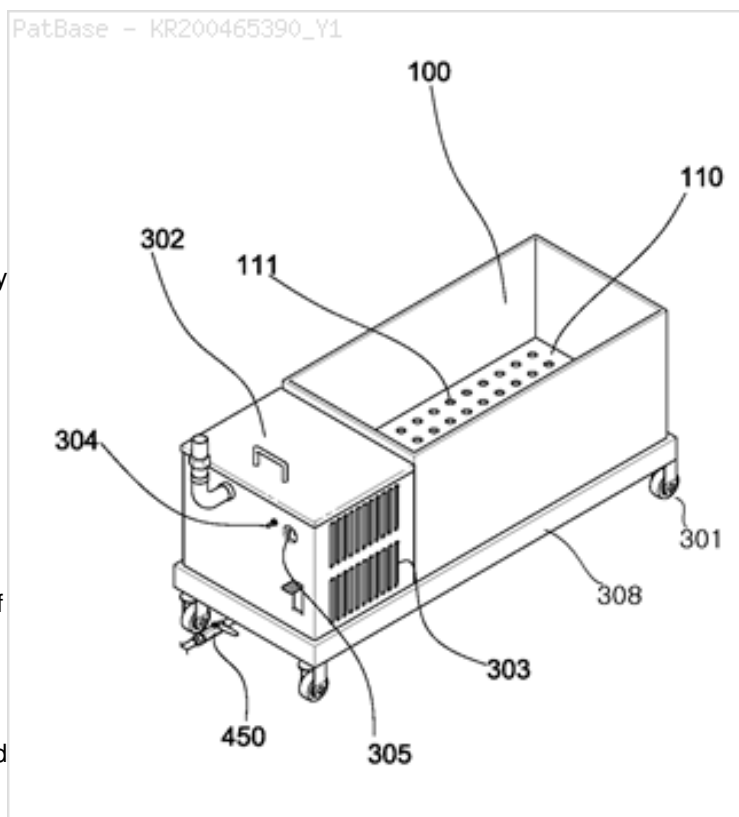
Publication number	Publication date	Application number	Application date
KR200465390_Y1	20130215	KR20110007570U	20110822

International class A47J37/12 B01D35/02 B01D35/26 C11B3/16 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Cited documents:** KR200453510 Y1, KR200453510, KR200397415 Y1, KR200397415, KR200285276 Y1, KR200285276, KR200191842 Y1, KR200191842,**Abstract:**

Source: KR200465390Y

Machine translation: Relates the present invention fried in wells filed, particularly motor pump wells raised fry. Palo housing cup of oil frying oils to solidify, extend one side of the motor pump motor shaft extension axis ago operating lever equipped with internal motor pump Impaler Impaler housing between coagulation unique work by the Department of the lever before operating lever handle, lever forming part gap formed by motor pump operation, the power supply and at the same time be configured to allow improved. wells raised on fried To achieve the same purpose, and the present invention, fried wells raised (1), the upper times of merit (101) is formed at the bottom of the center, opening the box, which is formed in the shape of the bottom surface of a certain height from the upper inner one or a plurality of filtration balls (111) communion welded a rectangle on the filter plate (110) of the four edges are combined in the bottom formed Argenteuil tank (100) and the refined oil tank (120) filter plate (110) in the upper part blotter; filtration tablets made to pressure the shape of a rectangular frame for the Earth (202) member (200) and refined oil filter plate (110) on the filter paper blotter for Argenteuil filtration filter paper (201), and the (201) Forced inhalation T tube (440) is

connected to the other end of the relevant (410) and to promote through the filtration process and refueling motor pump (300) and one of the times of merit (101) is coupled to the one of the T tube (440) is connected to the other end of the suction motor Impaler pump (300) Housing (320 ') of the ball (321) to combine the two related (420), and the related (410) and the horizontal while maintaining one of the T tube (440) is connected to the other end of the relevant opening and closing the valve (450) is equipped with a three-emissions fuels, are exposed to the outside world (430), which consists of relevant (?? 400); Once the motor pump (300) Impaler housing refined oil that is discharged from the discharge ball (322) (320 ') of the discharge ball (322) is connected to the fryer (2) tank (21) takes place in the absence of refueling refueling for (500); fried in wells filed, Once the clutch bearing clutch bearings one side of the motor shaft the motor pump (300) (311) extending axis extending formed on the inner ring (312) (not shown) which is a combination of fixed (610) and (610) of the outer ring (612) coupled to a fixed and external to the pump motor box (300 ') can be extruded in a certain length of which is formed in the shape of the stick, the other end of the protruding knob (621) is equipped with a spring coupled in the central area of the upper O (h) with formed before operating lever (620) and the operating lever (620) formed on the spring coupling holes (h) are combined into one side of the protective cover (640) formed in the spring coupling holes (h) is coupled to the other side, tension spring (630), and wherein further comprising lever spring coupled to the O (h) forming one side of the upper bound on the outside of the motor housing (310 ') and the protective cover (640), which consists of (600);. According configured as described above, the present invention is fried in wells filed, mainly installed in the lower area of the fryer in a cramped space food fried fry raised wells to facilitate the operation Argenteuil for tablets can be raised, especially fried



wells operation for spare is provided by which can be operated safely improve vision contact the operator of the fry fryer with external contact work when the worker is heated to high temperatures and high temperatures of frying oils have been bouncing the risk of burn injuries that can occur from factors beyond the wells raised.

158) Family number: 53529660 (TWD152829S)

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Title: The light gas fryer (c) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152829 S1	20130411	TW20120305412F	20120914

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW203432, TW129110, KR300488867,**Abstract:**

Source: TWD152829S

Machine translation: Item purposes; creation is a "light gas fryer (c)", its use as a high-temperature vortex cyclone baking ingredients cooking cooking pot. A handle; authoring features; shown in the drawings, the creation of "light gas fryer (c)" mainly by the plate base, a pot body and the superstructure; stretch on both sides of the base of the footwall placed footwall base pot pot body each having the number one, the footwall side of the base and the superstructure in the formation of a cantilever, cantilever pivoting components can be controlled to cover body lift Kai and off whole family; superstructure body edge of an operation setting knob, the start switch, light emitting diode light and heat grid hole, the lower edge of the upper cover body was transparent heat-resistant material lid, the lid equipped with light waves tube (halogen electric loop) and rotate the fans, high temperature vortex cyclone generated by the rotating fan for heating and baking ingredients to pot; the creation of sleek, with new visual effects and creative.

PatBase - TWD152829_S1



立體圖 (代表圖)

159) Family number: 53529686 (TWD152830S)

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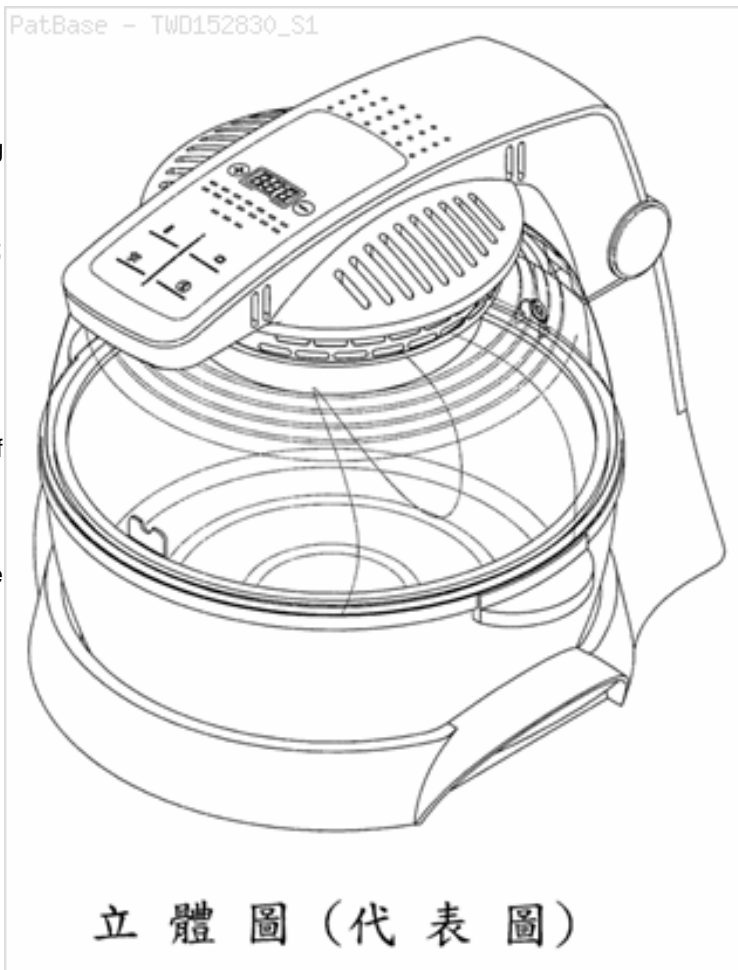
Title: The light gas fryer (d) (Machine translation)**Family:**

Publication number	Publication date	Application number	Application date
TWD152830 S1	20130411	TW20120305413F	20120914

Inventor(s): SUN HON CHOU**Locarno class:** 07/02**Cited documents:** TW203432, TW129110, KR300488867,**Abstract:**

Source: TWD152830S

Machine translation: Item purposes; the creation of a "light gas fryer (4)", and its use as a high-temperature vortex cyclone baking ingredients cooking cooking pot.; The authoring features; shown in the drawings, the creation of "light gas fryer (d)" by plate base, a pot of body and superstructure body; the footwall on both sides of the base extension has a handle placed footwall base pot pot body each having the number one, the footwall side of the base and the superstructure in the formation of a cantilever, cantilever pivoting components can be controlled to cover body lift Kai and off whole family; superstructure body edge of a membrane keypad electronically controlled combined with digital display panel and cooling gate hole, cover body lower edge compared to transparent heat-resistant material of the lid, the lid features a light tube (halogen electric loop) and the rotating fan by high temperature vortex cyclone pot of ingredients for baking heat generated by the rotating fan; the creation of sleek, with new visual effects and creative.

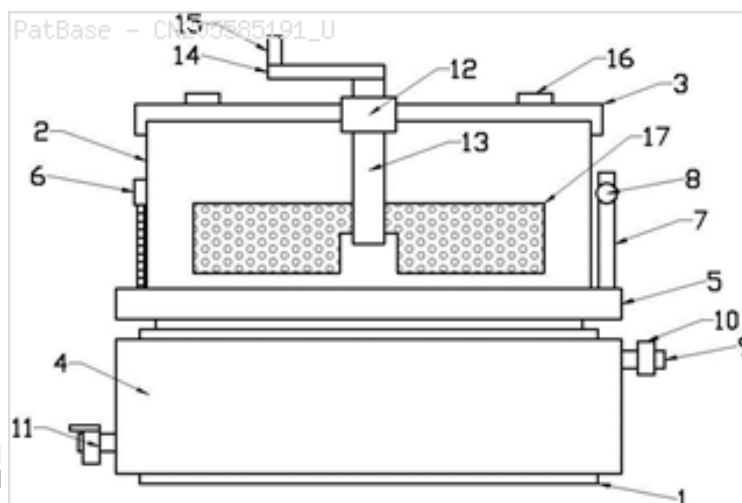


Title: FOOD PROCESSING FRYER**Priority:** CN201620218465U 20160321

Family:	Publication number	Publication date	Application number	Application date
	CN205585191 U	20160921	CN201620218465U	20160321

Probable Assignee: WU QINGDONG**Assignee(s):^(std):** WU QINGDONG**Assignee(s):** WU QINGYONG**Inventor(s):^(std):** WU QINGDONG**International class** A21B5/08 (Advanced/Invention)
(IPC 8-9)[Classification Explorer](#)**Abstract:**

Source: CN205585191U The utility model discloses a food processing fryer, including heating furnace, horizontal box, sealed lid and handle, the upper end of heating furnace is equipped with with the oil reservoir, and the cover is equipped with the one deck water jacket in the outside of heating furnace, one side intercommunication that adds the oil reservoir has into oil pipe, horizontal box setting is on adding the oil reservoir, and the bearing is installed to sealed covering, wears to be equipped with the pivot in the bearing, is fixed with the switch -plate on the lateral wall of pivot, and at the upper end of pivot fixedly connected with horizontally horizontal pole, terminal upward rotation of horizontal pole is provided with vertical ascending handle, install the level gauge on the lateral wall of horizontal box. The utility model discloses at deep -fry in -process, manual turning handle makes the switch -plate of pivot lower extreme mix, makes inside food stir to make the food internal heating even, improve the food quality, set up the water jacket in the outside of heating furnace, hot -water heating to inside provides hot water, increases the utilization ratio of the energy, plays energy -conserving effect.



161) Family number: 1456577 (CH587040A)

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Title: COOKING PAN WITH HINGING HOLLOW LID – HAVING FLOOR SLOPING TOWARDS HINGE AND PROVIDED WITH CONDENSATE OUTFLOW PIPE

Priority: FR19730029338 19730802 FR19730029338 19730810

Family:	Publication number	Publication date	Application number	Application date
	CH587040 A	19770429	CH19740010604	19740801

Probable Assignee: SEB SA

Assignee(s):^(std): SEB SA

International class A47J36/38 A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J36/00 A47J37/12 (Core/Invention)

International class A47J36/38
(IPC 1-7):

CPC: A47J36/38 A47J37/1209

European class: A47J36/38 A47J37/12A1

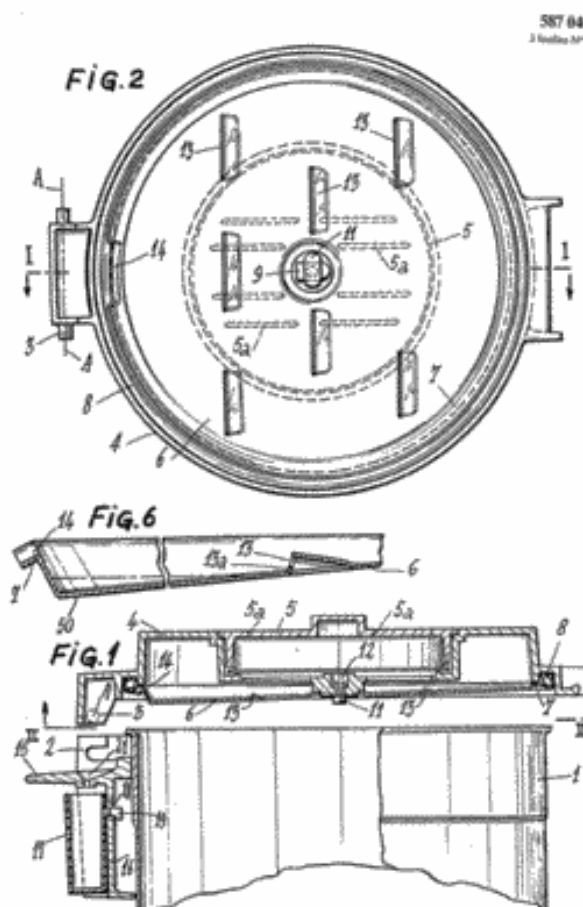
[Classification Explorer](#)

Forward Citations: WO9812955, FR2657002,

Abstract:

Source: CH587040A (Claim 1) 1. Appareil conforme a la revendication comprenant un bac (17) monte de facon amovible sur un support (16) relie a la cuve (1) de l'appareil de cuisson et des moyens pour diriger vers le bac (17) l'eau de condensation sortant de l'orifice (14) d'evacuation a l'ouverture du couvercle (4), la cuve (1) comportant une poignee (15) placee sous l'articulation du couvercle (4), caracterise en ce que le support du bac (17) est solidaire de cette poignee (15). The cooking pan has a hinging (2, 3) lid (4) and is equipped to recover cooking condensation. The lid is perforated and hollow and serves as a primary collector for the condensation. The floor (6) of the lid cavity falls towards the lid hinge (3) where an effluent pipe (14) is provided. The water passes through the effluent pipe into a demountable vessel (17) which is mounted on the pan exterior. The membrane (6) which forms the floor of the lid cavity has one or more apertures (13) in a staggered pattern. The apertures are formed by ramping rectangular membrane zones to project into the lid cavity. The apertures locate in the stepped face of each ramp and face the outlet (14). The pan may have a handle (15) which is built on to the pan body beneath the lid hinge.

PatBase - CH587040_A



Priority: DE19860026730U 19861008**Family:**

Publication number	Publication date	Application number	Application date
DE8626730 U1	19861113	DE19860026730U	19861008

Probable Assignee: BOSCH SIEMENS HAUSGERAETE GMBH 8000 MUENCHEN DE**Assignee(s):** BOSCH SIEMENS HAUSGERAETE GMBH 8000 MUENCHEN DE

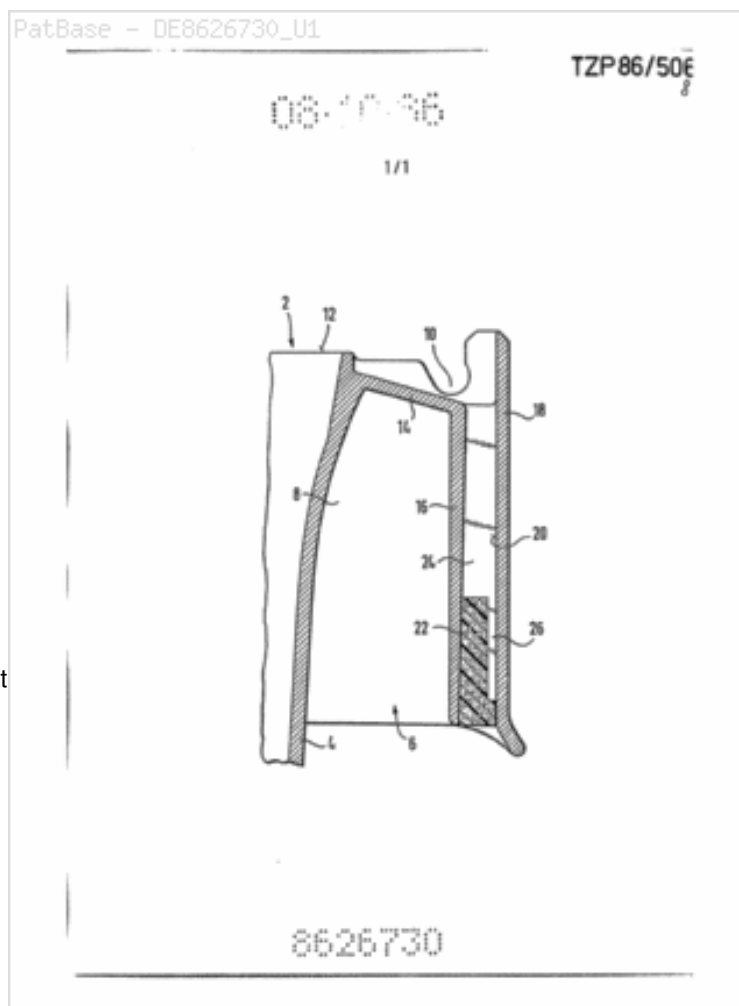
International class A47J36/38 A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1-7):

CPC: A47J36/38 A47J37/1204**European class:** A47J36/38 A47J37/12A[Classification Explorer](#)**Abstract:**

Source: DE8626730U1 (Claim 1) 1. Gargefaess, insbesondere Friteuse mit einer Vorrichtung zum Auffangen von Kondenswasser sowie einem Topf und einem mittels eines Scharniers daran angelenkten Deckel, wobei die Auffangvorrichtung fuer das Kondenswasser am Deckel eine S"nmeleinrichtung und einen im Bereich des Scharniers angeordneten Ablaufkanal und am Topf eine im Bereich des Scharniers angeordnete und das bei geoeffnetem Deckel abfliessende Kondenswasser auffangende Spei- chereinrichtung aufweist, d a d u r c h g e k e n n z e i c h n e t, dass die Speichereinrichtung (20) einen mit der Umgebungsluft in Verlaendung stehen- den, das Kondenswasser aufsaugenden Absorptionskoerper (22) aufweist.

Machine translation: (Claim 1) 1 Cooking vessel, especially deep fryer with a device for collecting condensed water and a pot and a hinged by a hinge out cover, the catcher for the condensation on the lid a S "nmeleinrichtung and one in the area of the hinge disposed Neten flow channel and the pot one in the the hinge arranged and catching end with the lid open outflowing condensation memory device having, characterized in that the storage device (20) one with the ambient air in Verlaendung with the store, the condensed water absorbing Absorptionskoerper (22).



0) ES1011793Y – REGULADOR DE SALIDA DE VAPORES, EN RECIPIENTES ...

163) Family number: 17229753 (ES1011793Y)

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Title: REGULADOR DE SALIDA DE VAPORES, EN RECIPIENTES CULINARIOS.

Priority: ES19890003119U 19891020

Family:	Publication number	Publication date	Application number	Application date
	ES1011793 UA	19900516	ES19890003119U	19891020
	ES1011793 Y1	19910116	ES19890003119U	19891020
	ES1011793 YA	19910116	ES19890003119U	19891020

Probable Assignee: CREACIONES INDUSTRIALES SAMPEDRO S A CREISA

Assignee(s):^(std) CREACIONES INDUSTRIALES SAMPEDRO S A CREISA

Inventor(s):^(std) SAMPEDRO CHULVI ENRIQUE

International class
^{(IPC 8-9):} [A47J37/10 A47J37/12](#) (Advanced/Invention);
[A47J37/10 A47J37/12](#) (Core/Invention)

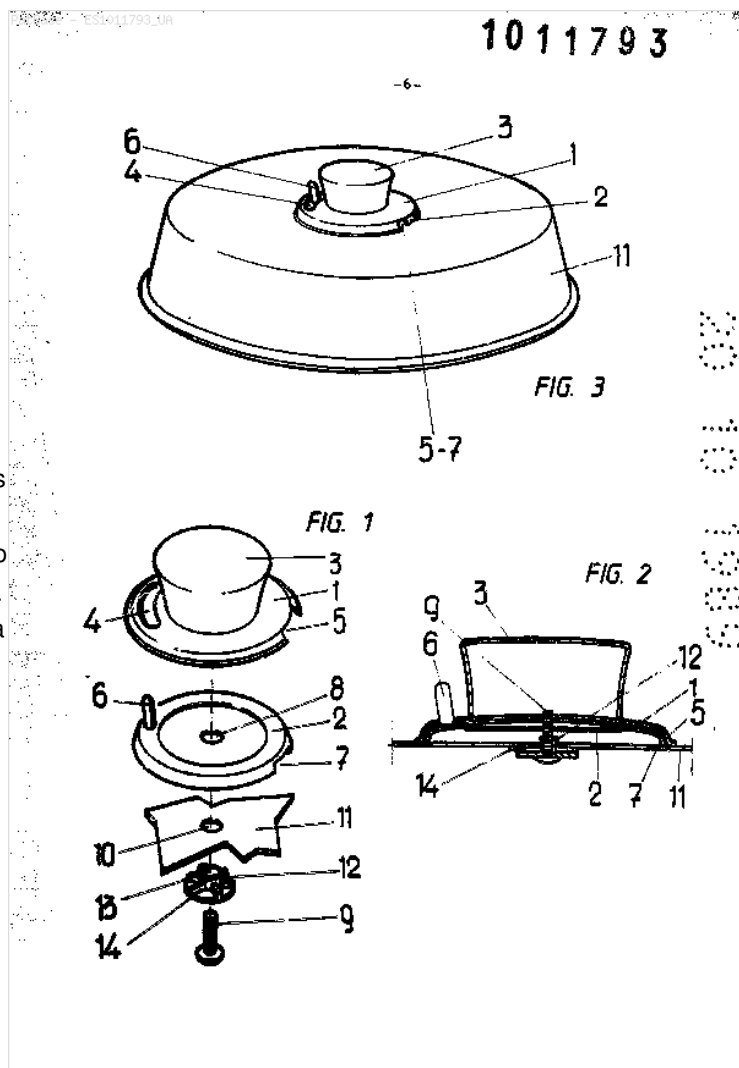
International class
^{(IPC 1-7):} [A47J37/10 A47J37/12](#)

[Classification Explorer](#)

Forward Citations: ES2139529,

Abstract:

Source: ES1011793U 1. Regulador de salida de vapores en recipientes culinarios, caracterizado por estar constituido por casquillos concavo-convexos, (1) y (2) acoplados en superposicion sobre una tapa (11), de cuyo casquillo exterior (1) es solidario un pomo tirador (3) y cuyo conjunto queda montado en la tapa por intermedio de un tornillo (9) que ja la posici on del casquillo exterior (1) y permite movimiento de giro al casquillo interior (2), montandose en la perforacion de la tapa por la que pasa el tornillo (9) un casquillo (12) que esta provisto en su cara de acoplamiento de nervaduras angulares (14) que determinan canales de evacuacion de los vapores hasta la camara formada entre los casquillos y la tapa, desde donde son evacuados a traves de escotaduras (5) y (6) pre- vistas respectivamente en los casquillos (1) y (2) que actuan de registro regulable en apertura, al ser girado el casquillo interior (2) por la accion sobre una patilla (6) de que va provisto, que sobresale al exterior a traves de una ranura en arco (4) de que esta dotado el casquillo exterior (1). 3 1. Regulator output culinary vapors in containers, characterized by being constituted by concavo-convex caps, (1) and (2) coupled in superposition on a cover (11) of the outer sleeve (1) is integral one knob handle (3) and whose assembly is mounted to the lid via a screw (9) ja on the position of the outer sleeve (1) and allows rotational movement of the inner sleeve (2), hitching a ride in the drilling cap by passing the screw (9) a cap (12) which is provided on your face coupling angular ribs (14) which determine channel evacuation of vapors to the chamber formed between the bushes and the cover, where they are exhausted through openings (5) and (6) pre-views, respectively in the bushes (1) and (2) that act adjustable registration aperture to be rotated the inner sleeve (2) by the action on a pin (6) it is provided, which projects to the outside through an arcuate slot (4) provided that this outer sleeve (1). 3



164) Family number: 29446932 (ES246780Y)

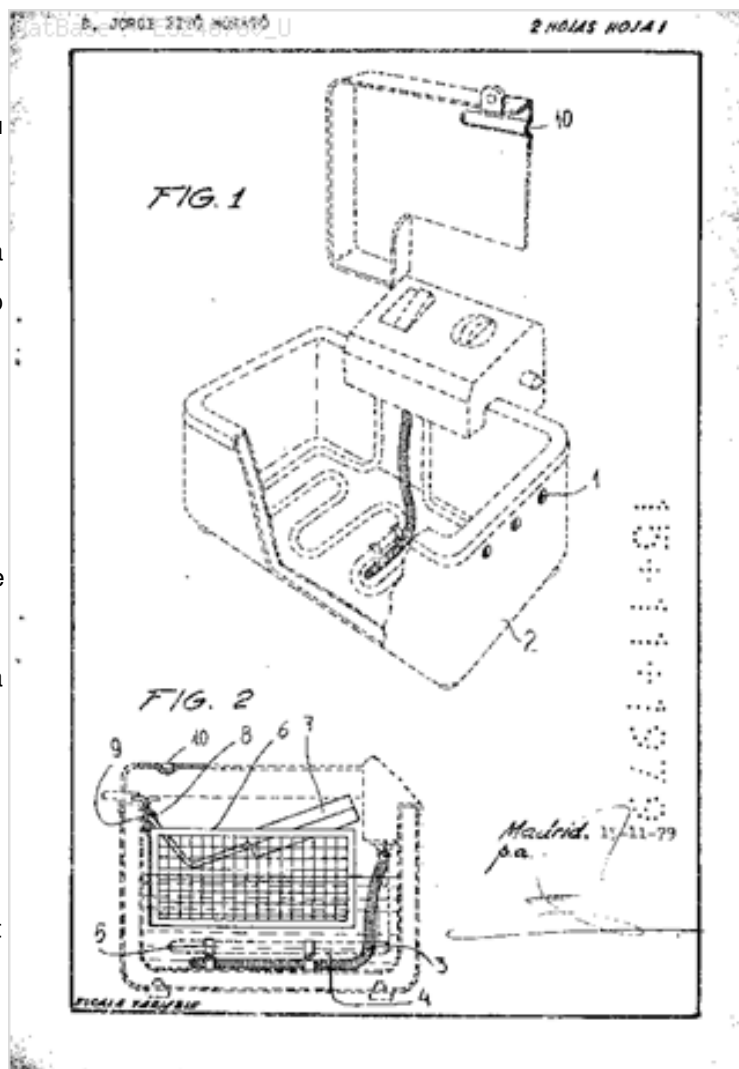
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Title: FREIDORA DOMESTICA PERFECCIONADA**Priority:** ES19790246780U 19791115**Family:**

Publication number	Publication date	Application number	Application date
ES246780 U	19800216	ES19790246780U	19791115
ES246780 Y	19800916	ES19790246780U	19791115

Probable Assignee: FITO MORATO JORGE**Assignee(s):** FITO MORATO JORGE**International class** [A47J37/06](#) (Advanced/Invention);
(IPC 8-9); [A47J37/06](#) (Core/Invention)**International class** [A47J37/06](#)
(IPC 1-7);[Classification Explorer](#)**Abstract:**

Source: ES246780U 1.Freidora domestica perfeccionada con cubeta, cesta arrejillada con su asa, mando de graduacion y tapa, caracterizada porque la cubeta presenta en su pared exterior varios orificios practicados en su base externa, a proposito para crear una corriente de aire que por convencion elimina de abajo a arriba, refrigerandose de este modo la parte externa de la aparato. 2.freidora domestica, perfeccionada segun la reivindicacion 1, caracterizada porque el bulbo del termostato que va aparar al cuadro de mando, esta recubierto pr una manguera metalica flexible, cual manguera va intimamente unida a los brazos de las resistencia electrica. 3.Freidora domestica perfeccionada, segun las reivindicaciones anteriores, caracterizado porque la tapa de la cubeta presenta una ranura o surco de agarre proxima al borde de asido. 4.Freidora domestica perfeccionada, segun las reivindicaciones anteriores, caracteriza porque el asa giratoria de la cesta arrejillada de mantiene en su posicion alzada o sea en uso, pormedio de un adose a presion sobre unas comisuras simetricas que presenta una pletina sobresaliente y solidaria a la cesta arrejillada por la que gira el borde del asa, cuyo extremo libre presenta un doble hacia a dentro con un perfil rodeado en el que quedan conformadas las citadas comisuras a las que se adaptan a presion las varillas del brazo del asa de la cesta arrejillada 5.Freidora domestica perfeccionada. 1.Freidora domestic refined with bucket, basket arrejillada with its handle, knob and graduation cap, characterized in that the trough has on its outer wall several holes in the outer core, a purpose to create an air stream By convention removed from bottom to top, thereby being cooled outside of the apparatus. 2.freidora domestic perfected according to claim 1, characterized in that the thermostat bulb going aparar the dashboard, this pr coated flexible metal hose, hose which is intimately linked to the arms of the electrical resistance. Domestica 3.Freidora improved, according to the preceding claims, wherein the cover of the cuvette has a slot or groove near the edge gripping grip. Improved domestic 4.Freidora, according to previous claims, characterized in that the rotary handle of the basket arrejillada of stays in raised position that is



in use, pormedio Attach to a symmetrical pressure on corners having an outstanding and supportive deck to the basket arrejillada by rotating the edge of the handle, the free end has a fold down to within a profile surrounded on the remaining formed the said corners to which suit pressure rods arm basket handle arrejillada 5 improved domestic.Freidora.

165) Family number: 31876745 (US2007040559A)

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Title: FILTERING AND MEASURING APPARATUS FOR OILS**Priority:** DE20031049741 20031023 WO2004EP52651 20041025

Family:	Publication number	Publication date	Application number	Application date
	<u>DE10349741 A1</u>	20050602	DE20031049741	20031023
	<u>EP1676131 A2</u>	20060705	EP20040791303	20041025
	<u>HK1090695 A3</u>	20061229	HK20060111316	20061016
	<u>JP2007509335 T2</u>	20070412	JP20060536099T	20041025
	<u>US2007040559 AA</u>	20070222	US20040576886	20041025
	<u>US7523646 BB</u>	20090428	US20040576886	20041025
	<u>WO05040788 A2</u>	20050506	WO2004EP52651	20041025
	<u>WO05040788 A3</u>	20050811	WO2004EP52651	20041025

Probable Assignee: EBRO ELECTRONIC GMBH**Assignee(s):^(std):** EBRO ELECTRONIC GMBH AND CO KG ; KLUEN WOLFGANG**Assignee(s):** EBRO ELECTRONIC GMBH ; EBRO ELECTRONIC GMBH AND COKG ; EBRO ELECTRONICS GMBH AND CO KG**Inventor(s):^(std):** KLUEN WOLFGANG**Inventor(s):** KLUN WOLFGANG**Agent(s):** FISH AND RICHARDSON PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): B01D35/30 G01N27/00 G01N27/22 G01N27/60 G01N33/03 G01N33/26 G01N33/28 G01N33/30 (Advanced/Invention);
B01D35/30 G01N27/00 G01N27/22 G01N27/60 G01N33/02 G01N33/26 (Core/Invention)

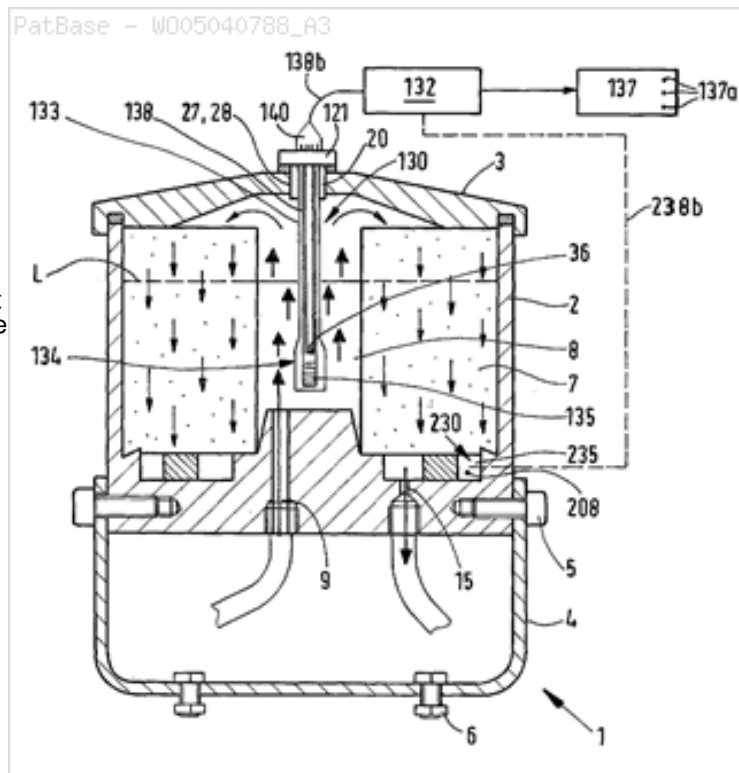
International class
(IPC 1-7): F01M11/03 G01N33/03 G01N33/28

CPC: G01N33/03 G01N33/2888**European class:** G01N33/03 G01N33/28H**US class:** 210/85 324/453 73/53.05 73/53.07 73/54.01[Classification Explorer](#)

Cited documents: US6770196 BB, US5238085 A, US5023133 A, US2004011715 AA, US2003179002 AA, US2003046985 AA, JP9264822 A2, JP2021914 A2, JP2004203069 A2, JP2004195450 A2, JP2004186164 A2, JP2004028247 A2, JP2003114206 A2, JP2001141198 A2, JP11347312 A2, EP0980522 A1, DE69810288 T2, DE69810288, DE10208600 A1, DE10163760 A1, DE10137308 A1, DE10103532 A1, DE10025690 A1, DE10015516 A1,

Forward Citations: WO15142283, WO10148133, WO09140263, WO09140263, WO09111372, WO09111372, WO09111370, WO09111370, WO09099882, WO09099882, WO08074559, WO08023104, WO06112915, WO06067618, WO06067618, US9510708, US9228965, US8850965, US8829928, US8707857, US8691096, US8497691, US8309151, US8186265, US8148692, US7287431, US2013036916, US2011030486, US2010303973, US2010269712, US2009314204, US2009194484, US2007256571, US2007028781, US2007028780, JP2013117427, JP2012530249, FR2904951, EP2161574, EP1798552, DE102014015398, DE102014015396, DE102008057842, DE102006018964, CN102507702, CN101517408, AU2009222053,

Source: US2007040559A Disclosed is a method for measuring at least one state characteristic of oil or fat in a device that uses oil or fat and is provided with a filtering apparatus (1; 101) comprising a filter housing (2) and at least one filter element (7) which is inserted thereto. According to said method, at least one sensor (35, 36; 135; 235) of a measuring device (30; 130; 230) is introduced into a measurement space (8; 208) located in the oil or fat circuit in order to measure at least one state characteristic of the oil or fat, and the measured values thereof are evaluated using measuring electronics (32; 132) that are connected to the at least one sensor (35, 36; 135; 235). The inventive method is characterized in that a microfilter element, ultrafilter element, or nanofilter element (7) is used as a filter element. Also disclosed are a corresponding filtering apparatus (1) and a correspondingly configured measuring device (130).



166) Family number: 63680405 (PH2015000089A)

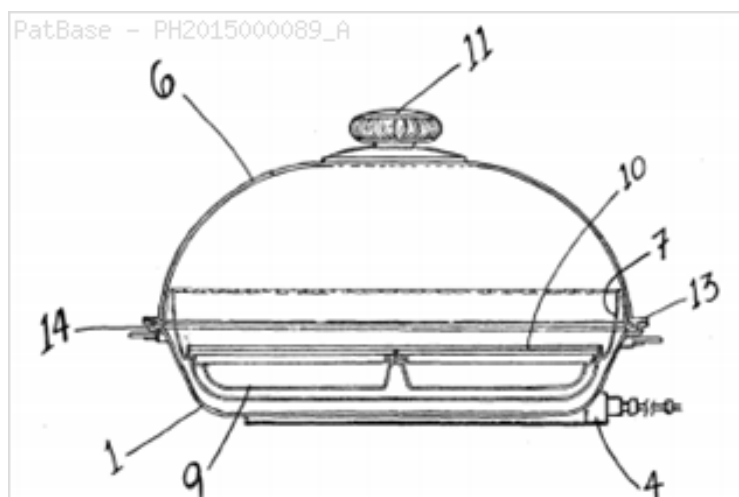
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Title: MULTIPURPOSE INDUCTION COOKING UTENSIL**Priority:** PH20150000089 20150324

Family:	Publication number	Publication date	Application number	Application date
	PH2015000089 A	20161003	PH20150000089	20150324

Probable Assignee: UMALI JR IGNACIO R**Assignee(s):**^(std): UMALI JR IGNACIO R**Inventor(s):**^(std): ELMIDO DENNIS U ; ELMIDO LOWELL U ; UMALI IGNACIO R JR**Inventor(s):** DENNIS U ELMIDO ; IGNACIO R UMALI JR ; LOWELL U ELMIDO**Agent(s):** NONE**International class** A47J27/00 A47J36/00 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: PH2015000089A Multipurpose Induction Cooking Utensil is an improvement of the Multipurpose Portable Cooker-Toaster Oven with Patent No. 1-2007-000183 issued on April 27, 2012. This Multipurpose Induction Cooking Utensil includes an improved base pan that can accept three different kinds of heat coming from the heat sources, one is a flame or heat coming from the gas or electric range that is directly hitting the induction coil attached at the bottom of the base pan, the second heat source is the flame or heat from the electric or gas range passing through two half circle cut at the bottom of the base pan. The half circle cuts at the bottom of the base pan serve as the entrance and control of hot air inside the chamber from escaping. The third heat sources is the AC electrical wiring connected to the induction coil attached at the bottom of the base pan that can be plug to the AC power outlet. The heat inductions allow the food to be cooked in a shorter period of time. This devise also includes a secondary heat control unit called the insert that has a lower groove adapted to retain. Another heat control unit called the sampler plate which is used in warming food items. Another devise called the wire grill, served a very important unit that can be taken out and put back to convert the unit into another cooking devise. The base pan and the insert always go together to allow the basic unit conversion, that is when the wire grill and sampler plat not in use, the unit can be used as a rice cooker, a deep fryer, a simmer cooker. Then the wire grill is in use without the sampler plat, the unit can be used as a steamer. Then the wire grill and the sampler plate is in use, the unit can be used as a food warmer, a grill oven, a toaster oven, a roaster oven and a barbeque oven. The dome shaped cover is equipped with a heat resistant plastic handle and could be used as a timer. The hot air coming from the source passes through the perforated insert to the ceiling of the lid bounce back to the surfaces of the food items, evenly cooked the food items without even touching them. This devise is excellent to the working class people who do not have enough time to prefer food for breakfast and carry out food to eat at work place. Place any food they want for breakfast, after the shower food will be ready to eat.

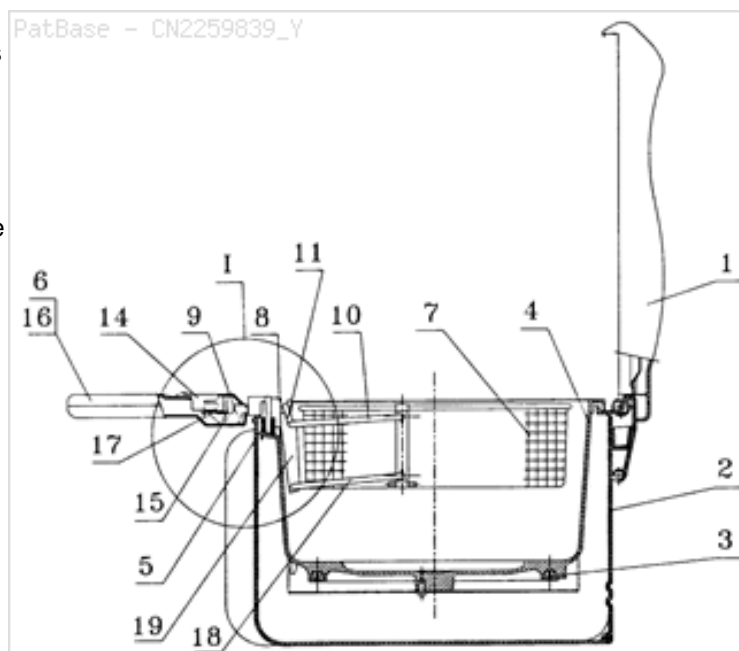


Title: Electric fryer**Priority:** CN19952046357U 19951225

Family:	Publication number	Publication date	Application number	Application date
	CN2259839 Y	19970820	CN19952046357U	19951225

Probable Assignee: JINBEN SYNTHETIC PLASTIC AND HAR**Assignee(s):^(std):** JINBEN SYNTHETIC PLASTIC AND HAR ; JINBEN SYNTHETIC PLASTIC AND HARD WARE PRODUCTS FA**Assignee(s):** JINBEN SYNTHETIC PLASTIC AND HARD WARE PRODUCTS FACTORY SANSHUI CITY**Inventor(s):^(std):** KUANG SUIYU ; SUIYU KUANG ; WEI WEN GUANG ; WEN GUANG WEI**International class** A47J37/10 A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/10 A47J37/12 (Core/Invention)**International class** A47J37/10 A47J37/12
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: CN2259839Y The utility model relates to an electric frying pan used for frying food. The utility model overcomes the disadvantages of food is complicated and inconvenient to fry inside a pan in the prior art. The electric frying pan comprises a pan cover, a pan body, a heat generating tube and a pan liner, wherein, the pan body and the wall of the pan liner are respectively provided with a clamping groove and a mesh screen basket with a handle. The handle of the mesh screen basket is clamped inside the clamping groove; the mesh screen basket is erected in a hanging mode inside a pan chamber of the pan liner. The handle and the mesh screen basket are connected with each other in a movable and folding mode. The utility model has the advantages of simple operation, convenient use, safety, and convenient storage and collection.



Title: CAKE RING FRYER
Priority: CN19862008080U 19861006

Family:	Publication number	Publication date	Application number	Application date
	<u>CN86208080 U</u>	19871216	CN19862008080U	19861006

Probable Assignee: SHI WENZUN

Assignee(s): SHI WENZUN

Inventor(s):^(std) SHI WENZUN

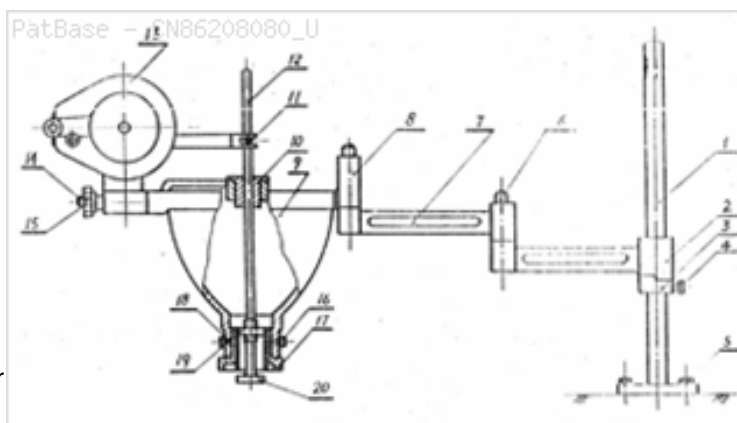
International class A23P1/10 A47J37/00 (Advanced/Invention);
 (IPC 8-9): A23P1/10 A47J37/00 (Core/Invention)

International class A23P1/10 A47J37/00
 (IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: CN86208080U The utility model discloses a cake ring fryer having a single guide post and adopting a circular disc for regulation. The utility model is composed of a steel support post, a support rod of an aluminium double section suspension arm, a cylinder, a sleeve rack, a box body, a cardioid wheel, a left end cover and a right end cover. A split ring is arranged in the sleeve rack; the inside of the split ring is provided with a fixed block; the guide post is arranged in the center of the fixed block; the upper end of the guide post is connected with a swing rod; the lower end of the guide post is provided with an upper circular disc; the distance between the upper circular disc and a lower circular disc is adjustable. A cake ring is produced when a handle rotates a circle and the guide post up and down moves once. The utility model solves the problems of the complicated structure, inflexible regulation and high manufacturing cost of the prior art.



0) US2040676A – COOKING UTENSIL

169) Family number: 21381961 (US2040676A)

© PatBase

Title: COOKING UTENSIL

Priority: US19350026988 19350617

Family:	Publication number	Publication date	Application number	Application date
	<u>US2040676 A</u>	19360512	US19350026988	19350617

Probable Assignee: BUHL CAY P

Assignee(s):^(std): BUHL CAY P ; STEVENS WILLIAM W

Inventor(s):^(std): BUHL CAY P ; STEVENS WILLIAM W

International class
(IPC 8-9): A47J37/06 F24C15/10 F24C15/26 (Advanced/Invention);
A47J37/06 F24C15/00 F24C15/10 (Core/Invention)

International class
(IPC 1-7): A47J37/06 F24C15/10 F24C15/26

CPC: A47J37/0611 F24C15/102 F24C15/26

European class: A47J37/06B F24C15/10C F24C15/26

US class: 126/211 374/149 38/90 99/343 99/349 99/372 99/426 99/428 99/449

[Classification Explorer](#)

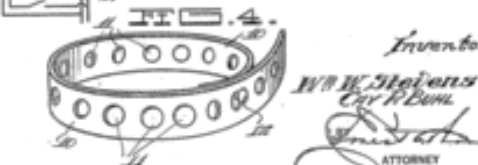
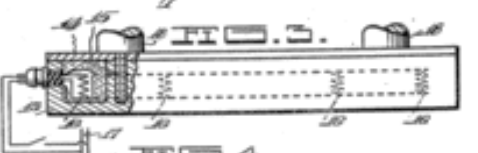
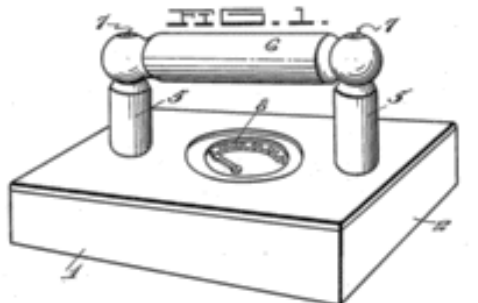
Forward Citations: USRE32994, USD479807, US6591739, US6412398, US6293274, US6213115, US5712466, US4763571, US4729296, US4702159, US4669373, US4635538, US4580909, US2522175, US2013167735, US2004074398, GB2466320, GB2466320,

Abstract:

Source: US2040676A 1. A top cooking device comprising a shell, projections rising from the base of the shell, a sleeve rising from said base and disposed between the projections, a cover for the shell, a handle assembly secured to the projections, heat retaining material surrounding the projections and sleeve, and a heat indicating device connected in the sleeve.

PatBase - US2040676_A

May 12, 1936 W. W. STEVENS ET AL. 2,040,676
COOKING UTENSIL
Filed June 17, 1935



Inventors
W. W. Stevens
By A. B. B. B.
ATTORNEY

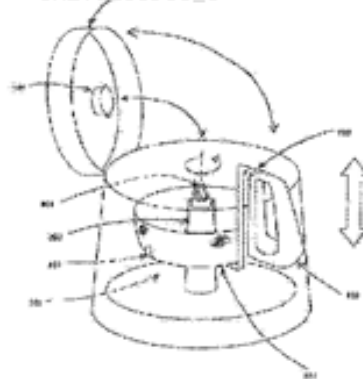
Title: DEOILING FRYER**Priority:** CN201320024734U 20130117

Family:	Publication number	Publication date	Application number	Application date
	<u>CN203168938 U</u>	20130904	CN201320024734U	20130117

Probable Assignee: DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO LTD**Assignee(s):^(std):** DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO LTD**Assignee(s):** DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO**Inventor(s):^(std):** CAI WEILUN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN203168938U The utility model relates to the technical field of small household appliances, in particular to a deoiling fryer which comprises a pot body, a pot cover and a basket arranged in the pot body. The basket is connected with a handle, a rotating shaft is positioned in the pot body, a funnel body extending upwards is arranged on the basket, a tenon part is arranged at the top of the funnel body, the funnel body is sleeved on the rotating shaft, a flange is arranged at the top of the rotating shaft, a rotating connector is arranged on the pot cover, a groove matched with the flange is formed in the connector, and a protruded edge matched with the tenon part is arranged on the connector. When the basket moves downwards, the flange and the groove are separated. When the basket moves upwards, the flange and the grooves are matched, the protruded edge and the tenon part are in contacted connection, oil grease of fried food can be removed to reduce the oil content and fat of the food, and accordingly the fried food can be green and healthy.

PatBase - CN203168938_U



0) CN203168939U – FRYER CAPABLE OF ELIMINATING EXTRA OIL FROM FOO...

171) Family number: 54732556 (CN203168939U)

© PatBase

Title: FRYER CAPABLE OF ELIMINATING EXTRA OIL FROM FOOD

Priority: CN201320024810U 20130117

Family:	Publication number	Publication date	Application number	Application date
	<u>CN203168939 U</u>	20130904	CN201320024810U	20130117

Probable Assignee: DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO LTD

Assignee(s):^(std): DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO LTD

Assignee(s): DONGGUAN QINGXI HUAHUI ELECTRICAL APPLIANCES CO

Inventor(s):^(std): CAI WEILUN

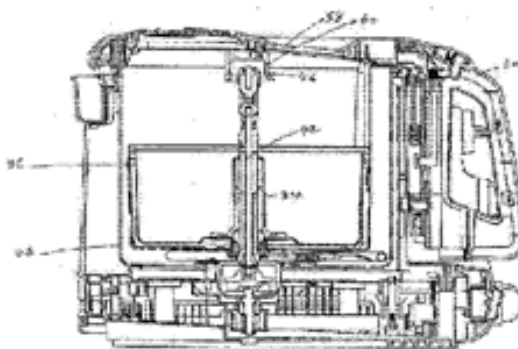
International class A47J37/12 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN203168939U The utility model relates to the technical field of small household appliances, in particular to a fryer capable of eliminating extra oil from food. The fryer capable of eliminating the extra oil from the food comprises a pot body, a pot cover and a frying basket, wherein the frying basket is arranged in the pot body and is connected with a handle, a rotary center shaft is arranged in the pot body, a dual-bending metal clip is arranged on the top of the center shaft, and a hopper vertically extending out is arranged in the frying basket and can be meshed with the dual-bending metal clip. When the frying basket moves upwards, the hopper is meshed with the dual-bending metal clip to enable the frying basket to rotate at a high speed, and therefore the oil is eliminated from the fried food, the oil content of the food is reduced, fat content is reduced, and the food is healthier.

PatBase - CN203168939_U



0) EP2662302A1 – BEHAELTER FUER GEBRAUCHTE OELE ODER ANDERE FLUE...

172) Family number: 55129459 (EP2662302A1)

© PatBase

Title: BEHAELTER FUER GEBRAUCHTE OELE ODER ANDERE FLUESSIGKEITEN, KOERNIGE FESTSTOFFE UND KLEINE GEGENSTAENDE CONTAINER FOR USED OILS OR OTHER LIQUIDS, GRANULAR SOLIDS AND SMALL OBJECTS

Priority: EP20130166820 20130507 IT2012UD00081 20120507

Family:	Publication number	Publication date	Application number	Application date
	DE602013003015 D1	20151029	DE201360003015T	20130507
	EP2662302 A1	20131113	EP20130166820	20130507
	EP2662302 B1	20150916	EP20130166820	20130507
	ITUD20120081 A1	20131108	IT2012UD00081	20120507

Probable Assignee: MATTIUSSI ECOLOGIA S P A CON SOCIO UNICO

Assignee(s):^(std): MATTIUSSI ECOLOGIA S P A CON SOCIO UNICO

Assignee(s): MATTIUSSI ECOLOGIA CON SOCIO UNICO SPA

Inventor(s):^(std): MIOTTI MASSIMO

Agent(s): PETRAZ GILBERTO LUIGI

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class [B65D47/12](#) [B65D51/24](#) ^(Advanced/Invention)
(IPC 8-9):

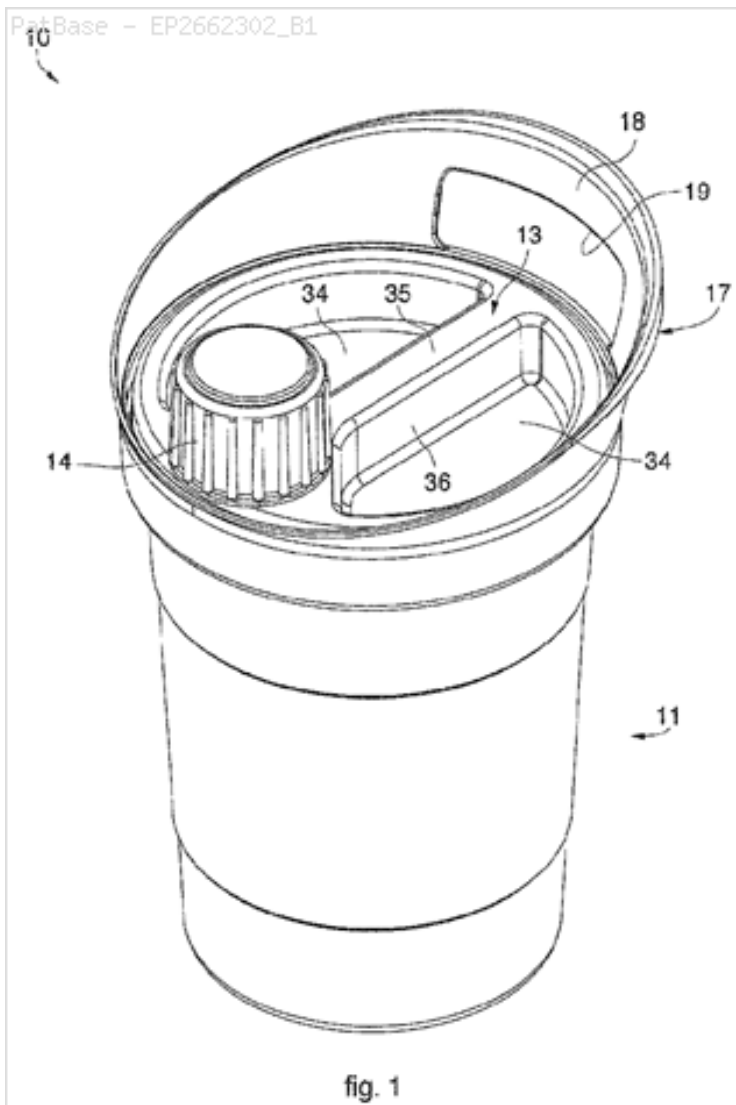
CPC: [B65D47/122](#) [B65D51/24](#)

[Classification Explorer](#)

Cited documents: US2008035652 AA, FR1155188 A, FR1155158 A,

Abstract:

Source: EP2662302A1 Container for oils, or other used liquids and granular solids, in particular for the domestic environment, comprising a containing body (11) defining a containing compartment (12) having an upper aperture (21), a filter element (20), a removable stopper (14) to selectively put said containing compartment (12) into communication with the outside of said container.



0) CN203334071U – ELECTRIC IRON

173) Family number: 55387682 (CN203334071U)

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Title: ELECTRIC IRON

Priority: CN201220705050U 20121218 CN201320335140U 20130609 CN201320336352U 20130609
CN201320335909U 20130609 CN201320335906U 20130609 CN201320335908U 20130609
CN201320397176U 20130704 CN201320394142U 20130703 CN201320394143U 20130703
CN201320393527U 20130703 CN201320385350U 20130628 CN201320383946U 20130628
CN201320385573U 20130628 CN201320382735U 20130628 CN201320441340U 20130723
CN201320441635U 20130723 CN201320417760U 20130712 CN201320397247U 20130704
CN201320417756U 20130712 CN201320441514U 20130723 CN201320417758U 20130712
CN201320417759U 20130712 CN201320417757U 20130712 CN201320417776U 20130712

Family:

Publication number	Publication date	Application number	Application date
CN203334071 U	20131211	CN201320335140U	20130609
CN203354313 U	20131225	CN201320336352U	20130609
CN203354335 U	20131225	CN201320335906U	20130609
CN203354877 U	20131225	CN201320441635U	20130723
CN203354933 U	20131225	CN201320335909U	20130609
CN203354941 U	20131225	CN201320441340U	20130723
CN203364230 U	20131225	CN201320397247U	20130704
CN203364233 U	20131225	CN201320335908U	20130609
CN203364236 U	20131225	CN201320417756U	20130712
CN203364324 U	20131225	CN201320417760U	20130712
CN203369675 U	20140101	CN201320441514U	20130723
CN203389078 U	20140115	CN201320417758U	20130712
CN203435998 U	20140219	CN201320397176U	20130704
CN203440686 U	20140219	CN201320394142U	20130703
CN203462336 U	20140305	CN201320394143U	20130703
CN203464225 U	20140305	CN201320393527U	20130703
CN203493082 U	20140326	CN201320383946U	20130628
CN203493325 U	20140326	CN201320417759U	20130712
CN203493458 U	20140326	CN201320385350U	20130628
CN203493464 U	20140326	CN201320417776U	20130712
CN203493550 U	20140326	CN201320417757U	20130712
CN203736047 U	20140730	CN201320385573U	20130628
CN203949351 U	20141119	CN201320382735U	20130628

Probable Assignee: FOSHAN SHUNDE SINCERE HOME HOME APPLIANCE MFG CO LTD

Assignee(s):^(std): FOSHAN SHUNDE SINCERE HOME HOME APPLIANCE MFG CO LTD ; HUANG WEICONG

Assignee(s): FOSHAN SHUNDE SINCERE HOME HOME APPLIANCE MFG CO

Inventor(s):^(std): HUANG WEICONG ; LIANG YONGJIAN

International class
(IPC 8-9): [A47B31/02](#) [A47C17/00](#) [A47C17/86](#) [A47G19/14](#) [A47G23/04](#) [A47G25/00](#) [A47G9/06](#)
[A47J27/00](#) [A47J27/04](#) [A47J31/00](#) [A47J31/56](#) [A47J36/00](#) [A47J36/24](#) [A47J37/01](#) [A47J37/06](#)
[A47J37/12](#) [A47K10/48](#) [A61F7/00](#) [A61H23/02](#) [A61H33/12](#) [A61L2/04](#) [A61L2/07](#) [A61L2/10](#)
[A61N5/06](#) [D06F39/04](#) [D06F39/08](#) [D06F58/24](#) [D06F58/26](#) [D06F75/24](#) [D06F75/26](#) [D06F75/38](#)
[F21V33/00](#) [F22B1/28](#) [F24D13/00](#) [F24D13/02](#) [F24F6/10](#) [F24H1/20](#) [F24H9/18](#) [H05B3/00](#)
[H05B3/14](#) [H05B3/20](#) [H05B3/22](#) [H05B3/34](#) [H05B3/40](#) [H05B3/82](#) ^(Advanced/Invention);
[F21Y101/02](#) ^(Advanced/Non-invention)

[Classification Explorer](#)

Forward Citations: CN104957933, CN104957932, CN104831511, CN104831511, CN104164782,
CN104007672, CN103948504, CN103919480,

Abstract:

Source: CN203334071U The utility model relates to an electric iron which comprises a shell body, a bottom plate and a water tank. A heating element and a first temperature sensing device are arranged on the bottom plate. A protection layer is arranged outside the heating element. A control device is arranged in the shell body which is respectively and electrically connected with the heating element and the first temperature sensing device. The heating element is a thick-film circuit which is printed on the upper side and/or the lower side of the bottom plate. Due to the fact that the thick-film circuit is directly printed on the bottom plate, occupied space by the heating element is greatly reduced, the electronic iron is compact in structure and light, and a user can work for a long time. The working temperature of the bottom plate is monitored in real time through the first temperature sensing device so that the electronic iron cannot damage clothes or a desk top during a heating process and an ironing interval. Due to the coated protection layer, the thick-film circuit is separated from the outside, safety of the user is guaranteed, the thick-film circuit is protected from damage, after using, surplus water does not need to be heated and dried, and maintaining is convenient.

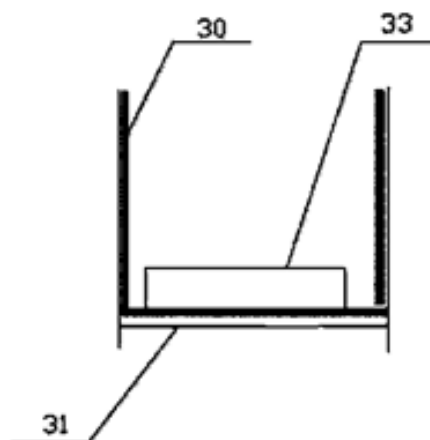


图 1

0) CN205143345U – ELECTRIC DEEP FRYER CONTROL PANEL STRUCTURE

174) Family number: 62105373 (CN205143345U)

© PatBase

Title: ELECTRIC DEEP FRYER CONTROL PANEL STRUCTURE

Priority: CN201520979453U 20151201

Family:	Publication number	Publication date	Application number	Application date
	<u>CN205143345 U</u>	20160413	CN201520979453U	20151201

Probable Assignee: HAN JUN

Assignee(s):^(std): HAN JUN

Assignee(s): JUN HAN

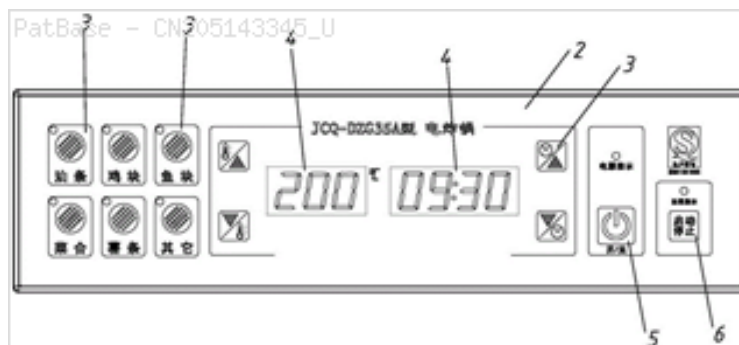
Inventor(s):^(std): HAN JUN

International class A21B5/08 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN205143345U The utility model discloses an electric deep fryer control panel structure, this control panel set up in the electric deep fryer, and this control panel structure contains the holding storehouse and covers the interarea board on the holding storehouse, the interarea board sets up functional areas, area of occurrence, switch and oil pump switch, cover the protection film on this interarea board, the holding has the circuit board in the holding storehouse. This holding storehouse rear is equipped with a plurality of wire holes. These functional areas set up a plurality of sub – function button. This area of occurrence sets up a plurality of sub – area of occurrences. The beneficial effects of the utility model are that: functional areas, area of occurrence, switch and oil pump switch set up alone, and be easy and simple to handle, shows directly perceivedly, can carry out function set according to the individual character, and it is more convenient to use.



175) Family number: 64702684 (JP2017000250A)

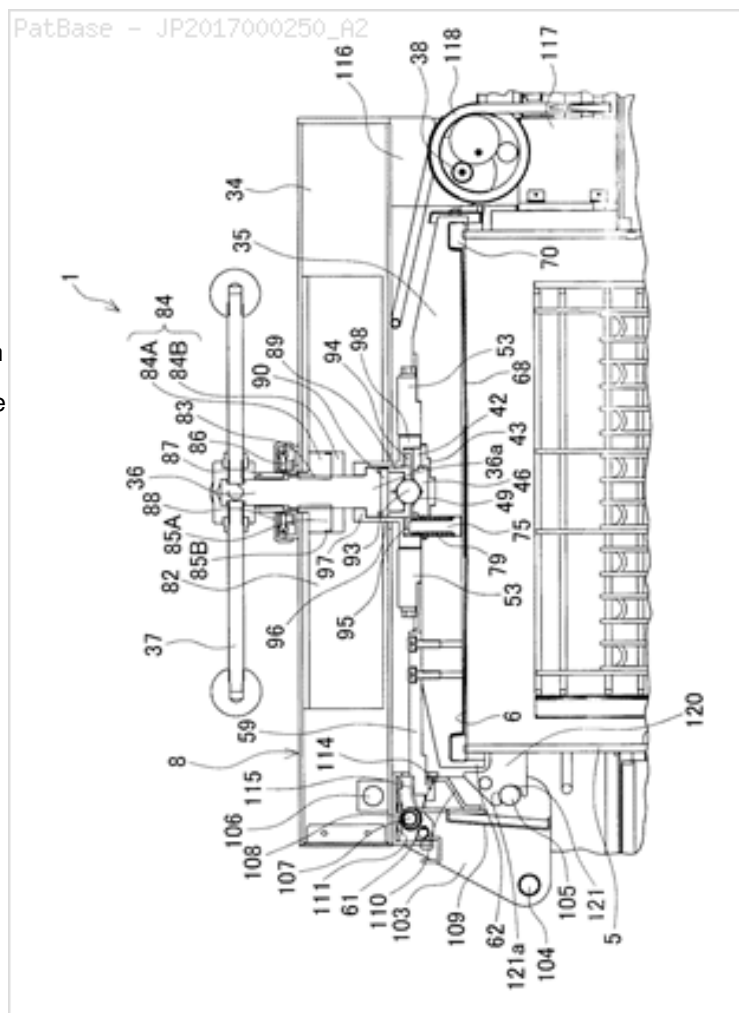
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Title: Pressure Fryer (Machine translation)**Priority:** JP20150115008 20150605

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2017000250 A2</u>	20170105	JP20150115008	20150605

Probable Assignee: LTD PALOMA**Assignee(s):** LTD PALOMA**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2017000250A [Issue] and during the pressure cooking operation, operation can be regulated to ensure that. [Solution] pressure Fryer 1 lid body 35 bound at the bottom of the arm 34 established operation Board 103 section toe plate 120 possible ups and downs are bound to around 38 at the rear of the tank 5, front end with a Terminal 5 at lodging a possible stop, and arm inside female, 84 screwed handle shaft 36 and handle shaft 36 and includes, opening on the lid itself 35 cover body 35 6 to press encapsulate operations plates 103 and section in the lower position boosted, and regulate the operation of the operations Board 103 With the unlock operation Board 103 operation regulation in a lower position outside of the CAP body 35 LeBrock 59. [Select diagram: Figure 4



0) US3709698A – METHOD OF PREPARING CRISPY FOOD ITEMS

176) Family number: 7162807 (US3709698A)

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Title: METHOD OF PREPARING CRISPY FOOD ITEMS

Priority: US19700002412 19700112

Family:	Publication number	Publication date	Application number	Application date
	<u>US3709698 A</u>	19730109	US19700002412	19700112

Probable Assignee: DAVIS E

Assignee(s):^(std): DAVIS E

Assignee(s): DAVIS E US

Inventor(s):^(std): DAVIS E

Inventor(s): DAVIS E US

International class A23L1/312 A23L13/20 (Advanced/Invention);
(IPC 8-9): A23L1/31 (Core/Invention)

International class A22C18/00 A23L1/31
(IPC 1-7):

CPC: A23L13/20

European class: A23L1/312

US class: 426/296 426/438 426/641 99/10.7 99/107

[Classification Explorer](#)

Cited documents: US3429713 A,

Forward Citations: USD575926, USD489161, US8337935, US7790212, US4921720, US4901865, US4851249, US3966983, US2011003044, US2007128321, US2005056159, US2003138528, US2003138526, US2002142079, FR2501970,

Abstract:

Source: US3709698A This is a method of preparing crispy barbecued snouts or snoots, tripe, pig ears and skins including the steps: cut out the two main tendons from the forehead to the tip of the nose of the snouts, and in all products trim excess fat and cut out all lean meat; cover product or products with water in a pot and boil for 30 minutes; season with a mixture of salt, red pepper, and garlic powder, and while keeping water in and over the products, boil for another 2 hours; strain off the water and fry in deep fat set at 375 DEG F. a small increment at a time to insure floating, substantially 5 to 10 minutes, until snouts are firm enough to handle with tongs without tearing; lift snouts, etc., out individually with tongs, open up and put in a deep fry basket with another basket over them to maintain spread and reduce curling, replace in fryer and fry until crisp, substantially 15 to 20 minutes; remove the crispy snouts, etc., put in barbecue sauce, and serve.

177) Family number: 53655364 (US2013108757A)

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Title: FRYING APPARATUS AND METHOD

Priority: US20110286583 20111101 US20110286800 20111101 US20130905444 20130530

Family:

Publication number	Publication date	Application number	Application date
US2013108757 AA	20130502	US20110286583	20111101
US2013108758 AA	20130502	US20110286800	20111101
US2013344212 AA	20131226	US20130905444	20130530
US8474371 BB	20130702	US20110286800	20111101
US8943953 BB	20150203	US20130905444	20130530
US9003960 BB	20150414	US20110286583	20111101

Probable Assignee: CONAIR

Assignee(s):^(std): BLACK JR JOHN JOSEPH ; CHAN TING CHUNG ; CHIAPPETTA FRANK R ;
RUTIGLIANO GERARD A ; SANDERS DANIEL L ; MCMICHAEL DANNIE L ; CONAIR

Assignee(s): CONAIR CORP

Inventor(s):^(std): BLACK JR JOHN JOSEPH ; CHAN TING CHUNG ; CHIAPPETTA FRANK R ;
MCMICHAEL DANNIE L ; RUTIGLIANO GERARD A ; SANDERS DANIEL L

Agent(s): MCCORMICK PAULDING AND HUBER LLP

International class
(IPC 8-9): [A23L1/01](#) [A23L1/315](#) [A23L13/50](#) [A23L5/10](#) [A47J37/00](#) [A47J37/12](#) (Advanced/Invention)

CPC: [A47J37/1295](#) [A47J37/1219](#) [A23L5/11](#)

US class: [426/438](#) [426/438](#) [99/403](#) [99/409](#) [99/410](#) [99/419](#) [99/421H](#) [99/421R](#)

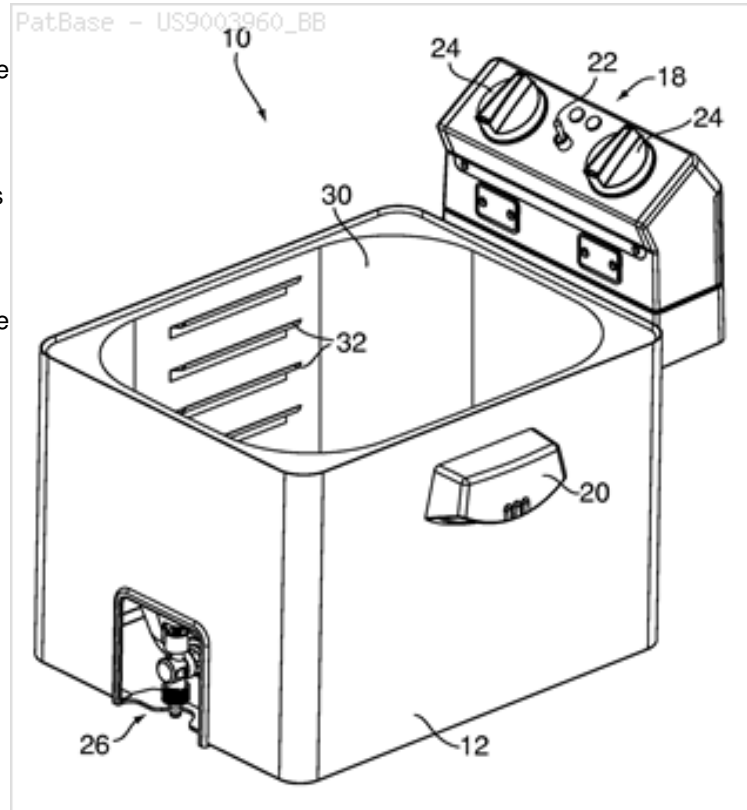
[Classification Explorer](#)

Cited documents: US812546 A, US7770514 BA, US7237476 BA, US6834577 BB, US6708603 BA,
US6398066 BA, US6220152 BA, US616095 A, US6055901 A, US5992307 A, US5782164
A, US5530990 A, US541397 A, US5191831 A, US4702160 A, US3299800 A, US2753436
A, US2318842 A, US2010269712 AA, US2010071565 AA, US2009217824 AA,
US2006272633 AA, US2006112837 AA, US2005217494 AA, US1786300 A, US1015455
A,

Forward Citations: US2015250187,

Abstract:

Source: US2013108757A A frying apparatus includes a basin for holding a volume of oil, the basin including a plurality of catches on opposed internal sidewalls of the basin, and a basket dimensioned to be received in the basin and including a pair of handles and at least one catch member. The catch member is movable between a safety position in which the catch member is biased away from the basket and towards the sidewalls, and a clearance position in which the catch member is urged inwards towards the basket. When the catch member is in the safety position, the catch member is configured to engage one of the catches on the internal sidewalls of the basin.



178) Family number: 9600184 (CH682799A)

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Title: Egg opening device with egg holder – has dome rotating on axis with opening smaller than largest diameter of egg and limited by rim

Priority: CH19910003635 19911210

Family:	Publication number	Publication date	Application number	Application date
	<u>CH682799 A</u>	19931130	CH19910003635	19911210

Probable Assignee: BRUNO HITZ

Assignee(s):^(std): BRUNO HITZ

Inventor(s):^(std): HITZ BRUNO

International class A47G19/28 (Advanced/Invention);
A47G19/00 (Core/Invention)

International class A47J43/14
(IPC 1-7):

CPC: A47G19/28

European class: A47G19/28

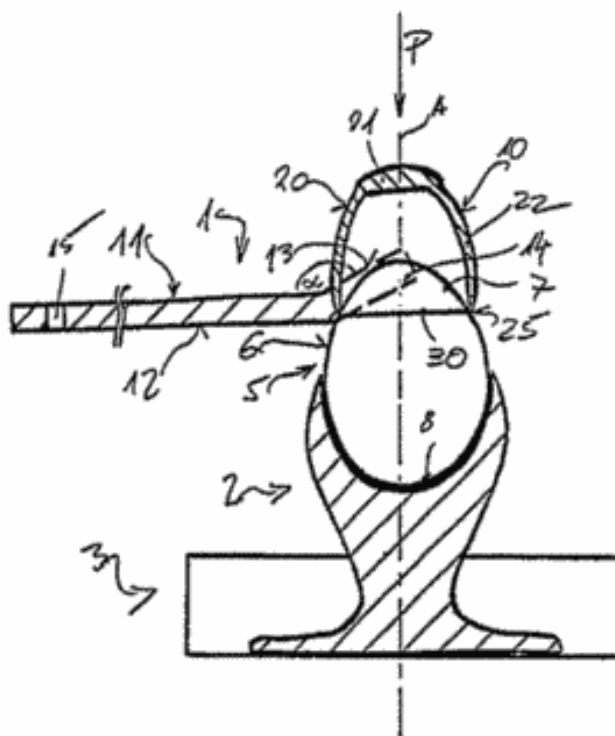
[Classification Explorer](#)

Cited documents: US4106402 A, US3721180 A, US3605833 A, US2533007 A, US2260836 A, DE2119230 A1,

Abstract:

Source: CH682799A The device comprises a dome (10) which is placed on top of the egg, it is so placed that a section (7) of egg (5) can fit into it. The hole (30) in the dome is smaller than the biggest diameter of the egg e.i. pref. 30 mm. The edge (25) of the opening is limited by a rim (20). Each section (28) of the inner wall (26) of the dome runs approx. parallel to the rotation axis (10), and each section (29) of the outer wall runs at an inclination to this axis. The dome is reinforced at the top (21). A handle (11) is attached to the dome. ADVANTAGE – Is not complicated and thus more price worthy and is faster than known devices.

PatBase – CH682799_A



0) US3819214A – CYLINDRICAL LOCK SET

179) Family number: 1080597 (US3819214A)

© PatBase

Title: CYLINDRICAL LOCK SET
Priority: US19720292346 19720926
Family:

Publication number	Publication date	Application number	Application date
AU197359903 A1	19750306	AU19730059903	19730831
CA977794 A1	19751111	CA19730168516	19730405
DE2347405 A1	19740411	DE19732347405	19730920
DE2347405 B2	19771006	DE19732347405	19730920
DE2347405 C3	19780601	DE19732347405	19730920
FR2200872 A5	19740419	FR19730033766	19730920
GB1440253 A	19760623	GB19730043470	19730917
IT1004585 A	19760720	IT19730069822	19730925
JP49070798 A2	19740709	JP19730107069	19730925
JP53100392 U1	19780814	JP19770133253U	19771005
US3819214 A	19740625	US19720292346	19720926

Probable Assignee: EMHART CORP

Assignee(s):^(std): EMHART CORP ; EMHART IND

Assignee(s): EMHART IND INC ; EMHART IND INC FARMINGTON CONN V ST A ; SALONIA THOMAS R ; HART LEROY ; EMHART CORP US ; EMHART INC ; EMHART INC A DELAWARE CORP ; BERGEN GARY R

Inventor(s):^(std): BERGEN GARY R ; BERGEN GARY RICHARD ; BERGEN G ; HART L ; HART LEROY ; SALONIA THOMAS R ; SALONIA THOMAS RICHARD ; SALONIA T

Inventor(s): SALONIA T US ; SALONIA THOMAS RICHARD KENSINGTON ; THOMAS RICHARD SALONIA ; HART LEROY WEST HARTFORD ; LEROY HART ; RICHARD BERGEN GARY ; RICHARD SALONIA THOMAS ; HART L US ; BERGEN G US ; BERGEN GARY RICHARD YORBA LINDA CALIF ; GARY RICHARD BERGEN

International class
^{(IPC 8-9):} [E05B55/00](#) [E05B55/14](#) [E05B63/08](#) [E05C1/12](#) ^{(Advanced/Invention):}
[E05B55/00](#) [E05B63/00](#) [E05C1/00](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [E05B17/04](#) [E05B55/00](#) [E05B63/10](#) [E05C1/06](#) [E05C1/12](#) [E05C1/16](#)

CPC: [Y10S292/38](#) [Y10T70/5504](#) [Y10T292/098](#) [Y10T292/0982](#) [Y10T292/099](#) [E05B55/005](#)

European class: [E05B55/00C](#)

US class: [292/16.9.13](#) [292/169.13](#) [292/169.14](#) [292/169.22](#) [292/DIG.38](#) [70/151R](#)

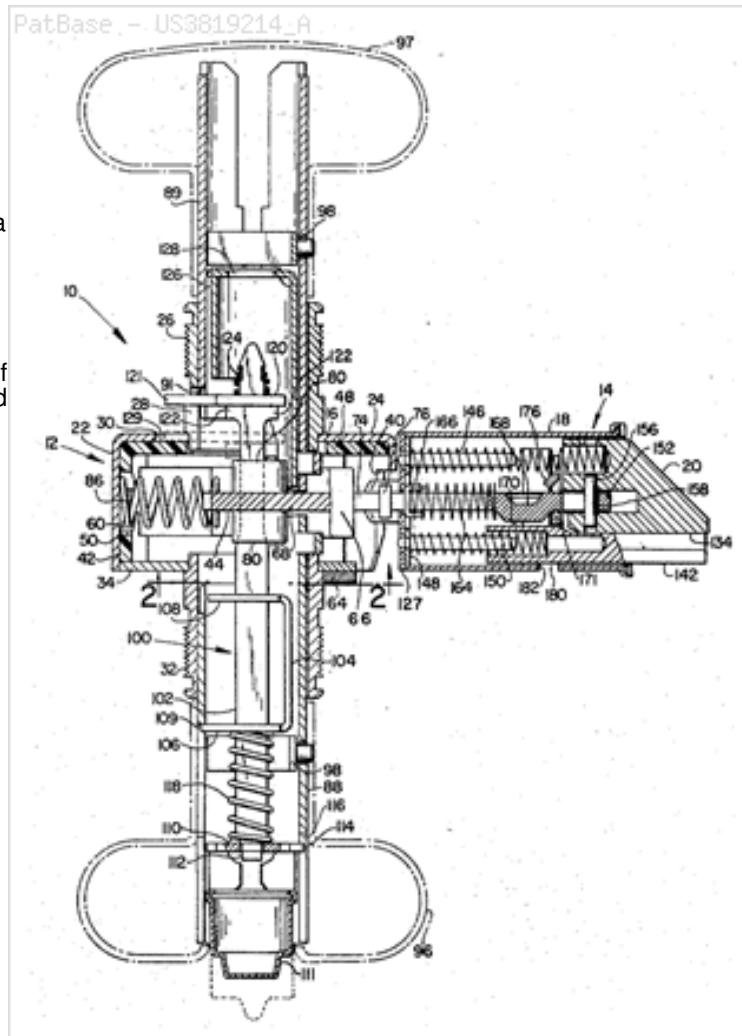
[Classification Explorer](#)

Cited documents: US3459448 A, US3287046 A, US3279836 A, US2930646 A, US2804327 A, US2733088 A, US2730391 A, US2293856 A, JP35017647 A2, JP35005547 A2,

Forward Citations: WO9730256, WO09032830, US8491023, US7934754, US6122946, US5918916, US4840413, US4840412, US4635453, US4142748, US2009056392, US2009056391, GB2325272, GB2325272, EP0237319, AU581161,

Abstract:

Source: US3819214A A cylindrical lock set including an operating unit having a cylindrical housing containing a unitary retractor frame of non-metallic, low-friction material supporting a unitary metallic retractor slide. A latch unit releasably connected to the operating unit includes a case supporting a latch bolt releasably connected to the retractor slide by a female tailpiece. Coengageable cam surfaces on the tailpiece and on a deadlocking member carried by the latch bolt positively drive the deadlocking member to a deadlocking position relative to the case if an attempt is made to forcibly depress the latch bolt as by insertion of a tool between the outer edge of an associated door and strike plate. The operating unit also includes a locking mechanism for locking a rollback against rotation relative to the housing.



0) DE3905990A1 – DEVICE FOR DEEP-FRYING OR SUBJECTING FOODSTUFFS...

180) Family number: 17977661 (DE3905990A1)

© PatBase

Title: Device for deep-frying or subjecting foodstuffs to other types of heat treatment

Priority: DE19893905990 19890225 DE19890004884U 19890225

Family:	Publication number	Publication date	Application number	Application date
	DE3905990 A1	19900830	DE19893905990	19890225
	DE3905990 C2	19920604	DE19893905990	19890225
	DE8904884 U1	19890824	DE19890004884U	19890225

Probable Assignee: ROKA WERK GMBH DAEMMBAU ELEMEN

Assignee(s):^(std): ROKA WERK GMBH DAEMMBAU ELEMEN

Assignee(s): ROKA WERK GMBH DAEMMBAU ELEMENTE UND GROSSKUECHENG ; ROKA WERK GMBH DAEMMBAU ELEMENTE UND GROSSKUECHENGERAETE 6296 MENGERSKIRCHEN DE

Inventor(s):^(std): BECK VOLKER

Inventor(s): BECK VOLKER 6253 HADAMAR DE

International class
(IPC 8-9): [A47J27/14 A47J37/12](#) (Advanced/Invention);
[A47J27/14 A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A21B5/08 A47J37/12](#)

CPC: [A47J27/14 A47J37/1257](#)

European class: [A47J27/14 A47J37/12H](#)

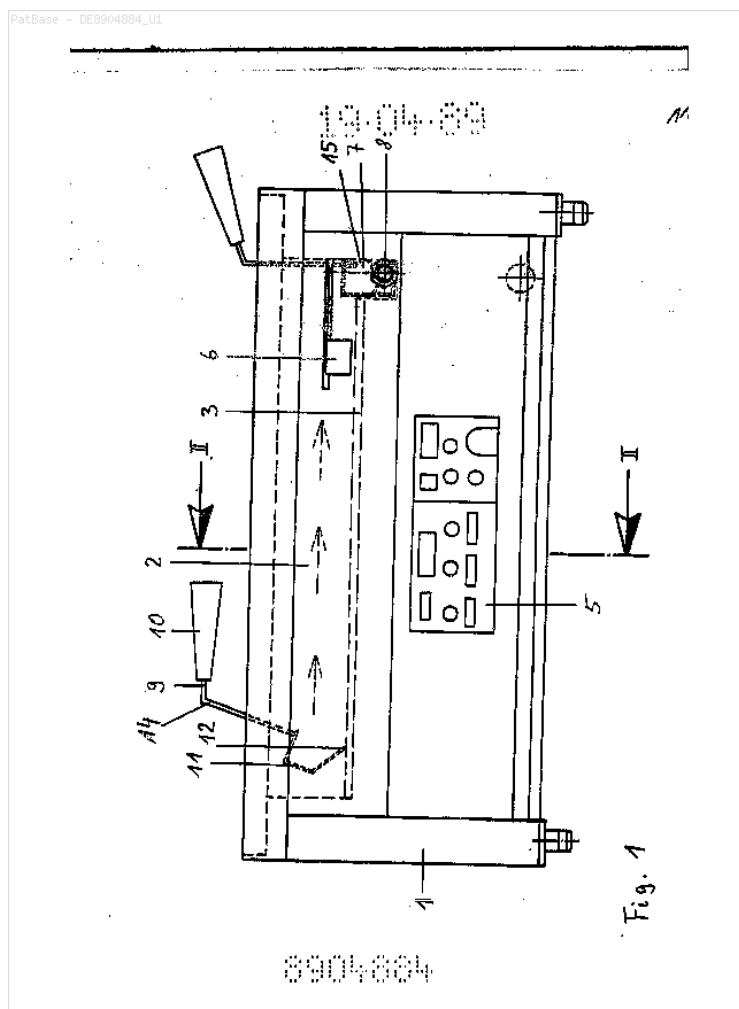
[Classification Explorer](#)

Cited documents: DE8806957, DE8513960, DE569249, DE2307557,

Forward Citations: FR2888102, EP1741370, EP1741370,

Abstract:

Source: DE3905990A1 A device for deep-frying or subjecting foodstuffs to other kinds of heat treatment which has a heated heat treatment container is characterised in that the heat treatment container takes the form of a trough with a heated floor, that at least one channel is arranged in the trough floor and has a floor which is at a lower level than the trough floor, and that there is arranged in the trough at least one scraper which can be moved across the trough floor and is structured and dimensioned in such a way that it can engage in one of the channels in each case, covering its aperture.



181) Family number: 30647396 (US2004112227A)

© PatBase

Title: ELECTRIC COOKING APPLIANCE HAVING A TANK ASSOCIATED WITH A POURING DEVICE**Priority:** CA20032452634 20031201 FR20020015458 20021206 FR20030004100 20030402**Family:**

Publication number	Publication date	Application number	Application date
AT298995 E	20050715	AT20030356184T	20031120
AT311801 E	20051215	AT20030356183T	20031120
CA2452634 AA	20040606	CA20032452634	20031201
CN1232210 C	20051221	CN200310119764	20031205
CN1506011 A	20040623	CN200310119764	20031205
DE60300975 D1	20050811	DE20036000975	20031120
DE60300975 T2	20060518	DE20036000975T	20031120
DE60305850 D1	20060720	DE20036005850	20031120
DE60305850 T2	20060928	DE20036005850T	20031120
EP1426001 A1	20040609	EP20030356183	20031120
EP1426001 B1	20051207	EP20030356183	20031120
EP1426003 A1	20040609	EP20030356184	20031120
EP1426003 B1	20050706	EP20030356184	20031120
ES2243879 T3	20051201	ES20030356184T	20031120
FR2848087 A1	20040611	FR20030004100	20030402
FR2848087 B1	20050128	FR20030004100	20030402
FR2848088 A1	20040611	FR20020015458	20021206
FR2848088 B1	20050107	FR20020015458	20021206
KR20040049797 A	20040612	KR20030086969	20031202
RU2003135542 A	20050527	RU20030135542	20031205
US2004112227 AA	20040617	US20030728785	20031208
US6807899 BB	20041026	US20030728785	20031208

Probable Assignee: SEB SA**Assignee(s):^(std):** SEB AB ; SEB SA**Assignee(s):** DIRAND PASCAL ; SEB LES SA ; SEB S A ; SEB S A ECULLY**Inventor(s):^(std):** DIRAN PASCAR ; PASCAR DIRAN ; DIRAND PASCAL**Inventor(s):** PASCAL DIRAND**Agent(s):** GOUDREAU GAGE DUBUC; SEB DEVELOPPEMENT**Designated states:** AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

International class [A47J27/00](#) [A47J36/14](#) [A47J37/00](#) [A47J37/06](#) [A47J37/12](#) (Advanced/Invention);
^{(IPC 8-9):} [A47J27/00](#) (Advanced/Non-invention);
[A47J27/00](#) [A47J36/00](#) [A47J37/12](#) (Core/Invention)

International class [A47J27/00](#) [A47J27/086](#) [A47J36/00](#) [A47J36/14](#) [A47J37/00](#) [A47J37/06](#) [A47J37/12](#)
^{(IPC 1-7):}

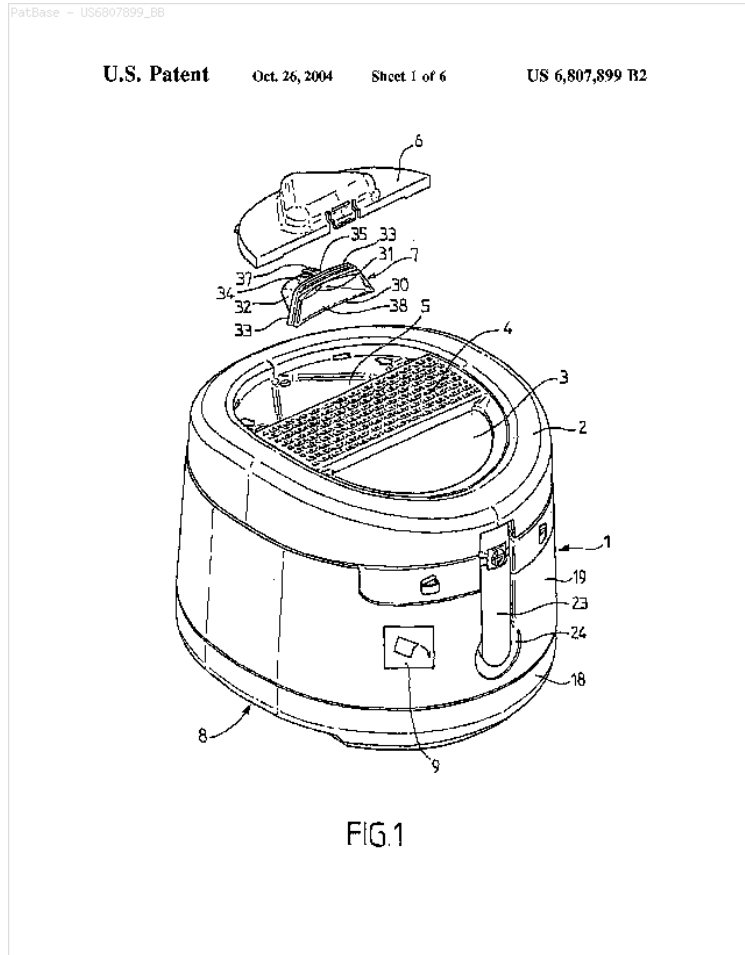
CPC: [A47J36/14](#) [A47J37/1271](#) [A47J37/129](#)**European class:** [A47J36/14](#) [A47J37/12L](#) [A47J37/12M3](#)**US class:** [219/438](#) [219/439](#) [99/330](#) [99/403](#) [99/410](#) [994/30](#)[Classification Explorer](#)**Cited documents:**

WO9302609 A1, US6499390 BA, US6283015 BA, US5996477 A, US5927181 A, US5839357 A, US5794520 A, US5701805 A, US5584234 A, US5429039 A, US5400700 A, US5388732 A, US5029519 A, US4672179 A, US3801331 A, US3463077 A, US2774524 A, US2744524 A, FR2692130 A1, FR1052038 A, EP0914023 A2, DE10006730 A1, BE1013920 AG,

Forward Citations: WO06100151, USD760017, USD752235, USD719397, USD715088, USD710149, USD709731, USD680802, USD680801, USD680800, USD677113, USD677112, USD676271, USD664801, USD610392, USD609962, USD552921, US8381637, US8297181, US8230779, US8003921, US7000527, US2011081471, US2010089247, US2010089246, US2008163764, US2007256571, US2004255791, FR2905255, EP1941819, EP1788918, CN103876632,

Abstract:

Source: US2004112227A An electric cooking appliance composed of: a tank for holding a cooking liquid; a housing in which the tank is mounted, the housing having an upper opening; an upper peripheral rim surrounding the upper opening, the upper peripheral rim being provided with an indentation; and a pouring accessory constructed to be removably mounted in the indentation to facilitate the pouring of the cooking liquid out of the tank.



0) FR2270829A – DEEP FRYER FOR POTATO CHIPS – HAS MOTOR DRIVEN ...

182) Family number: 3345508 (FR2270829A)

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Title: DEEP FRYER FOR POTATO CHIPS – HAS MOTOR DRIVEN DRUM WITHIN TWO-PART CASING WITH HEATERS

Priority: FR19730034433 19730925

Family:	Publication number	Publication date	Application number	Application date
	<u>FR2270829 A1</u>	19751212	FR19730034433	19730925
	<u>FR2270829 B1</u>	19761001	FR19730034433	19730925

Probable Assignee: LOTTE ROGER

Assignee(s):^(std): LOTTE ROGER

Assignee(s): LOTTE ROGER FR

International class A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/10
(IPC 1-7):

CPC: A47J37/1214

European class: A47J37/12B

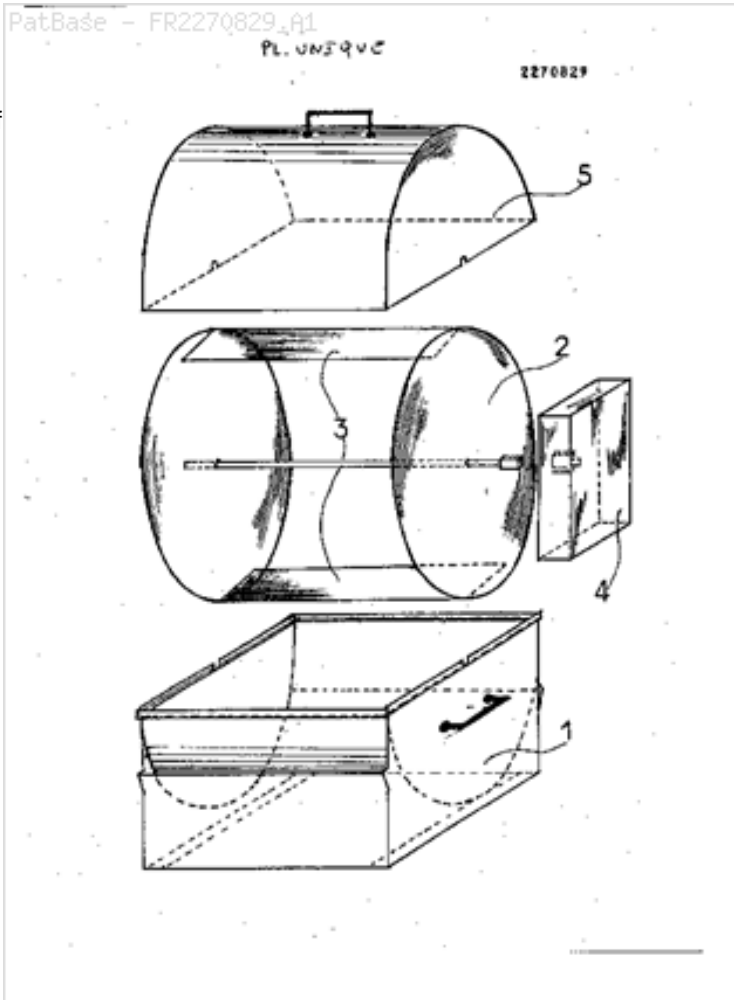
[Classification Explorer](#)

Forward Citations: WO05002406, JP4783728, EP1635683, EP0213074,

Abstract:

Source: FR2270829A (Claim 1)

REVENDEICATIONS 1 Procédé de cuisson des pommes de terre sautees sans surveillance et dans tres peu de matieres grasses. 2 Dispositif selon la revendication 1 Caracterise par le fait que la forme du recipient est demi- cylindrique dans le sens de la longueur et muni d'une embase qui lui sert de pied et d'une bobine de brassage, cet appareil peut etre chauffe par reEistances electrique incorporees ou sur gasinieres. The lower part of the fryer forms a rectangular container with handles each side, the bottom having a semicircular shape. Fitting inside is a hollow cylindrical drum with baffles and a shaft longitudinally through its axis, the ends of this shaft projecting each side and locating in cutouts in the top of the container. The upper part is formed by a semicircular cover with a handle and cutouts in its ends to fit over the drum shaft. When filled and heated by electrical heating elements or on a stove, a drive box is clipped on the end of the shaft to rotate the drum.



183) Family number: 4530639 (DE3600294A1)

© PatBase

Title: Electric multipurpose kitchen appliance**Priority:** DE19863600294 19860108

Family:	Publication number	Publication date	Application number	Application date
	<u>DE3600294 A1</u>	19870709	DE19863600294	19860108

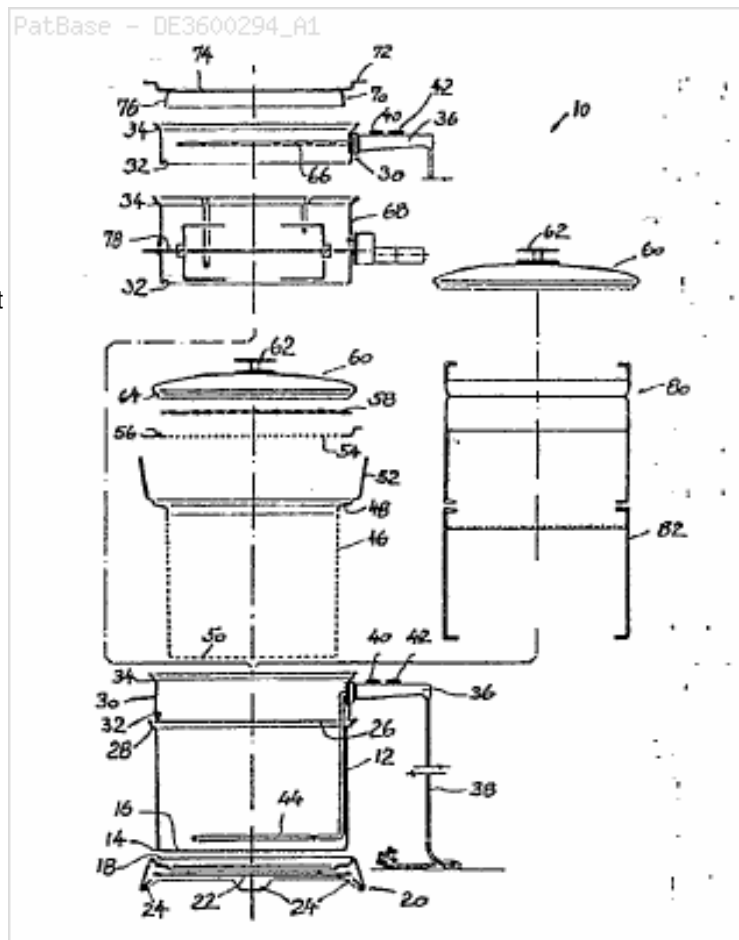
Probable Assignee: REDERER KONSTANTIN**Assignee(s):^(std):** REDERER KONSTANTIN**Inventor(s):^(std):** REDERER KONSTANTIN

International class A47J37/01 A47J37/12 (Advanced/Invention);
 (IPC 8-9): A47J37/01 A47J37/12 (Core/Invention)

International class A47J27/086 A47J37/12
 (IPC 1-7):

CPC: A47J37/015 A47J37/1209**European class:** A47J37/01A A47J37/12A1[Classification Explorer](#)**Forward Citations:** US9125517, US7211770, US5782165, FR2657516, FR2635960, EP1797798, EP1491119, BE1008015,**Abstract:**

Source: DE3600294A1 An electric multipurpose kitchen appliance (10) has a pot part (12), a lid part (60) and a heating coil (44, 66) which is fixed to the appliance, is visible in the interior thereof and is connected to an electric supply line (38). This multipurpose appliance is characterised in that the heating coil (44, 66) is detachably fixed, so that either a heating coil (66) for grilling can be attached at a short distance from the lid part (60, 70) or a heating coil (44) for frying can be attached at a short distance from the base (16) of the pot part (12).



0) CN301251323S – FRYER (DF–03IS) (MACHINE TRANSLATION)

184) Family number: 46575532 (CN301251323S)

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Title: Fryer (DF–03IS) (Machine translation)

Priority: CN200930251568F 20091024

Family:	Publication number	Publication date	Application number	Application date
	<u>CN301251323 S</u>	20100609	CN200930251568F	20091024

Locarno class: 07/02

Abstract:

Source: CN301251323S [Source: Claim 1]
1. The name of the product design: the fryer (DF–03IS). 2. The use of design product: The product for frying various foods. 3. The design elements design: A control box of the product's overall shape, and the shape of the handle B of the cover. 4. The best indicator of design elements or photographs are: front view.

185) Family number: 60176665 (US2017064775A)

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Title: MAGNETIC METHOD FOR DETERMINING A COOKING APPLIANCE CHARACTERISTIC**Priority:** WO2014GB00060 20140221

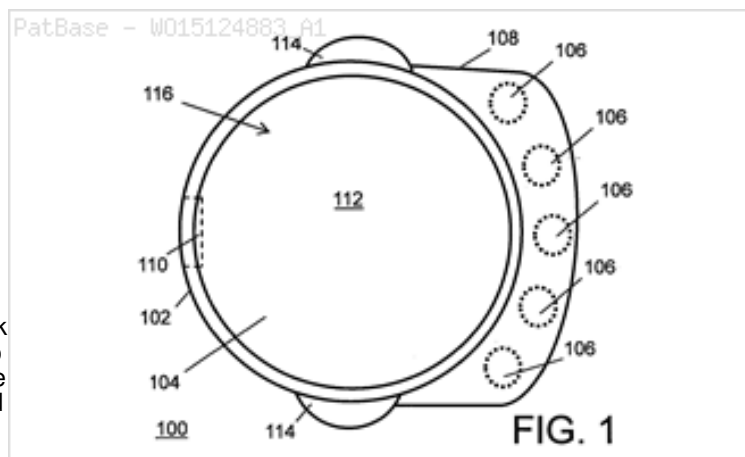
Family:	Publication number	Publication date	Application number	Application date
	<u>AU2014383548 AA</u>	20150827	AU20140383548	20140221
	<u>AU2014383548 AH</u>	20160825	AU20140383548	20140221
	<u>CN106061336 A</u>	20161026	CN201480075788	20140221
	<u>EP3107428 A1</u>	20161228	EP20140708079	20140221
	<u>US2017064775 AA</u>	20170302	US20140120311	20140221
	<u>WO15124883 A1</u>	20150827	WO2014GB00060	20140221

Probable Assignee: RICHARDS MORPHY N I LTD**Assignee(s):**^(std): RICHARDS MORPHY N I LTD**Assignee(s):** MORPHY RICHARDS LTD**Inventor(s):**^(std): HAUSER GLYN ; JAMES MICHAEL ; JONES DAVID ; MEDDICK JAMES ; RICHARDSON JACK**Agent(s):** ARMOUR IP; FRANKS AND CO LTD; FRANKS AND CO ET AL LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class A47J27/00 A47J27/62 H05B6/06 H05B6/12 (Advanced/Invention)
(IPC 8-9):**CPC:** H05B6/062 A47J27/62 H05B6/12 H05B2213/05 H05B2213/06[Classification Explorer](#)**Cited documents:** WO8300548 A1, US2010147832 AA, GB2506907 A1, FR2290125 A1, DE10150949 A1,**Abstract:**

Source: US2017064775A A cooking appliance, an induction cooking hob (400) and a method (1000) of determining a characteristic of the cooking appliance. The cooking appliance (100) has vessel (102) containing a chamber (104). There are magnets (106) mounted to the vessel (102), the magnets (106) provide a code that identifies a characteristic of the cooking appliance (100). There is an appliance positioning interlock (110) for operatively coupling with an appliance positioning interlock engagement member (406) of the cooking hob (400) to thereby position the cooking appliance (100) on the cooking hob (400) in a predefined location. The cooking hob (400) has sensors (414) so that when the appliance (100) is at the predefined location the sensors (414) can detect and decode the magnetic field code to identify the characteristic. This characteristic is used to define a cooking profile to heat of the appliance to a desired temperature and optionally the appliance is heated for a predefined time.



186) Family number: 1152870 (US3894482A)

© PatBase

Title: COOKING OIL FILTERING**Priority:** US19720253109 19720515

Family:	Publication number	Publication date	Application number	Application date
	<u>US3894482 A</u>	19750715	US19720253109	19720515

Probable Assignee: MURPHY JOHN R**Assignee(s):**^(std): MURPHY JOHN R**Inventor(s):**^(std): MURPHY JOHN R

International class A47J37/12 (Advanced/Invention);
^{(IPC 8-9):} A47J37/12 (Core/Invention)

International class A47J37/12
^{(IPC 1-7):}

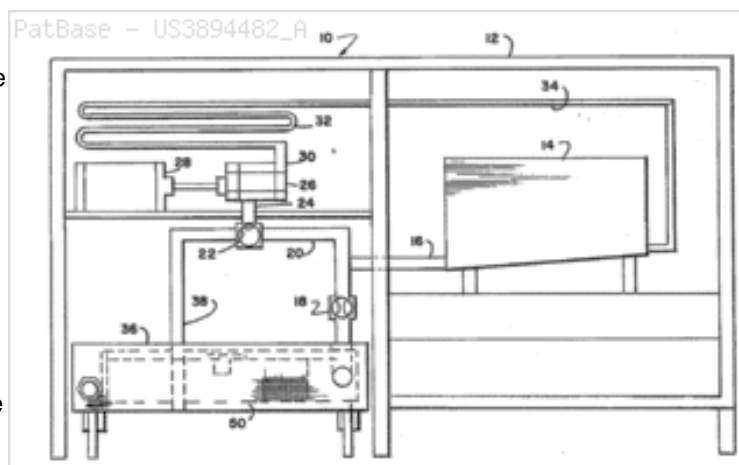
CPC: Y10S210/08 A47J37/1223**European class:** A47J37/12D**US class:** 210/167.28 210/314 210/DIG.8 99/330 99/408 993/300[Classification Explorer](#)

Cited documents: US3701313 A, US3688683 A, US3608472 A, US3581896 A, US3410199 A, US3368682 A, US3355026 A, US3280722 A, US3279605 A, US3210193 A, US3159095 A, US3107601 A, US2495031 A,

Forward Citations: WO04034860, WO0162130, USRE33712, US9357881, US8163098, US7704387, US7698994, US7309422, US6890428, US6572764, US4962698, US4668390, US4502372, US4487691, US4444095, US4148729, US3977973, US2010192981, US2009084273, US2008196596, US2008060528, US2007062515, US2005072309, US2003196940,

Abstract:

Source: US3894482A Cooking oil drains from a cook pot through a filter into a relatively large tank at the end of a cook cycle. Filtered oil is pumped from the tank into the cook pot before again cooking foods. If the filter is clogged, and filtered oil is not available in the tank, a valve is immediately switched to draw oil from the cook pot. The filter is an elongated rectangular box having a plenum at one end and having a hinged cover, so that filter elements may be lifted upward out of the filter box. The elements are a baffle frame laterally surrounded by primary and secondary spaced screens. Oil enters the box from one end and laterally flows from sides and the bottom of the box.



187) Family number: 219070 (BRMU6901795U)

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Title: DISPOSICAO INTRODIZIDA EM CARRINHO PARA FRITURAS CHARACTER INTRODUCED IN CART FOR FRIED FOODS (Machine translation)

Priority: BR1989MU01795U 19890904

Family:	Publication number	Publication date	Application number	Application date
	BRMU6901795 U	19910709	BR1989MU01795U	19890904

Probable Assignee: HELIO GOLDSZTEJN

Assignee(s):^(std): HELIO GOLDSZTEJN

Inventor(s):^(std): GOLDSZTEJN HELIO

Inventor(s): HELIO GOLDSZTEJN

International class B62B3/02 (Advanced/Invention);
(IPC 8-9): B62B3/02 (Core/Invention)

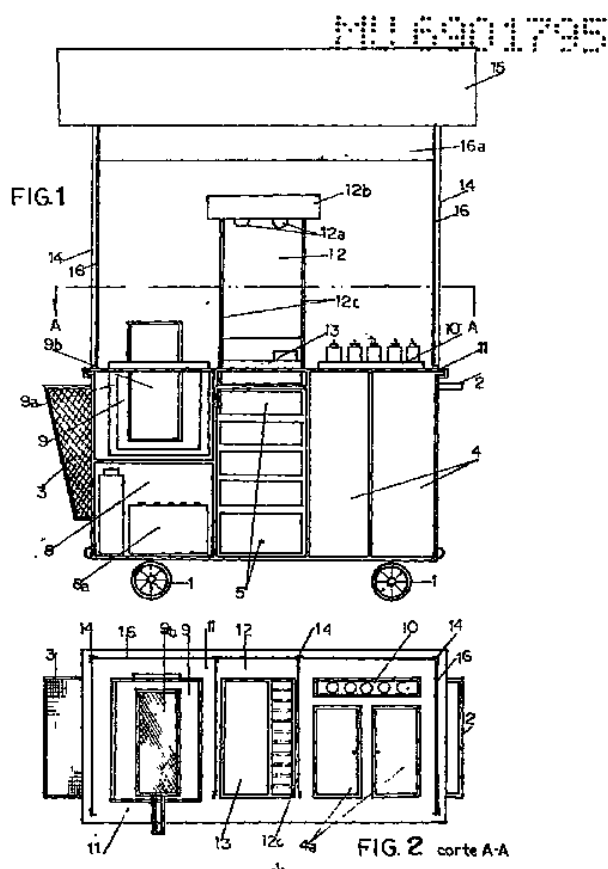
International class B62B3/02
(IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: BRMU6901795U [Source: Claim 1] 1) "DISPOSICAO IITHODDZIIII EH CABHIBHO PABA ERITtEAS", 1 caracterizado por ser constituído de rodas (1) com tra vas, alca (2) de pega, lixeira (3), compartimentos (4) 1 05 – para manter gelado os refrigerantes, com tampa (4a) bas culante, gavetas (5) para guardanapos diversos, tendo 1 divisoria (6) para tambor de gas (6a), divisoria (7) pa ra oleo e extintor de incendio, outra divisoria (8) pa– ra bateria (8a) eletrica dispostos abaixo da fritadeira 10 – (9) com revestimento termico (9a), rede (9b) para as ss fritaras, tendo um reservatorio (10) para molhos, die–1 postos na mesa (11) dotada de estufa (12) com lampadas1 (12a), cobertura (12b) e paredes de vidros (12c) e ban– deja (13) especial, tendo acima da mesa tuna estrutura 1 (14) para a cobertura (15) com exaustao (15a), sendo 1 protegida por laminas de vidro (16) com abertura (16a)1 superior. 15 – [Source: Claim 1] 1) "IITHODDZIIII CABHIBHO ERITtEAS PABA EH DISPOSITION". 1 characterized by being composed of (1) with tra vas, FTAA (2) handle, Recycle Bin (3), magazines (4) 1–05 to keep ice cream soda, with lid (4a) bas culante, (5) drawers for napkins, having 1 divisoria (6) to the gas barrel (6a), divisoria (7) pa ra oil and fire extinguisher, another divisoria (8) pa–ra battery (8a) electrical prepared below the 10–fritadeira (9) with thermal coating (9a), network (9b) to the fritaras, having a reservoir (10) to sauces, die–1 posts in the table (11) with the oven (12) with lampadas1 (12a), coverage (12b) and glass walls (12th) and ban–deja (13), taking up the table tuna 1 structure (14) to the cover (15) with mess (15a) 1 being protected by glass blades (16) with Aperture (16a) top 1. 15–

PatBase - BRMU6901795_U



188) Family number: 225011 (BRMU7001534U)

© PatBase

Title: TAMPA COM VISOR PARA PANEAS DE USO DOMESTICO DISPLAY LID FOR POTS OF HOUSEHOLD USAGE (Machine translation)**Priority:** BR1990MU01534U 19900810

Family:	Publication number	Publication date	Application number	Application date
	<u>BRMU7001534 U</u>	19920303	BR1990MU01534U	19900810

Probable Assignee: PHILIPS BRASIL**Assignee(s):^(std):** PHILIPS BRASIL**Assignee(s):** PHILIPS DO BRASIL LTDA**Inventor(s):^(std):** DISCO PAULUS JACOBUS**Inventor(s):** PAULUS JACOBUS DISCO**International class** A47J36/06 (Advanced/Invention);
(IPC 8-9): A47J36/00 (Core/Invention)**International class** A47J36/06
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: BRMU7001534U [Source: Claim 1] 1 – Tampa com visor para panelas de uso doméstico, caracterizada pelo fato de ser compreendida por uma parte superior (2a), tendo uma alca (10) e 5 uma parte inferior (2b), entre as partes superior e inferior (2a, 2b) são previstos um suporte (3), adequada do para apoiar e posicionar um visor (5) e um filtro (6).

[Source: Claim 1] 1—Cap with visor to use pot—melanzane, characterized by the fact of being understood by a top (2a), having a handle (10) and bottom 5 1 (2b), between the top and bottom (2a, 2b) are provided for a support (3), suitable to support and position a display (5) and a filter (6).

PatBase - BRMU7001534_U

BRMU7001534

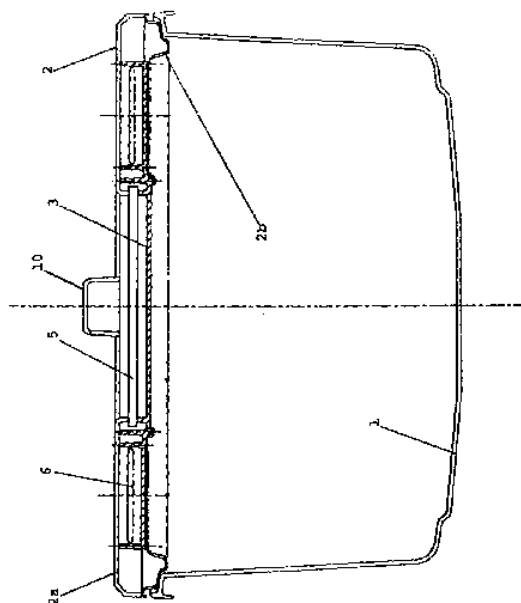


FIG 1

Title: COCEDERO DE MARISCOS.**Priority:** ES19990001906U 19990716

Family:	Publication number	Publication date	Application number	Application date
	<u>ES1043704 UA</u>	20000101	ES19990001906U	19990716
	<u>ES1043704 Y1</u>	20000616	ES19990001906U	19990716
	<u>ES1043704 YA</u>	20000616	ES19990001906U	19990716

Probable Assignee: PESCANOVA SA**Assignee(s):**^(std) PESCANOVA S A ; PESCANOVA SA**Inventor(s):**^(std) PAZO IRAZU JUAN

International class A47J27/00 F24C7/00 (Advanced/Invention);
 (IPC 8-9): A47J27/00 F24C7/00 (Core/Invention)

International class A47J27/00 F24C7/00
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: ES1043704U 1. Cocedero de mariscos, que estando constituido a partir de una estructura metalica, preferentemente de acero inoxidable, en la que estan establecidos dos compartimentos independientes receptores de sendas cubas (2 y 2'), tambien de acero inoxidable y previstas para contener el liquido de cocci on sobre el que se sumerge, en cada caso, un cestillo (3 y 3') para el producto a cocer, cestillo que esta dotado de un asa atermica (4 y 4') produciendose el calentamiento de liquido y cocci on mediante resistencias electricas (5) convenientemente blindadas y conectables para su funcionamiento a la correspondiente red electrica, siendo esas resistencias (5) extraibles para su limpieza a comp ar a permitirla limpieza de las cubas, complementandose con un termostato (9) para regulacion de la temperatura de cocci on, as como con una tapa independiente y superior (13) para cada cuba, se caracteriza porque el liquido de cocci on es agua o salmuera y cada cuba (2 y 2') cuenta con una entrada de agua (7 y 7') en conexi on con una toma exterior; habiendose previsto en correspondencia con cada toma una valvula de paso con su respectivo mando (8 y 8'), mediante la que es posible regular el caudal hacia la respectiva cuba (2 y 2'); con la particularidad de que dichas cubas cuentan ademas con un rebosadero (11) situado a una altura conveniente para mantener el nivel adecuado del agua o salmuera en el interior de la cuba (2 y 2'), as o m o para permitir la renovaci on permanente de dicho liquido de cocci on. 1. Cocedero seafood, which being constituted from a metal frame, preferably stainless steel, which are set two separate compartments receptor pathways vats (2 and 2'), also stainless steel and planned to contain the liquid on the cocci on which dips, in each case, a basket (3 and 3') for the product to be cooked, which basket is provided with a Atermica handle (4 and 4') producing liquid and heating cooking by electric heating elements (5)

PatBase - ES1043704_UA

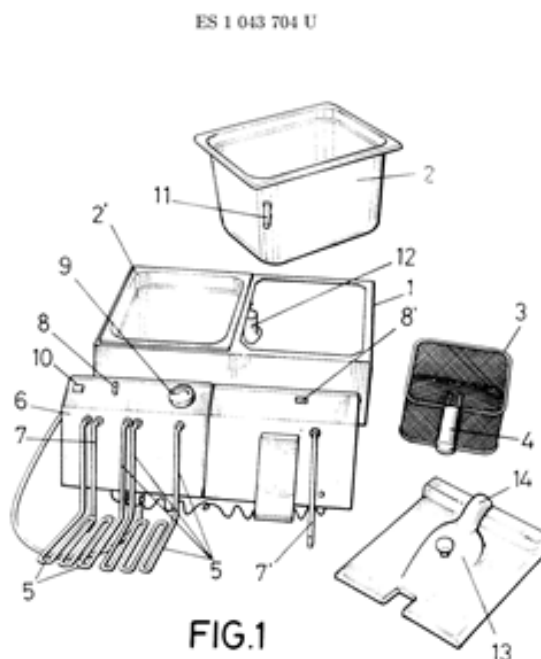


FIG.1

suitably reinforced and plug for operation on the corresponding electrical network, where these resistors (5) removable for cleaning and composed of parallel immersed tanks, complemented a thermostat (9) for regulation of temperature cooking, as well as an independent and top cover (13) for each Cuba, characterized in that the liquid of cooking is water or brine and every Cuba (2 and 2') has a water inlet (7 and 7') in connection with an exterior shot; being provided in correspondence with each outlet valve with its own control step (8, 8'), by which it is possible to regulate the flow into the respective Cuba (2 and 2'); with the particularity that these tanks also feature a weir (11) located at a convenient height to maintain proper water level or brine inside of Cuba (2 and 2'), as shown to allow permanent renewal of the liquid in contact.

190) Family number: 4983437 (US4577092A)

© PatBase

Title: Infrared cooking apparatus with adjustable height and pivotal heating element and with pivotal side flaps**Priority:** FR19820009866 19820607

Family:	Publication number	Publication date	Application number	Application date
	FR2527919 A1	19831209	FR19820009866	19820607
	FR2527919 B1	19860117	FR19820009866	19820607
	US4577092 A	19860318	US19830501115	19830606

Probable Assignee: LENOIR JACQUES**Assignee(s):**^(std): LENOIR JACQUES ; LENOIR JACQUES A**Inventor(s):**^(std): LENOIR JACQUES A

International class [A47J37/06](#) [A47J37/10](#) (Advanced/Invention);
^{(IPC 8-9):} [A47J37/06](#) [A47J37/10](#) (Core/Invention)

International class [A47J37/00](#) [A47J37/06](#) [H05B1/00](#)
^{(IPC 1-7):}

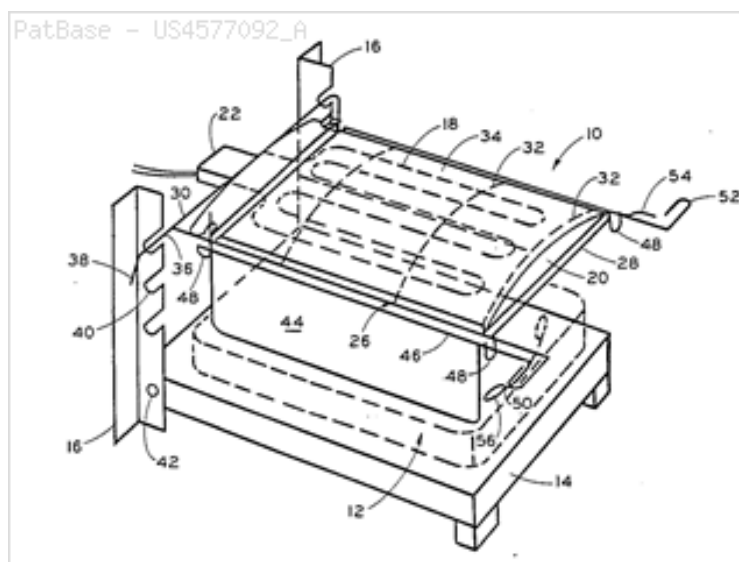
CPC: [A47J37/0623](#) [A47J37/0629](#) [A47J37/103](#)**European class:** [A47J37/06C](#) [A47J37/06C4](#) [A47J37/10A1](#)**US class:** [211/101](#) [211/193](#) [219/348](#) [219/354](#) [219/357](#) [219/405](#) [248/242](#) [392/418](#) [392/423](#)[Classification Explorer](#)

Cited documents: US4470512 A, US4444323 A, US4250815 A, US4020323 A, US3732803 A, US3358585 A, US3267925 A, US3236998 A, US2995257 A, US2868111 A, US2848592 A, US2844702 A, US2631216 A, US2255466 A, US2230268 A, US2055972 A, US1006361 A, IT544376 A, GB783533 A, FR1485674 A, FR1211831 A, DE2734332 A1, DE2117185 A1, DE1176334 B, CH610747, CH459499 A, CH224604 A,

Forward Citations: WO15116660, WO12076968, WO06102903, US9237827, US8538249, US8141479, US7853128, US7683292, US7644826, US7619186, US7335858, US7323663, US6736051, US5896808, US5868263, US5436434, US5249763, US4983809, US2012017774, US2011091189, US2009272278, US2009038482, US2008044167, US2007199584, US2006157470, US2005247210, US2005173400, US2005132900, US2003051605, GB2322187, GB2322187, FR2995764, FR2800257,

Abstract:

Source: US4577092A A cooking device, having a base on which a pan or the like may rest; vertical standard collapsibly secured to the base; and a housing removably mounted on the standard for holding a heating element horizontally in opposition to the base; the housing is provided with a removable concave cover and removable flaps depending lengthwise from its sides to enclose the space between the heating element and the base, preventing the escape or splattering of food, juices, fats, and concentrating the heat inwardly thereof.



191) Family number: 58069424 (BR202012021026U)

© PatBase

Title: DISPOSICAO APLICADA EM BOTAO DE LIBERACAO COM DISPOSITIVO DE SEGURANCA DA CESTA DO FORNO ELETRICO DE CONVECCAO A AR HAND APPLIED IN button release BASKET WITH SAFETY DEVICE ELECTRIC convection oven AIR (Machine translation)

Priority: BR20122021026U 20120822

Publication number	Publication date	Application number	Application date
BR202012021026 U2	20141202	BR20122021026U	20120822

Probable Assignee: M K ELETRODOMESTICOS LTDA

Assignee(s):^(std) M K ELETRODOMESTICOS LTDA

Inventor(s):^(std) KRAUSE JACQUES IVO

Inventor(s): JACQUES IVO KRAUSE

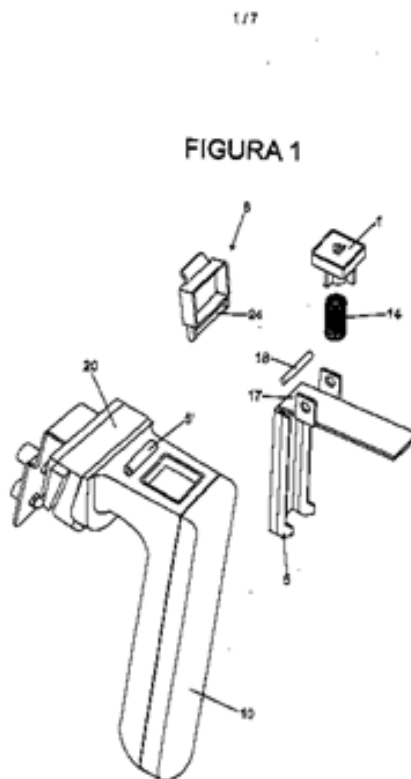
International class F24C15/16 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: BR202012021026U 1 RESUMO "DISPOSICAO APLICADA EM BOTAO DE LIBERACAO COM DISPOSITIVO DE SEGURANCA DA CESTA DO FORNO ELETRICO DE CONVECCAO A AR", consiste essencialmente de um botao (1) cujo mecanismo (2) de travamento 5 responde horizontalmente (3) mediante pressonamento vertical (4) afastando a garra (5) do batente (6) de fixacao na cuba (7) de servir, sendo que sobre o referido botao (1) um dispositivo (8) pivotante (9) evita o pressonamento indevido do mesmo. 1 SUMMARY "HAND APPLIED IN BUTTON TO ENABLE WITH OVEN BASKET SAFETY DEVICE ELECTRIC OF CONVECTION AIR", consists essentially of a button (1) the mechanism (2) locking 5 horizontally accounts (3) by vertical press (4) away from the claw (5) Stop (6) fixation in the tank (7) to serve, and on that button (1) a device (8) pivoting (9) prevents unauthorized pressing the same.

PatBase - BR202012021026_U2



192) Family number: 16111392 (GB2354428A)

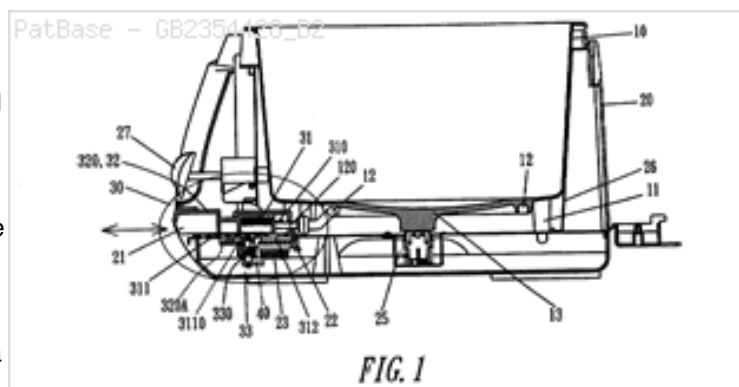
© PatBase

Title: An electric cooking appliance having a safety device**Priority:** CN19992044671U 19990921

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2396736 Y</u>	20000920	CN19992044671U	19990921
	GB2000005393 A0	20000426	GB20000005393	20000306
	<u>GB2354428 A1</u>	20010328	GB20000005393	20000306
	<u>GB2354428 B2</u>	20020123	GB20000005393	20000306

Probable Assignee: YAHONG ELECTRIC EQUIPMENT INDU**Assignee(s):^(std):** YAHONG ELECTRIC EQUIPMENT IND CO LTD ; YAHONG ELECTRIC EQUIPMENT INDU ; YA HORNG ELECTRONIC CO LTD**Assignee(s):** YA HORNG ELECTRONIC COMPANY LIMITED ; YAHONG ELECTRIC EQUIPMENT INDUSTRY CO ; YAHONG ELECTRIC EQUIPMENT INDUSTRY CO LTD**Inventor(s):^(std):** HUANG J Y ; JINYI HUANG ; HUANG JINYI**Inventor(s):** J Y HUANG**International class** A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)**International class** A47J36/24 A47J37/12
(IPC 1-7):**CPC:** A47J37/1209**European class:** A47J37/12A1[Classification Explorer](#)**Cited documents:** GB2297899 A1,**Abstract:**

Source: GB2354428A An electric cooking appliance such as an electric frying pan has a removable inner cooking chamber 10 provided with a heating element 12 and plug 120, and a moveable electric socket member 310. A safety member in the form of a pull cap (321, fig.2) and pull member 320 is located in a hole in the side of an outer chamber 20, and can be moved into or out of the appliance, moving the electrical power connect unit 31 with it, thus establishing electrical connection or disconnection. A locking device 33 in the form of a locking shaft 330 which extends through a hole 312 in a coactive plate 311 holds the safety device in the pulled out position and prevents it being pushed in and establishing electrical contact until the inner chamber 10 has been placed inside the appliance, a foot 11 of the inner chamber 10 pushing a swing plate 40 which moves the locking shaft 330 out of connection with the engage hole 312. To remove the inner chamber 10, the pull cap (321, fig.2), pull member 320, power connect unit 31 and coactive plate 311 are pulled out until the locking shaft 330 engages in the engage hole 312 in the coactive plate 311, and the plug 120 and socket member 310 are disconnected.



0) US3098921A – COMPOSITE ELECTRICALLY HEATED DEVICES

193) Family number: 20489332 (US3098921A)

© PatBase

Title: COMPOSITE ELECTRICALLY HEATED DEVICES

Priority: US19570671003 19570710

Family:	Publication number	Publication date	Application number	Application date
	FR1206857 A	19600212		19580520
	GB852780 A	19601102	GB19580015194	19580512
	US3098921 A	19630723	US19570671003	19570710

Probable Assignee: SUNBEAM CORP

Assignee(s):^(std): SUNBEAM CORP

Inventor(s):^(std): IVAR JEPSON

Inventor(s): JEPSON IVAR

International class
(IPC 8-9): [D06F75/24](#) [D06F75/38](#) (Advanced/Invention);
[D06F75/00](#) [D06F75/08](#) (Core/Invention)

International class
(IPC 1-7): [D06F75/08](#)

CPC: [Y10S428/935](#) [Y10S428/939](#) [D06F75/24](#) [D06F75/38](#) [Y10T428/12444](#) [Y10T428/12924](#)
[Y10T428/12965](#)

European class: [D06F75/24](#) [D06F75/38](#)

US class: [164/105](#) [164/108](#) [219/254](#) [219/258](#) [219/540](#) [219/544](#) [219/547](#) [219/548](#) [38/82](#) [428/608](#)
[428/677](#) [428/683](#) [428/935](#) [428/939](#)

[Classification Explorer](#)

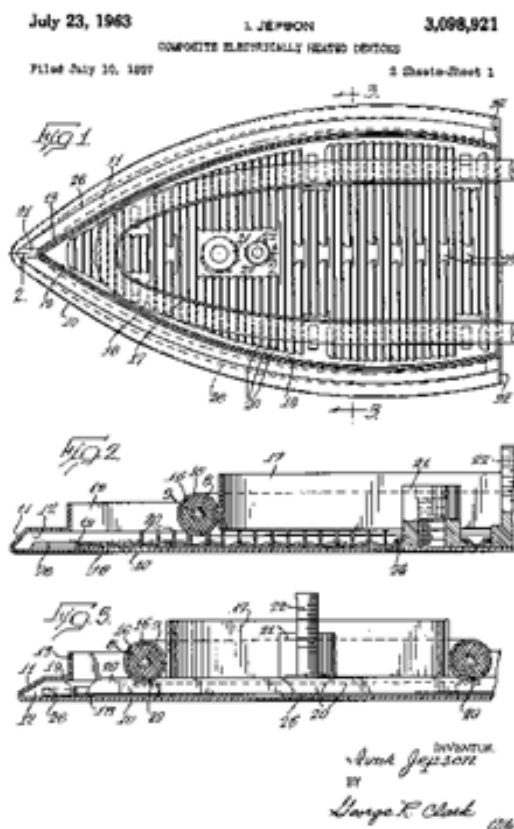
Cited documents: US2807700 A, US2677172 A, US2671950 A, US2579898 A, US2552818 A, US2357578 A, US2257451 A, US1547837 A, US1257106 A, US1254558 A, US1243654 A, AU109512,

Forward Citations: US3966426, US3709280, US3693452, US3349470, US2010257761, US2009184107,

Abstract:

Source: GB852780A 852,780. Electric irons and cooking vessels. SUNBEAM CORPORATION. May. 12, 1958 [July 10, 1957], No. 15194/58. Class 39(3). [Also in Group XXII] A composite member for use with a sheathed electric heater 16 as a smoothing iron, frying pan or saucepan comprises a facing sheet 10 of a hard scratchproof metal e.g. stainless steel with a layer of copper bonded to one of its surfaces and a spreader element including several elongated filaments, wires or thin bars 20 extending along the sheet 10 and of a metal similar thereto, the spreader element being at least partially embedded in the layer of copper. The heater 16 has a steel sheath extending along the spreader element and is at least partly embedded in and fused to the copper layer. The spreader element may comprise a woven wire screen or be of expanded metal, over which the copper is cast and may be of the same area as the steel sheet 10. To form a soleplate of an iron, the sheet 10 is formed with a peripheral recess 12 with an upper rim 13. The spreader 18 is slotted and has webs or strips 20 bent up vertically therefrom, the lower edges being spaced slightly above the sheet 10 to allow molten copper to pass under them. A handle and cover are attached to a socket 21 welded to an unslit part 23 of the spreader, and a lug 22 welded to the soleplate carries a thermostat. The spreader is brazed to the sheet 10 at spaced points and after placing the heater 16 in grooves in the webs 20, powdered copper is placed over the spreader and melted in an inert or reducing atmosphere to fuse around the spreader and against the sheath of the heater and a strengthening web 17; or a sheet of copper between the plate and spreader is similarly melted. A steel housing for a thermostat may be bonded to the copper mass. Specifications 772,268, 806,941 and 810,728 are referred to.

PatBase - US3098921_A



0) DE2514604A1 – GRUNDBAUELEMENT ZUR HERSTELLUNG VON ELEKTRISCH ...

194) Family number: 2394370 (DE2514604A1)

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Title: GRUNDBAUELEMENT ZUR HERSTELLUNG VON ELEKTRISCH HEIZBAREN HAUSHALTSGERAETEN BASIC UNIT FOR HEATING DOMESTIC APPLIANCES – SUCH AS EGG BOILERS, BABY FOOD HEATERS OR WATER BOILERS ETC. HAS ALUMINIUM INSERT WITH GROOVES FOR HEATING WINDINGS

Priority: DE19752514604 19750403

Publication number	Publication date	Application number	Application date
<u>DE2514604 A1</u>	19761014	DE19752514604	19750403

Probable Assignee: GROSSAG GMBH

Assignee(s):^(std) GROSSAG GMBH

Inventor(s):^(std) ASSMANN JUERGEN

International class
(IPC 8-9): A47J27/00 (Advanced/Invention);
A47J27/00 (Core/Invention)

International class
(IPC 1-7): H05B3/68

CPC: A47J27/004

European class: A47J27/00B

[Classification Explorer](#)

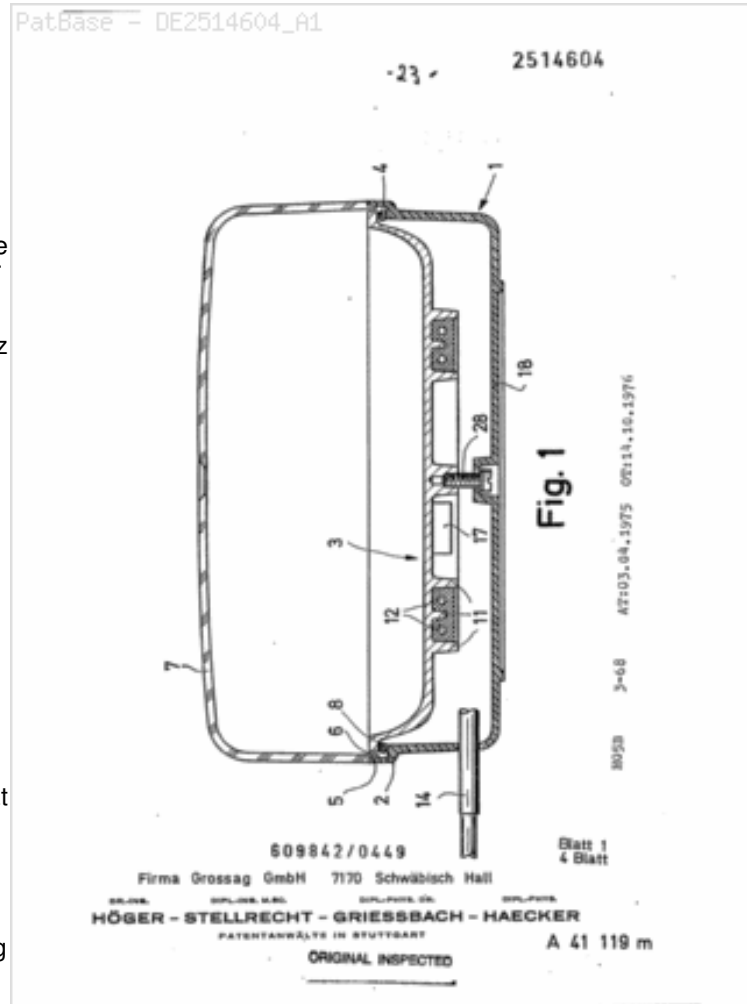
Forward Citations: US4492853, FR2627024, EP0328432, DE2924767,

Abstract:

Source: DE2514604A1 Patentansrueche: 1

Grundbauelement zur Herstellung von elektrisch beheizbaren Haushaltsgeraeten, insbesondere Eierkochern, Menuewaermern fuer Kleinkinder, Wasserkocher, Friteuse und dergleichen, bestehend aus einem metallischen, bevorzugt aus Aluminium geformten Heizeinsatz mit rillenartig ausgebildeten Vorspruengen an der Unterseite zur Aufnahme von Heizwicklungen, der ueber einen zwischengefuegten O-Ring mit einem gehaeuseartigen Traeger teil verbunden ist, dadurch gekennzeichnet, dass der Heizeinsatz (3) als ebene Platte ausgebildet ist, dass der Heizeinsatz (3) stumpf in den Traeger teil (1) mit geringstem Abstand zur Bildung einer durchlaufenden ebenen oberen Flaechen uebergeht, dass der unmittelbar an den Heizeinsatz (3) angrenzende, von dem Traeger teil (1) gebildete Uebergangsbereich (23) als Fortsetzung des Heizeinsatzes (3) in dessen Ebene liegt oder allmaehlich ansteigend schalen foermig ausgebildet ist, dass der Heizeinsatz (3) unter halb seines Uebergangsbereiches (22) einen schulterartigen Ringvorsprung (24) aufweist, der mit einem entsprechend ausgebildeten Gegenvorsprung (21) am Traeger teil (1) zur Aufnahme des O-Ringes (8) zusammenwirkt und dass der O-Ring (8) unter radialer Vorspannung in den Heizeinsatz (3) eingesetzt ist.

The heater system consists of an aluminium heater insert which has a set of grooves on its bottom for heating windings, joined through an O-ring with a case-like support. The heater insert (3) is in the form of a flat plate and fits into the support (1), forming a continuous upper surface. The support (1) is shaped as continuation of the heater insert (3) surface, and continuously rises on its sides. The insert has at its edge a shoulder (24) matching a corresponding shoulder (21) on the support with the O-ring (8) between them.



0) CN2912446Y – MULTIPURPOSE ELECTRIC COOKING STOVE AND POT

195) Family number: 34708699 (CN2912446Y)

© PatBase

Title: Multipurpose electric cooking stove and pot

Priority: CN200620084110U 20060506

Family:	Publication number	Publication date	Application number	Application date
	CN2912446 Y	20070620	CN200620084110U	20060506

Probable Assignee: WANG WENJIANG

Assignee(s):^(std): WANG WENJIANG

Inventor(s):^(std): WANG WENJIANG

Inventor(s): WENJIANG WANG

International class A47J27/00 A47J36/00 (Advanced/Invention);
(IPC 8-9): A47J27/00 A47J36/00 (Core/Invention)

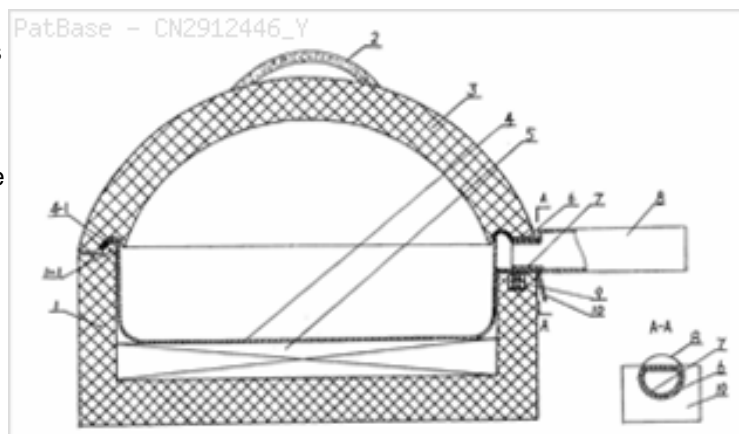
[Classification Explorer](#)

Forward Citations: CN105286484,

Abstract:

Source: CN2912446Y The utility model relates to a multifunctional electric stove pan which belongs to an electric heating cooker and is composed of a pan body, a heat preservation body below the pan body, an electric hot tray that is arranged between the pan body and the heat preservation body, a heat preservation cover on the pan body, a projecting vertical ridge on the upper part of the heat preservation body, a edge fold which is positioned on the external edge of the pan body and corresponding to the vertical ridge, an installation drum that is flat at the upper part and round at the lower part and is arranged at one side of the pan body, and an insertion drum that is flat at the upper part and round at the lower part and is arranged on the

pan handle together with installation drum, as well as a baffle on the external side of the installation drum. The utility model is convenient to use and can be separated to be used and has the functions of the electric rice cooker, the electric fry pan and the electric deep fryer, therefore, the utility model can be used in steaming, boiling, frying, decocting, cooking, stewing, braising, baking, stir-frying and rinsing, etc. Owing to the vertical ridge, edge fold and baffle, the soup and juice can not flow out onto the electric hot tray. Furthermore, the utility model is closely sealed, thereby having good thermal insulation and energy saving effect.



0) TR200902658U –

196) Family number: 47105220 (TR200902658U)

© PatBase

Priority: TR20090002658U 20090406

Family:	Publication number	Publication date	Application number	Application date
	<u>TR200902658 U</u>	20090521	TR20090002658U	20090406

Probable Assignee: TARMAN DIS TIC A S

Assignee(s):^(std): TARMAN DIS TIC A S

Inventor(s):^(std): GEDIKOGLU METE MURAT

Inventor(s): METE MURAT GEDIKOGLU

International class A47J37/00 (Advanced/Invention);
^{(IPC 8-9):} A47J37/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: TR200902658U

Machine translation: Invention, a power base (43) uezerine sitting in a frying chamber (2), a carrying handle (51) buetuenlesik with a frying basket (5) and a filter cover (3) have a deep fryer (1) is oezelligi; mentioned fritoezuen (1) in heat-resistant and transparent material with a roast dinner goesteren chamber (2) contain.

197) Family number: 8523880 (US4320699A)

© PatBase

Title: FLEXIBLE SEPARABLE, NON-STICK LINERS FOR HEATED COOKING SURFACES**Priority:** US19780899702 19780424

Family:	Publication number	Publication date	Application number	Application date
	<u>US4320699 A</u>	19820323	US19780899702	19780424

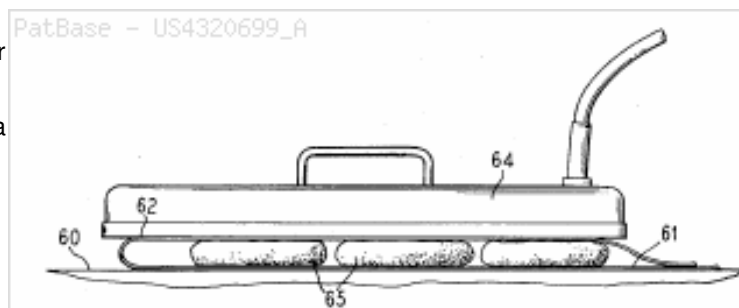
Probable Assignee: SOLAR KIST CORP**Assignee(s):^(std):** SOLAR KIST CORP**Inventor(s):^(std):** BINKS CHESTER J

International class A47J36/02 (Advanced/Invention);
 (IPC 8-9): A47J36/02 (Core/Invention)

International class A47J37/10
 (IPC 1-7):

CPC: A47J36/022 Y10T428/24628**European class:** A47J36/02B**US class:** 126/390.1 220/573.1 220/573.2 426/113 426/295 426/296 426/412 426/523 426/614 428/174 99/349 99/376 99/422 99/425[Classification Explorer](#)**Cited documents:** US4141771 A, US3997677 A, US3949135 A, US3934748 A, US3779447 A, US3757990 A, US3724711 A, US3713380 A, US3578239 A, US3427955 A, US3322113 A, US3313230 A, US3155304 A, US3024114 A, US2939606 A, US2174425 A, US1608901 A,**Forward Citations:** WO8703186, WO13155312, WO07139739, WO07092604, WO07092604, WO06073566, WO06073566, WO04069016, WO04054417, WO0145541, US9510605, US9307861, US9131712, US8814863, US8814862, US8739692, US8492688, US8455069, US8404291, US7939786, US7163120, US7104187, US7021202, US6718866, US6706303, US6606988, US6526875, US6313446, US6247392, US5755150, US5654075, US5595108, US4763571, US4729296, US4700619, US4669373, US4536256, US4510300, US4457805, US2014356496, US2014272060, US2012009316, US2011155724, US2010163564, US2009321454, US2009214736, US2009049996, US2009014345, US2009013879, US2008276808, US2008245466, US2007289983, US2007289965, US2007284382, US2007267415, US2007261567, US2007190336, US2007131679, US2006266753, US2006207438, US2006134391, US2006102013, US2006065130, US2006062424, US2005076793, US2004253399, US2004108321, NL1034477, NL1025775, JP2013039180, JP2009525823, GB2481639, GB2439715, FR2893493, EP1787555, EP1787555, EP1576915, EP1268291, DE3600490, AU2007212255,**Abstract:**

Source: US4320699A A flexible non-stick liner of thin plastic sheet material such as tetrafluoroethylene polymers is arranged to rest in readily removable covering relation on a heated cooking surface, keeping the cooking surface substantially clean. The liner can be easily removed and replaced, stays substantially clean, can be wiped clean if desired. It is especially suitable for omelet pans, facilitating the rolling and sealing of cooked omelets. The liner is also suitable for flat surface grills, cooking plates, fry pans, deep-fat cooking vessels, stew pots, baking pans and tins, sauce pans, skillets, roasting pans, pressure cookers, and the like.



198) Family number: 8924300 (EP0543750A1)

© PatBase

Title: LID LOCKING AND UNLOCKING DEVICE FOR COOKING VESSELS.**Priority:** FR19910014602 19911121

Family:	Publication number	Publication date	Application number	Application date
	<u>DE69206962 D1</u>	19960201	DE19926006962	19921119
	<u>DE69206962 T2</u>	19960814	DE19926006962T	19921119
	<u>EP0543750 A1</u>	19930526	EP19920420427	19921119
	<u>EP0543750 B1</u>	19951220	EP19920420427	19921119
	<u>ES2082420 T3</u>	19960316	ES19920420427T	19921119
	<u>FR2683987 A1</u>	19930528	FR19910014602	19911121
	<u>FR2683987 B1</u>	19940121	FR19910014602	19911121

Probable Assignee: SEB SA**Assignee(s):^(std):** SEB SA**Assignee(s):** SEB S A ; SEB S A ECULLY FR**Inventor(s):^(std):** BEUGNOT BERNARD JACQUES ; JACQUES BEUGNOT BERNARD**Inventor(s):** BEUGNOT BERNARD JACQUES F 21120 IS SUR TILLE FR**Agent(s):** SEB DEVELOPPEMENT**Designated states:** BE DE ES IT

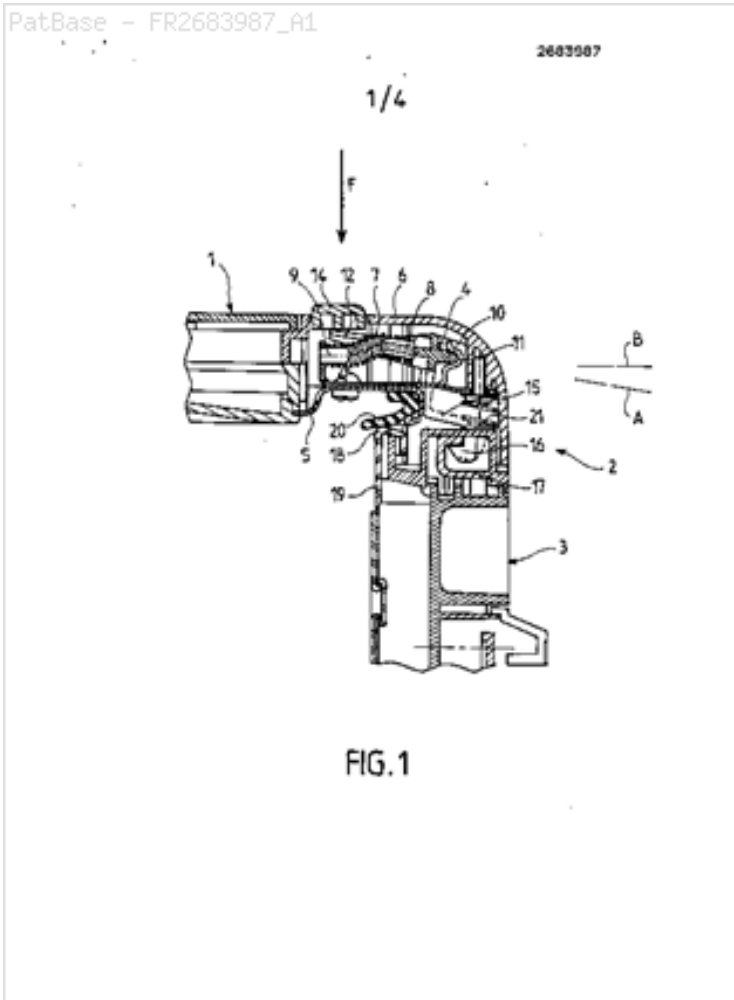
International class [A47J27/08 A47J36/10](#) ^(Advanced/Invention) ;
^(IPC 8-9) : [A47J27/08 A47J36/00](#) ^(Core/Invention)

International class [A47J27/08000 A47J27/08000 A47J27/8 A47J36/10 A47J36/10000 A47J36/10000](#)
^(IPC 1-7) : [A47J37/12 A47J37/12000](#)

CPC: [A47J27/0811 A47J36/10](#)**European class:** [A47J27/08L6 A47J36/10](#)[Classification Explorer](#)**Cited documents:** US3406997 A, NL79564 C, GB2151128 A1, FR475339 A, FR2658162 A1, FR1208147 A, DE840967 A, DE342945 A,**Forward Citations:** US5549039, FR2808664, FR2729287, EP1153563, EP1000573, EP0721758, EP0714623,

Abstract:

A device for locking and unlocking the lid of a cooking vessel to or from its body, comprising a rocking piece (35) fixed in the lid or in the body, flexibly mounted in a first stable locked position and able to be pivoted into a second unstable unlocked position, the said piece (35) being connected to an operating device to cause it to pivot and comprising a locking thread (55) intended to work in conjunction, in the first position, with a support piece (38) of adapted profile which is an integral part of the body or of the lid to allow it to be locked, characterised in that the operating assembly (58) extends from the rocking piece (35) for almost the whole length of the body and includes at its end an operating piece (61) situated under the area where the lid and the body join. Application to locking and unlocking vessels under pressure.



0) GB792453A – ELECTRIC COOKING UTENSIL

199) Family number: 19672925 (GB792453A)

© PatBase

Title: Electric cooking utensil

Priority: 19541130 DE1955F018832 19551112

Family:	Publication number	Publication date	Application number	Application date
	DE1090791 B	19601013	DE1955F018832	19551112
	GB792453 A	19580326	GB19550029604	19551017

Probable Assignee: S W FARBER INC

Assignee(s)^(std): S W FARBER INC

Assignee(s): SW FARBER INC

International class
(IPC 8-9): [A47J27/00](#) (Advanced/Invention);
[A47J27/00](#) (Core/Invention)

International class
(IPC 1-7): [H05B1/02](#)

CPC: [A47J27/00](#)

European class: [A47J27/00](#)

[Classification Explorer](#)

Cited documents: FR978369 A, FR785298 A, DE543995 A, CH267364 A,

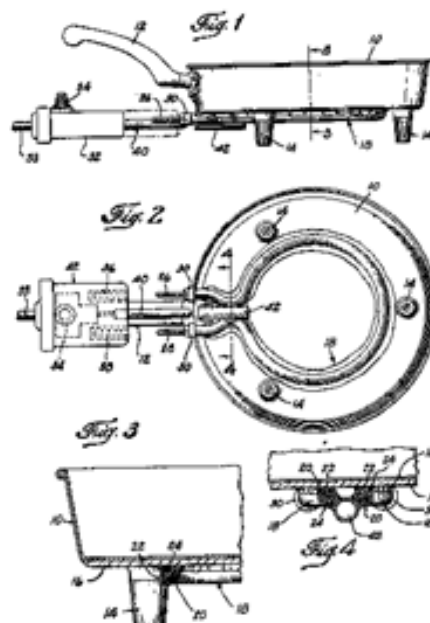
Forward Citations: GB2142510, CN102166091,

Abstract:

Source: GB792453A 792,453. Electric cooking utensils. FARBER Inc., S. W. Oct. 17, 1955 [Nov. 30, 1954] No. 29604/55. Class 39(3) [Also in Group XXXVI] An electric cooking utensil e.g. a frying pan, a saucepan, a deep fat frier or griddle comprises a container 10 with a sheathed wire heating resistance 18 welded or brazed to its base and controlled by an adjustable thermostat removably connected with the heating element, the tube 40 containing the temperature sensitive member being disposed slidably within a housing 42 secured to the heating element 18 but spaced from the container 10. The thermostat 40 is a bimetal or capsule with an expansible fluid and bellows and is adjusted by a rotatable knob 34 on the casing 32 carrying the thermostat. The casing 32 carries a supply cable 33 and has sockets 36 fractionally engaging terminal pins 26 held by nuts 30 sealing the ends of the metal sheath 18 of the heater containing a resistance wire embedded in a magnesia cement. The container 10 may be of stainless steel with a thick aluminium base 16 for even heat conduction from the circular heater, and may be completely immersed in water during washing. The container has a short handle 12, feet 14 of heat-resis. tant plastic and a cover.

PatBase - GB792453_A

792453 COMPLETE SPECIFICATION
1 SHEET
This drawing is a reproduction of
the Original in a reduced scale.



Title: AN AUTOMATIC DEVICE FOR PNEUMATIC EXTRUSION OF DOUGH**Family:**

Publication number	Publication date	Application number	Application date
IN00135DE2010 A	20111104	IN2010DE00135	20100122

Probable Assignee: COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH**Assignee(s):** COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH

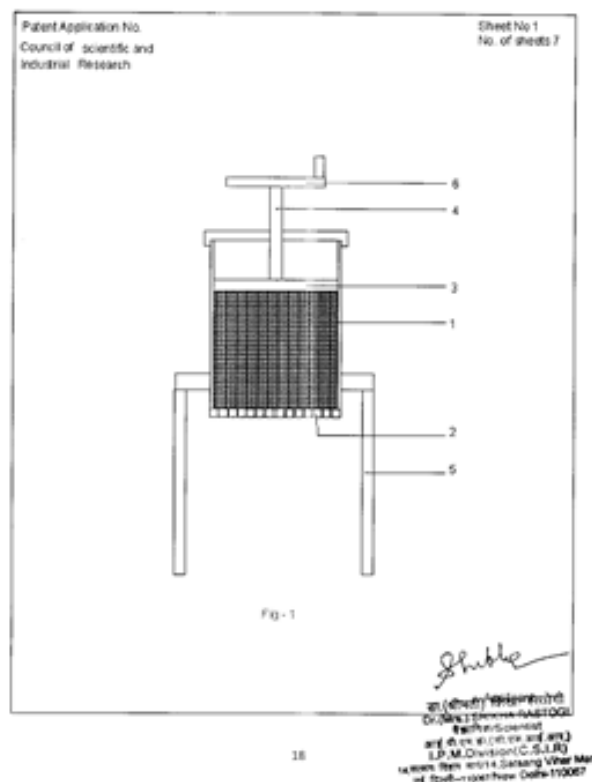
Inventor(s): GADIGEPPA BAMMIGATTI ; GANDHAM VENKATESWARE RAO ; INDRAJIT MAHESHA ; KARUMANCHI SRISAILA MALLIKARJUNA SRINIVASA... ; KESTUR VENKATESH MURTHY ; MADHUGIRI LAKSHMINARAYANA SUDHA ; SANKARAM THADATHIL GANGADARAN JAYAPRAKASHAN

International class B64D (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)
Abstract:

Source: IN00135DE2010A The present invention relates to an automatic device for pneumatic extrusion of dough in to sheet and shaping, cutting of extruded sheet for preparation of Poory and other similar Indian traditional foods. The device of the present invention, namely, an automatic device for pneumatic extrusion of dough in to sheet and shaping, cutting of extruded sheet for preparation of poory and other similar Indian traditional foods will be referred to as a device. The device is useful for the extrusion of any dough, particularly far inaceous dough; in to sheet or strand and to cut the extruded sheet in to different shapes such as square, rectangle, cylinder and so on, for the preparation of Poory and other Indian traditional foods. The shaped and cut sheets obtained by using this device of the present invention are of uniform thickness and are obtained in a continuous manner. The dough employed may be such as rice dough, wheat dough and urdh dough and this doesn't restrict the device/invention to be used for other materials and cross applications other than food. The device of the present invention is therefore useful as an accessory to a machine for making Poory, Chapathis, Papads and the like.

PatBase - IN00135DE2010_A



201) Family number: 58615261 (US2015096971A)

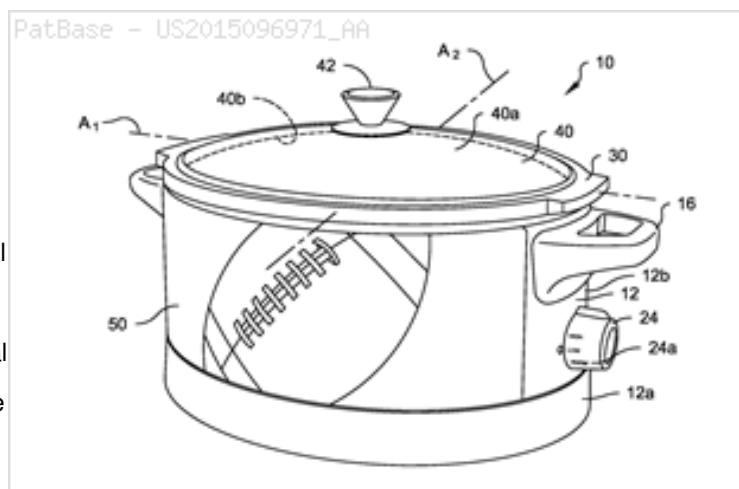
© PatBase

Title: INTERCHANGEABLE WRAP SLOW COOKER**Priority:** US20130887105P 20131004 US20140337542 20140722

Family:	Publication number	Publication date	Application number	Application date
	<u>CN204181439 U</u>	20150304	CN201420578196U	20141008
	<u>US2015096971 AA</u>	20150409	US20140337542	20140722

Probable Assignee: HAMILTON BEACH BRANDS INC**Assignee(s):^(std):** HAMILTON BEACH BRANDS INC ; HAMILTON COMPLETED KEBU LANDERS LTD**Inventor(s):^(std):** DAVID MATTHEW SCHANDEL ; MARTA PHILLIPS ; PHILLIPS MARTA ; SCHANDEL DAVID MATTHEW**International class** A47J27/00 A47J27/62 A47J36/00 G09F7/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J27/004 G09F7/00 A47J27/62 G09F2023/0025 G09F23/0058**US class:** 219/442[Classification Explorer](#)**Abstract:**

Source: US2015096971A A kitchen appliance comprises a housing including a base member, a side wall member, and a retaining trim encasing the upper end of the side wall. The side wall member includes an external enclosure and an internal liner. At least a portion of the retaining trim is spaced radially outwardly from an external surface of the enclosure, thereby defining a retaining channel between the retaining trim and the external surface of the enclosure. The kitchen appliance includes at least one decorative panel for lining at least a portion of the external surface of the enclosure. An upper end of the panel is slidably receivable into, and retainable by, the retaining channel and a lower end of the at least one decorative panel is supported by the base member. The panel is disengageable from the retaining channel and the base member, such that the panel is interchangeable.



202) Family number: 59212755 (US2015305553A)

© PatBase

Title: FOOD CONDITION MAINTAINING DEVICE**Priority:** US20110465359P 20110318 US20120423003 20120316 US20150709270 20150511

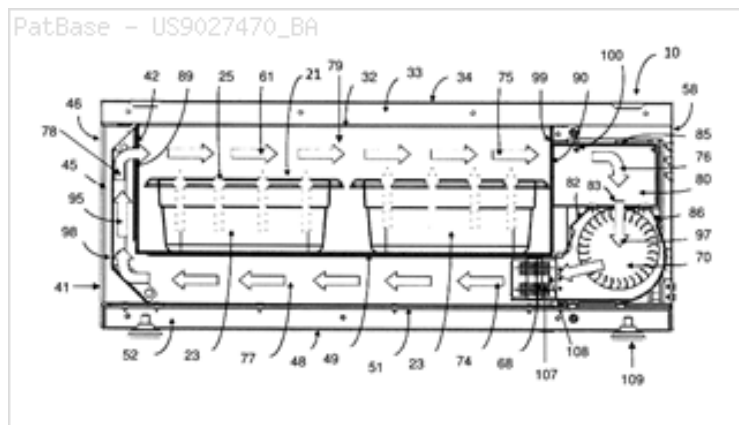
Family:	Publication number	Publication date	Application number	Application date
	<u>US2015305553 AA</u>	20151029	US20150709270	20150511
	<u>US9027470 BA</u>	20150512	US20120423003	20120316

Probable Assignee: MEISTER COOK LLC**Assignee(s):**^(std) MAGNER ERIK ; MEISTER COOK LLC**Inventor(s):**^(std) MAGNER ERIK**Agent(s):** BRANNON SOWERS AND CRACRAFT PC; KEVIN R**International class** A47J36/24 A47J39/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J36/24 A47J39/003**US class:** 426/520 99/474 99/483[Classification Explorer](#)

Cited documents: US6261621 BA, US6114659 A, US5523456 A, US4960100 A, US4936824 A, US4499818 A, US4455478 A, US4426923 A, US4369632 A, US4369631 A, US4307286 A, US4233495 A, US4106305 A, US4050368 A, US4038968 A, US3942426 A, US3771323 A, US3756038 A, US3628447 A, US3392544 A, US3369375 A, US3306068 A, US3186185 A, US3088396 A, US2013175253 AA, US2012051722 AA, US2011278278 AA, US2011252813 AA, US2009199723 AA, US2005211109 AA, US2005103212 AA,

Forward Citations: US2014254135,**Abstract:**

Source: US2015305553A The inventive food holding apparatus comprises a holding area that accommodates food and warms the food with heat radiated by a bottom surface and with warm convection air. Part of the convection air forms an air curtain having a Bernoulli effect that removes excess moisture from the external surface of the food and maintains the food in a warm, crisp condition. The apparatus conditions food to attain a biologically safe noncooking temperature and to retain its freshly cooked texture and internal moisture for more than two hours. This lets restaurants serve the food longer to its customers, allowing efficient batch cooking and significantly decreasing food waste.



203) Family number: 5924786 (EP0234996A1)

© PatBase

Title: Food products vending machine.

Priority: FR19860001109 19860127

Family:	Publication number	Publication date	Application number	Application date
	<u>EP0234996 A1</u>	19870902	EP19870400173	19870126
	<u>FR2593626 A1</u>	19870731	FR19860001109	19860127
	<u>FR2593626 B1</u>	19880311	FR19860001109	19860127

Probable Assignee: BEAUVALET VIRGINIE

Assignee(s):^(std): BEAUVALET CHRISTELLE ; BEAUVALET VIRGINIE

Inventor(s):^(std): BEAUVALET CHRISTELLE

Designated states: BE DE ES FR GB IT NL

International class A47J37/12 G07F9/10 (Advanced/Invention)
(IPC 8-9):

International class A47F10/06 A47J37/12 G07F11/46 G07F9/10
(IPC 1-7):

CPC: A47J37/1228 G07F9/105 G07F17/0078

European class: A47J37/12E G07F17/00F4 G07F9/10B

[Classification Explorer](#)

Cited documents: US3357341 A, US2134088 A, FR2249637 A1, FR2248809 A1, EP0060204 A1, DE1579442 A1, DE1579422 A1,

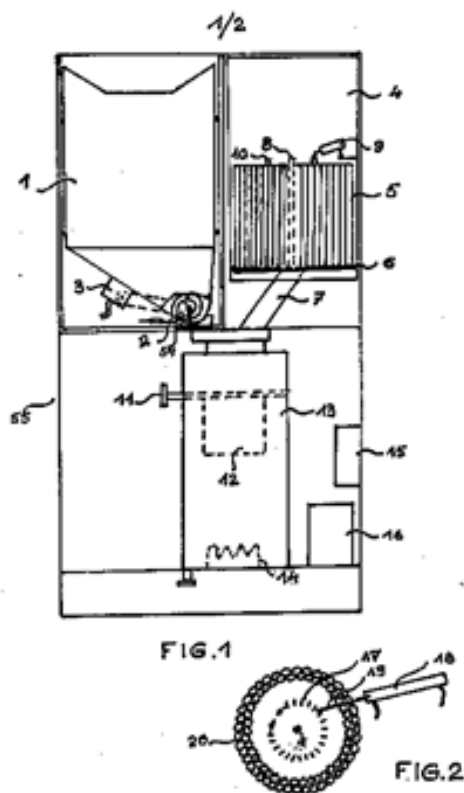
Forward Citations: WO9857573, WO9514417, WO9011583, WO0191580, WO0189320, WO0130219, WO0130219, US7005151, US6929812, US6516711, KR100780779, GB2250423, GB2250423, FR2650165, FR2644684, FR2629329, ES2190683, EP1283680, EP0885583, EP0741535, EP0730427, EP0451302, EP0425159, EP0406475, EP0380816, EP0341564,

Abstract:

The food products are kept in at least one storage chamber (2, 3) in which the cooking unit (4) is of the oil-immersion type. The machine consists of a vat (30) which communicates at its lower end with a reservoir (31). The vat also communicates with the reservoir at their upper ends through a passage (34) containing a cooling device (35) for condensing the cooking vapours. The reservoir contains a ballasted volume (51) which can be moved vertically so as to sink into the oil, thus varying the level of the oil in the cooking unit in order to cover the product during cooking.

PatBase - FR2593626_A1

2593626



0) DE2516906A1 – KOMBINIERTES GRILL– UND GRATINIERGERAET EASILY ...

204) Family number: 2400566 (DE2516906A1)

© PatBase

Title: KOMBINIERTES GRILL– UND GRATINIERGERAET EASILY CONVERTED GRILLER AND FRYER – HAS INDIRECTLY HEATED HOT PLATE RESTING ON BOTTOM PLATE FOR FRYING PURPOSES

Priority: DE19752516906 19750417

Family:	Publication number	Publication date	Application number	Application date
	<u>DE2516906 A1</u>	19761028	DE19752516906	19750417

Probable Assignee: COZZIO SEVERIN

Assignee(s):^(std): COZZIO SEVERIN

Inventor(s):^(std): COZZIO SEVERIN

International class
(IPC 8–9): A47J37/06 (Advanced/Invention);
A47J37/06 (Core/Invention)

International class
(IPC 1–7): A47J37/06

CPC: A47J37/06 A47J37/0611

European class: A47J37/06 A47J37/06B

[Classification Explorer](#)

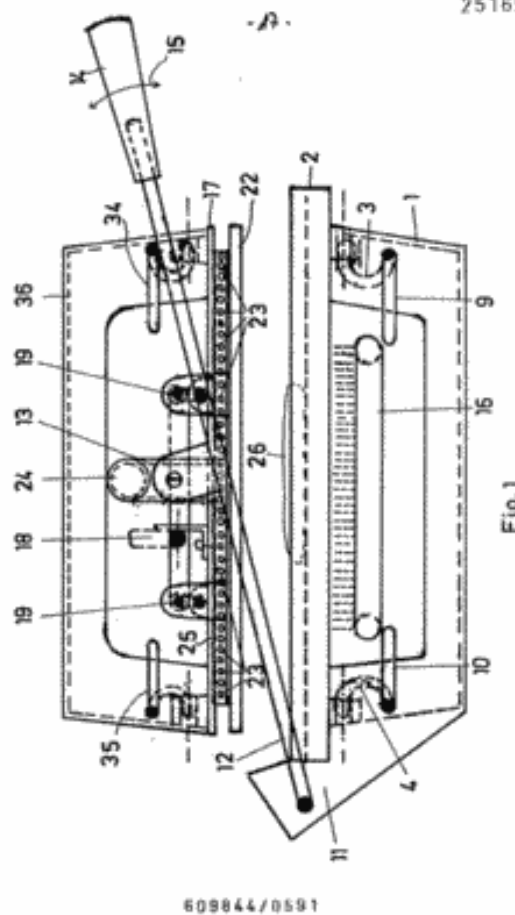
Forward Citations: US5928544,

Abstract:

Source: DE2516906A1 Pa teflita n sprUch e ist Kombiniertes Grill- und Gratiniergeraet,bestehend aus zwei in in auseinanderbewegbaren Halterungen angeordneten beheizten Heizplatten, dadurch gekennzeichnet, dass die obere, indirekt durch eine Waermestrahlungsquelle beheizte Heizplatte an der oberen Halterung einklinkbar ist und mit der unteren beheizten Heizplatte zusammen als Kontaktgrill arbeitet und dass die obere Heizplatte aus ihrer Halterung ausklinkbar und auf die untere Heizplatte auflegbar ist, so dass bei Hochheben der oberen Halterung die Waermestrahlungsquelle fuer die obere Heizplatte als Gratiniereinrichtung fUr auf die Rueckseite der oberen Heizplatte gebrachten Speisen dient 2. The combined frying and grilling apparatus comprises 2 hot plates which are mounted in movable holders, the upper hot plate (22) which is heated indirectly by a heat radiation source, designed to engage on the upper holder (17) acting as a contact grill in conjunction with the lower heated hot plate (2). On disengaging the upper hot plate from its holder (17) it can be placed on the lower hot plate (2) so that when raising the upper holder the heat radiation source for the upper plate serves as a mechanism for frying the food (27) which is placed on the back of the upper hot plate. The heat radiation source for the upper hot plate preferably consists of gas pipes (23) with several jets which serve as the burner and heat up the wire or metal mesh (25) which faces the reverse side of the upper hot plate. The lower hot plate can be heated directly by a flat gas burner (16).

PatBase - DE2516906_A1

2516906



0) US2004069149A – STEAM COOKER

205) Family number: 30469899 (US2004069149A)

© PatBase

Title: STEAM COOKER

Priority: US20020272207 20021015

Family:	Publication number	Publication date	Application number	Application date
	<u>US2004069149 AA</u>	20040415	US20020272207	20021015

Probable Assignee: WAKEFIELD ROBERT R

Assignee(s):^(std): WAKEFIELD ROBERT R

Inventor(s):^(std): WAKEFIELD ROBERT R

International class
(IPC 8-9): A47J27/16 A47J36/06 (Advanced/Invention);
A47J27/16 A47J36/00 (Core/Invention)

International class
(IPC 1-7): A23L1/00

CPC: A47J27/16 A47J36/06

European class: A47J27/16 A47J36/06

US class: 99/330

[Classification Explorer](#)

Cited documents: US822569 A, US678768 A, US6131560 A, US6089145 A, US6058830 A, US5787873 A, US5575195 A, US5440840 A, US5311813 A, US5233969 A, US4738245 A, US4686958 A, US3811374 A, US2381906 A, US2331913 A, US2237081 A, US2190139 A, US1725521 A,

Forward Citations: US9409701, US9238547, US8997291, US8707857, US8595877, US8186265, US8136190, US8033393, US7934494, US2014238385, US2011068024, CN103948326, CN102512082,

Abstract:

Source: US2004069149A A steamer for steam cooking food. The steamer has a base unit and a soft top and is particularly suited for steaming large quantities of food. The soft top is made of gas-impermeable fabric and seals around the base unit to provide a tightly sealed cooking enclosure for steaming food, such as lobster, corn, and steamer clams. The soft top has a zipper opening to provide access to the internal cooking enclosure. The soft top is provided in various sizes and shapes. The base unit includes a shallow reservoir for liquid and may include brackets for semi-permanently attaching a multiple-jet gas burner.

PatBase - US2004069149_AA

Patent Application Publication Apr. 15, 2004 Sheet 1 of 6 US 2004/069149 A1

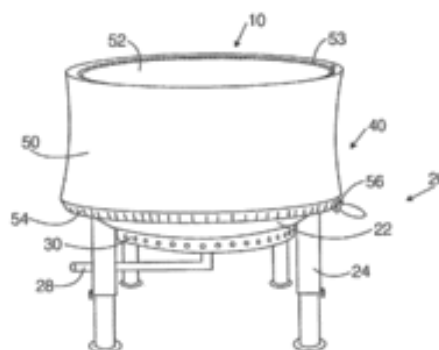


FIG. 1

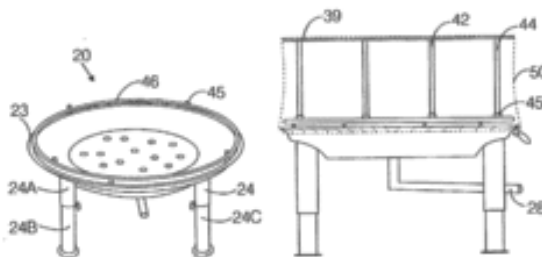


FIG. 2

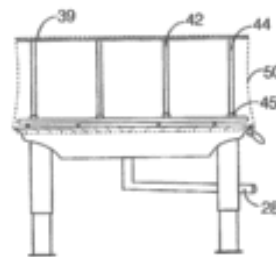


FIG. 3

206) Family number: 3630596 (FR2339375A)

© PatBase

Title: APPAREILS CALORIFUGES A CHAUFFAGE PAR INDUCTION ET NOTAMMENT
USTENSILES DE CUISINE COOKING VESSEL WITH INTEGRAL ELECTRIC
INDUCTION HEATING – HAS INSULATION AND FERROUS INNER LINING HEATED
VIA INTERMITTENT MAGNETIC FIELD

Priority: FR19760002589 19760130

Family:	Publication number	Publication date	Application number	Application date
	<u>FR2339375 A1</u>	19770826	FR19760002589	19760130
	<u>FR2339375 B1</u>	19780818	FR19760002589	19760130

Probable Assignee: OREGA ELECTRO MECANIQUE

Assignee(s):^(std): OREGA ELECTRO MECANIQUE

Assignee(s): OREGA ELECTRONIQUE MECANIQUE

Inventor(s):^(std): LARUE HENRI ; TCHERNILOVSKY SOKOL NICOLAS

Inventor(s): HENRI LARUE ET NICOLAS TCHERNILOVSKY SOKOL

International class
(IPC 8-9): A47J36/02 H05B6/12 (Advanced/Invention);
A47J36/02 H05B6/12 (Core/Invention)

International class
(IPC 1-7): A47J27/086 A47J36/02 H05B5/02

CPC: A47J36/02 H05B6/12

European class: A47J36/02 H05B6/12

[Classification Explorer](#)

Forward Citations: FR2882240, FR2872692, FR2582896,

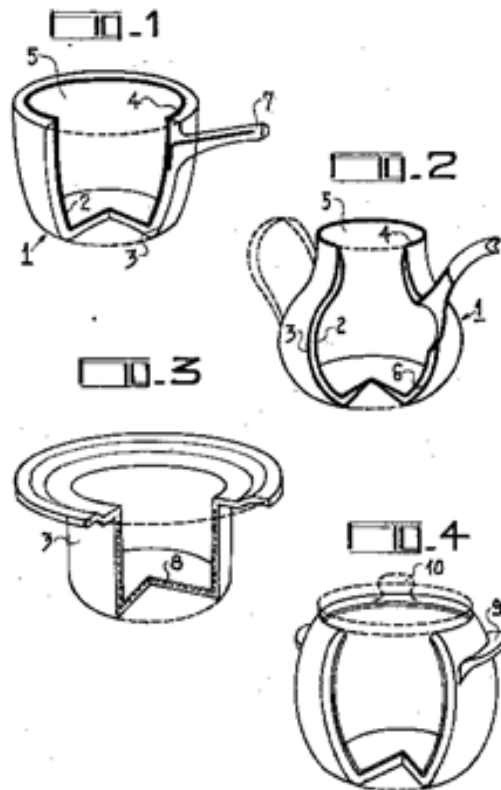
Abstract:

Source: FR2339375A (Claim 1) 1. Appareil calorifuge a chauffage par induction, dont la structure de forme adaptee a l'utilisation comporte une matiere conductrice echauifable par la circulation des courts electriques induits par un chmp magnetique periodique, cpracterise en ce que ladite structure (1) comporte une paroi interne (2) a pertes d'induction elevees au moins partiellement constituee de ladite matiere conductrice calorifere et une paroi exterieure (3) a pertes d'induction faibles recouvrant ladite paroi interne, un acces (5) est realise vers les bords (4) reunis des dites parois et une isolation thermique des parois est realisee par des moyens calorifuges (6). The insulated vessels (1) with integral electric induction heating may be used for cooking purposes and have a form appropriate to function e.g. pan or jug. The vessels are of a bilaminar wall construction with the heating elements and the insulation incorporating in the inner (2) and outer wall (3) layer resp. The elements comprise conductive material of which the temperature is raised by currents emanating from an intermittent magnetic field. The inner wall (2) has high induction loss characteristics, may be of ferrous based material and may have a refractive lining on the internal face. The other face of the inner wall may becovered with a thick layer of ceramic material which constitutes both the insulation and the outer wall (3). The two walls meet to define the vessel rim and opening (5) and the heating elements may comprise an armature of metal rings.

PatBase - FR2339375_A1

PL. I - 2

2339375



Title: MESA FILTRADORA PARA OLEOS E GORDURAS MESA Filtrating FOR OILS AND FATS (Machine translation)

Priority: BR2009PI03979 20091009

Family:	Publication number	Publication date	Application number	Application date
	BRPI0903979 A2	20131015	BR2009PI03979	20091009

Probable Assignee: BIOTECHNOS PROJETOS AUTOSUSTENTAVEIS LTDA

Assignee(s):^(std): BIOTECHNOS PROJETOS AUTOSUSTENTAVEIS LTDA

Inventor(s):^(std): WERLE MARCIA TERESINHA

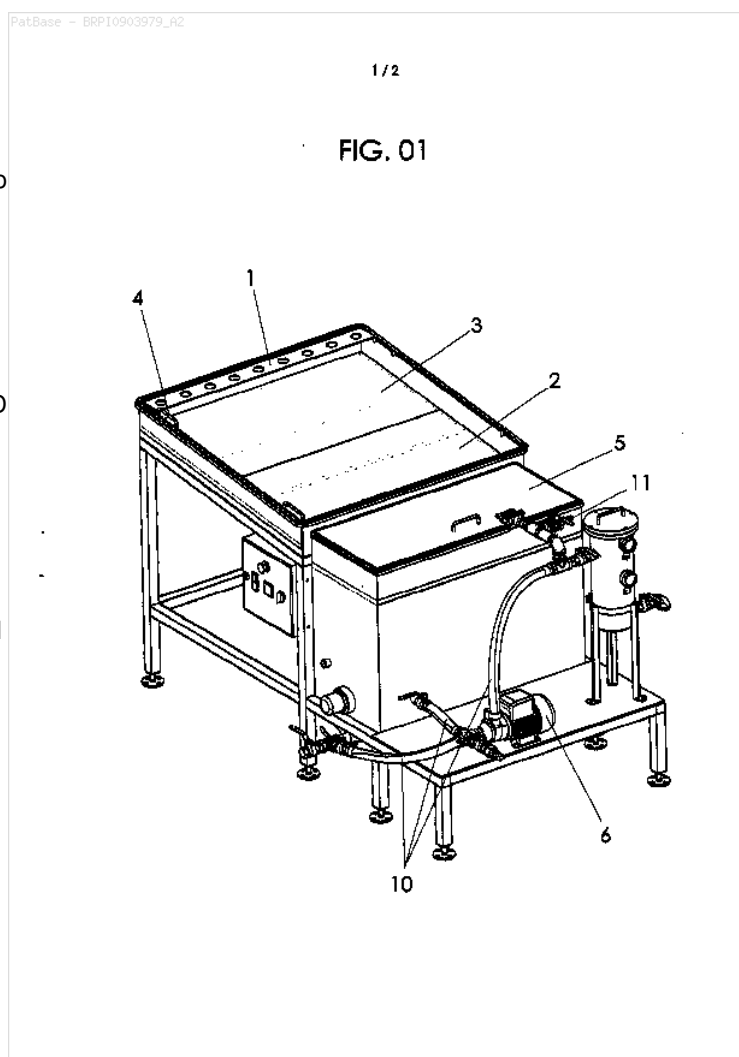
Inventor(s): MARCIA TERESINHA WERLE

International class B01D29/00 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: BRPI0903979A RESUMO MESA FILTRADORA PARA OLEOS E GORDURAS (vegetais ou animais), compreendendo uma mesa contendo suportes (1) para que as garrafas PET com o produto a ser filtrado possam ser colocadas viradas; onde esse oleo sujo possa escorrer por uma superficie adequada (3), passando por um filtro (2) e caindo em uma caixa de contencao (8) e aquecimento (9), sendo que nessa caixa o oleo e mantido em uma determinada temperatura, circula por um sistema de filtragem (7) para polimento e vai demandado para fora da mesa para armazenagem. SUMMARY TABLE FOR filter water OILS AND FATS (plant or animal), comprising a table containing media (1) so that the PET bottles with the product to be filtered can be placed upside; where this dirty oil can flow by an appropriate surface (3) through a filter (2) and falling on a containment housing (8) and heating (9), and in this case the oil is maintained at a certain temperature, flows through a filtration system (7) for polishing and going off the table sued for storage.



208) Family number: 56428239 (BR202012019570U)

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Title: CAIXA PARA TRATAMENTO DE EFLUENTES DA PIA DA COZINHA COM SEPARACAO SIMULTANEA DE OLEOS, GORDURAS E DE SOLIDOS SEDIMENTAVEIS – CX-UNIOESTE-VO CASH FOR WASTEWATER TREATMENT OF PIA KITCHEN WITH SIMULTANEOUS SEPARATION OF OILS, FATS AND sedimentable solids – CX-UNIOESTE-VO (Machine translation)

Priority: BR20122019570U 20120806

Publication number	Publication date	Application number	Application date
BR202012019570 U2	20140506	BR20122019570U	20120806

Probable Assignee: UNIV ESTADUAL DO OESTE DO PARANA

Assignee(s):^(std): UNIV ESTADUAL DO OESTE DO PARANA

Assignee(s): UNIVERSIDADE ESTADUAL DO OESTE DO PARANA

Inventor(s):^(std): MOREJON CAMILO FREDDY MENDOZA ; PIZZATO GABRIELE

Inventor(s): CAMILO FREDDY MENDOZA MOREJON ; GABRIELE PIZZATO

International class E03C1/284 E03F5/16 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

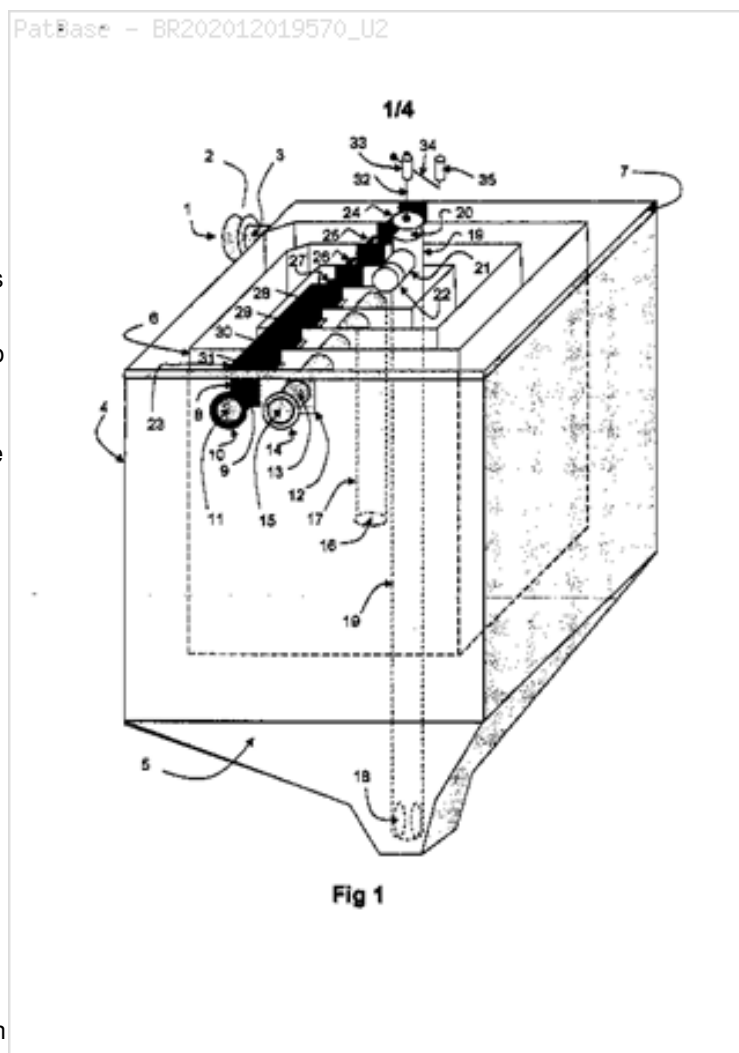
Abstract:

Source: BR202012019570U 1 RESUMO

"CAIXA PARA TRATAMENTO DE EFLUENTES DA PIA DA COZINHA COM SEPARACAO SIMULTANEA DE OLEOS, GORDURAS E DE SOLIDOS 5 SEDIMENTAVEIS – Cx-Unioeste-VO"

Patente de Modelo de Utilidade que abrange um metodo diferenciado de gestao de efluentes da pia da cozinha com o lema "Jogue todo o oleo, as gorduras e os materiais particulados, na pia da cozinha, que o Cx-Unioeste-vO fara a separacao por voce"e, uma tecnologia diferenciada para o tratamento dos efluentes da pia da cozinha, cujo principal diferencial foi a separacao continua dos 10 oleos, gorduras e demais materiais em suspensao, os quais sao acumulados na parte externa das residencias, num tanque que pode tambem receber os oleos e gorduras provenientes das residencias vizinhas, bem como a separacao com facil remocao dos solidos sedimentaveis. O patente recebeu, original implementacao e os resultados foram: a melhoria do desempenho (98 percent na separacao de oleos, gorduras e solidos 15 sedimentaveis); a funcionalidade, uma vez que nao e necessario se preocupar com a separacao dos oleos e gorduras antes da pia, tendo em vista que eles sao separados continuamente e, por meio de uma tubulacao, sao destinados ate um tanque localizado fora da residencia o qual tambem favorece os programas de coleta seletiva. 1 SUMMARY

"BOX FOR KITCHEN TIP OF WASTEWATER TREATMENT separation SIMULTANEA OILS, FATS AND SOLID 5 sedimentable – Cx-Unioeste-VO" Utility Model Patent covering a different method of management of the kitchen sink waste with the motto "Play all oil, grease and particulate matter in the kitchen sink, the CX-Unioeste vO will do the



separation for you" and a different technology for the treatment of effluents from the kitchen sink, which main difference was the separation remains of 10 oils, fats and other materials in suspension, which are accumulated on the outside of residences, a tank that can also receive the oils and fats from neighboring residences as well as the separation with easy removal of Solid sedimentary. The patent received original implementation is the results were: improved performance (98 percent in the separation of oils, fats and solids settleable 15); functionality, since it is not necessary to worry about separation of oils and fats before the sink, taking into account that they are continuously separated and, through a pipe, are for even a tank located outside the residence which also favors the selective collection programs.

209) Family number: 60814712 (WO16000900A1)

© PatBase

Title: APPARATUS FOR HEATING AND/OR COOKING MEAT PRODUCTS
Priority: DE201420005299U 20140701 EP20150162664 20150407 WO2015EP62412 20150603
Family:

Publication number	Publication date	Application number	Application date
CN106455864 A	20170222	CN201580035745	20150603
DE202014005299 U1	20151119	DE201420005299U	20140701
EP2962608 A1	20160106	EP20150162664	20150407
WO16000900 A1	20160107	WO2015EP62412	20150603

Probable Assignee: REALES BERTOMEIO EMILIO**Assignee(s):**^(std): REALES BERTOMEIO EMILIO**Assignee(s):** REALES BERTOMEIO**Inventor(s):**^(std): OHLEN SYLVIA ; REALES BERTOMEIO EMILIO**Agent(s):** EISENFUEHR SPEISER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [A47J37/04](#) [A47J37/06](#) (Advanced/Invention)
 (IPC 8-9):

CPC: [A47J37/0688](#) [A47J37/0629](#) [A47J37/047](#) [A47J37/06](#)[Classification Explorer](#)

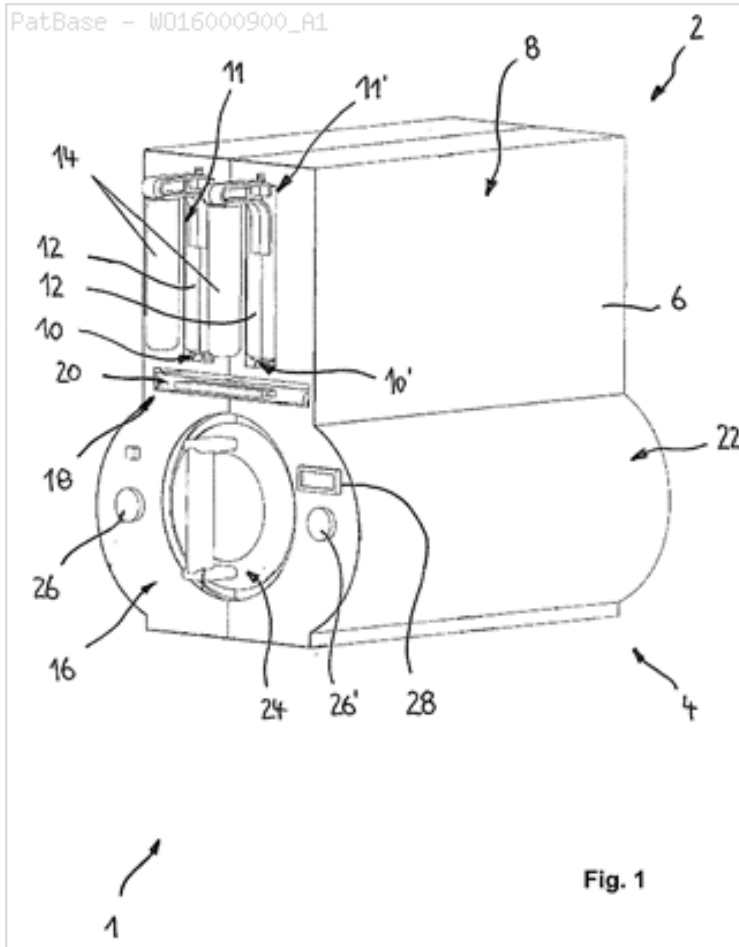
Cited documents: WO13062832 A1, US6079319 A, US5735191 A, US3046870 A, US2009140622 AA, US2004144774 AA, US2002036195 AA, EP0379755 A1, DE935570 A, DE4401281 C1, DE3519964 A1,

DE202009007012 U1

DE19730829 A1, CA1045926 A1,

Abstract:

In an apparatus (1) for heating and/or cooking foodstuffs, in particular meat products, having an appliance housing (6) with at least one opening (11, 11'), having a device for accommodating the meat products which are to be heated, and having a heating device (34), which is assigned to the accommodating device and has one or more heating elements (56, 56'), the accommodating device has one or more accommodating compartments (10, 10'), accessible via the opening (11, 11'), and an insert cassette (12, 12'), which corresponds with a respective accommodating compartment (10, 10'), can be loaded with one or more meat products in a predetermined position in relation to one another and is intended to be introduced into the accommodating compartment (10, 10') and to be removed again therefrom.



Title: SISTEMA DE SECCIONAMIENTO DE CHURROS EM CRU**Priority:** ES20140030837 20140602

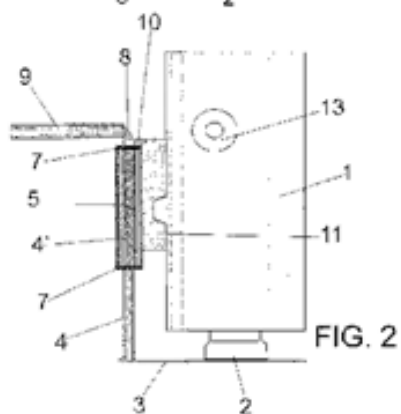
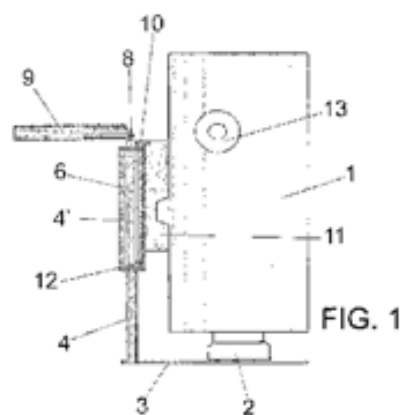
Family:	Publication number	Publication date	Application number	Application date
	<u>ES2552848 AB</u>	20151202	ES20140030837	20140602
	<u>ES2552848 BA</u>	20160913	ES20140030837	20140602
	<u>ES2552848 R1</u>	20151210	ES20140030837	20140602
	<u>PT107780 A</u>	20151202	PT20140107780	20140717

Probable Assignee: MAQUINARIA SEVILLANA DE ALIMENTACION MARTIN S L**Assignee(s):**^(std) MAQU SEVILLANA DE ALIMENTACION MARTIN S L ; MAQUINARIA SEVILLANA DE ALIMENTACION MARTIN S L**Assignee(s):** MAQUINARIA SEVILLANA DE ALIMENTACION MARTIN SL**Inventor(s):**^(std) SANCHEZ MARTIN MANUEL ; MARTIN MANUEL SANCHEZ**Inventor(s):** MANUEL SANCHEZ MARTIN**Agent(s):** COBO MARIA VICTORIA**International class** [A21C5/00](#) (Advanced/Invention)
(IPC 8-9):**CPC:** [A21C5/00](#)[Classification Explorer](#)**Cited documents:** GB302806 A, ES288754 A1, ES265031 A1, ES255840 A1,

Abstract:

Source: PT107780A O SISTEMA TEM COMO BASE UMA HASTE METALICA (3) QUE SE SITUA POR BAIXO DA SAIDA DO DOSEADOR DA MASSA DE CHURROS, DE MANEIRA A QUE A REFERIDA HASTE SE SOLIDARIZA A UMA BARRA VERTICAL (4) COM UM TROCO (4') DOTADO DE UMA MOLA DE TORCAO (5), SITUADOS NO INTERIOR DE UM TUBO OU MANGA (6), DE MANEIRA A QUE A REFERIDA BARRA EMERGE PARA O EXTERIOR DO LADO SUPERIOR PARA TERMINAR NUMA ALAVANCA DE ACIONAMENTO MANUAL (9), COM UM BATENTE LIMITADOR (10) DA ROTACAO DA ALAVANCA, E PORTANTO DA ROTACAO DA HASTE (3), FORMANDO UM CONJUNTO COM UM SUPORTE (11) DE FIXACAO A SUPERFICIE LATERAL DO DOSEADOR (1).

PatBase - PT107780_A



211) Family number: 65151906 (US2017071409A)

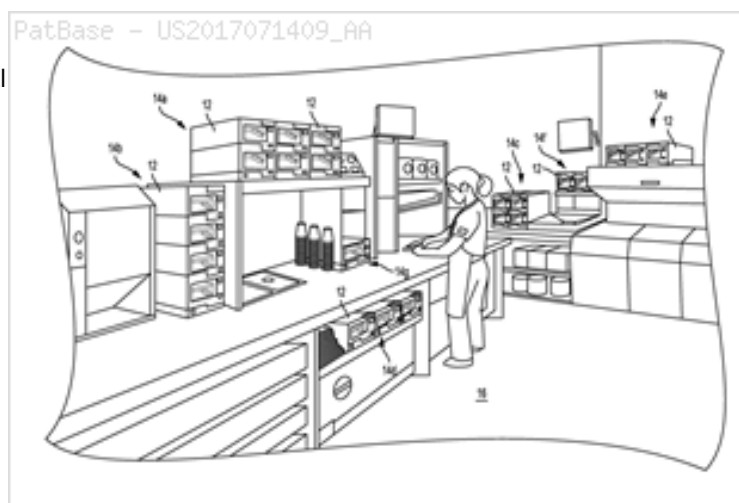
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Title: MODULAR FOOD HOLDING SYSTEM**Priority:** US20150850930 20150910**Family:**

Publication number	Publication date	Application number	Application date
<u>US2017071409 AA</u>	20170316	US20150850930	20150910

Probable Assignee: PRINCE CASTLE LLC**Assignee(s):**^(std): PRINCE CASTLE LLC**Inventor(s):**^(std): VELTROP LOREN J**International class** A47F10/06 A47J39/00 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J39/006 A47F10/06[Classification Explorer](#)**Abstract:**

Source: US2017071409A A modular food holding system includes a plurality of individual modularized food holding chambers, each of the plurality of food holding chambers being physically and communicatively removably connected to one another. Each of the food holding chambers includes a food holding cavity and at least one of a heating element and/or a cooling element for heating or cooling the food holding cavity. A chamber base is physically and communicatively removably connected to one of the food holding chambers and operation of at least one food holding chamber is controlled by the chamber base.



0) ES1046352Y – COCINA DE CAMPANA PERFECCIONADA.

212) Family number: 34663649 (ES1046352Y)

© PatBase

Title: COCINA DE CAMPANA PERFECCIONADA.

Priority: ES20000000555U 20000302

Family:	Publication number	Publication date	Application number	Application date
	ES1046352 UA	20001216	ES20000000555U	20000302
	ES1046352 Y1	20010601	ES20000000555U	20000302
	ES1046352 YA	20010601	ES20000000555U	20000302

Probable Assignee: EQUIPOS MOVILES DE CAMPANA ARP

Assignee(s):^(std) EQUIPOS MOVILES DE CAMPANA ARP ; EQUIPOS MOVILES DE CAMPANA ARPA S A

Assignee(s): EQUIPOS MOVILES DE CAMPANA ARPA SA

Inventor(s):^(std) ARPA AZOFRA ANTONIO

International class
^{(IPC 8-9):} [B60P3/00](#) (Advanced/Invention);
[B60P3/00](#) (Core/Invention)

International class
^{(IPC 1-7):} [B60P3/00](#)

[Classification Explorer](#)

Abstract:

Source: ES1046352U 1. Cocina de campa~ na perfeccionada (1) ca~ racterizada por estar constituida a partir de un chasis (6) y un eje con suspension por elementos prismaticos de caucho calzado con dos neumaticos todo terreno, incluyendo una lanza (3) de arrastre articulada y regulable en altura, de doble roseta, dotada de argollon, freno de inercia integrado, freno de estacionamiento, sirga de actuacion de freno para desenganche de emergencia, tercera rueda de apoyo con banda de rodadura ancha, regulable en altura y posicion, y cadenas de se~ guridad con enganche rapido, incorporando un soporte bicrocincado para el apoyo de la tercera rueda de la lanza (3), siendo el bastidor (6) in~ dependiente de la carrocera (9), presentando di~ cha carrocera (9) una conguraci on prismatica rectangular, estando fabricada mediante la union remachada y atornillada de diferentes piezas cons~ tituidas en chapa y refuerzos estructurales de chapa plegada en forma de omega, disponiendo una puerta de acceso al deposito de combusti~ ble y 3 portones abisagrados para la proteccion de los mandos de los quemadores, quedando la supercie superior constituida por una encimera formada por 8 piezas de acero inoxidable, colo~ cando faldillas protectoras en los pases de rueda (10). 1. Kitchen perfect marketing year (1) characterized by being formed from a frame (6) and an axle with suspension by rubber footwear prismatic elements with two all~terrain tires, including a spear (3) drag and articulated height adjustable, double rosette equipped with towing eye, built inertia brake, parking brake, brake Starring towpath for emergency release, third wheel support with wide tread band, adjustable height and position, and chains is safety with quick coupler, incorporating a bicrocincado support to support the third round of the shaft (3), with the frame (6) in~dependent of the bodywork (9), presenting di~cha bodywork (9) a conguraci prismatica on rectangular, being made by riveted junction and screwed in different parts con~tituidas sheet and structural reinforcements folded sheet omega~shaped, providing a gateway to deposit fuel and 3 gates hinged to the protection of controls burner, leaving the top supercie consisting of a counter consists of 8 pieces of stainless steel, by placing protective flaps at the wheel passes (10).

PatBase - ES1046352_UA

ES 1 046 352 U

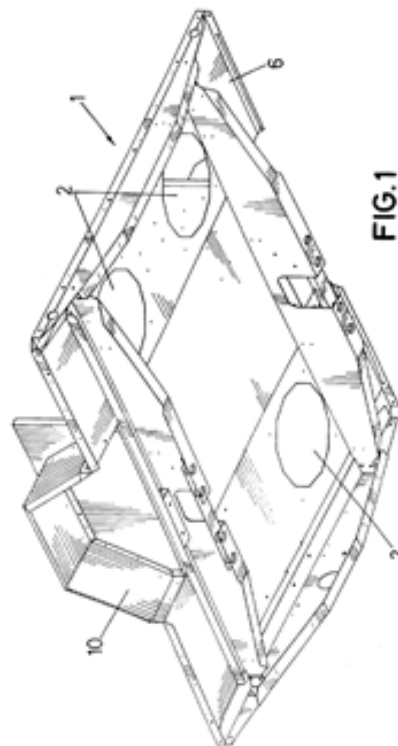


FIG.1

- **search:** SS4 ft=pan and (splash* or splatter*) and (cover or lid) (Results 783)
- **search:** SS5 ft=pan and (splash* or splatter*) and (cover or lid) and oil (Results 228)
- **List:** SS5 1~50 (ft=pan and (splash* or splatter*) and (cover or lid) and oil) (Results 228)

0) US2001009128A – ROTISSERIE OVEN HAVING A HEAT SHIELD

1) Family number: 28328965 (US2001009128A)

© PatBase

Title: ROTISSERIE OVEN HAVING A HEAT SHIELD

Priority:

CA20022366635 20020104	CA20022550036 20020104	EP20050075354 20020108
EP20020090002 20020108	US19990436614 19991109	US19980217944 19981221
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US20060370622 20060307		

Family:

Publication number	Publication date	Application number	Application date
AT295109 E	20050515	AT20020090002T	20020108
AT333230 E	20060815	AT20020075354T	20020108
AU200210080 A5	20020718	AU20020010080	20020107
AU777121 B2	20040930	AU20020010080	20020107
CA2366635 AA	20020712	CA20022366635	20020104
CA2550036 AA	20020712	CA20022550036	20020104
DE60204060 D1	20050616	DE20026004060	20020108
DE60204060 T2	20060316	DE20026004060T	20020108
DE60213291 D1	20060831	DE20026013291	20020108
EP1222889 A1	20020717	EP20020090002	20020108
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EP1535556 A1	20050601	EP20050075354	20020108
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HK1048240 A1	20051118	HK20030100435	20030117
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KR20020061116 A	20020722	KR20020001777	20020111
US2001009128 AA	20010726	US20010783667	20010214
US2001022140 AA	20010920	US20010784565	20010215
US2001032547 AA	20011025	US20010783364	20010214
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US2002023545 AA	20020228	US20010824429	20010402
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US2002108500 AA	20020815	US20010025644	20011219
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US2002144607 AA	20021010	US20020108044	20020327
US2002157543 AA	20021031	US20020176697	20020621

<u>US2002166458 AA</u>	20021114	US20020177875	20020621
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<u>US2004144260 AA</u>	20040729	US20030648836	20030826
<u>US2005178275 AA</u>	20050818	US20050043016	20050124
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<u>US2006144248 AA</u>	20060706	US20060367831	20060303
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<u>US2011132891 AA</u>	20110609	US20110019199	20110201
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<u>US8017167 BB</u>	20110913	US20090401395	20090310

Probable Assignee: RONCO HOLDINGS INC

Assignee(s):^(std): POPEIL RON ; RONCO CORP ; RONCO MARKETING CORP ; RONCO ACQUISITION CORP ; ADVANTAGE PARTNERS ; ADVANTAGE PARTNERS IP LLC ; ADVANTAGE PARTNERS LLC ; BACKUS ALAN L ; RONCO HOLDING INC

Assignee(s): RONCO HOLDINGS INC ; CROSSROADS FINANCIAL LLC ; KALLINA CORP ; ALAN L BACKUS ; LAURUS MASTER FUND LTD ; ROMCO MARKETING CORP ; LV

ADMINISTRATIVE SERVICES INC ; POPEIL RONALD M ; RON POPEIL ; RONCO
AQUISITION LLC ; LV ADMINISTRATIVE SERVICES AGENT AS

Inventor(s):(std): ALAN L BACKUS ; BACKUS ALAN L ; POPEIL RON ; POPEIL RONALD M ; RON
POPEIL

Inventor(s): BACKUS ALAN ; POPEIL RONALD

Agent(s): FB RICE; FETHERSTONHAUGH AND CO; JEFFER MANGELS BUTLER AND
MARMARO LLP; CONNOLLY BOVE LODGE AND HUTZ LLP; JEFFER MANGSIS
BUTLER AND MARMARO LLP

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

International class
(IPC 8-9): A21B1/00 A21B1/22 A21B2/00 A21B3/00 A22C7/00 A23L1/01 A23L5/10 A23P1/00
A47J36/06 A47J37/00 A47J37/04 A47J37/06 A47J37/07 A47J43/18 B65D25/26
F27D11/02 F27D3/12 (Advanced/Invention);
A47J36/06 A47J37/07 F24C15/16 (Advanced/Non-invention);
A47J37/04 A47J37/06 (Core/Invention);
F24C15/16 (Core/Non-invention)

International class
(IPC 1-7): A22C7/00 A23L1/00 A23P1/00 A47J27/00 A47J27/62 A47J37/00 A47J37/04 A47J37/06
A47J37/07 A47J43/18

CPC: Y10S220/912 A47J37/0629 A47J37/0664 A47J37/0641 A47J36/06 A47J37/041
A47J37/042 A47J37/043 A47J37/047 A47J37/0623 A47J37/0635 A47J37/0745 A47J43/18

European class: A47J37/04A A47J37/04B A47J37/04C A47J37/04G A47J37/06C A47J37/06C10
A47J37/06C4 A47J37/06C4B A47J37/06C4D A47J37/07E A47J43/18 K47J36/06
K47J37/06C10

US class: 126/190 126/194 126/198 126/273.5 126/275E 219/403 219/405 219/411 220/326
220/573.1 220/573.100P 220/655 220/655S 220/912 426/241 426/243 426/523 426/523S
99/326 99/326P 99/327 99/331 99/331S 99/332 99/335 99/339 99/349 99/357 99/357S
99/395 99/419 99/419P 99/419S 99/421 99/421.00H 99/421.00HP 99/421.00HS
99/421.00R 99/421.00RS 99/421H 99/421HH 99/421HV 99/421P 99/421R 99/421V
99/427 99/427P 99/427S 99/447 993/270 993/490 993/950 994/210R

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Cited documents: WO8604978 A1, WO8604978, WO0028869 A1, WO0028869, USD434939 S1,
USD434939, USD433867 S1, USD433867, USD422172 S1, USD422172, USD415923
S1, USD415923, USD395980 S1, USD395980, USD391799 S1, USD391799,
USD347762 S1, USD347762, USD199712 S1, US961543 A, US904382 A, US848018 A,
US807162 A, US7225730 BB, US7225729 BB, US714430 A, US7138609 BB, US7021204
BB, US7021203 BB, US6988445 BA, US6965095 BA, US693725 A, US6874408 BB,
US6837150 BB, US6782806 BB, US6782805 BB, US6742445 BB, US6734914 BA,
US6658991 BB, US6570613 BA, US6568316 BA, US6568315 BB, US6536334 BB,
US6450087 BB, US6422136 BA, US6408742 BA, US6393972 BA, US6363841 BA,
US6330855 BB, US6279165 BA, US6279165, US6265697 BA, US6257128 BA,
US6257128, US6253665 BA, US6250214 BA, US6250211 BA, US6250211, US6240838
BA, US6182560 BA, US6182560, US6178879 BA, US6178879 B1, US6178879,
US6173645 BA, US6173645 B1, US6170390 BA, US6170390 B1, US616964 A,
US6167800 BA, US6167800 B1, US6167800, US616694 A, US6142064 A, US6138553 A,
US6138553, US6131505 A, US6119586 A, US6119586, US6085642 A, US6085642,
US6080967 A, US6079322 A, US6079322, US6079319 A, US6079319, US6076453 A,
US6076453, US6047633 A, US6047633, US6041694 A, US6041694, US6038965 A,
US6038965, US6023049 A, US6023049, US6009797 A, US6009797, US5997928 A,
US5997928, US5981926 A, US5981926, US5974956 A, US5974956, US5970854 A,
US5970854, US5961866 A, US5957557 A, US5918589 A, US5918534 A, US5918534,
US5910332 A, US5910332, US5908576 A, US5887513 A, US5887513, US5881640 A,
US5881640, US5845563 A, US5845563, US5837980 A, US5819639 A, US5819639,
US5814795 A, US5809995 A, US5809995, US5802962 A, US5802962, US5801362 A,
US5801362, US5801357 A, US5801357, US5799569 A, US5799569, US5798505 A,
US5798505, US5793610 A, US5793610, US5785046 A, US5785046, US5780815 A,
US5780815, US5778766 A, US5778766, US5761991 A, US5761991, US5746116 A,
US5746116, US5740724 A, US5740724, US5740722 A, US5740722, US5735191 A,
US5735191, US5727719 A, US5727719, US5726424 A, US5720217 A, US5720217,
US5716657 A, US5716657, US5715744 A, US5715744, US5697289 A, US5697289,
US5671659 A, US5671659, US5669290 A, US5669290, US5665258 A, US5665258,
US5639497 A, US5639497, US5634559 A, US5632265 A, US5632265, US5632098 A,
US5632098, US5619909 A, US5619909, US5611265 A, US5611265, US5601070 A,
US5601070, US5598769 A, US5598769, US5598582 A, US5598582, US559720 A,
US5592869 A, US5592869, US5588353 A, US5588353, US5579681 A, US5579681,
US5575196 A, US5575196, US5566997 A, US5566997, US5562022 A, US5562022,
US5560285 A, US5560285, US5545874 A, US5545874, US553363 A, US5533440 A,

US5533440, US5518127 A, US5518127, US5515774 A, US5515774, US5515773 A,
 US5497697 A, US5497697, US5485780 A, US5485780, US5477029 A, US5473977 A,
 US5473977, US5471915 A, US5471915, US5471914 A, US5471914, US5469782 A,
 US5469782, US5465653 A, US5465653, US5451744 A, US5451744, US5447620 A,
 US5447620, US5447096 A, US5447096, US5445065 A, US5445065, US5445064 A,
 US5445064, US5442999 A, US5442999, US5441037 A, US5441037, US5431093 A,
 US5431093, US5429042 A, US5429042, US5427015 A, US5427015, US5417148 A,
 US5417148, US5410950 A, US5410950, US5410948 A, US5410948, US5405627 A,
 US5405627, US5404795 A, US5404795, US5390588 A, US5390588, US5379685 A,
 US5379685, US5373809 A, US5373809, US5373778 A, US5373778, US5369497 A,
 US5369497, US5367950 A, US5367950, US5361686 A, US5361686, US5361685 A, US5361685,
 US5325767 A, US5325767, US5297534 A, US5297534, US5275095 A, US5275095,
 US5235903 A, US5235903, US5235148 A, US5235148, US5205208 A, US5205208,
 US5205207 A, US5205207, US5203252 A, US5193444 A, US5193444, US5184540 A,
 US5184540, US5182981 A, US5182981, US5176124 A, US5176124, US5172628 A,
 US5172628, US5163358 A, US5163358, US5148737 A, US5148737, US5146842 A, US5146842,
 US5136933 A, US5136933, US5134927 A, US5134927, US5101715 A, US5058493 A,
 US5058493, US5044262 A, US5044262, US504256 A, US5039535 A, US5039535, US5038748 A,
 US5038748, US5001971 A, US5001971, US4986174 A, US4986174, US4968515 A,
 US4968515, US4924766 A, US4924766, US4889972 A, US4889972, US4886044 A,
 US4886044, US4870896 A, US4870896, US4867051 A, US4867051, US4839186 A,
 US4839186, US4817514 A, US4817514, US4743737 A, US4743737, US4726352 A,
 US4726352, US4717802 A, US4688541 A, US4688541, US4661669 A, US4661669,
 US4625634 A, US4625634, US4600254 A, US4600254, US4591683 A, US4591683,
 US4585661 A, US4585661, US4583452 A, US4583452, US4572062 A, US4572062,
 US4562771 A, US4562771, US4556046 A, US4556046, US4555986 A, US4555986,
 US4548130 A, US4548130, US4520791 A, US4520791, US4508024 A, US4508024,
 US4505195 A, US4505195, US4491065 A, US4491065, US4483241 A, US4483241,
 US4470343 A, US4470343, US4455928 A, US4455928, US4455319 A, US4455319,
 US4454805 A, US4454805, US4450758 A, US4450758, US4442763 A, US4442763,
 US4442758 A, US4421016 A, US4421016, US4418261 A, US4418261, US4410553 A, US4410553,
 US4409452 A, US4409452, US4407189 A, US4407189, US4372199 A, US4372199,
 US4366750 A, US4366750, US4355626 A, US4355626, US4355569 A, US4355569,
 US4335289 A, US4335289, US4327274 A, US4327274, US4321857 A, US4321857,
 US4304177 A, US4304177, US4301718 A, US4301718, US4300443 A, US4300443,
 US4286133 A, US4286133, US427671 A, US4270444 A, US4270444, US4250955 A,
 US4244979 A, US4244979, US422172 A, US4214516 A, US4214516, US4181074 A,
 US4181074, US4176592 A, US4176592, US4165684 A, US4165684, US4165683 A,
 US4163894 A, US4163894, US4158992 A, US4158992, US4154154 A, US4154154,
 US4119020 A, US4119020, US4114523 A, US4114523, US4112832 A, US4106473 A,
 US4106473, US4103606 A, US4103606, US4103605 A, US4103605, US4089258 A,
 US4089258, US4051838 A, US4051838, US4005646 A, US4005646, US3980010 A,
 US3980010, US395980 A, US395980, US3959620 A, US3959620, US3943837 A,
 US3943837, US3939761 A, US3939761, US3935807 A, US3935807, US3935806 A, US3935806,
 US3931758 A, US3931758, US3901136 A, US3901136, US3893442 A, US3867877 A,
 US3867877, US3867605 A, US3867605, US3848525 A, US3848522 A, US3848522,
 US3838538 A, US3838538, US3812840 A, US3807292 A, US3807292, US3805762 A,
 US3805762, US3802331 A, US3802331, US3797379 A, US3797379, US3782268 A,
 US3782268, US3734740 A, US3734740, US3732803 A, US3693538 A, US3693538,
 US3566777 A, US3566777, US3559565 A, US3559565, US3529536 A, US3529536,
 US3527155 A, US3527155, US3511170 A, US3511170, US3503323 A, US3503323,
 US3473464 A, US3473464, US3473463 A, US3362350 A, US3362350, US3362320 A,
 US3362320, US3355573 A, US3355573, US3348471 A, US3348471, US3335712 A, US3335712,
 US3333529 A, US3333529, US3329082 A, US3329082, US3315591 A, US3315591,
 US3298301 A, US3285238 A, US3285238, US3276351 A, US3269299 A, US3248518 A,
 US3240147 A, US3235238 A, US3227405 A, US3215338 A, US3205812 A, US3196776 A,
 US3188939 A, US3186776 A, US3182585 A, US3181453 A, US3129653 A, US3127889 A,
 US3126814 A, US3125015 A, US3121424 A, US3104605 A, US3103161 A,
 US3100435 A, US3085500 A, US3079208 A, US3074360 A, US3070953 A, US3045581 A,
 US3025783 A, US2983218 A, US2979053 A, US2940380 A, US2939383 A, US2938450 A,
 US2925081 A, US2917988 A, US2898437 A, US2895408 A, US2888872 A, US2887994 A,
 US2887944 A, US2885950 A, US2882812 A, US2867163 A, US2851575 A, US2846941 A,
 US2845941 A, US2839989 A, US2831421 A, US2831420 A, US2828733 A, US2827847 A,
 US2821187 A, US2815707 A, US2811099 A, US2809579 A, US2762293 A, US2760428 A,
 US2759411 A, US2754401 A, US2727315 A, US2722885 A, US2722882 A, US2705450 A,
 US2701516 A, US2700682 A, US2696163 A, US2681001 A, US2664490 A, US2649852 A,
 US2638841 A, US2619951 A, US2618730 A, US2616360 A, US2607286 A, US257609 A,
 US2565967 A, US251657 A, US2502685 A, US2501104 A, US2472164 A, US2297825 A,
 US2245220 A, US2142390 A, US2136658 A, US2133667 A, US2130259 A, US2102097 A,
 US2085169 A, US2049481 A, US2048769 A, US2012811 A, US2007145061 AA, US2006144248 AA,
 US2005178275 AA, US199712 A, US1993607 A, US1976989 A, US1786300 A,
 US1723704 A, US1666394 A, US1584121 A, US1471122 A, US1282195 A, US1093883

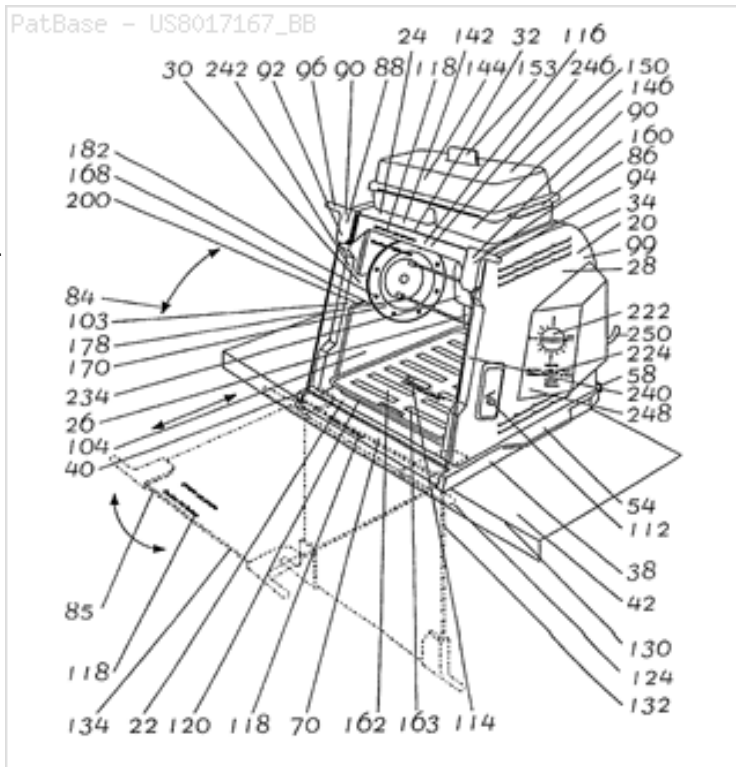
A, US1063516 A, US1045049 A, SE550872, SE500872 C2, SE500872, SE323756, SE323756, KR206810, KR100206810 B1, JPS6122133, JP61022133 A2, JP61022133, JP60049785 A2, JP60049785, JP60019785 A2, IT555893 A, IT555893, IT555893, IT555893, GB996233 A, GB996233, GB996223 A, GB880899, GB880899, GB850083 A, GB850083, GB478044, GB478044, GB1257945, GB1257945, FR853400 A, FR853400, FR2739272, FR2625668 A1, FR2625668, FR2603178 A3, FR2603178, FR2498915 A1, FR2498915, FR2477396 A1, FR2477396, FR24477396, FR2276799 A1, FR2276799, FR2078609, FR2078609, FR1300126, FR1300126, FR1265159, FR1265159, FR1218203 A, FR1218203, FR1116586 A, FR1116586, ES2029576 AF, ES2029576 a2, ES2029576, EP1700550, EP1535556, EP1222889, EP0853400, EP0853400, EP0396470 A1, EP0396470, EP0332505 A1, EP0332505, EP0281866 A1, EP0281866, DE91799 A, DE7407464, DE7407464, DE7407464, DE7213693, DE7213693, DE7213693, DE7047203, DE7047203, DE7047203, DE657089, DE657089, DE4413059, DE4413050 C1, DE4413050, DE43251, DE43251, DE43251, DE4226098 A1, DE4226098, DE4113050, DE4112325 A1, DE4112325, DE3606800 A1, DE3401002 A1, DE3401002, DE3235985 A1, DE3214818 A1, DE3214818, DE3000653 A1, DE3000653, DE29916242 U1, DE29916242 U, DE29916242, DE29916242, DE29916161 U1, DE29916161 U, DE29916161, DE29916161, DE29909108 U1, DE29909108 U, DE29909108, DE29909108, DE29602405 U1, DE29602405 U, DE29602405, DE29602405, DE2646811 A1, DE2646811, DE2601877 A1, DE2601877, DE2430233 A1, DE2430233, DE2425346 A1, DE2425346, DE2358119, DE2358119, DE2310390, DE2310390, DE2308779, DE2308779, DE2307575, DE2307575, DE2205703, DE2205703, DE1998600, DE1998600, DE1998600, DE1779063, DE1779063, DE1679001, DE1679001, DE1679001, DE1454157, DE1454157, DE1454157, DE1454014, DE1454014, DE1454014, DE1454011, DE1429829, DE1429829, DE1429829, DE1162985, DE1162985, DD2601877, DD2430233, DD2425346, DD2358119, DD2310390, DD2308779, DD2307575, CH662496, CH662496, CH603430, CH603130, CH603130, CH424144, CH424144, AU238395 A1, AU238395, AT238395, AT238395, AT223335, AT223335,

Forward Citations:

WO17021887, WO14195219, WO14195129, WO14120239, WO13043285, WO10053538, WO09105111, WO03007765, WO03007765, USD771994, USD703993, USD693643, USD650228, USD629639, USD532654, US9513016, US9480364, US9402505, US9326639, US9289543, US9288997, US9211035, US9155422, US9155421, US9096364, US9003960, US8943953, US8877064, US8850966, US8850965, US8776774, US8752538, US8739693, US8707857, US8687842, US8584580, US8575520, US8549993, US8516952, US8485176, US8438970, US8408120, US8402885, US8375848, US8330083, US8330080, US8309151, US8272321, US8186265, US8151697, US8110237, US8065954, US8053707, US8051768, US8043087, US8017167, US8015727, US7981459, US7964824, US7958650, US7937929, US7934494, US7921768, US7878111, US7823502, US7798139, US7793648, US7739948, US7626142, US7536946, US7514651, US7487716, US7478586, US7412922, US7404354, US7325484, US7306555, US7263990, US7241977, US7164850, US7060942, US6941857, US6923110, US6837151, US6782805, US6637319, US6568316, US6561083, US6509549, US6497175, US6363841, US2015375468, US2015250187, US2015164088, US2015020284, US2014299002, US2014246008, US2014245897, US2014157997, US2013233182, US2013193130, US2012260809, US2012199017, US2012174906, US2012097046, US2012076350, US2012037012, US2011283893, US2011262113, US2011220573, US2011203570, US2011142998, US2011136587, US2011061545, US2011030670, US2010313878, US2010303973, US2010270282, US2010269712, US2010258109, US2010224079, US2010206287, US2010206179, US2010199855, US2010059038, US2010037782, US2010000417, US2009282989, US2009196970, US2009191322, US2009178665, US2009178664, US2009178579, US2009178578, US2009178577, US2009173240, US2009139981, US2009126366, US2009120303, US2009090248, US2009087535, US2009087534, US2009044706, US2009032007, US2008289511, US2008250940, US2008229937, US2008223845, US2008164246, US2008145282, US2008098903, US2008092751, US2008005918, US2008002383, US2007293385, US2007283945, US2007256571, US2007102418, US2007101869, US2007045201, US2007034621, US2007028912, US2007028781, US2007028780, US2007006869, US2006289530, US2006278211, US2006225580, US2006191156, US2006124627, US2006124561, US2006112837, US2006076789, US2006031234, US2005276892, US2005268794, US2005261475, US2005102854, US2005072018, US2005022676, US2005000371, US2004250693, US2004142082, US2004103795, US2004079239, US2004055477, US2003110955, TWI554235, KR100743273, ITVI20110317, ITVI20090078, ITMO20100357, GB2461395, GB2447284, GB2412296, GB2412296, EP2482866, EP2085003, EP1994864, EP1796475, EP1700550, EP1222889, DE102009045095, DE102009045095, CN104172941, CN104172941, CN103770666, CN102920357, AU777121,

Abstract:

Source: US2001009128A Enclosed rotisserie with added convenience, including a countertop resting box-like enclosure housing a safety rear mounted heating element and a power rotated dual rod spit assembly. The gear driven spit assembly may be easily inserted and removed straight into and out of the enclosure without need for angling or coupling the assembly to a power drive socket. The spit assembly may also be mounted at various distances from the heating element to decrease cooking times. The open front of the enclosure is from time to time covered by an inclined glass panel door which may be opened in various ways to facilitate food insertion into and removal from the enclosure, and which may be easily removed for cleaning or other purposes. The embodiment's design makes efficient use of valuable counter space by recessing back and raising off the countertop its controls. A contained light as well as room light emitted through the inclined glass door illuminate the enclosure's interior to make the rotisserie cooking into a taste tempting show. Two countertop supported sizes for the embodiment are suggested, one for larger families and entertaining, and the other for small families and singles. Cooking times are decreased and manufacture simplified by the embodiment heating element remaining on constantly during the cooking process. Maintenance is minimized by various embodiment parts being removable for cleaning including a cleaning shield located behind the heating element, the glass door, and a drip pan with slotted cover. A variety of foods may be cooked using the spit and accessories that attach to the spit. Such accessories include wire baskets and a rotating stir fryer. Foods may be cooked on top of the embodiment as well using an included warming tray and an inserted steaming tray with cover. Grease-tight rotisserie/barbecue gloves make food handling easier and safer, as can also be said for a spit support platform which supports the spit assembly for food mounting and carving. Self-rotating kabob rods cook kabobs on all sides evenly and allow for increasing rotisserie capacity by increasing the length of rotating rods available for rotisserie food mounting.



2) Family number: 31767603 (US2005112634A)

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Title: HIGH DENSITY SEQUENCE DETECTION METHODS AND APPARATUS

Priority:

CA20032441481	20030918	CA20032441481	20030918	EP20050783340	20050804
US20030504042P	20030919	US20030504500P	20030919	US20030504052P	20030919
US20040589224P	20040719	US20040589225P	20040719	EP20060739280	20060321
US20040944669	20040917	US20040944670	20040917	US20040944672	20040917
US20040589244P	20040719	US20040944690	20040917	US20040944671	20040917
US20040944691	20040917	US20040944686	20040917	US20040944673	20040917
US20040913601	20040805	US20040601716P	20040813	US20040944668	20040917
US20050086271	20050322	US20050086272	20050322	US20050086273	20050322
US20050086260	20050322	US20050087103	20050322	US20050086259	20050322
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US20050086263	20050322	US20050086276	20050322	US20050086264	20050322
US20050086262	20050322	US20050087101	20050322	US20050086274	20050322
US20050096282	20050331	US20050184595	20050719	WO2004US30489	20040917
US20060393059	20060330	US20060393061	20060330	US20060393083	20060330
US20060393060	20060330	US20070803403	20070514	US20070766119	20070621
US20080176656	20080721	US20080220763	20080728	US20090407234	20090319
US20090419015	20090406	US20090417536	20090402	US20050087104	20050322
US20090406309	20090318	US20090413396	20090327	US20090558428	20090911
US20090553782	20090903	US20090431685	20090428	US20090497398	20090702
US20090534802	20090803	US20090628115	20091130	US20060393047	20060330
US20090543459	20090818	US20090626507	20091125	US20070828572	20070726
US20050087105	20050322	US20100775391	20100506	US20100859143	20100818
US20110049686	20110316	US20110252058	20111003	US20050664314P	20050322
US20060385959	20060321	US20120420998	20120315	US20120593945	20120824
US20120623856	20120920	US20130743217	20130116	US20130931643	20130628
US20130066586	20131029	US20140160376	20140121	US20140326243	20140708
US20140271173	20140506	US20140466742	20140822	US20150688372	20150416
US20150677645	20150402	US20150968747	20151214	US20160991844	20160108
WO2004US30788	20040917	WO2005US28066	20050804	WO2007US08275	20070330
WO2006US10424	20060321				

Family:

Publication number	Publication date	Application number	Application date
DE602005045904 D1	20150402	DE200560045904T	20050804
DE602006036558 D1	20130725	DE200660036558T	20060321
EP1670944 A2	20060621	EP20040788815	20040917
EP1670944 A4	20121205	EP20040788815	20040917
EP1670945 A2	20060621	EP20040788854	20040917
EP1779091 A2	20070502	EP20050783340	20050804
EP1779091 B1	20150225	EP20050783340	20050804
EP1869158 A2	20071226	EP20060739280	20060321
EP1869158 A4	20110119	EP20060739280	20060321
EP1869158 B1	20130529	EP20060739280	20060321
EP2010326 A2	20090107	EP20070754750	20070330
EP2010326 A4	20090506	EP20070754750	20070330
JP2008509399 T2	20080327	JP20070525063T	20050804
US2005112634 AA	20050526	US20040944686	20040917
US2005220675 AA	20051006	US20050087077	20050322
US2005221357 AA	20051006	US20050086253	20050322
US2005221358 AA	20051006	US20050087086	20050322
US2005225751 AA	20051013	US20050087101	20050322
US2005226771 AA	20051013	US20050087104	20050322
US2005226779 AA	20051013	US20050087088	20050322

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FOCARACCI JULIO

Agent(s):

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Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class

(IPC 8-9):

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International class

(IPC 1-7):

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European class:

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[435/289.1](#) [435/294.1](#) [435/303.1](#) [435/303.100S](#) [435/305.3](#) [435/305.300P](#) [435/6](#) [435/6.1](#)
[435/6.100S](#) [435/6.11](#) [435/6.110P](#) [435/6.110S](#) [435/6.12](#) [435/6.120P](#) [435/6.14](#) [435/6.140P](#)
[435/6.16](#) [435/6.160P](#) [435/6.18](#) [435/6.180P](#) [435/6.19](#) [435/6.190P](#) [435/6P](#) [435/6S](#) [435/91.1](#)
[435/91.100](#) [435/91.100P](#) [435/91.2](#) [435/91.200](#) [435/91.200P](#) [435/91.200S](#) [436/180](#)
[436/180P](#) [436/180S](#) [436/8](#) [436/8P](#) [506/12](#) [506/12P](#) [506/16](#) [506/16S](#) [506/37](#) [506/38](#) [506/39](#)
[506/39P](#) [506/7](#) [506/7P](#) [506/9](#) [506/9P](#) [536/25.3](#) [536/25.300](#) [536/25.300S](#) [702/19](#) [702/19P](#)
[702/20](#) [702/20P](#) [702/20S](#) [702/85](#) [705/7.12](#) [709/206](#)

[Classification Explorer](#)

Cited documents:

WO9921881 A1, WO9843740 A2, WO9737036 A1, WO9633010 A1, WO9601022 A1,
 WO9530139, WO9511262 A1, WO9427719 A1, WO9405688 A1, WO9105060 A2,
 WO05089945 A1, WO05079544 A2, WO04083959 A2, WO04028342, WO04027081,
 WO04023371, WO04018104, WO04011147, WO03099988 A1, WO03059517 A2,
 WO03057369 A1, WO03024599 A1, WO03004166 A1, WO03000428 A1, WO02064812,
 WO02052038 A2, WO0190951 A2, WO0135079 A1, WO0127327 A2, WO0119841,
 WO0107896 A1, WO0013026 A1, USRE38281 E, USRE30562 E, US8274650 BB,
 US8040619 BB, US7998435 BB, US7759636 BB, US7715004 BB, US7695688 BB,
 US7604937 BB, US7601821 BB, US7586600 BB, US7570443 BB, US7473891 BB,
 US7455966 BA, US7422150 BB, US7407630 BB, US7405823 BB, US7382258 BB,
 US7347977 BB, US7329393 BB, US7329393 B1, US7262063 BB, US7256292 BB,
 US7233393 BB, US7211148 BB, US7198759 BB, US7075059 BB, US7025935 BB,
 US6977722 BB, US6969489 BB, US6943966 BB, US6915334 BA, US6915332 BA,
 US6893877 BB, US6886610 BB, US6884615 BB, US6874699 BB, US6869571 BB,
 US6868875 BB, US6861035 BB, US6855538 BB, US6852986 BA, US6852291 BA,
 US6849745 BB, US6849127 BB, US6845787 BB, US6844158 BA, US6844028 BB,
 US6838680 BB, US6830936 BB, US6827906 BA, US6827113 BB, US6825929 BB,
 US6825927 BB, US6825042 BA, US6824024 BB, US6818437 BA, US6816259 BA,
 US6814935 BB, US6814934 BA, US6814933 BB, US6812030 BB, US6811752 BB,
 US6805840 BA, US6803019 BA, US6800250 BA, US6781121 BA, US6776965 BB,
 US6767748 BB, US6764818 BB, US6762049 BB, US6756019 BA, US6753187 BB,
 US6752182 BB, US6743633 BA, US6742661 BA, US6733731 BB, US6733729 BB,
 US6733728 BA, US6730883 BB, US6730833 BA, US6730520 BB, US6730516 BB,
 US6723569 BA, US6720149 BA, US6716629 BB, US6716350 BB, US6713021 BA,
 US6709872 BA, US6709559 BB, US6708978 BB, US6703247 BA, US6703236 A,
 US6703120 BA, US6700873 BA, US6699437 BA, US6695972 BB, US6692972 BA,
 US6692917 BB, US6686425 BB, US6686208 BB, US6685884 BB, US6683147 BB,
 US6682708 BA, US6682702 BB, US6682702 B1, US6680202 BB, US6680202 B1,
 US6678577 BA, US6677162 BA, US6676905 BB, US6676835 BB, US6673620 BA,
 US6673397 BB, US6672344 BA, US6669911 BA, US6669909 BB, US6669909 B1,
 US6664247 BB, US6660517 BA, US6660233 BA, US6660232 BA, US6653301 BB,
 US6653300 BB, US6643681 BA, US6642499 BA, US6642046 BA, US6640891 BA,
 US6638483 BB, US6637476 BB, US6635886 BA, US6632908 BA, US6632809 BB,
 US6614030 BB, US6610470 BB, US6608671 BB, US6605452 BA, US6605451 BA,
 US6604132 BA, US6599693 BA, US6599479 BA, US6596490 BB, US6596237 BA,
 US6593091 BB, US6592825 BB, US6592825 B1, US6590091 BB, US6589791 BA,
 US6589743 BB, US6589250 BB, US6586257 BA, US6585296 BA, US6579367 BB,
 US6576295 BB, US6576295 B1, US6569385 BA, US6563581 BA, US6558960 BA,
 US6558947 BA, US6558623 BA, US6555365 BB, US6552784 BA, US6551557 BA,
 US6549950 BB, US6548250 BA, US6544477 BA, US6541211 BA, US6537817 BA,
 US6534014 BA, US6534013 BA, US6528302 BB, US6526215 BB, US6521188 BA,
 US6521187 BA, US6518068 BA, US6518060 BB, US6517781 BA, US6514750 BB,
 US6511277 BA, US6509059 BB, US6508988 BA, US6506806 BB, US6506611 BB,
 US6504607 BB, US6504167 BB, US6503456 BA, US6498010 BA, US6496309 BA,
 US6495369 BA, US6485944 BA, US6485918 BA, US6485917 BA, US6485903 BA,

US6485901 BA, US6485690 BA, US6482588 BA, US6479301 BA, US6476215 BA,
US6475809 BA, US6472218 BA, US6471916 BA, US6468800 BA, US6464942 BB,
US6464942 B1, US6461812 BB, US6461812 B1, US6458855 BA, US645885 A,
US6458815 BB, US6458805 BB, US645855 A, US6457045 BA, US6454970 BA,
US6451188 BA, US6448089 BA, US6447723 BA, US6447489 BA, US6440217 BB,
US6436677 BA, US6436350 BA, US6432719 BA, US6432696 BB, US6432696 B1,
US6432365 BA, US6429027 BA, US6426215 BA, US6422431 BB, US6422431 B1,
US6420180 BA, US6419638 BA, US6416719 BA, US6410321 BA, US6410255 BA,
US6408878 BB, US6406891 BA, US6403338 BA, US6399952 BA, US6399365 BB,
US6395559 BA, US6394797 BA, US6392241 BA, US6391559 BA, US6387652 BA,
US6387623 BA, US6387486 BA, US6387331 BA, US6387031 BA, US6385047 BA,
US6383752 BA, US6379897 BA, US6376187 BA, US6374683 BA, US6373726 BA,
US6372486 BA, US6372428 BA, US6372185 BA, US6368703 BA, US6367925 BA,
US6365375 BA, US6361950 BA, US6360792 BA, US6358679 BA, US6355421 BA,
US6353475 BA, US6352854 BA, US6349160 BB, US6345115 BA, US6343012 BA,
US6340589 BA, US6337435 BA, US6335440 BA, US6333501 BA, US6329164 BA,
US6325114 BA, US6323043 BA, US6323035 BA, US6321163 BA, US6311211 BA,
US6309889 BA, US6309608 BA, US6306646 BA, US6304451 BA, US6302159 BA,
US6300073 BA, US6296811 BA, US6296702 BA, US6293331 BA, US628910 A,
US6284113 BA, US6277630 BA, US6274091 BA, US6267858 BA, US6258103 BA,
US6254833 BA, US6254826 BA, US6253807 BA, US6252774 BA, US6251978 BA,
US6251662 BA, US6251343 BA, US6239228 BA, US6238910 BA, US6237223 BA,
US6235520 BA, US6235020 BA, US6232870 BA, US6232129 BA, US6232114 BA,
US6229603 BA, US6228659 BA, US6225388 BA, US6221604 BA, US6220451 BA,
US6220075 BA, US6214293 BA, US6214263 BA, US6210958 BA, US6208749 BA,
US6207421 BA, US6203759 BA, US6201697 BA, US6197572 BA, US6191278 BA,
US6187267 BA, US6180372 BA, US6174546 BA, US6171780 BA, US6171555 BA,
US6171555 B1, US6154707 A, US6153426 A, US6150097 A, US6143496 A, US6140500
A, US6140494 A, US6140054 A, US6140044 A, US6130101 A, US6126899 A,
US6124138 A, US6120180 A, US6118126 A, US6117397 A, US6112605 A, US6106784
A, US6103476 A, US6099230 A, US6094966 A, US6093961 A, US6090995 A,
US6090251 A, US6088100 A, US6087098 A, US6086825 A, US6083763 A, US6083762
A, US6083761 A, US6082797 A, US6079283 A, US6075699 A, US6071748 A,
US6068751 A, US6063339 A, US6061128 A, US6060022 A, US6054270 A, US6054263
A, US6051191 A, US6048919 A, US6045755 A, US6043880 A, US6037168 A,
US6037129 A, US6036920 A, US6033911 A, US6032637 A, US6030782 A, US6027873
A, US6027695 A, US6025129 A, US6021045 A, US6020481 A, US6015674 A,
US6015667 A, US6015557 A, US6015534 A, US6014315 A, US6008379 A, US6008373
A, US6005664 A, US6003557 A, US6001309 A, US5999209 A, US5998768 A,
US5986086 A, US5985551 A, US5985214 A, US5981666 A, US5972694 A, US5958342
A, US5954416 A, US5951999 A, US5945736 A, US5945526 A, US5942432 A,
US5939312 A, US5936087 A, US5929172 A, US5928907 A, US5927547 A, US5925517
A, US5919626 A, US5916524 A, US5910287 A, US5891739 A, US5888830 A,
US5882465 A, US5879759 A, US5876978 A, US5875967 A, US5874219 A, US5874214
A, US5866342 A, US5863727 A, US5858770 A, US5858653 A, US5853992 A,
US5851492 A, US5847162 A, US5843767 A, US5838372 A, US5837832 A, US5837546
A, US5830655 A, US5825622 A, US5819842 A, US5819799 A, US5818973 A,
US5800996 A, US5792654 A, US5784257 A, US5779981 A, US5774335 A, US5770860
A, US5770455 A, US5770440 A, US5766889 A, US5763278 A, US5763263 A,
US5759779 A, US5751629 A, US5750409 A, US5744305 A, US5741463 A, US5741462
A, US5736333 A, US5736099 A, US5731387 A, US5728528 A, US5726250 A,
US5723320 A, US5721136 A, US5710381 A, US5703170 A, US5700642 A, US5700637
A, US5693517 A, US5676309 A, US5672881 A, US5670260 A, US5667870 A,
US5660758 A, US5658802 A, US5645800 A, US5641658 A, US5641634 A, US5624800
A, US5618759 A, US5618703 A, US5618701 A, US5604130 A, US5602756 A,
US5593091 A, US5587321 A, US5587128 A, US5582665 A, US5580794 A, US5580732
A, US5573778 A, US5565268 A, US5561058 A, US5552824 A, US5552580 A,
US5545531 A, US5538848 A, US5525300 A, US5519218 A, US5514543 A, US5512462
A, US5511585 A, US5508367 A, US5508200 A, US5506141 A, US5505229 A,
US5497670 A, US5481741 A, US5474796 A, US5470705 A, US5446263 A, US5445934
A, US5436149 A, US5427416 A, US5422780 A, US5417923 A, US5405774 A,
US5397919 A, US5395907 A, US5387466 A, US5364790 A, US5352516 A, US5343012
A, US5342581 A, US5340728 A, US5338671 A, US5328944 A, US5326533 A,
US5313238 A, US5301336 A, US5301301 A, US5291587 A, US5290705 A, US5284753
A, US5284425 A, US5282543 A, US5281804 A, US5274240 A, US5255976 A,
US5240857 A, US5223133 A, US5216624 A, US5210021 A, US5210015 A, US5188934
A, US5160226 A, US5126276 A, US5121947 A, US5112605 A, US5110555 A,
US5108704 A, US5085402 A, US5083761 A, US5082595 A, US5080582 A, US5066377
A, US5061381 A, US5032637 A, US5023990 A, US5007454 A, US5002889 A,
US5000921 A, US4996143 A, US4966667 A, US4966667 A, US4965188 A, US4958661 A,
US4952518 A, US4944487 A, US4930553 A, US4914568 A, US4901221 A, US4883750
A, US4878971 A, US4867333 A, US4866198 A, US4865987 A, US4834946 A,
US4828386 A, US4822741 A, US4819009 A, US4806316 A, US4804468 A, US4800159

A, US4766924 A, US4753727 A, US4742396 A, US4735778 A, US4721601 A,
 US4719087 A, US4715231 A, US4706705 A, US4699715 A, US4683202 A, US4683195
 A, US4679615 A, US4668472 A, US4657867 A, US4602971 A, US4602291 A,
 US4599315 A, US4592089 A, US4586546 A, US4567525 A, US4565100 A, US4563907
 A, US4554839 A, US4554829 A, US4493815 A, US4492360 A, US4491156 A,
 US4459267 A, US4451320 A, US4448486 A, US4446239 A, US4394904 A, US4358489
 A, US4292273 A, US4154795 A, US4111754 A, US3944455 A, US3941168 A,
 US3894512 A, US3873268 A, US3713985 A, US3055808 A, US3043880 A, US2771399
 A, US2011079705 AA, US2010196212 AA, US2010193672 AA, US2010086977 AA,
 US2009093062 AA, US2008290283 AA, US2008084004 AA, US2007246858 AA,
 US2007003448 AA, US2006252047 AA, US2006141518 AA, US2006088931 AA,
 US2006081706 AA, US2005242963 AA, US2005239104 AA, US2005231723 AA,
 US2005226771 AA, US2005142033 AA, US2005130173 AA, US2005084957 AA,
 US2005069912 AA, US2005059017 AA, US2005052646 AA, US2005048575 AA,
 US2005047972 AA, US2005032242 AA, US2005031494 AA, US2005019221 AA,
 US2005006417 AA, US2004250878 AA, US2004246549 AA, US2004241667 AA,
 US2004241051 AA, US2004219689 AA, US2004219355 AA, US2004214315 AA,
 US2004209381 AA, US2004206408 AA, US2004206179 AA, US2004203173 AA,
 US2004203164 AA, US2004203047 AA, US2004202582 AA, US2004202577 AA,
 US2004197817 AA, US2004191896 AA, US2004151641 AA, US2004136868 AA,
 US2004132128 AA, US2004132040 AA, US2004131505 AA, US2004126763 AA,
 US2004126283 AA, US2004121474 AA, US2004121432 AA, US2004120855 AA,
 US2004115831 AA, US2004115721 AA, US2004110275 AA, US2004101966 AA,
 US2004101445 AA, US2004096984 AA, US2004096358 AA, US2004087005 AA,
 US2004086927 AA, US2004082076 AA, US2004074557 AA, US2004073017 AA,
 US2004072195 AA, US2004071603 AA, US2004064511 AA, US2004062686 AA,
 US2004061136 AA, US2004061071 AA, US2004058452 AA, US2004057870 AA,
 US2004053403 AA, US2004053172 AA, US2004051797 AA, US2004051757 AA,
 US2004048392 AA, US2004038388 AA, US2004037749 AA, US2004037748 AA,
 US2004037739 AA, US2004035375 AA, US2004029109 AA, US2004023371 AA,
 US2004022677 AA, US2004018635 AA, US2004018610 AA, US2004018506 AA,
 US2004016835 AA, US2004014238 AA, US2004011896 AA, US2004009101 AA,
 US2004002125 AA, US2003232379 AA, US2003221776 AA, US2003215957 AA,
 US2003215956 AA, US2003215380 AA, US2003215360 AA, US2003214057 AA,
 US2003212592 AA, US2003211012 AA, US2003210344 AA, US2003207464 AA,
 US2003205681 AA, US2003205511 AA, US2003202637 AA, US2003198575 AA,
 US2003190652 AA, US2003180467 AA, US2003179849 AA, US2003179639 AA,
 US2003175163 AA, US2003170883 AA, US2003168166 AA, US2003162285 AA,
 US2003161761 AA, US2003160957 AA, US2003157563 AA, US2003149639 AA,
 US2003138829 AA, US2003136921 AA, US2003134807 AA, US2003134108 AA,
 US2003125753 AA, US2003124735 AA, US2003124539 AA, US2003118483 AA,
 US2003109060 AA, US2003108874 AA, US2003108868 AA, US2003100995 AA,
 US2003096427 AA, US2003095254 AA, US2003092034 AA, US2003087466 AA,
 US2003087455 AA, US2003087446 AA, US2003086828 AA, US2003072685 AA,
 US2003072681 AA, US2003072676 AA, US2003067118 AA, US2003064508 AA,
 US2003057870 AA, US2003047823 AA, US2003039592 AA, US2003039591 AA,
 US2003039585 AA, US2003038248 AA, US2003033892 AA, US2003032198 AA,
 US2003027179 AA, US2003026739 AA, US2003023478 AA, US2003022677 AA,
 US2003022214 AA, US2003021734 AA, US2003017085 AA, US2003010386 AA,
 US2003008412 AA, US2003008383 AA, US2003008310 AA, US2003008286 AA,
 US2003007146 AA, US2002198858 AA, US2002192806 AA, US2002192716 AA,
 US2002192119 AA, US2002190178 AA, US2002185429 AA, US2002185222 AA,
 US2002182117 AA, US2002182113 AA, US2002179849 AA, US2002176803 AA,
 US2002173048 AA, US2002168297 AA, US2002159919 AA, US2002155035 AA,
 US2002150505 AA, US2002146841 AA, US2002142349 AA, US2002134108 AA,
 US2002127660 AA, US2002119077 AA, US2002110900 AA, US2002106812 AA,
 US2002104389 AA, US2002098598 AA, US2002098593 AA, US2002090629 AA,
 US2002090320 AA, US2002086828 AA, US2002086329 AA, US2002076819 AA,
 US2002074689 AA, US2002072112 AA, US2002072096 AA, US2002064885 AA,
 US2002064880 AA, US2002064482 AA, US2002058960 AA, US2002039545 AA,
 US2002032110 AA, US2002030598 AA, US2002028507 AA, US2002021986 AA,
 US2002018733 AA, US2002015995 AA, US2002012611 AA, US2002006619 AA,
 US2002006361 AA, US2002001546 AA, US2002001544 AA, US2001055814 AA,
 US2001049134 AA, US2001048899 AA, US2001037234 AA, US2001035375 AA,
 US2001032675 AA, JP2011505676 T2, JP2005079948 A2, JP2003505691 T2,
 JP11505676 T2, JP11259633 A2, FR2814397 A1, EP1378200 A1, EP1364710 A2,
 EP0542422 A1, EP0388159 A2, EP0233053 B1, EP0233053 A2, DE19852946 A1,

Forward Citations:

WO17005789, WO17004502, WO16158421, WO16127107, WO16018910, WO15200803,
 WO15106356, WO15074076, WO14172345, WO14130542, WO14116979, WO14116955,
 WO14116951, WO14087380, WO14074887, WO14074740, WO14071259, WO14071258,
 WO14058393, WO14012071, WO13191653, WO13166344, WO13141835, WO13138767,
 WO13138706, WO13116839, WO13112655, WO13109980, WO13063139, WO13061312,

WO13049809, WO13049702, WO12170301, WO12131140, WO12116862, WO12103447,
 WO12058412, WO12024017, WO11137058, WO11079281, WO11079281, WO11035083,
 WO11031377, WO11017567, WO11011350, WO10115100, WO10104672, WO10104672,
 WO10040217, WO10021627, WO09100449, WO09048962, WO09047425, WO09047425,
 WO09030908, WO09030908, WO09015839, WO09005641, WO09001276, WO08154317,
 WO08147898, WO08147898, WO08111035, WO08111035, WO08101194, WO08101194,
 WO08033839, WO08033839, WO08002563, WO08002563, WO07127089, WO07127089,
 WO07059423, WO07059423, WO07011549, WO06119066, WO06119066, USD742027,
 USD692162, USD669191, USD665095, USD613321, US9592508, US9591268,
 US9588109, US9588104, US9587276, US9581588, US9581528, US9579657,
 US9573132, US9568414, US9556478, US9556474, US9554095, US9551663,
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 US9464981, US9463431, US9458451, US9435793, US9435726, US9428800,
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 US9365895, US9354326, US9353408, US9347586, US9347097, US9329194,
 US9329129, US9328381, US9322046, US9321049, US9310362, US9310360,
 US9297728, US9296067, US9290382, US9289852, US9289769, US9285382,
 US9284520, US9279141, US9269248, US9266108, US9264435, US9259735,
 US9259734, US9244069, US9238223, US9237766, US9233369, US9228933,
 US9222954, US9222133, US9222123, US9222115, US9217143, US9213042,
 US9194865, US9194774, US9186677, US9186674, US9181035, US9180456,
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 US9157116, US9146248, US9146194, US9143581, US9139882, US9138744,
 US9132427, US9130778, US9128072, US9117729, US9110025, US9108200,
 US9106601, US9102979, US9090891, US9090890, US9090462, US9084993,
 US9080207, US9080039, US9074242, US9073962, US9060623, US9057726,
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 US9027730, US9021030, US8999726, US8992754, US8989466, US8987685,
 US8986614, US8985585, US8980621, US8980550, US8968655, US8968585,
 US8954519, US8925925, US8921049, US8906652, US8906325, US8906306,
 US8892184, US8890706, US8883490, US8883088, US8874658, US8873055,
 US8872527, US8871156, US8865479, US8859204, US8852920, US8852862,
 US8847285, US8846415, US8840837, US8835188, US8835187, US8828654,
 US8822183, US8809039, US8806730, US8802392, US8784745, US8772049,
 US8765486, US8765367, US8765076, US8759085, US8735175, US8735142,
 US8735055, US8734733, US8731860, US8726745, US8718948, US8715924,
 US8710211, US8709787, US8703422, US8703069, US8697452, US8691149,
 US8685341, US8685340, US8679831, US8659755, US8655473, US8652769,
 US8642268, US8638509, US8636965, US8633017, US8618507, US8617905,
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 US8491178, US8490428, US8486618, US8482730, US8480976, US8471230,
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 US8338187, US8337785, US8336927, US8334117, US8329433, US8324372,
 US8323900, US8323584, US8318094, US8306294, US8303909, US8287820,
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 US8182993, US8182763, US8164661, US8149399, US8145345, US8139213,
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 US7586604, US7585463, US7577064, US7535570, US7510690, US7508482,
 US7504264, US7464832, US7455814, US7452419, US7445752, US7435397,
 US7435379, US7431769, US7431768, US7416710, US7416709, US7405823,
 US7398605, US7364907, US7305896, US7186996, US7165340, US2015321195,

US2015299768, US2015299766, US2015253254, US2015233828, US2015233815,
 US2015224507, US2015197818, US2015143767, US2015102025, US2015080247,
 US2015045252, US2015038368, US2015008330, US2014322747, US2014308661,
 US2014273191, US2014267695, US2014235504, US2014170735, US2014150522,
 US2014144752, US2014136603, US2014134652, US2014075742, US2014045210,
 US2013339461, US2013305665, US2013303408, US2013224878, US2013196422,
 US2013191469, US2013189770, US2013186512, US2013172444, US2013164754,
 US2013162212, US2013146750, US2013137103, US2013100660, US2013079252,
 US2013068041, US2013058376, US2013045883, US2013041595, US2013028697,
 US2013007140, US2012270308, US2012263631, US2012244541, US2012238035,
 US2012210011, US2012196774, US2012174364, US2012149603, US2012080610,
 US2012075600, US2012048508, US2012043479, US2011312804, US2011312550,
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 US2011269239, US2011250597, US2011231132, US2011221843, US2011220239,
 US2011218124, US2011208441, US2011207180, US2011207140, US2011201530,
 US2011201522, US2011196637, US2011195496, US2011183367, US2011165609,
 US2011164862, US2011157601, US2011152128, US2011148985, US2011143357,
 US2011129395, US2011126925, US2011111447, US2011102784, US2011092373,
 US2011086778, US2011086337, US2011085168, US2011082051, US2011079705,
 US2011050433, US2011034340, US2011027914, US2011012157, US2010331219,
 US2010331212, US2010315727, US2010303690, US2010282361, US2010278440,
 US2010267769, US2010261184, US2010256017, US2010233698, US2010221149,
 US2010220321, US2010213486, US2010203538, US2010198525, US2010197525,
 US2010194408, US2010193672, US2010188244, US2010170288, US2010167413,
 US2010167406, US2010152066, US2010140655, US2010126857, US2010122359,
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 US2010067008, US2010065726, US2010064826, US2010055743, US2010041090,
 US2010037524, US2010003725, US2009324037, US2009318306, US2009289582,
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 US2009194942, US2009191098, US2009176271, US2009162928, US2009158564,
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 US2009099782, US2009075273, US2009060793, US2009056477, US2009053773,
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 US2009004064, US2008305482, US2008301276, US2008298717, US2008293127,
 US2008290283, US2008281466, US2008280785, US2008277595, US2008261326,
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 US2008176290, US2008171327, US2008171326, US2008171325, US2008165346,
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 US2008138815, US2008137939, US2008133326, US2008130971, US2008128627,
 US2008128199, US2008123090, US2008118402, US2008088834, US2008080059,
 US2008039680, US2008030628, US2008014631, US2008003650, US2008003594,
 US2008003593, US2008000892, US2007298429, US2007285662, US2007231880,
 US2007222983, US2007215538, US2007211245, US2007207483, US2007206187,
 US2007205126, US2007188750, US2007181507, US2007175897, US200717201,
 US2007116376, US2007075474, US2007060306, US2007042342, US2007036511,
 US2007035732, US2007026439, US2007014694, US2007003448, US2006290876,
 US2006288076, US2006269451, US2006263829, US2006233668, US2006189000,
 US2006188396, US2006177578, US2006174509, US2006164479, US2006151451,
 US2006120927, US2006082779, US2006073491, US2006063272, US2006057629,
 US2006030037, US2006030036, US2006030035, US2006029524, US2006027770,
 US2006012130, US2005244805, US2005238543, US2005229722, US2005220915,
 US2005202556, US2005163665, US2005140084, US2005136534, US2005084424,
 US2005047967, US2005031494, US2004171055, US2004142486, US2004014239,
 US2003170613, US2003109064, TWI514110, TWI367857, KR101510553, KR101362905,
 JP2015516802, JP2014531041, JP2014503831, JP2013546083, JP2013150623,
 JP2008039564, ITTO20110990, GB2422796, FR2921223, ES2389338, EP3115109,
 EP2929308, EP2906348, EP2897729, EP2847597, EP2843395, EP2752668,
 EP2462515, EP2458389, EP2431747, EP2413128, EP2364777, EP2344893,
 EP2333559, EP2333558, EP2333557, EP2301666, EP2248588, EP2239338,
 EP2162504, EP2158966, EP2046940, EP2046940, EP2040983, EP2031411,
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Abstract:

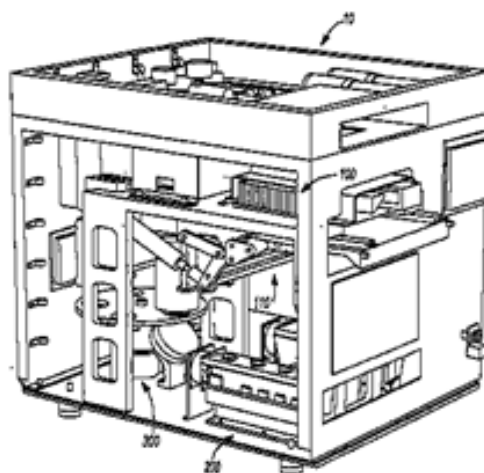
Source: US2005112634A Methods for amplifying polynucleotides, e.g., by PCR, in a sample comprising polynucleotide targets present at very low concentration, comprising: (a) applying amplification reactants to the surface of a substrate comprising reaction spots, wherein the reactants comprise the sample and an amplification reagent; (b) forming a sealed reaction chamber, having a volume less than about 120 nanoliters, preferably less than about 20 nanoliters, over each of said reaction spots; and (c) thermal cycling the substrate and reactants. In one embodiment, the forming step comprises loading a sealing fluid, e.g., mineral oil, on the surface so as to cover the reaction spots. The present invention also provides microplates, comprising: (a) a substrate having at least about 10,000 reaction spots, each comprising a primer and a droplet of reagent having a volume less than about 120 nanoliters, preferably less than about 20 nanoliters; and (b) a sealing liquid isolating each of the spots.

PatBase - W007117445_A2

WI 3007117445

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PCT/US2007/008275

Fig-1

SUBSTITUTE SHEET (RULE 26)

3) Family number: 40993537 (US2010059011A)

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Title: OIL SENSOR PLACEMENT STRUCTURE IN ENGINE
Priority: EP20070741420 20070411 JP20060166518 20060615 WO2007JP57984 20070411
Family:

Publication number	Publication date	Application number	Application date
CA2651955 AA	20081112	CA20072651955	20070411
CA2651955 C	20101207	CA20072651955	20070411
CN101449031 A	20090603	CN200780017990	20070411
CN101449031 B	20110713	CN200780017990	20070411
DE602007034206 D1	20140206	DE200760034206T	20070411
EP2028349 A1	20090225	EP20070741420	20070411
EP2028349 A4	20110105	EP20070741420	20070411
EP2028349 B1	20131211	EP20070741420	20070411
JP2007332883 A2	20071227	JP20060166518	20060615
JP4573808 B2	20101104	JP20060166518	20060615
MX2008015615 A1	20090109	MX20080015615	20070411
US2010059011 AA	20100311	US20070314331	20070411
US7931004 BB	20110426	US20070314331	20070411
WO07145017 A1	20071221	WO2007JP57984	20070411

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Assignee(s): HONDA MOTOR CO
Inventor(s):^(std): ENDO YUSUKE ; HIDEO UESHIMA ; KOYAMA YOSHIKI ; UESHIMA HIDEO ; YOSHIKI KOYAMA ; YUSUKE ENDO
Inventor(s): UESHIMA HIDEO WAKO SHI ; KOYAMA YOSHIKI WAKO SHI ; ENDO YUSUKE WAKO SHI
Agent(s): SMART AND BIGGAR; WEICKMANN AND WEICKMANN PATENTANWALTE RECHTSANWALT PARTMBB; PRECHTEL JOERG ET AL; PRECHTEL JOERG; ARENT FOX LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8-9): [F01M1/02](#) [F01M11/10](#) [F01M11/12](#) [F02B75/06](#) [F02B77/00](#) (Advanced/Invention);
[F02B75/06](#) (Advanced/Non-invention);
[F01M1/02](#) [F01M11/10](#) [F02B75/00](#) [F02B77/00](#) (Core/Invention)

CPC: [F01M11/12](#) [F02B75/06](#)

European class: [F01M11/12](#) [F02B75/06](#)

US class: [123/192.2](#) [123/192.200P](#) [123/195.00C](#) [123/195C](#) [123/196.00R](#) [123/196.00RS](#)
[123/196.00S](#) [123/196R](#) [123/196S](#) [123/198.00E](#) [123/198E](#) [340/450.3](#) [73/290.00R](#) [73/290R](#)

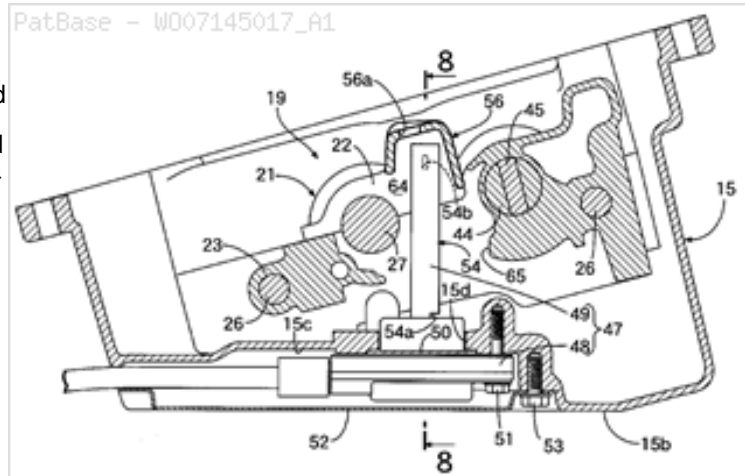
[Classification Explorer](#)

Cited documents: US7498932 BA, US7387101 BB, US7263964 BB, US5687687 A, US5435170 A, US4745895 A, US4410885 A, US4256069 A, US4245595 A, US2007056549 AA, US2005092283 AA, US2003041659 AA, JPS6390611, JPS632818 U, JP63090611 A2, JP63002818 U1, JP63002818 u1, JP6033989 A2, JP5006115 U1, JP3042010 U1, JP2006077674 A2, JP2003083935 A2, JP11030115 A2,

Forward Citations: US9255623, US2015292595, US2015113984, US2012055437, JP2011256825, JP2008196411, CN104508321, CN104508321, CN104295338, CN104279022,

Abstract:

Source: US2010059011A In an engine, an oil level sensor (47) provided in a bottom part of an oil pan (15) storing engine oil so as to stand vertically upright is placed between a mutually parallel pair of balancer shafts (27, 28) housed in a balancer housing (21) provided between a lower face of a cylinder block and the oil pan (15). This not only enables the oil level sensor (47) to be placed compactly by utilizing effectively dead space formed between the pair of balancer shafts (27, 28), but also enables agitation of engine oil to be suppressed by the pair of balancer shafts (27, 28) and any degradation in detection precision due to engine oil splashing over the oil level sensor (47) to be prevented.



0) US1769897A – LUBRICATING–OIL PURIFIER

4) Family number: 19629834 (US1769897A)

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Title: LUBRICATING–OIL PURIFIER

Priority: US19220537128 19220216

Family:	Publication number	Publication date	Application number	Application date
	<u>US1769897 A</u>	19300701	US19220537128	19220216

Probable Assignee: HANS EDMUND E

Assignee(s):^(std): HANS EDMUND E

Inventor(s):^(std): HANS EDMUND E

International class
(IPC 8–9): B01D29/00 B01D35/18 F16N39/00 (Advanced/Invention);
B01D29/00 B01D35/00 F16N39/00 (Core/Invention)

CPC: F16N39/005 B01D24/042 B01D35/147 B01D35/1573 B01D35/18 B01D2201/309

European class: B01D29/00A10 B01D29/00A42 B01D29/00A8 B01D29/08 B01D35/18 F16N39/00C

US class: 123/196.00A 123/196A

[Classification Explorer](#)

Forward Citations: US8967198, US8312847, US2011232785, US2009277416, US2009255498, JP5492631, JP2011202647,

Abstract:

Source: US1769897A I claim :- 1. In a purifying system for the lubricating oil of an internal combustion engine, the combination of a pump for drawing the oil from the main reservoir of the engine, a filter, pipes conveying the oil from said pump to the filter, a second pump, a pipe for conveying the oil from the filter to said second pump, a purifier mounted adjacent to the exhaust passage of the engine and having an extension in the path of the exhaust gases, a pipe extending from said pump to the purifier, and a pipe extending from the purifier to the intake pipe of the pump which forces the oil to the filter. 2. In a purifying system for the lubricating oil of an internal combustion engine, the combination of a pump for drawing the oil from the main oil reservoir of the engine, a filter, a pipe conveying the oil from said pump to the filter, a second pump, a pipe for conveying the oil from the filter to said second pump, a purifier mounted adjacent to the exhaust passage of the engine and having an extension in the path of the exhaust gases, a pipe extending from the purifier to the intake pipe of the pump which forces the oil to the filter, and relief valves in the pipes leading from said pumps to the filter and to the purifier respectively. 3. In a purifying system for lubricating oil of internal combustion engines, the combination of a pump, a filter, a purifier attached to the exhaust passage of the engine, a pipe leading from the pump to said filter, a relief valve in said pipe, a second pipe leading from the filter to said purifier, a connecting pipe between the pipe leading from the filter to the purifier and the relief valve between the pump and the filter, a discharge pipe for said purifier, an overflow pipe leading from said purifier, and a visible indicator whereby the flow of the oil through the pipes leading from the purifier may be observed. 4. In a purifying system for the lubricating oil of internal combustion engines, the combination— of a purifier adjacent the exhaust passage of an internal combustion engine, means for conveying oil thereto, a pipe leading therefrom to the parts of the engine to be lubricated, a second pipe leading from said purifier to the main oil reservoir, and an insulating chamber having a transparent side through which the flow of oil from said purifier may be observed. 5. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, and an overflow pipe leading from said passage. 6. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a hood mounted on said cap to receive the vaporized impurities, and a pipe leading from said hood to convey away the vaporized impurities. 7. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a hood on said cap and an overflow pipe leading from said hood. 8. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage to the intake of a carburetor, and a check valve mounted on said hood to admit air when the suction therein exceeds a predetermined limit. 9. In a purifying system for the lubricating oil of internal combustion engines, the combination of a pump for drawing the oil from the lowermost portion of the main oil receptacle of the engine, a filter, a pipe

PatBase - US1769897_A

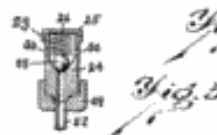
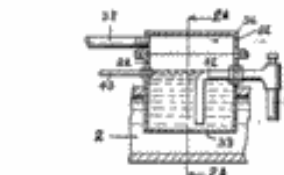
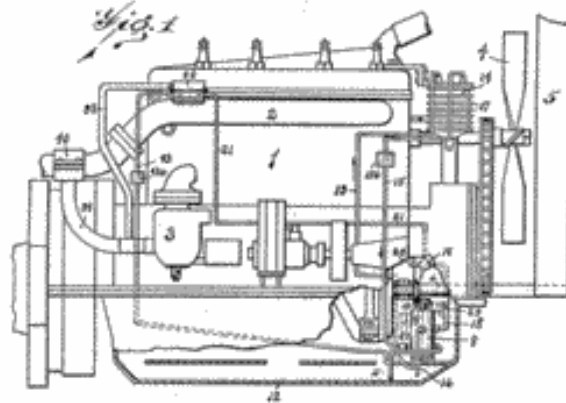
July 1, 1930.

E. E. HANS

1,769,897

LUBRICATING OIL PURIFIER

Original Filed Feb. 18, 1922 7 Sheets-Sheet 1



INVENTOR
Edmund F. Hans.
BY Edmund F. Hans.

conveying the oil from said pump to the filter, a second pump, a pipe for conveying the oil from the pipe to the second pump, a purifier mounted adjacent to the exhaust passage of the engine and having an extension in the path of the exhaust gases, a pipe extending from said pump to the purifier, a pipe extending from the purifier to the intake of the pump which forces the oil to the filter, 9. relief valves in the pipes leading from said pumps to the filter and to the purifier respectively. 10. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, said container having parallel sides formed with integrally projecting bosses, and means to connect the bosses to hold the sides in constant relation to each other. 11. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, and means to hold the sides in fixed relation to each other. 12. In a purifying system for the lubricating oil of internal combustion engines, the combination with an exhaust passage of the engine, a purifier attached thereto and comprising an oil container and a cap, a thermostat within the purifier, a valve controlled by said thermostat and adapted to regulate the flow of oil into said purifier, a stem on said valve extending toward the thermostat and adapted to be actuated thereby, and an adjustable contact device mounted on said valve stem and constituting the connection between said stem and said thermostat. » 13. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a coupling connected to said cap, a tubular guide mounted on said coupling, a ring, within said guide, and a stem extending upward from said valve and engaging said spring whereby said valve may be held on its seat by said spring until moved therefrom by said thermostat. 14. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, an air passage extending around said container and between said cap and the exhaust passage, valves to control the flow of air through said passage, and means adapted to be engaged and operated by said thermostat to open said valves to permit the flow of air to control the container when the temperature therein exceeds the desired point. 15. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a hood mounted on said cap, a pipe extending from said hood to convey away the volatilized impurities, and means to prevent the oil in the purifier from being splashed to the intake opening of said pipe. 16. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a hood mounted on said cap, a pipe extending from the hood to convey away the volatilized impurities in the oil, a second pipe extending from the hood, a valve chamber connected to the outer end of said pipe, and a valve in said chamber adapted to be lifted when the pressure within the hood falls below a certain predetermined point to prevent the oil from flowing through the pipe connected to the hood to convey away the volatilized impurities. 17. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber comprising a container extending down into the exhaust passage and a cap for said container, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil into said chamber, a thermostat within said chamber adapted to control the position of said valve, a pipe leading from the bottom of said container into a passage in said cap, an overflow pipe leading from said passage, a hood mounted on said cap, a pipe extending from the hood to convey away the volatilized impurities, and screens mounted in said hood to prevent oil in the purifier being splashed to the intake end of said pipe. 18. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber connected thereto and comprising a container and a cap therefor, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil, a thermostat within said chamber adapted to control the position of said valve, a passage in the wall of said cap, a pipe extending therefrom to convey away the purified oil, a pipe extending from the bottom of said container to said passage, and an overflow passage extending from adjacent the top of said cap to said passage. 19. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber connected thereto and comprising a container and a cap therefor, a valve chamber mounted on said cap, a valve in said chamber to control the flow of oil, a thermostat within said chamber adapted to control the position of said valve, a passage in the wall of said cap, a pipe extending therefrom to convey away the purified oil, a pipe extending from the bottom of said container to said passage, an overflow passage extending from adjacent the top of said cap to said passage, and

a. hood on said cap provided with a discharge opening for the volatilized impurities of the oil. 20. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifying chamber connected thereto and comprising a container and a cap therefor, a valve chamber mounted on said cap, a valve in said valve chamber to control the flow of oil, a thermostat within said chamber, a pipe to control the position of said valve, a passage in the wall of said cap, a pipe extending therefrom to convey away the purified oil, a pipe extending from the bottom of said container to said passage, an overflow passage extending from adjacent the top of said cap to said passage, a hood formed on said cap having a discharge opening to permit the escape of the volatilized impurities of the oil, a valve mounted in said hood adapted to close said passage, a guide to guide said valve, and a bracket connected to said valve and adapted to lift the same when the oil therein rises above a predetermined point. 21. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifier attached to said exhaust passage and comprising a container and a cap therefor, a valve chamber mounted in said cap, a valve in said chamber to control the flow of oil into said chamber, a pipe leading from the valve to the bottom of the container, and a pipe leading from the top of said purifier to convey away the purified oil. the intake end of said pipe being located at the middle point of said cap. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifier comprising a series of chambers each comprising a container to hold the oil to be purified and a cap therefor, a valve chamber to control the flow of oil into one of said containers, a pipe extending from said valve chamber to the bottom of said container, a thermostat in said chamber and a pipe to control the flow of oil into said first chamber, a pipe connecting to the upper portion of said first chamber to convey the oil to the bottom of said second chamber, a pipe to convey the oil from the bottom of said second chamber, and a pipe connecting into the cover of said second chamber to carry off the volatilized impurities of the oil. 23. In an internal combustion engine, the combination with the exhaust passage of the engine, a purifier comprising a series of containers extending down into the exhaust passage, and pipes for conducting oil into and from said containers consecutively. 24. In a purifying system for the lubricating oil of internal combustion engines, the combination of the exhaust passage of the engine, a purifier comprising a series of containers extending down into the exhaust passage and a cap common to the several containers, said cap being divided into compartments, one for each container, a thermostat and a valve to control the flow of oil to the bottom of the first chamber, pipes connecting to the tops of said containers to convey the oil, and pipes connecting to the cap to carry off the volatilized impurities of the oil. 25. In a purifying system for the lubricating oil of internal combustion engines, the combination of a purifier mounted on the exhaust passage of said engine and embodying a container extending into said exhaust passage, air passages extending around the upper portion of said container, a valve to control the flow of air through said passages, and a thermostat controlled by the temperature of the exhaust passage for regulating the flow of air through said passages by means of said valve. 26. In a purifying system for the lubricating oil of internal combustion engines, the combination of a purifier embodying an oil container extending into the exhaust passage of the engine, air passages extending around the upper part of said container, a valve to control the flow of air through said passage, and means to control the position of said valve. 27. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifier mounted thereon and embodying a container extending into exhaust passage, a cap and a body of poor heat conducting material extending from said exhaust passage to said cap. 28. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifier mounted thereon and embodying a container extending into said exhaust passage, a cap, a body of poor heat conducting material extending from said exhaust passage to said cap, and a block of poor heat conducting material extending around said cap. 29. In a purifying system for the lubricating oil of internal combustion engines, the combination with the exhaust passage of the engine, a purifier mounted thereon and embodying a container extending into said exhaust passage, a cap, a body of poor heat conducting material extending from said exhaust passage to said cap, a block of poor heat conducting material surrounding said cap, and a removable shell enclosing said block and cap. 30. In a purifying system for the lubricating oil of internal combustion engines, the combination of a purifying chamber, an exhaust passage to which the chamber is attached, and members of poor heat conducting material extending around said purifying chamber to prevent the direct passage of heat thereto from the exhaust passage. 31. In a purifying system for the lubricating oil of internal combustion engines, the combination of an exhaust passage for the engine, a purifying chamber for the lubricating oil attached to said exhaust passage, a plurality of air passages extending around said purifying chamber, and means to control the passage of air through said passages. 32. In a purifying system for the lubricating oil of internal combustion engines, the combination of an exhaust passage for the engine, a purifying chamber for the lubricating oil attached to said exhaust passage, a plurality of air passages extending around said purifying chamber, and means to control the passage of air through said passages the walls of said passages being formed of poor heat conducting material. 33. In a purifying system for the lubricating oil of internal combustion engines, the combination of a heating chamber, pipes leading to and from the heating chamber, a filtering chamber connected to the pipe leading to said heating chamber, a thermostat in said filtering chamber, a valve controlling the flow of oil into said filtering chamber and adapted to be opened by said thermostat, and a pipe to convey the oil from said filter. 34. In a system for purifying the lubricating oil of internal combustion engines, the combination of means for heating the oil, a control chamber to receive the oil from the heater, a thermostat in said chamber, a valve to control the flow of oil to said chamber adapted to be positioned by the thermostat, and a filter adapted to receive the oil from said chamber. 35. In a system for purifying the lubricating oil of internal combustion engines, the combination of means for heating the oil, a control chamber to receive the oil from the heater, a thermostat in said chamber, a valve to control the flow of oil to said chamber adapted to be positioned by the thermostat, a settling chamber adapted to receive the oil from the control chamber and provided with radiating fins to cool the oil, and a filter to receive the oil from the settling chamber. 36. In a system for purifying the lubricating oil of internal combustion engines, the combination of means for heating the oil, a control chamber to receive the oil from the heater, a thermostat in said chamber, a valve to control the flow of oil to said chamber adapted to be positioned by the thermostat, a settling chamber adapted to receive the oil from the control chamber and provided with

radiating fins to cool the oil, a filter to receive the oil from the settling chamber, a discharge pipe projecting above the bottom of the second settling chamber to receive the oil from the filter, and a discharge pipe projecting above the bottom of the second settling chamber. 37. In a system for purifying the lubricating oil of internal combustion engines, the combination of means for heating the oil, a control chamber to receive the oil from the heater, a thermostat in said chamber, a valve to control the flow of oil to said chamber adapted to be positioned by the thermostat, and a filter adapted to receive the oil from said chamber, said control chamber being provided with a vent to permit the escape of the volatilized impurities in the oil. 38. In a system for purifying the lubricating oil of internal combustion engines, the combination of a chamber for heating the oil, a second chamber wherein the oil is also heated and wherein the volatile impurities are evaporated, and intermittently operated means in the first chamber for causing the oil to flow through without being substantially heated. 39. In a purifying system for the lubricating oil of an internal combustion engine, the combination of a pump for drawing oil from the main reservoir of the engine, a filter, a pipe for conveying oil from said pump to the filter, a second pump, a pipe for conveying oil from the filter to said second pump, and a pipe for conducting oil from one of said second pumps to the bearings of the engine. 40. In a purifying system for the lubricating oil of an internal combustion engine, a purifier mounted adjacent to the exhaust passage of the engine and having an extension arranged in the path of the exhaust gases, means to effect flow of oil to and from said purifier, and means to bring a cooling fluid into contact with the purifier to prevent overheating of the oil in the purifier. 41. In a purifying system for the lubricating oil of an internal combustion engine, a heating chamber attached to the exhaust passage of the internal combustion engine and projecting into the path of the exhaust gases, means for effecting flow of oil to and from said heating chamber, means responsive to the temperature of the oil in said heating chamber to control the flow of oil to said chamber, and means responsive to the temperature of the exhaust passage for bringing a cooling medium into contact with said chamber to prevent overheating of the oil therein. 42. In a purifying system for the lubricating oil of an internal combustion engine, a chamber heated by the exhaust gases from the engine, means for effecting flow of oil to and from said chamber, an inlet valve, a thermostat responsive to the temperature of the oil in said chamber for opening said valve, said valve having an elongated stem, a tension spring engaging said stem, the tension spring being sufficiently removed from the chamber that it is not exposed to the temperatures existing therein. 43. In a purifier for the lubricating oil of an internal combustion engine, a heating chamber, means for effecting flow of oil to and from said chamber, a valve controlling flow of oil into said chamber, a pivoted arm of thermostatic material engaging said valve, and a second thermostatic member fixed at one end and having its other end engaging said arm. 44. In a purifying system for the lubricating oil of an internal combustion engine, the combination of a pump for drawing oil from the main reservoir of the engine, an oil conditioner, a pipe for conveying oil from said pump to said conditioner, a second pump, a pipe conveying oil from said conditioner to said second pump, and a pipe for conducting oil from said second pump to the bearings of the engine. 45. In a purifying system for the lubricating oil of an internal combustion engine, the combination of a pump for drawing oil from the main reservoir of the engine, an oil conditioner, a pipe for conveying oil from said pump to said conditioner, a second pump, a pipe for conveying oil from said conditioner to said second pump, an oil purifier, a pipe for conducting oil from said second pump to said purifier, a pipe for conducting oil from said purifier to the inlet of said first pump, and a pipe for conducting oil from one of said pumps to the bearings of the engine. 46. In a purifying system for the lubricating oil of an internal combustion engine having an exhaust pipe, the combination of an oil purifier supported by the exhaust pipe and having a substantial portion contained within said pipe, said portion being relatively long and narrow, and means for effecting flow of oil to and from said purifier. 47. In a purifying system for the lubricating oil of an internal combustion engine having an exhaust pipe, an oil purifier supported by said exhaust pipe and having a substantial portion contained within said exhaust pipe, said portion being relatively long and narrow, means for effecting flow of oil to and from said purifier, and means to prevent overheating of the oil in said purifier. 48. In a purifying system for the lubricating oil of an internal combustion engine having an exhaust pipe, a heating chamber supported by and having a substantial portion contained within said exhaust pipe, said portion being relatively long and narrow, means to effect flow of oil to and from said heating chamber, and means responsive to the temperature of the oil in said heating chamber for controlling the flow of oil thereto. 49. In a purifying system for the lubricating oil of an internal combustion engine having an exhaust pipe, a heating chamber supported by and having a substantial portion contained within said exhaust pipe, said portion being relatively long and narrow, means for supplying oil to said chamber, and a discharge pipe leading from a point adjacent the bottom of said chamber, whereby the heavy oil is withdrawn from the bottom of said chamber and coking of the same is prevented. 50. In a purifying system for the lubricating oil of an internal combustion engine having an exhaust pipe, a heating chamber supported by and having a substantial portion contained within said exhaust pipe, said portion being relatively long and narrow, and an inlet pipe extending nearly to the bottom of said heating chamber, whereby the incoming oil serves to agitate the oil in the chamber to prevent coking thereof. 51. In combination with an automobile engine having an exhaust manifold and an exhaust outlet pipe connection thereto, an oil purifier mounted on said manifold ahead of the aforesaid connection, said purifier having a major oil heating portion disposed within and completely surrounded by said exhaust manifold and by the remaining portions of the purifier, so as to be completely shielded from cooling influences, the portion disposed within said manifold being relatively long and narrow so as not to interfere with the flow of exhaust gases from the exhaust ports of the engine to said connection. 52. In combination with an automobile engine having an exhaust manifold and an exhaust pipe connection thereto, an oil purifier mounted in said manifold ahead of the aforesaid connection and in position to contact substantially directly with the flow of combustion products from that cylinder nearest said connection, said purifier having a major oil heating portion disposed within said exhaust manifold. 53. In combination with an automobile engine having an exhaust manifold and an exhaust pipe connection thereto, an oil purifier mounted in said manifold ahead of the aforesaid connection and in position to contact substantially directly with the flow of combustion products from one of the engine cylinders, said purifier having a major oil heating portion disposed within said exhaust manifold.

5) Family number: 34286673 (US2007056549A)

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Title: OIL PAN FOR ENGINE**Priority:** EP20060018694 20060906 JP20050261587 20050909

Family:	Publication number	Publication date	Application number	Application date
	<u>DE602006025661 D1</u>	20120105	DE200660025661T	20060906
	<u>EP1762847 A2</u>	20070314	EP20060018694	20060906
	<u>EP1762847 A3</u>	20100602	EP20060018694	20060906
	<u>EP1762847 B1</u>	20111109	EP20060018694	20060906
	<u>JP2007071169 A2</u>	20070322	JP20050261587	20050909
	<u>JP4512014 B2</u>	20100728	JP20050261587	20050909
	<u>US2007056549 AA</u>	20070315	US20060517585	20060908
	<u>US7387101 BB</u>	20080617	US20060517585	20060908

Probable Assignee: HONDA MOTOR CO LTD**Assignee(s):^(std):** HONDA MOTOR CO LTD**Assignee(s):** HONDA MOTOR CO**Inventor(s):^(std):** FUJIKI KENJI ; KANEHIRO MASAKI ; KOSAKA SEIJI ; MURAKAMI OSAMU ; UENO MASAYUKI**Agent(s):** WEICKMANN AND WEICKMANN PATENTANWALTE RECHTSANWALT PARTMBB; HERZOG MARKUS; ARENT FOX PLLC; ARENT FOX LLP**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO RS SE SI SK TR YU

International class
 (IPC 8-9): F01M11/00 F01M11/10 F01M11/12 F02B75/06 F02B77/00 G01N33/26
G01N33/28 (Advanced/Invention);
F01M11/00 F01M11/10 F02B77/00 G01N33/26 (Core/Invention)

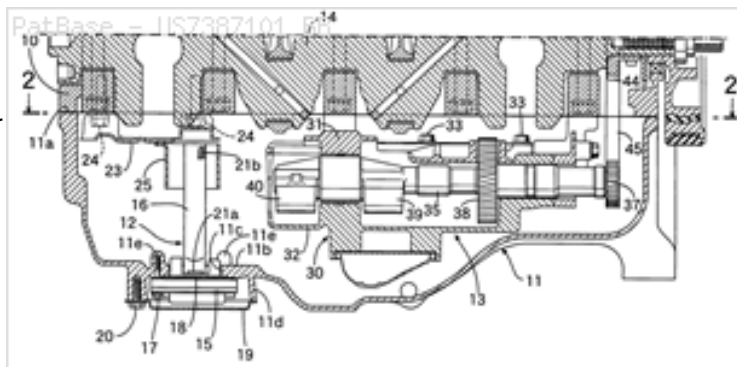
CPC: F01M11/10 G01F23/22 G01F23/246**European class:** F01M11/10 G01F23/22 G01F23/24C**US class:** 123/192.2 123/195.00C 123/195.00CP 123/195C 123/196.00S 123/196S 340/450.3 73/53.05 73/53.050S[Classification Explorer](#)

Cited documents: US6725974 BB, US6308564 BA, US5960908 A, US5535643 A, US5390762 A, US4703724 A, US4300493 A, KR20040041874 A, KR1020040041874, JPS6267913 U, JPS5984212 U, JP6307913 A2, JP62067913 U1, JP62067913 u1, JP59084212 U1, JP59084212 u1, JP2005261587 A2, JP2003083935 A2, JP11030115 A2,

Forward Citations: US8869767, US7931004, US2015113984, US2014069366, US2010059011, US2009057064, JP2008196411, CN104564411,

Abstract:

Source: US2007056549A An oil level sensor for detecting an oil level is arranged in an engine oil pan. The oil level sensor includes a mounting section and a sensing section. An air hole is formed at an upper end of a cover member of the sensing section. The air hole is surrounded by a tubular portion of a shield member attached to a baffle plate of the oil pan. Therefore, any splashed engine oil in the oil pan is restricted from entering the cover member of the sensing section through the air hole. Also, a clearance (alpha) for venting air is formed between the tubular portion and the baffle plate.



6) Family number: 41117738 (US2008017047A)

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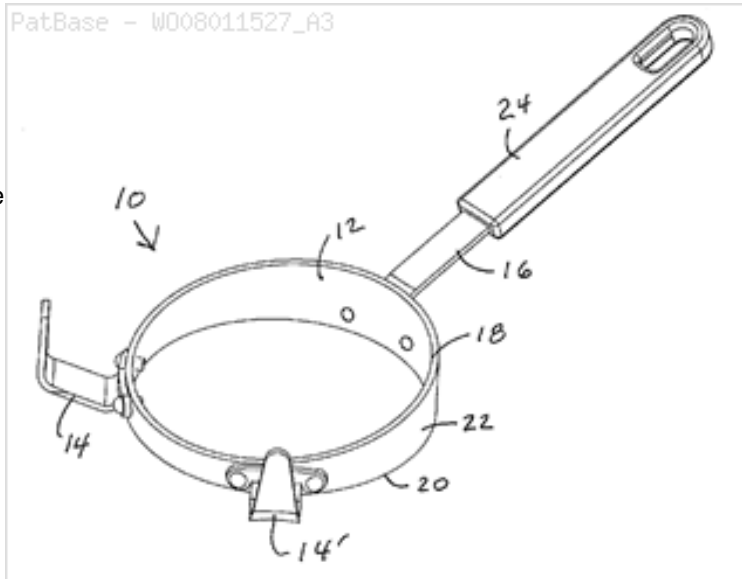
Title: SYSTEM AND METHOD FOR DIVERTING LIQUIDS FROM FOODSTUFF DURING PREPARATION IN A FRYING PAN**Priority:** US20060831815P 20060719 US20070780321 20070719

Family:	Publication number	Publication date	Application number	Application date
	<u>US2008017047 AA</u>	20080124	US20070780321	20070719
	<u>US7607387 BB</u>	20091027	US20070780321	20070719
	<u>WO08011527 A2</u>	20080124	WO2007US73908	20070719
	<u>WO08011527 A3</u>	20081002	WO2007US73908	20070719

Probable Assignee: STANCZAK EDMUND A**Assignee(s):^(std):** STANCZAK EDMUND A**Inventor(s):^(std):** STANCZAK EDMUND A**Agent(s):** THOMAS MOGA, BUTZEL LONG; THOMAS MOGA BUTZEL LONG; SHOOK HARDY AND BACON LLP; MOGA THOMAS T**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**International class**
(IPC 8-9): A47G23/02 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Advanced/Invention);
A47G23/00 A47J27/00 A47J27/02 A47J37/00 A47J37/10 F24C15/10 (Core/Invention)**CPC:** A47J37/108**European class:** A47J37/10D A61N1/00**US class:** 220/573.1 426/523 99/357 99/422 99/425 99/426 99/444 99/495[Classification Explorer](#)**Cited documents:** US6844529 BB, US6182557 BA, US5967024 A, US5967022 A, US5850779 A, US5323693 A, US5315983 A, US5074777 A, US4154218 A, US4140889 A, US3452895 A, US333894 A, US3215063 A, US2903229 A, US2871848 A, US284295 A, US2772627 A, US2611510 A, US2327988 A, US2148181 A, US1974796 A, US1960 A, US1904925 A, US1522329 A,**Forward Citations:** WO13048242, US8899145, US8613250, US8353243, US2016183729, US2014238385, US2009173239, NL2007468,

Abstract:

Source: US2008017047A A system for directing cooking liquids away from cooking foodstuff in a frying pan is disclosed. The system includes a frying pan supporting structure and a shield. The frying pan supporting structure includes a bottom side for placement on a heating element and a top side upon which said frying pan rests. The bottom side and the top side are angled with respect to each other. The liquid, typically in the form of oil or grease in flowing form, substantially collects under the shield which prevents the splattering and splashing of oil and hot grease on the user.



7) Family number: 46982204 (US2012031214A)

Title: GEAR UNIT
Priority: DE200910014317 20090325 EP20100710203 20100311 WO2010EP01536 20100311
Family:

Publication number	Publication date	Application number	Application date
AU2010227844 AA	20100930	AU20100227844	20100311
AU2010227844 BB	20140220	AU20100227844	20100311
BRPI1014750 A2	20160419	BR2010PI14750	20100311
CN102362102 A	20120222	CN201080013405	20100311
CN102362102 B	20150812	CN201080013405	20100311
DE102009014317 A1	20101007	DE200910014317	20090325
DE502010007374 D1	20140814	DE201050007374T	20100311
EP2411706 A1	20120201	EP20100710203	20100311
EP2411706 B1	20140702	EP20100710203	20100311
IN06917CN2011 A	20121116	IN2011CN06917	20110923
US2012031214 AA	20120209	US20100260539	20100311
US9062754 BB	20150623	US20100260539	20100311
WO10108599 A1	20100930	WO2010EP01536	20100311
ZA201107083 A	20121227	ZA20110007083	20110928

Probable Assignee: SEW EURODRIVE GMBH AND CO

Assignee(s):^(std): INGO SCHUETTERLE ; SCHUETTERLE INGO ; SEW EURODRIVE GMBH AND CO ; SEW EURODRIVE GMBH AND CO KG ; STRAUSS DIETMAR ; STRAUB DIETMAR

Assignee(s): STRAU BETA DIETMAR

Inventor(s):^(std): DIETMAR STRAUSS ; INGO SCHUETTERLE ; INGO SCHUTTERLE ; SCHUETTERLE INGO ; SCHUTTERLE INGO ; STRAUB DIETMAR ; STRAUS DIETMAR ; STRAUSS DIETMAR

Inventor(s): STRAU BETA DIETMAR

Agent(s): GRIFFITH HACK; TUENGLER EBERHARD; KENYON AND KENYON LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): [F16H57/02](#) [F16H57/04](#) [F16H61/00](#) (Advanced/Invention);
[F16H57/04](#) (Core/Invention);
[F16H](#) (Subclass/Invention)

CPC: [F16H57/0447](#) [F16H57/0416](#) [F16H57/0423](#) [F16H57/045](#) [F16H57/0471](#) [F16H57/0493](#)
[F16H57/0495](#) [Y10T74/19991](#) [Y10T74/2189](#)

European class: [F16H57/04Q](#) [R16H57/04J4A](#) [R16H57/04M3A](#) [R16H57/04R](#) [R16H57/04Y5A](#) [R16H57/04Z6](#)
[R16H57/04Z6D](#)

US class: [1/1 74/467 74/467P 74/606.00AS 74/606A](#)

[Classification Explorer](#)

Cited documents: WO07124885 A2, US7445574 BB, US6997284 BA, US6991574 BB, US6644439 BB, US6474444 BA, US6036615 A, US5927384 A, US5768954 A, US5725072 A, US5718651 A, US5622051 A, US5597370 A, US5522476 A, US4952077 A, US4872502 A, US4633938 A, US4630711 A, US4612818 A, US4242923 A, US3806214 A, US3625310 A, US3529698 A, US3254925 A, US3029661 A, US2950943 A, US2860726 A, US2602522 A, US2536385 A, US2532779 A, US2489699 A, US2186269 A, US2147391 A, US2006278475 AA, US2006231337 AA, US2006060424 AA, US2006048600 AA, US2005103570 AA, US2004188946 AA, US2003083171 AA, US1971781 A, US1902934

A, US1549305 A, US1220810 A, US1143307 A, JP7217725 A2, JP5215203 A2, JP11051159 A2, GB757480 A, GB493698 A, GB409883 A, GB2271161 A1, GB2166816 A1, GB1426352 A, EP0853225 A2, EP0353445 A2, DE858920 A, DE825359 A, DE4414164 A1, DE4132780 A1, DE3606963 C2, DE3606963 A1, DE1989640 U, DE1989640, DE19856941 C1, DE1984404 U, DE1984404, DE19711743 A1, DE19652834 A1, DE19529586 C1, DE1946942 U, DE1946942 A1, DE1720409 A1, DE1291966 B, DE1034430 B,

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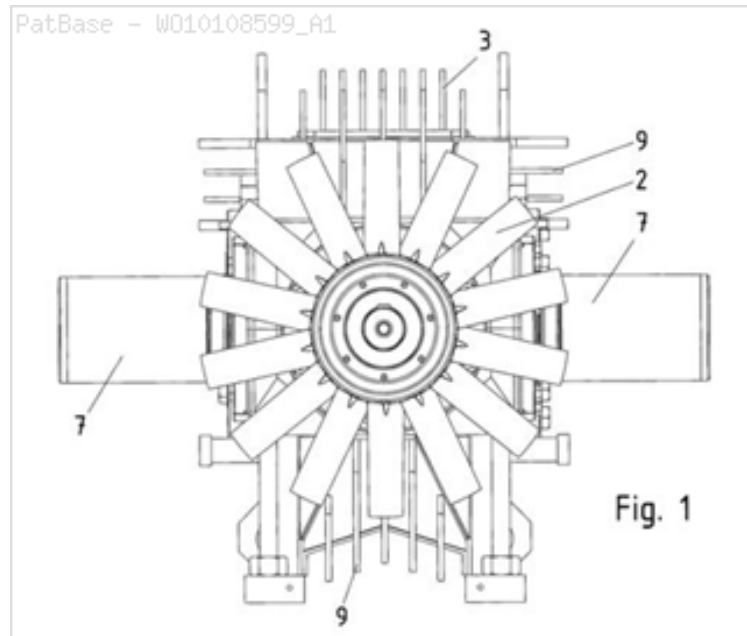
DE102004022863 A1

DE10051356 A1, DE10036975 A1,

Forward Citations: WO15067345, US2015296658, EP3085996, DE102014017696, DE102011012641, CN105090466,

Abstract:

Source: US2012031214A A gear unit, including an input shaft, a bearing for supporting the input shaft being provided in a housing part of the gear unit, wherein a fan impeller is provided on the input shaft, the housing part being beveled at least in the surface area adjacent to the fan impeller and/or a beveled cowl being mounted on the housing part.



0) US2015238788A – DISTRIBUTION OF FIRE SUPPRESSING AGENT IN A STO...

8) Family number: 60168348 (US2015238788A)

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Title: DISTRIBUTION OF FIRE SUPPRESSING AGENT IN A STOVETOP FIRE SUPPRESSOR AND METHOD

Priority: US20140011565P 20140612 US20140246024 20140404 US20140943017P 20140221
US20140529086 20141030 WO2015US14148 20150202 US20160366181 20161201
WO2015US14339 20150203

Family:	Publication number	Publication date	Application number	Application date
	AU2015219465 AA	20150827	AU20150219465	20150202
	AU2015219465 BB	20160211	AU20150219465	20150202
	AU2015219475 AA	20150827	AU20150219475	20150203
	AU2015219475 BB	20160211	AU20150219475	20150203
	EP2978506 A1	20160203	EP20150752169	20150202
	EP2978506 A4	20170104	EP20150752169	20150202
	EP2978507 A1	20160203	EP20150752431	20150203
	EP2978507 A4	20161123	EP20150752431	20150203
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	WO15126618 A1	20150827	WO2015US14339	20150203

Probable Assignee: WILLIAMSRDM INC

Assignee(s):^(std) ANTHONY RICHARD ; ANTHONY RICHARD M ; MURRAY DONALD ; MURRAY DONALD W ; WILLIAMSRDM INC ; WILLIAMS RDM

Inventor(s):^(std) ANTHONY RICHARD M ; MURRAY DONALD W ; WILLIAMS RDM

Agent(s): FB RICE; MAIWALD PATENTANWALTS GMBH; MORANI PATENT LAW PC; MORANI AMELIA F

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [A62C3/00](#) [A62C35/08](#) [A62C35/10](#) [A62C37/12](#) [A62C37/14](#) [F42B3/26](#) (Advanced/Invention)
(IPC 8-9):

CPC: [A62C3/006](#) [A62C37/12](#) [A62C35/10](#) [F42B3/26](#) [A62C35/08](#) [A62C37/14](#)

US class: [169/46](#) [169/57](#) [169/58](#) [169/65](#) [53/412](#) [53/420](#) [53/423](#)

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Cited documents: US8517117 BB, US8294567 BA, US7969296 BA, US7934564 BA, US7610966 BA, US7472758 BA, US7182143 BB, US6796382 BB, US6296062 BA, US6276461 BA, US6244353 BA, US6112821 A, US6105677 A, US6029751 A, US5899278 A, US5881819 A, US5871057 A, US5868205 A, US5628367 A, US5518075 A, US5375523 A, US5351760 A, US5297636 A, US5094298 A, US4964469 A, US4813487 A, US4485741 A, US4356870 A, US4256181 A, US4113020 A, US4023494 A, US4011911 A, US3918526 A, US3897826 A, US3889757 A, US3884307 A, US3884306 A, US3874458 A, US3833063 A, US3782475 A, US3773111 A, US3757866 A, US3209837 A, US3040815 A, US2025326 A, US2008087446 AA, US2003010506 AA, US1816892 A, US1766912 A, US1366873 A, US1063228 A, AU2015219465 AA,

Forward Citations: US9604081, US9517370,

Source: US2015238788A An automatic stovetop fire suppressor providing a gradual release of a fire suppressing agent in a desired distribution pattern and method of gradual and spatial agent release are provided herein. A plastic cone shaped lid seals on the bottom of a can and forms a closed container. The closed container is filled with a fire suppressing agent. An initiator charge breaks a designed breaking point of a reduced horizontal cross sectional area when fuse activated. The bottom lid drops down exposing a radial opening. Fire suppressing agent flows out of the radial opening, suppressing a stovetop fire with minimal or no splashing of cooking oil. An initiator housing is affixed to a top wall of the can and serves as the welding point for securing the plastic lid. A travel limiting member attached to the bottom lid catches on a shoulder of the initiator housing to limit the radial opening height.



0) US2001039908A – FOUR STROKE ENGINE WITH INTAKE MANIFOLD

9) Family number: 30431271 (US2001039908A)

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Title: FOUR STROKE ENGINE WITH INTAKE MANIFOLD

Priority: JP20000313738 20001013 US20000185703P 20000229 US20000229338P 20000901
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Family:

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<u>WO0165091 A1</u>	20010907	WO2001US06246	20010228
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<u>WO0218820 C2</u>	20030327	WO2001US27301	20010904
<u>WO0225082 A2</u>	20020328	WO2001EP11081	20010925

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Assignee(s):^(std): BILEK ANDREAS ; BOMBARDIER INC ; BOMBARDIER MOTOR CORP OF US ; BOMBARDIERS ROTAX GMBH ; BOMBARDIER ROTAX GMBH ; BOMBARDIER ROTAX GMBH AND CO KG ; AICHINGER MANFRED ; BRP POWERTRAIN GMBH AND CO KG ; BRP ROTAX GMBH AND CO KG ; WOLFSGRUBER ALOIS ; TSCHERNE RUDOLF ; SONNLEITNER MICHAEL ; KUSEL RUDOLF ; OHRENBERGER GERD ; OHRNBERGER GERD ; HOCHMAYR MARKUS ; KORENJAK NORBERT ; HOLZLEITNER JOHANN ; KUSEL HEINZ ; ENNSMANN ROLAND

Assignee(s):

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RUDOLF TSCHERNE ; RUDOLF KUSEL ; ROLAND ENNSMANN ; NORBERT KORENJAK ; MICHAEL SONNLEITNER ; MARKUS HOCHMAYR ; MANFRED AICHINGER ; JOHANN HOLZLEITNER ; HEINZ KUSEL ; GERD OHRNBERGER ; GERD OHRENBERGER ; ANDREAS BILEK ; ALOIS WOLFSGRUBER

Agent(s):

OSLER HOSKIN AND HARCOURT LLP ; BOMBARDIER RECREATIONAL PRODUCTS INC, INTELLECTUAL PROPERTY DEPT ; BOMBARDIER RECREATIONAL PRODUCTS INC INTELLECTUAL PROPERTY DEPT ; OSLER HOSKIN AND HARCOURT LLP (BRP) ; OSLER HOSKIN AND HARCOURT LLP BRP ; BRP LEGAL SERVICES

Designated states:

AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

International class
(IPC 8-9):

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(IPC 1-7):

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European class:

F01B1/12 F01L1/02 F01L1/02A F01L1/02B F01L1/053 F01L1/18 F01L1/18B F01L1/245 F01L1/24D F01L1/26 F01M1/08 F01M11/02 F01M13/04 F01N13/00C F01N13/02 F01N3/04B F01N3/04B2 F01P3/02 F01P9/00 F02B33/26 F02B33/34 F02B33/40 F02B33/44 F02B39/04 F02B39/14 F02B61/02 F02B61/04 F02B61/04B F02B63/04 F02B67/00 F02B67/04 F02B67/06 F02B67/10 F02B75/16 F02B75/20 F02B75/22 F02B75/22C F02B77/08F F02F1/24B F02F1/24C F02F1/42B F02F7/00B3 F02M35/10A6C

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S05B219/2637

US class:

114/55.5 114/55.500P 123/1 123/1.00A 123/1.00AP 123/182.1 123/184.31 123/192.1
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123/196 123/196.00R 123/196.00RS 123/196R 123/197.1 123/197.100S 123/1A
123/41.08 123/41.080S 123/52.1 123/52.100P 123/54.4 123/54.400P 123/559.1 123/561
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474/101 474/101P 474/12 474/12S 474/13 474/14 474/14P 474/17 474/17S 474/38
474/42 74/665GC 74/665GE

[Classification Explorer](#)

Cited documents:

WO9010145 A1, USRE34226 E, USRE31994 E, US94415901, US94414401,
US94373701, US79424501, US79424001, US79423901, US79423801, US79423701,
US79421901, US79421801, US79421501, US7000577 BB, US69112900, US6769942
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US6006715 A, US5957072 A, US5954035 A, US5951343 A, US5921829 A, US5911211
A, US5899186 A, US5894756 A, US5887564 A, US5855193 A, US5846102 A,
US5839930 A, US5829402 A, US5820426 A, US5797778 A, US5778847 A, US5755303
A, US5755194 A, US5709185 A, US5695663 A, US5667029 A, US5647779 A,
US5634422 A, US5632238 A, US5619950 A, US5606952 A, US5558549 A, US5555869
A, US5551392 A, US5537968 A, US5529027 A, US5514040 A, US5514015 A,
US5513606 A, US5503117 A, US5467843 A, US5460784 A, US5456230 A, US5448982
A, US5404858 A, US5402759 A, US5394853 A, US5392741 A, US5383803 A,
US5375565 A, US5360079 A, US5337724 A, US5333578 A, US5326330 A, US5279269
A, US5261380 A, US5257674 A, US5224459 A, US5215164 A, US5207190 A,
US5199395 A, US5197422 A, US5184579 A, US5152361 A, US5146980 A, US5136993
A, US5130014 A, US5095859 A, US5094193 A, US5072707 A, US5072704 A,
US5048467 A, US5031591 A, US5009622 A, US5009204 A, US5004042 A, US4998905
A, US4997399 A, US4991546 A, US4972807 A, US4856486 A, US4848280 A,
US4848170 A, US4838840 A, US4827890 A, US4825818 A, US4798254 A, US4796574
A, US4773361 A, US4768580 A, US4748946 A, US4747811 A, US4743224 A,
US4741302 A, US4730579 A, US4724805 A, US4722235 A, US4718396 A, US4714126
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A, US4658763 A, US4653761 A, US4641615 A, US4633826 A, US4615313 A,
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A, US4519373 A, US4399777 A, US4377967 A, US4372415 A, US4364735 A,
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A, US4198947 A, US4000666 A, US3990424 A, US3939720 A, US3884201 A,
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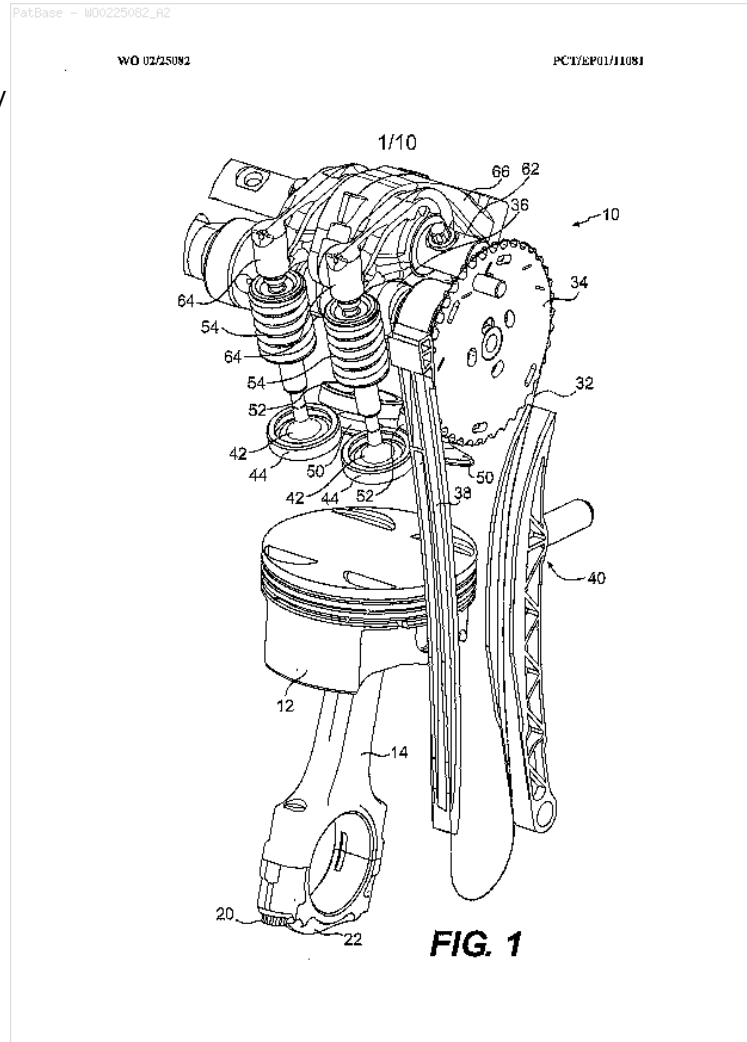
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DE19607919 A1, DE19508650 A1,

Forward Citations: WO14052725, WO12030816, WO12030816, WO10060184, WO10006494, WO08148208,
WO05080769, WO04083686, WO04018861, WO03071162, USRE46074, USRE42841,
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US2003140889, US2003140888, US2003098203, US2003019450, US2003015126,
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JP2014145342, GB2415172, GB2415172, FR2947861, EP2901043, EP2543834, EP2470811, EP2375016, EP2375016, EP2042692, EP1971768, EP1903257, EP1840413, EP1749981, EP1655460, EP1624162, EP1498592, EP1473182, EP1467061, EP1464793, EP1416134, DE102010033719, DE102010033719, CN104428513, CN103547789, CN102865123, CN102865123, CN102777539, CN102575757, CN102575757, CN102434326, CN102374019, CN101936218, CN101915177, CN101915177, AT501031, AT501031, AT501024, AT501024,

Abstract:

Source: US2001039908A The four stroke internal engine having an air intake system connected to the cylinder head and operatively connected to the intake passageway. The air intake system includes an air intake manifold having symmetrical construction with a central air passageway extending between a first end and a second end. At least one passageway extends from the central air passageway to a free end, which is operatively coupled to the intake passageway. The air intake system is usable for both a supercharged and normally aspirated engines.



10) Family number: 15915169 (US6192871B)

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Title: Compact supercharger
Priority: US19980183066 19981030 US19990430912 19991101 WO1999US25154 19991101
Family:

Publication number	Publication date	Application number	Application date
AU200013248 A1	20000522	AU20000013248	19991101
AU200013248 A5	20000522	AU20000013248	19991101
US6192871 BA	20010227	US19980183066	19981030
US6293263 BA	20010925	US19990430912	19991101
WO0026517 A1	20000511	WO1999US25154	19991101

Probable Assignee: VORTECH ENGINEERING INC

Assignee(s):^(std): VORTECH ENGINEERING INC

Inventor(s):^(std): MIDDLEBROOK JAMES K

Inventor(s): JAMES K MIDDLEBROOK

Designated states: AE AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CR CU CY CZ DE DK DM EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

International class
^{(IPC 8-9):} [F01N13/20 F02B39/14](#) (Advanced/Invention);
[F01N7/00 F02B39/00](#) (Core/Invention)

International class
^{(IPC 1-7):} [F02B33/00 F02B39/14](#)

CPC: [F01N13/20 F02B39/14](#)

European class: [F01N13/20 F02B39/14](#)

US class: [123/196.00R 123/196R 123/559.1 184/6.26 184/626](#)

[Classification Explorer](#)

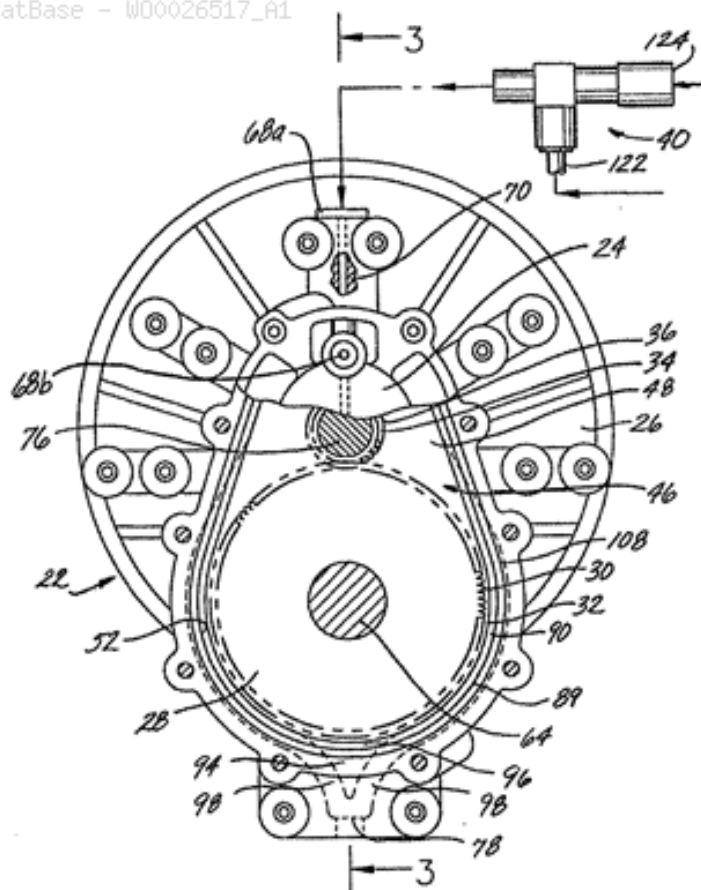
Cited documents: WO8902536 A1, US6045092 A, US5715912 A, US5709186 A, US5638796 A, US5579735 A, US5537959 A, US5513608 A, US5467667 A, US5375573 A, US5347967 A, US5281116 A, US5241932 A, US5224459 A, US5205265 A, US5103777 A, US4958601 A, US4944279 A, US4879921 A, US4752193 A, US4637493 A, US4630711 A, US4460284 A, US4423710 A, US4171137 A, US3885842 A, US3650353 A, US3625310 A, US2667049 A, GB2147064 A1, EP0530133 A1,

Forward Citations: WO09151245, US9441205, US9249702, US8091534, US7654876, US7654251, US7299792, US7152706, US7128061, US7107973, US7107972, US6848412, US6776145, US6568376, US6516789, US6439208, US2013126273, US2012023939, US2011048000, US2011036331, US2008066722, US2007102215, US2007079796, US2007062498, US2005092307, US2005028795, US2004031631, KR100895667, DE102009038772, DE102009038772, DE102009038736,

Abstract:

Source: US6192871B A compact supercharger having a drive portion, and an atomizer for providing a lubricating oil/air mist to the supercharger. The drive portion has a drive gear with teeth and an outer circumference and a driven gear with teeth and an outer circumference, drive gear bearing races and driven gear bearing races, and a gear case with an inner chamber with a back wall, a front wall, perimeter walls having a swale formed thereon. Drive gear bearing mounting recesses receive the drive gear bearing races, and driven gear bearing mounting recesses receive the driven gear bearing races. An oil/air mist inlet is formed in the gear case, and oil/air mist channels are in communication with the oil/air mist inlet and the driven gear bearing races. A splitter with passageways is located near a bottom of the gear case in the vicinity of an oil outlet. The outer circumference of the drive gear is in close proximity to the perimeter walls of the inner chamber and an upper face of the separator portion. During rotation of the drive gear, oil/air mist will be expelled against the perimeter wall portion to aid in separating the air from the oil, the oil will travel down the swale, through the passageways of the splitter, and exit through the oil outlet, thereby preventing windage of the oil in the gear case and assisting in power draining of oil from the gear case.

PatBase - W00026517_A1



0) US2005120715A – HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW A...

11) Family number: 30545299 (US2005120715A)

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Title: HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW APPLICATIONS

Priority: CA20022397847 20020812 CA20022404410 20020920 PH20040000148 20040325
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 US19890376002 19890815 US19930097655 19930727 US19910773680 19911008
 US19950506335 19950725 US19910811470 19911218 US20050039624 20050120
 WO2005US26793 20050727 US19970999729 19971223 US19980137499 19980820

Family:	Publication number	Publication date	Application number	Application date
	AP200704109 A0	20070831	AP20070004109	20050727
	AU2005325208 AA	20060727	AU20050325208	20050727
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	CA2404410 AA	20040320	CA20022404410	20020920
	CA2599414 AA	20070823	CA20052599414	20050727
	CN101146981 A	20080319	CN200580049207	20050727
	EA200701538 A1	20081030	EA20070001538	20050727
	EP1851418 A1	20071107	EP20050779535	20050727
	EP1851418 A4	20090513	EP20050779535	20050727
	IN05612DN2007 A	20070831	IN2007DN05612	20070719
	US2005120715 AA	20050609	US20050039624	20050120
	US2008155985 AA	20080703	US20050795835	20050727
	US4756666 A	19880712	US19840631321	19840719
	US4859146 A	19890822	US19880177599	19880405
	US5027735 A	19910702	US19900472753	19900131
	US5052902 A	19911001	US19860820082	19860121
	US5056447 A	19911015	US19880255657	19881013
	US5094595 A	19920310	US19890376002	19890815
	US5435259 A	19950725	US19930097655	19930727
	US5507943 A	19960416	US19910811470	19911218
	US6293121 BA	20010925	US19980137499	19980820
	US6327994 BA	20011211	US19970999729	19971223
	US8051637 BB	20111108	US20050795835	20050727
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Probable Assignee: CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST

Assignee(s):^(std): CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ;
 CHRISTIAN SCHOOL OF TECHNOLOGY ; LABRADOR GAUDENCIO A ; LABRADOR
 GAUDENCIO AQUINO ; GAUDENCIO LABRADOR ; LABRADOR GAUDENCIO ;
 CHRISTIAN SCHOOL OF TECHNOLOGY

Assignee(s): CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI ; CHRISTION
 SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ; CHRISTION
 SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI

Inventor(s):^(std): LABRADOR GAUDENCIO AQUINO ; LABRADOR GAUDENCIO A ; CHRISTIAN
 SCHOOL OF TECHNOLOGY

Inventor(s): LABRADOR GAUDENCIO ; CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE ;
 GAUDENCIO AQUINO LABRADOR

Agent(s):

ROGER SYN AND CO PATENT AND TRADE MARK ATTORNEYS; FURMAN AND KALLIO; OYEN WIGGS GREEN AND MUTALA LLP; GAUDENCIO AQUINO LABRADOR

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): B01D61/10 B63B1/10 B63B1/12 B63B35/00 B63B35/44 B63B39/06 B63B43/06 B63G1/00 B63G8/30 B63H19/02 B63H9/06 B63H9/10 B63J3/00 B64C31/04 B64C31/06 E02B3/06 F01K13/00 F01K23/10 F01K27/00 F02C1/00 F02C1/05 F02G5/00 F03B13/18 F03D11/04 F03D5/00 F03D5/04 F03G7/00 F24F5/00 F24F6/14 F28D5/00 (Advanced/Invention); B63B1/24 B63J1/00 F24F1/00 (Advanced/Non-invention); B01D61/02 B63B1/00 B63B35/00 B63B35/44 B63B43/00 B63H9/00 B63J3/00 E02B3/06 F01K23/10 F01K27/00 F02C1/00 F02G5/00 F03B13/00 F03D5/00 F03G7/00 (Core/Invention)

International class
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US class: 114/102 114/267 114/382 114/39.1 114/39.2 114/39.26 114/39.29 114/39.31 210/136 210/170 210/259 210/321.87 244/153.00R 244/153R 244/24 405/76 415/5 416/8 417/330 417/332 60/39.01 60/506 60/618 60/618P 60/676 60/698 60/698P 60/772 62/304 62/310 62/314 623/40

[Classification Explorer](#)

Cited documents: US6880344 BB, US6327994 BA, US6293121 BA, US5797274 A, US5775121 A, US5598719 A, US5497633 A, US5435259 A, US5272879 A, US5168722 A, US4993348 A, US4829928 A, US4756666 A, US4738212 A, US4708078 A, US4694770 A, US4612868 A, US4598659 A, US4572962 A, US4562786 A, US4544331 A, US4540313 A, US4447738 A, US443641 A, US4358254 A, US4341177 A, US4313391 A, US4303834 A, US4302684 A, US4230060 A, US4206608 A, US4182128 A, US4175910 A, US4163905 A, US4160624 A, US4124182 A, US4118941 A, US4116151 A, US4115034 A, US4112864 A, US411252 A, US4111609 A, US4087209 A, US4052134 A, US3996741 A, US3937166 A, US3933110 A, US3846858 A, US3809507 A, US3730643 A, US3504988 A, US3326392 A, US3190545 A, US2454058 A, US2423720 A, US210573 A, US2028331 A, US1887316 A, US1526631 A, US1504057 A, US1266472 A, US1061091 A, US1046026 A, GB25234, GB219873 A, GB2131491 A1, GB2131490 A1, GB189425234 A, GB1588600 A, FR993473 A, FR975126 A, FR2523220 A1, FR2312666 A1, DE2836922 A1,

Forward Citations: WO9604479, WO9510706, WO9421913, WO16176184, WO16154757, WO16130438, WO15083154, WO15049551, WO13150320, WO13150320, WO13063606, WO13052752, WO13052752, WO11121557, WO11024084, WO11024084, WO10151237, WO10096656, WO10096656, WO10043987, WO10043987, WO10000100, WO09118427, WO09059111, WO09058637, WO09052202, WO09052202, WO09003362, WO08124037, WO08072269, WO08054131, WO08031904, WO08006413, WO07065717, WO07027544, WO07000788, WO06117593, WO06113988, WO06078315, WO06028454, WO05064155, WO03092847, WO03092847, WO02072479, WO02063165, WO02056989, WO02056989, WO0141897, USD749231, USD747450, USD746966, USD746425, USD729925, USD729376, USD729375, USD729374, USD729373, USD729372, USD728770, USD728769, USD728092, USD718208, USD581438, US9599995, US9599368, US9599356, US9598826, US9587630, US9581255, US9581140, US9581135, US9568021, US9568006, US9546099, US9534581, US9513028, US9511859, US9506656,

US9502904, US9476615, US9476400, US9458853, US9453677, US9447534,
US9435315, US9429135, US9428070, US9422920, US9422657, US9410711,
US9394883, US9382801, US9382672, US9366449, US9366232, US9366226,
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US9267678, US9255577, US9255493, US9255353, US9254445, US9249810,
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US9212032, US9204980, US9200838, US9200837, US9194073, US9175434,
US9154024, US9151299, US9151224, US9150429, US9144623, US9138660,
US9133026, US9127855, US9127689, US9126683, US9121387, US9118209,
US9114853, US9109614, US9092813, US9091450, US9074577, US9070150,
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US9030038, US9026472, US9026471, US9024458, US9022750, US9018785,
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US8967980, US8967979, US8967307, US8966783, US8963358, US8952560,
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US8714937, US8713929, US8708650, US8698343, US8688294, US8684687,
US8677744, US8667792, US8661808, US8650770, US8650114, US8640461,
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US8581434, US8578708, US8567090, US8561732, US8561399, US8561398,
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US8432057, US8430624, US8429831, US8410909, US8408869, US8403650,
US8403640, US8380683, US8371997, US8366403, US8359856, US8356804,
US8353156, US8350403, US8348629, US8348597, US8348596, US8342102,
US8333070, US8323143, US8319368, US8308445, US8308432, US8301550,
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US8247915, US8246317, US8245508, US8240146, US8240142, US8240140,
US8234868, US8234863, US8234862, US8229841, US8225606, US8215105,
US8209974, US8201501, US8201402, US8197226, US8196395, US8191362,
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US8113777, US8109727, US8109085, US8104274, US8100366, US8096763,
US8092166, US8091614, US8087241, US8080889, US8072088, US8066027,
US8065874, US8061963, US8061132, US8056662, US8052387, US8052379,
US8051637, US8049357, US8046990, US8046108, US8043499, US8037678,
US8037677, US8037618, US8032447, US8012248, US8011461, US8004104,
US8002904, US7996292, US7984566, US7977809, US7975398, US7972111,
US7966842, US7966743, US7966741, US7963110, US7963048, US7962375,
US7958731, US7954574, US7934494, US7931449, US7927463, US7926202,
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US7866444, US7865424, US7863768, US7862290, US7859126, US7839007,
US7836835, US7834475, US7823692, US7821152, US7821147, US7793889,
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US7748137, US7730633, US7714457, US7703835, US7696634, US7694523,
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US7644512, US7641772, US7640751, US7638054, US7626062, US7623940,
US7617617, US7617031, US7610692, US7604454, US7602077, US7585131,
US7549608, US7540518, US7532956, US7525212, US7497252, US7476986,
US7453166, US7448604, US7368039, US7357632, US7355298, US7335000,
US7298056, US7284389, US7270749, US7239038, US7211190, US7183663,
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US7042114, US7040859, US7036449, US7029576, US7023104, US7005757,
US6998730, US6995479, US6990748, US6982498, US6957548, US6956300,
US6925800, US6910434, US6904722, US6809430, US6804962, US6781254,
US6715916, US6705599, US6700218, US6695536, US6691632, US6689251,
US6688553, US6675739, US6652221, US6619059, US6585896, US6578828,
US6575712, US6574957, US6555931, US6537018, US6523781, US6520823,
US6498402, US6283413, US6083382, US6072245, US6022141, US5744871,
US5708305, US5461862, US5435259, US5056447, US4859146, US2016341085,
US2016285059, US2016153685, US2016123301, US2016023565, US2015316031,
US2015292809, US2015292434, US2015275861, US2015240782, US2015240781,

US2015204302, US2015153741, US2015122814, US2015121937, US2015097376,
US2015082659, US2015020407, US2014377066, US2014373385, US2014363301,
US2014339832, US2014320055, US2014263765, US2014262737, US2014252776,
US2014238839, US2014210212, US2014190657, US2014152018, US2014150276,
US2014130489, US2014116081, US2014112648, US2014102157, US2014080367,
US2014077495, US2014069128, US2014062094, US2014047858, US2014010683,
US2013323056, US2013319027, US2013309062, US2013270824, US2013251527,
US2013239584, US2013207600, US2013193689, US2013159264, US2013153087,
US2013126102, US2013113215, US2013113211, US2013111937, US2013111926,
US2013042995, US2012326446, US2012325653, US2012303179, US2012298576,
US2012237303, US2012235410, US2012204440, US2012168552, US2012153619,
US2012137411, US2012132117, US2012126052, US2012091718, US2012086210,
US2012082575, US2012068465, US2012068367, US2012039713, US2012030959,
US2011304144, US2011283705, US2011269388, US2011260462, US2011239540,
US2011238636, US2011233934, US2011198851, US2011197830, US2011197518,
US2011192938, US2011186481, US2011162592, US2011158827, US2011140436,
US2011139697, US2011116925, US2011115223, US2011109097, US2011103939,
US2011101697, US2011100020, US2011078915, US2011074160, US2011062715,
US2011061258, US2011059228, US2011031344, US2011030552, US2011030359,
US2011023977, US2011023488, US2011011555, US2010329903, US2010326424,
US2010326069, US2010326066, US2010326064, US2010322721, US2010313418,
US2010295320, US2010295312, US2010291457, US2010276933, US2010276513,
US2010266790, US2010266781, US2010266412, US2010263761, US2010263195,
US2010260592, US2010254800, US2010228401, US2010226797, US2010226771,
US2010226750, US2010225012, US2010206665, US2010171313, US2010167602,
US2010150699, US2010143218, US2010140390, US2010127500, US2010122653,
US2010117371, US2010107438, US2010102564, US2010101988, US2010084871,
US2010080738, US2010078942, US2010078941, US2010077791, US2010071780,
US2010045036, US2010038913, US2010032963, US2010026003, US2010019091,
US2010013236, US2010013225, US2009314625, US2009312134, US2009292577,
US2009285681, US2009257896, US2009236474, US2009223725, US2009221865,
US2009196693, US2009155087, US2009142458, US2009127862, US2009127861,
US2009120630, US2009094982, US2009060711, US2009060710, US2009057127,
US2009038659, US2009036720, US2009021021, US2009015014, US2009013698,
US2008296905, US2008271369, US2008256531, US2008250933, US2008230284,
US2008215495, US2008215457, US2008197138, US2008193344, US2008190079,
US2008185480, US2008181773, US2008157526, US2008155985, US2008146103,
US2008135224, US2008134696, US2008110594, US2008092570, US2008078316,
US2008070077, US2008047291, US2008041083, US2008036238, US2007295557,
US2007284846, US2007278796, US2007278794, US2007271928, US2007254255,
US2007251230, US2007246416, US2007240433, US2007228739, US2007222222,
US2007211841, US2007193060, US2007147998, US2007145748, US2007144027,
US2007138793, US2007137239, US2007130949, US2007130929, US2007098542,
US2007051611, US2007046028, US2007012597, US2007009325, US2006293816,
US2006254079, US2006251505, US2006237593, US2006197238, US2006185627,
US2006166152, US2006162363, US2006150629, US2006101665, US2006093718,
US2006091677, US2006061132, US2006040063, US2005280681, US2005274312,
US2005263095, US2005252764, US2005171584, US2005169742, US2005167355,
US2005166615, US2005121302, US2005120715, US2005116671, US2005115099,
US2005074322, US2005045224, US2005029817, US2005017515, US2004222079,
US2004188542, US2004188349, US2004174019, US2004164561, US2004160059,
US2004080166, US2004055900, US2004050760, US2004035345, US2004007881,
US2003201236, US2003192482, US2003167765, US2003141720, US2003127566,
US2003091437, US2003006613, US2002112417, US2002092762, US2002084655,
TWI370575, TWI362779, RU2602650, RU2553725, RU2535193, NL1004508,
KR101336788, JP2010512264, ITMI20101677, ITMI20091386, GB2533848, GB2477293,
GB2473037, GB2434841, GB2434841, GB2424675, GB2411209, GB2333130,
GB2317422, FR2992033, FR2987564, FR2969114, FR2867147, FR2856307,
FR2775948, FR2712128, ES2375005, ES2333568, ES2326021, ES2322738,
ES2281240, ES2162613, ES2122846, ES2113814, ES2113266, EP3121109,
EP2895797, EP2516844, EP2516844, EP1878916, EP1751426, EP1751426,
EP1672214, EP1350028, EP1331391, EP0841480, EP0711476, DE4212098,
DE102011108309, DE102011108309, DE102007054660, CN105236517, CN104948341,
CN104764023, CN104481085, CN104481085, CN104061646, CN104061646,
CN103711581, CN103711581, CN103541782, CN103282841, CN102953830,
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CN102839382, CN102818343, CN102818343, CN102730189, CN102713259,
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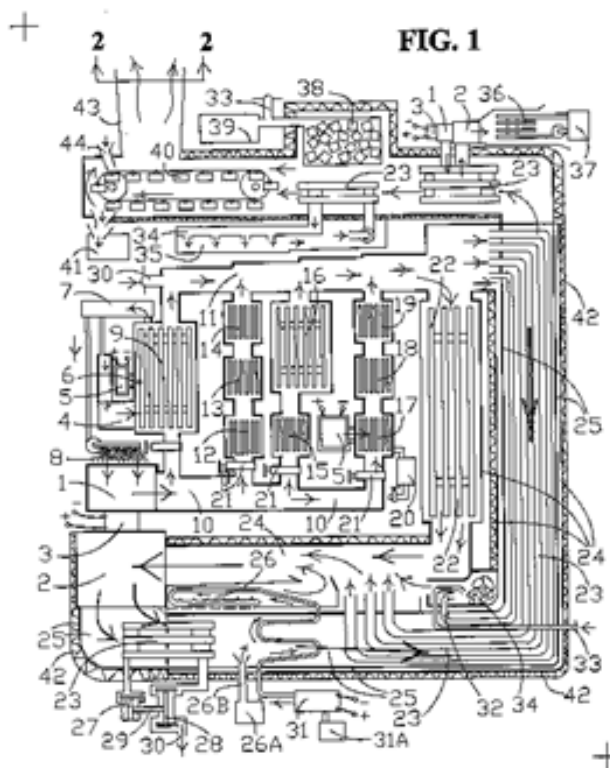
Source: US2005120715A What has been created is a plurality and a variety of processes and a variety of devices correspondingly supportive to each process, wherein, a new partnership between; (1) a heat absorbing radiator compressed air pipes/tubes and (2) a gas turbine engine or a reciprocating piston engine,—is used to recapture and reconvert the, otherwise wasted, heat energies expelled by engines, by factories, by smelting plants, by distillation plants, by chillers/coolers/freezers, by cooking ovens, by lamps/stoves, by trash burners, and the heat energies created by the solar heat on the desert/ocean water,—into electric power and finally into hydrogen–deuterium fuel,—by having the engine's tailpipes submerged in cold compressed air inside the heat absorbing radiator pipes in reverse air flow, to further drive and re–drive the same engine; wherein, in order to capture fusion heat energy the hydrogen bomb is detonated in the deep ocean to catch the flames by the water and the hot water is used to energize the compressed air inside the heat absorbing radiator pipes; wherein, in order to produce fusion energy, an abundant electric arc is passed across liquid deuterium or across gaseous deuterium by the electro–plasma torch and sparkplug in the internal combustion engine, and by detonating a dynamite inside a liquid deuterium; wherein diamond is produced by placing carbon inside the hydrogen bomb; and wherein, deuterium fusion flame is used first in smelting glass to large sizes before running an engine.

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12) Family number: 37234864 (BRPI0504845A)

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Title: gerenciamento de derramamento de agua para fabricante do gelo na porta Water spill management for the ice maker in the door (Machine translation)

Priority: BR2005PI04845 20051026

Family:	Publication number	Publication date	Application number	Application date
	BRPI0504845 A	20070918	BR2005PI04845	20051026

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International class F25D23/00 (Advanced/Invention);
(IPC 8-9); F25D23/00 (Core/Invention)

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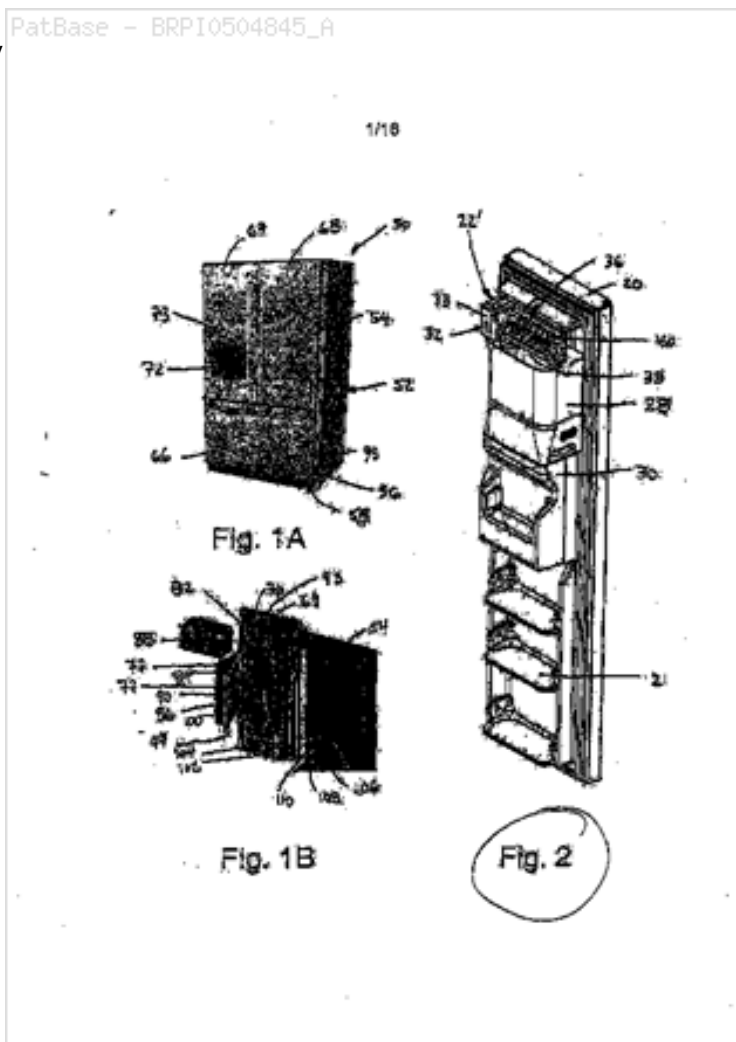
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u ••* RESUMO Patente de Invencao:

"GERENCIAMENTO DE DERRAMAMENTO DE AGUA PARA FABRICADOR DO GELO NA PORTA". 9 Refrigerador – freezer tendo um ice maker posicionado em uma 5 porta de compartimento de refrigerador ou compartimento de freezer. O ice maker e disposto para impedir ou gerenciar derramamentos do ice maker no caso de a porta em que o ice maker esta montado ser aberta ou fechada, quando agua nao congelada esta presente no ice maker. Concretizacoes para gerenciamento de derramamentos para um numero de ice makers de 10 bandeja fixa e movel sao descritas. j 5 10 15 20 25 30 far OSoWS-1 p*!", cSWGol? 161-3 o<e \~2- \2.oo> Relatorio Descritivo da Patente de Invencao para "GERENCIA- MENTO DE DERRAMAMENTO DE AGUA PARA FABRICADOR DO GELO NA PORTA".

Referencia Cruzada a Pedidos Relacionados O presente pedido esta relacionado com os seguintes Pedidos de Patente dos Estados Unidos depositados simultaneamente com este: US20020155, US20040162 e US20040111. Antecedentes da Invencao Campo da Invencao A presente invencao refere-se a fabricantes de gelo posicionados em uma porta de compartimento de refrigerador ou de freezer. De acor- do com a invencao, os fabricantes de gelo podem ser dispostos para impe- dir ou gerenciar derramamentos de agua do fabricante de gelo, no caso de a porta em que o fabricante de gelo esta montado ser aberta e fechada, quan- do agua nao congelada esta presente no fabricante de gelo. Descricao da Tecnica Relacionada Bandejas de cubos de gelo enchidas manualmente, tendo uma cobertura ou tampa para impedir derramamentos de agua sao conhecidos.



Os fabricantes de gelo localizados em uma porta de compartimento de refrigerador ou freezer que não incluem características para gerenciamento de derramamentos são conhecidas na técnica. Os refrigeradores freezers lado a lado, tendo mecanismos de armazenamento e distribuição de cubos de gelo na porta do freezer para fornecer um dispensador de gelo e água na frente da porta do compartimento de freezer são bem conhecidos na técnica. Uma variedade de fabricantes de gelo automáticos de bandeja flexível e molde de gelo fixo são conhecidos na técnica. Sumário da Invenção A invenção se refere a um refrigerador freezer compreendendo um compartimento de freezer mantido em uma temperatura abaixo de 0 graus centígrados, uma porta de compartimento de freezer isolada, um compartimento de refrigeração mantido em uma temperatura acima de 0 graus centígrados, uma porta de compartimento de refrigerador isolada, um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador e um fabricante de gelo automático posicionado em uma parede da porta de compartimento de refrigerador e a porta de compartimento de freezer. Uma bandeja e montada abaixo do fabricante de gelo disposto para coletar derramamento de água, que pode ocorrer quando a porta em que o fabricante de gelo está posicionado é movida, quando água está presente no fabricante de gelo. Uma linha de drenagem pode levar da bandeja até um recipiente de descarte de água. O recipiente de descarte de água pode ser uma vasilha de drenagem localizada no compartimento de maquinaria. Em outro aspecto da invenção a bandeja pode ter um aquecedor. O aquecedor de bandeja pode ser conectado para ser energizado, quando o aquecedor de descongelamento do sistema de refrigeração é energizado. • Em outro aspecto da invenção, um sensor e controle de derramamento podem ser proporcionados para detectar a presença de água na bandeja. O controle pode energizar o aquecedor de bandeja, quando o sensor de derramamento detecta água na bandeja. Em outro aspecto a invenção se refere a um refrigerador freezer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 graus centígrados, uma porta de compartimento de freezer isolada, um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador e um fabricante de gelo automático posicionado em uma parede da porta de compartimento de refrigerador e a porta de compartimento de freezer. O fabricante de gelo inclui um molde de gelo, um extrator de pedacos de gelo tendo uma tira de base montada ao longo de uma borda do molde de gelo tendo uma pluralidade de retentores que se estendem da tira de base e posicionados acima de uma porção do molde de gelo. O fabricante de gelo inclui um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do motor de impressão e dispostos para os dentes girarem entre a pluralidade de retentores e através do molde de gelo para conduzir pedacos de gelo para fora do molde de gelo. O fabricante de gelo inclui um molde de gelo e um extrator flexível de pedacos de gelo posicionado acima de uma primeira porção do molde de gelo tendo uma pluralidade de fendas que formam uma pluralidade de retentores. O fabricante de gelo ainda inclui um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem através da pluralidade de fendas e através do molde de gelo para conduzir pedacos de gelo para fora do molde de gelo. O fabricante de gelo ainda inclui uma tampa protetora que se estende acima de uma segunda porção do molde de gelo. O extrator flexível de pedacos de gelo pode se estender do armazenamento até uma primeira borda do molde de gelo e pode ser disposto para cobrir, substancialmente, a primeira porção do molde de gelo da linha central do molde de gelo até a primeira borda do molde de gelo. A tampa protetora pode se estender de uma segunda borda do molde de gelo substancialmente até a linha central do molde de gelo acima do molde de gelo para permitir que o armazenamento gire através do molde de gelo. Em outro aspecto, a invenção se refere a um refrigerador freezer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 graus centígrados, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 graus centígrados, uma porta de compartimento de refrigerador isolada, um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador e um fabricante de gelo automático posicionado em uma parede da porta de compartimento de refrigerador e a porta de compartimento de freezer. O fabricante de gelo inclui um molde de gelo e um extrator de pedacos de gelo tendo uma tira de base e uma pluralidade de retentores posicionados acima de uma primeira porção do molde de gelo. O molde de gelo também inclui um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem entre a pluralidade de retentores e através do molde de gelo para conduzir pedacos de gelo para fora do molde de gelo e tendo uma trama flexível que se estende de dentes adjacentes para encher, pelo menos parcialmente, a folga entre dentes adjacentes. O fabricante de gelo inclui um motor para acionar, 5 10 15 20 25 30 5 giravelmente o acamador de gelo a fim de recolher pedacos de gelo durante ciclos de recolhimento e

disposto para deixar estacionario o acamador de gelo com a pluralidade de dentes e almas flexiveis ficando substancialmente em um plano com a pluralidade de retentores entre ciclos de recolhimento. Uma tampa protetora se estende acima de uma segunda porcao do molde de gelo. Em outro aspecto a invencao se refere a um refrigerador – free– zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res– friar o compartimento de freezer e o compartimento de refrigerador, um suporte de fabricante de gelo em uma dentre as portas do compartimento de refrigerador ou do compartimento de freezer e disposto para suportar um fabricante de gelo espacado do painel interno da porta, em que cubos de gelo recolhidos do fabricante de gelo podem cair em um receptaculo para armazenamento de gelo posicionado abaixo do fabricante de gelo e um fa– bricador de gelo automatico disposto para ser montado no suporte de fabri– cador de gelo. O fabricante de gelo inclui um molde de gelo e um extrator de pedacos de gelo, tendo uma tira de base e uma pluralidade de retentores posicionados acima de uma primeira porcao do molde de gelo. A tira de ba– se se estende atraves de uma porcao do molde de gelo. O fabricante de ge– lo inclui um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem entre a pluralidade de dentes e atraves do molde de gelo para conduzir pe– dacos de gelo para fora do molde de gelo. O fabricante de gelo ainda inclui uma tampa protetora que se estende acima de uma segunda porcao do mol– de de gelo. O extrator de pedacos de gelo e a tampa protetora podem ser formados integralmente de material plastico. O acamador de gelo pode ser formado de metal e pode ser montado em contato com o molde de gelo e disposto para ser aquecido por conducao do molde de gelo durante ciclos de 5 10 15 20 25 30 6 recolhimento de gelo. O fabricante de gelo inclui um motor para acionar, gi– ravelmente, o acamador de gelo e o motor pode ser disposto para deixar estacionario o acamador de gelo com a pluralidade de dentes ficando subs– tancialmente em um plano com a pluralidade de retentores entre ciclos de recolhimento. Em outro aspecto, a invencao se refere a um refrigerador – free– zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res– friamento do compartimento de freezer e do compartimento de refrigerador e um fabricante de gelo automatico posicionado em uma dentre a porta de compartimento de refrigerador e a porta de compartimento de freezer. O fa– bricador de gelo inclui uma bandeja movel para pedacos de gelo, um aloja– mento suportando movelmente a bandeja para pedacos de gelo para movi– mento entre uma posicao de enchimento e de fabricacao de gelo e uma po– sicao de recolhimento e uma superficie de vedacao para conter agua, quan– do o molde de gelo esta em uma posicao de enchimento e de fabricacao de gelo. O alojamento pode incluir uma parede traseira de contencao, uma parede dianteira de contencao e paredes extremas de contencao. A bandeja para pedacos de gelo inclui uma insercao de molde tendo uma plu– ralidade de reentrancias para formar pedacos de gelo e uma virola que se estende para cima em torno da pluralidade de reentrancias que formam a superficie de vedacao. Quando a bandeja para pedacos de gelo esta na po– sicao de enchimento e fabricacao de gelo, a virola que se estende para cima e posicionada no lado de fora das paredes dianteira, traseira e extrema. Em outro aspecto, a invencao se refere a um refrigerador – free– zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res– 5 10 15 20 25 30 7 friamento do compartimento de freezer e do compartimento de refrigerador e um fabricante de gelo automatico posicionado em uma dentre a porta de compartimento de refrigerador e a porta de compartimento de freezer. O fa– bricador de gelo inclui uma bandeja flexivel, tendo uma pluralidade de cavi– dades e paredes laterais, que se estendem acima das cavidades para impe– dir agua de derramar para fora da bandeja, no caso de a porta em que o fa– bricador de gelo e posicionado ser movida, quando agua esta presente no fabricante de gelo. O fabricante de gelo tambem inclui um suporte para mon– tar, giravelmente, a bandeja flexivel entre as posicoes de formacao de gelo e de recolhimento de gelo e um mecanismo de acionamento para girar a ban– deja flexivel entre as posicoes de formacao de gelo e de recolhimento de gelo e torcao da bandeja flexivel na posicao de recolhimento para liberar os pedacos de gelo. O fabricante de gelo pode incluir duas bandejas conectadas po– sicionadas voltadas em direcoes opostas, montadas giravelmente entre po– sicao de formacao de gelo e recolhimento de gelo. As bandejas de gelo po– dem ser formadas integralmente e compartilhar uma parede de fundo. Em outro aspecto, a invencao se refere a um refrigerador – free– zer, tendo um compartimento de freezer mantido em uma temperatura abai– xo de 0 degrees centigrade, uma porta de compartimento de freezer isolada articulada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada articulada, um sistema de refrigeracao para resfriamento do compartimento de freezer e do compar– timento de refrigerador, um fabricante de gelo automatico posicionado em uma dentre a porta de compartimento de refrigerador e a porta de comparti– mento de freezer e um amortecedor de porta conectado a uma dentre a por– ta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo e posicionado. O amortecedor de porta pode ser disposto para encaixar a porta por pelo menos uma porcao da faixa de movimento mediante abertura e pelo menos uma porcao da faixa de movimento durante o fechamento da porta. O amortecedor de porta pode ser um amortecedor carregado a 5 10 15 20 25 30 8 mola montado no compartimento de maquinaria e conectado a uma das arti– culacoes de porta de uma dentre a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo e posicio– nado. O amortecedor de porta pode ser conectado a articulacao de porta em uma posicao para o amortecedor de porta ir atraves do centro, quando uma dentre a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo esta posicionado se abre e fecha. Em um aspecto da invencao, o amortecedor pode ser um amor– tecedor hidraulico carregado a mola. Em outro aspecto da invencao, o amortecedor pode ser um a– mortecedor a gas carregado a mola. Em outro aspecto da invencao, o amortecedor e um amortecedor giratorio. O amortecedor giratorio pode ser um amortecedor giratorio bidire– cional. Em outro aspecto, a invencao se refere a um refrigerador – free– zer, tendo um compartimento de freezer mantido em uma temperatura abai– xo de 0 degrees centigrade, uma porta

de compartimento de freezer isolada, um comparti- mento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma por- ta de compartimento de refrigerador isolada, um sistema de refrigeracao pa- ra resfriamento do compartimento de freezer e o compartimento de refrige- rador e um fabricante de gelo automatico posicionado em uma dentre a por- ta de compartimento de refrigerador e a porta de compartimento de freezer. Uma bandeja e montada abaixo do fabricante de gelo disposto para coletar derramamento de agua que pode ocorrer quando a porta em que o fabrica- dor de gelo esta posicionado e movida, quando a agua esta presente no fa- bricador de gelo. A bandeja inclui um sensor de derramamento para detectar agua na bandeja e disposto para proporcionar um sinal para o usuario de que um derramamento ocorreu. O sensor de derramamento pode compreender dois grupos de elementos condutores posicionados na bandeja. Os dois grupos de elemen- tos condutores sao conectados a um circuito de deteccao de derramamento. O circuito de deteccao de derramamento pode incluir um sinal para alertar 5 10 15 20 25 30 9 ao usuario de que o derramamento ocorreu. O sinal pode ser um dispositivo de LED para proporcionar um sinal visual de que um derramamento ocorreu. Em outro aspecto, o sinal pode ser um sinal audivel de que um derramamento ocorreu. Em outro aspecto, o refrigerador - freezer pode incluir uma linha de drenagem que leva da bandeja e uma bomba para bombear agua da bandeja para um recipiente de descarte de agua. O circuito de deteccao de derramamento pode incluir uma saida para ativar a bomba. Em outro aspecto, a invencao se refere a um refrigerador - free- zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res- friamento do compartimento de freezer e do compartimento de refrigerador, um fabricante de gelo automatico posicionado na porta interna da porta de compartimento de freezer e um receptaculo para armazenamento de gelo posicionado abaixo do fabricante de gelo. O fabricante de gelo pode incluir uma cobertura montada articuladamente adjacente ao topo do fabricante de gelo e disposto para encerrar o fabricante de gelo em uma primeira posicao e para formar uma calha para gelo do fabricante de gelo para o receptaculo para armazenamento de gelo em uma segunda posicao. A cobertura pode ser montada, articuladamente, adjacente ao topo do fabricante de gelo adjacente ao lado do fabricante de gelo oposto a porta interna. A cobertura pode incluir um atuador conectado a cobertura e disposto para articular a cobertura em torno de um ponto de articulacao. O atuador pode ser disposto para encaixar a parede de topo do compartimento de freezer, quando a porta de compartimento de freezer e fechada. A cober- tura pode incluir um mecanismo de mola para impulsionar a cobertura em direcao a primeira posicao. O receptaculo para armazenamento de cubos de gelo pode ser removivel da porta de compartimento de freezer, quando a cobertura esta na primeira posicao. 5 10 15 20 25 30 10 Em outro aspecto, a invencao se refere a um refrigerador - free- zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res- friamento do compartimento de freezer e do compartimento de refrigerador, um fabricante de gelo automatico montado em uma dentre a porta de com- partimento de refrigerador e a porta de compartimento de freezer e um re- ceptaculo para armazenamento de gelo posicionado abaixo do fabricante de gelo. O fabricante de gelo inclui um molde de gelo e um aquecedor para o molde de gelo. O fabricante de gelo e montado, giravelmente, para movi- mento para a primeira posicao para enchimento do molde de gelo com agua e para formacao de cubos de gelo e para a segunda posicao substancial- mente invertida para recolhimento de cubos de gelo. O fabricante de gelo pode incluir um sensor de temperatura dis- posto para determinar quando cubos de gelo estao congelados e para iniciar a operacao do aquecedor e fazer com que o fabricante de gelo gire para a segunda posicao. O fabricante de gelo pode ainda incluir um acamador de gelo substancialmente fixo, posicionado atraves do molde de gelo, quando o fabricante de gelo esta na primeira posicao e pode ser disposto para encai- xar cubos de gelo no molde de gelo, a medida que o fabricante de gelo e girado para a segunda posicao. Em outro aspecto, a invencao se refere a um refrigerador - free- zer, tendo um compartimento de freezer mantido em uma temperatura abai- xo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um comparti- mento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma por- ta de compartimento de refrigerador isolada, um sistema de refrigeracao pa- ra resfriar o compartimento de freezer e o compartimento de refrigerador e um fabricante de gelo automatico montado em uma dentre a porta de com- partimento de freezer e a porta do compartimento de refrigerador. O fabrica- dor de gelo inclui um molde de gelo e um aquecedor para o molde de gelo. O molde de gelo e montado giravelmente para movimento para uma primeira 5 10 15 20 25 30 11 posicao para enchimento do molde de gelo com agua e para formacao dos cubos de gelo e para a segunda posicao substancialmente invertida para recolhimento de cubos de gelo do molde. O molde de gelo inclui paredes laterais estendidas dispostas pa- ra conter agua no molde de gelo, no caso de a porta em que o fabricante de gelo automatico e montado ser movida, quando agua nao congelada esta presente no molde de gelo. O molde de gelo ainda inclui uma virola ao longo da borda distal de uma parede lateral. A virola pode incluir uma borda de retorno dirigida para as cavidades de cubos de gelo dispostas para definir um canal para reter agua formada quando o molde de gelo e aquecido para recolhimento de cubos de gelo a medida que o molde de gelo e girado para a segunda posicao. O fabricante de gelo pode incluir um ancinho substancialmente fixo, posicionado acima do molde de gelo, quando o molde de gelo esta na primeira posicao e disposto para encaixar cubos de gelo no molde de gelo a medida que o molde de gelo e girado para a segunda posicao. O fabricante de gelo pode incluir um sensor de temperatura para determinar quando cu- bos de gelo estao congelados e um motor para girar o gerenciamento entre a primeira posicao e a segunda posicao. Em outro aspecto, a invencao se refere a um refrigerador - free- zer tendo um compartimento de freezer mantido em uma temperatura abaixo de 0 degrees centigrade, uma porta de compartimento de freezer isolada, um compartimento de refrigerador mantido em uma temperatura acima de 0 degrees centigrade, uma porta de compartimento de refrigerador isolada, um sistema de refrigeracao para res- friar o compartimento de freezer e o compartimento de refrigerador e um fa- bricador de gelo automatico montado em uma dentre a porta de comparti- mento de freezer e a porta do compartimento de refrigerador. O fabricante de gelo inclui um controle de fabricante de gelo, um molde de gelo em geral retangular, uma extensao fixa que se estende para cima de

uma borda longitudinal do molde de gelo e uma parede articulada, que se estende para cima da borda longitudinal oposta do molde de gelo montada articuladamente no molde de gelo. O fabricante de gelo também inclui um acamador de gelo 5 10 15 20 25 30 12 montado giravelmente acima do molde de gelo e conectado operavelmente no controle de fabricante de gelo e um operador no controle de fabricante de gelo disposto para mover a parede articulada para uma posição horizontal em conjunto com a operação do acamador de gelo. O operador pode ser uma alavanca no controle de fabricante de gelo conectada operavelmente a parede articulada. O controle de fabricante de gelo pode incluir um carne disposto para operar a alavanca. O carne pode ser conectado para girar quando o controle de fabricante de gelo gira o acamador de gelo. A parede articulada pode ser impulsionada para a posição vertical e o carne pode ser disposto para operar a alavanca a fim de mover a parede articulada para a posição horizontal, após o acamador de gelo girar no molde de gelo. A parede articulada pode incluir uma pluralidade de superfícies elevadas na superfície superior da parede articulada, quando ela é posicionada na posição horizontal. As superfícies elevadas podem se estender, em geral, perpendiculares ao acamador de gelo. Em outro aspecto, a invenção se refere a um método de fabricação de gelo em um refrigerador – freezer em que um fabricante de gelo automático é montado em uma dentro as portas dos compartimentos do refrigerador e do freezer. O método inclui as etapas de operação do refrigerador – freezer para proporcionar resfriamento para os compartimentos do refrigerador ou do freezer, enchimento do molde de gelo com água, prevenção de derramamentos de água do fabricante de gelo, quando as portas dos compartimentos do refrigerador ou do freezer, em que o fabricante de gelo é montado, são abertas ou fechadas e recolhimento de pedaços de gelo do molde de gelo após a água ter congelado. A etapa de prevenção de derramamentos pode incluir o fornecimento de uma bandeja abaixo do fabricante de gelo para captar qualquer água salpicada para fora do fabricante de gelo. O método de fabricação de gelo pode incluir ainda a operação de um aquecedor de bandeja para derreter qualquer gelo presente na bandeja. A etapa de prevenção de derramamentos pode incluir a drenagem de água da bandeja para um recipiente de 5 10 15 20 25 30 13 descarte de água. Em outro aspecto, o fabricante de gelo pode incluir uma cobertura para o fabricante de gelo e a etapa de prevenção de derramamentos inclui o fechamento da cobertura e a etapa de recolhimento de pedaços de gelo inclui a abertura da cobertura. Em outro aspecto, o fabricante de gelo inclui um extrator de pedaços de gelo e um acamador de gelo, tendo uma pluralidade de dentes posicionados giravelmente através do fabricante de gelo e dispostos para o dente girar através do extrator de pedaços de gelo e do molde de fabricante de gelo. A etapa de prevenção de derramamentos pode incluir a disposição do extrator de pedaços de gelo e do acamador de gelo para encerrar, substancialmente, uma porção do fabricante de gelo. Em outro aspecto, o fabricante de gelo inclui uma bandeja flexível tendo uma pluralidade de cavidades. A etapa de prevenção de derramamentos pode incluir o fornecimento da bandeja flexível com paredes laterais que se estendem acima das cavidades para impedir água de salpicar para fora da bandeja. A bandeja flexível pode compreender duas bandejas interligadas posicionadas em direções opostas. Cada bandeja pode ter paredes laterais que se estendem acima das cavidades, quando a bandeja de gelo está na posição vertical. Em outro aspecto, o refrigerador – freezer pode incluir um receptáculo para armazenamento de cubos de gelo posicionado abaixo do fabricante de gelo automático e o fabricante de gelo pode incluir uma cobertura móvel. A etapa de recolhimento de cubos de gelo pode incluir a abertura da cobertura para formar uma calha para os cubos de gelo no receptáculo para armazenamento de cubos de gelo. Em outro aspecto, o fabricante de gelo pode incluir um molde de gelo montado giravelmente entre uma posição de enchimento e formação de cubos de gelo e uma posição de recolhimento de gelo substancialmente invertida. O método de prevenção de derramamentos pode incluir o fornecimento do molde de gelo com paredes laterais estendidas com uma das paredes laterais tendo uma virola definindo um canal. A etapa de recolhimento 5 10 15 20 25 30 14 de pedaços de gelo pode incluir a rotação do molde de gelo para recolhimento de pedaços de gelo e retenção de qualquer água derretida durante o ciclo de recolhimento no canal. A etapa de recolhimento pode incluir o retorno de água no canal para o molde de gelo a medida que o molde de gelo retorna para a posição de enchimento e formação de gelo. Em outro aspecto, o fabricante de gelo pode incluir um molde de gelo tendo uma extensão fixa em um lado do molde de gelo e uma parede articulada no outro lado do molde de gelo. A etapa de recolhimento de pedaços de gelo pode incluir a rotação de um acamador de gelo no molde de gelo e girando a parede articulada de uma posição vertical para uma posição horizontal através do molde de gelo. Breve Descrição dos Desenhos A figura 1A é uma vista em perspectiva do refrigerador freezer na parte inferior, compreendendo uma concretização de um fabricante de gelo na porta, de acordo com a invenção. A figura 1B é uma vista em perspectiva parcial do refrigerador freezer na parte inferior ilustrado na figura 1A com uma porta de compartimento de refrigerador aberta ilustrando um fabricante de gelo de acordo com a invenção posicionado na porta acima de um receptáculo para armazenamento de cubos de gelo e dispensador de gelo. A figura 2 é uma vista em perspectiva de uma porta de freezer ilustrando a aplicação de um fabricante de gelo de acordo com a invenção em um refrigerador freezer lado a lado. A figura 3 é uma vista em perspectiva em uma concretização de um fabricante de gelo de acordo com a invenção tendo uma bandeja para captar derramamentos e uma cobertura. A figura 4 é uma vista em perspectiva do fabricante de gelo da figura 3 com a cobertura fechada. A figura 5 é uma vista em perspectiva de outra concretização de um fabricante de gelo de acordo com a invenção, tendo uma cobertura e um canal de recuperação de água. A figura 6 é uma vista em perspectiva do fabricante de gelo da 5 10 15 20 25 30 15 figura 5 com a cobertura fechada. A figura 7 é uma vista em perspectiva de outra concretização de um fabricante de gelo de acordo com a invenção, tendo um extrator de gelo flexível e uma tampa protetora parcial. A figura 8 é uma vista em perspectiva de outra concretização de um fabricante de gelo de acordo com a invenção tendo uma cobertura. A figura 9 é uma vista em perspectiva parcial de outra concretização de um fabricante de gelo de acordo com a invenção posicionado em uma porta de compartimento de refrigerador ou de compartimento de freezer, com o molde de gelo na posição fechada. A figura 10 é uma vista em perspectiva parcial do fabricante de gelo da figura 9 com o molde de gelo parcialmente aberto. A figura 11 é uma vista seccional transversal através do fabricante de gelo da figura 9, ilustrando a relação entre o molde de gelo e o alojamento na posição fechada. A figura 12A é uma vista em perspectiva parcial de um refrigerador freezer lado a lado da técnica anterior tendo o fabricante de gelo posicionado no compartimento de freezer. A figura 12B é uma vista em perspectiva parcial de um refrigerador freezer lado a lado tendo um fabricante de

cubo de gelo de acordo com a invenção posicionado na porta de compartimento de freezer. A figura 13A e uma vista lateral esquemática ilustrando um fabricante de gelo de acordo com a invenção, posicionado em uma porta de compartimento de freezer tendo uma cobertura articulada na posição fechada. A figura 13B e uma vista lateral esquemática parcial do fabricante de gelo de acordo com a figura 13A, ilustrando a articulação da cobertura com o fabricante de gelo na posição aberta da porta de compartimento de freezer. A figura 14A e uma vista lateral esquemática, ilustrando o fabricante de gelo das figuras 13A e 13B, com a cobertura aberta e cubos de gelo caindo no receptáculo para armazenamento de cubos de gelo subjacente. 5 10 15 20 25 30 16 te. A figura 14B e uma vista lateral esquemática parcial similar a da figura 13B, ilustrando a articulação da cobertura com o fabricante de gelo na posição fechada da porta de compartimento de freezer. A figura 15 e uma vista em perspectiva de outra concretização de fabricante de gelo de bandeja de torção de acordo com a invenção. A figura 16 e uma vista em perspectiva de outra concretização de um fabricante de gelo de bandeja de torção de acordo com a invenção tendo duas bandejas. A figura 17 e uma vista em perspectiva de outra concretização de uma bandeja de torção para uso em um fabricante de gelo de bandeja de torção similar as concretizações da figura 15 e da figura 16 removida do fabricante de gelo. A figura 18 e uma vista parcial seccional da bandeja de torção da figura 17. A figura 19 e uma vista em perspectiva de outra concretização de uma bandeja de torção para uso em um fabricante de gelo de bandeja de torção similar as concretizações da figura 15 e da figura 16 removida do fabricante de gelo. A figura 20A e uma vista em perspectiva de outra concretização de um molde de fabricante de gelo girável com o molde na posição vertical. A figura 20B e uma vista em perspectiva do molde de fabricante de gelo girável da figura 20A com o molde girado 90 graus. A figura 20C e uma vista em perspectiva do molde de fabricante de gelo girável da figura 20A com o molde girado 180 graus. A figura 21A e uma vista seccional transversal esquemática do molde de fabricante de gelo girável na posição ilustrada na figura 20A. A figura 21B e uma vista seccional transversal esquemática do molde de fabricante de gelo girável na posição ilustrada na figura 20B. A figura 21C e uma vista seccional transversal esquemática do molde de fabricante de gelo girável na posição ilustrada na figura 20C. A figura 22A e uma vista de topo esquemática de outra concretização 5 10 15 20 25 30 17 zação de um fabricante de gelo de acordo com a invenção. A figura 22B e uma vista seccional transversal esquemática do fabricante de gelo da figura 22A, ilustrando o começo de um ciclo de recolhimento de gelo. A figura 22C e uma vista seccional transversal esquemática do fabricante de gelo da figura 22a, ilustrando um ponto subsequente no ciclo de recolhimento de gelo. A figura 23 e uma vista em perspectiva parcial do compartimento de maquinaria para um refrigerador freezer tendo um fabricante de gelo posicionado na porta de compartimento do freezer de um refrigerador freezer lado a lado, ilustrando uma concretização de um amortecedor de porta para uso com fabricantes de gelo de acordo com a invenção. A figura 24A e uma vista esquemática parcial, ilustrando outra concretização de um amortecedor de porta para uso com fabricantes de gelo de acordo com a invenção. A figura 24B e uma vista em perspectiva parcial do amortecedor da figura 24A. A figura 25 e um diagrama de circuito, ilustrando elementos sensores de derramamento, que podem ser usados com as concretizações de fabricantes de gelo de acordo com a invenção. A figura 26 e um diagrama em blocos ilustrando a operação de um refrigerador freezer, incluindo o gerenciamento de derramamento de fabricante de gelo de acordo com a invenção. A figura 27 e um diagrama de circuito ilustrando elementos eletrônicos que podem ser usados com concretizações de fabricante de gelo de acordo com a invenção. Descrição Detalhada da Invenção Um dos acessórios mais desejados para um refrigerador doméstico e um sistema de gelo e água através da porta. Um dispensador de gelo e água através da porta é desejável porque ele simplifica grandemente o processo de recuperação de cubos de gelo, isto é, elimina a abertura da porta, a remoção do receptáculo para armazenamento de cubos de gelo, a seleção 5 10 15 20 25 30 18 paração e recolhimento de cubos de gelo e colocação dos cubos de gelo em um copo. A característica também pode ser vista como um poupador de energia, uma vez que a porta do freezer não é aberta tão frequentemente. No mercado de refrigeradores domésticos de hoje, há três configurações básicas para escolher a partir de: um refrigerador com freezer na parte inferior em que o compartimento de refrigerador está localizado acima do compartimento de freezer, um refrigerador de montagem no topo em que o compartimento de freezer está localizado acima do compartimento de refrigeração e um refrigerador lado a lado em que o compartimento de refrigerador e o compartimento de freezer se estendem por toda a altura do refrigerador. Na configuração lado a lado, o receptáculo para armazenamento de cubos de gelo e o dispensador podem ser posicionados na porta de compartimento de freezer. Seria vantajoso também posicionar o fabricante de gelo na porta do freezer para proporcionar espaço adicional de armazenamento no compartimento de freezer. Igualmente, seria desejável proporcionar dispensador de gelo e água para refrigeradores com freezer na parte inferior. Contudo, assim fazer requer, essencialmente, o fornecimento de mecanismos de fabricação e armazenamento de gelo na porta do compartimento de refrigerador ou do compartimento de freezer. Com a tecnologia corrente de fabricação e distribuição de gelo, não tem sido possível para um consumidor ter características de dispensador de gelo e água em uma porta de compartimento de refrigerador com freezer na parte inferior ou uma porta de refrigerador freezer lado a lado com mecanismos de dispensador de gelo e água posicionados totalmente em uma porta. Um dos maiores desafios é como gerenciar o derramamento de água que pode ocorrer quando a porta em que um fabricante de cubo de gelo está posicionado é aberta ou fechada abruptamente, quando água está presente no molde de gelo. De acordo com a invenção das requerentes, o derramamento de água de um fabricante de gelo posicionado em uma porta de compartimento de refrigerador ou freezer é impedido ou gerenciado. Deve ser notado que as concretizações descritas neste pedido de patente compartilham muitos dos mesmos elementos, como uma saída 5 10 15 20 25 30 19 de distribuição montada no lado de fora de uma porta de compartimento de refrigerador ou freezer, um receptáculo para armazenamento de cubos de gelo e um dispensador de gelo. Similarmente, fabricantes de gelo, que são o objeto da invenção das requerentes, compartilham muitos dos mesmos elementos. Será compreendido que a operação desses elementos, em geral, será a mesma para cada concretização e uma descrição de sua operação não será repetida para cada concretização, a menos que de outro modo mencionado. Igualmente, elementos comuns a mais de uma concretização usualmente serão identificados com numerais comuns. Por exemplo, cada uma das concretizações de fabricante de gelo pode incluir um controle de fabricante de gelo, identificado como o controle de fabricante de gelo 33, e o motor 35 na concretização da figura 2. Os cubos de gelo 34 estão

ilustrados e descritos como pedacos de gelo geralmente semicirculares, embora os conceitos da invencao aqui descritos nao estejam assim limitados, e sejam igualmente aplicaveis aos pedacos de gelo tendo uma forma cilindrica, retili- nea ou outra. Como sera descrito em maiores detalhes abaixo, os fabricado- res de gelo de acordo com as invencoes da requerente podem ser usados com refrigeradores freezers lado a lado e freezer na parte inferior. Voltando as figuras 1A, 1B, 2, 12A e 12B refrigeradores freezer lado a lado e freezer na parte inferior, tendo um aparelho fabricante de gelo e dispensador na porta, de acordo com a invencao, podem ser vistos. As figuras 1A e 1B mostram um refrigerador com freezer na parte inferior descri- to em maiores detalhes no Pedido de Patente co- pendente U.S. US20040111, depositado simultaneamente com o presente por Anselmino et al., e incorporado totalmente atraves de referencia neste pedido de patente. O refrigerador com freezer na parte inferior 50 pode ter um gabinete 52, in- cluindo um compartimento de refrigerador 54 mantido em temperaturas aci- ma de 0 degrees centigrade e um compartimento de freezer 56 mantido em temperaturas a- baixo de 0 degrees centigrade O compartimento de freezer 56 e posicionado na parte inferior do gabinete 52 e o compartimento de refrigerador 54 e posicionado acima do compartimento de freezer 56. Na concretizacao das figuras 1A e 1B, o free- zer na parte inferior 50 pode ter duas portas de compartimento de refrigera- 5 10 15 20 25 30 20 dor 68 e 69, dispostas lado a lado. A configuracao de refrigerador com free- zer na parte inferior 50, mostrada nas figuras 1A e 1B, e referida, algumas vezes, como um refrigerador freezer frances com montagem de porta na par- te inferior. Puxadores de porta convencionais 44, 46 e 48 sao mostrados nas portas de compartimento de refrigerador 68 e 69 e na porta do comparten- to de freezer 66. Aqueles versados na tecnica prontamente compreenderao que puxadores diferentes, ou nenhum puxador, podem ser proporcionados para as portas, como e bem- conhecido na tecnica. Um refrigerador freezer lado a lado que concretiza a invencao e ilustrado nas figuras 2, 12A e 12B e descrito em detalhes abaixo. O refrigerador 50 pode ter um sistema de refrigeracao (nao- mostrado) para resfriamento do compartimento de refrigerador 54 e do com- partimento de freezer 56. O sistema de refrigeracao pode incluir um com- pressor, um condensador, um evaporador e um dispositivo de expansao, todos nao- mostrados, como e bem- conhecido na tecnica. O compressor po- de ser um compressor de velocidade variavel para proporcionar taxas de resfriamento variaveis, mais uma vez bem- conhecido na tecnica. O refrige- rador 50 pode ter tambem um sistema de controle (nao- mostrado), que pode incluir sensores de temperatura (nao- mostrados) para o compartimento de refrigerador 54 e compartimento de freezer 56 conectados aos controladores de temperatura dos compartimentos do refrigerador e do freezer (nao- mostrados) para manter as temperaturas nos respectivos compartimentos em temperatura selecionadas pelo usuario. O evaporador (nao- mostrado) pode ser posicionado em um compartimento de evaporador (nao- mostrado), que pode ser posicionado ao longo da parede traseira do compartimento de freezer, como e bem- conhecido na tecnica. A porta de compartimento de refrigerador 69 pode incluir um dis- pensador de gelo e agua 72 posicionado na frente da porta. O dispensador de gelo e agua 72 pode ser posicionado na porta de compartimento de refri- gerador 69 em uma altura conveniente para acesso do usuario, como e bem- conhecido na tecnica. Uma interface de usuario 73 pode ser posicionada adjacente ap dispensador de gelo e agua 72 para usuarios para selecionar 5 10 15 20 25 30 21 alternativas de distribuicao de gelo e agua, tais como "gelo rapido" descrita abaixo e outros parametros de operacao de refrigerador freezer, como des- crito no Pedido de Patente co- pendente U.S. N degrees de serie 10/861.203, aqui incorporado por referencia. Um fabricante de gelo 82 pode ser montado adjacente ao topo da porta de compartimento de refrigerador 69 espacado do painel de porta interna 70. Um receptaculo para armazenamento de cubos de gelo 84 pode ser posicionado abaixo do fabricante de gelo 82 e disposto de modo que os cubos de gelo recolhidos do fabricante de gelo 82 possam cair atraves da folga 93 no receptaculo para armazenamento de cubos de gelo 84. A folga 93 pode ser proporcionada entre a parte posterior do fabricante de gelo 82 e a porta interna 70 para direcionar os cubos de gelo para o receptaculo para armazenamento de cubos de gelo 84. O receptaculo para armazenamento de cubos de gelo 84 pode se apoiar no topo do dispensador de gelo 86. Uma cobertura isolada 88 pode ser proporcionada para encerrar substancialmente o fabricante de gelo 82. Uma cobertura isolada 90 pode ser proporcionada para encerrar, substancialmente, o receptaculo para armazenamento de cu- bos de gelo 84 e o dispensador de gelo 86. As coberturas isoladas 88 e 90 podem formar subcompartimentos que podem ser mantidos abaixo de 0 degrees C para facilitar a formacao e o armazenamento de cubos de gelo. A cobertura isolada 88 pode incluir uma ou mais superficies de travamento (nao- mostradas) dispostas para manter a cobertura 88 no lugar, formando um envoltorio abaixo de 0 degrees centigrade para o fabricante de gelo 82 enquanto a porta de compartimento de refrigerador 69 e aberta e fechada, em uso. Como descri- to acima, a cobertura isolada 88 e a cobertura isolada 90 permitem que os respectivos subcompartimentos sejam mantidos em temperaturas abaixo de 0 degrees centigrade, sem alterar temperaturas normais acima de 0 degrees centigrade no compartimento de refrigerador 54. A cobertura isolada 90 pode ser montada articuladamente no painel de porta interna 70 com as articulacoes 77. A ligacao articulada da cobertura isolada 90 com o painel de porta interna 70 pode permitir o facil acesso ao receptaculo para armazenamento de cubos de gelo 84, por e- 5 10 15 20 25 30 22 xemplo, para facilitar a remocao do receptaculo para armazenamento de cubos de gelo 84 a fim de distribuir cubos de gelo em um refrigerante ou si- milares. A cobertura isolada 90 pode ser disposta de modo que ela possa ser fechada automaticamente enquanto a porta de compartimento de refrige- rador 69 e fechada. A cobertura isolada 90 pode ser dotada de uma gaxeta 79 para vedar contra a superficie do painel de porta interna 70. A cobertura isolada 90 podera ser omitida, se o receptaculo para armazenamento de cubos de gelo 84 for formado de material isolante. Em uma concretizacao, o receptaculo para armazenamento de cubos de gelo 84 pode ser formado de material plastico de parede dupla com propriedades isolantes suficientes para manter os cubos de gelo no receptaculo, congela- dos e suficientemente frios para impedir cubos individuais de se fundirem uns com os outros. Aqueles versados na tecnica prontamente compreende- rao que materiais plasticos transparentes adequados, tais como aqueles descritos acima, podem ser usados para formar um receptaculo para arma- zenamento de cubos de gelo isolado 84. Similarmente, aqueles versados na tecnica compreenderao que, se nenhuma cobertura isolante for proporciona- da, o fluxo de ar abaixo de 0 degrees centigrade podera ser direcionado para o receptaculo para armazenamento de cubos de gelo 84 de maneira a impedir o vazamen- to indesejavel para o compartimento de refrigerador. O receptaculo para armazenamento de cubos de gelo 84 e o dispensador de gelo 86 podem ser similares ao sistema de distribuicao de gelo descrito na Patente U.S. N

degrees 6.082.130, cedida ao cessionario deste pe- dido de patente e aqui incorporada por referencia. Aqueles versados na tec- nica compreenderao que um sistema de distribuicao de gelo, tal como aque- le descrito na patente U.S. N degrees 6.082.130, pode ser usado na concretizacao mostrada nas figuras 1A e 1B, ou pode ser dotado de um receptaculo para armazenamento de cubos de gelo isolante, como descrito acima, e pode ser posicionado na porta de compartimento de refrigerador para cooperar com o fabricante de gelo 82 e com o dispensador de gelo e agua 72. Uma aborda- gem para deteccao do nivel do receptaculo para armazenamento de cubos de gelo e descrita na patente U.S. N degrees 6.082.130, e aqueles versados na tec- 5 10 15 20 25 30 23 nica compreenderao que muitas maneiras para determinar o nivel de cubos de gelo em um receptaculo para armazenamento de cubos de gelo sao co- nhecidas e podem ser usadas, em lugar do sistema optico descrito no pedi- do de patente identificado acima. O fabricante de gelo 82 e o dispensador de gelo e agua 72 podem ser dotados de agua sob o controle de um controle de valvula de agua 94 e uma valvula de agua 95, que podem ser includidos no refrigerador com freezer na parte inferior, como e bem- conhecido na tecnica. O controle de valvula de agua 94 para o dispensador de gelo e agua 72 e para o fabricante de gelo 82 pode ser um sistema de agua de fluxo variavel, como descrito no pedido de patente co- pendente U.S. n degrees de serie 10/861.569, aqui incorporado por referencia. Em uma concretizacao de freezer na parte inferior, como ilustra- da nas figuras 1A e 1B, ar abaixo de 0 degrees centigrade pode ser fornecido para o fabrica- dor de gelo 82 e o receptaculo para armazenamento de cubos de gelo 84 por um sistema de distribuicao de ar, que pode levar do compartimento de freezer 56. O sistema de distribuicao de ar pode incluir uma primeira porcao de distribuicao de ar 100, que pode ser posicionada ao longo de um lado da porta de compartimento de refrigerador 69 contra o painel de porta interna 70. O sistema de distribuicao de ar pode incluir uma segunda porcao de dis- tribuicao de ar 106, posicionada ao longo de uma parede lateral do compa- timento de refrigerador 54 e levando para baixo, em direcao ao comparti- mento de freezer 56. A primeira porcao de distribuicao de ar 100 pode incluir um duto de abastecimento 102 e um duto de retorno 104. Aqueles versados na tecnica compreenderao que a primeira porcao de distribuicao de ar 100 pode ser um tubo de passagem dupla, tendo duas passagens de ar, forman- do o duto de abastecimento 102 e o duto de retorno 104. A primeira porcao de distribuicao de ar 100 pode ser formada de material plastico termo- formado ou moldado por injecao e pode ser coberta ou encerrada com mate- rial isolante, tal como isopor ("styrobead") rigido. A segunda porcao de distri- buicao de ar 106, similarmente, pode compreender um duto de abastecimen- to 108 e um duto de retorno 110. A segunda porcao de distribuicao de ar 106 pode ser um tubo de passagem dupla formado de material plastico, similar a 5 10 15 20 25 30 24 primeira porcao de distribuicao de ar 100. As faces das primeira e segunda porcoes de distribuicao de ar 100 e 106 podem se apoiar quando a porta do refrigerador 69 e fechada e podem ser dispostas de modo que os dutos de abastecimento 102 e 108 e os dutos de retorno 104 e 110 sejam opostos uns aos outros e possam formar uma passagem continua, quando a porta de compartimento de refrigerador 69 e fechada. A frente das primeira e segun- da porcoes de distribuicao de ar 100 e 106 pode incluir superficies de veda- cao adequadas para os dutos de abastecimento e de retorno, de modo que conexoes substancialmente hermeticas a ar possam ser feitas, quando a porta de compartimento de refrigerador 69 e fechada. O sistema de distribui- cao de ar e descrito em maiores detalhes no Pedido de Patente co- pendente U.S. US20040111, depositado simultaneamente com o presente pedido de patente e incorporado por referencia, como indicado acima. Voltando as figuras 2 e 12B, um refrigerador freezer lado a lado, tendo um aparelho fabricante de gelo e dispensador na porta de acordo com a invencao pode ser visto. A figura 12A ilustra um refrigerador freezer lado a lado 10 da tecnica anterior tendo um conjunto de fabricante de gelo 22 posi- cionado no topo do compartimento de freezer 16. O compartimento de free- zer pode ter uma ou mais prateleiras 11 e uma ou mais cestas 13 dispostas para armazenar itens no compartimento de freezer 16. A porta de comparti- mento de freezer 20 pode ter uma ou mais prateleiras de porta 21, dispostas para o armazenamento de itens na porta de compartimento de freezer 20. Similarmente, o compartimento de refrigerador 14 pode ter uma ou mais pra- teleiras e uma ou mais cestas ou receptaculos para o armazenamento de itens no compartimento de refrigerador acima de 0 degrees centigrade. A figura 12B ilustra um refrigerador freezer lado a lado 10, tendo um conjunto de fabricante de gelo 22', de acordo com a invencao, posicionado no interior da porta de compa- timento de freezer 20. Comparando a figura 12A e a figura 12B, a realociza- cao do conjunto de fabricante de gelo 22 na porta de freezer 20 pode resul- tar em uma prateleira adicional completa para armazenamento aumentado no compartimento de freezer 16, sem diminuicao no espaco de armazena- mento de prateleira da porta de freezer 20. O refrigerador freezer lado a lado 5 10 15 20 25 30 25 pode ser dotado de um gabinete 12 formando um compartimento de refrige- rador 14 e um compartimento de freezer 16 dispostos lado a lado, como e bem- conhecido na tecnica. Um sistema de refrigeracao (nao- mostrado) pode ser proporcionado para manter o compartimento de refrigerador 14 em tem- peraturas acima de 0 degrees centigrade e o compartimento de freezer 16 em temperaturas abaixo de 0 degrees centigrade, como e bem- conhecido na tecnica. Uma porta de comparti- mento de refrigerador 18 e uma porta de compartimento de freezer 20 po- dem ser proporcionadas a fim de permitir acesso ao refrigerador freezer. A porta de compartimento de freezer 20 pode ter um dispensador de gelo e agua similar ao dispensador de gelo e agua 72 descrito acima. Em refrigera- dores lado a lado da tecnica anterior, conforme ilustrados na figura 12A, o conjunto de fabricante de gelo 22 e posicionado no topo do compartimento de freezer 16 e e disposto para descarregar cubos de gelo em um recepta- culo para armazenamento de cubos de gelo 28. O conjunto de fabricante de gelo 22' pode incluir um fabricante de gelo 32 tendo um molde de gelo 36, um extrator de gelos 38 e um acamador de gelo 40. O fabricante de gelo 32 pode ter um controle de fabricante de gelo 33, que pode incluir um motor 35 (figura 27) para operar o acamador de gelo. O sistema de distribuicao de gelo 26 pode ser posicionado na porta 20 abaixo do conjunto de fabricante de gelo 22'. O sistema de distribuicao de gelo 26 pode incluir o receptaculo para gelo 28, que pode ser posicionado no triturador de gelo 30. O triturador de gelo 30 pode ser disposto para distribuir gelo em cubos ou triturado atra- ves de um dispensador de gelo e agua (nao- mostrado nas figuras 12A ou 12B) na frente da porta de compartimento de freezer 20. O dispensador de gelo ilustrado nas figuras 2, 12A e 12B pode ser similar ao sistema de distri- buicao de gelo descrito na patente U.S. N degrees 6.082.130 aqui incorporada em sua totalidade. Quando operado, o sistema de distribuicao de gelo 26 trans- fere cubos ou pedacos de gelo do receptaculo para armazenamento de cu- bos de gel 28 atraves da porta de compartimento de freezer 20, pelo que os cubos de gelo podem ser distribuidos atraves de um

dispensador de gelo e água convencional similar ao dispensador de gelo e água 72 descrito acima. A seguir, diversas concretizações serão descritas de fabricado— 5 10 15 20 25 30 26 res de gelo, que concretizam a invenção das requerentes. Cada uma das concretizações pode permitir que os respectivos fabricantes de gelo sejam posicionados e operados em uma porta de compartimento de freezer 20 de um refrigerador freezer lado a lado ou em uma porta de compartimento de refrigerador 69 de um refrigerador com freezer na parte inferior. Voltando as figuras 3 e 4, uma concretização de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. O fabricante de gelo 115 pode ser um fabricante de gelo similar ao fabricante de gelo descrito nas Patentes U.S. N degrees s 4.649.717 e 4.649.718, aqui incorpora— das por referência. O fabricante de gelo 115 pode compreender um molde de gelo 116, que pode ser um molde de alumínio fundido revestido com epó— xi, como é bem— conhecido na técnica. O molde de gelo 116 pode ter um aquecedor 117 (figura 27) proporcionado para aquecer o molde durante ci— clos de recolhimento de gelo, como descrito nas patentes identificadas aci— ma incorporadas por referência. O molde de gelo 116 pode ser dotado de um extrator de gelo 120, tendo uma pluralidade de retentores de extrator 121, que se estendem através de um lado do molde de gelo 116. Um aca— mador de gelo ou ejetor de gelo 118 pode ser montado giravelmente no cen— tro da borda de topo do molde de gelo 116. O acamador de gelo 118 pode incluir uma pluralidade de dentes 119 para ejetar cubos de gelo do molde de gelo 116 a medida que o acamador de gelo é girado através do molde de gelo 116 durante um ciclo de recolhimento de gelo. O fabricante de gelo 115 pode ter um elemento para entrada de água 123 (ver a figura 4) para dire— cionar água de um tubo de enchimento de fabricante de gelo (nao— mostrado) para o molde de gelo 116, como é bem— conhecido na técnica. O fabricante de gelo 115 pode ter um alojamento de controle (nao— mostrado), como des— crito nas Patentes U.S. referenciadas acima, tendo um controle 33 (figura 27) que controla a operação do fabricante de gelo 115 e um motor 35 (figura 27) que aciona o acamador de gelo 118 durante ciclos de recolhimento de gelo, tudo como é bem— conhecido na técnica. O molde de gelo 116 pode ser dotado de uma cobertura 124 que pode ser articulada a borda do molde de gelo 116 oposta ao extrator de gelo 120. A cobertura 124 pode ter uma plu— 5 10 15 20 25 30 27 ralidade de linguetas 125 que se estendem de uma borda da cobertura 124 disposta para fechar, substancialmente, as folgas 122 entre retentores de extrator adjacentes 121, quando a cobertura 124 é fechada contra a borda de topo do molde de gelo 116 e o extrator de gelo 120. Desse modo, a co— bertura 124 pode ser disposta para encerrar substancialmente o molde de gelo 116 para ajudar a impedir água de derramar para fora do molde de gelo 116, no caso em que a porta do compartimento do refrigerador ou do free— zer, em que o fabricante de gelo 115 está posicionado, é aberta ou fechada abruptamente, quando água no estado líquido está presente no molde de gelo 116. A cobertura 124 pode ser disposta para ser aberta durante um ci— clo de recolhimento de gelo pelo controle de fabricante de gelo (nao— mostrado). Por exemplo, um carne ou outro mecanismo de acionamento (nao— mostrado) pode ser disposto para acionar a cobertura 124 para a posi— ção aberta mostrada na figura 3 a medida que o controle aciona o acamador de gelo 118 através do molde de gelo 116 para ejetar cubos de gelo do mol— de de gelo. Alternativamente, a cobertura 124 poderia ser impulsionada, resi— lientemente, para a posição aberta mostrada na figura 3 e o controle de fa— bricador de gelo (nao— mostrado) poderia operar para fechar a cobertura 124 em outro que nao durante um ciclo de recolhimento de gelo, como será pron— tamente compreendido por aqueles versados na técnica. Proteção adicional contra derramamento de água do fabricante de gelo 115 pode ser proporcionada pela montagem do fabricante de gelo 115 em uma bandeja 128 tendo paredes voltadas para cima 129 ao longo da borda da bandeja 128 para conter qualquer água que pudesse derramar do fabricante de gelo 115. A bandeja 128 pode ser dotada de um dreno 130 para drenar qualquer água derramada na bandeja 128 para um recipiente de descarte (nao— mostrado) que pode ser posicionado em uma porta de refrige— rador ou em outra parte no refrigerador freezer. O recipiente de descarte po— de ser disposto para esvaziamento manual por um usuário ou pode ser do— tado de uma bomba de drenagem 292 para esvaziar o recipiente (etapa 309, figura 26). Uma linha de drenagem (nao— mostrada) pode levar do dreno 130 para um recipiente de descarte que pode estar localizado no compartimento 5 10 15 20 25 30 28 de maquinaria 58 (figura 1A) que está localizado na parte inferior de refrige— radores freezer em que um compressor e um condensador e outros compo— nentes para o refrigerador freezer estão localizados tipicamente, como é bem— conhecido na técnica. O recipiente de descarte pode ser uma vasilha de drenagem típica 60 (ver figura 23) que pode estar localizada abaixo do condensador 64 (figura 23) para evaporar a água que derrete do evaporador (nao— mostrado) durante ciclos de descongelamento, mais uma vez como bem— conhecido na técnica. Aqueles versados na técnica compreenderão que outros recipientes de descarte de água podem ser proporcionados, ou que uma conexão disposta para conexão a um dreno doméstico pode ser pro— porcionada, se desejado. A bandeja 128 também pode ser dotada de um aquecedor 132 (figura 27) para aquecer, periodicamente, a bandeja 128 a fim de evaporar qualquer água que possa ter derramado na bandeja 128 ou, alternativamente, para derreter qualquer gelo que se forme na bandeja 128 da água derramada na bandeja 128. A operação do aquecedor 132 será descrita em maiores detalhes abaixo, em relação as figuras 26 e 27. A ban— deja 128 também pode ser dotada de uma bomba de drenagem 292 (figura 27), que pode ser conectada ao dreno 130 para bombear água da bandeja 128 até um recipiente de descarte que não está localizado abaixo da bande— ja 128 a fim de permitir uma drenagem por gravidade. Voltando a figura 5 e a figura 6, outra concretização de um fabri— cador de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. O fabricante de gelo 135 pode ser um fabricante de gelo similar ao fabricante de gelo descrito nas Patentes U.S. N degrees s 4.649.717 e 4.649.718 aqui incorporadas por referência. O fabricante de gelo 135 pode compreender um molde de gelo 116, que pode ser um molde de alumínio fun— dido revestido com epóxi como é bem— conhecido na técnica. O molde de gelo 116 pode ter um aquecedor 117 proporcionado para aquecer o molde durante os ciclos de recolhimento de gelo como descrito nas patentes identificadas acima, incorporadas por referência. O molde de gelo 116 pode ser dotado de um extrator de gelo 136, tendo uma pluralidade de retentores de extrator 137, que se estendem através de um lado do molde de gelo 116. Um acamador de 5 10 15 20 25 30 29 gelo ou ejetor de gelo 118 pode ser montado giravelmente no centro da borda de topo do molde de gelo 116. O acamador de gelo 118 pode incluir uma plu— ralidade de dentes 119 para ejetar cubos de gelo do molde de gelo 116 a me— dida que o acamador de gelo é girado através do molde de gelo 116 durante um ciclo de recolhimento de gelo. O fabricante de gelo 135 pode ter um ele— mento para entrada de água 123 a fim de

1. Irecionar agua de um tubo de en- chimento de fabricante de gelo (nao-mostrado) para o molde de gelo 116, como e bem-conhecido na tecnica. O fabricante de gelo 135 pode ter um alo- jamento de controle (nao-mostrado), como descrito nas Patentes U.S. refe- renciadas acima, incluindo um controle 33 para controlar a operacao do fabri- cador de gelo 135 e um motor 35 para acionar o acamador de gelo 118 duran- te ciclos de recolhimento de gelo, tudo como e bem-conhecido na tecnica. O molde de gelo 116 pode ser dotado de uma cobertura 138, que pode ser arti- culada a borda do molde de gelo 116, oposta ao extrator de gelo 136. O extra- tor de gelo 136 e a borda do molde de gelo 116 podem definir um canal de recuperacao de agua 140 entre a borda de topo do molde de gelo 116 e o ex- trator de gelo 136. Quando a cobertura 138 esta na posicao fechada mostrada na figura 6, o topo do canal de recuperacao de agua 140 e fechado de modo que qualquer agua que salpique do molde de gelo 116 contra o extrator 136 ou cobertura 138 possa circular no canal de recuperacao de agua 140 e, en- tao, de volta para o molde de gelo 116. Em outros aspectos, o fabricante de gelo 135 pode operar como o fabricante de gelo 115 descrito acima e pode ser disposto para a cobertura 138 se abrir durante ciclos de recolhimento de gelo. Aqueles versados na tecnica compreenderao que uma bandeja 128 po- de ser proporcionada para o fabricante de gelo 135, como descrito acima em relacao as figuras 3 e 4. Voltando a figura 7, outra concretizacao de um fabricante de ge- lo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. O fabricante de gelo 145 pode ser um fabricante de gelo si- milar ao fabricante de gelo descrito nas Patentes U.S. N degrees s 4.649.717 e 4.649.718, aqui incorporadas por referencia. O fabricante de gelo 145 pode compreender um molde de gelo 116, que pode ser um molde de aluminio 5 10 15 20 25 30 30 fundido revestido com epoxi, como e bem-conhecido na tecnica. O molde de gelo 116 pode ter um aquecedor 117, proporcionado para aquecer o molde durante ciclos de recolhimento de gelo, como descrito nas patentes identi- cadas acima, incorporadas por referencia. O molde de gelo 116 pode ser dotado de um extrator de gelo 148, tendo uma pluralidade de retentores de extrator 150, estendendo-se atraves de um lado do molde de gelo 116. Na concretizacao da figura 7, retentores de extrator 150 podem ser formados de material flexivel, tal como borracha de silicone e podem ter uma pluralidade de fendas 151 alinhadas com dentes 119 de acamador de gelo 118. Um a- camador de gelo ou ejetor de gelo 118 pode ser montado giravelmente no centro da borda de topo do molde de gelo 116. O acamador de gelo 118 po- de incluir uma pluralidade de dentes 119 para ejetar cubos de gelo do molde de gelo 116, a medida que o acamador de gelo e girado atraves do molde de gelo 116 durante um ciclo de recolhimento de gelo. A medida que os dentes 119 contatam o extrator 148, as bordas de retentores adjacentes 150 podem se flexionar para permitir que os respectivos dentes se movam atraves das fendas 151 e ejetem cubos de gelo do molde de gelo 116. O fabricante de gelo 145 pode ter um elemento para entrada de agua 123 para direcionar agua de um tubo de enchimento de fabricante de gelo (nao-mostrado) para o molde de gelo 116, como e bem-conhecido na tecnica. O fabricante de gelo 145 pode ter um alojamento de controle (nao-mostrado), como descrito nas Patentes U.S. referenciadas acima, incluindo um controle 33 para controlar a operacao do fabricante de gelo 145 e um motor 35 para acionar o acamador de gelo 118 durante ciclos de recolhimento de gelo, tudo como e bem- conhecido na tecnica. O fabricante de gelo 145 pode ter uma tampa proteto- ra fixa 146 conectada ao molde de gelo 116, oposta ao extrator de gelo 148. Desse modo, a combinacao de extrator 148 e tampa protetora 146 cobre, substancialmente, o topo aberto do molde de gelo 116 e pode reduzir, subs- tancialmente, a possibilidade de agua salpicar para fora do molde de gelo 116, se a porta em que o fabricante de gelo 145 esta montado e aberta ou fechada abruptamente, quando liquido esta presente no molde de gelo 116. Aqueles versados na tecnica compreenderao que uma bandeja 128 pode ser 5 10 15 20 25 30 31 proporcionada para o fabricante de gelo 145, como descrito acima em rela- cao as figuras 3 e 4. Voltando a figura 8, outra concretizacao de um fabricante de ge- lo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. O fabricante de gelo 155 pode ser um fabricante de gelo si- milar ao fabricante de gelo descrito nas Patentes U.S. N degrees s 4.649.717 e 4.649.718 aqui incorporadas por referencia. O fabricante de gelo 155 pode compreender um molde de gelo 116, que pode ser um molde de aluminio fundido revestido com epoxi, como e bem-conhecido na tecnica. O molde de gelo 116 pode ter um aquecedor 117 proporcionado para aquecer o molde durante ciclos de recolhimento de gelo, como descrito nas patentes identi- cadas acima incorporadas por referencia. O molde de gelo 116 pode ser do- tado de um extrator de gelo 158, tendo uma pluralidade de retentores de ex- trator 159, estendendo-se atraves de um lado do molde de gelo 116. Um acamador de gelo 118 pode ser montado giravelmente no centro da borda de topo do molde de gelo 116. O acamador de gelo 118 pode incluir uma pluralidade de dentes 119 para ejetar cubos de gelo do molde de gelo 116 a medida que o acamador de gelo e girado atraves do molde de gelo 116 du- rante um ciclo de recolhimento de gelo. O fabricante de gelo 115 pode ter um elemento para entrada de agua 123 para direcionar agua de um tubo de enchimento de fabricante de gelo (nao-mostrado) para o molde de gelo 116, como e bem-conhecido na tecnica. O fabricante de gelo 155 pode ter um alojamento de controle 160, como descrito nas Patentes U.S. referenciadas acima, incluindo um controle 33 para controlar a operacao do fabricante de gelo 155 e um motor 35 para acionar o acamador de gelo 118 durante ciclos de recolhimento de gelo, tudo como e bem-conhecido na tecnica. O molde de gelo 116 pode ser dotado de uma cobertura 162 que pode ser articulada a borda do molde de gelo 116 oposta ao extrator de gelo 158. A cobertura 162 pode ser articulada ao molde de gelo 116 com um par de articulacoes 163. A cobertura 162 pode ter uma pluralidade de lingueetas 161 que se es- tendem de uma borda da cobertura 162 disposta para fechar, substancial- mente, as folgas 157 entre retentores de extrator adjacentes 159, quando a 32 cobertura 162 e fechada contra a borda de topo do molde de gelo 116 e o extrator de gelo 158. Desse modo, a cobertura 162 pode ser disposta para encerrar substancialmente o molde de gelo 116 para ajudar a impedir agua de derramar para fora do molde de gelo 116, no caso de a porta do compar- 5 timento do refrigerador ou do freezer, em que o fabricante de gelo 155 esta posicionado e aberta ou fechada abruptamente, quando agua no estado li- quido esta presente no molde de gelo 116. A cobertura 162 pode ser dispos- ta para ser aberta durante um ciclo de recolhimento de gelo pelo controle de fabricante de gelo 160. Por exemplo, um carne ou outro mecanismo de acio- 10 namento (nao-mostrado) pode ser disposto para acionar a cobertura 162 para a posicao aberta, enquanto o controle aciona o acamador de gelo 118 atraves do molde de gelo 116 para ejetar cubos de gelo do molde de gelo. Alternativamente, a cobertura 162 poderia ser impulsionada, resiliientemente, para a posicao aberta e o controle de fabricante de gelo 160 poderia operar 15 para fechar a cobertura 162 de outro modo que nao durante um ciclo de re- colhimento de

gelo, como sera prontamente compreendido por aqueles versados na tecnica. Aqueles versados na tecnica compreenderao que uma bandeja 128 pode ser proporcionada para o fabricante de gelo 155, como descrito acima em relacao as figuras 3 e 4. Voltando as figuras 9, 10 e 11, outra concretizacao de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. Na concretizacao das Figuras 9, 10 e 11, o fabricante de gelo 165 e ilustrado em uma porta de compartimento de freezer 20, como na figura 2. Aqueles versados na tecnica compreenderao que o fabricante de gelo 165 tambem poderia ser utilizado em uma porta de compartimento de refrigerador 69, como na concretizacao ilustrada na figura 1A e 1B. O fabricante de gelo 165 pode ser similar ao fabricante de gelo descrito nos pedidos de patente co-pendente dos Estados Unidos US20020155 e US20040162, depositados simultaneamente com o presente por Voglewede 30 et al., pedidos que sao incorporados em sua totalidade atraves de referencia. O fabricante de gelo 165 e mostrado na posicao fechada, de enchimento e de formacao de gelo na figura 9. Na figura 10, o fabricante de gelo 165 e 5 10 15 20 25 30 33 mostrado parcialmente girado para a posicao de recolhimento de gelo a fim de ilustrar aspectos de gerenciamento de derramamento desta concretizacao da invencao. A figura 11 e uma vista seccional transversal de fabricante de gelo 165 na posicao fechada de enchimento e formacao de gelo, conforme mostrado na figura 9. O fabricante de gelo 165 pode ser anexado a porta 20 atraves da fixacao da placa de montagem 166 a porta interna 21, como ser compreendido por aqueles versados na tecnica. O fabricante de gelo 165 pode incluir um alojamento 180 tendo paredes extremas 182 e 184 e uma parede de topo 186. As paredes extremas 182 e 184 podem suportar giravelmente a bandeja de gelo 171. A bandeja de gelo 171 pode compreender uma estrutura 172 que pode suportar uma insercao de molde 174. Como descrito nos pedidos de patente co-pendentes dos Estados Unidos US20020155 e US20040162 aqui incorporados atraves de referencia, a insercao de molde 174 pode ser um material plastico flexivel que pode incluir poliuretano e silicone, que pode ter um material com baixo coeficiente de atrito, formando a camada de topo. A parede extrema 182 pode suportar um motor 35, que pode incluir um trem de engrenagens (nao-mostrado) no alojamento 169, que pode conectar o motor 35 a um eixo de acionamento 170 conectado a estrutura 172. A operacao do motor 35 por um controle 33 para acionar a bandeja de gelo 171 para recolhimento de pedacos de gelo e descrita em detalhes nos pedidos de patente co-pendentes dos Estados Unidos US20020155 e US20040162 aqui incorporados atraves de referencia. A concretizacao do fabricante de gelo 165 disposto para montagem em uma porta de compartimento de refrigerador ou de freezer pode ser disposta para impedir derramamentos de agua, no caso de a porta em que o fabricante de gelo 165 e montado ser aberta e fechada, quando liquido esta presente na insercao de molde 174. Na concretizacao ilustrada nas figuras 9, 10 e 11, a insercao de molde 174 pode ter uma virola 176, que se projeta para cima da insercao de molde 174. A virola 176 pode ser posicionada fora das reentrancias 175. A parede de topo 186 do alojamento 180 pode incluir paredes de contencao 188, 189, 190 e 191 (nao-mostradas), que podem se projetar para baixo da parede de topo 186 e podem terminar na superficie de topo da insercao de molde 174 entre reentrancias 175 e a virola 176. A parede de contencao 191 (nao-mostrada) e oposta a parede de contencao 189. Desse modo, a interacao das paredes de contencao 188, 189, 190 e 191 e a virola 176 podem impedir, substancialmente, o derramamento de agua fora da bandeja de cubos de gelo 171, quando agua nao congelada esta presente nas reentrancias 175 e a porta do freezer 20 e aberta ou fechada, abruptamente. Voltando as figuras 13A, 13B, 14A e 14B, outra concretizacao de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista em forma esquematica de vista lateral. Nas figuras 13A e 13B, a porta de freezer 20 e mostrada na posicao aberta. Nas figuras 14A e 14B, a porta de freezer 20 e mostrada na posicao fechada. Aqueles versados na tecnica compreenderao que a concretizacao mostrada nas figuras 13A, 13B, 14A e 14B pode ser usada em relacao com uma porta de refrigerador com freezer na parte inferior, conforme mostrado na concretizacao das figuras 1A e 1B. O fabricante de gelo 22' pode ser montado na superficie interior da porta de compartimento de freezer 20 acima de um receptaculo para armazenamento de cubos de gelo 28. O fabricante de gelo 22' pode incluir uma cobertura articulada 192. Nesta concretizacao, a cobertura articulada 192 pode compreender uma pluralidade de segmentos 193, 194, 195 e 196. A cobertura articulada pode ser formada de plastico, tal como polipropileno ou metal, como sera compreendido por aqueles versados na tecnica. O fabricante de gelo 22' pode incluir um lado aberto 23, que pode levar a porcao de molde de gelo (nao-mostrada) do fabricante de gelo 22'. O fabricante de gelo 22' pode ser disposto para descarregar cubos de gelo atraves do lado aberto 23 durante ciclos de recolhimento. A cobertura 192 pode ser articulada na borda de topo 24 do fabricante de gelo 22' oposto a porta interna 25 da porta de freezer 20. Os segmentos 193 e 194 podem formar um fechamento para o lado aberto 23, quando a cobertura esta na posicao fechada mostrada na figura 13A. Os segmentos 195 e 196 podem ocupar o espaco entre o fabricante de gelo 22' e o receptaculo para armazenamento de cubos de gelo 28, quando a cobertura 192 esta na posicao fechada, conforme mostrado na figura 13A. Quando a cobertura 192 e fechada, o receptaculo para armazenamento de cubos de gelo pode ser facilmente removido da porta interna 21 para distribuicao a granel de cubos de gelo, como para enchimento de um refrigerante ou outra finalidade, conforme desejado, sem interferencia da cobertura 192. Fazendo referencia a figura 13B, a cobertura 192 pode ser articulada ao fabricante de gelo 221 na borda de topo 24 pelo pivo 198. Aqueles versados na tecnica compreenderao que o pivo 198 pode ser uma articulacao continua ou uma ou mais articulacoes individuais ou outra disposicao de montagem em pivo conhecida. O peso dos segmentos 193, 194, 195 e 196 pode impulsionar a cobertura 192 para a posicao fechada e pode elevar o atuador 200, que se estende alem do pivo 198. Voltando as figuras 14A e 14B, a porta de compartimento de freezer 20 pode ser vista na posicao fechada. Na posicao fechada, o atuador 200 pode ser visto articulado em contato com o topo de fabricante de gelo 22', devido ao atuador 200 ser operado pela parede de topo de compartimento de freezer 17. O movimento do atuador para a posicao mostrada na figura 14B pode ser feito com que a cobertura 192 gire para cima, para a posicao elevada, mostrada na figura 14A. Na posicao elevada, a cobertura 192 pode formar uma passagem para os pedacos de gelo recolhidos 34 do fabricante de gelo 22' para o receptaculo para armazenamento de cubos de gelo 28. Os cubos de gelo 34 sao ilustrados como crescentes na figura 14A. Os cubos de gelo serao referidos como 34 em outras concretizacoes, quer ou nao eles sejam mostrados como crescentes. Aqueles versados na tecnica compreenderao que os cubos de gelo podem tomar formas conforme desejado, meia-lua, cilindrica, retilinea, conica ou outras formas regulares ou especiais. Os segmentos 193 e

194 podem desviar pedacos de gelo que deixam o lado aberto 23 do fabricante de gelo 22', dirigindo os pedacos de gelo 34 para baixo, para o receptaculo para armazenamento de cubos de gelo 28. Os segmentos 195 e 196 podem completar a passagem 202, levando do fabricante de gelo 22' para o receptaculo para armazenamento de cubos de gelo 28. Uma vantagem adicional da cobertura 192 e que, quando a porta de compartimento de freezer 20 esta aberta, a cobertura 192 encerra, efetivamente, o fabricante de gelo 22' para impedir os usuarios de contatar, inadvertidamente, 5 10 15 20 25 30 36 te, porcos do fabricante de gelo 22', quando acessando o interior do compartimento de freezer 16 e pode ajudar a manter abaixo de 0 degrees centigrade o ar em torno do fabricante de gelo 22'. Alem disso, conforme ilustrado na figura 13A, o perfil da porta de freezer 20 e reduzido, comparado com a posicao aberta da porta devido a rotacao da cobertura 192 para a posicao fechada, quando a porta de freezer 20 e aberta. A cobertura 192 permite que o perfil da porta de freezer 20 seja reduzido ate a espessura do fabricante de gelo 22' e do receptaculo para armazenamento de cubos de gelo 28, comparado com as disposicoes de fabricante de gelo que requerem espaco entre a porta interna 21 e o fabricante de gelo 22' para pedacos de gelo recolhidos para cair no receptaculo para armazenamento de cubos de gelo 28. A cobertura 192 e mostrada como sendo operada pela gravidade na concretizacao das figuras 13A, 13B, 14A e 14B, porem, aqueles versados na tecnica compreenderao que a cobertura 192 pode ser disposta para ser operada por um motor de mola ou solenoide (nao-mostrado) para articulacao entre as posicoes fechada e aberta. Aqueles versados na tecnica prontamente tambem compreenderao que um operador para cobertura 192 pode ser disposto para mover a cobertura 192 para a posicao aberta, quando a porta 20 e fechada, ou quando o fabricante de gelo 22' esta em um ciclo de recolhimento de gelo, conforme desejado. Voltando a figura 15, outra concretizacao de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. Embora o fabricante de gelo 205 nao seja mostrado em uma porta de compartimento de freezer ou de refrigerador, aqueles versados na tecnica compreenderao que o fabricante de gelo 205 pode ser usado em conjunto com a concretizacao das figuras 1A e 1B ou com a concretizacao da figura 2. O fabricante de gelo 205 compreende um fabricante de gelo com bandeja de torcao que pode ser similar e operar similar aos fabricantes de gelo com bandeja de torcao descritos nas Patentes U.S. N degrees s 3.964.269; 3.871.242; 3.779.032; 3.763.662; 3.727.428; 3.677.030; 3.648.476; 3.383.876; e 3.382.682, todas as quais sao aqui incorporadas atraves de referencia. O fabricante de gelo com bandeja de torcao 205 pode incluir um alojamento de 5 10 15 20 25 30 37 controle 208, que pode ser conectado, operativamente, a bandeja de torcao 206. O alojamento de controle pode incluir um controle 33 e um motor 35 para operar o fabricante de gelo com bandeja de torcao 205. A bandeja de torcao 206 pode ter paredes laterais 210, que se estendem para cima das reentrancias 207, para formar uma protecao contra salpicos a fim de conter agua nao congelada na bandeja de torcao 206, no caso de a porta em que o fabricante de gelo 205 esta montado e aberta ou fechada, abruptamente. A operacao do fabricante de gelo com bandeja de torcao 205 e bem-conhecida por aqueles versados na tecnica e pode ser similar a operacao dos fabricantes de gelo com bandeja de torcao descritos nas patentes descritas antes neste paragrafo. O fabricante de gelo 205 pode recolher gelo dentro de sua propria largura, como e bem-conhecido na tecnica. Desse modo, um fabricante de gelo com bandeja de torcao pode permitir um perfil de porta mais estreito do que os fabricantes de gelo que descarregam gelo em um lado. Os fabricantes de gelo que descarregam cubos de gelo em um lado podem requerer uma largura adicional, que pode ser da ordem de tres polegadas, a fim de permitir espaco para cubos de gelo cairem no receptaculo para armazenamento de cubos de gelo. Uma vantagem adicional de um fabricante de gelo com bandeja de torcao e que nenhum acamador de gelo ou extrator de gelo e requerido atraves da bandeja de gelo. A eliminacao de um acamador de gelo e do extrator de gelo remove elementos que poderiam ser expostos a agua e congelar, no caso de a porta em que o fabricante de gelo esta montado ser aberta ou fechada, abruptamente, quando agua nao congelada esta presente no molde de gelo. Aqueles versados na tecnica compreenderao que o fabricante de gelo 205 pode incluir disposicoes de montagem apropriadas e pode incluir, por exemplo, um tubo de enchimento para fornecer agua para a bandeja de torcao 206 no comeco de um ciclo de formacao de gelo bem como conexoes eletricas com o controle 208. Voltando a figura 16, outra concretizacao de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. O fabricante de gelo 215 pode incluir uma bandeja de torcao superior 216 e uma bandeja de torcao inferior 218, que podem ser, cada uma delas, em geral, similares a bandeja de torcao 206 na concretizacao da figura 15. Cada uma das bandejas de torcao de superior e inferior pode incluir uma protecao contra salpicos 210 disposta para reduzir a possibilidade de agua nao congelada derramar para fora do fabricante de gelo 215, no caso de a porta em que o fabricante de gelo 215 esta montado ser aberta ou fechada abruptamente, com agua nao congelada presente no fabricante de gelo. Aqueles versados na tecnica compreenderao que o fabricante de gelo 215 pode incluir disposicoes de montagem apropriadas e pode incluir, por exemplo, um tubo de enchimento para fornecer agua para as bandejas de torcao 216 e 218 no comeco de um ciclo de formacao de gelo, bem como conexoes eletricas com o controle 208. Uma vantagem de uma bandeja de torcao dupla e que cada bandeja de torcao e utilizada a cada outro ciclo, a fim de prolongar o tempo antes que minerais ou escamas de oxidacao possam se acumular em uma bandeja, que pode fazer com que cubos de gelo venham a aderir a bandeja de torcao durante o recolhimento. As figuras 17 e 18 ilustram outra concretizacao de uma bandeja de torcao dupla 220, que pode ter uma bandeja de torcao superior 222 e uma bandeja de torcao inferior 224. A bandeja de torcao dupla 220 pode ser usada com um fabricante de gelo com bandeja de torcao, tal como um fabricante de gelo com bandeja de torcao 215 descrita na figura 16. Cada bandeja de torcao 222 e 224 pode incluir uma protecao contra salpico 228 como descrito acima em relacao com as concretizacoes das figuras 15 e 16. Na concretizacao das figuras 17 e 18, a bandeja de torcao 220 pode compreender uma parede de fundo comum 226 separando a bandeja de torcao superior 222 da bandeja de torcao inferior 224. Uma vantagem de dotar a bandeja de torcao 220 com uma parede de fundo comum 226 e que o calor na agua adicionada a bandeja vazia para comecar outro ciclo de formacao de gelo pode ajudar a liberacao de quaisquer cubos de gelo que poderiam ficar aderidos na bandeja de torcao inferior. Aqueles versados na tecnica compreenderao que o ciclo de recolhimento de gelo pode ser disposto para proporcionar enchimento da bandeja de torcao superior, enquanto a bandeja vazia gira para a posicao vertical a fim de proporcionar calor da agua para 5 10 15 20 25 30 39 ajudar os cubos de gelo recolhidos na bandeja inferior. A figura 19 ilustra outra concretizacao de uma bandeja de torcao

dupla 230, que pode ser similar a bandeja de torção dupla 220 nas figuras 17 e 18. A bandeja de torção dupla 230 pode ter uma proteção contra salpico 232, que pode ser curvada para dentro, a fim de ajudar a desviar a água de volta para a bandeja de torção dupla 230, no caso de o fabricante de gelo em que a bandeja de torção 230 é utilizada estar montado em uma porta de refrigerador ou freezer aberta ou fechada, abruptamente, quando água não congelada está presente no fabricante de gelo. Aqueles versados na técnica compreenderão que qual quer uma das concretizações de bandejas de torção pode incluir uma proteção contra salpico curvada, conforme ilustrado na figura 19, em lugar de proteções retas contra salpico ilustradas nas figuras de 15 a 18. Aqueles versados na técnica compreenderão que um fabricante de gelo incorporando qualquer uma das disposições de bandeja de torção ilustradas nas figuras de 15 a 19 pode operar similar aos fabricantes de gelo com bandeja de torção descritos nas Patentes U.S. referenciadas acima. Voltando as figuras 20A, 20B, 20C, 21A, 21B e 21C, outra concretização de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. Na concretização ilustrada nas figuras 20A – 21A – C, o fabricante de gelo 240 pode compreender um molde de gelo 242, que pode ser montado giravelmente no fabricante de gelo 240. O fabricante de gelo 240 pode incluir uma parede de base 244, tendo um motor 35 montado em um lado da parede de base 244. A parede de base 244 também pode suportar um controle 33 (não-mostrado) para controlar a operação do fabricante de gelo 240. O molde de gelo 242 pode ser montado giravelmente entre a parede de base 244 e a estrutura 248. A estrutura 248 pode ser um elemento geralmente em forma de "U", que pode ser preso as pernas 247, que podem se estender de lados opostos da parede de base 244 (estrutura 248 é omitida da figura 20A para melhor ilustrar o molde de gelo 242). Prendedores adequados podem ser usados para prender a estrutura 248 as pernas 247, como será compreendido por aqueles versados na técnica. O molde de gelo 242 pode ser um molde de alumínio 5 10 15 20 25 30 40 não revestido com epoxi, como descrito acima e pode ter paredes laterais 250 e 252, que podem se estender acima do nível de água no molde de gelo 242 para impedir o salpico de água para fora do molde de gelo 240. O molde de gelo 242 pode incluir um aquecedor de molde de gelo 117 (figura 27) para facilitar a remoção de cubos de gelo 34, durante o ciclo de recolhimento como é bem-conhecido. Um canal 256 pode ser formado na parede lateral 252 a fim de reter água formada como um resultado da operação do aquecedor de molde de gelo durante um ciclo de recolhimento de gelo. O canal 256 pode ser formado por uma reentrância 257 na parede lateral 252 e uma virola 258, que se estende da borda distal da parede 252 em direção ao centro do molde de gelo 242. A virola 258 pode terminar na borda de retorno 260 se estendendo do elemento superior distal da virola 258 em direção ao fundo do molde de gelo 242. Um acamador de gelo fixo 254 pode ser montado na parede de base 244 e na estrutura 248. O molde de gelo 242 pode ser disposto para girar em torno do acamador de gelo 254 como será descrito a seguir. Nas figuras 20A e 21A, o molde de gelo 242 está ilustrado na posição de origem. Na posição de origem, o molde de gelo está aberto para cima e compreende a posição de enchimento e de formação. Um tubo de enchimento (não-mostrado) pode se estender do elemento para entrada de água 123 para o gabinete do refrigerador freezer e se conectar a uma fonte de água. Após a água ter congelado nos cubos de gelo 34, um sensor de temperatura 245 (figura 27) pode operar para iniciar um ciclo de recolhimento de gelo, como é bem-conhecido na técnica, e pode ser similar aos fabricantes de gelo descritos nas Patentes U.S. incorporadas através de referência em conjunto com as figuras 3 e 4 acima. Durante o ciclo de recolhimento de gelo, o motor 35 pode ser disposto para fazer com que o molde de gelo 242 gire no sentido dos ponteiros do relógio por 180 graus, conforme mostrado nas figuras 20B, 20C, 21B e 21C. Nas figuras 20B e 21B, o molde de gelo 242 é mostrado girado 90 graus com água derretida pelo aquecedor de molde de gelo (não-mostrado) coletado no canal 256. Na rotação de 90 graus, os cubos de gelo 34 ainda não contataram o acamador de gelo estacionário 254. 5 10 15 20 25 30 41 Contudo, a medida que o molde de gelo 242 continua a girar para a posição de 180 graus de rotação mostrada nas figuras 20C e 21C, o acamador de gelo ejetou cubos de gelo 34, permitindo que os cubos de gelo caíam no receptáculo para armazenamento de cubos de gelo (não-mostrado nesta concretização). Na posição de rotação de 180 graus mostrada na figura 20C e 21C, o canal 256 pode reter água formada quando o aquecedor de molde de gelo 117 aquece o molde de gelo para liberar cubos de gelo do molde 242. O motor 35 pode, então, inverter a rotação do molde de gelo 242 para a posição vertical ilustrada nas figuras 20A e 21A para começar outro ciclo de formação de gelo. Qualquer água no canal 256 pode correr de volta para a cavidade de molde de gelo 243 como o retorno do molde de gelo 242 para a posição superior. O molde de gelo 242 pode incluir uma pluralidade de alhetas 262 e pode ser dotado de um alojamento para aperfeiçoar o fluxo de ar em torno do molde de gelo, como descrito no pedido de patente co-pendente dos Estados Unidos US20040111, depositado por Anselmino et al., simultaneamente com o presente e aqui incorporado em sua totalidade. Embora o fabricante de gelo 240 seja descrito nesta concretização como tendo um molde de gelo girável 242, aqueles versados na técnica compreenderão que o fabricante de gelo 240 pode ser disposto para ser girável, em lugar de ter apenas o molde do fabricante de gelo girável através da montagem, gira-velmente, do fabricante de gelo na porta do refrigerador ou do freezer. Um fabricante de gelo girável poderia ser disposto para girar em torno de um ponto fixo na porta do refrigerador ou do freezer que pode ser conectado ao acamador de gelo fixo 254. Voltando as figuras 22A a 22C, outra concretização de um fabricante de gelo para uso em uma porta de compartimento de refrigerador ou de freezer pode ser vista. Na concretização das figuras 22A a 22C, o fabricante de gelo 332 é ilustrado na forma esquemática e inclui um molde de gelo 336 e o controle de fabricante de gelo 333. O molde de fabricante de gelo 336 pode ser um molde de alumínio revestido com epoxi, como descrito acima. O fabricante de gelo 332 pode incluir um acamador de gelo 340 montado giravelmente, acima do molde de gelo 336. O acamador de gelo 5 10 15 20 25 30 42 340 pode ser montado giravelmente no eixo de ancinho 341. O molde de gelo 336 pode incluir uma extensão fixa 338, que se estende para cima e para dentro de uma borda de molde de gelo 336. Como pode ser visto através de referência as figuras 22B e 22C, a extensão fixa 338 pode se estender para impedir, substancialmente, o salpico de água fora do molde de gelo 336 através da extensão fixa 338. Uma parede articulada 334 pode se estender para cima do lado oposto do molde de gelo 336. A parede articulada 334 pode ser de alumínio revestido com epoxi como o molde de gelo 336 ou, como será compreendido por aqueles versados na técnica, pode ser formada de material plástico moldado similar aos extratores de gelo usados em fabricantes de gelo conhecidos. Como pode ser visto através de referência as figuras 22B e 22C, a parede

articulada 334 pode se estender verticalmen- te, aproximadamente da mesma altura que a extensao fixa 338. A parede articulada 334 pode ser montada articuladamente no molde de gelo 336 por um eixo de parede articulada 339 na borda de topo do molde de gelo 336. Aqueles versados na tecnica compreenderao que a parede articulada 334 pode ser montada articulada ou giravelmente atraves de outras disposicoes de montagem que podem incluir uma articulacao continua ou pivos nas ex- tremidades de parede articulada 334, que cooperam com pontos de articula- cao conectados ao molde de gelo 336 como sao bem- conhecidos na tecnica. O controle de fabricante de gelo 333 pode incluir um carne 335 que pode ser conectado acionavelmente ao mecanismo de acionamento pa- ra acamador de gelo 340, conforme ilustrado pela linha tracejada 346, de modo que, a medida que o acamador de gelo 340 e girado durante um ciclo de recolhimento de cubos de gelo, o carne 335 gira. O controle de fabricante de gelo 333 pode incluir, tambem, uma alavanca 337, que pode ser disposta para ser operada pelo carne 335 a medida que ele gira com o acamador de gelo 340. A alavanca 337 pode ser montada giravelmente no controle de fabricante de gelo 333 no pivo 344. Conforme mostrado na figura 22B, quando a parede articulada 334 esta na posicao vertical, durante as porcoes de enchimento do fabricante de gelo e de congelamento dos cubos de gelo de um ciclo de fabricacao de gelo, a alavanca 337 pode ser posicionada pa- 5 10 15 20 25 30 43 ra ser encaixada pelo carne 335 a medida que ele gira. Atraves de referencia as figuras 22B e 22C a sequencia para operacao da parede articulada 334 pode ser vista. A medida que o acamador de gelo 340 se aproxima e passa pelo eixo 339 de parede articulada, o recorte 343 no carne 335 fica oposto a alavanca 337 para permanecer na posicao vertical mostrada na figura 22B no pivo 344. A medida que o acamador de gelo 340 continua a girar no e atraves do molde de gelo 336, a superficie de carne 335 pode engatar a ala- vanca 337 e articular a alavanca 337 par abaixo, para a posicao que se es- tende para baixo, mostrada na figura 22C. A alavanca 337 pode ser conec- tada a parede articulada 334, conforme ilustrado pela linha tracejada 345, de modo que, a medida que a alavanca 337 e girada entre as posicoes das figu- ras 22B e 22C, a parede articulada 334 se articula da posicao vertical (figura 22B) para a posicao horizontal (22C). No final de um ciclo de recolhimento de cubos de gelo, o acamador de gelo 340 pode retornar para uma posicao que se estende, em geral, para cima e o recorte 343 de carne 335 posicio- nado oposto a alavanca 337, de modo que a parede articulada 334 pode retomar a posicao vertical ilustrada na figura 22B. A superficie externa 347 da parede articulada (na figura 22B) pode ser plana ou pode ter cristas ou nervuras que se estendem, em geral, perpendiculares ao acamador de gelo 340, a fim de facilitar o deslizamento dos cubos de gelo 330 para fora da parede articulada 334 enquanto o acamador de gelo 340 completa sua rota- cao atraves do molde de gelo 336. Um cubo de gelo 330' e mostrado posi- cionado atraves da parede articulada 334 na figura 22C para ilustrar a ope- racao da parede articulada 334 como um extrator. No estagio de um ciclo de recolhimento de gelo ilustrado na figura 22C, o cubo de gelo 330 ainda esta no molde de gelo 336, conforme mostrado. Nesse sentido, a parede articula- da 334 pode funcionar similar ao extrator de gelo descrito nas Patentes U.S. 4.649.717 e 4.649.718 incorporadas acima atraves de referencia. A parede articulada 334 pode ser impulsionada para a posicao vertical (figura 22B) por uma mola de torcao (nao- mostrada) de modo que a alavanca 337 pode mo- ver a parede articulada 334 para a posicao horizontal pela compressao da mola de torcao. Quando o carne 335 retorna para uma posicao onde o recor- 5 10 15 20 25 30 44 te 343 fica oposto a alavanca 337, a mola de torcao pode retomar a parede articulada 334 para a posicao vertical. Alternativamente, a parede articulada 334 pode ser acionada mecanicamente pela alavanca 337 para articular a parede articulada 334 entre as posicoes vertical e horizontal como sera pron- tamente compreendido por aqueles versados na tecnica. Desse modo, em operacao, a parede articulada 334 e a extensao fixa 338 podem se estender verticalmente acima do molde de gelo 336 a fim de conter o salpico de agua para fora do molde de gelo 336 durante as porcoes de enchimento e de con- gelamento de cubos de gelo de um ciclo de recolhimento de gelo. No come- co de um ciclo de recolhimento de gelo, a parede articulada 334 pode ser articulada para a posicao mostrada na figura 22C para permitir que os cubos de gelo 330 sejam empurrados atraves da parede articulada 334 para um receptaculo para armazenamento de cubos de gelo subjacente (nao- mostrado). Como mencionado acima, a superficie externa 347 da parede articulada 334 pode ter cristas ou nervuras que correm em geral perpendicu- lares ao acamador de gelo 340 a fim de facilitar o deslizamento dos cubos de gelo para fora da parede articulada 337, enquanto funciona como um ex- trator de gelo em um fabricante de gelo convencional, conforme descrito nas Patentes U.S. referenciadas, identificadas acima. Uma vantagem da configu- racao de parede articulada das figuras 22A a 22C e que uma estrutura con- vencional de extrator de gelo que se estende atraves do molde de gelo 336 pode ser eliminada. A eliminacao do extrator de gelo remove a possibilidade de agua salpicando para fora do molde de gelo no extrator de gelo durante o ciclo de enchimento e de congelamento de cubos de gelo. O gelo no extrator de gelo poderia impedir o acamador de gelo 340 de girar atraves do molde de gelo 336, durante o ciclo de recolhimento para empurrar cubos de gelo 330 para fora do molde de gelo 336. Voltando as figuras 23, 24A e 24B, amortecedores de porta para uso em conjunto com uma porta de compartimento de refrigerador ou de fre- ezer tendo um fabricante de gelo montado sobre ela podem ser vistos. Sera compreendido que um amortecedor de porta, como descrito em conexao com as figuras 23, 24A e 24B, pode ser usado em combinacao com qualquer 5 10 15 20 25 30 45 uma das concretizacoes de fabricantes de gelo descritas acima. Na figura 23, uma concretizacao de um amortecedor de porta pode ser vista posicio- nada no fundo do gabinete de refrigerador freezer 52 no compartimento de maquinaria 58. Aqueles versados na tecnica compreenderao que uma vasi- lha de drenagem 60 pode estar localizada no fundo do compartimento de maquinaria 58 para proporcionar uma localizacao para agua de desconge- lamento drenar para evaporacao. A vasilha de drenagem 60 tambem pode proporcionar uma localizacao para agua derramada de um fabricante de ge- lo combinado com uma bandeja, tal como ilustrado nas figuras 3 e 4. Uma linha de drenagem adequada (nao- mostrada) pode conectar o dreno 130 na bandeja 128 para a vasilha de drenagem 60 para descarte de agua derra- mada de um fabricante de gelo em uma porta de compartimento de refrige- rador ou de freezer. Aqueles versados na tecnica compreenderao que o compressor do sistema de refrigeracao (nao- mostrado), um condensador 64 e um ventilador de condensador 62, tipicamente, localizados no comparti- mento de maquinaria 58 podem proporcionar calor e fluxo de ar para evapo- racao de agua drenada para a vasilha de drenagem 60. Na figura 23, um amortecedor 264 pode ser montado articuladamente em uma bracadeira no compartimento de maquinaria no pivo 265. A extremidade oposta do amorte- cedor 264 pode ser conectada articuladamente a bracadeira 267,

que pode ser fixada em uma porta (nao-mostrada) ou articulacao de porta (nao- mostrada) em 268. O amortecedor 264 pode ser uma mola a gas que amor- tece em ambas as direcoes. Aqueles versados na tecnica compreenderao que o amortecedor 264 pode ser um amortecedor hidraulico ou carregado a mola, em lugar de um amortecedor a mola de gas. A bracedeira 267 e o a- mortecedor 264 podem ser dispostos de modo que a porta segue atraves do centro em relacao ao amortecedor 264 enquanto a porta se fecha, de modo que o movimento da porta pode ser amortecido no fechamento bem como na abertura. O efeito de amortecimento da mola a gas no amortecedor 264 po- de proporcionar o amortecimento do movimento de abertura ou fechamento da porta para impedir, ou reduzir, substancialmente, a possibilidade de salpi- co de agua para fora de um fabricante de gelo posicionado na porta, como 46 descrito acima. Voltando as figuras 24A e 24B, uma concretizacao de amortece- dor giratorio pode ser vista. O amortecedor giratorio 272 pode compreender uma engrenagem de amortecedor 274 montada giravelmente na base de a- 5 mortecedor 276. Os amortecedores giratorios sao bem-conhecidos na tecnica e podem incluir material viscoso ou de friccao acoplando a engrenagem de amortecedor 274 a base de amortecedor 276. Dispositivos conhecidos inclu- em amortecedores giratorios unidirecionais ou bidirecionais. O amortecedor giratorio 272 pode ser montado em um elemento fixo, tal como um elemento 10 de articulacao (nao-mostrado) preso ao gabinete de refrigerador freezer 52 (figura 1A). A engrenagem 270 pode ser fixada em um elemento de articula- cao giratorio, tal como no pino de articulacao (nao-mostrado) preso a porta do refrigerador 69 (figura 1A). O amortecedor giratorio 271 pode ser posicionado de modo que a engrenagem de amortecedor 274 engata a engrenagem 270, 15 quando a porta 69 e posicionada no gabinete 52. Em operacao, a medida que a porta 69 e aberta ou fechada, a engrenagem 270 gira a engrenagem de amortecedor 274. O efeito de amortecimento do material viscoso ou de atrito entre a engrenagem de amortecedor 274 e a base de amortecedor 276 pode proporcionar o amortecimento do movimento de abertura e fechamento da 20 porta para impedir, ou reduzir, substancialmente, a possibilidade de salpico de agua para fora de um fabricante de gelo posicionado na porta, como descrito acima. Aqueles versados na tecnica compreenderao que o amortecedor gira- torio 272 ou amortecedor 264 pode ser um amortecedor unidirecional, se de- sejado, embora o amortecimento bidirecional seja preferido para ajudar a as- 25 segurar que os derramamentos de agua sejam impedidos no fechamento da porta bem como no movimento de abertura da porta. Voltando a figura 25, um sensor de derramamento e controle de derramamento de acordo com a invencao podem ser vistos. Alem de propor- cionar uma bandeja 128 (figura 3) para reter qualquer agua derramada ou 30 salpicada para fora de uma das concretizacoes de fabricante de gelo descri- tas acima, um sensor de derramamento 280 e controle de derramamento 285 podem ser proporcionados para alertar o usuario de que um derrama- 5 10 15 20 25 30 47 mento ocorreu el ou empreender uma acao, automaticamente, em resposta ao derramamento. O sensor de derramamento 280 pode ser dois grupos de placas de metal 281, 282, localizados na bandeja 128, dispostos para serem contactados por qualquer agua que derrame para fora de um fabricante de gelo posicionado na bandeja 128. Quando agua ou gelo esta presente nas placas de metal 281, 282 a resistencia eletrica atraves das placas 281, 282 pode mudar e produzir um sinal para o controle de derramamento 285, indi- cando que agua ou gelo esta presente na bandeja 128. Aqueles versados na tecnica compreenderao que as placas 281, 282 podem ser placas conduto- res distintas posicionadas na bandeja 128, ou, se desejado, podem ser uma pelicula condutora ou tinta impressa na bandeja 128. O controle de derra- mamento 285 pode ser disposto para ativar uma ou mais saidas que podem incluir um emissor de sinal sonoro audivel 286, um visor de LED 288, que pode ser posicionado na interface de usuario 73 (figura 1A) e uma saida de energia, que pode compreender uma chave eletronica (isto e, um SCR) 290 para ativar um elemento em resposta a deteccao de derramamento. Por e- xemplo, a chave eletronica 290 pode ser disposta para ativar uma bomba 292 para bombear agua da bandeja 128, como descrito acima, ou pode ser disposta para ativar o aquecedor 132 para a bandeja 128, como descrito a- cima. Desse modo, um sensor e controle de derramamento pode alertar o usuario de que um derramamento de agua ocorreu el ou pode ativar uma resposta para o derramamento. Alertar o usuario de um derramamento pode permitir que o usuario limpe o derramamento prontamente, a fim de evitar o acumulo de gelo em torno da base do fabricante de gelo que pode ocorrer, se a agua nao for drenada para longe ou de outro modo descartada logo apos um derramamento ocorrer. Voltando as figuras 26 e 27, a operacao da invencao de gerenci- amento de derramamento das requerentes para fabricantes de gelo monta- dos em porta de compartimento de refrigerador ou de freezer sera descrita em maiores detalhes. A operacao descrita abaixo sera compreendida para se aplicar a todas as concretizacoes de fabricantes de gelo descritas aci- ma, a menos que de outro modo observado. No comeco de um ciclo de for- 5 10 15 20 25 30 48 macao de gelo, etapa 300, a valvula de agua 95 pode ser ativada pelo con- trole de valvula d'agua 94 para encher o fabricante de gelo com agua, etapa 301. O fabricante de gelo esta localizado em uma localizacao com tempera- tura abaixo de 0 degrees centigrade e, conseqeentemente, a agua se resfia e comeca a se congelar, etapa 302. Se a porta em que o fabricante de gelo esta e aberta ou fechada, enquanto liquido esta presente no molde de gelo, etapa 303, as caracteristicas anti-salpico, etapa 304, das concretizacoes de fabricante de gelo descritas acima e, se aplicavel, o mecanismo de amortecimento de por- ta, etapa 305, podem operar para impedir salpicos de agua do molde de ge- lo. Se, nao obstante as caracteristicas anti-salpico, etapa 304, e o mecanis- mo de amortecimento de porta, etapa 305, a agua derramar, etapa 306, as- pectos de gerenciamento de derramamento da invencao podem operar, se proporcionados. Se uma bandeja 128 for proporcionada, a agua derramada pode drenar para um recipiente na porta, etapa 307, se proporcionado, ou para um recipiente fora do refrigerador, tal como uma vasilha de drenagem 60, etapa 308. O recipiente da porta pode ser dotado de uma bomba 292 para esvaziar o recipiente quando cheio, etapa 309. Conforme notado acima, a bomba 292 tambem poderia ser disposta para bombear agua da bandeja 128 para um recipiente de armazenamento remoto ou elevado ou para um dreno domestico, se desejado (nao-mostrado na figura 26). Quando o sensor de temperatura 245 do fabricante de gelo sente uma temperatura, indicando que os cubos de gelo congelaram completamente, um ciclo de recolhimento de gelo, etapa 310, pode comecar. Exceto para os fabricantes de gelo de bandeja flexivel, um aquecedor de molde de gelo 117 pode ser ativado para liberar cubos de gelo do molde de gelo, etapa 311. Durante o recolhimento de gelo, quando o fabricante de gelo e dotado de um sensor de derrama- mento 280 e controle de derramamento 285, o controle de derramamento 285 pode determinar se gelo ou agua esta presente na bandeja 128, etapa 312. Se gelo estiver presente na bandeja 128, o

aquecedor de bandeja 132 pode ser ativado para derreter gelo na bandeja, durante o recolhimento de gelo, etapa 314. Quando o aquecedor de molde de gelo tiver sido ativado o bastante, o motor de fabricante de gelo pode ser ativado para girar o aca- 49 mador de gelo ou o molde de gelo, dependendo da concretizacao de fabri- cador de gelo, usando tecnicas de controle conhecidas na tecnica, etapa 315. Alternativamente, o controle de derramamento 285 pode ser disposto para ativar um indicador de usuario, um emissor de sinal sonoro 286 ou LED 5 288, no caso de um derramamento de agua, conforme descrito acima, para sinalizar ao usuario para atender ao derramamento, como descrito acima. Aqueles versados na tecnica compreenderao que o controle de derrama- mento tambem pode ser disposto para ativar o aquecedor de bandeja 132 cada vez que o controle de descongelamento 295 iniciar um ciclo de des- 10 congelamento para o refrigerador freezer. Por exemplo, o aquecedor de bandeja 132 pode ser conectado para ser energizado quando o aquecedor para descongelamento 296 e ativado. Aqueles versados na tecnica compre- enderao que um ciclo de descongelamento pode ser iniciado periodicamen- te, ou pode ser iniciado por um sensor de descongelamento 297. No caso de 15 insercao de moldes de bandeja flexivel ou fabricantes de gelo de molde giratorio, as etapas 311 a 314 podem ser saltadas. O controle de fabricante de gelo 33 pode fazer com que o motor de fabricante de gelo 35 gire o aca- mador de gelo ou molde de gelo, bloco 320, para fabricantes de gelo de bandeja flexivel ou molde giratorio. O controle de fabricante de gelo 33 tam- 20 bem pode determinar a posicao do molde de gelo ou acamador de gelo, blo- co 322, a fim de permitir que o controle de valvula de agua 94 inicie um novo ciclo de enchimento e congelamento de cubos de gelo, se mais gelo for chamado pelo controle de sensor de nivel de receptaculo. Apos o molde de gelo ou acamador de gelo ter girado e o molde de gelo estar vazio, etapa 25 316, o acamador de gelo ou molde de gelo pode retornar para a posicao de origem, etapa 317. Em seguida a etapa 317, o fabricante de gelo pode co- mecar outro ciclo de fabricacao de gelo, se o controle sensor de nivel de re- ceptaculo para armazenamento de cubos de gelo pede mais gelo. Os conceitos da invencao aqui descritos proporcionam a conve- 30 niencia de distribuicao de gelo e agua localizada inteiramente em uma porta de compartimento de refrigerador ou de freezer. No caso de refrigeradores freezers lado a lado, a localizacao do fabricante de gelo, do receptaculo para 50 armazenamento de cubos de gelo e do dispensation na porta de comparti- mento de freezer pode proporcionar uma area de armazenamento de prate- leira de compartimento de freezer adicional. No caso de refrigeradores com freezer na parte inferior, a localizacao do fabrication de gelo, do receptaculo 5 para armazenamento de cubos de gelo e do dispensation em uma porta de compartimento de refrigerador, como descrito no pedido de patente dos Es- tados Unidos US20040111, pode simplificar o fornecimento de um dispensa- 5 tion de gelo e agua para uma configuracao de refrigerador com freezer na parte inferior. As invencoes para gerenciamento de derramamento aqui des- 10 critas tornam pratica a localizacao de um fabrication de gelo em uma porta de compartimento de refrigerador ou freezer. Embora a invencao tenha sido descrita especificamente em rela- cao a certas concretizacoes especificas da mesma, deve ser compreendido que isso e a guisa de ilustracao e nao de limitacao. Variacao e modificacao 15 razoaveis sao possiveis dentro do escopo da divulgacao precedente e dese- nhos, sem afastamento do espirito da invencao, que e definida nas reivindi- cacoes anexas. Relacao de Partes 9 – puxador de porta 20 10– refrigerador lado a lado 11– prateleira 12– gabinete 13– cesta 14– compartimento de refrigerador 25 16 – compartimento de freezer 17 – parede superior 18 – porta de compartimento de refrigerador 20 – porta de compartimento de freezer 21 – prateleira de porta 30 22 – fabrication de gelo 22' – conjunto de fabrication de gelo 23 – lado aberto 51 24 – borda superior de fabricante de gelo 25 – porta interna 26 – sistema de dispensador de gelo 28 – receptaculo para armazenamento de cubos de gelo 5 30 – sistema de trituracao de gelo 32 – fabricante de gelo 33 – controle de fabricante de gelo 34 – cubo de gelo 35 – motor 10 36 – molde de gelo 38 – extrator de gelo 40 – acamador de gelo 44 – puxador de porta 46 – puxador de porta 15 48 – puxador de porta 50 – refrigerador com freezer na parte inferior 52 – gabinete 54 – compartimento de refrigerador 56 – compartimento de freezer 20 58 – compartimento de maquinaria 60 – vasilha de drenagem 62 – ventilador de condensador 64 –condensador 66 – porta de compartimento de freezer 25 68 – porta de compartimento de refrigerador 69 – porta de compartimento de refrigerador, 70 – painel de porta interna 72 – dispensador de gelo e agua 73 – interface de usuario 30 77 – articulacao 79 – gaxeta 82 – fabricante de gelo 52 84 – receptaculo para armazenamento de cubos de gelo 86 – dispensador de gelo 88 – cobertura isolada 90 – cobertura isolada 5 93 – folga 94 – controle de valvula de agua 95 – valvula de enchimento de fabricante de gelo 100 – primeira porcao de distribuicao de ar 102 – duto de abastecimento 10 104 – duto de retorno 106 – segunda porcao de distribuicao de ar 108 – duto de abastecimento 110 – duto de retorno – 115 – fabricante de gelo 15 116 – molde de gelo 117 – aquecedor de molde de gelo 118 – acamador de gelo / ejetor de gelo 119 – dentes 120 – extrator de gelo 20 121 – retentores de extrator 122 – folga 123 – elemento para entrada de agua 124 – cobertura ' 125 – lingueeta 25 126 – articulacao 128 – bandeja 129 – parede 130 – dreno 132 – aquecedor de bandeja 30 135 – fabricante de gelo 136 – extrator de gelo 137 – retentores de extrator 5 10 15 20 25 30 53 138 – cobertura 140 – canal de recuperacao de agua 145 – fabricante de gelo 146 – tampa protetora 148 – extrator de gelo 150 – retentores de extrator 151 – fendas 155 – fabricante de gelo 157 – folga 158 – extrator de gelo 159 – retentor de extrator 160 – alojamento de controle 161 – lingueeta 162 – cobertura 163 – articulacao 165 – fabricante de gelo 166 – placa de montagem 169 – alojamento de trem de engrenagens 170 – eixo de acionamento 171 – bandeja para cubos de gelo 172 – estrutura 174 – insercao de molde 175 – reentrancia 176 – virola 178 – tubo de enchimento 180 – alojamento 182 – parede extrema 184 – parede extrema 186 – parede superior 188 – parede de contencao 189 – parede de contencao 190 – parede de contencao 54 191 – parede de contencao 192 – cobertura articulada 193 – segmento de cobertura 194 – segmento de cobertura 5 195 – segmento de cobertura 196 – segmento de cobertura 198 – pivo 200 – atuador 202 – passagem 10 205 – fabricante de gelo 206 – bandeja de torcao 207 – reentrancia 208 – controle 210 – protecao contra salpico 15 215–fabricador de gelo 216 – bandeja superior 218 – bandeja inferior 220 – bandeja de torcao dupla 222 – bandeja de torcao inferior 20 226 – parede inferior 228 – protecao contra salpico 230 – bandeja de torcao dupla 232 – protecao contra salpico 240 – fabricante de gelo 25 242 – molde de gelo 243 – cavidade 244 – parede de base 245 – sensor de temperatura 247 – pernas 30 248 – estrutura 250 – parede lateral 252 – parede lateral 5 10 15 20 25 30 55 254 – acamador de gelo 256 – canal 257 – reentrancia 258 – virola 260 – borda de retorno 262 – alhetas 264 – amortecedor 265 – pivo 266 – pivo 267 – bracadeira 268 – articulacao de porta 270 – engrenagem 272 – amortecedor giratorio 274 – engrenagem de amortecedor 276 – base de amortecedor 280 –

sensor de derramamento 281 – placa 282 – placa 285 – controle de derramamento 286 – emissor de sinal sonoro 288 – LED 290 – chave eletrônica 292 – bomba 295 – controle de descongelamento 296 – aquecedor para descongelamento 297 – sensor de descongelamento 300 – começo de ciclo de IM 301 – enchimento de IM 302 – água se congela 303 – porta abre / fecha 304 – características anti-salpico funcionam 305 – amortecedor de porta funciona 56 306 – derramamento de água? 307 – derramamento drena para o recipiente 308 – derramamento drena para a vasilha de drenagem 309 – recipiente cheio? 5 310 – pronto para recolhimento de gelo? 311 – aquecedor de IM opera 312 – sensor de derramamento sente água / gelo 313 – há gelo? 314 – aquecedor 132 ligado 10 315 – girar acamador de gelo ou molde de IM 316 – esvaziar molde 317 – retornar ancinho/ molde de IM para origem 320 – girar o acamador de gelo ou o molde de gelo 322 – posição de acamador de gelo ou de molde de gelo 15 330 – cubo de gelo 330' – cubo de gelo 332 – fabricante de gelo 333 – controle de fabricante de gelo 334 – parede articulada 20 335 – carne 336 – molde de gelo 337 – alavanca 338 – extensão fixa 339 – eixo de parede articulada 25 340 – acamador de gelo 341 – eixo de ancinho 342 – eixo de alavanca 343 – recorte 344 – pivo 30 345 – conexão 346 – conexão 347 – superfície REIVINDICAÇÕES 1.

Refrigerador freezer compreendendo: um compartimento de freezer mantido em uma temperatura a– baixo de 0 graus centígrados e tendo uma porta de compartimento de freezer isolada; 5 um compartimento de refrigerador mantido em uma temperatura acima de 0 graus centígrados e tendo uma porta de compartimento de refrigerador isolada; um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador; um fabricante de gelo automático posicionado em uma dentre a 10 porta de compartimento de refrigerador e a porta de compartimento de free– zer; uma bandeja montada abaixo do fabricante de gelo disposta para coletar salpicos de água que podem ocorrer quando a porta em que o fabricante de gelo está posicionado é movida quando água está presente no 15 fabricante de gelo. 2. Refrigerador freezer, de acordo com a reivindicação 1, ainda incluindo uma linha de drenagem que leva da bandeja até um recipiente de descarte de água. 3. Refrigerador freezer, de acordo com a reivindicação 2, ainda 20 incluindo um compartimento de maquinaria e em que o sistema de refrigeração inclui uma vasilha de drenagem localizada no compartimento de maquinaria e ainda em que a vasilha de drenagem e o recipiente de descarte de água. 4. Refrigerador freezer, de acordo com a reivindicação 3, ainda 25 incluindo uma bomba para bombear água da bandeja para a vasilha de drenagem. 5. Refrigerador freezer, de acordo com a reivindicação 1, ainda incluindo um aquecedor para a bandeja. 6. Refrigerador freezer, de acordo com a reivindicação 5, ainda 30 incluindo um aquecedor para descongelamento para o sistema de refrigeração, em que o aquecedor de bandeja é conectado para ser energizado quando o aquecedor para descongelamento é energizado. 2 7. Refrigerador freezer, de acordo com a reivindicação 5, ainda incluindo um controle para o aquecedor de bandeja, em que o aquecedor de bandeja é energizado periodicamente. 8. Refrigerador freezer, de acordo com a reivindicação 5, ainda 5 incluindo um sensor e controle de derramamento disposto para detectar a presença de água na bandeja, em que o controle energiza o aquecedor de bandeja, quando o sensor de derramamento detecta água na bandeja. 9. Refrigerador freezer, de acordo com a reivindicação 1, em que o refrigerador freezer inclui um receptáculo para armazenamento de gelo e 10 em que o fabricante de gelo automático e o receptáculo para armazenamento de gelo são posicionados na porta de compartimento de freezer. 10. Refrigerador freezer, de acordo com a reivindicação 1, em que o refrigerador freezer inclui um receptáculo para armazenamento de gelo – lo e o fabricante de gelo automático e o receptáculo para armazenamento de 15 gelo são posicionados na porta de compartimento de refrigerador e em que o refrigerador freezer ainda inclui um duto de ar que leva ao fabricante de gelo /? automático e o receptáculo para armazenamento de gelo de uma fonte de ar abaixo de 0 graus centígrados para fornecimento de ar resfriado até abaixo de 0 graus centígrados para o fabricante de gelo automático e para o receptáculo para armazenamento de 20 gelo. 11. Refrigerador freezer, de acordo com a reivindicação 10, ainda incluindo um sub-compartimento isolado na porta de compartimento de refrigerador para o fabricante de gelo automático e em que o receptáculo para armazenamento de gelo é isolado para manter temperaturas abaixo de 25 congelamento no receptáculo para armazenamento de gelo. 12. Refrigerador freezer, de acordo com a reivindicação 1, ainda incluindo um amortecedor de porta conectado a uma dentre a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo está posicionado. 30 13. Refrigerador freezer, de acordo com a reivindicação 1, em que o fabricante de gelo automático inclui um molde de gelo e uma cobertura articulada para cobrir substancialmente o molde de gelo e em que o fabricante de gelo é disposto para abrir a cobertura articulada durante os ciclos de recolhimento de gelo. 14. Refrigerador freezer, compreendendo: um compartimento de freezer mantido em uma temperatura a– baixo de 0 graus centígrados e tendo uma porta de compartimento de freezer isolada; um compartimento de refrigerador mantido em uma temperatura acima de 0 graus centígrados e tendo uma porta de compartimento de refrigerador isolada; um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador; um fabricante de gelo automático posicionado em uma dentre a porta de compartimento de refrigerador e a porta de compartimento de free– zer, compreendendo: um molde de gelo; um extrator de pedaços de gelo tendo uma tira de base montada ao longo de uma borda do molde de gelo e tendo uma pluralidade de retentores que se estendem da tira de base e posicionados acima de uma porção do molde de gelo; um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem entre a pluralidade de retentores e através do molde de gelo para conduzir pedaços de gelo para fora do molde de gelo; e uma cobertura incluindo uma porção de domo que se estende longitudinalmente, cobrindo, substancialmente o molde de gelo, em que a porção de domo é articulada com o fabricante de gelo ao longo de uma primeira borda e inclui uma pluralidade de linguetas adjacentes a uma segunda borda e dispostas para se estenderem e encherem, substancialmente, os espaços entre retentores de extrator de pedaços de gelo adjacentes. 15. Refrigerador freezer, de acordo com a reivindicação 14, ainda incluindo um receptáculo para armazenamento de cubos de gelo e em que a cobertura é disposta para abrir durante ciclos de recolhimento de gelo a fim de permitir que o acamador de gelo gire através do molde de gelo e pedaços de gelo caiam no receptáculo para armazenamento de gelo. 4 16. Refrigerador freezer, de acordo com a reivindicação 15, em que o fabricante de gelo automático inclui um motor disposto para acionar o acamador de gelo e abrir a cobertura durante os ciclos de recolhimento de gelo. 5 17. Refrigerador freezer, de acordo com a reivindicação 16, em que o fabricante de gelo automático ainda inclui uma ou mais engrenagens conectando

acionavelmente o motor de fabricante de gelo ao acamador de gelo. 18. Refrigerador freezer, de acordo com a reivindicação 17, em que o fabricante de gelo automático ainda inclui um carne acionado pelo motor de fabricante de gelo para abrir a cobertura, quando o motor do fabricante de gelo opera para acionar o acamador de gelo. 19. Refrigerador freezer, de acordo com a reivindicação 14, em que a primeira borda da cobertura fecha contra o molde de gelo e a segunda borda da cobertura se fecha contra a tira de base do extrator de pedaços de gelo. 20. Refrigerador freezer, de acordo com a reivindicação 19, em que a cobertura inclui paredes extremas fechando a porção de domo e em que uma primeira porção das paredes extremas se fecha contra o molde de gelo. 21. Refrigerador freezer, de acordo com a reivindicação 19, em que o molde de gelo inclui uma pluralidade de pinos de articulação ao longo de uma borda do molde de gelo e a cobertura inclui uma pluralidade de elementos de articulação dispostos para encaixar e articular nos pinos de articulação. 22. Refrigerador freezer, de acordo com a reivindicação 21, em que o extrator de pedaços de gelo e disposto com um retentor em cada extremidade sobrepondo uma porção da respectiva extremidade do molde de gelo e em que uma segunda porção das paredes extremas da cobertura se fecha contra o retentor de extrator de pedaços de gelo nas respectivas extremidades do extrator de pedaços de gelo. 23. Refrigerador freezer, de acordo com a reivindicação 14, em que o molde de gelo inclui uma pluralidade de cavidades semicilíndricas para a formação de pedaços de gelo. 24. Refrigerador freezer, de acordo com a reivindicação 23, em que o acamador de gelo montado giravelmente e montado adjacente a borda de topo das cavidades semicilíndricas e é posicionado substancialmente ao longo da linha central das cavidades semicilíndricas. 25. Refrigerador freezer, de acordo com a reivindicação 24, em que os retentores de extrator de pedaços de gelo são dispostos para se estenderem da tira de base ao longo de uma borda do molde de gelo até o acamador de gelo. 26. Refrigerador freezer, de acordo com a reivindicação 14, em que o extrator de pedaços de gelo é posicionado no módulo de derivação para definir um canal de recuperação de água entre o extrator de pedaços de gelo e o molde de gelo e em que a cobertura sobrepõe e encerra o canal de recuperação de água. 27. Refrigerador freezer, de acordo com a reivindicação 14, ainda incluindo um amortecedor de porta conectado a uma dentro a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo está posicionado. 28. Refrigerador freezer, compreendendo: um compartimento de freezer mantido em uma temperatura abaixo de 0 graus centígrados e tendo uma porta de compartimento de freezer isolada; um compartimento de refrigerador mantido em uma temperatura acima de 0 graus centígrados e tendo uma porta de compartimento de refrigerador isolada; um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador; um fabricante de gelo automático posicionado em uma dentro a porta de compartimento de refrigerador e a porta de compartimento de freezer, compreendendo: um molde de gelo; um extrator de pedaços de gelo flexível posicionado acima de uma primeira porção do molde de gelo tendo uma pluralidade de fendas para a formação de uma pluralidade de retentores; um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem através da pluralidade de fendas e através do molde de gelo para conduzir pedaços de gelo para fora do molde de gelo; e uma tampa protetora que se estende acima de uma segunda porção do molde de gelo. 29. Refrigerador freezer, de acordo com a reivindicação 28, em que o molde de gelo inclui uma pluralidade de cavidades semicilíndricas para a formação de pedaços de gelo e o acamador de gelo montado giravelmente e é montado adjacente a borda de topo das cavidades semicilíndricas e é posicionado substancialmente ao longo da linha central das cavidades semicilíndricas. 30. Refrigerador freezer, de acordo com a reivindicação 29, em que o extrator flexível de pedaços de gelo se estende do acamador de gelo até uma primeira borda do molde de gelo e é disposto para cobrir substancialmente a primeira porção do molde de gelo da linha central até a primeira borda do molde de gelo. 31. Refrigerador freezer, de acordo com a reivindicação 30, em que a tampa protetora se estende de uma segunda borda do molde de gelo substancialmente até a linha central do molde de gelo e se estende acima do molde de gelo para permitir que o acamador de gelo gire através do molde de gelo. 32. Refrigerador freezer, de acordo com a reivindicação 28, ainda incluindo um amortecedor de porta conectado a uma dentro a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo está posicionado. 33. Refrigerador freezer, compreendendo: um compartimento de freezer mantido em uma temperatura abaixo de 0 graus centígrados e tendo uma porta de compartimento de freezer isolada; um compartimento de refrigerador mantido em uma temperatura acima de 0 graus centígrados e tendo uma porta de compartimento de refrigerador isolada; um sistema de refrigeração para resfriamento do compartimento de freezer e do compartimento de refrigerador; um fabricante de gelo automático posicionado em uma dentro a porta de compartimento de refrigerador e a porta de compartimento de freezer, compreendendo: um molde de gelo; um extrator de pedaço de gelo tendo uma tira de base e uma pluralidade de retentores posicionados acima de uma primeira parte do molde de gelo; um acamador de gelo tendo uma pluralidade de dentes montados giravelmente acima do molde de gelo e dispostos para os dentes girarem entre a pluralidade de retentores e através do molde de gelo para conduzir pedaços de gelo para fora do molde de gelo e tendo uma alma flexível que se estende de dentes adjacentes para encher pelo menos parcialmente a folga entre dentes adjacentes; um motor para acionar giravelmente o acamador de gelo para recolher pedaços de gelo durante ciclos de recolhimento e dispostos para estacionar um acamador de gelo com a pluralidade de dentes e almas flexíveis que ficam substancialmente em um plano com a pluralidade de retentores entre ciclos de recolhimento; e uma tampa protetora estendendo-se acima de uma segunda porção do molde de gelo. 34. Refrigerador freezer, de acordo com a reivindicação 33, ainda incluindo um amortecedor de porta conectado a uma dentro a porta de compartimento de refrigerador e a porta de compartimento de freezer em que o fabricante de gelo está posicionado. RESUMO Patente de Invenção: "GERENCIAMENTO DE DERRAMAMENTO DE ÁGUA PARA FABRICADOR DO GELO NA PORTA". A presente invenção refere-se a um refrigerador freezer tendo um fabricante de gelo posicionado em uma porta de compartimento de refrigerador ou compartimento de freezer. O fabricante de gelo é disposto para impedir ou gerenciar derramamentos do fabricante de gelo no caso de a porta em que o fabricante de gelo está montado ser aberta ou fechada, quando água não congelada está presente no fabricante de gelo. Concretizações 10 para gerenciamento de derramamentos para um número de fabricantes de gelo de bandeja fixa e móvel são descritas. (# and gt; (- '• V * # * _ jv "and gt; /, J •••• #". ~ •• «| ••••• * and m and gt; ••• u j 1 •• ABSTRACT Patent Invention: "WATER SPILL MANAGEMENT FOR

ICE fabricator AT THE DOOR" 9 Refrigerator – freezer with an ice maker placed on a 5 refrigerator compartment door or freezer compartment. The ice maker and willing to prevent or manage ice maker spills if the port on which the ice maker is mounted be open or closed when not frozen water is present in ice maker. Embodiments for managing spills to a number of ice makers 10 tray fixed and mobile are described. j 5 10 15 20 25 30 far OSOWS-1 p * "cSWGol the 161-3 and It; and \ \ ~ 2 \ '2.00 and gt; Relatorio Description of Invention Patent for"! manage- ment WATER SPILL FOR ICE fabricator AT THE DOOR. " Cross-Reference to Related Applications The present application is related to the following US patent applications filed simultaneously with this: US20020155, US20040162 and US20040111 Background of the Invention Field of the Invention The present invention relates to ice producers positioning of the compartment in a refrigerator door or freezer. Accord- ing to the invention, the ice producers may be arranged to pre- vent or manage the ice maker water spills in the event of the door when the ice maker is mounted to be opened and closed, when not frozen water is present in the ice maker. Description of Techniques Related trays of ice cubes filled manually, with a cover or lid to prevent water spills are known. The ice fabricators located in a compartment re- port frigerador or freezer that include no features for managing spills are known in the art. The refrigerators freezers side by side, and storage mechanisms and distribution of ice cubes in the freezer door to provide an ice dispenser and water in front compartment door to the freezer are well-known in the art. A variety of ice producers of flexible automatic ice tray and fixed mold known in the art. Summary of the Invention The invention relates to a refrigerator freezer compartment comprising a freezer maintained at a temperature below 0 degrees centigrade, a gate insulated freezer compartment of a refrigeration generator compartment maintained at a temperature above 0 degrees centigrade, one compartment door 5 10 15 20 25 30 2 ment of insulated cooler, a cooling system for resfriamen- to the freezer compartment and the refrigerator compartment and an automatic ice maker placed into one of the door composed of refrigerator compartment and freezer compartment door. And a tray mounted below the ice maker willing to collect water outpouring, which can occur when the size of the ice maker is positioned and moved, when water is present in the ice maker. A drain line can take the tray up to a water disposal container. The water waste container can be a drain pan located in the machinery compartment. In another aspect of the invention the tray may have a heater. The tray heater can be connected to be energized when the defrost heater cooling and nergizado e- system. • In another aspect of the invention, a sensor and control spill any memento may be provided to detect the presence of water in the tray. The control can energize the tray heater when pouring sensor detects water in the tray. In another aspect the invention relates to a freezer refrigerator having a freezer compartment maintained at a temperature below 0 degrees centigrade, a gate insulated freezer compartment, one ration refrigeration system for cooling the freezer compartment and refrigerator compartment and an automatic ice maker placed into one of the refrigerator compartment door and frequent compartment door ezer. The ice maker includes an ice mold, a puller ice pieces having a base strip mounted along an edge of the ice mold having a plurality of retainers that extend the battery-strip and is positioned above a portion of the ice mold. The ice maker includes an ice acamador having a plurality of teeth mounted rotatably above the printing engine and arranged to teeth gira- rem between the plurality of seals and through the ice mold for 3 con- duce ice pieces out Ice mold. The ice machine also includes a cap including a dome portion extending longitudinally substantially covers the ice mold. The portion of the domed cover and hinged to the ice maker 5 along a first edge and includes a plurality of the adjacent lingueetas A second edge arranged to extend in spaces between retainers f tractor adjacent ice pieces and fills them substantially. The cover and arranged to open during the ice collection cycle, to allow the ice acamador rotate through the 10-ice and ice pieces mold fall into a receptacle for ice storage positioned below the fabricator ice. The ice maker includes a J motor device to drive the ice acamador and open the cover during the ice gathering cycles. The ice maker includes a cam driven by the motor of the ice maker to open the cover 15 when the motor ice maker operates to drive the acamador 9 *. The first edge of the cover closes against the print engine and are the second edge of the cover closes against the base strip of ice pieces extractor. 20 The ice pieces extractor can be positioned on the ice mold to define a water recovery channel between the extractor, ice chunks and ice mold. Coverage may involve water recovery channel. In another aspect, the invention relates to a refrigerator freezer 25 having a freezer compartment maintained at a temperature below. 0 degrees centigrade, a gate insulated freezer compartment, a refrigerator compartment kept at a temperature above 0 degrees centigrade, a door compartment isolated refrigerator, a refrigeration system for resfria- ment of the freezer compartment and refrigerator compartment 30 and an automatic ice maker positioned into one of the refrigerator compartment door and freezer compartment door. The fa- bricador ice includes an ice mold and a flexible puller pieces 5 10 15 20 25 30 4 ice positioned above a first portion of the ice mold having a plurality of slits forming a plurality of seals. The ice maker includes an ice acamador having a plurality of teeth mounted rotatably above the ice mold and arranged for the teeth rotate through the plurality of slots and across the ice mold to conduct ice chunks away from the ice mold. The ice maker further includes a protective cap that extends above A second portion of the ice mold. The flexible extractor ice pieces can extend the mazenamento ar- until a first edge of the ice mold and may be arranged to cover substantially the first portion of the ice mold to the central line of the ice mold until the first edge of the ice mold. The protective cover can extend from a second edge of the ice mold substantially up to the center line of the ice mold above the ice mold to allow the storage rotate through the ice mold. In another aspect, the invention relates to a refrigerator freezer having a freezer compartment maintained at a temperature below 0 degrees centigrade, a gate insulated freezer compartment, a refrigerator compartment kept at a temperature above 0 degrees centigrade, a door compartment isolated cooler, a cooling system for resfria- ment of the freezer and the refrigerator compartment compartment and an automatic ice maker placed into one of the refrigerator compartment door and the compartment door freezer. The fa- bricador ice includes an ice mold pieces and an ice extractor having a base strip and a plurality of retainers positioned above a first portion of the ice mold. The ice mold also includes an ice acamador having a plurality of teeth mounted giravel- mind over ice and arranged to mold the teeth rotate between the plurality of retainers and ice through the ice mold to carry out molding pieces Ice and having a flexible frame that esten- of adjacent teeth to fill, at least partially, the clearance en- tween adjacent teeth. The ice maker includes a motor to drive 5 10 15 20 25 30 5 rotatably ice acamador to collect pieces of ice during cycles of gathering and arranged to leave stationary the ice acamador with the plurality of teeth and flexible souls being substantially in a plane with the plurality of seals between payment cycles. One

protective cover extending over a second portion of the ice mold. In another aspect the invention relates to a refrigerator – freezer having a freezer compartment maintained at a temperature below 0 degrees centigrade, a gate insulated freezer compartment, a refrigerator compartment kept at a temperature above 0 degrees centigrade, a door isolated refrigerator compartment, a cooling system for refrigerator compartment and the refrigerator compartment, one support ice maker into one of the refrigerator compartment door or compartment freezer and arranged to support an ice maker spaced from the inner panel of the door, wherein the ice cubes collected in the ice maker may fall into a receptacle for storage of ice positioned below the ice maker and ice automatic factory of bricador arranged to be mounted on the support manufactured ice indicator. The ice maker includes an ice mold and an extractor of ice pieces having a base strip and a plurality of retainers positioned above a first portion of the ice mold. The battery-up strip extends through a portion of the ice mold. The fabricator it generally includes an ice acamador having a plurality of teeth mounted rotatably above the ice mold and arranged to rotate the teeth between the plurality of teeth and through the ice mold to conduct pe- ice out of Dacos Ice mold. The ice maker further includes a protective cover extending over a second portion of the molded ice. The ice pieces extractor and the protective cover may be integrally formed of plastic material. The ice acamador may be formed of metal and can be mounted in contact with the ice mold, and arranged to be heated by conduction from the ice mold during cycles 5 10 15 20 25 30 6 gather ice. The ice maker includes a motor to drive, GI-ably, the ice acamador and the motor may be arranged to stop the ice acamador stationary with the plurality of teeth being substantially in a plane with the plurality of retainers between cycles gathering. In another aspect, the invention relates to a refrigerator – having freezer a freezer maintained at a temperature below 0 degrees centigrade compartment, a door isolated freezer compartment, a refrigerator compartment kept at a temperature above of 0 degrees centigrade, a port of isolated refrigerator compartment, a cooling system to answer friamento the freezer compartment and the refrigerator compartment and an automatic ice maker placed into one of the refrigerator compartment door and the door freezer compartment. The fa- bricador ice includes a movable tray of ice chunks, one aloj- ment movably supporting the tray of ice pieces for movement between a filling position and ice-making and a SICAO po- gathering and sealing surface to contain water, when the ice mold is in a position for filling and ice manufacturing. The housing may include a rear wall of containment, a front wall of containment and end walls of containment. The tray for ice pieces includes a mold insert having a plurality of recesses to form ice pieces and a ferrule that extends upwardly around the plurality of grooves forming the sealing surface. When the tray for ice pieces in this SICAO po- filling and ice-making, the ferrule extending upwards and positioned on the outside of the front walls and rear extreme. In another aspect, the invention relates to a refrigerator – having freezer a freezer maintained at a temperature below 0 degrees centigrade compartment, a door isolated freezer compartment, a refrigerator compartment kept at a temperature above of 0 degrees centigrade, a door isolated refrigerator compartment, a cooling system for re- 5 10 15 20 25 30 7 friamento the freezer compartment and the refrigerator compartment and an automatic ice maker positioned into one of the port refrigerator compartment and freezer compartment door. The fa- ice bricador includes a flexible tray having a plurality of cavi- ties and side walls extending above the cavities to pre- vent water from spilling out of the tray, if the port on which the manu- Ice bricador be moved and positioned, when water is present in the ice maker. The ice maker also includes a support for Mon- tar, rotatably, the flexible tray between the positions of ice formation and ice retreat and a drive mechanism to rotate the tray flexible between the positions of ice formation and ice gathering and twist the flexible tray in position pickup to release the ice pieces. The ice maker can include two trays connected po- sicionadas facing in opposite directions, mounted rotatably between posi- tion of ice formation and ice gathering. The po- ice trays dem be integrally formed and share a background wall. In another aspect, the invention relates to a refrigerator – freezer, having a freezer compartment maintained at a temperature abai- xo 0 degrees centigrade, a hinged insulated freezer compartment door, a refrigerator compartment kept at a temperature above 0 degrees centigrade, a hinged insulated refrigerator compartment door, a refrigeration system for cooling the freezer compartment and the refrigerator compartment ment, an automatic ice maker located in a compartment from the door refrigerator compartment and the freezer door and a door damper connected to one among the Por- ta refrigerator compartment and freezer compartment door to the ice maker and positioned. The door damper may be arranged to fit the door for at least a portion of the movement range by opening and at least a portion of the movement range during the closing of the door. The port buffer can be loaded to a buffer 10 5 15 20 25 8 30 spring mounted on the machinery compartment and connected to one of arti- culacoes door of a refrigerator compartment from the door compartment and door freezer where ice maker and posi- tioned. The door damper can be connected to port articulation in a position for the door damper go through the center, where one out of the refrigerator compartment door and the freezer compartment door when the ice maker is positioned opens and closes. In one aspect of the invention, the damper may be a hydraulic absorber love-loaded spring. In another aspect of the invention, the damper may be a a- mortecedor the gas spring loaded. In another aspect of the invention, the damper is a rotary damper. The revolving damper can be a damper giratorio bidire- tional. In another aspect, the invention relates to a refrigerator – freezer, having a freezer compartment maintained at a temperature abai- xo 0 degrees centigrade, a gate insulated freezer compartment of a refrigerator compartment maintained at a temperature above 0 degrees centigrade, one To-ta isolated refrigerator compartment, a cooling system pa- ra cooling the freezer compartment and the refrigeration compartment tor and an automatic ice maker positioned into one of the To-ta refrigerator compartment and freezer compartment door. A tray mounted under the provisions and ice maker to collect water spill that may occur when the door where the ice manufactured pain is positioned and moved when the water is present in bricador factory of ice. The tray includes a spill sensor to detect water in the tray and arranged to provide a signal to the User that a spill occurred. The spill sensor can comprise two sets of conductive elements positioned in the tray. The two groups of ele- ments conductors are connected to an outpouring of Detection circuit. The outpouring of Detection circuit may include a signal to alert 5 10 15 20 25 30 9 to the User that the spill occurred. The signal may be a LED device for providing a visual signal that a spill has occurred. In another aspect, the signal may be an audible signal that a spill has occurred. In another aspect, the refrigerator – freezer may include a drain line which leads from the tray and a pump for pumping water from a water tray for disposal container. The outpouring of Detection circuit may include an output to activate the pump. In another aspect, the invention relates to a

refrigerator – having free–zer a freezer maintained at a temperature below 0 degrees centigrade compartment, a door isolated freezer compartment, a refrigerator compartment kept at a temperature above of 0 degrees centigrade, a port of isolated refrigerator compartment, a cooling system to answer friamento the freezer compartment and the refrigerator compartment, an automatic ice maker positioned on the inner door of the freezer compartment door and a receptacle for Ice Storage positioned below the ice maker. The ice maker can include a cover pivotally mounted adjacent to the top of the ice maker and willing to close the ice maker in a first position and to form a trough for ice from the ice maker for the receptacle for ice storage in a second position. The cover may be mounted pivotally adjacent to the top of the ice maker adjacent to the side ice maker opposite the inner door. The cover may include an actuator connected to the cover and arranged to cover the joint around a pivot point. The actuator may be arranged to engage the top wall of the freezer compartment, when the freezer compartment door is closed. The coverage can include a spring mechanism to boost coverage in steering the first position. The receptacle for storage of ice cubes can be removable from the freezer compartment door, when this cover in the first position. 10 15 20 25 5 30 10 In another aspect, the invention relates to a refrigerator – free–zer having a freezer compartment maintained at a temperature below 0 degrees centigrade, a gate insulated freezer compartment, a compartment cooler maintained at a temperature above 0 degrees centigrade, a door isolated refrigerator compartment, a cooling system for re–friamento the freezer compartment and the refrigerator compartment, an automatic ice maker mounted to a door from among com–refrigerator compartment and the freezer compartment door and the socket into ice storage positioned below the ice maker. The ice maker includes an ice mold and a heater for the ice mold. The ice maker and mounted rotatably to movement to the first position for ice mold filling with water and formation of ice cubes and the second position substantially reversed mind for collecting ice cubes. The ice maker may include provisions of temperature sensor to determine when ice cubes are frozen and to start the operation of the heater and cause the ice maker turns to the second position. The ice maker may further include a substantially fixed ice acamador positioned through the ice mold, the ice maker when in the first position and can be arranged to XAR it engages ice cubes in the ice mold, as the ice maker and turned to the second position. In another aspect, the invention relates to a refrigerator – free–zer, having a freezer compartment maintained at a temperature abai–xo 0 degrees centigrade, a gate insulated freezer compartment of a refrigerator compartment maintained at a temperature above 0 degrees centigrade, one To–ta isolated refrigerator compartment, a refrigeration system pa–ra cool the freezer compartment and the refrigerator compartment and an automatic ice maker mounted to a door from among freezer compartment of the refrigerator compartment and the door. The manufactured ice pain includes an ice mold and a heater for the ice mold. The ice mold and mounted rotatably to move to a first 5 10 15 20 25 30 11 position for filling ice mold with water and formation of ice cubes and the second substantially inverted position for collection of cubes Ice mold. The ice mold includes extended side walls arranged pa–ra contain water in the ice mold, if the port on which the automatic ice maker and mounted to be moved, when no water is present in the frozen ice mold. The ice mold further includes a lip along the distal edge of a side wall. The body may include a return edge directed toward the cavities of ice cubes arranged to define a channel for retaining water formed when the ice mold and heated for collecting ice cubes as the ice mold and rotated to the second position. The ice maker may include a substantially fixed rake, positioned above the ice mold, when the ice mold in the first position and arranged to engage the ice cubes in the ice such that as the ice mold and rotated for the second posicao.O ice maker may include a temperature sensor to determine when cu–ice frozen bos station and a motor to rotate the management between the first position and the second position. In another aspect, the invention relates to a refrigerator – having free–zer a freezer maintained at a temperature below 0 degrees centigrade compartment, a door isolated freezer compartment, a refrigerator compartment kept at a temperature above of 0 degrees centigrade, a door isolated refrigerator compartment, a cooling system for re–Friar freezer compartment and a refrigerator compartment and a manu–bricador automatic ice fitted into one of the compartments ment freezer door and the refrigerator compartment door. The ice maker includes an ice maker control, an ice mold rectangular generally a fixed extension which extends over a longitudinal edge of the ice mold and a hinged wall, which extends over the edge opposite longitudinal ice mold pivotally mounted on the ice mold. The ice maker also includes an ice acamador 5 10 15 20 25 30 12 mounted rotatably above the ice mold and operably connected to control the ice maker and an operator in control of the ice maker arranged to move the hinged wall for a horizontal position in conjunction with the operation of the ice acamador. The operator can be a lever on the control ice maker operably connected hinged wall. The control ice maker may include a meat provisions to operate the lever. The meat can be connected to rotate when the ice maker control turns a–ice camador. The hinged wall can be driven to an upright position and the meat can be arranged to operate the lever to move the pa–articulated network for the horizontal position, after the ice acamador turn in the ice mold. The hinged wall may include a plurality of superficial higher species at the top surface of the hinged wall, and when it po–sicionada horizontal position. The elevated surfaces may extend generally perpendicular to ice acamador. In another aspect, the invention relates to a method of manufacture dog ice in a cooler – freezer in an ice maker increase matically and fitted into one of the ports of the compartments of the refrigeration and freezer generator. The method includes the steps of operation of the refrigerator – to provide cooling to the freezer compartment of the refrigeration erator or freezer, with ice water filling the mold, preventing water spillage from the ice maker, when the doors of compartments fridge or freezer, where the ice maker and assembled, are open or closed and gathering pieces of ice from the ice mold after the water has frozen. The prevention of spills step may include the provision of a tray below the ice maker to capture any water splashed out of the ice maker. The ice manufacturing method may further include the operation of a pan heater to derre–have any ice present in the tray. The step of spill prevention tools may include water draining from the tray to a container 5 10 15 20 25 30 13 water disposal. In another aspect, the ice maker may include a ra cobertu–for the ice maker and spill prevention in–cludes the step of closing the cover and the ice pieces gathering step includes opening the cover. In another aspect, the ice maker includes a pe–Dacos extractor ice and an ice acamador having a plurality of teeth posi–tioned rotatably through the ice machine and arranged to rotate the tooth through the extractor Ice chunks and ice maker mold. The prevention of spills step may include the disposition of ice pieces extractor and ice acamador to end, substantially, a portion of the ice maker. In another aspect, the ice maker includes a flexi–ble tray having a plurality of cavities. The prevention phase of spill

ments may include the provision of flexible tray with side walls that extend above the wells to prevent water from splashing out of the tray. The flexible tray can comprise two gadas interconnected trays positioned in opposite directions. Each tray may have side walls extending above the cavities, when the ice tray is upright. In another aspect, the refrigerator – freezer may include a spectacle for storing ice cubes receiver positioned below the ice er manufactured and automatic ice maker may include a movable cover. The ice cube collecting step can include the opening of the cover to form a chute for the ice cubes on the receptacle for storage of ice cubes. In another aspect, the ice maker can include an ice mold rotatably mounted between a filling position and formation of ice cubes and a position substantially in– poured ice gathering. The method of preventing spills can include supply of the ice mold with extended side walls to one of the pa– side walls having a lip defining a channel. The gathering of step 5 10 15 20 25 30 14 ice pieces may include the rotation of the ice mold to col– lected ment of ice chunks and retention of any melted water during the collection cycle in the channel. The collecting step can include in its return water to the channel such that the ice as the ice mold returns to the filling position and ice formation. In another aspect, the ice maker may include an ice mold having a fixed extension in a side of the ice mold and a hinged wall on the other side of the ice mold. The step of cos ice educationalists rotation pickup may include a acamador ice in the ice mold and turning the hinged wall in a vertical position to one ho– rizontal through the ice mold. Brief Description of the Drawings Figure 1A and a perspective view of a refrigerator freezer bottom, comprising an embodiment of an ice maker in the door according to the invention. Figure 1B and a view freezer refrigerator illustrated in partial perspective in Figure 1A bottom with an open compartment door refrigerators illustrating an ice maker according to the invention positioned on the door above a receptacle for storage of ice cubes and ice dispenser. Figure 2 is a perspective view of a freezer door illustrating the application of an ice maker according to the invention in a side by side refrigerator freezer. Figure 3 is a perspective view of an embodiment of an ice maker according to the invention having a tray to catch spills and a cover. Figure 4 is a view in perspective of an ice maker of Figure 3 with the cover closed. Figure 5 is a perspective view of another embodiment of an ice maker according to the invention, having a cover and a water recovery channel. Figure 6 is a view in perspective of the ice maker 5 10 15 20 25 30 15 Figure 5 with the cover closed. Figure 7 is a perspective view of another embodiment of an ice maker according to the invention, having a flexible puller ice and a partial protective cover. Figure 8 is a perspective view of another embodiment of an ice maker according to the invention having a cover. Figure 9 is a partial perspective view of another materialisation of an ice maker according to the invention positioned in a refrigerator compartment door or the free– zer compartment, the ice mold in position closed. Figure 10 is a partial perspective view of Figure 9 ice maker with an ice mold partly open. Figure 11 and a cross–sectional view through the figure of manufactured ice pain 9, illustrating the relationship between the ice mold and as accommodation in the closed position. Figure 12A and a partial perspective view of a refrigeration freezer pain hand side of the prior art having an ice maker positioned at the freezer compartment. Figure 12B and a partial perspective view of a refrigeration pain side by side freezer having an ice cube maker according to the invention positioned on the freezer compartment door. Figure 13A is a schematic side view illustrating an ice er manufactured according to the invention, placed in a freezer compartment door having a hinged cover in the closed position. Figure 13B is a side partial schematic view of the manufactured ice pain according to Figure 13A, illustrating the articulation of Ra cobertu– with ice maker in the open position of the freezer compartment door. Figure 14A is a schematic side view illustrating the ice manufactured er of Figures 13A and 13B, with the cover open and ice cubes falling into the receptacle for storage of ice cubes underlying 5 10 15 20 25 30 16 you. Figure 14B is a side partial schematic view similar to that of Figure 13B, illustrating the articulation of the cover to the ice maker in the closed position of the freezer compartment door. Figure 15 is a perspective view of another embodiment of twist tray ice maker according to the invention. Figure 16 is a perspective view of another embodiment of a twist tray ice maker according to the invention having two trays. Figure 17 is a perspective view of another embodiment of a twist tray for use in a twist tray ice maker similar to the embodiments of Figure 15 and Figure 16 removed from the ice bricador manu–. Figure 18 is a partial sectional view of the torsion tray of Figure 17. Figure 19 is a view in perspective of another embodiment of a twist tray for use in a twist tray ice maker similar to the embodiments of Figure 15 and Figure 16 removed from the ice bricador manu–. The figure 20A and a perspective view of another embodiment of an ice maker mold rotatable with the mold in a vertical position. and Figure 20B is a view in perspective of the fabricator mold of rotatable ice mold with Figure 20A rotated 90 degrees. and Figure 20C is a view in perspective of the fabricator mold of Figure 20A ice rotatable with the mold rotated 180 degrees. Figure 21A and a schematic cross sectional view of the rotatable ice–maker mold in the position illustrated in Figure 20A. Figure 21B and a cross–sectional schematic view of the mold rotatable ice maker in the position illustrated in Figure 20B. Figure 21C and a cross–sectional schematic view of the rotatable ice maker mold in the position illustrated in Figure 20C. Figure 22A and a top view schematic of another materialisation 5 10 15 20 25 30 17 tion of an ice maker according to the invention. Figure 22B and a cross–sectional schematic view of figure ice maker 22A, illustrating the beginning of a cycle of rec– ice Ihimento. Figure 22C and a schematic cross sectional view of the ice maker of Figure 22a, illustrating a subsequent point in the ice collection cycle. Figure 23 is a partial perspective view of the machinery compartment for a refrigerator freezer having an ice maker po– sicionado the freezer compartment door of a refrigerator freezer side by side, illustrating an embodiment of a door bumper for use with ice producers according to the invention. Figure 24A and a partial schematic view illustrating another embodiment of a door bumper for use with ice producers according to the invention. Figure 24B and a partial perspective view of the damper of Figure 24A. Figure 25 is a circuit diagram illustrating sen– sors shedding elements, that can be used with the embodiments of ice producers according to the invention. Figure 26 is a block diagram illustrating the operation of a refrigerator freezer, including bricador facture of spill management ice according to the invention. Figure 27 is a circuit diagram illustrating element trophic factors that may be used with embodiments of the ice maker according to the invention. Detailed Description of the Invention One of the most desired accessories for optical domesticating a refrigerator and an ice–water through the portal system. An ice and water dispenser through the door and desirable because it greatly simplifies the recovery process of ice cubes, that is, eliminates To–opening TA, the removal of the receptacle for storage of ice cubes, the se– 5 10 15 20 25 30 18 parison and collection of ice cubes and placement of ice cubes in a glass. The feature can also be seen as a saver e nergy, since the freezer door is not

open so frequently. In the home textiles market coolers today, three basic configurations to choose from: a refrigerator freezer on the bottom of the refrigerator compartment is located above the freezer compartment, a mount refrigerator on top wherein the freezer is located above the refrigerating compartment or compartment and a refrigerator side by side in the refrigerator compartment and the freezer compartment extending throughout the height of the refrigerator. On the configuration side by side, the receptacle for storing ice cubes and the dispenser can be placed at the door of the freezer compartment. It would be advantageous also to position the ice maker in the freezer door to provide additional space for self storage in the freezer compartment. Also, it would be desirable to provide an ice and water dispenser for refrigerators with freezers at the bottom. However, doing so requires, essentially, the provision manufacturing mechanisms and the ice storage compartment door composed of refrigerator or freezer compartment. With current technology manufacturing and distribution of ice, it has not been possible for a consumer to have characteristics of dispensation of plain ice and water in a refrigerator compartment door with frequent freezer at the bottom or refrigerator door freezer side by side with ice and water dispenser mechanisms fully positioned in a door. One of the biggest challenges and how to manage the water spill that may occur when the door where an ice cube maker is positioned and open or closed abruptly when water is present in the ice mold. According to the invention of the applicant, the water pouring from an ice maker placed in a refrigerator compartment door or freezer and prevented or managed. It should be noted that the embodiments described in this patent share many of the same elements as an output 5 10 15 20 25 30 19 distribution mounted on the outside of a refrigerator compartment door or freezer, a receptacle for storing ice cubes and an ice dispenser. Similarly, Ice producers, which are the object of the invention of applicants, share many of the same elements. It will be understood that the operation of these elements, in general, will be the same for each achievement and a description of its operation will not be repeated for each embodiment, unless otherwise mentioned mode. Likewise, elements common to more than one embodiment will be usually identified with common numerals. For example, each of the embodiments ice maker may include an ice maker control, identified as the control ice maker 33, and the motor 35 in the embodiment of Figure 2. The ice cubes 34 are illustrated and described as pieces of ice usually semicircular, although the invention of the concepts described herein are not so limited, and are also applicable to ice pieces having a cylindrical shape, reticular or another. As will be described in greater detail below, the ice fabricadores according to the applicant's inventions can be used with refrigerators and freezers side by side at the bottom of the freezer. Returning to Figures 1A, 1B, 2, 12A and 12B side by side refrigerator freezer and freezer bottom, having a device maker and ice dispenser in the door according to the invention can be seen. Figures 1A and 1B show a refrigerator freezer bottom described in greater detail in co-pending US Patent Application US20040111, filed concurrently with this by Anselmino et al., and incorporated fully by reference in this application. The refrigerator freezer on the bottom 50 may have an enclosure 52, including a refrigerator compartment 54 kept at temperatures of 0 degrees centigrade and a freezer compartment 56 kept at low temperatures of 0 degrees The freezer compartment centigrade and 56 positioned at the bottom of the cabinet 52 and the refrigerator compartment 54 and positioned above the freezer compartment 56. In the embodiment of Figures 1A and 1B, the freezer at the bottom 50 can have two doors refrigerating compartment 5 10 15 20 25 30 20 Pain 68 and 69, arranged side by side. The cooler configuration with freezer at the bottom 50, shown in Figures 1A and 1B, and referred to sometimes as a fridge freezer with French door bottom mount par-you. Conventional door knobs 44, 46 and 48 are shown in refrigerator compartment door 68 and the compartment 69 and the freezer door to 66. Those skilled in the art will readily appreciate that various knobs, or any handle may be provided for doors, as is well-known in the art. A side by side refrigerator freezer embodying the invention is illustrated in Figures 2, 12A and 12B, and described in detail below. The refrigerator 50 may have a cooling system (not shown) for cooling the refrigerator compartment 54 and the freezer compartment 56. The cooling system may include a compressor, a condenser, an evaporator and expansion device one, all non-shown, as is well-known in the art. The compressor is a variable speed compressor to provide variable cooling rates, again well-known in the art. The refrigerant for 50 can also have a control system (not shown), which may include temperature sensors (not-shown) for the refrigerator compartment 54 and freezer compartment 56 connected to the temperature controllers of the refrigerator compartment, and the freezer (not shown) to keep the temperatures in the respective compartments in temperature selected by the User. The evaporator (not shown) can be positioned in a compartment evaporator (not shown), which can be positioned along the rear wall of the freezer compartment, as is well-known in the art. 69 The refrigerator compartment door may include a dis-ice water thinner and 72 positioned in front of the door. The icemaker and water 72 can be positioned at 69 refrigeration generator compartment door to a convenient height for User access as and well known in the art. A User interface 73 can be positioned adjacent an icemaker and water 72 for users to select 5 10 15 20 25 30 21 alternatives ice distribution and water, such as "fast ice" described below and other parameters cooler operation freezer, as described in our co-pending US Patent degrees SERIES 10 / 861,203, incorporated herein by reference. An ice maker 82 can be mounted adjacent the top of the refrigerator compartment door 69 spaced from inner door panel 70. A receptacle for storage of ice cubes 84 can be positioned below ice maker 82 and arranged so that the ice cubes collected in the ice maker 82 can fall through the gap 93 into the receptacle for storage of ice cubes 84. The gap 93 may be provided between the back of the ice maker 82 and the inner door 70 to direct ice cubes to the receptacle for storage of ice cubes 84. The receptacle for storage of ice cubes 84 may be supported on top of the ice dispenser 86. An insulated cover 88 may be provided to substantially close the ice maker 82. An insulated cover 90 may be provided to close substantially the receptacle for storage of ice cubes 84 and the ice dispenser 86. The isolated covers 88 and 90 may form subcompartments can be kept below 0 degrees centigrade to facilitate the formation and storage of ice cubes. The insulated cover 88 may include one or more locking surfaces (non-shown) arranged to maintain the cover 88 in place, forming a wrap below 0 degrees centigrade to the ice maker 82 while the refrigerator compartment door 69 opened, and closed in use. As described above, the insulated cover 88 and the insulated cover 90 allow the respective subcompartments are kept at temperatures below 0 degrees centigrade, without changing normal temperatures above 0 degrees centigrade in the refrigerator compartment 54. insulated cover 90 may be pivotally mounted on the inner door panel 70 with the joints 77. The pivotal connection of the insulated cover 90 with the inner door panel 70 may allow easy access to the receptacle for storage of ice cubes 84, via e-5 10 15 20 25 30 22

EXAMPLE to facilitate removal of the receptacle for storage of ice cubes 84 to distribute the ice cubes in a refrigerator or signs milares. The insulated cover 90 may be arranged so that it can be automatically closed while the refrigerating compartment door 69 is open and closed. The insulated cover 90 may be provided with a gasket 79 to seal against the surface of the inner door panel 70. Insulated cover 90 may be omitted if the receptacle for storage of ice cubes 84 is formed of insulating material. In one embodiment, the receptacle for storage of ice cubes 84 may be formed of double-walled plastic material with sufficient insulating properties to keep the ice cubes in the receptacle, the freezing and cold enough to prevent individual cubes from each merging others. Those skilled in the technique that readily comprehend—may use suitable transparent plastic material, such as those described above, can be used to form a receptacle for safely storing ice cubes isolated 84. Similarly, those skilled in the technique will understand that if no coverage is the insulator is provided, the air flow below 0 degrees centigrade may be directed to the receptacle for storage of ice cubes 84 so as to prevent undesirable vaporization—for the refrigerator compartment. The receptacle for storage of ice cubes 84 and the ice dispenser 86 may be similar to ice delivery system described in US Patent No. 6,082,130 degrees, assigned to the assignee of this request for patent and herein incorporated by reference. Those skilled in the technique will understand that a ice distribution system such to heat up is described in US Patent No. 6,082,130 degrees, can be used in the embodiment shown in Figures 1A and 1B, or may be provided with a receptacle for storage of insulating ice cubes as described above, and can be positioned in a refrigerator compartment door to cooperate with the ice maker 82 and the ice and water dispenser 72. One approach to the receptacle for level detection ice cube storage and described in US Patent No. 6,082,130 degrees, and those skilled in the technique—5 10 15 20 25 30 23 single appreciate that many ways to determine the level of ice cubes in a storage receptacle cubes of ice are disclosed and can be used in place of the optical system described in the patent requests identified above. The ice maker 82 and the ice and water dispenser 72 can be provided with water under the control of a water control valve 94 and a water valve 95 which may be included in the refrigerator freezer bottom, how and well-known in the art. The water valve control 94 to the icemaker and water 72 and the ice maker 82 may be a variable flow water system, as described in our co-pending US patent series of degrees 10/861,569, incorporated herein by reference. In one embodiment freezer bottom, as illustrated in the figures 1A and 1B, air below 0 degrees centigrade can be supplied to the ice manufactured in 82 and the receptacle for storage of ice cubes 84 per a system of air distribution, which may lead the freezer compartment 56. The air distribution system may include a first portion 100 of air distribution, which can be positioned along a side of the refrigerator compartment door 69 against the inner door panel 70. The air distribution system may include a second portion of distribution of air 106, positioned along a side wall of the compartment ment cooler 54 and leading down on the steering compartment ment freezer first portion 56. The air distribution 100 may include a supply duct 102 and return duct 104. Those skilled in the technique will understand that the first portion 100 of air distribution can be a dual passage tube, having two air passages, forming the supply duct 102 and return duct 104. The first portion 100 of air distribution can be thermo-formed plastic material formed or injection molded and can be covered or closed with material insulation as polystyrene ("styrofoam") hard. The second portion of air distribution 106 similarly may comprise one to Food Supply duct 108 and return duct 110. The second portion of air distribution 106 may be a dual passage tube formed of plastic material, similar 5 10 15 20 25 30 First portion 24 of air distribution 100. The faces of the first and second air distribution portions 100 and 106 can support when the refrigerator door 69 is closed and can be arranged so that the ducts 102 and 108 supply and return ducts 104 and 110 are opposite each other and can form a passage continues, when the refrigerator compartment door 69 is closed. The front of the first and second portions of the air distribution 100 and 106 may comprise surfaces veda—dog suitable for supply and return ducts, so that air substantially hermetic connections can be made when the compartment door cooler 69 is closed. The air distribution system dog is described in greater detail in co-pending US patent US20040111, filed concurrently with the present application and incorporated by reference as indicated above. Returning to Figures 2 and 12B, a freezer side by side refrigerator having an ice maker and dispenser device in the door according to the invention can be seen. Figure 12A illustrates a side by side refrigerator freezer 10 of the prior art having a set of ice machine 22 positioned at the top of the freezer compartment 16. The freezer compartment may have one or more shelves 11 and one or more baskets 13 arranged to store items in the freezer compartment 16. The compartment of freezer door 20 may have one or more door shelves 21 arranged to store items in the freezer compartment door 20. Similarly, the refrigerator compartment 14 may have one or more shelves and one or more baskets or containers for the storage items in the refrigerator compartment above 0 degrees centigrade Figure 12B illustrates a side by side refrigerator freezer 10 having a set of ice machine 22 in accordance with the invention, positioned within the compartment of the freezer door 20. Comparing Figure 12A and Figure 12B, the relocation—dog assembly of the ice maker 22 in freezer door 20 can result in a complete additional shelf for increased storage in the freezer compartment 16 without a decrease in shelf storage space ment of the freezer door 20. The refrigerator freezer side by side 5 10 15 20 25 30 25 may be provided with a cabinet 12 forming a refrigerator compartment 14 and a freezer compartment 16 disposed side by side, as is well-known in the art. A cooling system (not shown) may be provided to keep the refrigerator compartment 14 at temperatures above 0 degrees centigrade and the freezer compartment 16 at temperatures below 0 degrees centigrade, as is well-known in the art. A door of the refrigerator compartment 18 and processing of 1:00 freezer compartment door 20 it can be provided to allow access to the freezer refrigerator. The freezer compartment door 20 may be an ice and water dispenser similar to that of ice and water dispenser 72 described above. In refrigeration prior art, as illustrated in Figure 12A, the ice maker assembly 22 is positioned on top of the freezer compartment 16 and arranged to discharge ice cubes in a receptacle—for storing cubes 28. The ice of the ice maker assembly 22 may include an ice maker 32 having an ice mold 36, one ice extractor 38 and an ice accumulator 40. The ice maker 32 can have a control ice maker 33, which may include a motor 35 (Figure 27) to operate the ice accumulator. The ice delivery system 26 may be positioned below the door 20 of the ice maker assembly 22. The ice delivery system 26 may include receptacle 28 for ice, which can be positioned in the ice crusher 30. The ice crusher 30 may be arranged to dispense ice cubes or crushed by means of an ice and water dispenser (not shown in Figures 12A or 12B) in front of the freezer compartment door 20. The ice dispenser illustrated in Figures 2, 12A and 12B may be similar to the system of distribution of ice described in US Patent No. 6,082,130 incorporated herein in its entirety.

When operated, the distribution of ice cubes wounds transport system 26 or the receptacle for storage of ice pieces of cu- bos gel 28 through the freezer compartment door 20, so that the ice cubes can be distributed through a conventional ice maker and water dispenser similar to ice water and 72 described above. Next, various embodiments will be described fabricados 5 10 15 20 25 30 26 res ice embodying the invention of applicants. Each of the embodiments may allow the respective ice producers are positioned and operated in a freezer compartment door 20 of a refrigerator or freezer side by side in a refrigerator compartment door 69 of a refrigerator freezer bottom. Returning to Figures 3 and 4, an embodiment of an ice maker for use in a refrigerator compartment door or freezer can be seen. The ice er 115 can be manufactured an ice maker similar to ice maker described in US Patents 4,649,717 and 4,649,718 s degrees, incorporated here in by reference. The ice maker 115 may comprise an ice mold 116, which may be a cast aluminum mold coated with EPO xi, as is well-known in the art. The ice mold 116 may have a heater 117 (Figure 27) provided to heat the mold during ci- clos ice pickup, as described in the patents identified acci- ma incorporated by reference. The ice mold 116 may be provided with an ice extractor 120, extractor having a plurality of retainers 121 which extend through a side of the ice mold 116. A mador aca- ice or ice ejector 118 can be tro rotatably mounted on the top edge of the ice mold centering acamador 116. The ice 118 may include a plurality of teeth 119 to eject ice cubes from the ice mold 116 to the ice as acamador and rotated through the mold 116 ice during an ice collection cycle. The ice maker 115 may have a water intake element 123 (see Figure 4) to help direct water to an ice maker filling tube (not shown) for the ice mold 116, and as well- known in the art. The ice maker 115 may have a control housing (not shown), as de- scribed in US patents referred to above having a control 33 (Figure 27) which controls the operation of the ice maker 115 and a motor 35 (Figure 27) which drives the ice acamador 118 during ice gathering cycles, all as is well-known in the art. The ice mold 116 may be provided with a cover 124 which can be pivoted from the ice mold edge 116 opposite the ice extractor 120. The cover 124 may have a mul- 5 10 15 20 25 30 27 125 which ralidade of lingueetas extend from a rim 124 of the cover arranged to close substantially the gaps 122 between adjacent puller retainers 121 when the cover 124 and closed against the top edge of the ice 116 and the ice mold extractor 120. Thus, the cover- age 124 may be arranged to substantially close the ice mold 116 to help prevent water from spilling out of the ice mold 116, in the case where the refrigerator compartment door or free- zer, wherein Ice maker 115 is positioned, and abruptly opened or closed when liquid water is present in the ice mold 116. The cover 124 can be arranged to be opened during a cycle has ice gather the ice maker control (non shown). For example, a meat or other drive mechanism (not shown) may be arranged to engage the cover 124 for the dog open position shown in Figure 3 the extent that the control triggers 118 acamador the ice through the ice mold 116 to eject ice cubes from the ice molded. Alternatively, cover 124 could be driven, residence lientemente to the open position shown in Figure 3 and the control manu- ice bricador (not shown) could operate to close the cover 124 in other than during a cycle of Ice gathering, as will be pron- ly understood by those versed in the technique. Additional Protective against the ice maker water shedding 115 can be provided by mounting the ice maker 115 on a tray 128 having walls facing up 129 along the edge of the tray 128 to contain any water that might spill from the manufacturer 115. The ice tray 128 may be provided with a drain 130 to drain any spilled water into the tray 128 into a waste container (not shown) which can be positioned in a refrigerant tor door or elsewhere in the refrigerator freezer. The po- disposal container is arranged for manual emptying or by a User State may be do- a drain pump 292 for emptying the container (step 309, Figure 26). A drain line (not-shown) can lead drain 130 for disposal container which can be located in compartment 5 10 15 20 25 30 28 58 machines (Figure 1A) which is located at the bottom of the freezer refrigeration tors in which a compressor and a condenser and other components to the freezer refrigerators are typically located, as is well-known in the art. The waste container can be a drain pan typical 60 (see Figure 23) may be located below the condenser 64 (Figure 23) to evaporate the water that melts the evaporator (not shown) during defrosting cycles, again as well-known in the art. Those versed in the technique will understand that other water disposal containers can be provided, or a willing connection for connection to a domestic drain can be pro- portionate, if desired. The tray 128 can also be provided with a heater 132 (Figure 27) to heat up, periodically, the tray 128 in order to evaporate any water that may have been spilled on the tray 128 or, alternatively, to melt any ice that forms on the tray 128 of water poured on the tray 128. The operation of the heater 132 will be described in greater detail below with respect to Figures 26 and 27. The tray 128 can also be provided with a drain pump 292 (Figure 27), which can be connected to the drain water pump 130 to the tray 128 up to a waste container that is not already located below the bande- 128 to allow gravity drainage. Returning to Figure 5 and Figure 6, another embodiment of an ice er manufactured for use in a refrigerator compartment door or freezer can be seen. The ice maker 135 can be an ice maker similar to the ice maker described in US Patents 4,649,717 and 4,649,718 s degrees incorporated herein by reference. The ice maker 135 may comprise an ice mold 116 that can be a function such dido aluminum coated with epoxy as is well-known in the art. The ice mold 116 may be provided a heater 117 for heating the ice mold for gathering cycles as described in the above identified patents incorporated by reference. The ice mold 116 may be provided with an ice extractor 136, extractor having a plurality of retainers 137 which extend through a side of the ice mold 116. A acamador 5 10 15 20 25 30 29 Ejector ice or ice 118 may be mounted rotatably in the center of the top edge of the ice mold 116. The ice acamador 118 may include a plurality of teeth 119 to eject ice cubes from the ice mold 116 to measure less than acamador of ice and spun through the ice mold 116 during an ice collection cycle. The ice maker 135 may have an element for water inlet 123 to a irecionar water tube en- Chimento ice maker (not shown) for the ice mold 116, as is well-known in the technique. The ice maker 135 may have a accommo- dation control (not shown), as described in US Patents referred renciadas above, including a control 33 for controlling the operation of the manufactured ice er 135, and a motor 35 to drive The ice acamador 118 dur- ing ice gathering cycles, all as is well-known in the art. The ice mold 116 can be provided with a cover 138, which can be arti- culated the ice mold edge 116, opposite the ice extractor 136. The extra tor 136 and the ice mold edge 116 may defining a water recovery channel 140 between the top edge of the ice mold 116 and the former ice tractor 136. When cover 138 is in closed position shown in Figure 6, the top of the water recovery channel 140 and closed so that any water that sprinkle the ice mold 116 against the extractor 136 or cover 138 can circulate in the water recovery channel 140 and, while so, back to the ice mold 116. In other respects, the fabricator Ice 135 can operate as the ice maker 115 described above and may be arranged to cover 138 to open

during ice gathering cycles. Those skilled in the technique will understand that a po- tray 128 to be provided to the ice maker 135, as described above with respect to Figures 3 and 4. Returning to Figure 7, another embodiment of a generally fabricator it for use in a refrigerator compartment door or freezer can be seen. The ice maker 145 may be a mylar si- ice maker to an ice maker described in US Patent 4,649,717 and 4,649,718's degrees, hereby incorporated by reference. The ice maker 145 may comprise an ice mold 116 which can be an aluminum mold 5 10 15 20 25 30 30 epoxy coated cast, as is well-known in the art. The ice mold 116 may have a heater 117, provided to heat the ice mold for gathering cycles as described in the above identified patents ed incorporated by reference. The ice mold 116 may be provided with an ice extractor 148, extractor having a plurality of detents 150 extending through a side of the ice mold 116. In the embodiment of Figure 7, extractor retainers 150 may be formed of flexible material such as silicone rubber and may have a plurality of aligned slots 151 with teeth 119 of ice acamador 118. A a- camador ice or ice ejector 118 may be mounted rotatably in the center of the top edge of the mold 116. The ice 118 po- ice acamador include a plurality of teeth 119 to eject ice cubes from the ice mold 116, as the ice acamador and rotated through the ice mold 116 during a gathering cycle ice. As the teeth 119 contact the extractor 148, the edges of adjacent retainers 150 can flex to allow respective teeth move through the slots 151 and ejetem ice cubes from the ice mold 116. The ice maker 145 may have an element for water inlet 123 to direct water to an ice maker filling tube (not shown) for the ice mold 116, as is well-known in the art. The ice maker 145 may have a control housing (not shown), as described in US Patent referenced above, including a control 33 for controlling the operation of the ice maker 145 and a motor 35 to drive the ice acamador 118 during Ice collection cycles, and all as well known in the art. The ice maker 145 may have a fixed ra protectors cover 146 connected to the ice mold 116, opposite the ice extractor 148. Thus, the combination extractor 148 and protective cover 146 covers substantially the open top of the ice mold 116 and can reduce, substantially, the chance of water splashing out of the ice mold 116, the port where the ice machine 145 is mounted and opened or closed abruptly when liquid is present in the ice mold 116. Those skilled in the technique will understand that a tray 128 can be 5 10 15 20 25 30 31 provided to the ice maker 145, as described above in relation to Figures 3 and 4. Returning to Figure 8, another embodiment of a generally fabricator it for use in a refrigerator compartment door or freezer can be seen. The ice maker 155 may be a mylar si- ice maker to an ice maker described in US Patents 4,649,717 and 4,649,718 s degrees incorporated herein by reference. The ice maker 155 may comprise an ice mold 116, which may be a die cast aluminum coated with epoxy, as is well-known in the art. The ice mold 116 may be provided a heater 117 for heating the ice mold for gathering cycles as described in the patents identified above ed incorporated by reference. The ice mold 116 can be do- State an ice extractor 158 having a plurality of ex- tractor retainers 159 extending through a side of the ice mold 116. An ice acamador 118 may be mounted rotatably the center of the top edge of the ice mold 116. The ice acamador 118 may include a plurality of teeth 119 to eject ice cubes from the ice mold 116 to the ice as acamador and rotated through the ice mold 116 du - ring an ice collection cycle. The ice maker 115 may have an element to water inlet 123 to direct water to an ice maker filling tube (not shown) for the ice mold 116, as is well-known in the art. The ice maker 155 may have a control housing 160, as described in US Patent referenced above, including a control 33 for controlling the operation of the ice maker 155 and a motor 35 to drive the ice acamador 118 for gathering cycles ice, all as is well-known in the art. The ice mold 116 can be provided with a cover 162 which can be pivoted from the ice mold edge 116 opposite the ice extractor 158. The cover 162 may be hinged to the ice mold 116 with a pair of articulations 163. The cover 162 may have a plurality of lingueetas 161 study who tend to cover an edge 162 arranged to close, substantially the gaps 157 between adjacent puller retainers 159, 162 when the cover 32 closed and against the top edge of Ice Ice mold 116 and the extractor 158. Thus, the cover 162 may be arranged to substantially close the ice mold 116 to help prevent water from spilling out of the ice mold 116, if the door of the comparators - 5 ment of the refrigerator or freezer, where the ice machine 155 is positioned and abruptly opened or closed when water in the li- liquid state is present in the ice mold 116. The cover 162 can be opened to rt dispos- an ice during collection cycle for controlling an ice maker 160. For example, a meat or other share- tioning mechanism 10 (not shown) may be arranged to engage the cover 162 to the open position, while the control fires The ice acamador 118 through 116 of the ice mold to eject the ice cubes from the ice mold. Alternatively, the cover 162 could be driven, resiliently, to the open position and the ice maker control 160 could operate 15 to close the cover 162 otherwise than not during a cycle of re ice colhimento as will be readily understood by those sados see- in technique. Those skilled in the technique will understand that a tray 128 may be provided to the ice maker 155, as described above with respect to Figures 3 and 4. 20 Returning to figures 9, 10 and 11, another embodiment of an ice er manufactured for use in a refrigerator compartment door or freezer can be seen. In the embodiment of Figures 9, 10 and 11, the ice manufactured er 165 and illustrated in a freezer compartment door 20, as shown in Figure 2. Those skilled in the technique will understand that the manufactured ice er 165 25 could also be ment used in a compartment door refrigerators 69, as in the embodiment illustrated in Figure 1A and 1B. The ice maker 165 may be similar to ice maker described in our co-pending United States patent US20020155 and US20040162, deposited simultaneously with this by Voglewede 30 et al., requests that are incorporated in their entirety by reference. The ice maker 165 and shown in the closed position, filling and ice formation in Figure 9. In Figure 10, the ice maker 165 and 5 10 15 20 25 30 33 shown partially rotated to the position pickup ice to illustrate spill management concretiza- dog aspects of the invention. Figure 11 and a cross-sectional view of the ice maker 165 in the closed position for filling and ice formation, accord- shown me in Figure 9. The ice maker 165 can be attached to port 20 through the mounting plate fixation 166 the inner door 21, as is understood by those skilled in the art. The ice maker 165 may include a housing 180 having end walls 182 and 184 and a top wall 186. The end walls 182 and 184 can support gira- ably the ice tray 171. The ice tray 171 may comprise a structure 172 that can support a mold insert 174. As described in co-pending patent applications US US20020155 and US20040162 incorporated herein by reference, the in- sertion mold 174 may be a flexible plastic material may include polyurethane and silicone, which may have a material with low friction coefficient, forming the top layer. The end wall 182 can support a motor 35 which can include a gear train (not shown) in the accommo- dation 169, which can connect the motor 35 to a drive shaft 170 connected to frame 172. The engine operation 35 by a control 33 to drive the ice tray 171 for collecting ice pieces and been described in detail in co-pending patent applications US US20020155 and US20040162 incorporated through reference. The

embodiment of the ice 165 arranged to mount fabricator in a refrigerator compartment door or freezer may be arranged to prevent water spillage in the event of the door when the ice maker 165 and mounted to be opened and closed when liquid is present in the mold insert 174. In the embodiment illustrated in Figures 9, 10 and 11, the mold insert 174 can have a lip 176 that protrudes upward from the mold 174. The insertion sleeve 176 can be positioned outside the reentrances 175. The top wall 186 of the housing 180 may include containment walls 188, 189, 190 and 191 (not-shown) which can protrude downwards from the top wall 186 and may terminate on the top surface of the insert 174 between recesses 175 and the shell 176. The containment wall 191 (not-shown) and opposite the containment wall 189. In this mode of the interaction of the containment walls 188, 189, 190 and 191 and the ferrule 176 can prevent substantially the water pouring out of the ice cube tray 171, when water is present not frozen in veneers reentrances 175 and the freezer door 20 and open or closed abruptly. Turning to figures 13A, 13B, 14A and 14B, another embodiment of an ice maker for use in a refrigeration door of refrigerator or freezer compartment can be seen in schematic side view. On 13A and 13B, the freezer door 20 is shown in the open position. On 14A and 14B, the freezer door 20 is shown in the closed position. Those skilled in the technique will understand that the MOS-Trada embodiment in Figures 13A, 13B, 14A and 14B can be used in connection with a refrigerator freezer door at the bottom, as shown in the embodiment of Figures 1A and 1B. The ice maker 22' can be mounted on the inner surface of the freezer compartment door 20 above a receptacle for storage of ice cubes 28. The ice maker 22' may include a hinged cover 192. In this embodiment, hinged cover 192 may comprise a plurality of segments 193, 194, 195 and 196. The hinged cover can be formed of plastic such as polypropylene or metal, as will be understood by those skilled in the art. The ice maker 22' may include an open side 23 which may take the ice mold portion (not-shown) of the ice maker 22'. The ice maker 22' may be arranged to discharge ice cubes a beams from the open side 23 for gathering cycles. The cover 192 may be hinged to the top edge 24 of the ice maker 22' opposite the inner door 25 of the freezer door 20. The segments 193 and 194 may form a closure for the open end 23 when the cover is in closed position shown in Figure 13A. The segments 195 and 196 can occupy the space between the ice maker 22' and the receptacle for storage of ice cubes 28, when this cover 192 at the phenyl position Chada, as shown in Figure 13A. When cover 192 and closed 5 10 15 20 25 30 35 of the receptacle for storage of ice cubes can be removed facilitate the inner door 21 for the bulk distribution of ice cubes, as filling of a refrigerant or another purpose, as desired without interference from the cover 192. Referring to Figure 13B, cover 192 can be hinged to the ice maker 221 on the top edge 24 by the pivot 198. Those skilled in the technique will understand that can pivot 198 continues to be an articulation or one or more individual articulations or other mounting disposition in known pivot. The weight of the segments 193, 194, 195 and 196 can drive the cap 192 to the closed position, and can raise the plunger 200 extending beyond the pivot 198. Turning to figures 14A and 14B, the freezer compartment door 20 can be seen in the position closed. In the closed position, the actuator 200 can be seen in articulated contact with the top of the ice maker 22' due to actuator 200 to be operated by the compartment top wall freezer 17. The movement of the actuator to the position shown in Figure 14B position of making the cover 192 rotate upward to the elevated position shown in Figure 14A. In the high position, the cover 192 can form a passageway for the pieces of ice collected in the ice maker 34 22' into storage container for ice cubes 28. The ice cubes 34 are growing as illustrated in Figure 14A. Ice cubes will be referred to as 34 in other embodiments, whether or not they are shown as increasing. Those versed in the technique will understand that the ice cubes can take shapes as desired, half-moon, cylindrical, straight, conical or other regular or special forms. The segments 193 and 194 may divert ice chunks that leave the open side 23 of the ice maker 22', driving the ice pieces 34 down to the receptacle for storing ice cubes 28. The segments 195 and 196 may complete the passage 202 leading from the ice maker 22' to the receptacle for storage of ice cubes 28. An additional advantage of the cover 192 and, when the freezer compartment door 20 is open, the cover 192 closes, effectively, the ice maker 22' to prevent the users to contact, inadvertently 5 10 15 20 25 30 36 you, portions of the ice maker 22' when accessing the interior of the freezer compartment of 16 and can help keep below 0 degrees centigrade it considering the air in the ice maker 22'. Furthermore, as illustrated in Figure 13A, the freezer door profile 20 and reduced, compared with the open door position due to rotation of the cap 192 to the closed position when the freezer door 20 to open. The cover 192 enables the profile of the freezer door 20 is reduced until the thickness of the ice maker 22' and the socket for storage of ice cubes 28, compared with the dispositions of ice maker that require space between the door inner 21 and the ice maker 22' for ice pieces collected to fall into receptacle for storage of ice cubes 28. The cap 192 is shown as being operated by gravity in the embodiment of Figures 13A, 13B, 14A and 14B, however, those skilled in the technique will understand that the cover 192 can be arranged to be operated by a spring motor or solenoid (not-shown) for articulation between the closed and open positions of. Those skilled in the art also readily understanding derailing an operator to cap 192 may be arranged to move the cap 192 to the open position 20 and closed when the door, or when the ice maker 22' is in a cycle of ice gathering, be as intended. Returning to Figure 15, another embodiment of a fabricator of it generally for use in a refrigerator compartment door or freezer position, to be seen. Although the ice maker 205 is not shown in a To-ta freezer or refrigerator compartment, those skilled in the technique will understand that ice maker 205 can be used in conjunction with the embodiment of Figures 1A and 1B or The embodiment of Figure 2. The ice maker 205 comprises an ice maker with twist tray that may be similar to and operate similarly to twist the ice tray producers disclosed in US Patent Nos 3,964,269 degrees; 3,871,242; 3,779,032; 3,763,662; 3,727,428; 3,677,030; 3,648,476; 3,383,876; and 3,382,682, all of which are incorporated herein by reference. The fabricator ice with twist tray 205 may include a housing 5 10 15 20 25 30 37 208 control, which can be connected operatively, twist the tray 206. The control housing 33 may include a control and motor 35 to operate the ice maker with twist tray 205. The twist tray 206 may have sidewalls 210, which extend upwards of 207 reentrances to form a protection against splashes to contain not frozen water in twist tray 206, if the door to the ice maker 205 is assembled and opened or closed abruptly. The operation of the ice maker with twist tray and 205 well-known to those skilled in the art and may be similar to the operation of the ice fabricators with twist tray described in the patents described earlier in this subparagraph. The ice maker 205 can collect ice within its own width, and as well-known in the art. Thus, an ice maker with twist tray can enable a narrower door profile fabricator the ice discharging ice in a hand. The ice producers discharging ice cubes on one side may require additional large,

which may be of the order of three inches, to allow for co Span- ice cubes fall into the receptacle for storage of ice cubes. An additional advantage of an ice maker with twist tray and that no ice or ice acamador extractor and requested via the ice tray. The elimination of an ice acamador and ice extractor removes elements that could be exposed to water and freeze, if the port on which the ice maker is mounted is opened or phenyl Chada abruptly when not frozen water this present in the ice mold. Those versed in the technique will understand that the ice maker 205 may include appropriate mounting dispositions and may include, by e XAMPLE, a filling tube to provide water to twist the tray 206 in the beginning of an ice formation cycle and electricians cas connections to the control 208. Returning to Figure 16, another embodiment of an ice maker for use in a refrigerator compartment door or freezer can be seen. The ice maker 215 may include a torsion upper tray 216 and lower tray 218 twist, which may be each one 38, generally similar to torsion tray 206 in the embodiment of Figure 15. Each of the trays twist top and bottom may in- clude one protection against splashes 210 willing to reduce the possibility of not frozen water pouring out of the ice maker 215, the fifth event of the door where the ice maker 215 is mounted is opened or closed abruptly, with no water present in the frozen ice maker. Those skilled in appreciate technique that ice maker 215 can include appropriate mounting arrangement and can include, for example, a filling pipe for supplying water to the trays 10 twist 216 and 218 in the beginning of ice formation cycle, and electrical connections to the control 208. One advantage of a double-twist tray and each tray twist and used every other cycle in order to prolong the time before or mineral oxidation postal scales sam accumulate in a tray, which can cause ice cubes 15 will join twist tray during the gathering. Figures 17:18 illustrate another embodiment of a tray of 220 double twist, which may have a twist tray top 222 and a twist tray 224. The lower tray double twist 220 can be used with an ice maker with twist tray, such as an ice er 20 manufactured with torsion tray 215 described in Figure 16. Each torsion ja bande- 222 and 224 may include a protection against splashes 228 as described above in connection with the embodiments of Figures 15 and 16. In the embodiment of Figures 17 and 18, the twist tray 220 can under- stand a bottom wall 226 separating the common twist tray upper 25 rior 222 of the twist tray bottom 224. An advantage of providing the bande - ja twist 220 with a common back wall 226 and the heat in the a- water added to empty tray to start another ice formation cycle can help to release any ice cubes that could get stuck in the twist tray bottom. Those skilled in the art with- 30 preenderao the ice collection cycle may be arranged to pro- porcionar filling of the twist top tray as the empty tray rotates to a vertical position to provide heat for the water 5 10 15 20 25 30 39 help ice cubes collected in the bottom tray. Figure 19 illustrates another embodiment of a tray of 230 double twist, which can be simi- home the tray double twist 220 in Figures 17 and 18. The tray double twist 230 may have a protection against splash 232, which can be bent inwardly in order to help divert the water back to the tray Tor- double dog 230, if the ice maker in which the torsion tray 230 is mounted and used in a refrigerator or freezer door open- rt or closed abruptly, when this water is not frozen in this ice maker. Those skilled in the technique will understand that any of the embodiments of torsion trays may include a curved protected against dog speckle, as shown in Figure 19, pro- straight place protections against speckle illustrated in Figures 15 to 18. Those versa- in the technique will understand that an ice machine incorporating any of the illustrated torsion tray arrangements in Figures 15 and 19 can operate similar to producers with ice tray dog Tor- described in US Patents referenced above. Turning to figures 20A, 20B, 20C, 21, 21B and 21C, another concretization of an ice maker for use in a compartment door refrigerators or freezers can be seen. In the embodiment illustrated in Figures 20A -c 21A - C, the ice maker 240 may understanding der an ice mold 242, which can be mounted rotatably in the manufactured ice pain 240. The ice maker 240 may include a base wall 244 having a motor 35 mounted on one side of the base wall 244. The pa- core network 244 can also support a control 33 (not shown) pa- ra control the operation of the ice maker 240. po- ice mold 242 to be mounted rotatably between the base wall 244 and structure 248. The structure 248 can be shaped element a generally "U" which po- be attached legs 247 that may extend from opposite sides of the base wall 244 (Structure 248 of Figure 20A and omitted to better illustrate the ice mold 242). Suitable fasteners can be used to secure the frame 248 legs 247, as will be understood on by those skilled in the art. The ice mold 242 may be an alumi- mold 5 10 15 20 25 30 40 nio epoxy coated as described above and may have sidewalls 250 and 252, which may extend above the water level in the ice mold 242 to prevent the water from splashing out of the ice mold 240. The mold 242 may include ice an ice mold heater 117 (Figure 27) patients ra facilitate removal of ice cubes 34 during the recoil cycle as and well-known. A channel 256 may be formed in the sidewall 252 to retain water formed as a result of operation of the aque- ice mold plier an ice during collection cycle. The channel 256 may be formed by a recess 257 in the side wall 252 and a ferrule 258 extending from the distal edge of the wall 252 towards the cen- ter of the ice mold 242. The body 258 may end at the back edge 260 extending from the upper distal end of the sleeve element 258 toward the bottom of the ice mold 242. A fixed ice acamador 254 can be mounted in base wall 244 and structure 248. The ice mold 242 may be arranged to rotate around the ice acamador 254 as will be described below to. In figures 20A and 21A, the ice mold 242 is illustrated in the position of origin. The position of origin of the ice mold is opened up and understand the position of filling and formation. A filling tube (not shown) can extend the element water inlet 123 for the office of the refrigerator and freezer to connect to a source of water. After the water has frozen in the ice cubes 34, a temperature sensor 245 (Figure 27) can operate to start a recolhimen- to ice cycle, as is well-known in the art, and can be manufactured similar to markers of Ice described in US Patents incorporated by reference jointly to Figures 3 and 4. During the cycle of processing of col- lected ice, the motor 35 may be arranged to cause the ice mold 242 rotate in a clockwise direction for 180 degrees, as auger MOS- in Figures 20B, 20C, 21B and 21C. 20B and 21B in the figures, the ice mold 242 and shown rotated 90 degrees with water melted the ice molded heater (not shown) collected in the channel 256. In rotation of 90 degrees, the bos cu- ice 34 not yet contacted the ice acamador stationary 254. 5 10 15 20 25 30 41 However, As the ice mold 242 continues to rotate to the position of 180 degrees rotation shown in Figures 20C and 21C, the ice acamador ejected ice cubes 34, allowing ice cubes hit the century recepta- for storing ice cubes (not-shown materialisation of this). The position of rotation of 180 degrees shown in Figure 20C and 21C, the ca- nal 256 can retain water formed when the ice mold heater 117 heats the ice mold to release ice cubes mold 242. The motor 35 can, then reverse the rotation of the ice mold 242 to position tical see- illustrated in 20A and 21A figures to start another ice formation cycle. Any water in the channel 256 can run back to the ice mold cavity 243 as the return of the ice mold 242 for the top position. The ice mold 242 may include a plurality of fins 262 and may be provided

with a housing for improving the airflow around the ice mold, as described in co-pending US Patent Mem- ber US20040111, filed by Anselmino et al. "simultaneously with the present and incorporated herein in its entirety. Although bricador ice manu- 240 in this embodiment is described as having a molded ice rotatable 242, those skilled in the technique will understand that ice maker 240 can be arranged to be rotatable, instead of having only the mold fabricator Ice rotatable through the assembly, gira- ably, ice maker in the refrigerator or freezer door. A rotatable ice maker could be arranged to rotate around a fixed point on the refrigerator door or freezer that can be connected to the fixed ice acamador 254. Turning to figures 22A through 22C, another embodiment of an ice er manufactured for use in a refrigerator compartment door or freezer can be seen. In the embodiment of figures 22A to 22C, the ice er manufactured 332 and shown in schematic form and includes an ice mold 336 and the control ice maker 333. The ice maker mold 336 may be a coated aluminum mold with epoxy as described above. The ice maker 332 may include an ice acamador 340. montado rotatably above the ice mold 336. The ice acamador 5 10 15 20 25 30 42 340 can be rotatably mounted on the rake shaft 341. The ice mold 336 may include a flat extension 338 that extends upwardly and inwardly from an ice mold edge 336. As can be seen atra- ves reference to Figures 22B and 22C, the fixed extension may be 338 to prevent der esten- the substantially water splashing outside of the fixed extension 336 through the ice mold wall 338. A hinge 334 can study inclines upward from the opposite side of the ice mold wall 336. The hinge 334 may be aluminum coated with epoxy as the ice mold 336 or, as will be understood by those skilled in the art,. It can be formed of molded plastic material similar to ice extractants known in ice producers. As can be seen by reference to Figures 22B and 22C, the hinged wall 334 may extend verticalmen- te approximately the same height as the fixed hinge wall 338. The extension 334 can be pivotally mounted on the ice mold 336 by a shaft an articulated wall 339 on the top edge of the ice mold 336. Those skilled in the technique will understand that the hinged wall 334 may be hinged or rotatably mounted by other mounting arrangements which can include a continuous or pivots the articulation f extremities hinged wall 334, which cooperate with points of articulation connected to the ice mold 336 as are well-known in the art. The control ice maker 333 may include a cam 335 which can be connected to the drive mechanism acionavelmente pa- acamador ice ra 340, as illustrated by dashed line 346, so that, as the ice acamador 340 and rotated during a gathering cycle of ice cubes, the meat turns 335. The control ice maker 333 may include also a lever 337 which can be arranged to be operated by the cam 335 as it rotates with the ice acamador 340. The lever 337 may be rotatably mounted on the control fabricator Ice 333 on pivot 344. As shown in Figure 22B, when the articulated wall 334 is vertical, the ice maker during the filling portions and freezing of the ice cubes of an ice making cycle, the lever 337 can be positioned pa- 5 10 15 20 25 30 43 Ra to be engaged by the cam 335 as it rotates. Reference through the 22B and 22C figures the sequence operation for the hinged wall 334 can be seen. As the ice acamador 340 approaches and passes through the axis 339 of articulated wall, the cutout 343 in 335 meat is opposite the lever 337 to remain in an upright position shown in Figure 22B in the pivot 344. As the ice acamador 340 continues to rotate and through the ice mold 336, the surface of meat 335 can engage the lever 337 and articulating the lever 337 below par for the position that study tends down, shown in Figure 22C. The lever 337 may be connected Tada the hinged wall 334, as illustrated by dashed line 345, so that, as the lever 337 is rotated between the positions of ras Fig- 22B and 22C, the hinged wall 334 articulates the vertical position (Figure 22B) to the horizontal position (22C). At the end of a collection cycle ice cubes, the ice acamador 340 can return to a position extending generally upwardly and the cutout 335 positioned 343 opposite swimming meat lever 337, so that the articulated wall 334 can resume the vertical position illustrated in Figure 22B. The outer surface 347 of the hinged wall (in 22B figure) may be flat or may have ridges or ribs extending generally perpendicular to ice acamador 340 in order to facilitate sliding of the ice cubes 330 out of the wall 334 articulated while the ice acamador 340 completes its rotation dog through the ice mold 336. An ice cube 330 'and shown posi- tioned through the articulated wall 334 in Figure 22C to illustrate the operation of the articulated wall 334 as an extractor. In the stage of an illustrated ice gathering cycle at 22C figure, the ice cube 330 is still on ice mold 336, as shown. Accordingly, the articulated wall 334 can function similar to ice extractor described in US Patent 4,649,717 and 4,649,718 incorporated by reference above. The hinged wall 334 can be pushed to the vertical position (Figure 22B) by a torsion spring (not-shown) so that the lever 337 can mo- see the hinged wall 334 to the horizontal position by the compression torsion spring. When the cam 335 returns to a position where the applicant 10 5 15 20 25 30 44 343 thee is opposite the lever 337, the torsion spring can return the hinged wall 334 to a vertical position. Alternatively, the hinged wall 334 can be mechanically actuated by the lever 337 to articulate the articulated wall 334 between the vertical and horizontal positions As will be pron- ly understood by those skilled in the art. Thus, in operation, the hinged wall 334 and the fixed extension 338 may extend vertically above the ice mold 336 in order to contain the water splashing out of the ice mold 336 during filling servings and the freezing Ice cubes of an ice collection cycle. In part has committed an ice collection cycle, the hinged wall 334 can be pivoted to the position shown in Figure 22C to allow the ice cubes 330 are pushed through the hinged wall 334 to a receptacle for storage of ice cubes underlying (non shown). As mentioned above, the outer surface 347 of the hinged wall 334 may have ridges or ribs that run generally perpendicular to ice acamador 340 to facilitate the sliding of the ice cubes out of the hinged wall 337, while functioning as a f ice tractor in a conventional ice maker as described in U.S. Patents referenced identified above. An advantage of the articulated wall figures 22A-22C configu- ration and a structure of conventional ice extractor that extends through the ice mold 336 can be eliminated. The ice elimination extractor removes the possibility of water splashing out of the ice mold in ice extractor during the filling cycle and in freezing ice cubes. The ice in the ice puller could prevent the ice 340 to rotate through the ice mold acamador 336 during the recoil cycle to push the ice cubes 330 out of the ice mold 336. Returning to Figures 23, 24A and 24B, port buffers for use in conjunction with a refrigerator compartment door or frequency Ezer having an ice maker mounted on it can be viewed. It will be understood that a door damper, as described in connection with Figures 23, 24A and 24B, can be used in combination with any 5 10 15 20 25 30 45 one of the embodiments described above ice producers. In Figure 23, one embodiment of a damper door can be seen positioned nothing in the refrigerator cabinet bottom freezer 52 in the machinery compartment 58. Those skilled in the technique will understand that a vasi- daughter of drain 60 may be located at the bottom of machinery compartment 58 to provide localization for water defrosting regret drain evaporation. The drain pan 60 may also provide a location for water poured from a fabricator it generally combined with a tray as illustrated in

figures 3 and 4. A suitable drain line (not-shown) can connect the drain 130 in pan 128 to the drain pan 60 to spill any mada water disposal an ice maker in a refrigerating compartment door erator or freezer. Those skilled in the technique will understand that the compressor of the refrigeration system (not shown), a condenser 64 and a condenser fan 62, typically located in the machinery compartment 58 may provide heat and air flow for evaporation of water drained into the drain pan 60. In Figure 23, a damper 264 can be pivotally mounted in a clamp in the machinery compartment in the pivot 265. The opposite end of the damper 264 can be pivotally connected to the bracket 267 which can be fixed to a door (not-shown) or door articulation (non shown) in 268. The damper 264 can be a spring Gas love- that weaves in both directions. Those skilled in the technique will understand that the bumper 264 may be a shock absorber or spring loaded instead of a damper gas spring. The clamp 267 and the a- mortecedor 264 may be arranged so that the door goes through the center in relation to the buffer 264 as the door closes so that the door movement can be damped in the closing and in the opening. The spring effect of gas damping in the damper 264 po- provide the damping of the opening movement or closing of the door to prevent or substantially reduce the possibility of co salpi- water out of an ice maker positioned at port 46 as described above. Returning the 24A and 24B figures, an embodiment of dampers giratorio pain may be seen. The revolving damper 272 may comprise a damper gear 274 rotatably mounted on the base a- 5 mortecedor 276. The revolving bumpers are well-known in the art and may include viscous friction materials or engaging the damper gear 274 to damper base 276. Known devices inclusion in unidirectional or bidirectional revolving bumpers. The revolving damper 272 can be mounted on a fixed element, such as a 10 articulation element (not shown) attached to the refrigerator freezer cabinet 52 (Figure 1A). The gear 270 may be fixed on an element swiveling articulated dog, as the articulation pin (not shown) attached to the refrigerator door 69 (Figure 1A). The rotary damper 271 may be positioned so that the damper gear 274 engages gear 270, 15 when the door 69 and positioned in the enclosure 52. In operation, as the door 69 to open or closed, the gear 270 rotates damper gear 274. The damping effect of the viscous material or the friction between the damping gear 274 and the damper base 276 can provide the damping of the opening and closing movement of the door 20 to prevent or substantially reduce the possibility of water splashing out from an ice maker positioned on the door, as described above. Those versed in the technique will understand the shock gira- thorium 272 or damper 264 can be a one-way damper, if de- sejado, although the bidirectional buffer is preferred to help as- 25 insure that the water spills are prevented when the door closes and the opening movement of the door. Returning to Figure 25, a spill sensor and spill control according to the invention can be seen. Addition to providing a tray 128 (Figure 3) to retain any water spilled or splashed 30 out of the ice maker embodiments de- scribed above, a spill sensor 280 and spill control 285 may be provided to warn the User that a spill 5 10 15 20 25 30 47 ment occurred el or undertake an action, automatically in response to the spill. The spill sensor 280 may be two groups of metal plates 281, 282 located on tray 128, arranged to be contacted for any water to spill out of an ice maker positioned in the tray 128. When water or ice is present in metal plates 281, 282 through the electrical resistance of the plates 281, 282 may change and producing a signal to the spill control 285, indicating that the water or ice is present on the tray 128. Those skilled in the technique will understand that the plates 281, 282 can be separate conductors res plates positioned in the tray 128, or, if desired, may be a conductive film or ink printed on the tray 128. The control spill any mamento 285 may be arranged to activate one or more outputs which can include a beep emitting audible 286, an LED display 288, which can be positioned on the User Interface 73 (Figure 1A) and a power outlet, which may comprise an electronic key (ie, a SCR) 290 to activate a Pouring element in response to detection. For XAMPLE e, the electronic switch 290 may be arranged to activate a pump 292 for pumping water from the tray 128, as described above, or may be arranged to activate the heater 132 to the tray 128, as described above a-. Thus, a sensor and spill control can alert the User that a water spill occurred el or can activate a response to the spill. Alert the User of a spill can allow the User clean the spill immediately in order to prevent ice accumulation around the base of the ice maker that can occur if water is not drained away or otherwise discarded so soon after a spill occur. Returning the figures 26 and 27, the operation of the invention of gerenci- ning spill of applicants for ice fabricators mounted in the refrigerator compartment door or freezer will be described in greater detail. The operation described below will be understood to apply to all the embodiments of ice fabricators described acci- ma, unless otherwise noted. In the beginning of a formal cycle 5 10 15 20 25 30 48 ice Macao, step 300, the water valve 95 may be activated by the trolley con- d'water valve 94 to fill the ice maker with water, step 301. The ice maker is located in a superb location with temperature below 0 degrees centigrade and consequentemente, the water cools and starts to freeze, step 302. If the port where the ice maker and this opened or closed while liquid is present in the ice mold, step 303, the anti-spatter characteristics, step 304, the ice maker embodiments described above and, if applicable, the dampening mechanism To-ta, step 305, can operate to prevent water splashes generally mold it. If, despite the anti-speckle characteristics, step 304, and the mechanism of door cushioning step 305, the water pouring, step 306, aspects of the invention spill management can operate, if provided. If a tray 128 is provided, the spilled water can drain into a receptacle on the door, step 307, if provided, or to a container out of the refrigerator, such as a drainage container 60, step 308. The container door may be provided a pump 292 for emptying the container when full, step 309. As noted above, the pump 292 could also be arranged to pump water from the tray 128 to a remote or elevated storage container or to a household drain, if desired (non-shown in Figure 26). When the ice maker 245 of the temperature sensor senses a temperature, indicating that completely frozen ice cubes, an ice collection cycle, step 310 can begin. Except for the flexible producers ice tray, an ice mold heater 117 may be activated to release the ice cubes from the ice mold, step 311. During collection the ice when the ice maker and provided with a sensor spill ment 280 and spill control 285, the spill control 285 can determine whether ice or water is present in the tray 128, 312. step If ice is present in the tray 128, the tray heater 132 can be activated to melt ice on tray for collecting the ice, step 314. When the ice mold heater has been activated enough, the ice maker motor can be activated to rotate the aca- 49 mador ice or ice mold, depending on the realization of manufactured ice cator, using techniques known in the art control, step 315. Alternatively, the spill control 285 can be arranged to enable a User indicator, an audible signal emitter LED 286 or 5288 in the case of a water spillage, as described above, to signal the User to meet the spill, as described above. Those skilled in the technique will understand that the spill control ment can also be arranged to activate the heater tray 132 each time the defrost control 295 des- initiate a freezing cycle 10 to the freezer refrigerator. For example, the

tray heater 132 can be connected to be energized when the heater 296 for thawing and activated. Those skilled in the art under- ender a defrost cycle may be initiated periodically you, or can be initiated by a defrost sensor 297. In the case of insert 15 of flexible molds revolving mold tray or ice producers, steps the 311 314 can be skipped. The control ice maker 33 can cause the ice machine motor 35 rotate the mador aca- ice or ice mold block 320, the ice producers of mold revolving or flexible tray. The control tam- ice maker 33 and 20 can determine the position of the ice mold or ice acamador, blo- part 322 in order to allow the water valve control 94 to start a new filling cycle and freezing ice cubes, if more ice is called the control level sensor receptacle. After the ice mold or ice acamador be rotated and the ice mold is empty, step 25 316, the ice or ice acamador mold can return to the home position, step 317. Following step 317, the fabricator Ice can How to get started another ice manufacturing cycle, the level sensor control of the socket for ice cubes storage calls for more ice. The concepts described herein invention provide the appro- 30 provenance of ice and water distribution located entirely in a refrigerator compartment door or freezer. In the case of refrigerators freezers side by side, the localization of the ice maker, the receptacle 50 for storing ice cubes and dispensation in the freezer compartment door can provide an area of windrow prate- storage freezer compartment additional. In the case of refrigerator freezer bottom, the location of the ice fabrication of the receptacle 5 for storing ice cubes and dispensation in a refrigerator compartment door, as described in patent application US US20040111 Mem- ber, can simplify the delivery of a dispensation ice tion and water for a cooler configuration with freezer on the bottom. The inventions for spill management here de- scribed make 10 practices localization of an ice fabrication in a refrigerator compartment door or freezer. While the invention has been described specifically in relation to certain specific embodiments thereof, it should be understood that this and the way of illustration and not limitation. Variation and modification are possible within 15 reasonable scope of the foregoing disclosure and drawings without departing from the spirit of the invention, which is defined in the accompanying cations reivindi-. Ratio of 9 parts - door handle 20 side by side refrigerator 10- 11- 12- shelf cabinet 13- 14- basket refrigerator compartment 25 16 - freezer compartment 17 - upper wall 18 - refrigerator compartment door 20 - port freezer compartment 21 - Door shelf 30 22 - Ice fabrication 22 - set of ice fabrication 23 - open side 51 24 - upper edge of the ice maker 25 - inner door 26 - ice dispenser system 28 - receptacle for ice cubes storage 5 30 - ice crunch system 32 - Ice maker 33 - control the ice maker 34 - Ice cube 35 - Engine 10 36 - Ice mold 38 - Ice extractor 40 - Ice acamador 44 - door handle 46 - door handle 15 48 - door handle 50 - fridge with freezer on the bottom 52 - Office 54 - refrigerator compartment 56 - freezer compartment 20 58 - machinery compartment 60 - Drain vessel 62 - condenser fan 64 - condensador 66 - freezer compartment door 25 68 - refrigerator compartment door 69 - refrigerator compartment door 70 - inner door panel 72 - icemaker and water 73 - User interface 30 77 - articulation 79 - Gasket 82 - Ice maker 52 84 - receptacle for storing ice cubes 86 - icemaker 88 - isolated coverage 90 - isolated cover 5 93 - off 94 - water valve control 95 - fabricator filling valve Ice 100 - first portion of the air distribution 102 - supply duct 10 104 - return duct 106 - second portion of air distribution 108 - supply duct 110 - return duct - 115 - ice maker 15 116 - Mold Ice 117 - Ice mold heater 118 - Ice acamador / ice ejector 119 - Teeth 120 - Ice extractor 20,121 - extractor retainers 122 - off 123 - water input to element 124 - coverage '125 - lingueeta 25,126 - articulation 128 - Tray 129 - Wall 130 - Drain 132 - Tray heater 30,135 - Ice maker 136 - ice extractor 137 - extractor retainers 5 10 15 20 25 30 53 138 - covering 140 - water recovery channel 145 - Ice maker 146 - protective cover 148 - Ice extractor 150 - extractor retainers 151 - cracks 155 - Ice maker 157 - off 158 - Ice extractor 159 - extractor retainer 160 - control housing 161 - lingueeta 162 - coverage 163 - articulation 165 - Ice maker 166 - mounting plate 169 - gear train housing 170 - drive shaft 171 - tray for ice cubes 172 - frame 174 - the mold insert 175 - recess 176 - sleeve 178 - tube Filling 180 - Accommodation 182 - end wall 184 - end wall 186 - the top wall 188 - containment wall 189 - containment wall 190 - Wall containment 54,191 - containment wall 192 - hinged cover 193 - cover segment 194 - segment covering 5195 - covering segment 196 - covering segment 198 - pivo 200 - actuator 202 - passing 10 205 - Ice maker 206 - twist tray 207 - recess 208 - Control 210 - protection against splash 15 Ice 215-fabricator 216 - top tray 218 - lower tray 220 - to twist double tray 222 - twist tray below 20,226 - lower wall 228 - protection against splash 230 - to twist double tray 232 - protection against splash 240 - Ice maker 25,242 - mold Ice 243 - hole 244 - the base wall 245 - Temperature Sensor 247 - legs 30 248 - frame 250 - side wall 252 - the side wall 5 10 15 20 25 30 55 254 - Ice acamador 256 - channel 257 - recess 258 - sleeve 260 - return edge 262 - fins 264 - damper 265 - pivo 266 - pivo 267 - Armband 268 - Door articulation 270 - Gear 272 - Bumper giratorio 274 - damper gear 276 - damper base 280 - spill sensor 281 - Plate 282 - Plate 285 - spill control 286 - beep emitting 288 - LED 290 - electronic switch 292 - pump 295 - defrost control 296 - heater to defrost 297 - thawing sensor 300 - IM cycle beginning 301 - Filling IM 302 - water freezes 303 - door open / close 304 - anti-splash features 305 works - door damper works 56 306 - water spill? 307 - pouring into the container drains 308 - spill drains for the drainage bowl 309 - filled container? 5310 - ready to ice gathering? 311 - IM heater operates 312 - spill sensor feels water / ice 313 - ha ice? 314 - heater 132 connected 10315 - spin ice acamador or IM mold 316 - empty mold 317 - back rake / IM mold to rise 320 - turn the ice acamador or ice mold 322 - position of ice acamador or Ice 15,330 cast - ice cube ice cube 330' - 332-Ice maker 333 - fabricator control ice 334 - articulated wall 20 335 - Beef 336 - Ice Mold 337 - Lever 338 - Fixed extension 339 - hinged wall axis 25,340 - Ice acamador 341 - rake shaft 342 - lever shaft 343 - 344 cut - pivo 30 345 - 346 connection - connection 347 - superficie claims 1. Fridge freezer comprising: a freezer compartment kept at a temperature below a- 0 degrees centigrade and having a freezer compartment door isolated; 5 is a refrigerator compartment kept at a temperature above 0 degrees centigrade and having a gate isolated refrigerator compartment; a cooling system for cooling the freezer compartment and the refrigerator compartment; an automatic ice maker placed into one of the 10 refrigerator compartment door and the free- zer compartment door; a tray mounted below willing ice maker pa- ra collect water splashes that can occur when the door where the bricador facture of ice is positioned and moved when water is present in 15 ice maker. 2. Refrigerator freezer according to claim 1, further including a drain line that carries the tray to a water disposal container. 3. Refrigerator freezer according to claim 2, further 20 including a machinery compartment, and wherein the refrigerating system comprises a drainage canister compartment located on machines refinery and further wherein the drain container and the container water disposal. 4. Refrigerator freezer according to claim 3, further including a pump 25 to pump water from the tray to the bowl of

drainage. 5. Refrigerator freezer according to claim 1, further including a heater to the tray. 6. Refrigerator freezer according to claim 5, further including a heater 30 for defrosting the refrigerating system in the tray heater and connected to be energized when the defrosting heater and energized. 2 7. Refrigerator freezer according to claim 5, further including a control for the heater tray, wherein the tray heater and energized periodically. 8. Refrigerator freezer according to claim 5, further including a sensor and spill control arranged to detect the presence of water in the tray, wherein the control sets the pan heater, when the spill sensor detects water in the tray. 9. Refrigerator freezer according to claim 1, wherein the refrigerator freezer includes a receptacle for storage of ice and 10 in which the automatic ice-maker and for the receptacle to store ice are positioned on the freezer compartment door. 10. Refrigerator freezer according to claim 1, wherein the refrigerator freezer generally comprises a receptacle for storage of ice, and the automatic ice maker and the receptacle for storage of ice 15 are positioned in the refrigerator compartment door, and wherein the refrigerator freezer also includes an air duct that leads to the ice maker and automatic ice storage receptacle to a supply of air below 0 degrees centigrade for supplying cooled air to below 0 degrees centigrade to the automatic ice maker and the receptacle 20 for storing ice. 11. Refrigerator freezer according to claim 10, including the AIN- an isolated sub-compartment in the refrigerator compartment door to the automatic ice maker, and wherein the receptacle R for ice storage and insulated to keep temperatures below the freezing 25 the receptacle for storage of ice. 12. Refrigerator freezer according to claim 1, further including a gate connected to a buffer from the door compartment and the freezer compartment door on which the ice maker is positioned. 30 13 Refrigerator freezer according to claim 1, wherein automatic ice maker includes an ice mold and a hinged trim together to substantially cover the ice mold, and wherein the manual 5 10 15 20 25 30 3 1cy er and willing to open the hinged cover over the ice gathering cycles. 14. Refrigerator freezer, comprising: a freezer compartment kept at a low temperature a- 0 degrees centigrade and having a gate insulated freezer compartment; a refrigerator compartment kept at a temperature above 0 degrees centigrade and having a gate isolated refrigerator compartment; a cooling system for cooling the freezer compartment and the refrigerator compartment; an automatic ice maker positioned into one of the refrigerator compartment door and the freezer compartment door, comprising: an ice mold; an extractor ice pieces having a base strip arranged along an edge of the ice mold and having a plurality of oil seals that extend from the base strip and a portion positioned above the ice mold; an ice acamador having a plurality of teeth mounted rotatably above the ice mold and arranged to teeth gira- rem between the plurality of seals and through the mold for ice con- duce ice chunks away from the ice mold; and a cover including a dome portion extending lengthwise, covering substantially the ice mold, wherein the portion of the dome and articulated with ice maker over an initial edge and includes a plurality of the adjacent lingueetas a second edge and arranged to extend and fill substantially the spaces between pieces extractor retainers of adjacent ice. 15. Refrigerator freezer according to claim 14, AIN- of including a receptacle for storage of ice cubes and in which the cover and arranged to open during ice gathering cycles in order to allow the ice acamador rotate through the mold ice, and ice pieces falling into the ice storage receptacle. 4 16. Refrigerator freezer according to claim 15, wherein the automatic ice maker includes a motor arranged to drive the ice acamador and open cover for the ice gathering cycles. 5 17. Refrigerator freezer according to claim 16, wherein the automatic ice maker further includes one or more gears acionavelmente connecting the ice maker to an ice engine acamador. 18. Refrigerator freezer according to claim 17, 10 in the automatic ice maker further includes a cam driven by the motor ice maker to open the cover when the engine manufactured ice pain operates to drive the acamador of ice. 19. Refrigerator freezer according to claim 14, wherein the first edge of the cover closes against the ice mold and the second edge of the cover 15 is closed against the base strip ice pieces extractor. 20. Refrigerator freezer according to claim 19, wherein the cover comprises end walls closing dome portion and wherein a first portion of the end walls is closed against the mold 20 ice. 21. Refrigerator freezer according to claim 19, wherein the ice mold includes a plurality of hinge pins along one edge of the ice mold and the cover includes a plurality of elements articulation arranged to engage and articulate in articulation. 22. Refrigerator freezer according to claim 21, wherein the extractor of ice pieces and a retainer disposed at each extremity overlaying a portion of the respective end of the ice mold, and wherein a second portion of the end walls of the cover to 30 close against the retainer of ice pieces extractor in their extremities extractor of ice pieces. 23. Refrigerator freezer according to claim 14, wherein 5 5 10 15 20 25 • r 30 that the ice mold includes a plurality of semi-cylindrical cavities pa- ra formation of ice pieces. 24. Refrigerator freezer according to claim 23, wherein the ice acamador and mounted rotatably mounted adjacent the top edge of the semi-cylindrical cavities ee positioned substantially along the centerline of the semi-cylindrical cavities. 25. Refrigerator freezer according to claim 24, wherein the ice pieces extractor retainers are arranged to tend to study the base strip along one edge of the ice mold until the ice acamador. 26. Refrigerator freezer according to claim 14, wherein the extractor ice pieces and placed in derivation module for defining a water recovery channel between the extractor ice chunks and ice mold, and wherein the cover overlaps and closes the water recovery channel. 27. Refrigerator freezer according to claim 14, including the AIN- a gate connected to a buffer from the refrigerator compartment door and freezer compartment door on which the ice maker is positioned. 28. Refrigerator freezer, comprising: a freezer compartment kept at a low temperature a- 0 degrees centigrade and having a gate insulated freezer compartment; a refrigerator compartment kept at a temperature above 0 degrees centigrade and having a gate isolated refrigerator compartment; a cooling system for cooling the freezer compartment and the refrigerator compartment; an automatic ice maker positioned into one of the refrigerator compartment door and the freezer compartment door, comprising: an ice mold; an extractor flexible pieces of ice positioned above a first portion of the ice mold having a plurality of slits forms 5 10 15 6 20 25 30 send a plurality of retainers; an ice acamador having a plurality of teeth mounted rotatably above the ice mold and arranged to teeth gira- rem through the plurality of slots and across the ice mold to con- duce ice chunks away from the ice mold; and a protective cover extending over a second portion of the ice mold. 29. Refrigerator freezer according to claim 28, wherein the ice mold includes a plurality of semi-cylindrical cavities pa- ra formation of ice chunks and ice acamador mounted giravelmen- te and mounted adjacent the top edge of the semi-cylindrical cavities ee positioned substantially along the centerline of the semi-cylindrical cavities. 30. Refrigerator freezer according to claim 29, wherein the flexible pieces of ice extractor extends ice acamador until a first edge of the ice mold ee substantially arranged to cover the first portion of the centerline ice mold until the first edge of the ice mold. 31. Refrigerator freezer

according to claim 30, wherein the protective cap extends from a second edge of the ice mold substantially to the center line of the ice mold and extends above the ice mold to allow the ice acamador rotate through the ice mold.

32. Refrigerator freezer according to claim 28, including the AIN— a gate connected to a buffer from the refrigerator compartment door and freezer compartment door on which the ice maker is positioned. 33. Refrigerator freezer, comprising: a freezer compartment kept at a low temperature a— 0 degrees centigrade and having a gate insulated freezer compartment; a refrigerator compartment kept at a temperature above 0 degrees centigrade and having a gate isolated refrigerator compartment; 5 10 15 20 25 7 a cooling system for cooling the freezer compartment and the refrigerator compartment; an automatic ice maker positioned into one of the refrigerator compartment door and the free— zer compartment door, comprising: an ice mold; an ice piece extractor having a base strip and a plurality of retainers positioned above a first portion of the molded ice; an ice acamador having a plurality of teeth mounted rotatably above the ice mold and arranged to teeth gira— rem between the plurality of seals and through the mold for ice con— duce ice chunks away from the ice mold and having a flexible soul that extends from adjacent teeth at least partially to fill the gap between adjacent teeth; a motor to drive rotatably the ice acamador to collect ice pieces during cycles of gathering and willing to park an ice acamador with the plurality of teeth and flexi— ble souls that are substantially in a plane with the plurality of retento— res between cycles of gathering; and a protective cover extending over a second portion of the ice mold.

34. Refrigerator freezer according to claim 33, including the AIN— a gate connected to a buffer from the refrigerator compartment door and freezer compartment door on which the ice maker is positioned. Summary of Invention Patent:. "WATER SPILL MANAGEMENT FOR ICE fabricator AT THE DOOR" The present invention relates to a refrigerator freezer having an ice maker 5 positioned in a generator refrigeration compartment or the freezer compartment door. The ice maker and arranged to prevent or manage ice maker spills if the To—ta at which the ice maker is mounted to be opened or closed when no water is present in the frozen ice maker. Embodiments 10 to spills management for a number of tray of ice fabricators fixed and mobile are described.

13) Family number: 54554173 (US2013213043A)

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Title: HYBRID DRIVE DEVICE

Priority: JP20120027850 20120210 JP20120027851 20120210 JP20120158159 20120713
 JP20120272392 20121213 JP20130023897 20130208 JP20130557616 20130208
 US20120676031P 20120726 WO2013JP53159 20130208 WO2013JP53160 20130208
 WO2013JP53157 20130208 JP20130557617 20130208 US20130762839 20130208

Family:

Publication number	Publication date	Application number	Application date
<u>CN103987553 A</u>	20140813	CN201380004187	20130208
<u>CN103987553 B</u>	20161130	CN201380004187	20130208
<u>CN103987554 A</u>	20140813	CN201380004183	20130208
<u>CN103987554 B</u>	20160803	CN201380004183	20130208
<u>CN103987555 A</u>	20140813	CN201380004179	20130208
<u>CN103987555 B</u>	20160608	CN201380004179	20130208
<u>DE112013000259 T5</u>	20140904	DE201311000259T	20130208
<u>DE112013000269 T5</u>	20140904	DE201311000269T	20130208
<u>DE112013000295 T5</u>	20140807	DE201311000295T	20130208
<u>JP2013118900 A1</u>	20150511	JP20130557616T	20130208
<u>JP2013118902 A1</u>	20150511	JP20130557617T	20130208
<u>JP2013177116 A2</u>	20130909	JP20120272392	20121213
<u>JP2014033602 A2</u>	20140220	JP20130023897	20130208
<u>JP5772844 B2</u>	20150902	JP20130023897	20130208
<u>JP5825361 B1</u>	20151202	JP20130557616T	20130208
<u>JP5825362 B1</u>	20151202	JP20130557617T	20130208
<u>US2013213043 AA</u>	20130822	US20130762839	20130424
<u>US2013213043 AA</u>	20130822	US20130762839	20130208
<u>US2014326105 AA</u>	20141106	US20130361908	20130208
<u>US2014331945 AA</u>	20141113	US20130361435	20130208
<u>US9284882 BB</u>	20160315	US20130361908	20130208
<u>US9528436 BB</u>	20161227	US20130762839	20130208
<u>WO13118900 A1</u>	20130815	WO2013JP53157	20130208
<u>WO13118901 A1</u>	20130815	WO2013JP53159	20130208
<u>WO13118902 A1</u>	20130815	WO2013JP53160	20130208

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International class
(IPC 8-9):

B60K17/02 B60K6/20 B60K6/22 B60K6/26 B60K6/36 B60K6/38 B60K6/383 B60K6/387
B60K6/40 B60K6/405 B60K6/48 B60K6/54 B60K6/543 B60K6/547 B60L11/14 B60W10/02
B60W10/30 B60W20/00 B60W20/40 F02B63/04 F16D25/0638 F16D25/12 F16H57/04
H02K7/10 H02K9/19 (Advanced/Invention);
F16D25/0638 (Advanced/Non-invention)

CPC:

F02B63/04 B60K6/387 B60K6/26 B60K6/54 F02B63/042 F16D25/0638 F16H57/0476
Y10T74/19014 B60K6/40 B60K6/48 B60K2006/4825 F16D25/123 F16D2300/0214
Y02T10/6221 Y02T10/6252

US class:

1/1 123/2 60/700 74/661

[Classification Explorer](#)

Cited documents:

WO12039378 A1, WO12017770 A1, WO08025691 A1, WO04019468 A1, US8632438 BB,
US8622182 BB, US8555748 BB, US6306057 BA, US2012319514 AA, US2012080286
AA, US2012080248 AA, US2012032538 AA, US2011240431 AA, US2011121692 AA,
US2010109461 AA, US2009283344 AA, US2009100965 AA, US2009008212 AA,
US2008011529 AA, US2005151429 AA, US2004214686 AA, KR20100008470 A,
KR20100008470, KR20090040543 A, JP91127, JP72052, JP501566, JP41708,
JP324818, JP298272, JP276035, JP261214, JP24298, JP214595, JP213230,
JP2011214595 A2, JP2011214595, JP2011213230 A2, JP2011213230, JP2011152814
A2, JP2011152814, JP2011105192 A2, JP2010276035 A2, JP2010196868 A2,
JP2010196868, JP2010105615 A2, JP2010105615, JP2009261214 A2, JP2009072052
A2, JP2009001127 A2, JP2009001127, JP2008501566 T2, JP2008501566,
JP2008024298 A2, JP2006298272 A2, JP2006298272, JP2006248417 A2,
JP2004324818 A2, JP2004324818, JP2004001708 A2, JP2004001708, JP196868,
JP152814, JP105615, JP105192,

DE102009042933 A1

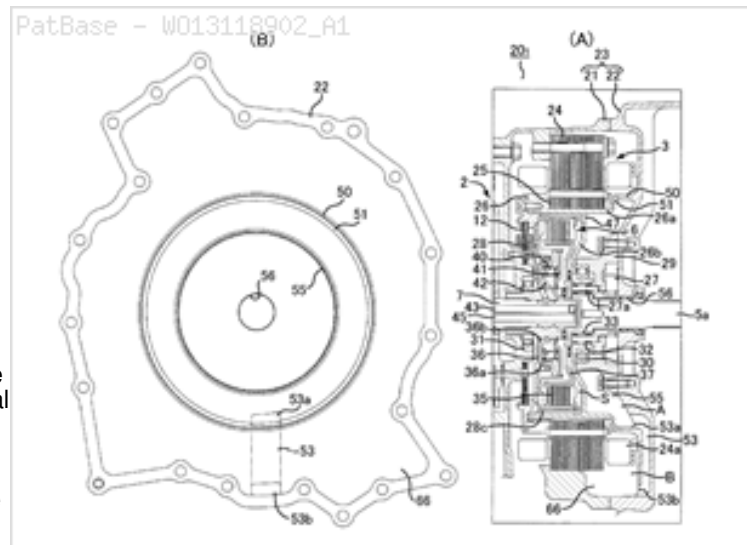
DE102009042933, CN1926001 A, CN102067414 A, CN101626914 A, CN101595320 A,
CN101551005 A,

Forward Citations:

WO16206683, WO15154937, WO15108147, WO15099076, WO15046306, US9586468,
US9581210, US9382953, US9327590, US2016185206, US2015258885, US2015136253,
US2014124318, JP6052435, JP6020401, JP2015099076, JP2015066993,
DE102015215264,

Abstract:

Source: US2013213043A A hybrid drive device having an engine coupling shaft member, a speed change mechanism, a rotating electrical machine, and an engine connecting clutch. A first lubricating oil passage scatters lubricating oil from radially inside to radially outside of first and second friction plates. A first one-way clutch is interposed between an engine coupling shaft member and a coupling member, and is configured to not be engaged when rotation of the engine coupling shaft member becomes lower than rotation of the coupling member. A second one-way clutch is configured not to be engaged when rotation of the rotating electrical machine becomes lower than rotation of the coupling member. An engine driven oil pump generates an oil pressure to be supplied by a driving force of the internal combustion engine or a driving force of the rotating electrical machine regardless of engagement or disengagement of the engine connecting clutch.



14) Family number: 17754006 (US5038890A)

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Title: Oil pan structure for internal combustion engine**Priority:** JP19890043955U 19890414**Family:**

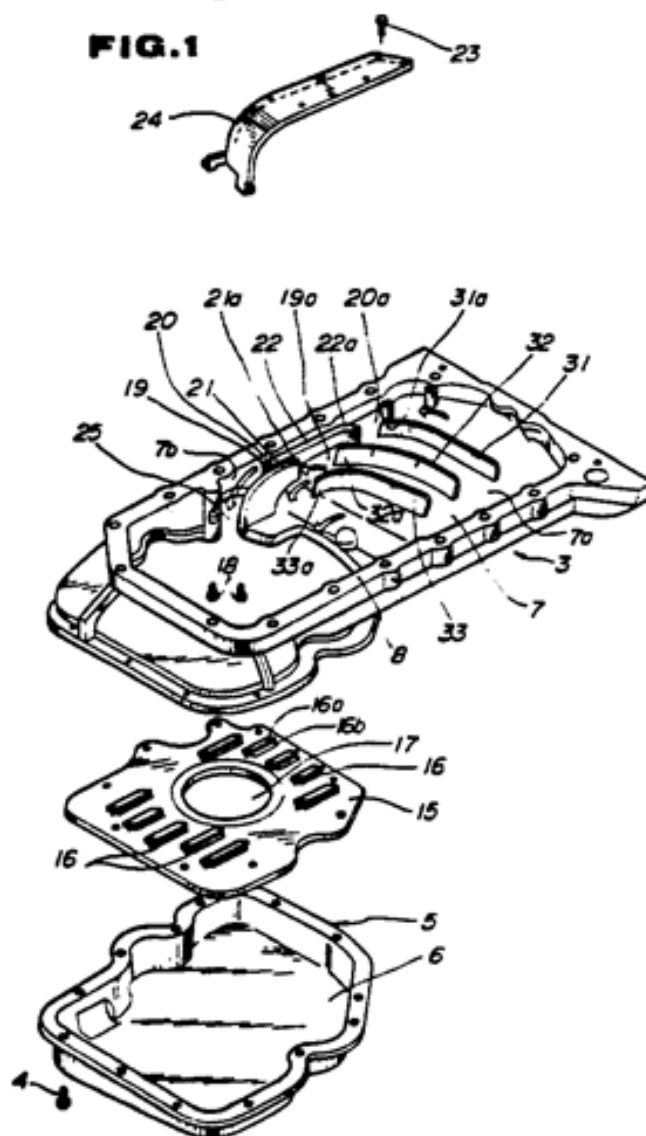
Publication number	Publication date	Application number	Application date
DE4011759 A1	19901025	DE19904011759	19900411
DE4011759 C2	19940505	DE19904011759	19900411
GB2230296 A1	19901017	GB19900008618	19900417
GB2230296 B2	19930818	GB19900008618	19900417
GB9008618 A0	19900613	GB19900008618	19900417
JP2090080 Y	19961023	JP19890043955U	19890414
JP2135617 U1	19901113	JP19890043955U	19890414
JP7008804 Y2	19950306	JP19890043955U	19890414
US5038890 A	19910813	US19900505280	19900406

Probable Assignee: NISSAN MOTOR**Assignee(s):^(std):** NISSAN MOTOR**Assignee(s):** NISSAN MOTOR CO ; NISSAN MOTOR CO LTD ; NISSAN MOTOR CO LTD
YOKOHAMA KANAGAWA JP ; NISSAN MOTOR COMPANY LIMITED**Inventor(s):^(std):** HIRAI TOSHIHIRO ; TANAKA SHUJI**Inventor(s):** TANAKA SHUJI YOKOHAMA JP ; TOSHIHIRO HIRAI ; HIRAI TOSHIHIRO YOKOHAMA
JP ; SHUJI TANAKA**International class**
(IPC 8-9): [F01M1/06](#) [F01M11/00](#) [F02B77/00](#) (Advanced/Invention);
[F01M1/06](#) [F01M11/00](#) [F02B77/00](#) (Core/Invention)**International class**
(IPC 1-7): [F01M1/04](#) [F01M1/06](#) [F01M11/00](#) [F02F7/00](#) [F16N31/00](#)**CPC:** [F01M11/0004](#) [F01M2011/0033](#) [F01M2011/005](#) [F02B77/00](#) [F02F2007/0056](#)**European class:** [F01M11/00B](#) [F02B77/00](#) [R01M11/00B12](#) [R01M11/00B16](#) [R02F7/00C4B](#)**US class:** [123/196R](#) [184/106](#) [184/6.5](#)[Classification Explorer](#)**Cited documents:** US4848293 A, US3888227 A, US3688871 A, US2577188 A, US2408923 A, US1713872 A, GB1255320 A, GB1095948 A, DE3624325 C1, DE2751982 A1,**Forward Citations:** WO9830789, WO07033160, WO05113948, US9567880, US9169775, US8651078, US7748500, US7398858, US7341039, US6729292, US6340012, US6019071, US5960763, US5937817, US5653205, US5544632, US5467843, US5465692, US5161643, US5136993, US5113818, US5103782, US5058545, US2013263816, US2012067319, US2011283965, US2010229821, US2009026015, US2008264727, US2007107690, RU2595467, JP2011241795, JP2003035122, GB2451326, GB2248880, GB2235725, GB2235725, FR2970518, FR2921412, FR2721976, EP2039895, EP1847692, EP1847692, EP1751405, EP0931206, EP0437681, DE4204522, DE4139195, DE4139195, DE19904633, DE19833535, DE19833535, DE19621603, DE19547378, DE19547378, DE102013204157, DE102010044403, CN105089735, CN104074569, CN104074569, CN102434248,

Abstract:

Source: US5038890A An oil pan for an internal combustion engine having an engine lubrication system. The oil pan comprises a shallow bottom section and a sump section. An oil return path is formed at a side of the bottom surface of the shallow bottom section to which a major part of lubrication oil in the shallow bottom section is guided under the force caused by the rotation of the crankshaft. The oil return path is formed by the generally tube-shaped members. The oil return path has an inlet opened opposite to the crankshaft and an outlet opened opposite to the bottom of the sump section. Therefore, the lubrication oil in the shallow bottom section is effectively guided to the inlet of the oil return path and returned into the sump section under the force caused by the rotation of the crankshaft or the like.

PatBase - US5038890_A



15) Family number: 34033952 (US2010024544A)

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Title: LIQUID LEVEL DETECTION APPARATUS FOR ENGINE OIL**Priority:** EP20060767204 20060616 JP20050183038 20050623 WO2006JP312554 20060616
WO2006JP12554 20060616**Family:**

Publication number	Publication date	Application number	Application date
AR054796 AA	20070718	AR2006P102690	20060622
AU2006260175 AA	20061228	AU20060260175	20060616
AU2006260175 BB	20090521	AU20060260175	20060616
BRPI0612694 A2	20101130	BR2006PI12694	20060616
CA2612096 AA	20071213	CA20062612096	20060616
CA2612096 C	20110531	CA20062612096	20060616
CL2006001627 A1	20060908	CL20060001627	20060623
CL46339 B	20100326	CL20060001627	20060623
CN101263370 A	20080910	CN200680028073	20060616
CN101263370 B	20110907	CN200680028073	20060616
DE602006024037 D1	20111020	DE200660024037T	20060616
EP1899691 A2	20080319	EP20060767204	20060616
EP1899691 B1	20110824	EP20060767204	20060616
ES2368446 T3	20111117	ES20060767204T	20060616
JP2007002724 A2	20070111	JP20050183038	20050623
JP4391968 B2	20091224	JP20050183038	20050623
KR100964595 B1	20100621	KR20087001370	20060616
KR20080015946 A	20080220	KR20087001370	20080117
MY140412 A	20091231	MY20060002719	20060612
PE02562007 A1	20070323	PE20060000710	20060622
TH83978 A	20070405	TH20061002860	20060620
TW200709962 A	20070316	TW20060121620	20060616
TWI359751 B	20120311	TW20060121620	20060616
US2010024544 AA	20100204	US20060993488	20060616
US8156803 BB	20120417	US20060993488	20060616
WO06137501 A2	20061228	WO2006JP312554	20060616
WO06137501 A3	20070412	WO2006JP312554	20060616

Probable Assignee: HONDA MOTOR CO LTD**Assignee(s):^(std):** HONDA MOTOR CO LTD ; IJIMA YOSHIHIRO ; MATSUBARA YASUNORI ; NAKAMURA TOSHIKAZU**Assignee(s):** HONDA MOTOR CO LTD MINATO KU ; HONDA GIKEN KOGYO K K ; HONDA MOTOR CO**Inventor(s):^(std):** IJIMA YOSHIHIRO ; MATSUBARA YASUNORI ; NAKAMURA TOSHIKAZU ; NAKAMURA TOSHIKAZU ; TOSHIKAZU NAKAMURA ; YASUNORI MATSUBARA ; YOSHIHIRO IJIMA**Inventor(s):** NAKAMURA TOSHIKAZU C O HONDA R AND D CO LTD ; TOSHIKAZU NAKAMURA ; MATSUBARA YASUNORI C O HONDA R AND D CO LTD ; IJIMA YOSHIHIRO C O HONDA R AND D CO LTD**Agent(s):** SPRUSON AND FERGUSON; SMART AND BIGGAR; CLARKE; PATENTANWAELE WEICKMANN AND WEICKMANN; TROSSIN HANS JUERGEN ET AL; TROSSIN HANS JUERGEN; WESTERMAN HATTORI DANIELS AND ADRIAN LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ

GR GW HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY
MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT
RO RS RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG
US UZ VC VN ZA ZM ZW

International class B60K15/073 B60K15/077 F01M11/10 F01M11/12 G01F23/00 G01F23/23 G01F23/30
(IPC 8-9);
G01F23/40 G01F23/64 G01F23/70 (Advanced/Invention);
B60Q1/00 F01M11/12 G01F23/64 (Advanced/Non-invention);
F01M11/10 F01M11/12 G01F23/30 (Core/Invention);
B60Q1/00 (Core/Non-invention)

International class F01M11/12 F01M11/12 G01F23/70 G01F23/70 G01F23/74 G01F23/74
(IPC 1-7);

CPC: F01M11/12 G01F23/70 G01F23/74

European class: F01M11/12 G01F23/70 G01F23/74

US class: 340/450.3 340/450.300S 73/305 73/305P

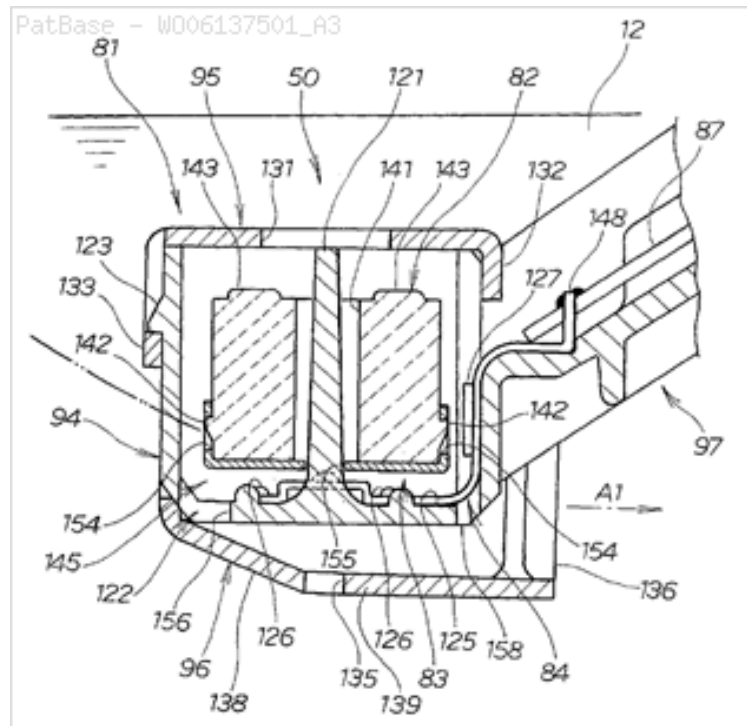
[Classification Explorer](#)

Cited documents: US4848151 A, US4848151, US4473730 A, US2780692 A, US2004848151, TWM256948, JPS6075709, JP6226379 A2, JP6226379 A, JP6191009 U, JP6167378 A2, JP6167378 A, JP6075709 A, JP60075709 A2, JP56056143 U1, JP56056143 U, JP54127946 U, JP5014507 U1, JP1106414, JP0432211 U, JP0399820 U, FR2733587 A1, FR2295857 A1, EP0163500 A2,

Forward Citations: TWI360605, JP2014126399, JP2010038041, EP1818656, CN102400739,

Abstract:

Source: US2010024544A A float-type oil-level detection apparatus is provided for detecting the surface of engine oil. A housing (81) for housing a float (82) has a through-hole (136) in the sidewall of the side opposite from the sidewall that faces the movement of the oil dipper (69).



0) US2016363017A – ENGINE

16) Family number: 64367570 (US2016363017A)

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Title: ENGINE

Priority: JP20150118484 20150611 JP20150257653 20151229

Family:	Publication number	Publication date	Application number	Application date
	CN106246286 A	20161221	CN201610394390	20160606
	EP3103976 A1	20161214	EP20160173472	20160608
	JP2017002837 A2	20170105	JP20150118484	20150611
	US2016363017 AA	20161215	US20160177444	20160609

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Assignee(s): KUBOTA CORP

Inventor(s):^(std): GOTO HIDEYUKI ; HAMASAKI TAKAHITO ; KOYAMA HIDEYUKI ; NAGAI KENTARO ;
OSO HIROKI ; TANAKA AKIRA ; TANAKA YOSHINORI ; YAMAZAKI TAKAHIRO

Agent(s): DOLLEYMORES

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC
ME MK MT NL NO PL PT RO RS SE SI SK SM TR

International class [F01M13/00](#) [F01M13/04](#) [F02F7/00](#) (Advanced/Invention)
(IPC 8-9)

CPC: [F01M13/04](#) [F01M13/0011](#) [F01M2013/0038](#) [F01M2013/045](#) [F01M2013/0488](#) [F01M13/0416](#)

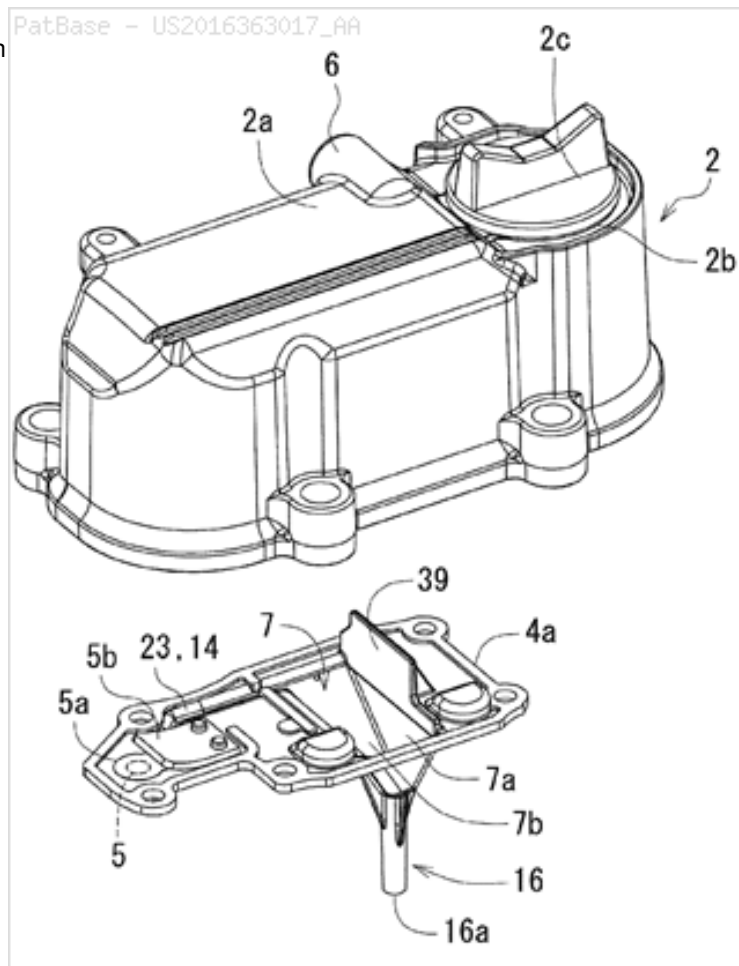
US class: [123/572](#)

[Classification Explorer](#)

Cited documents: JP9189212 A2, JP8260936 A2, JP59127807 U1, JP2008157047 A2, JP2008115800 A2,
JP2000045749 A2, JP1210437 A2, JP11210437 A2, FR2789125 A1,
DE102010003816 A1

Abstract:

Source: US2016363017A There is provided an engine capable of reducing oil consumption. The engine includes a cylinder head, a cylinder head cover mounted above the cylinder head, a rocker arm covered by the cylinder head cover, and a breather chamber provided inside the cylinder head cover. As a front-rear direction is defined by a longitudinal direction of the cylinder head cover, the breather chamber has a blow-by gas inlet at one side in the front-rear direction, a blow-by gas outlet at another side in the front-rear direction, and an oil discharging guide chamber at an intermediate part in the front-rear direction. The blow-by gas inlet is opened on a bottom wall of the breather chamber, and a peripheral wall of the oil discharging guide chamber is protruded downwardly from the bottom wall of the breather chamber toward between the rocker arm provided at a side of the blow-by gas outlet and the blow-by gas inlet.



0) US4258694A – FRYING PAN WITH MECHANISMS FOR PREVENTING OIL S...

17) Family number: 8151361 (US4258694A)

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Title: FRYING PAN WITH MECHANISMS FOR PREVENTING OIL SPLASHING AND FIRE OCCURRENCE

Priority: JP19770066062 19770603 US19780908669 19780523 US19790029695 19790413

Family:	Publication number	Publication date	Application number	Application date
	JP1215737 C3	19840627	JP19770066062	19770603
	<u>JP54001166 A2</u>	19790106	JP19770066062	19770603
	<u>JP58047176 B4</u>	19831020	JP19770066062	19770603
	<u>US4258694 A</u>	19810331	US19790029695	19790413
	<u>US4266527 A</u>	19810512	US19780908669	19780523

Probable Assignee: KATO KIYOUSUKE

Assignee(s):^(std) KATO KIYOUSUKE ; KATO KYOSUKE

Inventor(s):^(std) KATO KYOSUKE ; KATOU KIYOUSUKE

International class
(IPC 8-9): A47J37/10 A47J37/12 (Advanced/Invention);
A47J37/10 A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/00 A47J37/12 F24C15/20

CPC: A47J36/06 Y10S220/912 A47J37/101 Y10T16/53845

European class: A47J36/06 A47J37/10A

US class: 126/299C 126/384.1 16/295 220/731 220/830 220/912 D7/361

[Classification Explorer](#)

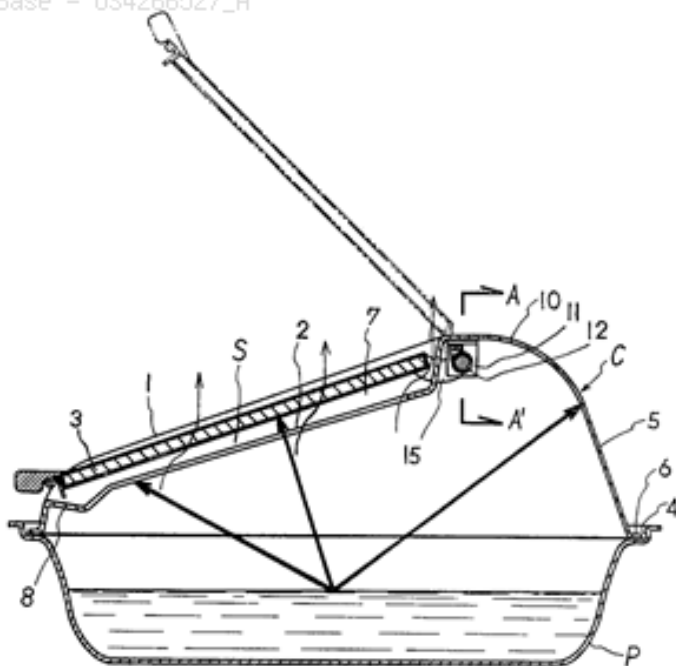
Cited documents: US948941 A, US948491 A, US656855 A, US576887 A, US3930594 A, US2888162 A, US2826327 A, US2350243 A, US1807271 A, US1395554 A,

Forward Citations: WO14019689, WO11143803, WO11104651, WO06084738, WO06084738, WO05099536, USRE36072, USD481585, US8567632, US8096437, US6526875, US5595108, US5531354, US4403711, US2010314394, US2008083730, US2008010778, US2006070995, US2006039103, JP57001317, ITMI20100313, EP2512309, EP2198758, EP1945075, EP1690483, CN101990917,

Abstract:

Source: US4258694A A frying pan is provided with a lid plate covering almost the entire opening of the pan, and this lid plate is transparent so that the inside of the pan can be seen by a user from the outside, and the lid plate is provided with a mounting mechanism for detachably mounting the lid plate to the pan, and is provided with a gas discharging passageway having a gap for discharging the gas to cause it to flow in a curved path which is formed between the lid plate and an edge of the opening of the frying pan in order to capture the oil splashing almost completely in the lid closed condition, and is provided with an opening/closing mechanism for closing the lid by maintaining a gap between the lid plate and the edge of opening portion of the frying pan.

PatBase - US4266527_A



18) Family number: 42123718 (US2008210260A)

© PatBase

Title: MULTIPURPOSE AQUEOUS PARTS WASHER

Priority: CA20082623651 20080229 EP20080151579 20080218 US20070681652 20070302
 US20070766643 20070621 US20080111742 20080429 US20120477533 20120522
 WO2009US41986 20090428

Family:

Publication number	Publication date	Application number	Application date
AT511929 E	20110615	AT20080151579T	20080218
BRPI0800433 A	20081021	BR2008PI00433	20080229
CA2623651 AA	20080902	CA20082623651	20080229
CA2722107 AA	20091105	CA20092722107	20090428
CN101254503 A	20080903	CN200810082257	20080229
CN101254503 B	20130123	CN200810082257	20080229
CN102015130 A	20110413	CN200980115332	20090428
CN102015130 B	20130327	CN200980115332	20090428
CN103028561 A	20130410	CN201210568685	20080229
DE602008007386 D1	20110721	DE200860007386T	20080218
EP1964618 A1	20080903	EP20080151579	20080218
EP1964618 B1	20110608	EP20080151579	20080218
EP2271443 A1	20110112	EP20090739611	20090428
EP2271443 A4	20130731	EP20090739611	20090428
ES2365775 T3	20111011	ES20080151579T	20080218
HK1125890 A3	20090821	HK20090101881	20090227
IL189577 A0	20081126	IL20080189577	20080218
IL208878 A0	20110131	IL20090208878	20090428
JP2008212924 A2	20080918	JP20080041700	20080222
JP2011518667 T2	20110630	JP20110507589T	20090428
JP5051772 B2	20121017	JP20080041700	20080222
KR20080080914 A	20080905	KR20080016102	20080222
KR20110021740 A	20110304	KR20107024400	20090428
MX2008002538 A1	20090225	MX20080002538	20080222
SG145677 A1	20080929	SG20080017469	20080229
US2008210260 AA	20080904	US20070766643	20070621
US2008210276 AA	20080904	US20070681652	20070302
US2008210280 AA	20080904	US20080111742	20080429
US2012291828 AA	20121122	US20120477533	20120522
US8220471 BB	20120717	US20070681652	20070302
US8225804 BB	20120724	US20080111742	20080429
WO09134809 A1	20091105	WO2009US41986	20090428

Probable Assignee: SAFETY KLEEN INC

Assignee(s):^(std): PORTER BRIAN E ; PUBL RUDY ; MEISINGER DON ; RICHERT ALEX ; BOND GEOFFREY M ; ENDRES MICHAEL ; SAFETY CLEEN SYS INC ; SPAZIANI SEAN ; THELIN THEODORE J

Assignee(s): TPS SERVICES INC ; SAFETY KLEEN SYSTEMS INC ; SAFETY KLEEN SYSTEMS INC NORWELL ; SAFETY KLEEN INC ; SAFETY KLEEN INT INC ; SK HOLDING CO INC ; SOLVENTS RECOVERY SERVICE OF NEW JERSEY INC ; SAFETY KLEEN ENVIROSYSTEMS CO ; SAFETY KLEEN ENVIROSYSTEMS CO OF PUERTO RICO INC ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NATIONAL ASSOCIATION ; BANK OF AMERICA NA

Inventor(s):^(std): BRIAN E PORTER ; DON MEISINGER ; ENDRES MICHAEL ; ALEX RICHERT ; BOND GEOFFREY M ; GEOFFREY M BOND ; MEISINGER DON ; MICHAEL ENDRES ; PORTER BRIAN E ; PUBL RUDY ; RUDY PUBL ; SEAN SPAZIANI ; SPAZIANI SEAN ; RICHERT ALEX ; THELIN THEODORE ; THELIN THEODORE J ; THELIN THEODORO J ; THEODORE J THELIN

Inventor(s): THEODORO J THELIN ; THELIN THEODORE J ALGONQUIN ; RICHERT ALEX DALLAS ; SPAZIANI SEAN FLOWER MOUND ; PUBL RUDY GLENDALE HEIGHTS ; PORTER BRIAN E ADDISON ; MEISINGER DON DENTON ; BOND GEOFFREY M LAKE IN HILLS ; ENDRES MICHAEL WOODRIDGE

Agent(s): OSLER HOSKIN AND HARCOURT LLP; WPTHOMPSON AND CO; MCCALL JOHN DOUGLAS; READ DAVID GRAHAM; VEDDER PRICE PC; BUFALINO ANGELO J ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): A62C3/00 B08B B08B1/00 B08B13/00 B08B3/00 B08B3/02 B08B3/04 B08B3/08 B08B3/10 B08B3/14 B08B7/04 F16N33/00 F16P7/00 G05B19/04 (Advanced/Invention); B08B3/02 B08B3/14 B60S3/00 (Advanced/Non-invention); A62C3/00 B08B1/00 B08B13/00 B08B3/00 B08B3/02 B08B3/04 F16P7/00 G05B19/00 (Core/Invention); B08B (Subclass/Invention)

CPC: B08B3/102 B08B3/006 B08B3/02 B08B2203/007

European class: B08B3/00M B08B3/02 L08B203/00H

US class: 134/114 134/18 134/18P 134/198 134/56.00RS 134/56R 134/57.00RP 134/57.00RS 134/57R 134/58R 134/84

[Classification Explorer](#)

Cited documents: USD393332 S1, USD374316 S1, USD370096 S1, USD318098 S1, USD275426 S1, US7484515 BA, US7128075 BB, US6874512 BB, US68165207, US6634372 BB, US6306221 BA, US6199565 BA, US6124253 A, US6115541 A, US6109277 A, US6044852 A, US5640981 A, US5580394 A, US5529080 A, US5528913 A, US5526835 A, US5499643 A, US5464033 A, US5409308 A, US5398708 A, US5368053 A, US5349708 A, US5322078 A, US5303725 A, US5285802 A, US5232299 A, US5168888 A, US4911190 A, US4776359 A, US4741351 A, US4726388 A, US4651762 A, US4589158 A, US4561903 A, US4543182 A, US4433698 A, US4261378 A, US4213475 A, US4143669 A, US4128478 A, US4125119 A, US4103637 A, US4056114 A, US4048121 A, US4029115 A, US3971394 A, US3960728 A, US3771772 A, US3680567 A, US3659752 A, US3522814 A, US3514330 A, US3439689 A, US3288109 A, US3115145 A, US3026699 A, US2680802 A, US2675012 A, US2651311 A, US2579393 A, US2005268949 AA, US2005199267 AA, US2005000553 AA, US1889761 A, US1804715 A, US1691839 A, US1617021 A, US1597267 A, US1525756 A, US1395728 A, JP9057223 A2, JP7095949 A2, JP62030767 U1, JP62030767 U, JP6197857 A2, JP61052939 U1, JP61052939 U, JP6078874 A2, JP6019879 U1, JP60033961 U1, JP60033961 U, JP48112646 U, JP4246320 A2, JP32007594 B1, JP2006156924 A2, JP2006108300 A2, JP2004298621 A2, JP2003211100 A2, JP2002500101 T2, JP2001204559 A2, JP2000223458 A2, JP11021962 A2, GB2301299 A1, GB222306 A, GB1395728 A, EP1602412 A1,

Forward Citations: WO14177823, WO11084995, USD720863, USD715959, USD619311, US9592539, US9352362, US8926765, US8763619, US8434501, US8297291, US2011214698, US2011186081, US2010307544, US2010275956, US2010018909, KR101489439, KR101379173, GB2527245, GB2527245, EP2905087, DE102014001435, CN105057261, CN104492751, CN103287094, CN103287094, CN103143527, CN102500568, CN102343341, CN102327874, CN101979159,

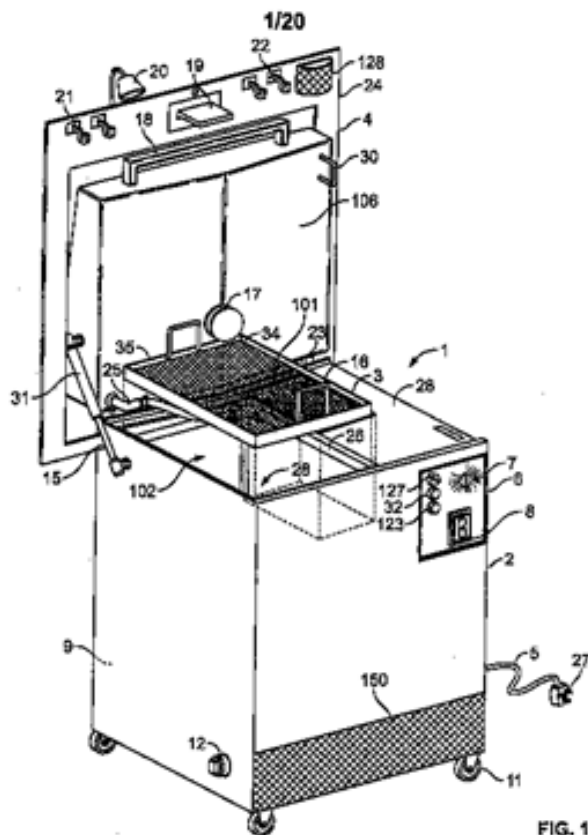
Abstract:

Source: US2008210260A The present disclosure relates generally to a multipurpose parts washer used to remove grease, oil, and dirt from mechanical parts, and more particularly, to an apparatus for washing parts within a single housing having an automatic cleaning portion, with a first cleaning chamber for spraying parts, a second cleaning chamber for soaking and agitating parts, and a manual cleaning portion. The multipurpose parts washer includes three cleaning portions. All portions use cleaning solution from a single pump, a reservoir portion to collect and store the important volume of cleaning solution and debris from the washing process, a single controller interface operated from a display, and a thermal energy source for heating the cleaning solution. The multipurpose design also includes novel features such as the use of a submerged pump within the reservoir, easy-access panels for the pump motor, the controller, and the display, an integrated sink serving as a safety lid of the automatic portion to collect the cleaning solution of the manual cleaning portion and to enclose the automatic cleaning portion, and the use of a timer and a multicolor display for easy operation of each of the cleaning portions. The design may also include a concurrent multifunction cleaning feature, a thermally activated safety lid, an immersion agitation tank, and a removable flat or V-shaped debris pan.

PatBase - W009134809_A1

WD 3009134809

PCT/US2006/041946



19) Family number: 12087625 (US6029638A)

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Title: Internal combustion engine with dry sump lubricating system

Priority: CA19982253095 19981106 JP19970306222 19971107 JP19980314277 19981105
JP19970318296 19971119 JP19970318311 19971119

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2253095 AA</u>	19990507	CA19982253095	19981106
	<u>CA2253095 C</u>	20060307	CA19982253095	19981106
	<u>JP11148331 A2</u>	19990602	JP19970318311	19971119
	<u>JP11148333 A2</u>	19990602	JP19970318296	19971119
	<u>JP11218016 A2</u>	19990810	JP19980314277	19981105
	<u>JP3805505 B2</u>	20060802	JP19970318296	19971119
	<u>JP3805506 B2</u>	20060802	JP19970318311	19971119
	<u>US6029638 A</u>	20000229	US19980187127	19981105

Probable Assignee: HONDA GIKEN KOGYO KK

Assignee(s):^(std): HONDA MOTOR CO LTD

Assignee(s): HONDA GIKEN KOGYO KK ; SHIGEDOMI HIDEO ; FUJITA YASUSHI ; FUNAI HIROSHI ; HONDA GIKEN KOGYO ALSO TRADING A KK ; HONDA GIKEN KOGYO KABUSHIKI KAISHA ; HONDA GIKEN KOGYO KABUSHIKI KAISHA ALSO TRADING AS HONDA MOTOR CO LTD It

Inventor(s):^(std): FUJITA YASUSHI ; FUNAI HIROSHI ; SHIGEDOMI HIDEO ; SHIGETOMI HIDEO

Agent(s): DENNISON ASSOCIATES

International class
(IPC 8-9): F01M1/02 F01M1/12 F01M11/00 F01M11/06 F01M13/00 F01M13/02 F02B61/04 F02B75/20 F02B77/00 (Advanced/Invention);
F01M13/04 F02B75/02 F02B75/18 (Advanced/Non-invention);
F01M1/02 F01M11/00 F01M13/00 F02B61/00 F02B77/00 (Core/Invention);
F02B75/00 F02B75/02 (Core/Non-invention)

International class
(IPC 1-7): B63B35/00 F01M1/02 F01M11/00 F01M11/06 F01M13/00 F02B77/00

CPC: F02B61/045 F02B2075/027 F02B2075/1812 F01M1/12 F01M13/022 F01M2001/123 F01M2001/126 F01M2013/0444 F02B75/20 F02B2275/20

European class: F01M1/12 F01M13/02N2 F02B61/04B F02B75/20 R01M1/12C R01M1/12D R01M13/04H R02B275/20 R02B75/02S4 R02B75/18C3

US class: 123/572

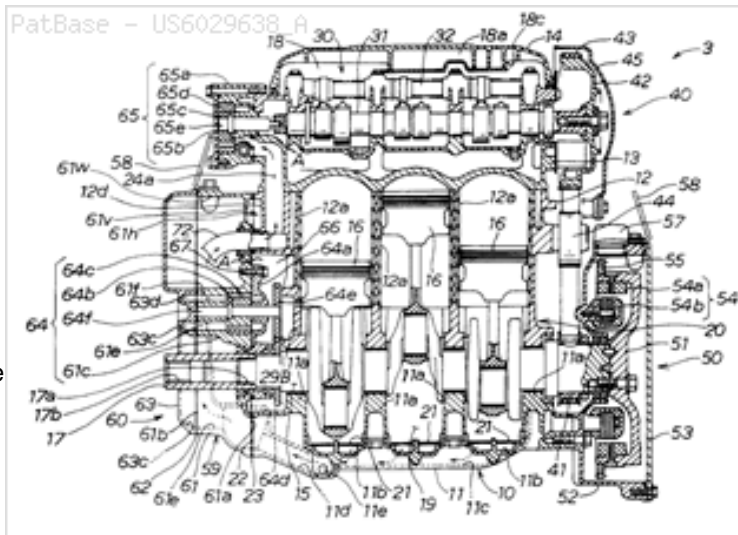
[Classification Explorer](#)

Cited documents: US4856486 A, US4721090 A, US4601267 A, JP6383409 U, JP63196412 U, JP6223514, JP62023514 A2, JP61190109, JP60008109 A2, JP58156112 U, JP4704853 B1, JP3009027 A2, JP09170420, JP0913930, JP08240113, JP04298618, JP02259214,

Forward Citations: WO09155997, WO09100017, WO03048531, WO0165093, WO0165092, WO0165091, WO0165090, WO0165089, WO0165088, WO0165087, US9506425, US9284866, US9194254, US8701622, US8464684, US8393306, US8292037, US8091534, US7717100, US7556029, US7552721, US7458868, US7458369, US7404293, US7343906, US7247067, US7238072, US7117858, US7101238, US7051721, US7020360, US6824436, US6763814, US6725962, US6695658, US6691815, US6648093, US6644290, US6637539, US6591819, US6561154, US6537115, US6491556, US6475046, US6415759, US6412478, US6390869, US6332444, US6296073, US6213107, US2016017842, US2011162613, US2011067659, US2010294231, US2009218169, US2008047519, US2007105465, US2007079796, US2007068465, US2007062500, US2006175041, US2005279335, US2005204730, US2005092267, US2004253886, US2004069250, US2004007204, JP6069183, JP6010011, JP5964285, JP4978422, JP2015121105, JP2015113820, JP2015094239, JP2009103081, JP2002364328, EP3095975, EP2666982, EP1482135, EP1454038, EP1136677,

Abstract:

Source: US6029638A An internal combustion engine with dry sump lubricating system includes a feed pump which supplies lubricating oil from a lubricating oil tank disposed outside an engine body to all moving parts in the engine. After circulating through the engine, the lubricating oil drops down into a crank chamber and is immediately picked up from the crank chamber and sent back into the lubricating oil tank by a recovery pump. Since the lubricating oil tank is attached to an end of the engine body from which a crankshaft project, it does not increase the overall width (dimension in the direction perpendicular to the axis of the crankshaft) and height of the engine. Even when the engine has inclined cylinders, the lubricating oil tank can avail a high degree of design freedom because the end face is not influenced by inclination of the cylinders as greatly as side surfaces of the engine body. The engine also includes a breather system so designed as to prevent an operation failure of the engine which would otherwise be caused due to inflow of the lubricating oil into an intake system of the engine.



20) Family number: 55761014 (US2015016914A)

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Title: VERTICAL MACHINING CENTER
Priority: EP20120882722 20120810 US20140494184 20140923 WO2012JP70547 20120810
Family:

Publication number	Publication date	Application number	Application date
CN104994991 A	20151021	CN201280027053	20120810
CN104994991 B	20160629	CN201280027053	20120810
DE602012017502 D1	20160602	DE201260017502T	20120810
EP2801439 A1	20141112	EP20120882722	20120810
EP2801439 A4	20150422	EP20120882722	20120810
EP2801439 B1	20160420	EP20120882722	20120810
JP2014024319 A1	20160721	JP20130553182T	20120810
JP5497972 B1	20140521	JP20130553182T	20120810
US2015016914 AA	20150115	US20140494184	20140923
US9073157 BB	20150707	US20140494184	20140923
WO14024319 A1	20140213	WO2012JP70547	20120810

Probable Assignee: YAMAZAKI MAZAK CORP

Assignee(s):^(std): HIROSE YUNOSUKE ; NISHIDA KIYOSHI ; SAKAI YASUHIRO ; SUZUKI TAKESHI ; YAMAZAKI MAZAK CORP ; YAMAZAKI MAZAK KABUSHIKI

Assignee(s): YAMAZAKI MAZAK CORP NIWA GUN

Inventor(s):^(std): HIROSE YUNOSUKE ; NISHIDA KIYOSHI ; SAKAI YASUHIRO ; SUZUKI TAKESHI

Agent(s): TBK; ONDA HIRONORI; ONDA MAKOTO; MARSH FISCHMANN AND BREYFOGLE LLP; ONDA HIRONORI ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8-9): [B23Q1/00](#) [B23Q1/66](#) [B23Q11/00](#) [B23Q11/08](#) [B23Q7/00](#) [B23Q7/02](#)
[B23Q7/14](#) (Advanced/Invention)

CPC: [B23Q7/1431](#) [Y10T29/5196](#) [Y10T409/30392](#) [B23Q1/66](#) [B23Q11/0891](#) [Y10T409/306104](#)

US class: [1/1](#) [409/173](#)

[Classification Explorer](#)

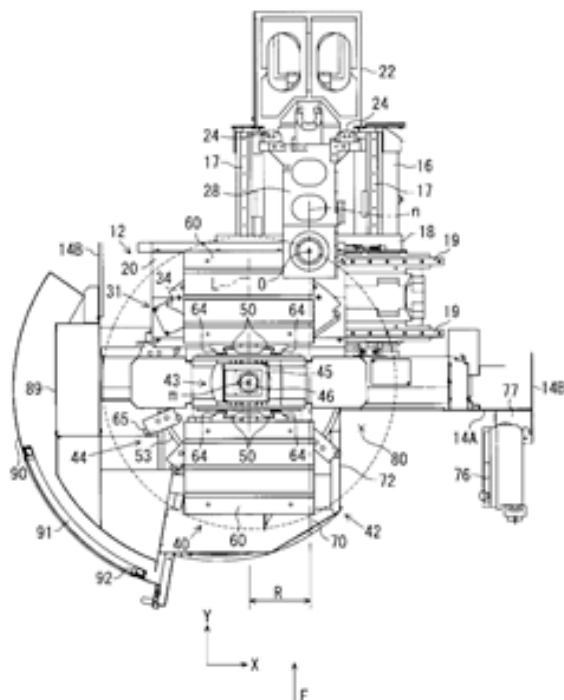
Cited documents: US8656576 BB, US6851542 BB, US6513640 BB, US6082939 A, US5622247 A, US5342156 A, US5265497 A, US4673076 A, US2012255833 AA, US2004079617 AA, JP627028 U, JP6165747, JP61065747 A2, JP6027028 U1, JP6027028 U, JP58109247 A2, JP58109247, JP5053835 U1, JP5053835 U, JP2548646 Y2, JP2185341 A2, JP2185341, JP2007152506 A2, JP2003340673 A2, JP2003340673, JP2001232535 A2, JP2001232535, JP2001170839 A2, DE10020804 A1, CN85106747 A, CN201613483 U,

Forward Citations: WO15177906, US9592580, JP5649762, JP2015147264, CN105451935,

Abstract:

Source: US2015016914A A vertical machining center includes a machining table on which a first pallet is placed and which moves in an X axis direction. A spindle head includes a spindle and moves in a Z axis direction. A rotary pallet exchanger exchanges the first pallet with a second pallet in a setup area. In a pallet rotational movement area, the first and second pallets are rotated. An oil pan is below the second pallet in the setup area, accommodates a part of the pallet rotational movement area, and includes a cutout portion. Space exposed to the cutout portion forms a cutout area. A door partitions a machining area from the setup area. An amount of offset in the X axis direction from the axial center of the spindle to the rotational center of the pallet exchanger is equal to or less than a width of the first pallet.

PatBase - W014024319_A1



0) US2004139631A – SNOW REMOVAL MACHINE

21) Family number: 30733992 (US2004139631A)

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Title: SNOW REMOVAL MACHINE

Priority: JP20030012732 20030121 JP20030012745 20030121 JP20030208118 20030820

Family:	Publication number	Publication date	Application number	Application date
	JP2004225310 A2	20040812	JP20030012745	20030121
	JP2004278281 A2	20041007	JP20030208118	20030820
	JP4101667 B2	20080618	JP20030012745	20030121
	JP4251543 B2	20090408	JP20030208118	20030820
	US2004139631 AA	20040722	US20030739967	20031218
	US6834448 BB	20041228	US20030739967	20031218

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s):^(std): HANAFUSA JITSUMI ; HONDA MOTOR CO LTD

Assignee(s): HONDA GIKEN KOGYO KABUSHIKI KAISHA

Inventor(s):^(std): HANABUSA SANEMI ; HANAFUSA JITSUMI

International class
(IPC 8-9): [E01H5/04](#) [E01H5/09](#) (Advanced/Invention);
[E01H5/04](#) (Core/Invention)

International class
(IPC 1-7): [E01H4/00](#) [E01H5/04](#) [E01H5/09](#)

CPC: [E01H5/045](#)

European class: [E01H5/04B](#)

US class: [37/223](#) [37/242](#) [37/248](#) [372/230](#)

[Classification Explorer](#)

Cited documents: US5713323 A, JP6447948 U, JP64021108 A2, JP2002275848, JP2002129926, JP200120240, JP2000170132, JP01105630 U,

Forward Citations: US7703223, US7051461, US2013291412, US2009293321, US2005039355, CN103975662, CN103975662, CN103161135,

Abstract:

Source: US2004139631A A snow removal machine of this invention has an upper cover portion and a lower cover portion of upper and lower split halves. The upper cover portion is removable from the lower cover portion. The upper cover portion covers components such as an engine, oil filler, fuel cock, spark plug and battery. These parts are exposed by removing the upper cover portion.

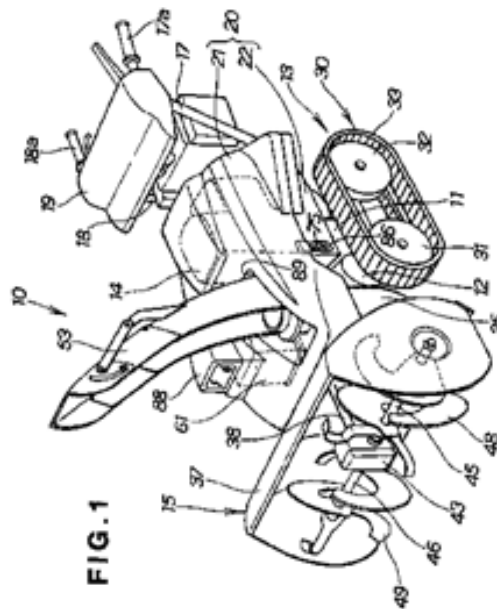
PatBase - US6834448_BB

U.S. Patent

Dec. 28, 2004

Sheet 1 of 12

US 6,834,448 B2



22) Family number: 64904778 (US2017044938A)

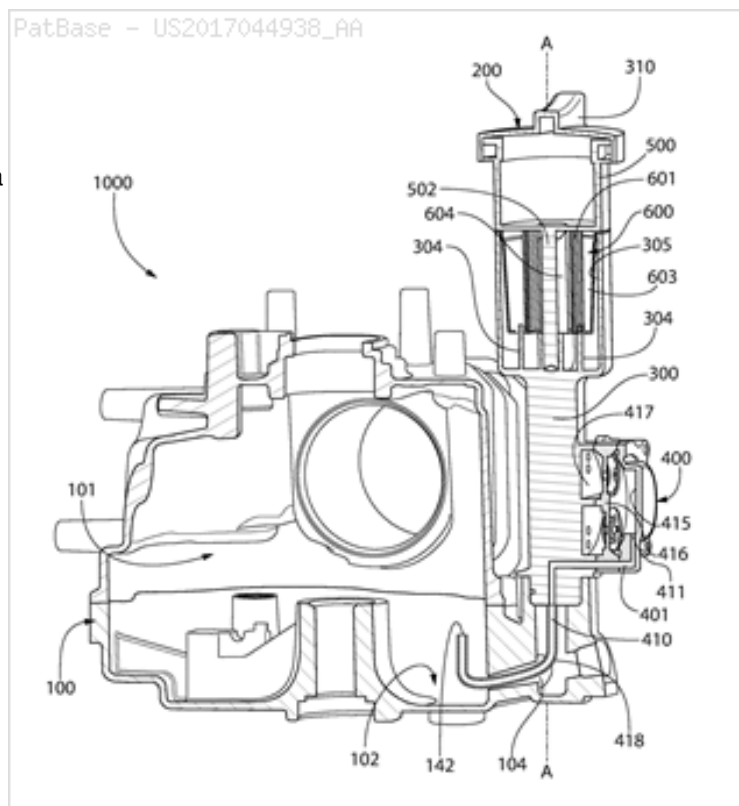
© PatBase

Title: INTERNAL COMBUSTION ENGINE AND OIL TREATMENT APPARATUS FOR USE WITH THE SAME**Priority:** US20150205156P 20150814 US20160229733 20160805

Family:	Publication number	Publication date	Application number	Application date
	<u>CN106468193 A</u>	20170301	CN201610664228	20160812
	<u>EP3135873 A1</u>	20170301	EP20160183721	20160811
	<u>US2017044938 AA</u>	20170216	US20160229733	20160805

Probable Assignee: KOHLER CO**Assignee(s):**^(std): KOHLER CO**Inventor(s):**^(std): ROTTER TERENCE M**Agent(s):** HOEFER AND PARTNER PATENTANWALTE MBB**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR**International class**
(IPC 8-9): F01M1/02 F01M1/10 F01M11/00 F01M11/03 F01M11/12 F01M9/02 F01M9/06 (Advanced/Invention)**CPC:** F01M1/10 F01M1/02 F01M9/06 F01M11/0004 F01M11/12 F01M11/03[Classification Explorer](#)**Cited documents:** US6279247 BA, US2012097482 AA, JP55117015 A2, GB590618 A, EP0459031 A1,**Abstract:**

Source: US2017044938A An internal combustion engine having an improved oil treatment system. The internal combustion engine may be a splash lubrication engine in which oil is flowed through an oil circulation circuit by a passive pump. In another aspect, a dipstick tube may be provided that includes a portion of the oil circulation circuit. In a further aspect, the internal combustion engine comprises one or more protuberances that automatically penetrate an oil treatment apparatus upon the oil treatment apparatus being mounted to the internal combustion engine, thereby fluidly coupling the oil treatment apparatus to the oil circulation circuit.



0) US1803120A – INTERNAL-COMBUSTION ENGINE

23) Family number: 20125392 (US1803120A)

© PatBase

Title: INTERNAL-COMBUSTION ENGINE

Priority: US19230619081 19230215 US19250026155 19250427 US19250026156 19250427
US19250026151 19250427 US19250026153 19250427

Family:	Publication number	Publication date	Application number	Application date
	US1697987 A	19290108	US19250026155	19250427
	US1717162 A	19290611	US19250026156	19250427
	US1727016 A	19290903	US19250026151	19250427
	US1803120 A	19310428	US19250026153	19250427

Probable Assignee: JOHN DEERE TRACTOR CO

Assignee(s):^(std): JOHN DEERE TRACTOR CO ; JOHN DEERE TRACTOR COMPANY

Inventor(s):^(std): MCCRAY HAROLD E

International class
(IPC 8-9): [F02B23/08](#) [F02F7/00](#) [F16N7/26](#) [H01T13/24](#) (Advanced/Invention);
[F02B23/08](#) [F02F7/00](#) [F16N7/00](#) [H01T13/20](#) (Core/Invention)

International class
(IPC 1-7): [F02B23/08](#) [F02B67/00](#) [F02M37/00](#) [F02P15/00](#)

CPC: [F16N7/26](#) [F02F7/0046](#) [H01T13/24](#) [F02B23/08](#) [Y02T10/125](#)

European class: [F02B23/08](#) [F02F7/00C1](#) [F16N7/26](#) [H01T13/24](#)

US class: [123/158](#) [123/195R](#) [123/253](#) [184/11.1](#) [184/13.1](#) [184/6](#)

[Classification Explorer](#)

Forward Citations: US2737933, US2689021, US2523764,

Abstract:

Source: US1803120A 1. In a splash lubricating system, the combination of a crank case adapted to contain lubricating oil, an oil receptacle in said crank case, and a rotary oil throwing element adapted to dip into said oil receptacle, comprising an oil throwing member responsive to changes in centrifugal force.

PatBase - US1803120_A

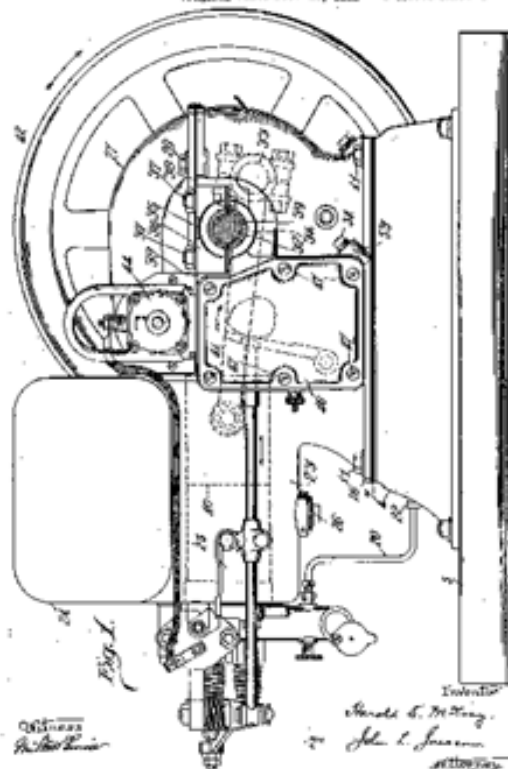
April 28, 1931.

H. E. MCCRAY

1,803,120

INTERNAL COMBUSTION ENGINE

Original Filed Feb. 15, 1923 2 Sheets-Sheet 1



24) Family number: 1109107 (US3648595A)

© PatBase

Title: FOOD FRYER WITH CONTINUOUSLY FILTERED COOKING OIL
Priority: US19700030650 19700422 US19710207243 19711213 US19730389975 19730820
Family:

Publication number	Publication date	Application number	Application date
CA936376 A1	19731106	CA19710109007	19710329
FR2090520 A5	19720114	FR19710014235	19710421
GB1305164 A	19730131	GB19710025633	19710419
US3648595 A	19720314	US19700030650	19700422
US3797378 A	19740319	US19710207243	19711213
US3849309 A	19741119	US19730389975	19730820

Probable Assignee: RESTAURANT PRODUCTS INC

Assignee(s):^(std): MORRIS W ; RESTAURANT PRODUCTS INC

Assignee(s): WOLFORD A MORRIS ; MORRIS W US ; RESTAURANT PRODUCTS

Inventor(s):^(std): MORRIS W ; MORRIS WOLFORD A

Inventor(s): WOLFORD A MORRIS ; MORRIS W US

International class
^{(IPC 8-9):} [A47J37/12 B01D29/21 B01D39/18](#) (Advanced/Invention);
[A47J37/12 B01D29/13 B01D39/18](#) (Core/Invention)

International class
^{(IPC 1-7):} [A47J37/00 A47J37/12 B01D23/28 B01D27/08 B01D35/14](#)

CPC: [Y10S210/08 B01D29/21 B01D39/18 A47J37/1223 B01D2201/0407](#)

European class: [A47J37/12D B01D29/21 B01D39/18 L01D201/04B](#)

US class: [162/166 210/143 210/167 210/167.28 210/234 210/251 210/485 210/493 210/508 210/90 210/DIG.8 99/337 99/342 99/40.8 99/408 993/370 993/420 994/80](#)

[Classification Explorer](#)

Cited documents: US3648595 A, US3483982 A, US3431835 A, US3399776 A, US3398673 A, US3280722 A, US3241680 A, US3107601 A, US3097589 A, US2805314 A, US2733815 A, US2652767 A, US2578129 A, US2488770 A, US2287396 A, US17336 A,

Forward Citations: WO9916961, WO09020661, WO08115503, WO06038009, WO06038009, US9591948, US9492770, US9357881, US8627763, US8163098, US7704387, US7698994, US7566468, US7390419, US7309422, US7037423, US6890428, US6619191, US6612225, US6572764, US6478959, US6235210, US6171441, US5782171, US5582093, US5462678, US5297474, US5289760, US5239915, US5228985, US5101714, US5060559, US4957635, US4945893, US4867873, US4842747, US4768426, US4747944, US4668390, US4604203, US4487691, US4444095, US4148729, US4068571, US3797378, US3796145, US2015114894, US2013193084, US2011189361, US2010326289, US2010192981, US2009087534, US2009084273, US2009064871, US2008229934, US2008196596, US2008102181, US2008060528, US2007062515, US2006180528, US2006065582, US2005284823, US2005072309, US2004031753, US2003196940, EP0320050, AU2008229370,

Abstract:

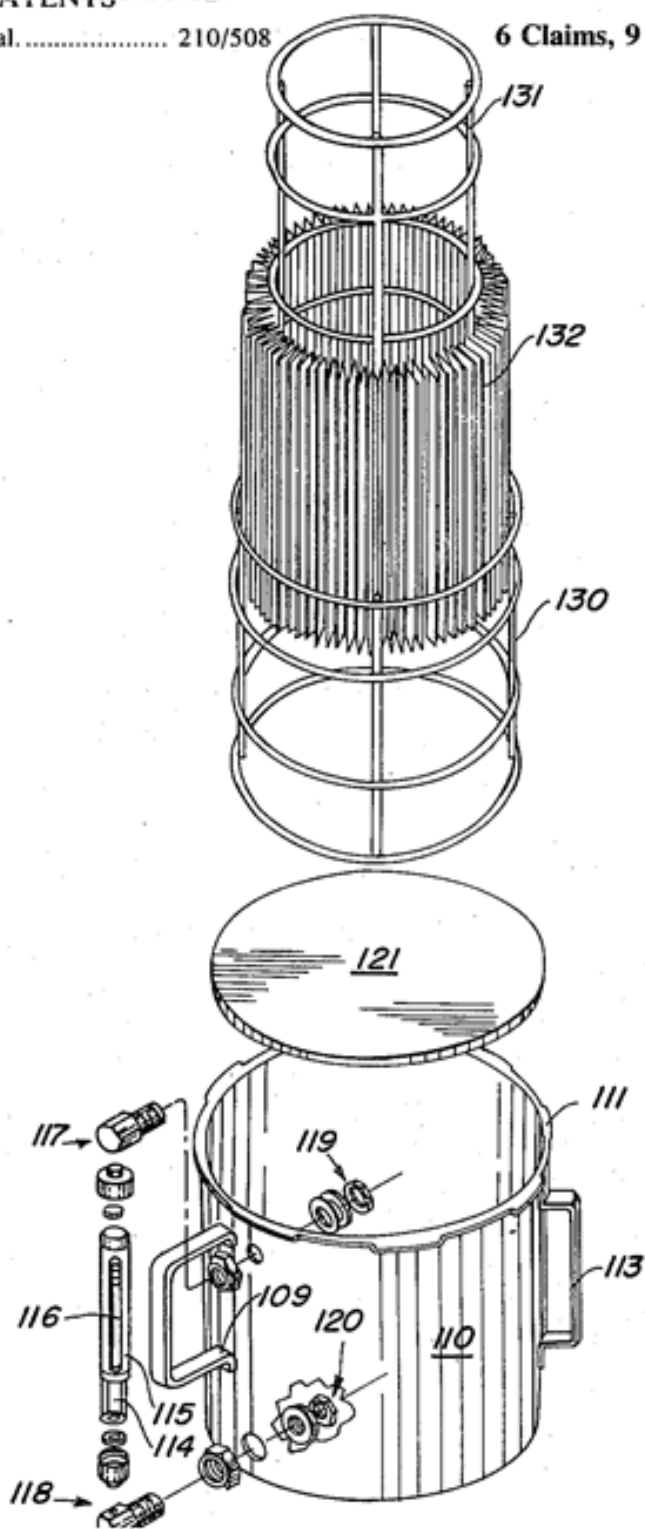
Source: US3648595A In a deep-fat cooking appliance, a cooking oil circulation system includes a filter assembly which has a disposable porous filter. A motor pump continuously draws oil from a midpoint in a deep cooking well and through the filter. The oil returns to the deep well via a downspout poised above a splash ledge in the deep well so that there is a minimum of agitation in the oil. A clogged filter alarm indicates when the porous material should be replaced.

PatBase US3849309_A

PATENTS

et al. 210/508

6 Claims, 9 I



25) Family number: 28321832 (US2002148662A)

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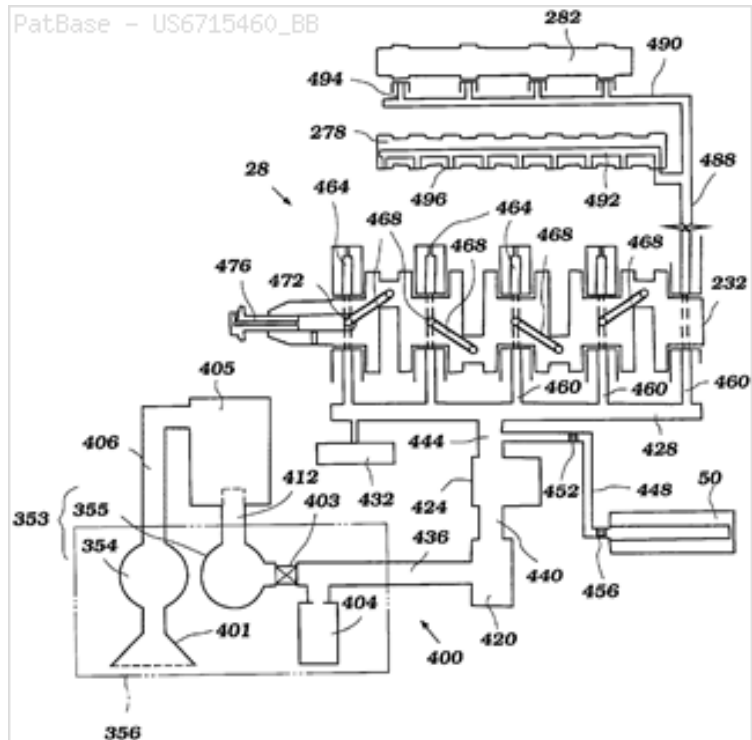
Title: Lubrication system for snowmobile engine**Priority:** CA20022376562 20020313 JP20010072806 20010314

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2376562 AA</u>	20020914	CA20022376562	20020313
	<u>CA2376562 C</u>	20080708	CA20022376562	20020313
	<u>JP2002276318 A2</u>	20020925	JP20010072806	20010314
	<u>US2002148662 AA</u>	20021017	US20020100554	20020314
	<u>US6715460 BB</u>	20040406	US20020100554	20020314

Probable Assignee: YAMAHA HATSUDOKI KK**Assignee(s):**^(std): YAMAHA MOTOR CO LTD**Assignee(s):** YAMAHA HATSUDOKI KK ; YAMAHA HATSUDOKI KABUSHIKI KAISHA ; ASHIDA TAKASHI ; ATSUUMI MAMORU ; YAMAHA HATSUDOKI K USHIKI KAISHA AB**Inventor(s):**^(std): ASHIDA TAKASHI ; ATSUUMI MAMORU ; ATSUMI MAMORU ; ASHIDA HISASHI**Agent(s):** BARRIGAR INTELLECTUAL PROPERTY LAW**International class**
^(IPC 8-9): B62D55/07 B62M27/02 F01M1/02 F01M1/16 F01M11/02 F01M11/03 F01M5/00 F01P11/08 F02B75/00 (Advanced/Invention)**International class**
^(IPC 1-7): B62D55/07 B62M27/02 F01M1/00 F01M1/02 F01M1/16 F01M11/03 F01M5/00 F01P11/08 F02B75/00 F02F7/00**CPC:** B62M27/02 B62M2027/023 F01M1/02 F01M5/00 F01M11/02**European class:** B62M27/02 F01M1/02 F01M11/02 F01M5/00 L62M27/02D**US class:** 123/196.00A 123/196.00R 123/196.00RS 123/196A 123/196R 123/198.00C 123/198C 180/190[Classification Explorer](#)**Cited documents:** US6024193 A, US5984742 A, US5899779 A, US5876188 A, US5860402 A, US5839930 A, US5701872 A, US5647315 A, US5372215 A, US5113807 A, US5024088 A, US4993374 A, US4787832 A, US4611559 A, US4334508 A,**Forward Citations:** WO11040912, WO09002572, US9505450, US9352801, US9228581, US8744722, US8626422, US8512181, US8459392, US8428846, US8307804, US7891333, US7621251, US7373913, US7308882, US7284529, US7100563, US6923287, US6892844, US6880659, US2015197149, US2015068827, US2011194946, US2010163327, US2010083931, US2008236537, US2008182688, US2007181091, US2007068479, US2006260873, US2005000474, US2004089492, US2004040768, US2002148661, RU2510466, JP4889541, JP4636506, JP2008240705, JP2008082314, JP2007236069, DE102011106593, CN102472267,

Abstract:

Source: US2002148662A A snowmobile has an internal combustion engine that includes a lubrication system. The lubrication system includes a lubricant pump unit mounted in a crankcase chamber of the engine, a lubricant cooler, and a lubricant filter. The lubricant pump unit is mounted at a location offset from an axis about which the crankshaft rotates. The lubricant pump unit also has a lubricant pump that is rotatable about a lubricant pump axis. At least one of the lubricant cooler and the lubricant filter is positioned on the same side of the engine as the lubricant pump unit.



0) US1862995A – ENGINE LUBRICATING SYSTEM

26) Family number: 20317927 (US1862995A)

© PatBase

Title: ENGINE LUBRICATING SYSTEM

Priority: US19280309264 19280929

Family:	Publication number	Publication date	Application number	Application date
	<u>US1862995 A</u>	19320614	US19280309264	19280929

Probable Assignee: GEN MOTORS CORP

Assignee(s):^(std): GEN MOTORS CORP

Assignee(s): GENERAL MOTORS CORP

Inventor(s):^(std): ANIBAL BENJAMIN H

International class F16N39/06 (Advanced/Invention);
(IPC 8-9): F16N39/00 (Core/Invention)

International class F01M11/06
(IPC 1-7):

CPC: F16N39/06

European class: F16N39/06

US class: 184/6.24

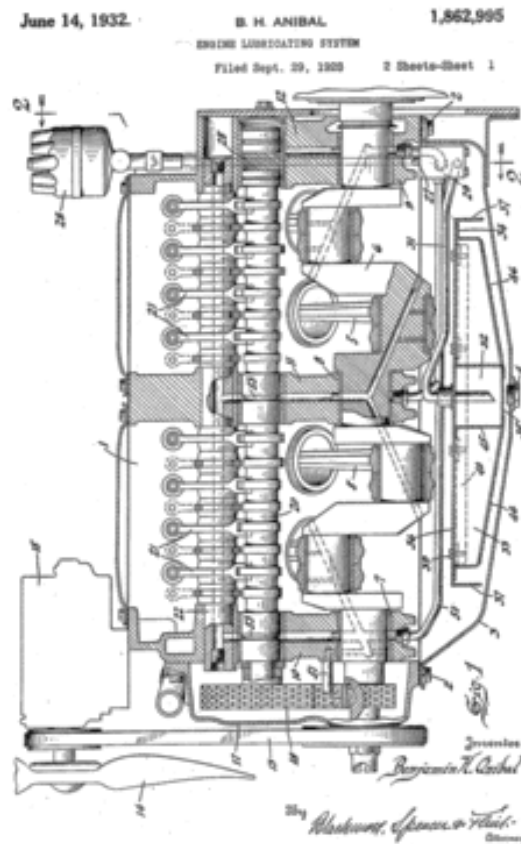
[Classification Explorer](#)

Forward Citations: US6143169,

Abstract:

Source: US1862995A I claim: 1. In an engine lubricating system, an oil pan, a tray suspended in the pan and formed from sheet metal, having sides and a bottom, a portion of the bottom being punched out and bent upwardly to provide a baffle Wall inside the tray, a screen placed over the opening left by said upwardly punched baffle wall through which oil in the pan enters the tray, a cover for the top of the tray extending entirely across from side to side of the pan but terminating short of the end of the pan, and an oil pump delivering oil under pressure to the engine bearings and having its suction side communicating with the interior of the tray. 2. In an engine lubricating system, an oil pan, a pressed metal tray positioned in the pan and having side, end and bottom Walls spaced from the corresponding walls of the pan and a top wall projecting beyond the side walls of the tray and over the space between said side Walls and the walls of the pan to close the same, a portion of the bottom Wall being punched out and bent upwardly to form a baffle plate within the tray, a strainer element secured over the opening in the bottom wall made by said punched out portion, and means to withdraw oil from within the tray for delivery to the engine bearings. 3. In an engine lubricating system, an oil pan, a pan suspended in the oil pan, a cover plate located over the top of the second pan and having downturned flanges at its ends beyond the pan to provide splash plates, baffle Walls within the second pan formed by punching and bending a portion of the bottom wall of the pan upwardly, screens positioned over the openings in said bottom Wall provided by the punched out portions, and means to withdraw oil from within the pan for delivery to the engine bearings. 4. In an engine lubricating system, an oil pan, a pan suspended in the oil pan having an inclined bottom Wall provided with openings formed by punching and bending portions of the Wall upwardly to afford baffle Walls within the pan, screens positioned over the openings, an oil pump having its suction side communicating with the interior of said pan, a hollow shaft connected with pressure side of the pump, rocker arms pivotally mounted on said shaft and lubricated by the oil delivered to the shaft, and a cam shaft disposed beneath the hollow shaft to actuate the rocker arms whose cam surfaces are lubricated by the oil dripping from the rocker arm bearings. In testimony whereof I affix my signature

PatBase - US1862995_A



27) Family number: 3851211 (US4403711A)

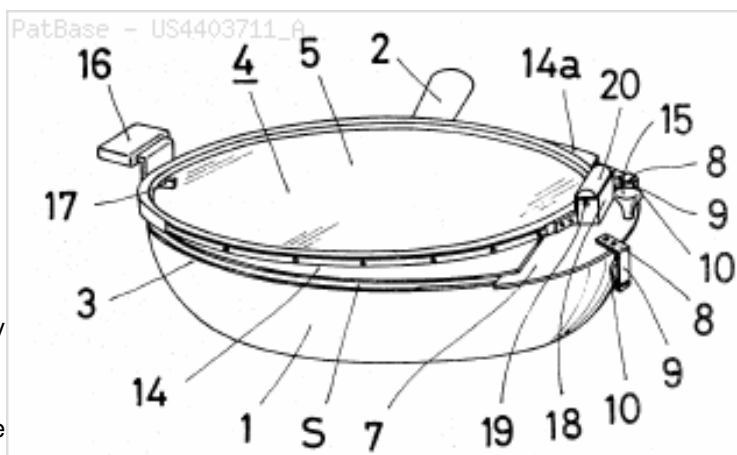
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Title: OIL SPLASH AND FIRE-PROOF LID**Priority:** US19810324014 19811123**Family:**

Publication number	Publication date	Application number	Application date
<u>US4403711 A</u>	19830913	US19810324014	19811123

Probable Assignee: KYOSUKE KATO**Assignee(s):**^(std): KYOSUKE KATO**Inventor(s):**^(std): KYOSUKE KATO**International class**
(IPC 8-9): A47J36/06 A47J37/10 (Advanced/Invention);
A47J36/00 A47J37/10 (Core/Invention)**International class**
(IPC 1-7): B65D43/24**CPC:** Y10S220/912 A47J37/101 A47J36/06**European class:** A47J36/06 A47J37/10A**US class:** 126/299C 220/335 220/361 220/731 220/830 220/85CH 220/912[Classification Explorer](#)**Cited documents:** US498569 A, US4266527 A, US4258694 A, US2350243 A,**Forward Citations:** WO11041863, USRE36072, USD481585, USD438754, US9456714, US7784398, US5531354, US5209345, US2007284423, US2006230948, US2005229788, US2004250690, CN104026988,**Abstract:**

Source: US4403711A A lid that covers an entire opening surface of a cooking pan for frying is formed with a transparent window portion that permits the see-through of the inside of the pan, and the lid is provided with a mounting mechanism so as to be mountable on the cooking pan without any fabrication for fitting on the cooking pan, and the lid is also provided with a gas ventilating mechanism for providing a gap to ventilate the gas along the curved opening edge of the cooking pan proper and the lid to capture almost completely the oil splash moving straight forward in the lid mounted condition by utilizing the straight forwardness of the oil splash occurring in the cooking pan and the curved forwardness of the gas, and the lid is provided with an opening/closing mechanism for allowing the lid to be mounted on the cooking pan proper by keeping the narrow gap for preventing a fire from occurring by keeping the oxygen short condition in the cooking pan when the lid is mounted thereof between the opening edge of the pan proper and the lid.



28) Family number: 30347988 (US2004040532A)

© PatBase

Title: LUBRICATING OIL GUIDE DEVICE FOR ENGINE**Priority:** JP20020250420 20020829

Family:	Publication number	Publication date	Application number	Application date
	<u>CN1252378 C</u>	20060419	CN20031057714	20030829
	<u>CN1500974 A</u>	20040602	CN20031057714	20030829
	<u>JP2004084646 A2</u>	20040318	JP20020250420	20020829
	<u>US2004040532 AA</u>	20040304	US20030650922	20030829
	<u>US6820585 BB</u>	20041123	US20030650922	20030829

Probable Assignee: MITSUBISHI JIDOSHA KOGYO KK**Assignee(s):**^(std) MAEDA TAKASHI ; MITSUBISHI FUSO TRUCK AND BUS ; MITSUBISHI MOTORS CORP ; MURATA SHINICHI**Assignee(s):** MITSUBISHI JIDOSHA KOGYO (AKA MITSUBISHI MOTORS CORPORATION) KK ; MITSUBISHI JIDOSHA KOGYO AKA MITSUBISHI MOTORS CORPORATION KK ; MITSUBISHI JIDOSHA KOGYO K USHIKI KAISHA AB ; MITSUBISHI JIDOSHA KOGYO KABUSHIKI KAISHA ; MITSUBISHI JIDOSHA KOGYO KK**Inventor(s):**^(std) MURATA SHINICHI ; SHINICHI MAEDA TAKASHI MURATA ; SHINICHI MURATA ; TAKASHI MAEDA ; MAEDA TAKASHI**Inventor(s):** MAEDA TAKASHI MURATA SHINICHI

International class
^(IPC 8-9): F01M1/04 F01M1/06 F01M11/00 F01M11/02 F02F7/00 F16C9/02 (Advanced/Invention);
F01M11/00 (Advanced/Non-invention);
F01M1/00 F01M1/06 F01M11/00 F01M11/02 F02F7/00 F16C9/00 (Core/Invention);
F01M11/00 (Core/Non-invention)

International class
^(IPC 1-7): F01M1/00 F01M1/04 F01M1/06 F01M11/00 F02B33/28 F02F7/00 F16C9/02

CPC: F01M11/02 F01M2011/0033 F01M2011/026**European class:** F01M11/02 R01M11/00B12 R01M11/02Q**US class:** 123/196 123/196R[Classification Explorer](#)**Cited documents:** US6666183 BB, US6647944 BB, US6640767 BB, US6571763 BA, US6250274 BA, US5857441 A, US5850814 A, US5467843 A, US4909203 A, JP2551974 Y2,**Forward Citations:** US7938094, US6941923, US2015252749, US2010147255, US2005081814,

Abstract:

Source: US2004040532A Bearings and oil flow holes are formed on walls between cylinders of a cylinder block. Journals of a crank shaft are supported rotatably by the bearings and a bearing cap. The bearing cap has pairs of arms and a pair of beams which link the arms together. The arms face the under surfaces of the walls. The arms have vertical walls formed thereon. These vertical walls are formed on both sides of area right under the outlet of the oil flow hole along the top surface of the arm. An oil flowing through the outlet of the oil flow hole flows down along the top surface of the arm and the vertical walls and into an oil pan.

PatBase - US6820585_BB

U.S. Patent

Nov. 23, 2004

Sheet 1 of 4

US 6,820,585 B2

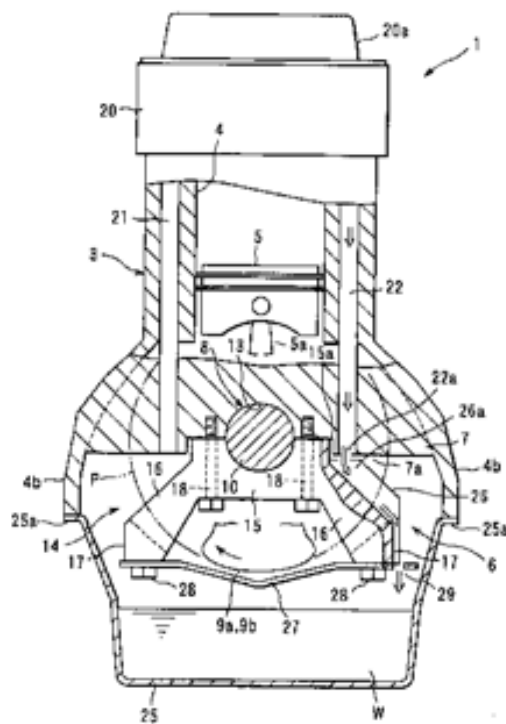


FIG. 1

29) Family number: 19637298 (GB720063A)

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Title: Improvements in or relating to devices for signalling the boiling of milk or other liquid in a pan

Priority: GB19520018446 19520722

Family:	Publication number	Publication date	Application number	Application date
	<u>GB720063 A</u>	19541215	GB19520018446	19520722

Probable Assignee: CHARLES WILLBER

Assignee(s):^(std): CHARLES WILLBER

International class A47J27/56 (Advanced/Invention);
(IPC 8-9): A47J27/56 (Core/Invention)

International class A47J27/60
(IPC 1-7):

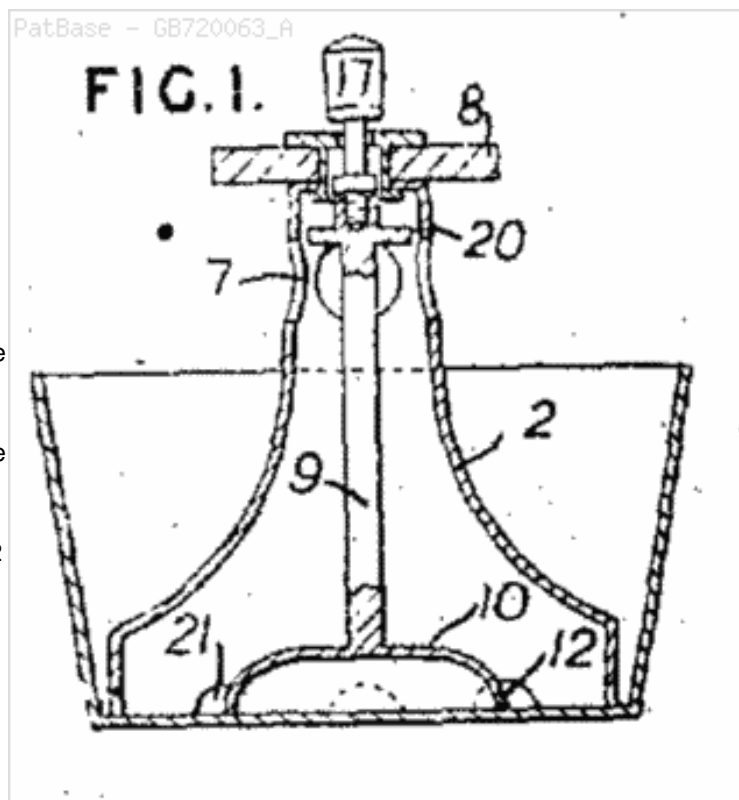
CPC: A47J27/56

European class: A47J27/56

[Classification Explorer](#)

Abstract:

Source: GB720063A 720,063. Portable cooking-vessels. WILLBER, C. July 17, 1953 [July 22, 1952], No. 18446/52. Class 66. A device for signalling the boiling of liquid in a pan comprises a bell-like part 10 adapted to rest on the pan bottom and be agitated by the boiling liquid to rattle on the bottom and a rod 9 extending upwards above the liquid for handling purposes. The part 10 is provided with a notch 12 and the area of the opening may be adjusted by means of a slide so as to vary the degree of boiling at which rattling commences. At its upper end the rod 9 may be provided with a guard-disc 8 and a heat-insulating knob 17. The disc 8 may be of a diameter nearly equal to that of the pan so as to strike the wall of the pan when the device is agitated by the boiling liquid. The device 9, 10 may be associated, without attachment, with means for preventing boiling-over comprising a hollow trumpet-mouth member 2 having apertures 21 at the bottom and 7 at its upper end above the liquid level. Alternatively, as shown, the knob 17 may be a loose fit in a bush securing the member 2 to the disc 8 so that whereas the signalling device 9, 10 has a certain freedom of lateral movement, both the device 9, 10 and the member 2 may be lifted by means of the knob 17. A disc 20 on the rod 9 augments the boiling indication by striking the inner wall of the member 2 and also prevents liquid from rising within the member 2 above the level of the apertures 7. In another embodiment the rod 9 is carried in a vertical bearing permitting vertical sliding movement, with slight lateral movement in the member 2. In a further embodiment the rod 9 is weighted at its upper end and the protective disc 8 is shaped and apertured in a manner to prevent boiling over. The rod 9 may be telescopic.



30) Family number: 42614941 (US2008296303A)

© PatBase

Title: DOMED SPLATTER SCREEN WITH A FITTED RIM
Priority: US20070940738P 20070530 US20080127920 20080528

Family:	Publication number	Publication date	Application number	Application date
	<u>US2008296303 AA</u>	20081204	US20080127920	20080528

Probable Assignee: LIFETIME BRANDS INC

Assignee(s):^(std): LIFETIME BRANDS INC

Assignee(s): CITIBANK NA COLLATERAL AGENT AS ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS

Inventor(s):^(std): KRENT ADAM ; SEO YOUNGJIN

Agent(s): TROUTMAN SANDERS LLP

International class B65D1/40 B65D25/28 B65D51/16 (Advanced/Invention) ;
 (IPC 8-9) : B65D1/40 B65D25/28 B65D51/16 (Core/Invention)

CPC: A47J37/101

European class: A47J37/10A

US class: 220/370 220/731 220/752

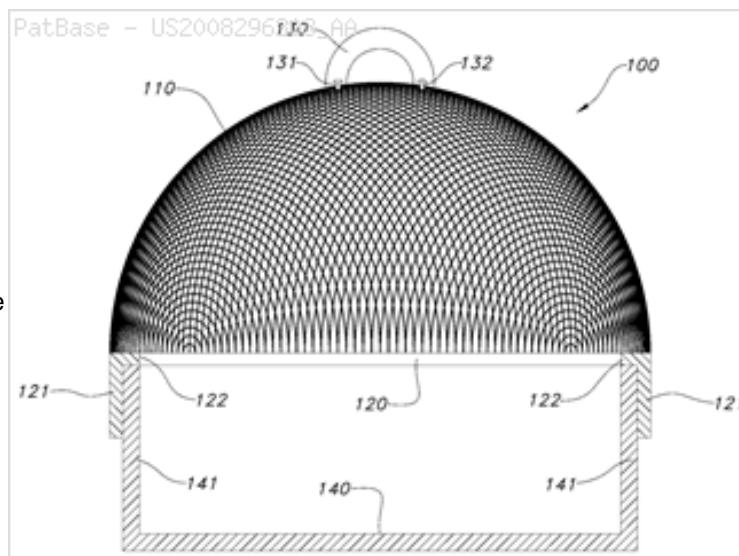
[Classification Explorer](#)

Cited documents: USD457229 S1, USD397428 S1, US6230914 BA, US4747392 A, US438958 A, US4158464 A, US4108332 A, US2770389 A, US2664169 A, US2498534 A, US2307569 A,

Forward Citations: USD773881, USD754469, USD739243, USD724372, USD720571, USD719398, US9446889, US2012175367,

Abstract:

Source: US2008296303A A domed splatter screen with a fitted rim. The domed splatter screen is placed over a pan used for frying a food item. The splatter screen includes a handle, a body, and a rim. The body is constructed of metal mesh and is dome shaped. The mesh catches and prevents oil droplets from splattering onto the stovetop. The dome shape allows the splatter screen to cover a pan with a food item that extends above the pan wall. The rim encircles the edge of the body and is fitted to securely attach to the pan wall. The handle is attached to the body to enable the splatter to be placed over and removed from the pan.



31) Family number: 7954549 (US4230574A)

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Title: Method for filtering frying oil**Priority:** US19790001293 19790105 US19800110830 19800110

Family:	Publication number	Publication date	Application number	Application date
	<u>US4230574 A</u>	19801028	US19790001293	19790105
	<u>US4328097 A</u>	19820504	US19800110830	19800110

Probable Assignee: WHALEY BENNIE M**Assignee(s):^(std):** WHALEY BENNIE M ; WHALEY JANICE C**Inventor(s):^(std):** WHALEY BENNIE M ; WHALEY JANICE C

International class A47J37/12 B01D29/41 B01D35/027 B01D37/02 (Advanced/Invention);
 (IPC 8-9): A47J37/12 B01D29/39 B01D35/00 B01D37/00 (Core/Invention)

International class A47J37/12 B01D35/28 B01D37/02
 (IPC 1-7):

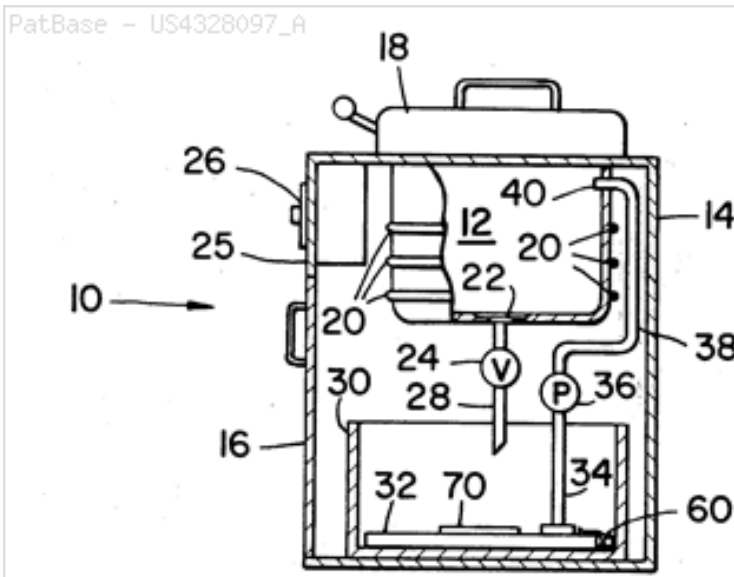
CPC: A47J37/1223 B01D29/41 B01D35/0273 B01D37/02 Y10S210/08**European class:** A47J37/12D B01D29/41 B01D35/027H B01D37/02**US class:** 210/167 210/167.28 210/193 210/315 210/416.1 210/456 210/486 210/778 210/805 210/DIG.8 99/408[Classification Explorer](#)

Cited documents: US4113623 A, US4043916 A, US3977973 A, US3973481 A, US3707907 A, US3646882 A, US3610133 A, US3543935 A, US3312352 A, US3279605 A, US3159095 A, US2835389 A, US2760641 A, US2610740 A, US1985411 A,

Forward Citations: USRE34636, US9452374, US9392907, US9192265, US9156390, US8931403, US8910565, US8163098, US8133520, US8111979, US7885521, US7704387, US7698994, US7309422, US7137419, US7137419, US6890428, US6820540, US6792983, US6572764, US6368648, US5870945, US5731024, US5709899, US5595107, US5247876, US5228985, US5160444, US4994181, US4959144, US4805525, US4684412, US4600511, US4487691, US2013075347, US2011287154, US2010192981, US2009049994, US2008213448, US2008213446, US2008213445, US2008196596, US2008060528, US2007062515, US2006091050, US2006076281, US2005072309, US2004007137, US2003196940, FR2876263, FR2846218, EP1698387, EP1698387, EP1645217, EP0661943,

Abstract:

Source: US4230574A An improved apparatus and method for filtering frying oil in a cooker apparatus includes the steps of adding diatomaceous earth to oil in the cooking vessel; draining the oil into a drain pan; drawing the oil through a filter positioned in said drain pan, such that said earth is deposited on the surface of said filter; and returning said oil to the cooking vessel. Thereafter, the oil is filtered by the steps of draining the oil into said drain pan such that the earth is not disturbed to any substantial extent off of the surface of said filter; drawing the oil through said filter; and automatically returning said oil to the cooking vessel. The improved method includes attaching said drain pan and filter to said cooker apparatus and positioning a metallic plate between the drain opening of said vessel and said filter such that the oil drained into said drain pan is initially deflected to prevent disturbing the diatomaceous earth deposited on the surface of said filter.



32) Family number: 41479603 (US2010180776A)

© PatBase

Title: LIFTING–COVER TYPE FRYING–ROASTING DEVICE
Priority: CN200720006113U 20070117 EP20080700630 20080111 WO2008CN00075 20080111
Family:

Publication number	Publication date	Application number	Application date
CN200998178 Y	20080102	CN200720006113U	20070117
DE602008019421 D1	20121213	DE200860019421T	20080111
EP2108294 A1	20091014	EP20080700630	20080111
EP2108294 A4	20111102	EP20080700630	20080111
EP2108294 B1	20121017	EP20080700630	20080111
US2010180776 AA	20100722	US20080527604	20080111
US8424449 BB	20130423	US20080527604	20080111
WO08089651 A1	20080731	WO2008CN00075	20080111

Probable Assignee: TSANN KUEN CHINA ENTERPRISE CO LTD

Assignee(s):^(std): LIN JING ; LIU TACHI ; TSANN KUEN CHINA ENTERPRISE CO LTD ; TSANN KUEN ZHANGZHOU ENTERPRISE CO

Assignee(s): TSANN KUEN ZHANGZHOU ENTERPRISE CO ; TSANN KUEN ENTERPRISE CO LTD ; TSANN KUEN(CHINA) ENTERPRISE CO LTD ; TSANN KUEN ZHANGZHOU ENTERPRISE CO LTD ; TSANN KUEN CHINA ENTERPRISE CO ; TSANN KUEN CHINA ENTERPRISE CO LTD ; TSANN KUEN CHINA ENTERPRISE CO LTD XIAMEN

Inventor(s):^(std): DAQI LIU ; JING LIN ; LIN JING ; LIU TACHI

Inventor(s): LIU TACHI XIAMEN ; LIN JING XIAMEN ; LIU DAQI

Agent(s): CANZLER AND BERGMEIER PATENTANWALTE; GARAVELLI PAOLO; RABIN AND BERDO PC; RABIN AND BERDO P C; SHOUCHUANG JUNHE PATENT AGENT CO LTD XIAMEN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
 (IPC 8–9): [A21B1/02](#) [A47J37/00](#) [A47J37/04](#) [A47J37/06](#) [A47J37/07](#) [A47J37/10](#)
[H05B3/68](#) (Advanced/Invention);
[A47J37/00](#) (Core/Invention)

CPC: [A47J37/0623](#) [A47J37/0676](#)

European class: [A47J37/06C](#) [A47J37/06D2](#)

US class: [219/450.1](#) [219/450.100S](#) [99/339](#) [99/339P](#) [99/422](#) [99/422S](#)

[Classification Explorer](#)

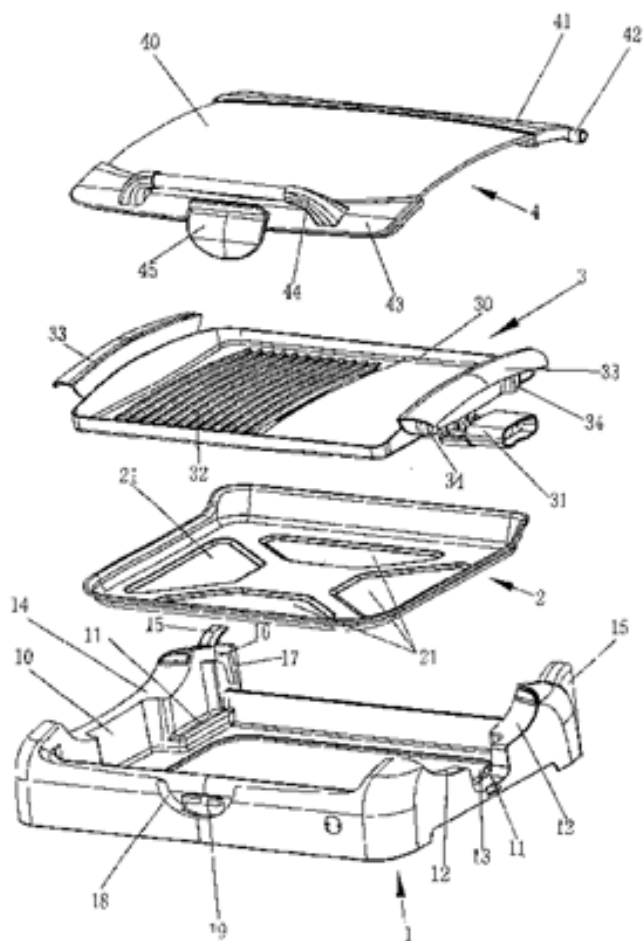
Cited documents: US6443052 BA, US6237470 BA, US6230702 BA, US5839356 A, US5513558 A, US5404795 A, US5213302 A, US4571456 A, US4531048 A, US4241650 A, US4206345 A, US4027139 A, US3936660 A, US3848110 A, US3824916 A, US3771433 A, US3380770 A, US3231718 A, US3121385 A, US2765727 A, US2710906 A, US2608727 A, US2033060 A, US2007256571 AA, US2007028781 AA, US2006288876 AA, US2005132897 AA, US2005051036 AA, US2003230199 AA, US1767802 A, JP8173326 A2, EP0657132 B1, EP0094637 A1, CN200998178 Y,

Forward Citations: WO08089651, USD714089, USD699514, US8424449, CN102578927, CN102578927,

Abstract:

Source: US2010180776A A lifting-cover type frying-roasting device is provided. The frying-roasting device comprises a bottom base (1), an oil storing plate (2), an electric heating frying-roasting plate (3) and an upper cover (4). There is respectively a boss (15) extending backwards at two sides of the back end of the bottom base (1). A r-shaped orbit (16) whose opening is from its back end and extends toward its front lower part is respectively set in the inside of each boss (15). There is respectively a short jointed shaft (42) extending outward at the back end of two sides of the upper cover (4). Each short jointed shaft (42) is inserted in the corresponding r-shaped orbit (16) so that the hinging connection between them is formed. There is respectively a block wall (17) that extends from the back end to the inside of each boss (15). The height of two blocking walls (17) is lower than the opening of the r-shaped orbit (16). When the upper cover (4) is opened, the lower end of the back connecting member (41) of the upper cover (4) is blocked by the back end of the electric heating frying-roasting plate (3) and the upper end of the back connecting member (41) is blocked by two blocking walls (17) so that the upper cover remains sloped.

PatBase - W008089651_A1



33) Family number: 59227138 (US2016290479A)

© PatBase

Title: GEAR UNIT HAVING A HOUSING**Priority:** DE201310018712 20131108 WO2014EP02832 20141021**Family:**

Publication number	Publication date	Application number	Application date
AU2014345912 AA	20150514	AU20140345912	20141021
CA2922535 AA	20160226	CA20142922535	20141021
DE102013018712 A1	20150513	DE201310018712	20131108
EP3066365 A1	20160914	EP20140789170	20141021
US2016290479 AA	20161006	US20140035396	20141021
WO15067345 A1	20150514	WO2014EP02832	20141021

Probable Assignee: SEW EURODRIVE GMBH AND CO KG**Assignee(s):^(std):** SEW EURODRIVE GMBH AND CO ; SEW EURODRIVE GMBH AND CO KG**Assignee(s):** WU ZILI**Inventor(s):^(std):** WU ZILI**Agent(s):** GRIFFITH HACK; BLAKE CASSELS AND GRAYDON LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [F16H57/02](#) [F16H57/021](#) [F16H57/03](#) [F16H57/04](#) (Advanced/Invention)
(IPC 8-9):

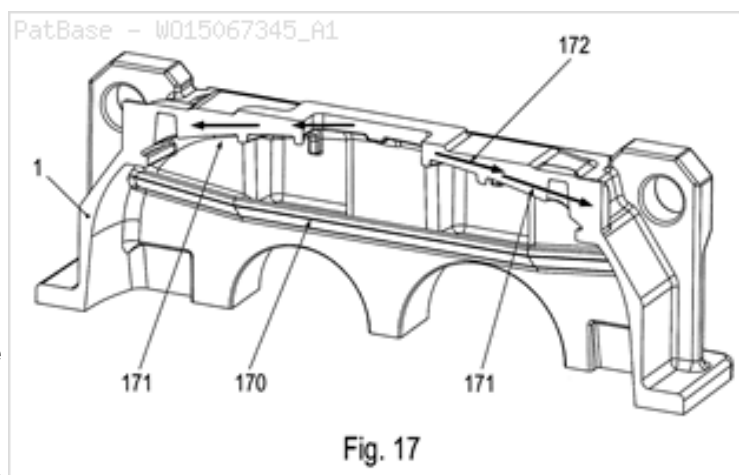
CPC: [F16H57/0423](#) [F16H57/0452](#) [F16H57/021](#) [F16H57/03](#) [F16H57/0471](#) [F16H57/0424](#)
[F16H57/0409](#) [F16H57/0457](#)

US class: [74/606R](#)[Classification Explorer](#)

Cited documents: WO10108599 A1, US3029661 A, US2676671 A, US2007251348 AA, US1220810 A, JP59208266 A2, JP42007068 Y1, DE1047820 B, CN201071929 Y,

Abstract:

Source: US2016290479A A gear unit includes a housing, a trough for guiding oil and reducing losses due to splashing surrounding a circumferential section of a toothing part, particularly a gear wheel, especially in the radial and axial direction, the trough including at least three parts, e.g., at least one bottom plate and two side walls, the bottom plate being screw-connected to the two side walls, the trough being fastened to the housing, the trough having an opening, particularly a channel, especially at its lowest surface area, e.g., particularly at the surface area having the greatest radial distance, in particular, during rotational movement of the gear wheel, oil being conveyed from the oil pan of the gear unit through the opening between the trough and gear wheel, especially to a position higher than the level of the oil pan, the bottom plate and the side walls being stamped bent parts.



34) Family number: 7691600 (US5232387A)

© PatBase

Title: EXHAUST DEVICE FOR A FOUR-CYCLE OUTBOARD MOTOR
Priority: JP19900159384 19900618 JP19900169067 19900627 JP19970181815 19970624
Family:

Publication number	Publication date	Application number	Application date
<u>JP10067392 A2</u>	19980310	JP19970181815	19970624
<u>JP2843421 B2</u>	19990106	JP19900159384	19900618
<u>JP2978535 B2</u>	19991115	JP19900169067	19900627
<u>JP3145956 B2</u>	20010312	JP19970181815	19970624
<u>JP4050097 A2</u>	19920219	JP19900159384	19900618
<u>JP4056696 A2</u>	19920224	JP19900169067	19900627
<u>US5232387 A</u>	19930803	US19910717086	19910618

Probable Assignee: SANSKIN KOGYO KK

Assignee(s):^(std): SANSKIN KOGYO KK

Assignee(s): SANSKIN KOGYO KABUSHIKI KAISHA ; YAMAHA MARINE KABUSHIKI KAISHA ; SANSKIN IND CO LTD ; SANSKIN KOGYO D B A SANSKIN IND CO LTD A CORP OF ; SANSKIN KOGYO D B A SANSKIN IND CO LTD A CORP OF JAPAN KK ; SANSKIN KOGYO D B A SANSKIN IND KK

Inventor(s):^(std): SUMIGAWA YUKIO ; SUMIKAWA YUKIO

International class
^{(IPC 8-9):} B63H20/00 B63H20/02 B63H20/24 F01M11/00 F01N13/00 F01N13/08 F01N13/12 F01N3/04 F01N7/00 F01N7/12 F01P3/20 F02B61/04 F02B67/00 F02B77/11 (Advanced/Invention);
F01P3/20 F02B61/04 F02B75/18 (Advanced/Non-invention);
B63H20/00 F01M11/00 F01N13/00 F01N13/08 F01N3/04 F01N7/00 F01P3/20 F02B61/00 F02B67/00 F02B77/11 (Core/Invention);
F01P3/20 F02B61/00 F02B75/00 (Core/Non-invention)

International class
^{(IPC 1-7):} B63H20/00 B63H20/02 B63H20/24 B63H21/26 B63H21/38 F01M11/00 F01N7/08 F01N7/12 F01P3/20 F02B67/00 F02B77/11

CPC: F01N13/12 B63B2770/00 B63H20/245 F01N3/043 F01N13/004 F01N2590/021 F01P3/202 F01P2050/12 F01P2060/16 F02B61/045 F02B2075/1816 Y02T10/20

European class: B63H20/24B F01N13/00C F01N13/12 F01N3/04B F01P3/20B F02B61/04B L63B770/00 R01N590/021 R01P3/20B R01P50/12 R01P60/16 R02B61/04B R02B75/18C4

US class: 440/88 440/88.00C 440/88.00D 440/88.00L 440/88C 440/88D 440/88L 440/89 440/89.00C 440/89.00D 440/89.00J 440/89.00R 440/89C 440/89D 440/89J 440/89R 440/900

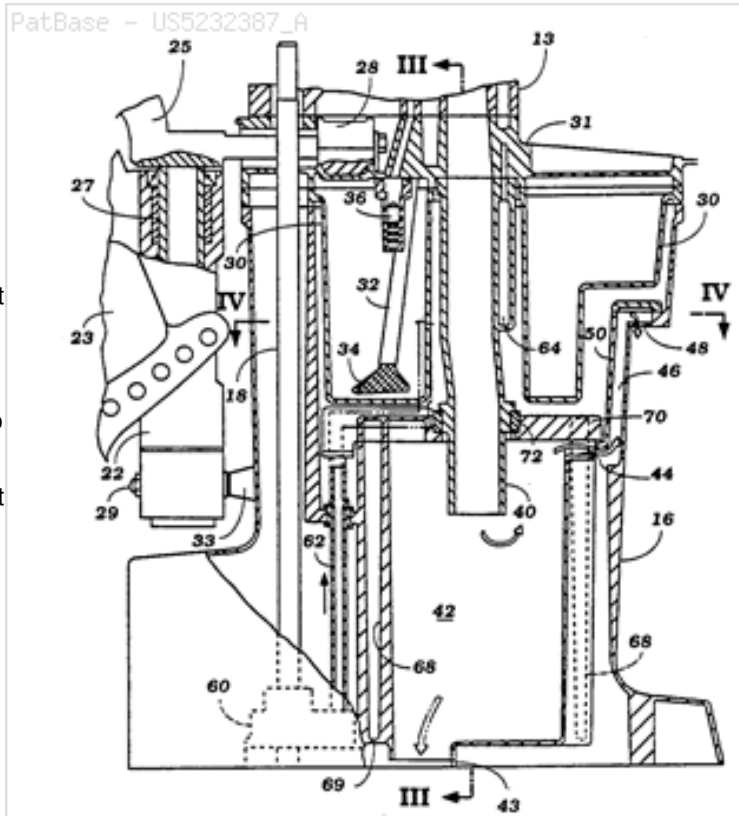
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Cited documents: US4802871 A, US4604069 A, US4498875 A, JP63097492 A2, JP58043895 A2, JP47027113 A2,

Forward Citations: US9062578, US8998663, US7497750, US7223139, US7160162, US7128027, US6913498, US6893306, US6752673, US6746290, US6699086, US6634913, US6602100, US6537116, US6425790, US6416372, US6409557, US6358108, US6250982, US6027385, US5954022, US5934960, US5934957, US5924901, US5885121, US5733157, US5487688, US5487687, US5462464, US5439404, US2014041371, US2005279294, US2005260900, US2004198110, GB2358167, GB2358167, EP1122411, EP1016776, CN103803818,

Abstract:

Source: US5232387A An arrangement is provided for the lubricating, cooling and exhaust systems of a four-cycle outboard watercraft motor. Coolant is drawn from the body of water within which the watercraft is operated for circulation through the engine cooling system. Subsequently, the coolant is brought into proximity with an exhaust pipe extending downwardly from the engine within an encasing member. After passing downwardly along the exhaust pipe the coolant is finally directed towards an exhaust gas expansion chamber and a cooling water jacket provided around the expansion chamber. In order to prevent any of the cooling water from splashing back up against an oil reservoir, also located within the casing, a cover is provided across the tops of the expansion chamber and its accompanying cooling water jacket. Coolant water or air may fill the voids separating the various components contained within the encasing. The arrangement is particularly effective in preventing the corrosion of the oil reservoir housing due to back-splashed coolant when the watercraft is operated in salt water; cooling the components contained within the encasing; and, minimizing heat transfer from higher temperature operating components to lower temperature operating components.



35) Family number: 3841123 (US4397874A)

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Title: POPCORN POPPING
Priority: US19810251276 19810406

Family:	Publication number	Publication date	Application number	Application date
	<u>US4397874 A</u>	19830809	US19810251276	19810406

Probable Assignee: PIOTROWSKI EUGENE G

Assignee(s):^(std): PIOTROWSKI EUGENE G

Inventor(s):^(std): PIOTROWSKI EUGENE G

International class
 (IPC 8-9): A23L1/18 (Advanced/Invention);
A23L1/18 (Core/Invention)

International class
 (IPC 1-7): A23B3/04 A23L1/18

CPC: A23L7/187

European class: A23L1/18C6B

US class: 220/578 220/93 426/111 426/450 99/323.5 D7/325

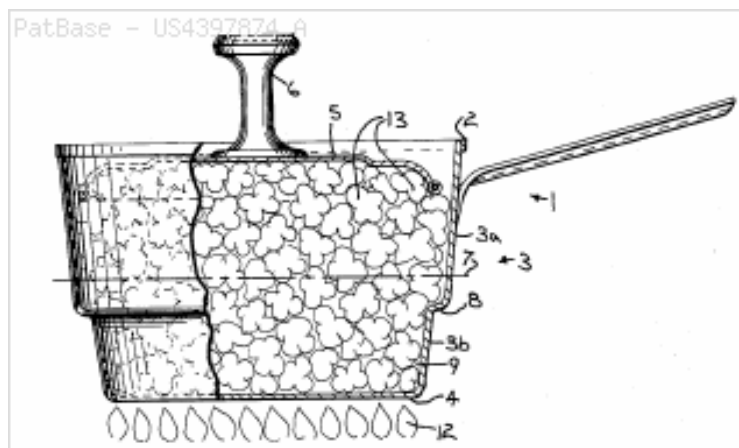
[Classification Explorer](#)

Cited documents: US797314 A, US4138937 A, US3952374 A, US3873738 A, US3782976 A, US3506459 A, US2828886 A, US1990918 A, US1881615 A, GB367681 A,

Forward Citations: US8863651, US8778429, US8216622, US8101219, US7024986, US6829982, US6726945, US6534103, US6098526, US5925393, US5402908, US5070222, US5050490, US2008185382, US2008022867, US2006064340, US2005196514, US2003159591, US2002166454,

Abstract:

Source: US4397874A A deep walled pan is provided with the pan rim and upper wall portion forming a slightly cross sectional pan area greater than that of the pan cover. Between the pan rim and bottom, the wall is formed to provide a reduction in cross sectional pan area to less than that of the cover. The cover then can fit down into engagement with the pan wall to form with the pan bottom, an enclosed chamber utilizing only a small portion of the total pan volume. When corn kernels are placed on the pan bottom and the cover put in place, an energy saving low preheat is applied which quickly brings the small chamber up to popping temperature. Once the kernels begin to pop, a higher heat is applied. The expanding popcorn initially rises to the cover. Subsequently, the popping chamber automatically expands upwardly by virtue of the cover being forced upwardly within the pan by the expanding popcorn. During this expansion, the expanding chamber remains essentially closed, with the upper side wall portion of the pan functioning as a splatter shield during progressive raising of the cover and popped corn.



0) US2016273646A – GEAR UNIT HAVING A HOUSING

36) Family number: 59227139 (US2016273646A)

© PatBase

Title: GEAR UNIT HAVING A HOUSING

Priority: DE201310018713 20131108 WO2014EP02831 20141021

Family:	Publication number	Publication date	Application number	Application date
	AU2014345911 AA	20150514	AU20140345911	20141021
	CA2922776 AA	20160229	CA20142922776	20141021
	DE102013018713 A1	20150513	DE201310018713	20131108
	EP3066366 A1	20160914	EP20140792389	20141021
	US2016273646 AA	20160922	US20140035085	20141021
	WO15067344 A1	20150514	WO2014EP02831	20141021

Probable Assignee: SEW EURODRIVE GMBH AND CO KG

Assignee(s):^(std) SEW EURODRIVE GMBH AND CO ; SEW EURODRIVE GMBH AND CO KG

Assignee(s): WU ZILI

Inventor(s):^(std) WU ZILI

Agent(s): GRIFFITH HACK; BLAKE CASSELS AND GRAYDON LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [F16H57/02](#) [F16H57/021](#) [F16H57/03](#) [F16H57/032](#) [F16H57/04](#) (Advanced/Invention)
(IPC 8-9):

CPC: [F16H2057/02073](#) [F16H57/021](#) [F16H57/032](#) [F16H2057/0216](#) [F16H57/0424](#) [F16H57/03](#)
[F16H57/0409](#) [F16H57/0423](#)

US class: [74/606R](#)

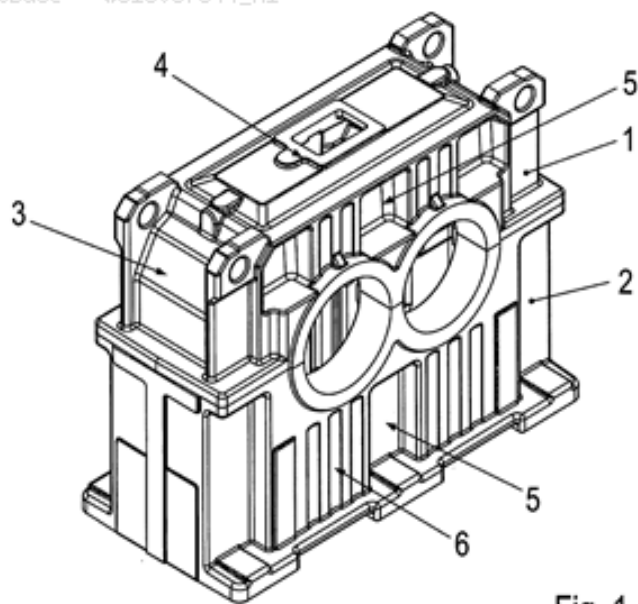
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Cited documents: WO10009871 A1, JP2009150502 A2,
DE102008004337 A1

Abstract:

Source: US2016273646A A gear unit includes a housing, a trough for guiding oil and reducing losses due to splashing surrounding a circumferential section of a toothing part, particularly a gear wheel, especially in the radial and axial direction, the trough including at least three parts, e.g., at least one bottom plate and two side walls, the bottom plate being screw-connected to the two side walls, the trough being fastened to the housing, the trough having an opening, particularly a channel, especially at its lowest surface area, e.g., particularly at the surface area having the greatest radial distance, in particular, during rotational movement of the gear wheel, oil being conveyed from the oil pan of the gear unit through the opening between the trough and gear wheel, especially to a position higher than the level of the oil pan, the bottom plate and the side walls being stamped bent parts.

PatBase - W015067344_A1



37) Family number: 41613856 (EP1900625A1)

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Title: Oil filter cover structure
Priority: EP20070111790 20070705 JP20060250811 20060915
Family:

Publication number	Publication date	Application number	Application date
CN101144404 A	20080319	CN200710149699	20070913
CN101144404 B	20110907	CN200710149699	20070913
DE602007024902 D1	20121018	DE200760024902T	20070705
EP1900625 A1	20080319	EP20070111790	20070705
EP1900625 B1	20120822	EP20070111790	20070705
ES2389782 T3	20121031	ES20070111790T	20070705
JP2008069733 A2	20080327	JP20060250811	20060915
JP4762838 B2	20110831	JP20060250811	20060915
KR100856645 B1	20080903	KR20070080172	20070809
KR20080025289 A	20080320	KR20070080172	20070809
TW200827535 A	20080701	TW20070129515	20070810
TWI337641 B	20110221	TW20070129515	20070810

Probable Assignee: HONDA MOTOR CO LTD
Assignee(s):^(std): HONDA MOTOR CO LTD
Assignee(s): HONDA GIKEN KOGYO K K ; HONDA MOTOR CO
Inventor(s):^(std): KEIICHIRO NIIZUMA ; NIITSUMA KEIICHIRO ; NIIZUMA KEIICHIRO
Agent(s): MITSCHERLICH PATENT U RECHTSANWAELTE PARTMBB; RUPP CHRISTIAN
Designated states: AL BA DE ES FR HR IT MK YU
International class [B01D35/02 B62K11/10 F01M1/20 F01M11/03](#) (Advanced/Invention);
 (IPC 8-9): [B01D35/02 F01M11/03](#) (Advanced/Non-invention);
[B01D35/00 F01M1/00 F01M11/03](#) (Core/Invention)

CPC: [B62K11/10](#)

European class: [B62K11/10](#)

[Classification Explorer](#)

Cited documents: US2006065458 AA, US2004124029 AA, TWI232814, TW558609, TW200616836 A, TW200510627 A, JP9144520 A2, JP2162182 A2, JP2004284990 A2, JP2003065023 A2, JP2003065023, JP2001271621 A2, JP2001271621, JP200034915 A, JP2000034915 A2, JP09144520, JP02162182, EP1584549 A1,

Forward Citations: JP2013076379,

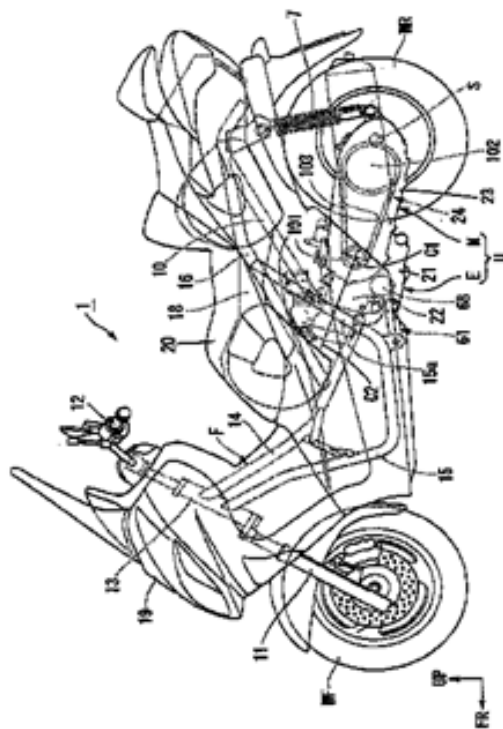
Abstract:

Source: EP1900625A1 In an oil filter cover structure for a vehicle in which a lower portion of an engine (E) is swingably suspended by a body frame (F) through a link member (61), an oil filter (68) of a cartridge type is attached to a lower portion of the engine (E) from the lateral direction, and the oil filter (68) is arranged behind the link member (61) while being adjacent thereto. Consequently, the oil filter (68) can be effectively prevented from being splashed with mud or from being hit by pebbles from a ground surface and the number of components around an engine (E) can be minimized.

T337641 - TWI337641_B

十一、圖式：

圖 1



38) Family number: 1677293 (GB2008673A)

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Title: LUBRICANT PAN FOR A MULTICYLINDER INTERNAL COMBUSTION ENGINE**Priority:** DE19772751982 19771122**Family:**

Publication number	Publication date	Application number	Application date
<u>DE2751982 A1</u>	19790523	DE19772751982	19771122
<u>DE2751982 C2</u>	19821118	DE19772751982	19771122
<u>FR2409381 A1</u>	19790615	FR19780032624	19781120
<u>FR2409381 B1</u>	19830610	FR19780032624	19781120
<u>GB2008673 A1</u>	19790606	GB19780045133	19781117
<u>GB2008673 B2</u>	19820519	GB19780045133	19781117
<u>IT1106575 A</u>	19851111	IT19780051999	19781121
<u>IT7851999 A0</u>	19781121	IT19780051999	19781121

Probable Assignee: DAIMLER BENZ AG**Assignee(s):**^(std): DAIMLER BENZ AG ; GERMANIA DI**Assignee(s):** DAIMLER BENZ AG 7000 STUTTGART DE ; DAIMLER BENZ AKTIENGESELLSCHAFT ; DI GERMANIA**Inventor(s):**^(std): RUF FRANZ ; OHLENDORF ROLF**Inventor(s):** RUF FRANZ 7000 STUTTGART DE ; OHLENDORF ROLF 7056 WEINSTADT DE

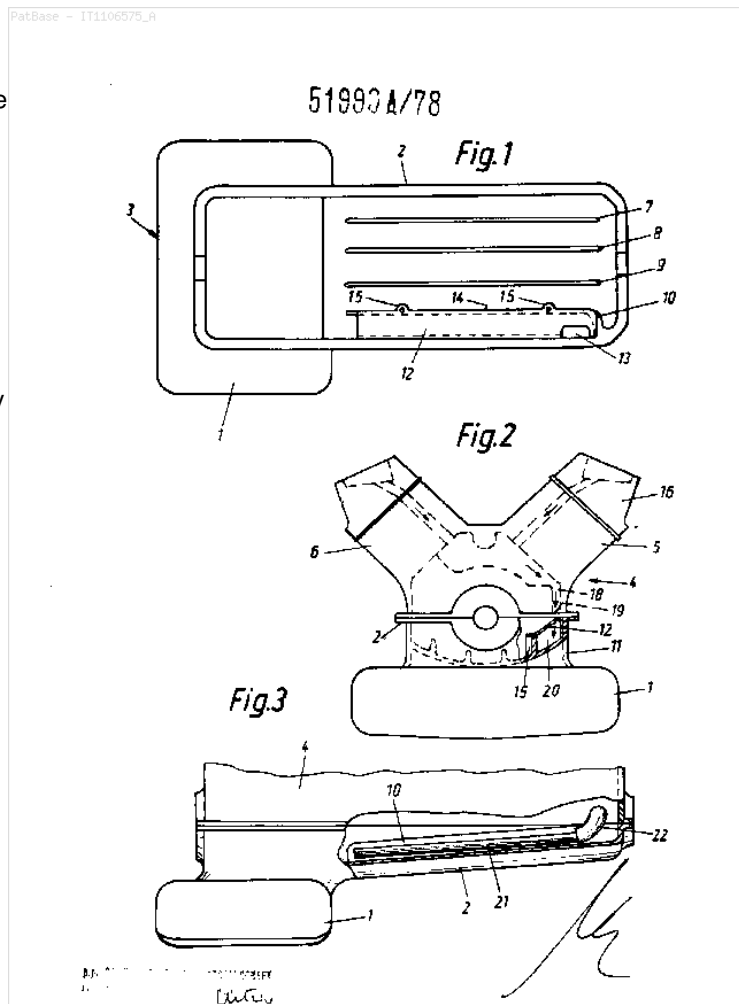
International class
^(IPC 8-9): [F01M11/00 F01M11/02](#) (Advanced/Invention);
[F02B75/22](#) (Advanced/Non-invention);
[F01M11/00 F01M11/02](#) (Core/Invention);
[F02B75/00](#) (Core/Non-invention)

International class
^(IPC 1-7): [F01M11/00 F01M9/06 F02B77/00 F02F7/00](#)

CPC: [F01M11/0004 F01M11/02 F02B75/22](#)**European class:** [F01M11/00B F01M11/02 R02B75/22](#)[Classification Explorer](#)**Cited documents:** US3653464 A, GB580619 A, GB1255320 A, GB106964 A, FR2055292 A5, DE2115585 A1, DE2049406 A1,**Forward Citations:** US7028571, US6910398, US6604608, US5960763, US5136993, US5058545, US5038890, US4532897, GB2451326, GB2235725, GB2235725, FR2884873, EP1847692, EP1847692, EP1534949, EP1526258, EP0437681, DE4012415, DE4001468, DE3915690, DE3321751, DE3321751, DE2954422, DE19746032, DE19500389, DE19500389, DE10064528,

Abstract:

Source: GB2008673A A lubricant pan 3 comprises a base portion 2 located near the working parts of the engine and covered by the flow of lubricant and, at one end, a relatively deep portion 1 forming a sump. Lubricant returning from the cylinder head by a return duct at one end of the crankcase passes through an opening 13 into a drain duct disposed in the base portion and extending over substantially the entire length of that portion. The drain duct may be formed by an outer oil-draining rib 10, a longitudinal outer side wall of the base portion and cover 12 in which is opening 13. Alternatively the drain duct may consist of a pipe connectable directly to the return duct.



Title: VEHICLE TRANSMISSION**Priority:** JP20060338195 20061215 WO2007IB03910 20071214**Family:**

Publication number	Publication date	Application number	Application date
CN101535684 A	20090916	CN200780038285	20071214
CN101535684 B	20120328	CN200780038285	20071214
DE112007002398 B4	20151022	DE200711002398T	20071214
DE112007002398 T5	20090730	DE200711002398T	20071214
JP2008151202 A2	20080703	JP20060338195	20061215
JP4670806 B2	20110413	JP20060338195	20061215
US2010024591 AA	20100204	US20070444251	20071214
US8495928 BB	20130730	US20070444251	20071214
WO08075168 A2	20080626	WO2007IB03910	20071214
WO08075168 A3	20080814	WO2007IB03910	20071214

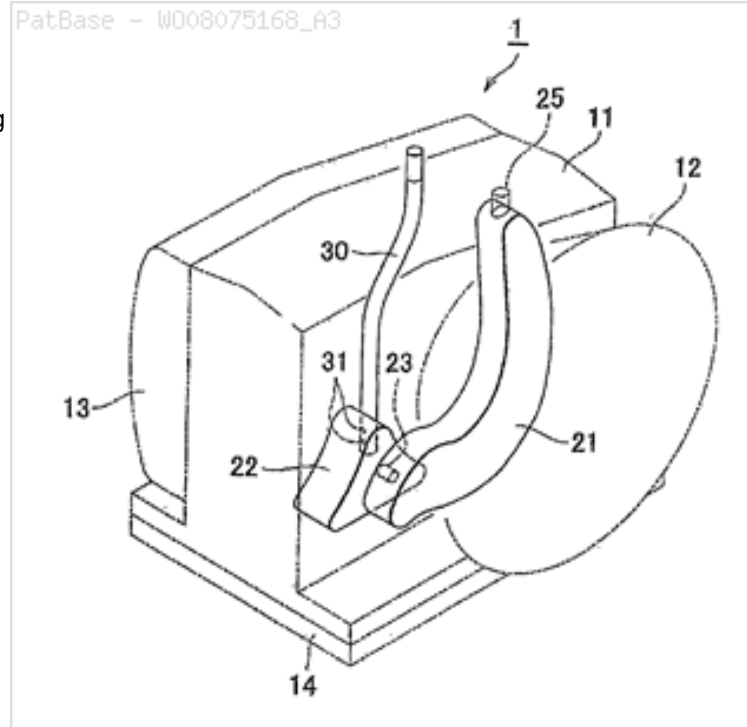
Probable Assignee: TOYOTA JIDOSHA KK**Assignee(s):^(std):** YAMAGUCHI KENICHI ; TOYOTA MOTOR CO LTD ; TOYOTA MOTOR CORP**Assignee(s):** TOYOTA JIDOSHA KK ; TOYOTA MOTOR CO**Inventor(s):^(std):** KENICHI YAMAGUCHI ; YAMAGUCHI KENICHI**Agent(s):** SUGHRUE MION PLLC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [F16H57/02](#) [F16H57/027](#) [F16H57/04](#) (Advanced/Invention)
(IPC 8-9):**CPC:** [F16H57/035](#) [F16H57/027](#) [F16H57/037](#) [F16H57/0421](#) [F16H57/0457](#) [F16H2057/02043](#) [Y10T74/2186](#)**European class:** [F16H57/027](#) [F16H57/035](#) [F16H57/04M3](#) [R16H57/02V2](#) [R16H57/037](#) [R16H57/04V](#)**US class:** [74/606.00RP](#) [74/606R](#)[Classification Explorer](#)**Cited documents:** US6843746 BB, US5724864 A, US3422982 A, US2937449 A, US2006054410 AA, US2004173051 AA, KR20050047845 A, JPS62162451 U, JPS5913163, JPS52121539 U, JP8219259 A2, JP62162451 U1, JP62162451 U, JP59013163 A2, JP52121539 U1, JP52121539 U, JP3125941 U1, JP3125941 U, JP2005291263 A2, JP2004239292 A2, JP2002257214 A2, JP11108163 A2, JP10205609 A2, CN1690478 A, CH324818 A,**Forward Citations:** US9410609, US9388895, US9103429, US8813606, US2015128738, US2010095795, JP2011117524, EP2816256,

Abstract:

Source: US2010024591A A vehicle transmission (1) is provided that includes a casing (10); a gear (8), transversely mounted in the casing, that splashes up oil in the casing by rotation thereof and supplies the oil to a portion in the casing; and an air release passage (30) provided in the casing on an upstream side of oil flow generated by the rotation of the gear, that communicates with outside of the casing.



40) Family number: 32564443 (US2006011192A)

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Title: MULTI-CHAMBERED CONVERTIBLE GRILLING DEVICE**Priority:** US20040893061 20040716

Family:	Publication number	Publication date	Application number	Application date
	<u>US2006011192 AA</u>	20060119	US20040893061	20040716
	<u>WO06020124 A2</u>	20060223	WO2005US25289	20050714
	<u>WO06020124 A3</u>	20061019	WO2005US25289	20050714

Probable Assignee: CITRYNELL ANDREW**Assignee(s):**^(std) CITRYNELL ANDREW ; MILLER KIMBERLY A ; MILLER KIMBERLY ANN**Inventor(s):**^(std) CITRYNELL ANDREW ; MILLER KIMBERLY A ; MILLER KIMBERLY ANN**Inventor(s):** MILLER KIMBERLY**Agent(s):** TOWNSEND AND TOWNSEND AND CREW LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class A47J37/00 F24B3/00 (Advanced/Invention);
 (IPC 8-9): A47J37/00 F24B3/00 (Core/Invention)

CPC: A47J37/0623 A47J37/0647 A47J43/18**European class:** A47J37/06C A47J37/06C6 A47J43/18**US class:** 126/25.00R 126/25R[Classification Explorer](#)

Cited documents: US6840160 BB, US6840159 BA, US6779438 BA, US6503551 BA, US6502503 BA, US6502501 BA, US6487964 BB, US6119585 A, US6062131 A, US5584235 A, US5400701 A, US5301602 A, US4934260 A, US3908532 A, US3814901 A, US3604334 A, US3078783 A, US1371520 A,

Forward Citations: WO09102495, USD675061, US9155416, US8752479, US8365717, US8281709, US8181640, US7694626, US2009301463, US2009205513, US2007256572, US2001035176,

Abstract:

Source: US2006011192A A grilling system comprising a multi-chambered grill base having a top, a bottom, and multiple chambers. The multiple chambers are adapted to receive multiple heatable substances. When applying a heat source to the bottom of the multi-chambered grill base, the multiple heatable substances produce multiple grilling flavors. The multiple grilling flavors mix together to produce a combination flavor that permeates either a fowl affixed to a removable vented tube having a plurality of vent holes or a grillable substance placed on a removable grilling structure having a plurality of holes. An optional lid to the grilling system provides for indoor or outdoor use on any heat source.

PatBase - W006020124_R2

WO 2006/020124

PCT/US2005/025289

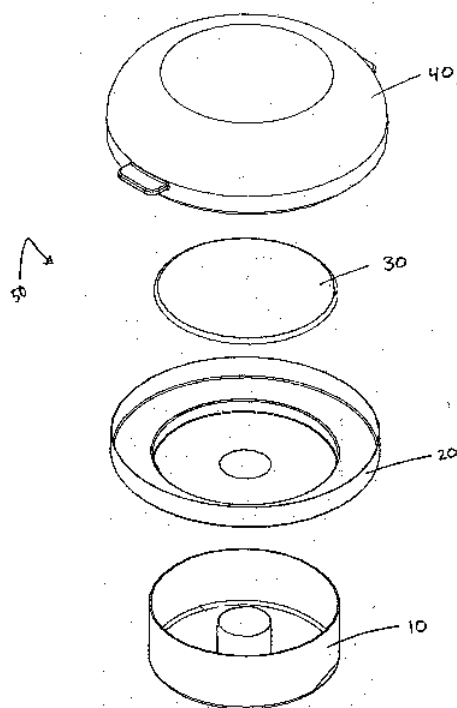


FIGURE 1

1/18

41) Family number: 54198977 (CN203016714U)

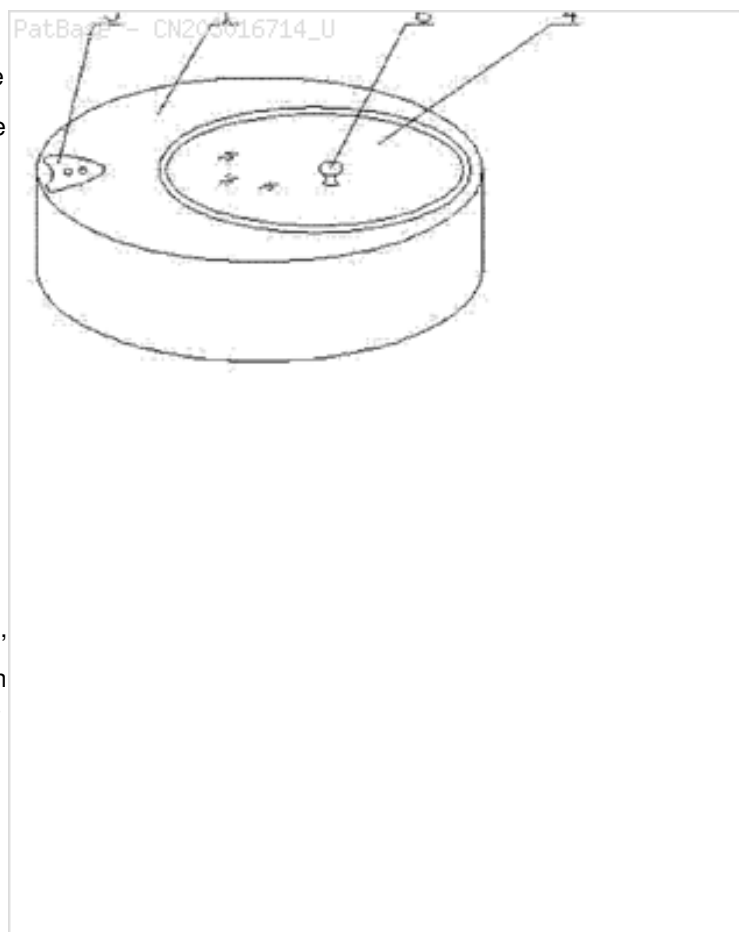
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Title: SPLASH-PROOF FRYING PAN COVER**Priority:** CN201320038788U 20130117

Family:	Publication number	Publication date	Application number	Application date
	<u>CN203016714 U</u>	20130626	CN201320038788U	20130117

Probable Assignee: GAO QINZHENG**Assignee(s):**^(std): GAO QINZHENG**Inventor(s):**^(std): GAO QINZHENG ; GAO YAXIAN**International class** A47J36/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103727573,**Abstract:**

Source: CN203016714U The utility model relates to a splash-proof frying pan cover. The traditional pan cover for cooking is of an integrated structure, the pan cover needs to be taken away when cooking, the pan cover is separated from a pan body, when vegetables are placed into a pan and touched with oil, hot oil in the pan can splash from the side as the vegetables contain moisture or the vegetables are placed heavily, and the splashed oil can not be taken out by a flue gas turbine, so that many problems are caused for sanitation and cleaning of a kitchen; and when stewing, the pan cover is opened in a midcourse, the pan body is completely exposed, heat in the pan is quickly dissipated, and energy is wasted. The splash-proof frying pan cover provided by the utility model comprises a cylindrical side wall (1) and a top surface, wherein an eccentric circle feeding hole (2) is formed in the top surface, an oil deflector (3) is arranged inside the eccentric circle feeding hole, a transparent cover (4) is arranged on the oil deflector, a main handle (5) is arranged on the top surface, and a secondary handle (6) is arranged on the transparent cover. The splash-proof frying pan cover provided by the utility model serves as a pan cover.



42) Family number: 62216459 (CN205189996U)

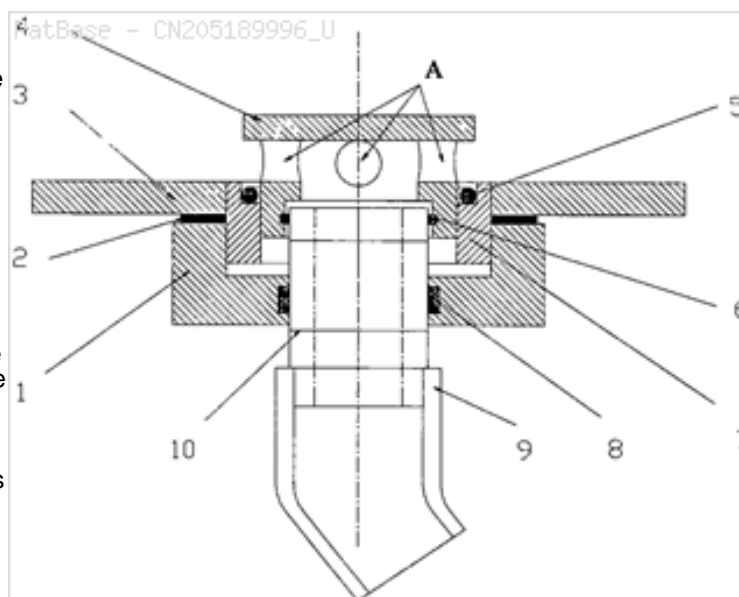
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Title: SPLASHPROOF JETTISON GEAR OF VEHICLE ENGINE OIL PAN**Priority:** CN201520877413U 20151103

Family:	Publication number	Publication date	Application number	Application date
	<u>CN205189996 U</u>	20160427	CN201520877413U	20151103

Probable Assignee: CHENGDE PETROLEUM COLLEGE**Assignee(s):**^(std): CHENGDE PETROLEUM COLLEGE**Inventor(s):**^(std): GAO YA NAN ; ZHANG QUANYU**International class** F01M11/00 F01M11/04 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN205189996U The utility model relates to a splashproof jettison gear of vehicle engine oil pan, the device connects pole, splashproof nut, oil drain hose, sealed pad, sealing washer to constitute by oil drain bolt, oil drain nut, oil drain, the oil drain nut is as an organic whole with the oil pan welding, it is interior in order to practice thrift the space that the oil pan is arranged in to the oil drain bolt, the oil drain bolt is thorough for radial oil feed mode is beneficial to the oil drain, the oil drain connects the pole to make the cavity tubulose to serve as the oil drain oil duct, also move the oil drain bolt as connecting the pole to twist, the oil drain connects the pole lower extreme to connect the oil drain hose with the leading -in waste oil collecting device of machine oil, splashproof nut cover on the oil drain connects the pole and with oil drain nut and threaded connection, prevent machine oil from spilling over and the splash to vehicle chassis's the spare part, the the device many places are equipped with sealing element, the seepage both can have been guaranteed not take place after the oil discharge outlet is screwed up, the splash phenomenon does not take place in the time of can ensuring the oil drain yet, keep that job site's is clean and tidy, the oil drain connects pole and splashproof nut to take off from the device after changing machine oil, do not influence vehicle chassis's trafficability characteristic ability.



43) Family number: 14994134 (US6286476B)

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Title: Engine lubricating system**Priority:** JP19960130541 19960430 JP19960130542 19960430

Family:	Publication number	Publication date	Application number	Application date
	<u>JP3501324 B2</u>	20040302	JP19960130541	19960430
	<u>JP3516803 B2</u>	20040405	JP19960130542	19960430
	<u>JP9296734 A2</u>	19971118	JP19960130541	19960430
	<u>JP9296735 A2</u>	19971118	JP19960130542	19960430
	<u>US6286476 BA</u>	20010911	US19970842088	19970428

Probable Assignee: SANSHIN KOGYO KK**Assignee(s):^(std):** SANSHIN KOGYO KK**Assignee(s):** YAMAHA MARINE KABUSHIKI KAISHA ; SANSHIN IND CO LTD ; SANSHIN KOGYO KABUSHIKI KAISHA**Inventor(s):^(std):** HIRAOKA NORIYOSHI ; OISHI HIROSHI ; TAKAHASHI MASAOKI ; TAKAHASHI MASANORI

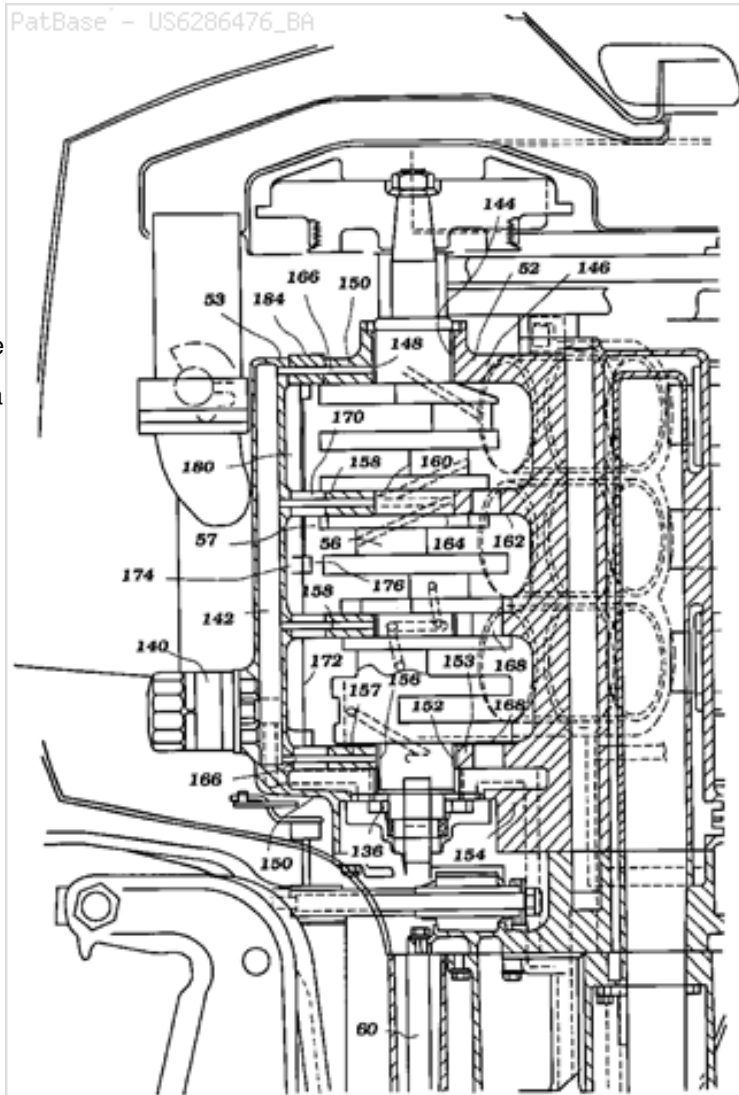
International class
 (IPC 8-9): [B63H20/00 F01M1/06 F01M11/00 F01M11/02 F02B61/04 F02B67/00 F02B75/22](#) (Advanced/Invention);
[F02B61/04 F02B75/00 F02B75/18](#) (Advanced/Non-invention);
[B63H20/00 F01M1/06 F01M11/00 F01M11/02 F02B61/00 F02B67/00 F02B75/00](#) (Core/Invention);
[F02B61/00](#) (Core/Non-invention)

International class
 (IPC 1-7): [B63H20/00 F01M1/00 F01M1/06 F01M11/00 F02B61/04 F02B67/00](#)

CPC: [F02B61/045 F01M11/02 F02B75/007 F02B75/22 F02B2075/1824](#)**European class:** [F01M11/02 F02B61/04B F02B75/22 R02B61/04B R02B75/00V R02B75/18C6](#)**US class:** [123/196R 123/196W](#)[Classification Explorer](#)**Cited documents:** US5690062 A, US5687688 A, US5687686 A, US5524581 A, US5460555 A, US5456230 A, US5085186 A,**Forward Citations:** US9457881, US7387445, US7198019, US6845744, US6796860, US6763795, US6652338, US6644262, US6640768, US6575145, US6443117, US6427658, US2011283967, US2006002645, US2004011318,

Abstract:

Source: US6286476B A lubricating system is disclosed for an engine arranged such that the crankshaft is vertically oriented. The crankshaft rotates within a crankcase chamber defined by the cylinder block and a crankcase cover connected thereto. First crankshaft support members which support half-bearings extend from the cylinder block. Mating half-bearings are supported by second crankshaft support members positioned opposite the first crankshaft support members. A baffle plate is positioned in the crankcase chamber between the crankcase cover and the crankshaft. At least one oil flow passage is defined through the crankcase chamber from a top end to a bottom end of the chamber. In one embodiment, oil is supplied through a main passage in the crankcase cover and a branch passage through each second crankshaft support members for lubricating the bearings.



44) Family number: 30918693 (US2468584A)

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Title: DISHWASHING APPARATUS**Priority:** US19460671822 19460523

Family:	Publication number	Publication date	Application number	Application date
	<u>GB638075 A</u>	19500531	GB19470013875	19470523
	<u>US2468584 A</u>	19490426	US19460671822	19460523

Probable Assignee: GEN ELECTRIC**Assignee(s):^(std):** BRITISH THOMSON HOUSTON CO LTD ; GEN ELECTRIC**Assignee(s):** GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY ; THE BRITISH THOMSON HOUSTON COMPANY LIMITED**Inventor(s):^(std):** WOTRING GAYLORD H

International class A47L15/06 A47L15/42 (Advanced/Invention);
^{(IPC 8-9):} A47L15/00 A47L15/42 (Core/Invention)

International class A47L15/42 A47L15/46
^{(IPC 1-7):}

CPC: Y10S16/07 Y10S292/69 Y10T137/86445 Y10T292/0945 A47L15/06 A47L15/4259**European class:** A47L15/06 A47L15/42J6A**US class:** 134/111 134/182 134/188 134/57DL 134/93 134/95.1 134/98.1 137/624.18 16/DIG.7 220/315 251/239 251/335.2 292/96 292/DIG.69[Classification Explorer](#)**Cited documents:** US2425520 A, US2390757 A, US2314332 A, US2200127 A, US1670611 A,

Forward Citations: US8483931, US8434310, US8417434, US8239114, US8200410, US8162287, US8006521, US7775052, US7665305, US5546773, US3535896, US3421660, US3233782, US3207373, US3125249, US3067759, US3062226, US3019802, US3013568, US2973769, US2965112, US2818077, US2713345, US2710615, US2709536, US2707961, US2689576, US2678051, US2670000, US2661750, US2657695, US2638910, US2629391, US2625293, US2620811, US2618282, US2608983, US2575704, US2011131947, US2009234555, US2009204306, US2009026398, US2009013733, US2007151252,

Abstract:

Source: GB638075A 638,075. Releasable fastenings. BRITISH THOMSON-HOUSTON CO., Ltd. May 23, 1947, No. 13875.

Convention date, May 23, 1946. [Class 44]

[Also in Group XXIII] In a dish-washing

machine (see Group XXIII) a latch 16 for a

cover 7 has two arms 17, Fig. 3, by which it is

rigidly attached to a handle 19 through rods 20

which pass through the cover arm 6 and are

surrounded by rubber bushes 21 so that the

handle and latch may be moved relative to the

cover. The latch 16 has a hook 24, Fig. 15, at

its lower end which is engaged by either of two

locking elements 25, 26, Fig. 13. Element 26 is

keyed to a shaft 27 which is journaled in a

bush fixed to the vat wall. Element 25 is

rotatably mounted on a circular section of the

bush between the element 26 and a plate 33

through which the bush projects and which is

fixed to the vat wall. The elements 25, 26 each

have an arc-shaped finger 36, 37, arranged so

that their ends abut. Element 25 is biased

clockwise by a spring 41 and element 26 has

an actuating lever 38 keyed to its shaft 28. The

finger 36 of element 25 is dimensioned so that

it will pass through the entrance of hook 24 on

the latch 16. Finger 37 of element 26 has a

port 44 which will pass the hook entrance and

a deeper port 45 which will not. Thus the latch

16 may be unlocked when finger 36 or port 44

of finger 37 is within the hook 24 but is locked

when port 45 is in the hooks. Finger 36 is

slightly deeper than port 44 so that a shoulder

46 is formed when they abut. The lever 38 is

connected by a rod 139 to a slot in a lever 136

which is pivoted on the casing 2 and which is

raised when a starting button 140 is pushed

downwardly so moving port 45 of locking

element 26 into the hook 24 to lock the cover

7. The lever 38 is biased to either of its two

positions by a spring 140a. A spring pressed

locking dog 166 which prevents operation of

the starting button 140 when the cover is open,

is pivotally mounted on the plate 33 and is engageable with projections on the element 26 to lock the latch in the open position and thus through the lever 38, rod 139 and lever 136 prevents operation of the starting button 140. The dog is engaged by the side of the latch 16 when the latch enters a guide slot 35 on the plate 33 and is thus moved out of locking engagement.

PatBase - US2468584_A

April 26, 1949.

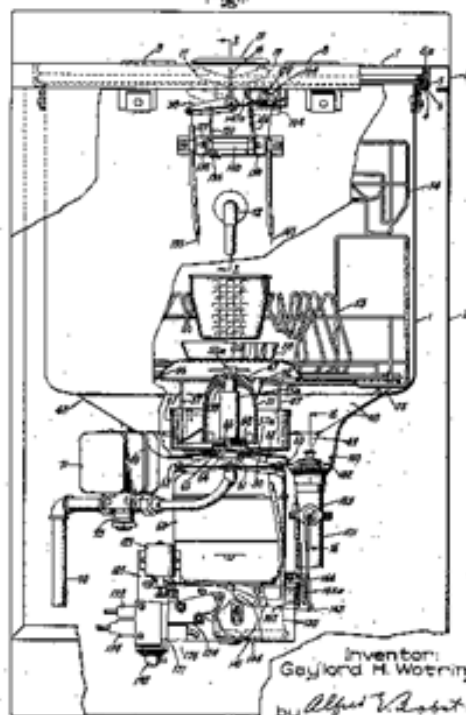
G. H. WOTRING
DISK BRUSHING APPARATUS

2,468,584

Filed May 23, 1946

7 Sheets-Sheet 1

Fig. 1



45) Family number: 29380060 (US6067951A)

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Title: ENGINE FOR OUTBOARD MOTOR**Priority:** JP19970181500 19970707 US19980111442 19980707 US19980193618 19981117

Family:	Publication number	Publication date	Application number	Application date
	<u>JP11020790 A2</u>	19990126	JP19970181500	19970707
	<u>JP4066274 B2</u>	20080326	JP19970181500	19970707
	<u>US6067951 A</u>	20000530	US19980111442	19980707
	<u>US6182631 BA</u>	20010206	US19980193618	19981117

Probable Assignee: SANSIN KOGYO KK**Assignee(s):^(std):** SANSIN KOGYO KK**Assignee(s):** YAMAHA MARINE KABUSHIKI KAISHA ; SANSIN IND CO LTD ; SANSIN KOGYO KABUSHIKI KAISHA**Inventor(s):^(std):** ABE KOJI ; KITAJIMA KAZUYUKI

International class
(IPC 8-9): B63H20/00 F01L1/047 F01M11/02 F01M5/00 F01N13/00 F01N13/12 F01N7/00 F01N7/12 F02B61/04 F02B75/16 (Advanced/Invention);
F02B75/02 (Advanced/Non-invention);
B63H20/00 F01L1/04 F01M11/02 F01M5/00 F01N7/00 F02B61/00 F02B75/00 (Core/Invention);
F02B75/02 (Core/Non-invention)

International class
(IPC 1-7): B63H20/00 F01M11/02 F01M5/00 F02F7/00

CPC: F01N13/001 F01N13/12 F01L1/047 F01N13/004 F01N2590/021 F02B61/045 F02B75/16 F02B2075/027 F02B2275/34 F05C2201/021 Y10T74/2101

European class: F01L1/047 F01N13/00A F01N13/00C F01N13/12 F01N7/00B2 F02B61/04B F02B75/16 R01N590/021 R02B275/34 R02B61/04B R02B75/02S4 R05C201/02A

US class: 123/195.0HC 123/195HC 123/196R 123/196W 123/90.6 184/6.5 184/65 74/567

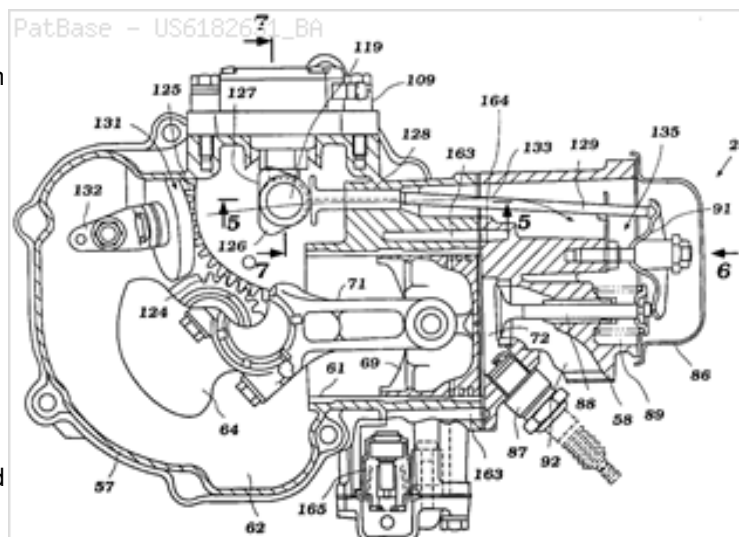
[Classification Explorer](#)

Cited documents: US5988135 A, US5947070 A, US5860403 A, US5797180 A, US5687686 A, US5603303 A, US5497679 A, US5320795 A, US5213074 A, US5163394 A, US5150674 A, US5083544 A, US5067369 A, US5000126 A, US4969434 A, US4826612 A, US4790273 A, US4688529 A, US4545332 A, US4474146 A, JP361277825, JP36127782 A2,

Forward Citations: US8881692, US8267052, US7178500, US6699086, US6648705, US6626714, US6418887, US6159063, US2012124842, US2010162973,

Abstract:

Source: US6067951A An improved and simplified outboard motor construction wherein the cooling and exhaust systems for the engine are formed with a minimum number of components and sealing joints. The exhaust system includes an elongated expansion chamber formed in the drive shaft housing. In addition, the drive shaft housing has a cylindrical section that is journaled within a swivel bracket for its steering movement. The volume between the external portion of the drive shaft housing and the internal portion of the swivel bracket forms a second expansion chamber that is employed for the low speed above the water exhaust gas discharge. The flow of cooling the water to and from the engine is controlled so that the exhaust gas interchange area between the power head and the drive shaft housing will be well cooled, as will the oil reservoir for the engine and the oil returned to it.



Title: ANTI-OIL-SPLASHING PAN COVER**Priority:** CN201210023041 20120202**Family:**

Publication number	Publication date	Application number	Application date
<u>CN103239141 A</u>	20130814	CN201210023041	20120202

Probable Assignee: ZHONG ZIHONG**Assignee(s):^(std):** ZHONG ZIHONG**Inventor(s):^(std):** ZHONG ZIHONG**International class** A47J36/06 A47J43/28 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN103239141A An anti-oil-splashing pan cover comprises a cover body and is characterized in that a cover body hole and a detachable movable lid are arranged on the cover body. A through hole for inserting a slice handle is arranged on the movable lid, and a fastener used for fixing the slice handle in the through hole is arranged at the position of the through hole. The anti-oil-splashing pan cover has the advantage that the cover can be used as a common pan cover by connecting the movable lid with the cover body and can prevent splashing of hot oil by taking down the movable lid from the cover body, inserting and fixing the movable lid on the slice handle and stretching a slice fixed with the movable lid into a pan from the cover body hole to stir-fry a dish. The cover body hole is arranged to be larger, the movable lid is connected with the slice through the fastener, and moving space of the slice can be adjusted by changing the height of the movable lid fixed on the slice handle to ensure stir-frying operation convenience. Condiment is added in the pan from the cover body hole under the movable lid without opening the cover body. The cover is simple in structure, convenient to use and large in popularization value.

PatBase - CN103239141_A

CN 103239141 A 说明书附图 1/3 页

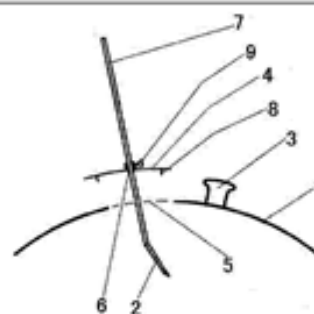


图 1

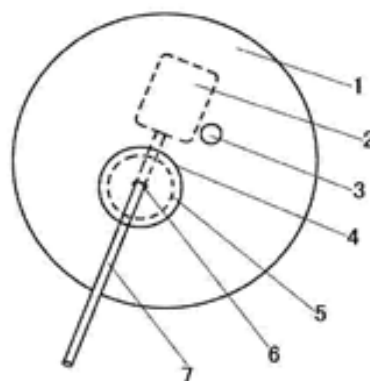


图 2

0) US2004060402A – VERTICAL MACHINE TOOL WITH A MOVABLE MAIN SPIND...

47) Family number: 30420142 (US2004060402A)

© PatBase

Title: VERTICAL MACHINE TOOL WITH A MOVABLE MAIN SPINDLE

Priority: JP20020280411 20020926

Family:

Publication number	Publication date	Application number	Application date
EP1402998 A2	20040331	EP20030021771	20030925
EP1402998 A3	20040811	EP20030021771	20030925
JP2004114226 A2	20040415	JP20020280411	20020926
US2004060402 AA	20040401	US20030668184	20030924
US7024974 BB	20060411	US20030668184	20030924

Probable Assignee: MORI SEIKI HITECH CO LTD

Assignee(s):^(std): MORI SEIKI HITECH CO LTD

Assignee(s): MORI SEIKI HITECH CO

Inventor(s):^(std): SHIMADA ETSURO ; SHIMADA TAKASHI ; SHIMADA TAKU

Agent(s): ARMSTRONG KRATZ QUINTOS HANSON AND BROOKS LLP

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

International class
(IPC 8-9): [B23B13/00](#) [B23B13/02](#) [B23B13/12](#) [B23B15/00](#) [B23B29/04](#) [B23B3/20](#) [B23B7/08](#) [B23B7/16](#) [B23Q11/10](#) [B23Q7/00](#) (Advanced/Invention);
[B23B13/00](#) [B23B15/00](#) [B23B29/00](#) [B23B3/00](#) [B23B7/00](#) [B23Q11/10](#) [B23Q7/00](#) (Core/Invention)

International class
(IPC 1-7): [B23B13/00](#) [B23B13/02](#) [B23B13/12](#) [B23B15/00](#) [B23B29/04](#) [B23B3/20](#) [B23Q11/10](#) [B23Q7/00](#)

CPC: [Y10T82/2514](#) [Y10T82/2518](#) [Y10T82/2521](#) [B23B29/043](#) [B23B13/126](#) [B23B2250/16](#) [B23B2260/004](#) [B23Q7/008](#) [B23Q11/10](#)

European class: [B23B13/12D](#) [B23B29/04B](#) [B23Q11/10](#) [B23Q7/00P](#) [L23B250/16](#) [L23B260/004](#)

US class: [82/124](#) [82/124P](#) [82/126](#) [82/127](#)

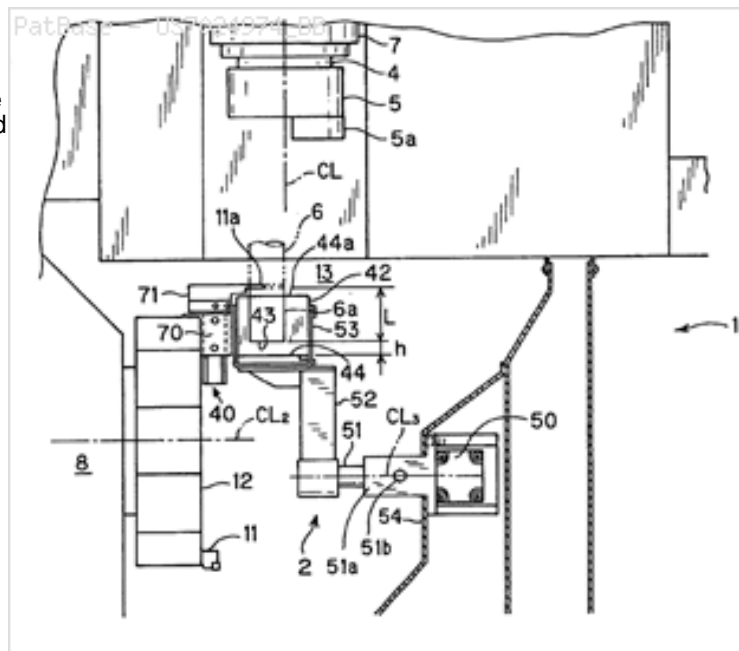
[Classification Explorer](#)

Cited documents: US6276245 BA, US6257108 BA, US6082016 A, US6055892 A, US5343789 A, US5167176 A, US4206665 A, US4034632 A, JP61293701 A2, JP61293701, JP2001341003 A2, JP2000079501 A2, JP11010407 A2, FR2220334 A1, FR1480287 A,

Forward Citations: WO12132648, US9555514, US9289871, US2016229013, US2014015182, US2009228136, TWI538772, KR101532501, JP5596851, JP2012132648, CN103476525, CN103476525,

Abstract:

Source: US2004060402A A vertical lathe is provided with a base, a main spindle, a headstock, a tool rest and a splash guard. The headstock is movable in a Z-axis direction and an X-axis direction and grips a bar workpiece by a chuck. The bar workpiece is machined by moving the headstock and a tool. A part which has been subjected to the machining is cut by a cut-off tool as a machined workpiece. The lathe has a supporting means, provided above the headstock, for supporting an upper end of the bar workpiece and a transfer means for receiving the machined workpiece from the chuck and for transferring the machined workpiece to an outside of a machining area.



Title: Frying pot cover
Priority: CN200620106745U 20060816

Family:	Publication number	Publication date	Application number	Application date
	CN2936076 Y	20070822	CN200620106745U	20060816

Probable Assignee: CHEN XUDONG

Assignee(s):^(std): CHEN XUDONG

Inventor(s):^(std): CHEN XUDONG

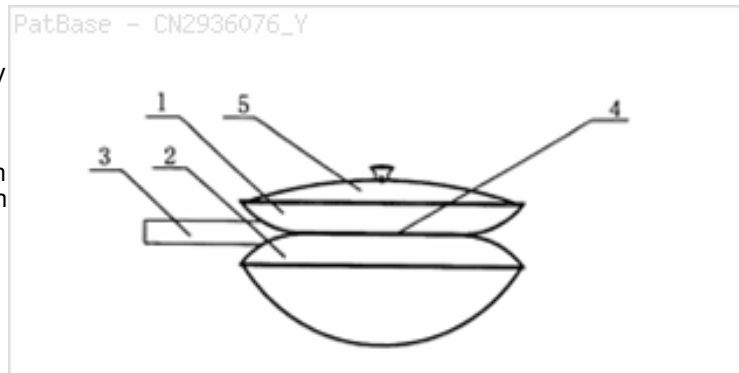
Inventor(s): XUDONG CHEN

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN2936076Y The utility model discloses a pan cover comprising a cover body on which a handle is arranged. The utility model is characterized in that the pan cover is composed of an upper pan cover and a lower pan cover, wherein the middle of the lower pan cover is provided with an open mouth on which the whole upper pan cover is positioned. The upper cover body is horn-shaped, i.e. big upper part and small lower part. And an auxiliary pan cover is arranged at the horn-shaped mouth of the upper cover body. The utility model has the advantages of that when the edible oil in the pan is heated and vegetables are preparing to put into the oil pan, just need to open the auxiliary pan cover, which means that vegetables first pass through the upper pan cover and then are put into the oil pan through the opening of the lower pan cover. By this way, the splashing oil in the pan will be warded off by the cover body to prevent the splashing oil from spoiling the clothing and burning other people and may reduce oil soot to pollute the surrounding kitchen walls and the cooker.



49) Family number: 59468627 (JP2015116004A)

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Title: GENERATOR COOLING STRUCTURE OF INTERNAL COMBUSTION ENGINE

Priority: JP20130254912 20131210

Family:	Publication number	Publication date	Application number	Application date
	BR102014030529 A2	20160315	BR20141030529	20141205
	CN104702047 A	20150610	CN201410743299	20141208
	IN03427DE2014 A	20150821	IN2014DE03427	20141126
	JP2015116004 A2	20150622	JP20130254912	20131210
	JP6050220 B2	20161221	JP20130254912	20131210
	TH148244 A	20160401	TH20141007200	20141201

Probable Assignee: HONDA MOTOR CO LTD

Assignee(s):^(std): HONDA MOTOR CO LTD

Assignee(s): HONDA MOTOR CO

Inventor(s):^(std): KAZUHITO TAKAHASHI ; MAKOTO OGASAWARA ; TERUHIDE YAMANISHI ; SATORU WATANABE ; TAKAHASHI KAZUHITO ; OGASAWARA MAKOTO ; YAMANISHI TERUHIDE ; WATANABE SATORU

International class [F01P1/06 F01P3/12 H02K9/19](#) (Advanced/Invention);
(IPC 8-9): [H02K9/19](#) (Core/Invention)

CPC: [H02K9/19](#)

[Classification Explorer](#)

Cited documents: JP63234856 A2, JP63234856, JP60162435 A2, JP60162435, JP4647420 B2, JP4647420 B2, JP2008267389 A2, JP2008267389, JP2007028834 A2, CN202586584 U, CN103312078 A, CN102792563 A, CN102168628 A,

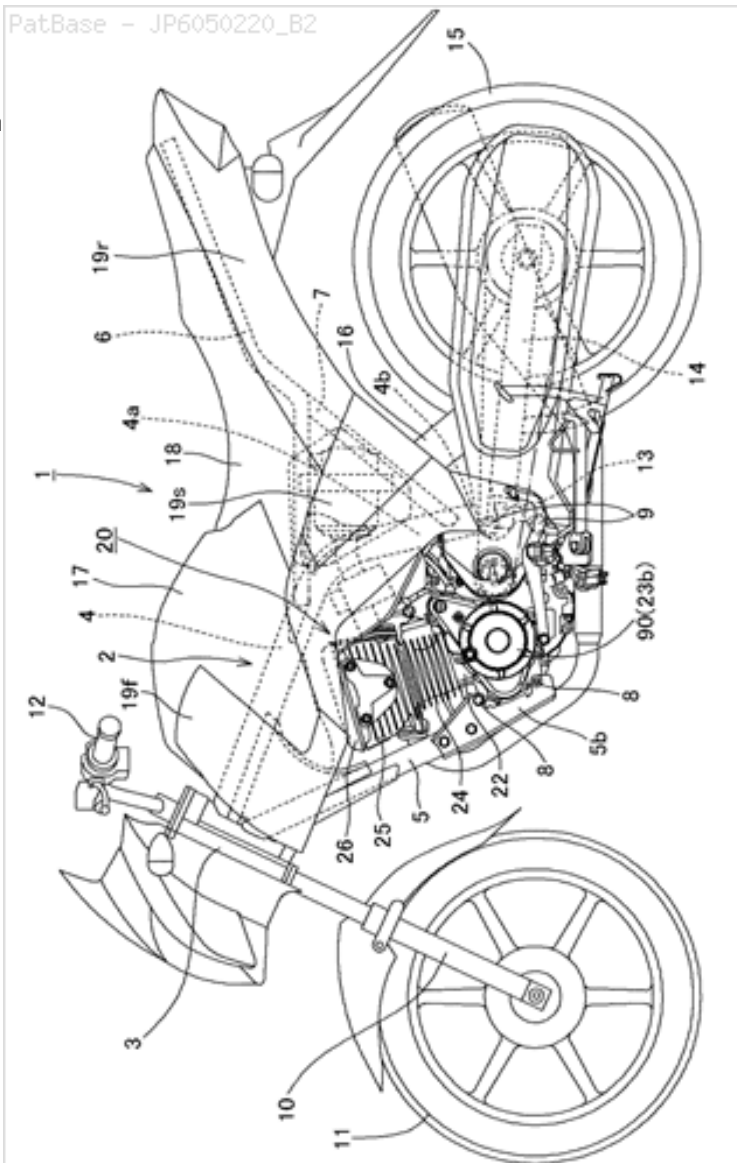
Abstract:

Source: JP2015116004A PROBLEM TO BE

SOLVED: To provide a generator cooling structure of an internal combustion engine which discharges lubricating oil accumulated in the generator and reduces energy loss due to resistance of lubricating oil in the generator. SOLUTION: There is provided a generator cooling structure of an internal combustion engine, comprising: a generator cover for which a cylindrical support part is provided; a stator of a generator supported by the cylindrical support part; a rotor which is shaped in a cup shape and driven to rotate by driving force of an internal combustion engine.

A lubricating oil introduction passage which introduces lubricating oil into the cylindrical support part is formed on an upper portion of the cylindrical support part, a lubricating oil discharge passage which is provided at a position apart from the lubricating oil introduction passage and discharges lubricating oil out of the cylindrical support part is formed in the cylindrical support part, and an opening part of the lubricating oil discharge passage is positioned on a side surface of the cylindrical support part and below an opening part of the lubricating oil introduction passage.

PatBase - JP6050220_B2



Title: TRANSFER GEAR**Priority:** DE201410209700 20140521 DE201510208630 20150508 KR20150071200 20150521**Family:**

Publication number	Publication date	Application number	Application date
CN105090464 A	20151125	CN201510262606	20150521
DE102015208630 A1	20151126	DE201510208630	20150508
KR20150134290 A	20151201	KR20150071200	20150521
US2015337948 AA	20151126	US20150718179	20150521

Probable Assignee: MAGNA POWERTRAIN AND CO AG KG**Assignee(s):^(std):** MAGNA POWERTRAIN AND CO AG KG**Assignee(s):** MAGNA POWERTRAIN AG AND CO KG**Inventor(s):^(std):** LEITGEB STEFAN ; WILLBERGER JOHANN**International class** [B60K17/342 B60K17/344 F16H3/20 F16H57/04 F16H57/05 F16H7/06](#) (Advanced/Invention)
(IPC B-9):**CPC:** [F16H57/0457 F16H57/0471 F16H3/20 F16H57/0424 F16H7/06 F16H57/05 B60K17/344 F16H57/0447 B60K17/342 F16H57/045 Y10T74/19079 Y10T74/19102 F16H57/04 F16H57/0423 F16H57/0486](#)**US class:** [74/665G 74/665GE](#)[Classification Explorer](#)**Cited documents:** US5740697 A, US2011166760 AA, JP61172252 U1, JP61054593 U1, EP0202951 B1, DE3942411 A1,

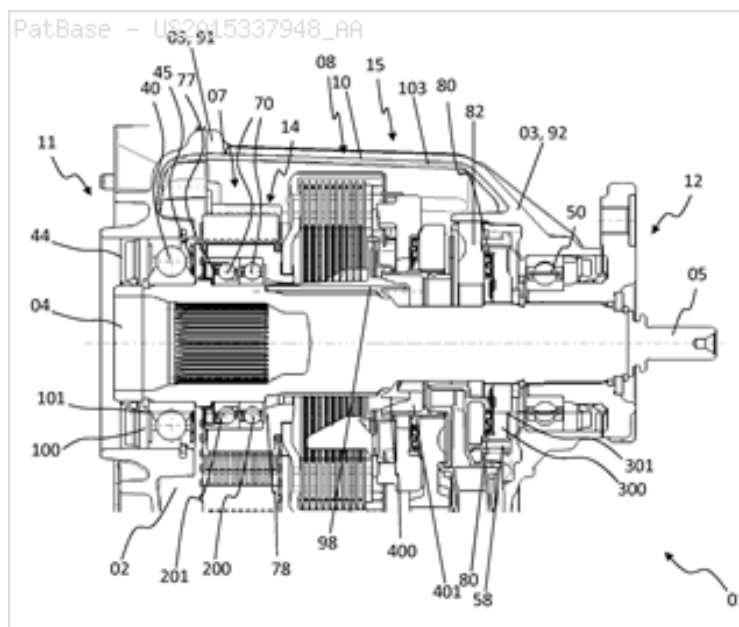
DE102008058278 A1

DE102004056841 A1

CN202952825 U, CN103711883 A, CN103221720 A,

Abstract:

Source: US2015337948A A clutch-controlled transfer gear having a drive shaft which is mounted so as to be rotatable by way of at least one drive shaft bearing, a primary shaft which is mounted so as to be rotatable by way of at least one primary shaft bearing, a secondary shaft which is arranged with an axial offset with respect to the drive shaft and which is mounted so as to be rotatable by way of at least one secondary shaft bearing, a transfer mechanism which is arranged between secondary shaft and drive shaft and bridges the axial offset thereof, and a clutch which is arranged between the drive shaft and an offset gear, by means of which clutch the secondary shaft is, for the operation thereof, coupled to the drive shaft and, for the deactivation thereof, decoupled from the drive shaft, as required.



51) Family number: 10721050 (US5957118A)

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Title: Oil separating apparatus for engine**Priority:** JP19960338434 19961218

Family:	Publication number	Publication date	Application number	Application date
	<u>DE19756260 A1</u>	19980625	DE19971056260	19971217
	<u>JP10176518 A2</u>	19980630	JP19960338434	19961218
	<u>US5957118 A</u>	19990928	US19970985111	19971204

Probable Assignee: FUJI JUKOGYO KK**Assignee(s):^(std):** FUJI HEAVY IND LTD**Assignee(s):** FUJI JUKOGYO K K TOKIO TOKYO JP ; FUJI JUKOGYO KABUSHIKI KAISHA ; FUJI JUKOGYO KK**Inventor(s):^(std):** TATENO YOSHIMITSU ; SAKAMAKI TADASHI ; KURASAWA RYOJI**Inventor(s):** TATENO YOSHIMITSU OURA GUNMA JP ; SAKAMAKI TADASHI AGE0 SAITAMA JP ; KURASAWA RYOJI TOKIO TOKYO JP

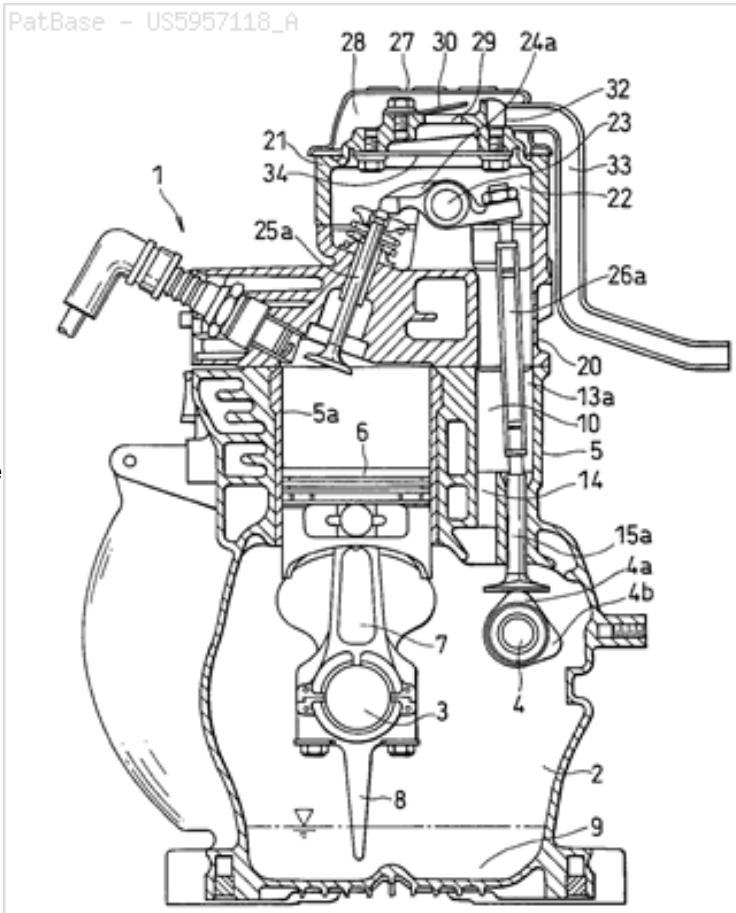
International class
 (IPC 8-9): F01M13/04 F02B65/00 (Advanced/Invention);
F01M9/06 (Advanced/Non-invention);
F01M13/00 F02B65/00 (Core/Invention);
F01M9/00 (Core/Non-invention)

International class
 (IPC 1-7): F01M13/00 F01M13/04 F02B65/00

CPC: F01M9/06 F01M13/04**European class:** F01M13/04 R01M9/06**US class:** 123/573[Classification Explorer](#)**Cited documents:** US4920930 A, US4597372 A, US4459966 A,

Forward Citations: US9534521, US9441530, US8695563, US8495993, US7938875, US7080636,
 US6725850, US6662791, US6412478, US6394079, US2015377120, US2012304971,
 US2011067669, US2010131036, US2009126575, US2004261776, JP2011185203,
 EP1333161, EP1310638,

Source: US5957118A An oil separating apparatus of an engine mounted on a shaking machine such as a rammer, for separating oil mist from blow-by gas and for feeding liquefied oil back to a crank chamber comprises a rocker chamber having an enlarged volume and mounted on a cylinder head, a breather chamber mounted on the rocker chamber, a blow-by gas port provided on the locker chamber for communicating the rocker chamber with the breather chamber, and an oil passage having an enlarged passage area for communicating the crank chamber with the rocker chamber. The constituted oil separating apparatus separates oil mist from blow-by gas almost completely and returns liquefied oil to the crank chamber swiftly, even when the engine produces a large amount of oil mist due to violent vibrations of the shaking machine.



52) Family number: 14621773 (WO0226092A1)

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Title: COOKING CONTROL AID**Priority:** GB20000023576 20000926 WO2001GB04243 20010924

Family:	Publication number	Publication date	Application number	Application date
	AT432029 E	20090615	AT20010969962T	20010924
	DE60138841 D1	20090709	DE20016038841	20010924
	EP1469764 A1	20041027	EP20010969962	20010924
	EP1469764 B1	20090527	EP20010969962	20010924
	GB200023576 A0	20001108	GB20000023576	20000926
	WO0226092 A1	20020404	WO2001GB04243	20010924

Probable Assignee: MCKEAND PETER WILSON**Assignee(s):**^(std): BURGESS ROSEMARY J ; BURGESS ROSEMARY JACYNTH ; MCKEAND PETER WILSON**Inventor(s):**^(std): BURGESS ROSEMARY JACYNTH**Designated states:** AT BE BR CA CH CY DE DK ES FI FR GB GR IE IT LI LU MC MX NL NO NZ PT SE TR US ZA

International class [A47J36/16](#) [A47J37/04](#) [A47J37/07](#) ^(Advanced/Invention);
^(IPC 8-9) [A47J36/00](#) [A47J37/04](#) [A47J37/07](#) ^(Core/Invention)

International class [A47J37/04](#)
^(IPC 1-7)

CPC: [A47J36/16](#) [A47J37/0786](#)**European class:** [A47J36/16](#) [A47J37/07L](#)[Classification Explorer](#)**Cited documents:** WO0033711 A1, US1359749 A, GB2232876 A1, FR1409366 A,

Abstract:

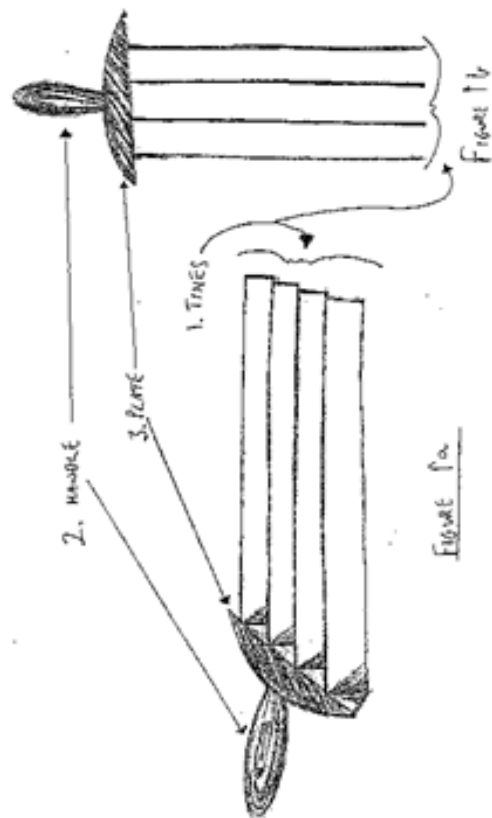
This invention relates to a mechanical means of supporting and or holding steady food items during cooking by frying, grilling or barbecuing. The invention comprises an array of tines (1) of two or more in number, and usually attached to a supporting handle (2), each tine being capable, in conjunction with its neighbouring tine, of supporting an item being cooked sufficiently vertical to the source of cooking heat for the purpose of concentrating the cooking heat on the desired edge rather than generally on a wider area or the main bulk of the item.

PatBase - W00226092_A1

W00226092

1/5

PC/CMW/0443



53) Family number: 49913770 (CN202020281U)

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Title: Splash-proof oil pan
Priority: CN201120157829U 20110507
Family:

Publication number	Publication date	Application number	Application date
<u>CN202020281 U</u>	20111102	CN201120157829U	20110507

Probable Assignee: WENHONG CAO

Assignee(s):^(std): WENHONG CAO

Assignee(s): CAO WENHONG

Inventor(s):^(std): WENHONG CAO

Inventor(s): CAO WENHONG

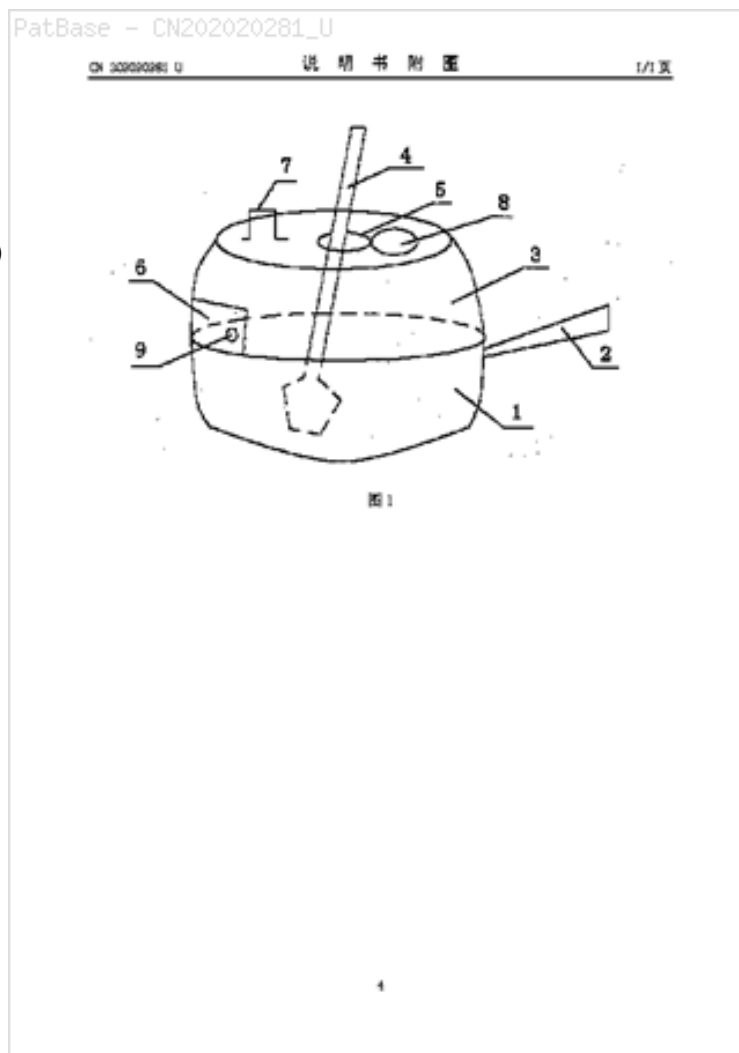
International class A47J27/00 A47J36/00 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Forward Citations: CN102961035,

Abstract:

Source: CN202020281U The utility model relates to a splash-proof oil pan, which belongs to the technical field of structures of household pans. The splash-proof oil pan comprises a frying pan (1) and a pan handle (2), wherein a pan cover (3) covers the frying pan (1); the splash-proof oil pan is characterized in that: the pan cover (3) is a semicircular cover; the top of the pan cover (3) is provided with an opening (5) for inserting a turner (4); and the side wall of the pan cover (3) is provided with a small door (6) for adding seasonings into the pan. The splash-proof oil pan has a rational structural design, is convenient to use and can effectively obstruct outwards splashed oil foam.



0) US5092457A – ENGINE OIL CHANGE KIT

54) Family number: 4943390 (US5092457A)

© PatBase

Title: Engine oil change kit
Priority: US19900563595 19900806
Family:

Publication number	Publication date	Application number	Application date
<u>US5092457 A</u>	19920303	US19900563595	19900806

Probable Assignee: CAZORT J GUY
Assignee(s):^(std): CAZORT J GUY ; ISLAVA STEVE
Inventor(s):^(std): CAZORT J GUY ; ISLAVA STEVE
International class
 (IPC 8-9): B65D77/04 F01M11/04 (Advanced/Invention);
B65D77/04 F01M11/04 (Core/Invention)
International class
 (IPC 1-7): B65D81/36

CPC: B65D77/0426 B65D2577/043 F01M11/0458
European class: B65D77/04C2 F01M11/04D L65D577/04Y1A
US class: 141/98 184/1.5 184/106 184/15 206/223 229/138

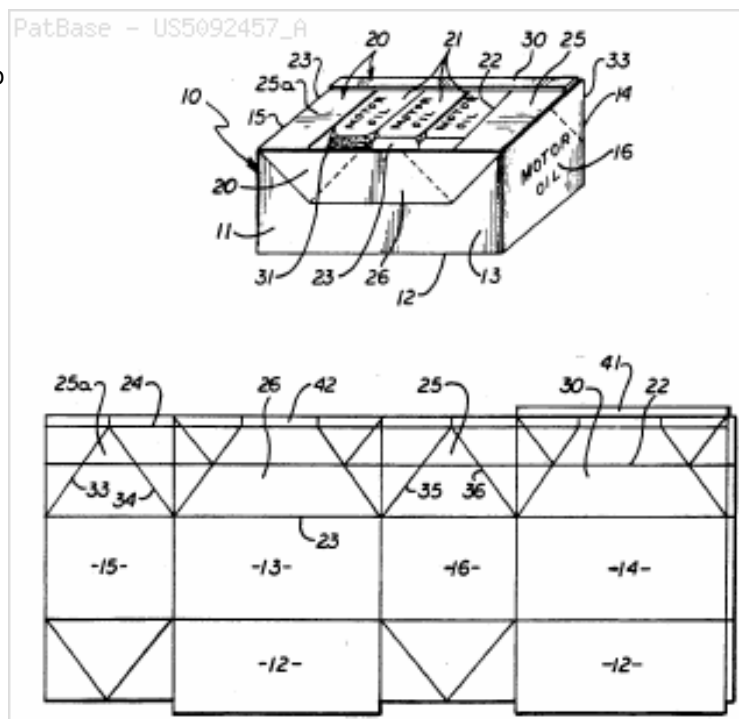
[Classification Explorer](#)

Cited documents: US4895250 A, US4856652 A, US4813548 A, US4442970 A, US4442936 A, US4098398 A, US4064969 A, US4053102 A, US3067923 A, US2917221 A, US2737335 A, CA673879 A,

Forward Citations: WO9942384, WO9719003, WO08097827, WO06093959, WO03033374, USD600125, US9243750, US8967381, US8814263, US8776825, US8550550, US8544206, US8429849, US8316581, US8256160, US8024890, US7913721, US7707912, US7275568, US6016916, US5540327, US5505295, US5503246, US5454960, US5375703, US5180063, US2014027007, US2013327659, US2012067897, US2010314387, US2010200609, US2010180501, US2008185070, US2008099098, US2007071590, US2007051424, US2005028839, US2004025422, US2003121802, GB2401850, FR2837467, EP1352839, EP0861197,

Abstract:

Source: US5092457A An oil change kit including an oil impervious box dimensioned to hold a container or containers constituting the quantity of oil for a single engine oil change, e.g. 5 quarts. The box includes a top closure which is contiguous with the side and end walls and is foldable into three different conditions, 1) to display part of the oil container or containers, 2) to define a funnel-like opening for receiving waste oil and 3) foldable to seal the box with waste oil ready for disposal. Accessories contained in the kit and stored in the volume not taken up by the new motor oil containers is a wipeup cloth, a pair of disposable gloves and a universal wrench.



55) Family number: 41716443 (JP2008051343A)

© PatBase

Title: OIL SPLASHING–PREVENTIVE UTENSIL FOR ELECTROMAGNETIC COOKER

Priority: JP20060171913 20060525 JP20060204512 20060727 JP20060223296 20060818

Family:

Publication number	Publication date	Application number	Application date
<u>JP2008051343 A2</u>	20080306	JP20060223296	20060818
<u>JP4871068 B2</u>	20120208	JP20060223296	20060818

Probable Assignee: KAWAI SETSUBI KK

Assignee(s):^(std) KAWAI SETSUBI KK

Inventor(s):^(std) KAWAI HIROSHI

International class F24C15/12 H05B6/12 (Advanced/Invention);
 (IPC 8–9): A47J36/06 F24C15/14 (Advanced/Non–invention);
F24C15/12 H05B6/12 (Core/Invention);
F24C15/14 (Core/Non–invention)

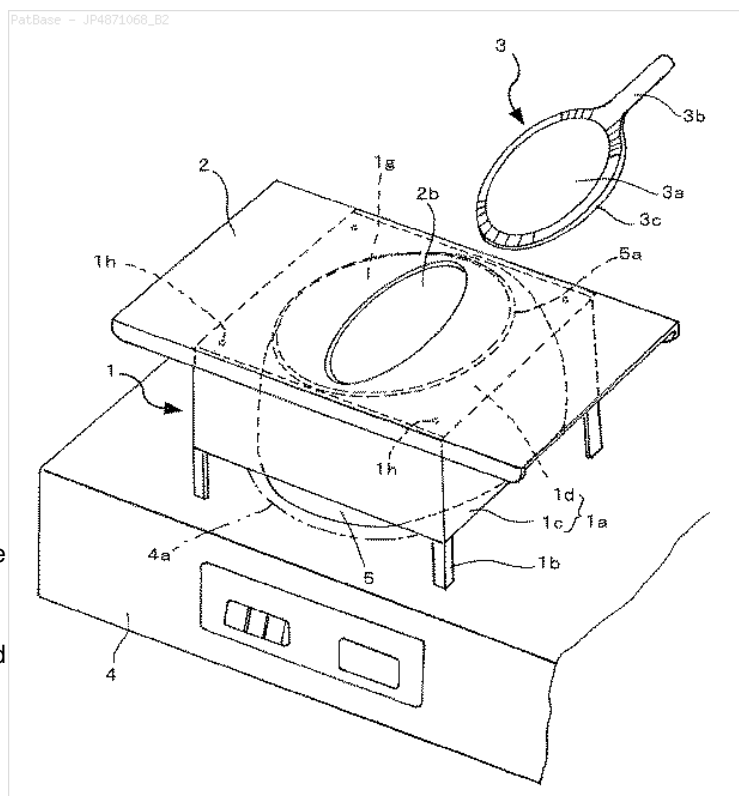
[Classification Explorer](#)

Forward Citations: JP2013206671,

Abstract:

Source: JP2008051343A PROBLEM TO BE

SOLVED: To provide an oil splashing–preventive utensil for an electromagnetic cooker capable of surely preventing contamination of circumference caused by oil splashing, and burn injury. SOLUTION: This oil splashing–preventive utensil is composed of an utensil body 1 composed of a frame body 1c which can be installed to cover a frying pan 5 placed on a heating portion 4a of the electromagnetic cooker 4 and a top plate 1d, a first charging port 1g formed on the top plate 1d and having a size approximately same as an opening portion 5a of the frying pan 5, and a movable cover 2 slidably disposed on the top plate 1d, and provided with a second charging port 2b having an opening area smaller than the first charging port 1g. As the oil splashing from the second charging port 2b having the opening area smaller than the opening portion 5a of the frying pan 5 can be remarkably reduced in comparison with the oil splashing from the whole opening portion 5a of the frying pan 5, the contamination of the circumference caused by oil splashing, and cooker's burn injury can be surely prevented.



56) Family number: 5079679 (US5129371A)

© PatBase

Title: Cam cover oil separator for crankcase ventilation**Priority:** CA19922062575 19920310 US19910754511 19910903

Family:	Publication number	Publication date	Application number	Application date
	CA2062575 AA	19930304	CA19922062575	19920310
	US5129371 A	19920714	US19910754511	19910903

Probable Assignee: SATURN CORP**Assignee(s):^(std):** SATURN CORP**Assignee(s):** ROSALIK MARTIN EDMUND JR**Inventor(s):^(std):** ROSALIK JR MARTIN E ; ROSALIK MARTIN E JR**Inventor(s):** ROSALIK MARTIN EDMUND JR ; ROSALIK MARTIN E**Agent(s):** GOWLING LAFLEUR HENDERSON LLP

International class [F01M13/04 F02F7/00](#) (Advanced/Invention);
 (IPC 8-9): [F01M13/00 F02F7/00](#) (Core/Invention)

International class [F01M13/04 F01M9/10](#)
 (IPC 1-7):

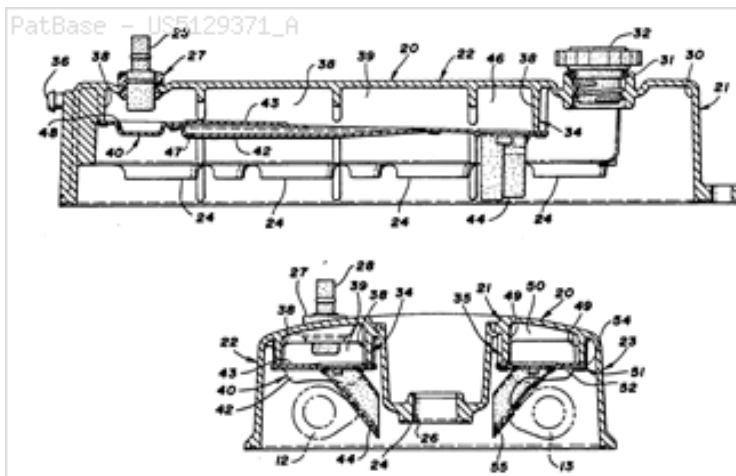
CPC: [F01M13/0416 F01M2013/0438 F02B2275/18 F02F7/006](#)**European class:** [F01M13/04D F02F7/00D](#)**US class:** [123/41.86 123/90.38](#)[Classification Explorer](#)

Cited documents: US5069192 A, US5063882 A, US5058542 A, US5022376 A, US5005553 A, US4993375 A, US4958613 A, US4844032 A, US4723529 A, US4721090 A, US4686946 A, US4667647 A, US4627406 A, US4607604 A, US4602595 A, US4597372 A, US4569323 A, DE3326881 A1,

Forward Citations: WO9832955, WO07101387, WO03064828, US9574470, US9556767, US9512755, US9470180, US9347345, US9332662, US9138671, US8961641, US8820302, US8474442, US8246726, US8241411, US8152884, US8151776, US8118909, US8114182, US8065993, US8048212, US8016904, US7959714, US7935165, US7896946, US7857883, US7828869, US7810477, US7690367, US7678169, US7648543, US7614390, US7509951, US7473291, US7406960, US7178488, US7117858, US6860010, US6443136, US6308696, US6095105, US6092498, US6089199, US5954036, US5803034, US5664549, US5636759, US5617834, US5452690, US5323745, US5323740, US5285754, US5228420, US2014238331, US2014096737, US2013067873, US2011197765, US2011016836, US2010147235, US2010107883, US2009205618, US2009126324, US2009120854, US2009100811, US2009092540, US2009084342, US2009050121, US2008276580, US2008264018, US2008223348, US2007256566, US2006124117, US2005224061, US2005172921, US2005092267, US2003214082, GB2519764, GB2402435, GB2402435, FR2987650, EP2112361, EP2112361, EP1482136, EP0819841, EP0744535, DE19813702, DE102006019880, CN104005879,

Abstract:

Source: US5129371A A cam cover for an overhead cam engine has first and second oil separators connecting the crankcase with the engine induction system high and low vacuum portions as part of a crankcase ventilation system. The separators each have a floor sloping toward the outlet and forming a sump with a drain to the crankcase. A large slow flowing separation chamber precedes the sump. An optional inlet tube is angled down with a large inlet facing away from the oil splash. A shelf may extend between the sump and the outlet end to deter oil carryover to the outlet. Optional PCV valve and oil filler locations are shown.



57) Family number: 15314806 (WO0129301A1)

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Title: FIBROUS WEB FOR ABSORBING GREASE
Priority: US19990159977P 19991018 US20000510164 20000222 WO2000US28810 20001018
Family:

Publication number	Publication date	Application number	Application date
AU200110947 A5	20010430	AU20010010947D	20001018
CA2384846 AA	20020326	CA20002384846	20001018
CA2384846 C	20071211	CA20002384846	20001018
CN1328433 C	20070725	CN20008014453	20001018
CN1391621 A	20030115	CN20008014453	20001018
EP1238131 A1	20020911	EP20000972261	20001018
JP2003512538 T2	20030402	JP20010532276T	20001018
WO0129301 A1	20010426	WO2000US28810	20001018

Probable Assignee: PROCTER AND GAMBLE**Assignee(s):**^(std): PROCTER AND GAMBLE ; THE PROCTER AND GAMBLE COMPANY**Assignee(s):** TOUSSANT JOHN WILLIAM ; PROCTER AND GAMBLE CO ; THE PROCTER AND GAMBLE CO ; BOWLES SYLVIA ; JOHNSON ROBERT ALLAN ; OUELLETTE WILLIAM ROBERT**Inventor(s):**^(std): BOWLES S ; BOWLES SYLVIA ; BOWLES W R OULLETTE R A JOHN SO ; JOHNSON R A ; JOHNSON ROBERT ALLAN ; OUELLETTE WILLIAM ROBERT ; OULLETTE W R ; OULLETTE WILLIAM ROBERT ; RA JOHNSON ; S BOWLES ; TOUSSANT JOHN WILLIAM ; WR OULLETTE**Inventor(s):** WR OULLETTE RA JOHNSON S BOWLES ; W R OULLETTE ; W R OULLETTE R A JOHNSON S BOWLES ; WILLIAM ROBERT OULLETTE ; SYLVIA BOWLES ; ROBERT ALLAN JOHNSON ; R A JOHNSON ; JOHN WILLIAM TOUSSANT**Agent(s):** MBM INTELLECTUAL PROPERTY LAW LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

International class
 (IPC 8-9): [A23L1/01](#) [A23L1/015](#) [A23L1/31](#) [A23L13/00](#) [A23L5/10](#) [A23L5/20](#) [A47J43/28](#) [B65D81/26](#) [B65D81/34](#) [D01F8/06](#) [D04H1/42](#) [D04H1/46](#) [D04H1/492](#) [D04H1/54](#) [D04H13/00](#) (Advanced/Invention);
[A23L1/31](#) [D01F8/06](#) [D04H1/48](#) (Advanced/Non-invention)

International class
 (IPC 1-7): [A23L1/01](#) [A23L1/015](#) [A23L1/31](#) [A23L10/15](#) [A47J43/28](#) [B65D81/34](#) [D01F8/06](#) [D04H1/42](#) [D04H1/46](#) [D04H1/48](#) [D04H1/54](#) [D04H13/00](#)

CPC: [D04H1/4291](#) [D04H1/435](#) [D04H1/4374](#) [D04H1/4382](#) [D04H1/4391](#) [B65D81/264](#) [B65D81/343](#) [B65D81/3453](#) [D04H1/54](#) [A23L5/273](#) [D04H1/46](#) [D04H1/492](#) [D04H1/49](#)

European class: [A23L1/015E2](#) [B65D81/26E](#) [B65D81/34C](#) [B65D81/34M1](#) [D04H1/42](#) [D04H1/46B](#) [D04H1/54](#) [D04H13/00B2](#) [D04H13/00B5](#)

[Classification Explorer](#)**Cited documents:** WO0049893 A1, US5744406 A, US5693420 A, US5094869 A, US4857342 A, JP11276361 A2, EP0535451 A1,**Forward Citations:** WO11047638, WO0216685, WO0216685, WO0216025, WO0216025, WO0216025, US7128789, US7078088, US7063880, US7063879, US7056569, US7026034, US7022395, US6991844, US6986931, US6979485, US6534174, GB2523541, EP2524986, EP2151516, EP2151516, EP1311343,

Abstract:

Disclosed is a method for removing grease prior to, during or subsequent to preparation of food, the method comprising: placing an absorbent fibrous web of claim 1 adjacent a draining device; and placing the food on the web. Further disclosed is such a method further comprising collecting the fluids that pass through the web and the draining device. Further disclosed is a method for removing grease prior to, during or subsequent to preparation of food containing grease and aqueous liquids, the method comprising: placing the food in oil communication with a fibrous web adapted for absorbing grease. Further disclosed is a method for removing grease prior to, during or subsequent to preparation of food, the method further comprising using an absorbent fibrous web as a hot pad for transporting the food. Further disclosed is a method of for absorbing grease from foods with a web adapted for absorbing grease, comprising placing the web above the food and in contact with a cooking container to wholly or partially cover the cooking container to prevent splattering of grease. Further disclosed is a system comprising: (a) an absorbent bicomponent fibrous web for use in the preparation of food containing grease; (b) information which informs a user that the web may be used to remove grease from food by placing the web in oil communication with the grease. Further disclosed are absorbent webs useful for use in the above methods and systems.

1/2

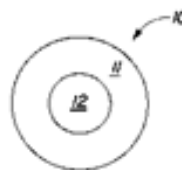


FIG. 1

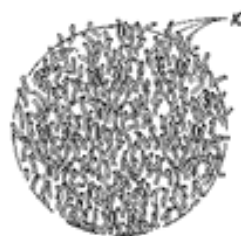


FIG. 2

58) Family number: 42164751 (US2008223348A)

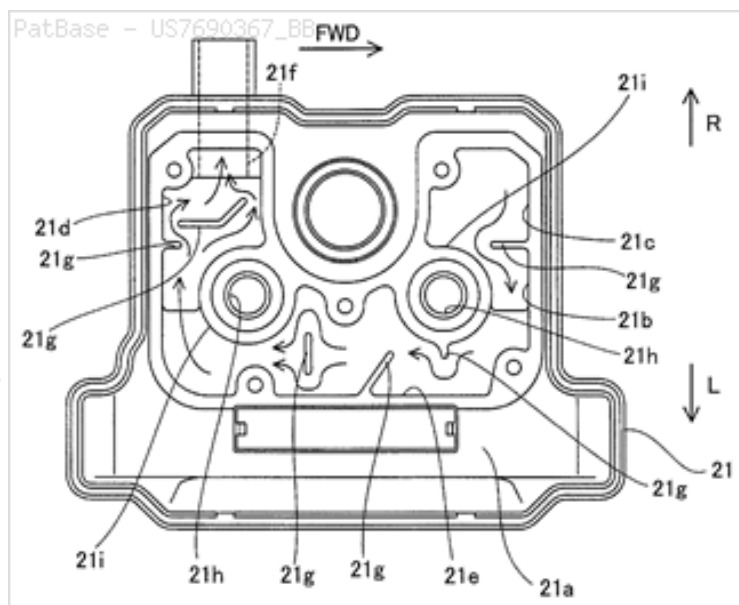
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Title: INTERNAL COMBUSTION ENGINE AND VEHICLE HAVING THE INTERNAL COMBUSTION ENGINE**Priority:** JP20070063074 20070313**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2008223596 A2</u>	20080925	JP20070063074	20070313
<u>US2008223348 AA</u>	20080918	US20080044812	20080307
<u>US7690367 BB</u>	20100406	US20080044812	20080307

Probable Assignee: YAMAHA HATSUDOKI KK**Assignee(s):^(std):** TOGASAWA RYUUTA ; YAMAHA MOTOR CO LTD**Assignee(s):** YAMAHA HATSUDOKI KABUSHIKI KAISHA ; YAMAHA HATSUDOKI KK**Inventor(s):^(std):** TOGASAWA RYUTA ; TOGASAWA RYUUTA**Agent(s):** MACPHERSON KWOK CHEN AND HEID LLP; KEATING AND BENNETT LLP**International class**
(IPC 8-9): F01M13/04 F02F1/42 F02F7/00 (Advanced/Invention);
F01M13/00 F02F1/42 F02F7/00 (Core/Invention)**CPC:** B62K11/04 F01M13/04 F01M13/0416 F01M2013/0433 F01M2013/0461 F02F1/4285**European class:** B62K11/04 F01M13/04 F02F1/42H R01M13/04D R01M13/04F R01M13/04L**US class:** 123/193.5 123/195C 123/41.86 123/572[Classification Explorer](#)**Cited documents:** US6443136 BA, US5323740 A, US5129371 A, US5123385 A, US4993375 A, US4721090 A, US2005005921 AA, JP7099087 A2, JP2006283594 A2,**Forward Citations:** US9200549, US8820302, US8783235, US8622176, US8567276, US8474442, US8113185, US8065993, US2015275833, US2014345551, US2012240895, US2012017722, US2010147235, US2010108422, US2010018493, US2009092540, EP2543834,**Abstract:**

Source: US2008223348A An engine (internal combustion engine), in accordance with an embodiment, includes: a cylinder head disposed above a crankcase; a cylinder head cover attached to cover an upper side of the cylinder head; and an ignition plug provided with a plug part inserted into the cylinder head and a plug cap disposed outside the cylinder head cover. The cylinder head cover includes a gas passage formed in such a U-shape as to surround the plug cap of the ignition plug as viewed from an insertion side of the ignition plug, the gas passage allowing fuel gas (blow-by gas) containing oil to flow in from the crankcase.



Title: GEAR UNIT HAVING A HOUSING**Priority:** DE201310018710 20131108 WO2014EP02830 20141021**Family:**

Publication number	Publication date	Application number	Application date
AU2014345910 AA	20150514	AU20140345910	20141021
CA2922267 AA	20160224	CA20142922267	20141021
DE102013018710 A1	20150513	DE201310018710	20131108
EP3066363 A1	20160914	EP20140789526	20141021
US2016281838 AA	20160929	US20140035003	20141021
WO15067343 A1	20150514	WO2014EP02830	20141021

Probable Assignee: SEW EURODRIVE GMBH AND CO KG**Assignee(s):^(std):** SEW EURODRIVE GMBH AND CO ; SEW EURODRIVE GMBH AND CO KG**Assignee(s):** WU ZILI**Inventor(s):^(std):** WU ZILI**Agent(s):** GRIFFITH HACK; BLAKE CASSELS AND GRAYDON LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class [F16H57/02](#) [F16H57/021](#) [F16H57/03](#) [F16H57/032](#) [F16H57/04](#) (Advanced/Invention)
(IPC 8-9):

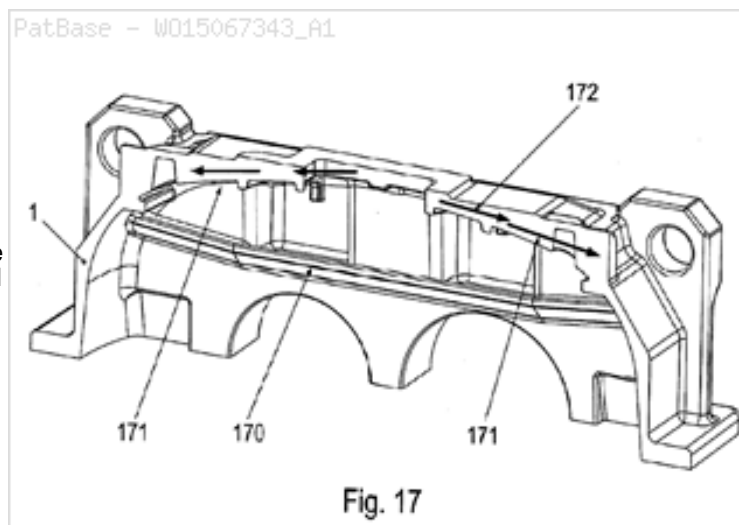
CPC: [F16H57/0421](#) [F16H57/0457](#) [F16H57/0424](#) [F16H57/021](#) [F16H57/032](#) [F16H57/0409](#)
[F16H57/0471](#) [F16H2057/0216](#) [F16H57/03](#)

US class: [74/606R](#)[Classification Explorer](#)

Cited documents: WO10108600 A1, US3529698 A, US3029661 A, US2676671 A, US2007251348 AA, US2006156861 AA, JP56029342 U1, JP42007068 Y1, GB561876 A, CN201944239 U, CN102463256 A,

Forward Citations: US2014283644,**Abstract:**

Source: US2016281838A A gear unit includes a housing, a trough for guiding oil and reducing losses due to splashing surrounding a circumferential section of a toothing part, the trough including at least three parts, e.g., at least one bottom plate and two side walls, the bottom plate being screw-connected to the two side walls, the trough being fastened to the housing, the trough having an opening, the bottom plate and the side walls being stamped bent parts.



60) Family number: 28316079 (US2002121293A)

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Title: WASH FLUID CONTAINMENT SYSTEM

Priority: US20010798426 20010302 US20040833222 20040426 US20040884361 20040702
 US20050116977 20050428 US20070810502 20070606 US20090435953 20090505
 US20090436009 20090505 US20050116997 20050427

Family:	Publication number	Publication date	Application number	Application date
	US2002121293 AA	20020905	US20010798426	20010302
	US2004200503 AA	20041014	US20040833222	20040426
	US2004231703 AA	20041125	US20040884361	20040702
	US2005199268 AA	20050915	US20050116977	20050428
	US2007256712 AA	20071108	US20070810502	20070606
	US2009211613 AA	20090827	US20090435953	20090505
	US2009266387 AA	20091029	US20090436009	20090505
	US6799591 BB	20041005	US20010798426	20010302
	US7258749 BB	20070821	US20050116977	20050428
	US7530362 BB	20090512	US20040884361	20040702
	US7540295 BB	20090602	US20070810502	20070606
	US8267100 BB	20120918	US20090436009	20090505
	US8272390 BB	20120925	US20090435953	20090505

Probable Assignee: HYDRO ENGINEERING EQUIPMENT AND SUPPLY CO

Assignee(s):^(std): HYDRO ENGINEERING EQUIPMENT AN ; HYDRO ENGINEERING EQUIPMENT and ;
 HYDRO ENGINEERING EQUIPMENT AND SUPPLY CO ; HYDRO ENGINEERING
 EQUIPMENT AND SUPPLY COMPANY ; HYDRO ENGINEERING INC ; MCCORMICK
 JAMES P ; MCCORMICK ALAN G ; SMITH KERRY G

Assignee(s): AKESO HEALTH SCIENCES LLC ; SMITH KERRY ; MCCORMICK ALAN

Inventor(s):^(std): MCCORMICK ALAN ; MCCORMICK ALAN G ; MCCORMICK JAMES P ; SMITH KERRY ;
 SMITH KERRY G

Inventor(s): MCCORMICK JAMES**Agent(s):** LYNN G FOSTER; HOLLAND AND HART LLP; LYNN G; HOLLAND AND HART

International class [B08B17/00](#) [B08B3/00](#) [B08B3/04](#) [B08B7/00](#) [B08B9/00](#) [B60S3/00](#) [E03F1/00](#) (Advanced/Invention);
^{(IPC 8-9):} [F16N31/00](#) (Advanced/Non-invention);
[B08B7/00](#) (Core/Invention)

International class [B08B3/00](#) [B08B3/02](#) [B08B7/00](#) [B08B7/04](#)
^{(IPC 1-7):}

CPC: [E03F1/00](#) [B08B17/025](#) [B60S3/00](#) [B60S3/04](#) [F16N31/006](#)**European class:** [B08B17/00](#) [B08B17/02B](#) [B60S3/00](#) [B60S3/04](#) [E03F1/00](#) [R16N31/00C](#)

US class: [134/10](#) [134/104.1](#) [134/104.2](#) [134/104.200](#) [134/104.200S](#) [134/104.4](#) [134/104.400P](#) [134/109](#)
[134/109S](#) [134/10P](#) [134/110](#) [134/110S](#) [134/111](#) [134/123](#) [134/135](#) [134/135S](#) [134/26](#)
[134/26S](#) [134/34](#) [134/34S](#) [134/36](#) [134/36S](#) [134/42](#) [134/42P](#) [514/171](#) [514/58](#) [514/59](#)

[Classification Explorer](#)

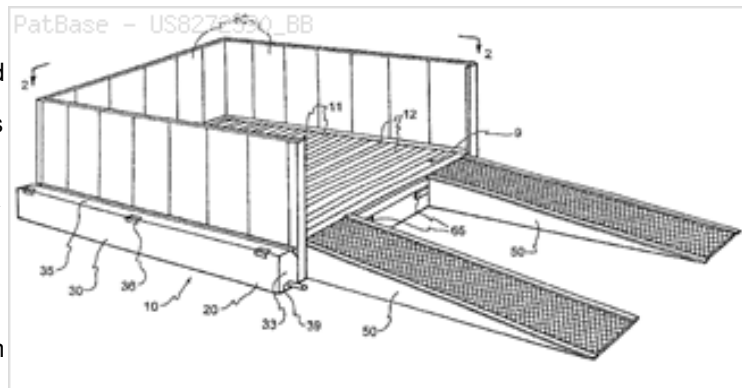
Cited documents: WO9701399 A1, US830437 A, US7303358 BA, US7258749 BB, US6799591 BB,
 US6655396 BB, US6601831 BB, US6561201 BA, US6402855 BA, US6358330 BA,
 US6301848 BA, US6293523 BA, US6279271 BA, US6247480 BA, US6164298 A,
 US6132509 A, US6120614 A, US6106712 A, US6082382 A, US6021792 A, US6000631
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US5261433 A, US5253777 A, US5207922 A, US5199457 A, US5190268 A, US5186758 A, US5167837 A, US5150727 A, US5145309 A, US5036976 A, US5033489 A, US4930632 A, US4818388 A, US4808237 A, US4765670 A, US4652368 A, US4637413 A, US4543182 A, US4498660 A, US4308237 A, US4308136 A, US4246982 A, US4135533 A, US4071223 A, US3996136 A, US3971394 A, US3970556 A, US3923658 A, US3803777 A, US3784044 A, US3772723 A, US3259138 A, US3175564 A, US3101148 A, US2788954 A, US2352356 A, US2013742 A, US2009250176 AA, US2007256712 AA, US2006169965 AA, US2005139243 AA, US2004231703 AA, US2004200503 AA, US2003205257 AA, US2002117191 AA, US1899657 A, US1863914 A, US124061 A, US1146845 A, JP8175342 A2, JP8034321 A2, JP7172271 A2, JP7052761 A2, JP58188740 A2, JP4038252 A2, JP3090455 A2, JP10277311 A2, GB2261000 A1, GB2256443 A1,

Forward Citations: WO15119632, WO08054377, WO05068269, USD701357, USD555303, US9370674, US9358592, US8974662, US8966693, US8864910, US8721805, US8701687, US8597434, US8506720, US8499774, US8480888, US8453830, US8389063, US8387548, US8272390, US8267100, US8061752, US7987862, US7943040, US7775225, US7540295, US7530362, US7497945, US7261365, US6966984, US2015122289, US2013276829, US2012145192, US2011253175, US2011237373, US2010307984, US2010285247, US2010224626, US2010119304, US2009283117, US2009266387, US2009266384, US2009239436, US2009239064, US2009211613, US2009188535, US2009169757, US2009065442, US2009057104, US2008308124, US2008000507, US2007256712, US2007235393, US2007209681, US2007160768, US2007090629, US2007089766, US2006260658, US2006202515, US2006124650, US2005217710, US2005139243, US2004231703, US2003200992, GB2473252, GB2473252, GB2425046, GB2425046, FR3019478, EP1724404, EP1724404, DE102006010404, DE102006010404, CN103551337, CN103121440, CN103121440, CN103008282,

Abstract:

Source: US2002121293A A wash fluid containment system includes an elevated, fluid impervious surface upon which items to be washed are placed for washing. The surface is configured to cause wash fluid to flow to an edge of the surface and off of the surface to prevent buildup of wash fluid on the surface. A collecting trough is positioned in fluid flow communication with the edges of the surface to which the fluid flows to catch and collect the fluid as it flows from the surface. Used wash fluid is taken from the collecting trough for disposal or recycling and solids and debris can be easily removed from the trough.



0) US3059632A – STOVE CONSTRUCTION

61) Family number: 22851272 (US3059632A)

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Title: STOVE CONSTRUCTION

Priority: US19600031427 19600524

Family:	Publication number	Publication date	Application number	Application date
	<u>US3059632 A</u>	19621023	US19600031427	19600524

Probable Assignee: CROWN STOVE WORKS

Assignee(s):^(std): CROWN STOVE WORKS

Inventor(s):^(std): ROGERS JOHN C

International class
(IPC 8-9): F24C15/12 (Advanced/Invention);
F24C15/12 (Core/Invention)

International class
(IPC 1-7): F24C15/12

CPC: F24C15/12

European class: F24C15/12

US class: 126/214R 126/37R

[Classification Explorer](#)

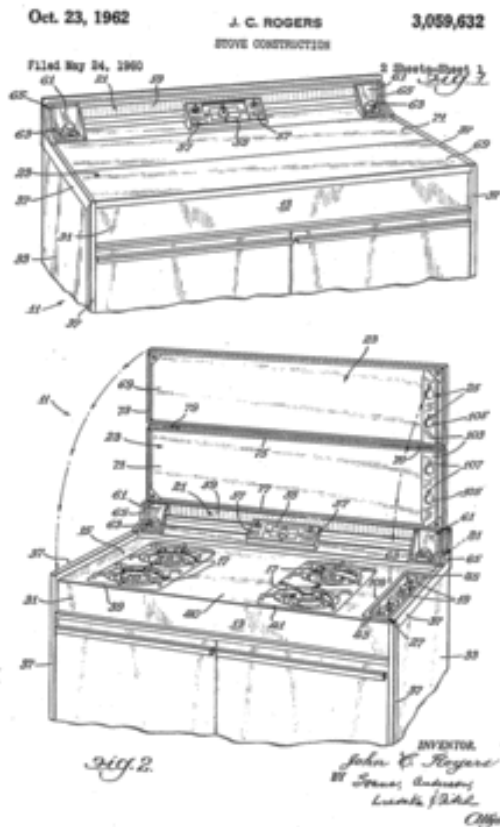
Cited documents: US2939453 A, US2390234 A, US2252753 A, US2107972 A, US1820849 A, IT560647 A, DE516319 A,

Forward Citations: WO04088208, US9546442, US8739772, US8479542, US8459067, US8413470, US8381552, US8375750, US8322169, US8286452, US7677239, US7556034, US6502570, US6263869, US5765543, US5287799, US5158068, US2010132690, US2010078009, US2009293553, US2009260405, US2007157920, US2007107713, US2007044789,

Abstract:

Source: US3059632A (Claim 1) A stove comprising a main body having a planar cooking top with a series of openings therein, an upwardly extending back guard along the rear edge of said top, a series of gas burners positioned within certain of said openings, a series of controls connected with said burners, each of said controls being movable relative to an "off" position to turn one of said burners "on" and including a valve stem extending through one of said openings and a knob removably mounted on said stem and including a laterally projecting lug in predetermined radial orientation thereto, and a panel removably located in said one opening and having an aperture therein for passage therethrough of said stem so as to facilitate removal of said panel from said cooking top for cleaning thereunder after removal of said knob from said stem, and a sectional cover hinged to said main body for movement between a cover position overlying said cooking top and a generally vertical, splash guard position extending from immediately above said back guard so as to expose the back guard from the front of the stove, said cover including a pair of planar half sections hinged to one another along an axis parallel to the hinging of said cover to said main body, said half sections being movable between a first generally coplanar relationship when said cover is in its cover position and a facing, generally parallel relationship when said cover is in said splash guard position, whereby the height of said cover above said back guard, when in said splash guard position, is one half the depth of said cooking top, said cover sections having on the undersurface thereof a series of receptacles capable of receiving said controls only when the latter are all moved to place said lugs in said "off" position, thereby preventing complete closure of said cover when any of said burners is "on."

PatBase - US3059632_A



0) CN102961035A – STIR PAN CAPABLE OF PREVENTING OIL SPLASHING

62) Family number: 53223156 (CN102961035A)

© PatBase

Title: STIR PAN CAPABLE OF PREVENTING OIL SPLASHING

Priority: CN201210556390 20121220

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102961035 A</u>	20130313	CN201210556390	20121220

Probable Assignee: ZHANG SHIQI

Assignee(s):^(std): ZHANG SHIQI

Inventor(s):^(std): ZHANG SHIQI

International class A47J27/00 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Cited documents: CN203088687 U, CN202020281 U, CN201157274 Y,

Abstract:

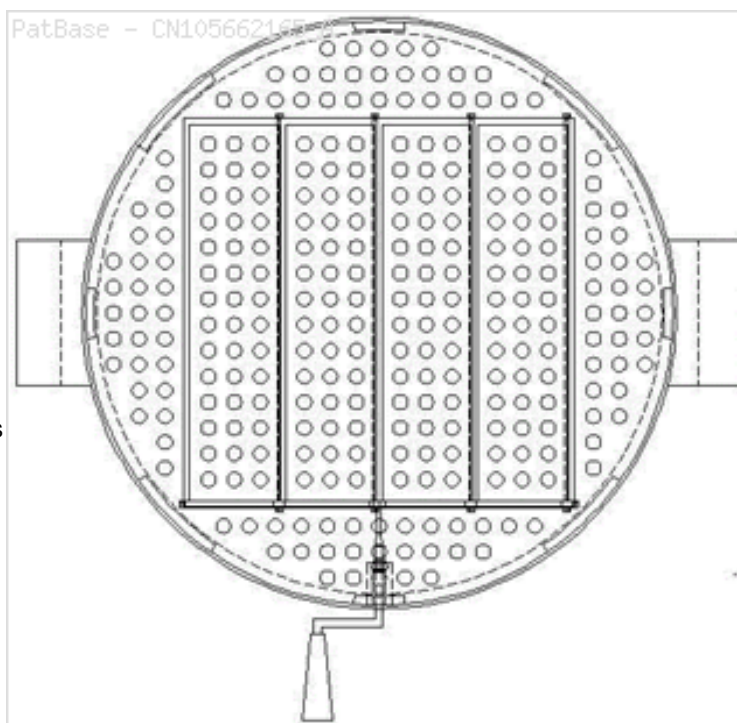
Source: CN102961035A The invention discloses a stir pan capable of preventing oil splashing and belongs to kitchenware. The stir pan comprises a pan body and a pan cover, wherein the pan cover is arranged above the pan body; handles are arranged on the two sides of the pan body; the pan cover is a transparent flat-top pan cover; a round hole is formed in the center of the pan cover; uniformly distributed venting holes are formed around the round hole; a spatula is arranged in the pan body; the spatula comprises a spatula head and a bent rocking handle; and the top end of the rocking handle penetrates through the round hole of the pan cover and is in threaded connected with a spherical cap. The stir pan can be used for cooking under the condition that the pan cover is closed, and can prevent oil splashed from the pan from being splashed onto the hands so as to avoid scald injury of the hands when people cook.

Title: SPLASH-PROOF BOILING DRAWER**Priority:** CN201610213254 20160407

Family:	Publication number	Publication date	Application number	Application date
	CN105662165 A	20160615	CN201610213254	20160407

Probable Assignee: UNIV XIANGTAN**Assignee(s):**^(std): UNIV XIANGTAN ; XIANGTAN UNIV**Inventor(s):**^(std): LIU LE ; LIU XIAOYU ; XU SHUNSHENG ; YAN WENBIN ; YAN WENTAO ; YOU JIAQI ; ZHAO DONGYONG ; ZHAO PENGFEI**International class** A47J36/02 A47J36/04 A47J36/20 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN105662165A The invention provides a splash-proof boiling drawer which comprises a boiling drawer body, a boiling grate with vanes and a worm transmission mechanism, wherein the vanes of the boiling grate can be turned over in a range of 90 degrees and are in a vertical 'completely-open' or horizontal 'closed' state by shaking the handle on the boiling drawer. The splash-proof boiling drawer can be matched with a steamer, a frying pan, a hotpot and other common cooking pots having matching bores so as to achieve the aim of splash-proof cooking. A food material is put in the area of the closed boiling grate vanes in the splash-proof boiling drawer, a pan cover is covered, the pan is moved to a hot pan body, the handle is shaken at 90 degrees anticlockwise to enable the vanes to be completely-open, the food material slides into the pan, splashing hot oil or hot soup is completely stopped in the pan, and the splash-proof drawer is removed to carry out continuous normal cooking operation after the oil or soup splashing situation disappears; and the splash-proof boiling drawer having the vanes in the closed state can be used for cooking delicious dishes like a conventional boiling drawer. According to the splash-proof boiling drawer, the problem of cooking oil and soup splash prevention, which cannot be solved in the existing invention, can be simply and perfectly solved on the premise of not influencing the using performance of the components of the pan.



0) ES2353889A – ENVASADOR DE ACEITE RESIDUAL Y FABRICADOR DE JA...

64) Family number: 48432010 (ES2353889A)

© PatBase

Title: ENVASADOR DE ACEITE RESIDUAL Y FABRICADOR DE JABON CASERO. PACKER AND RESIDUAL OIL MAKER homemade soap. (Machine translation)

Priority: ES20070002351 20070823

Family:	Publication number	Publication date	Application number	Application date
	ES2353889 AA	20110308	ES20070002351	20070823
	ES2353889 BA	20120103	ES20070002351	20070823

Probable Assignee: GONZALEZ PEREZ MANUEL

Assignee(s):^(std) GONZALEZ PEREZ MANUEL

Inventor(s):^(std) GONZALEZ PEREZ MANUEL

Inventor(s): MANUEL GONZALEZ PEREZ

International class [B65F1/06 C11D13/00](#) ^(Advanced/Invention)
(IPC 8-9):

CPC: [B65F1/06 C11D13/00](#)

[Classification Explorer](#)

Cited documents: WO06128936, US4578246, US2876082, GB2281553, ES2239485,

Forward Citations: ES2457716,

Abstract:

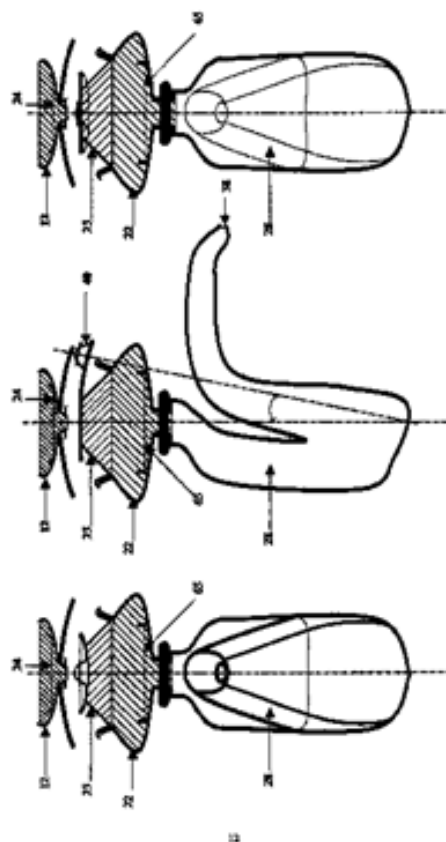
Source: ES2353889A Envasador de Aceite Residual y Fabricador de Jabon Casero: un instrumento para llenar bolsas de plastico con aceites residuales filtrados, sellandolas termicamente. El "Envasador de Aceite y Fabricador de Jabon Casero", es portatil y de sobremesa y esta compuesto de dos compartimientos (fig. 21), con formas volumetricas tipo ovoide, y una base con forma de caja rectangular. Uno de los compartimientos recoge el aceite por el embudo (12), que es filtrado dos veces antes de entrar en la cubeta (28) de recogida, y el otro acoge la bolsa plastica para recogida del aceite ya filtrado. La bolsa plastica se ubica dentro de la pinza electrica (57), (fig. 20) y sobre la bandeja (62) y por el peso del aceite, las placas de presion (48) (fig. 9), se inclinan y cierran la pinza electrica (57), cuando la bolsa plastica esta llena.

Machine translation: Packer residual oil and homemade soap maker: a tool to fill plastic bags with filtered waste oil, sealing thermicamente. El "packer Oil and homemade soap maker", is portable and desktop computers and is composed of two compartments (fig. 21), with ovoid type volumetric forms, and a base with the rectangular box. One of the compartments contains the oil through the funnel (12), which is filtered twice before it enters the cuvette (28) for collection, and the other receives the plastic bag to collect the oil and filtered. The plastic bag is placed within the electric clamp (57), (Fig. 20) and the tray (62) and by the weight of the oil, the pressure plates (48) (Fig. 9), are inclined and close electric clamp (57), when the plastic bag is full.

PatBase - ES2353889_BA

ES 2 353 889 B1

Fig. 1



65) Family number: 59703519 (CN204552866U)

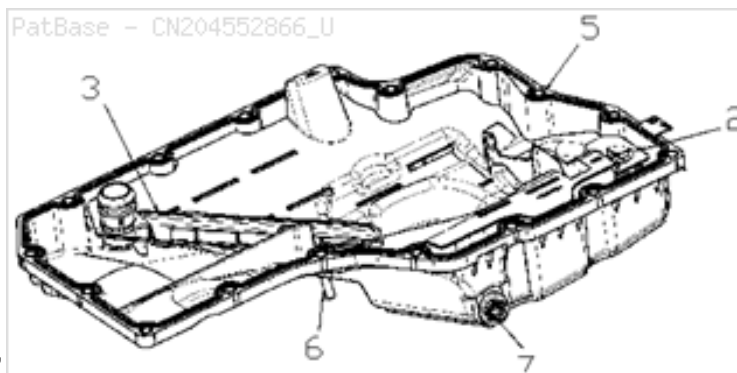
© PatBase

Title: AUTOMOBILE–USED PLASTICS OIL PAN ASSEMBLY**Priority:** CN201510103180 20150310 CN201520134066U 20150310

Family:	Publication number	Publication date	Application number	Application date
	CN104763490 A	20150708	CN201510103180	20150310
	CN204552866 U	20150812	CN201520134066U	20150310

Probable Assignee: NINGBO SHENTONG MOULD AND PLASTIC CO LTD**Assignee(s):^(std):** NINGBO SHENTONG MOULD AND PLASTIC CO LTD**Assignee(s):** MOLDING CO LTD NINGBO SHENTONG ; NINGBO SHENTONG MOULD AND PLASTIC CO**Inventor(s):^(std):** FANG LIFENG**International class** [F01M11/00](#) (Advanced/Invention)
(IPC 8-9):**CPC:** [F01M11/0004](#)[Classification Explorer](#)**Cited documents:** JP8218837 A2, CN204552866 U, CN203239416 U, CN201521325 U,**Forward Citations:** CN104763490,**Abstract:**

Source: CN204552866U The utility model relates to an automobile–used plastics oil pan assembly, unstable for the oil pan size of solving among the prior art, assembly process is complicated, or weight is big, and the part is installed alone, and the process is many, the cycle length, the problem of inefficiency, including the plastics oil pan that has the accommodation space, characterized by be equipped with the heavy groove of album oil in the said plastics oil pan, the lock has the plastics splash shield in the oil pan, is equipped with return path on the splash shield, the last clasping oil return tube cap of return path, and return path export and the heavy groove of collection oil communicate with each other, the plastics splash shield be equipped with with oil return tube cap complex draw–in groove. The integral type casing, overall structure intensity is big, light in weight, appearance compact structure and inside can set up the connection that multiple functions need, and processing technology is simple, and is wear–resisting, and crashproof piezotropy can be high, is favorable to the engine maintenance, low in manufacturing cost



66) Family number: 43586259 (CN201271154Y)

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Title: Standable cooker lid for preventing splash of oil**Priority:** CN200820190409U 20080821

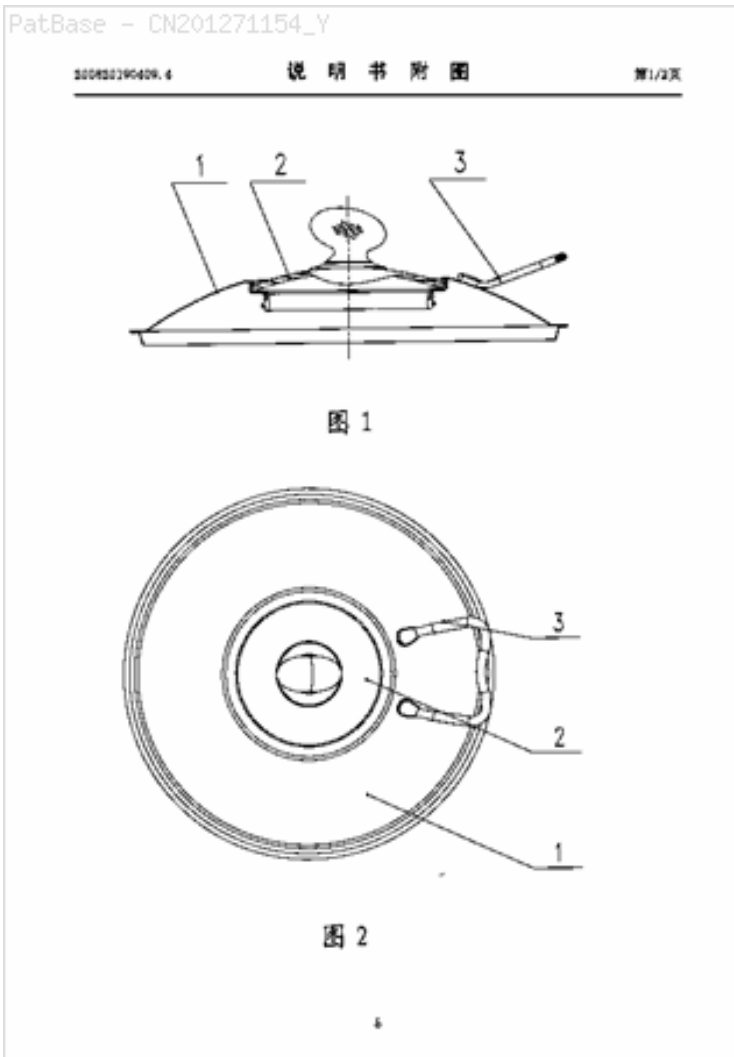
Family:	Publication number	Publication date	Application number	Application date
	CN201271154 Y	20090715	CN200820190409U	20080821

Probable Assignee: WUHAN SUPOR COOKER CO LTD**Assignee(s):^(std):** WUHAN SUPOR COOKER CO LTD ; WUHAN SUPOR COOKWARE CO LTD**Assignee(s):** WUHAN SUPOR COOKER CO**Inventor(s):^(std):** BO QIU ; CONGHAO YANG**Inventor(s):** QIU BO ; YANG CONGHAO

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN104161465,**Abstract:**

Source: CN201271154Y Disclosed is an oil-splashing prevention pan cover capable of being placed vertically, which comprises a metal cover (1), a glass cover (2) and a standing cover head (3); wherein, the glass cover (2) is positioned in the metal cover (1), and the metal cover is in rotational connection with the glass cover (2) through a clamp groove; the standing cover head (3) is fixed on the metal cover (1). The pan cover overcomes the defects that the pan cover in the prior art is easy to have oil splashing accidents and has large space occupation. The oil-splashing prevention pan cover capable of being placed vertically can prevent scalding, and can be placed vertically when the pan cover is not in use, so as to save space.



Title: Novel pan lid
Priority: CN200820130405U 20081211

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201398875 Y</u>	20100210	CN200820130405U	20081211

Probable Assignee: JINGYU WANG

Assignee(s):^(std): JINGYU WANG

Assignee(s): WANG JINGYU

Inventor(s):^(std): JINGYU WANG

Inventor(s): WANG JINGYU

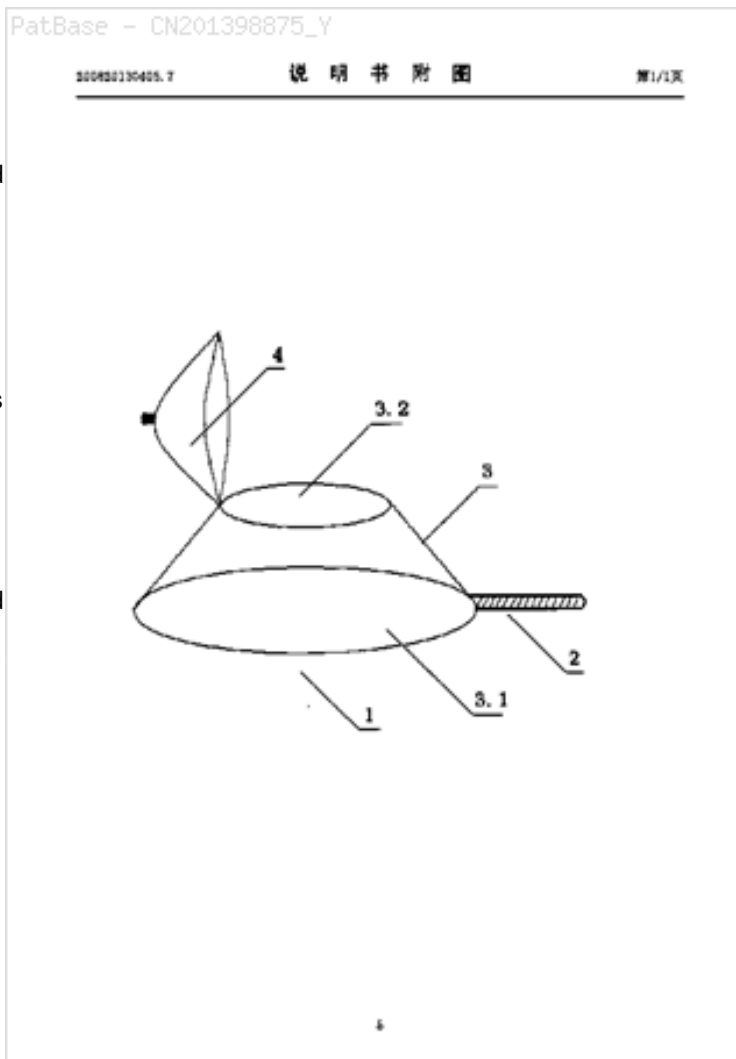
International class A47J36/06 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Forward Citations: CN102772147,

Abstract:

Source: CN201398875Y The utility model relates to a novel pan lid which not only prevents oil splash, but also does not influences normal stir-frying, and comprises a lid body 1 and a lid handle 2; the lid body 1 consists of a splash-proof shield 3 and a top lid 4; the splash-proof shield 3 has two shield openings which take the shape of a funnel, i.e. an upper shield opening and a lower shield opening; the diameter of the lower shield opening 3.1 is larger than the diameter of the upper shield opening 3.2; the lower shield opening 3.1 is matched with a pan opening of a frying pan; the upper shield opening 3.2 is matched with the top lid 4; and the top lid 4 is connected on the upper shield opening 3.2 by a rotating shaft and can be opened and closed freely. After the frying pan is covered with the novel pan lid, the oil-proof shield can effectively prevent the splash of hot oil; and when requiring stir-frying or addition of other condiments, a slice can enter the pan lid from the upper shield opening of the oil-proof shield for stir-frying or adding condiments only by opening the top lid, thus being very convenient for use.



68) Family number: 49302136 (CN102125404A)

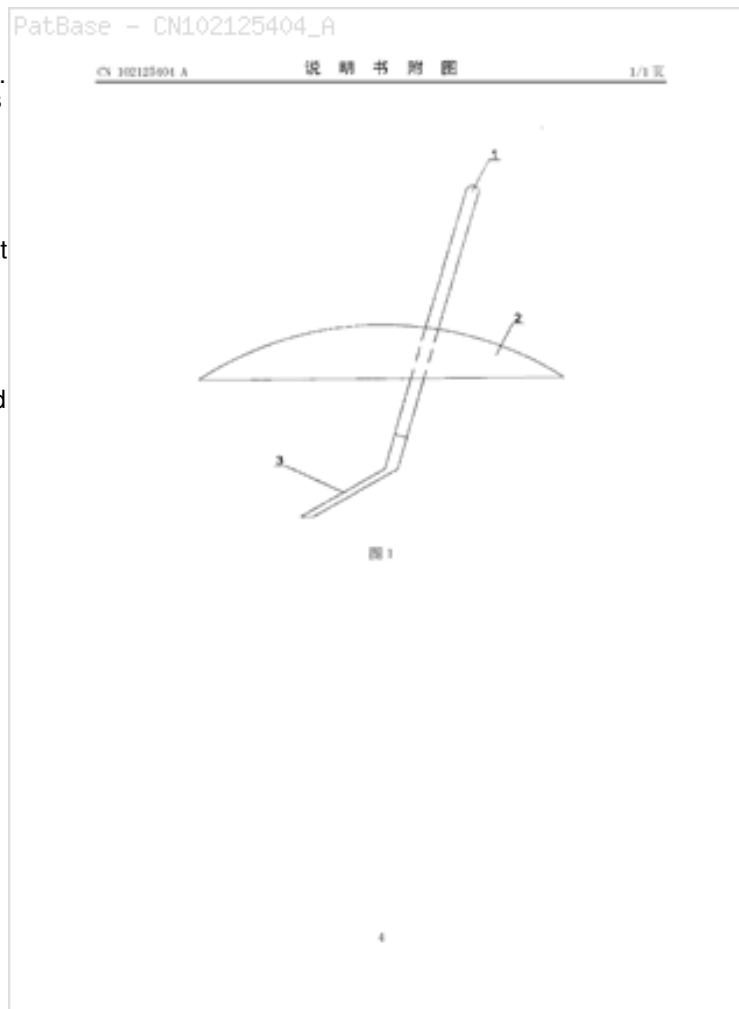
© PatBase

Title: Oil splashing resistant pan shovel**Priority:** CN201010100296 20100118

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102125404 A</u>	20110720	CN201010100296	20100118

Probable Assignee: HANYU ZHANG**Assignee(s):^(std):** HANYU ZHANG**Assignee(s):** ZHANG HANYU**Inventor(s):^(std):** HANYU ZHANG**Inventor(s):** ZHANG HANYU**International class** A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** CN103300756,**Abstract:**

Source: CN102125404A The invention discloses an oil splashing resistant pan shovel. The oil splashing resistant pan shovel consists of a shovel handle, a shovel head and a pan lid-shaped protective cover, wherein the pan lid-shaped protective cover is arranged in the middle of the shovel handle and near the shovel head; the maximum circumferential diameter of the protective cover is equal to that of the pan; and the pan lid-shaped protective cover is made of high-temperature-resistant toughened glass. The oil splashing resistant pan shovel has a simple structure. When in use, the oil splashing resistant pan shovel can keep the cooking bench surface clean well and protect a user from being damaged by splashing boiled oil.



69) Family number: 56880150 (BR102012021816A)

© PatBase

Title: TAMPA DE PREVENCAO AOS RESPINGOS DE OLEO COVER THE PREVENTION OF OIL SPATTER (Machine translation)

Priority: BR20121021816 20120830

Publication number	Publication date	Application number	Application date
BR102012021816 A2	20140701	BR20121021816	20120830

Probable Assignee: DUARTE GENI PEREIRA

Assignee(s):^(std): DUARTE GENI PEREIRA

Assignee(s): GENI PEREIRA DUARTE

Inventor(s):^(std): DUARTE GENI PEREIRA

Inventor(s): GENI PEREIRA DUARTE

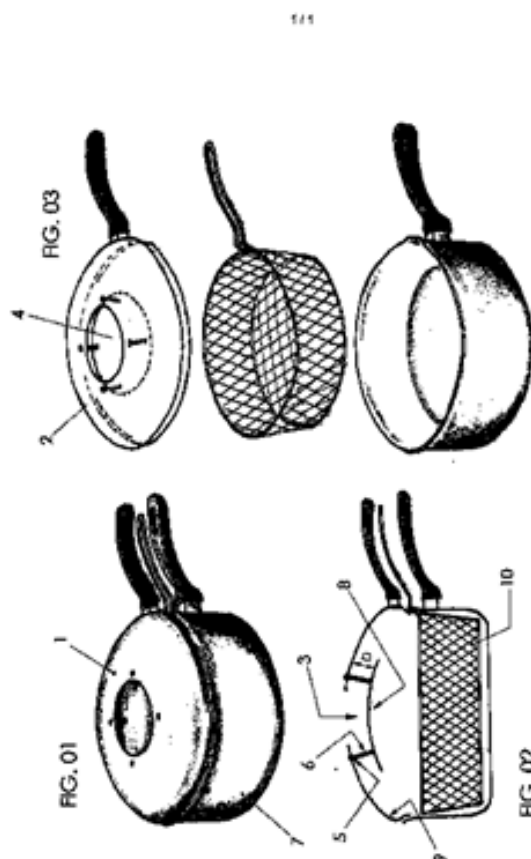
International class A47J27/00 A47J36/06 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: BR102012021816A 1 RESUMO
TAMPA DE PREVENCAO AOS RESPINGOS DE OLEO, quando sao colocados os alimentos a serem fritos dentro da panela, sendo a tampa principal (1) dotada de uma abertura superior (3), onde e fixada por intermedio de fixadores 5 (6) uma tampa secundaria (4), menor e interior a primeira tampa; de modo a formar uma barreira de protecao contra os respingos de oleo da fritura e ao mesmo tempo permitir a saida do vapor da coccao. ss ss ss 1 SUMMARY
PREVENTION COVER TO OIL SPLASH when foods are placed to be fried in the pan, with the lid (1) having an upper opening (3) where and secured by intermediate fasteners 5 (6) A secondary cover (4), the lower and inside the first cap; to form a protective barrier against splashing of the frying oil and simultaneously allowing the steam outlet from the cooking. ss ss ss

PatBase - BR102012021816_A2



70) Family number: 3725226 (US4715335A)

© PatBase

Title: Internal combustion engine with reduced noise and heat emissions

Priority: DE19843409101 19840313 DE19853581093 19850307 US19850710864 19850312
 DE19853546646 19850308 DE19853508405 19850308 US19850790996 19851024
 US19880230671 19880805

Family:	Publication number	Publication date	Application number	Application date
	DE3508405 A1	19851003	DE19853508405	19850308
	DE3508405 C2	19890817	DE19853508405	19850308
	DE3546646 C2	19890615	DE19853546646	19850308
	DE3581093 D1	19910207	DE19853581093	19850307
	EP0154939 A2	19850918	EP19850102582	19850307
	EP0154939 A3	19871104	EP19850102582	19850307
	EP0154939 B1	19901227	EP19850102582	19850307
	JP1636477 C3	19920131	JP19850048473	19850313
	JP2062685 B4	19901226	JP19850048473	19850313
	JP61008418 A2	19860116	JP19850048473	19850313
	US4715335 A	19871229	US19850710864	19850312
	US4895111 A	19900123	US19880230671	19880805

Probable Assignee: ELSBETT L

Assignee(s):^(std): ELSBETT L ; ELSBETT G ; ELSBETT KLAUS ; KURAUSU ERUSUBETSUTO

Assignee(s): ELSBETT KLAUS 8543 HILPOLTSTEIN DE ; ELSBETT GUENTER ; ELSBETT GUNTER ; GYUNTAA ERUSUBETSUTO ; RUUTOITSUHI ERUSUBETSUTO ; ELSBETT LUDWIG ; ELSBETT LUDWIG ING ; ELSBETT LUDWIG ING GRAD ; GIYUNTAA ERUSUBETSUTO ; RUUTOBUTSUHI ERUSUBETSUTO

Inventor(s):^(std): ELSBETT GUENTER ; ELSBETT KLAUS ; ELSBETT LUDWIG ING GRAD ; GIYUNTAA ERUSUBETSUTO ; KURAUSU ERUSUBETSUTO ; RUUTOBUTSUHI ERUSUBETSUTO ; ELSBETT LUDWIG

Inventor(s): RUUTOITSUHI ERUSUBETSUTO ; GYUNTAA ERUSUBETSUTO ; ELSBETT KLAUS 8543 HILPOLTSTEIN DE ; ELSBETT LUDWIG ING

Designated states: DE FR GB IT SE

International class
^{(IPC 8-9):} [F01M1/08 F01P3/02 F01P3/06 F01P3/08 F01P3/20 F02B75/22 F02B77/11 F02B77/13 F02F3/22 F02F7/00](#) (Advanced/Invention);
[F01P3/00 F02B1/04 F02B3/06 F02B75/22](#) (Advanced/Non-invention);
[F02F3/16](#) (Core/Invention)

International class
^{(IPC 1-7):} [B60H1/04 F01M1/08 F01P1/04 F01P11/12 F01P3/02 F01P3/06 F01P3/08 F01P3/10 F01P3/20 F02B75/18 F02B75/22 F02B77/11 F02B77/13 F02F1/00 F02F1/10 F02F1/14 F02F1/16 F02F1/40 F02F3/18 F02F3/22 F02M31/10](#)

CPC: [F01M1/08 F01P3/02 F01P2003/006 F02B1/04 F02B3/06 F02B75/22 F02B77/11 F02B77/13 F02F7/006 F02F2200/06 F05C2201/0448 F01M2005/004](#)

European class: [F01M1/08 F01P3/02 F02B75/22 F02B77/11 F02B77/13 F02F7/00D R01M5/00C10 R01P3/00L R02B1/04 R02B3/06 R02B75/22 R02F200/06 R05C201/04S4](#)

US class: [123/198E 123/41.35 123/41.42](#)

[Classification Explorer](#)

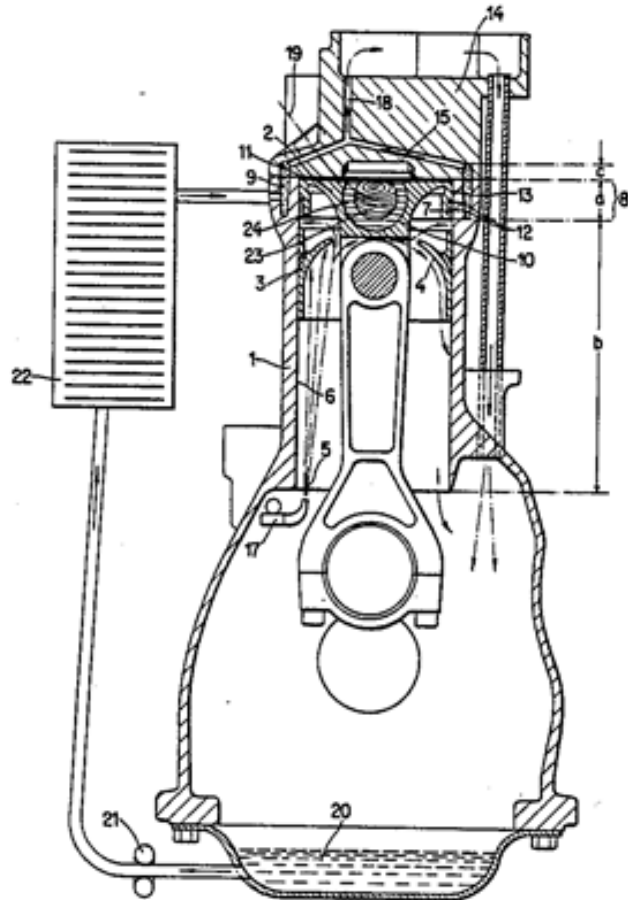
Cited documents: WO8002308 A1, US4715335 A, US4621595 A, US4523557 A, US4519358 A, US4508065 A, US4377967 A, US4230087 A, US4129108 A, US4114571 A, US4106455 A, US3939807 A, US3731660 A, US3412724 A, US3127879 A, US3115125 A, US2085810 A, US1420684 A, SU1134746 U, GB560424 A, FR2394675 A1, DE8124564 U, DE3314543 A1, DE3123527 A1, DE3008407 A1, DE2932448 A1, DE2825870 A1, DE2819609 A1, DE2649562 A1, DE2543478 A1, DE2539470 A1, DE2429355 A1, DE2425881 A1, DE2140824 A1, DE1601435 A1, CH438837 A, CH251727 A,

Forward Citations: WO09145745, WO08045036, WO08045036, WO04104391, US7827942, US6895905, US6866011, US6701875, US6371061, US6257188, US6250275, US5797359, US5595145, US5553583, US5533472, US5503116, US5239949, US5190003, US4895111, US2015059678, US2013179049, US2012031367, US2004040520, EP2942499, EP1956202, EP1079080, EP0659989, DE4409750, DE4409750, DE4344228, DE4344078, DE4316791, DE4138353, DE19940144, DE10323734, DE10323734, DE102013002233, DE10106435, CN103174539, CN103174539, AU2006349461,

Abstract:

Source: US4715335A There is disclosed an internal combustion engine with reduced emission of sound, heat and harmful substances. The characteristics of an air-cooled engine are optimized as a result of withdrawal of heat by oil in uniform distribution along the entire peripheries of the cylinders. For this purpose, there was developed a lower piston portion which effects uniform distribution of cooling oil along the periphery. The external cooling is improved in that the entire periphery of each free-standing cylinder is provided with a recessed ring-shaped oil guide and in that the free-standing cylinders are located in a common chamber which is cooled by oil sprays. More pronounced uniformity of such cooling action along the entire periphery of each cylinder allows for the selection of a higher temperature level of the cylinders which is important for combustion of vegetable oils in lieu of mineral oil products. At the same time, the above construction strives to accomplish the object of improving the power density and running characteristics of a diesel engine.

PatBase - US4895111_A



0) US2325928A – SEWING MACHINE FRAME

71) Family number: 21210981 (US2325928A)

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Title: Sewing machine frame
Priority: US19390267958 19390415 19400219 US19400339438 19400608
US19400332441 19400430 US19400362907 19401026

Family:	Publication number	Publication date	Application number	Application date
	CH254773 A	19480531		19461121
	FR51079 E	19410806		00000000
	FR868565 A	19420107		19400219
	GB535543 A	19410411	GB19400006755	19400415
	GB537161 A	19410611	GB19400006637	19400412
	GB539249 A	19410902	GB19400006729	19400413
	US2266140 A	19411216	US19390267958	19390415
	US2291129 A	19420728	US19400332441	19400430
	US2317240 A	19430420	US19400339438	19400608
	US2325928 A	19430803	US19400362907	19401026

Probable Assignee: SINGER MFG CO

Assignee(s):^(std): SINGER MFG CO

Assignee(s): THE SINGER MANUFACTURING COMPANY

Inventor(s):^(std): ZEIER FREDERICK F ; STOUVENEREAU HENRI ; MFG CO SING ; MANUFACTURING COMPANY THE SING

Inventor(s): COMPANY THE SINGER MANUFACTURING ; SINGER MFG CO

International class
(IPC 8-9): [A47C17/64](#) [D05B1/06](#) [D05B27/04](#) [D05B71/00](#) [D05B73/00](#) (Advanced/Invention);
[D05B57/02](#) (Advanced/Non-invention);
[A47C17/00](#) [D05B1/00](#) [D05B27/00](#) [D05B71/00](#) [D05B73/00](#) (Core/Invention);
[D05B57/00](#) (Core/Non-invention)

International class
(IPC 1-7): [D05B1/06](#) [D05B27/04](#) [D05B27/06](#) [D05B57/02](#) [D05B57/30](#) [D05B71/00](#) [D05B73/00](#)

CPC: [D05B1/06](#) [D05B27/04](#) [D05B57/02](#) [D05B71/00](#) [D05B73/00](#) [A47C17/64](#)

European class: [A47C17/64](#) [D05B1/06](#) [D05B27/04](#) [D05B71/00](#) [D05B73/00](#) [N05B57/02](#)

US class: [112/199](#) [112/256](#) [112/258](#) [112/311](#) [184/11.5](#) [184/6.15](#) [384/404](#)

[Classification Explorer](#)

Forward Citations: WO15063804, US3957002, US3628481, US3624763, US3583343, US3347196, US3285210, US3196815, US3191561, US3183869, US3068820, US3025812, US2960946, US2905118, US2884883, US2879733, US2793600, US2744482, US2721528, US2694375, ITRM20130595, DE975241, DE3313981, DE1099713, DE1098340, CN103981650, CN102206907,

Abstract:

Source: GB535543A 535,543.

Sewing-machines. SINGER

MANUFACTURING CO. April 15, 1940, No.

6755. Convention date, April 15, 1939. [Class

112] The bed of a sewing-machine comprises

a framework, with cross-walls 7, 8, 9, 10 and

front and back walls 1, a removable

cover-plate 45 and a drip pan 57. The

cover-plate has a readily removable

inspection plate which extends from the

standard 2 to the needle-plate. The

compartment between the walls 8, 10 forms an

oil sump and is continued by the compartment

13 in the standard. The belt compartment 17 is

closed by a removable cover 18. The belt

pulleys are mounted on ball-bearings 27, 40

on sleeves 28, 44 which have clearance holes

for the shafts 26, 41. A sleeve, bearing and

pulley assembly can be removed in one piece.

PatBase_ - US2325928_A

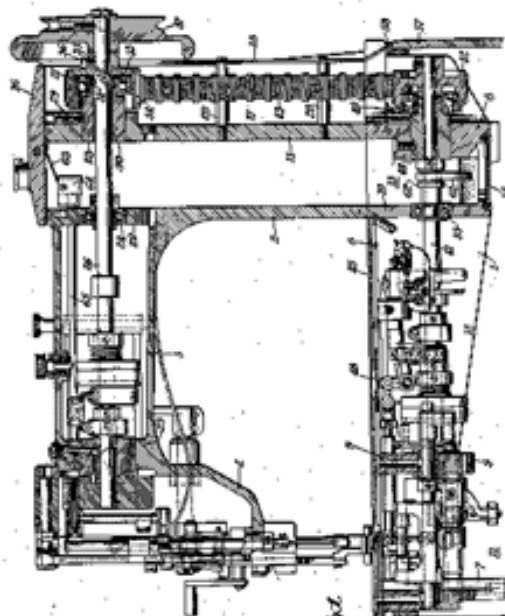
Aug. 3, 1943.

F. F. ZIEGLER

2,325,928

SEWING MACHINE FRAME

Original Filed April 15, 1939 6 Sheets-Sheet 1



Frederick F. Ziegler

John F. Heine
Attorney

72) Family number: 33329624 (CN2803210Y)

© PatBase

Title: General combined frying pot
Priority: CN200520013012U 20050704
Family:

Publication number	Publication date	Application number	Application date
<u>CN2803210 Y</u>	20060809	CN200520013012U	20050704

Probable Assignee: ZHUANG WENHUA

Assignee(s):^(std): ZHUANG WENHUA

Inventor(s):^(std): ZHUANG WENHUA

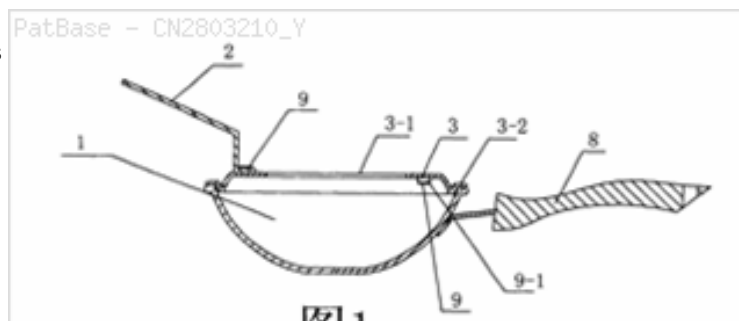
Inventor(s): WENHUA ZHUANG

International class A47J27/04 A47J36/16 A47J37/00 (Advanced/Invention);
 (IPC 8-9): A47J27/04 A47J36/00 A47J37/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN2803210Y The utility model relates to a universal combined frying pan which comprises a pan body provided with a handle. The pan opening part of the pan body is provided with a pan rack, and the middle part of the pan rack is upward protruded and is provided with a through hole. The pan rack is overlapped on the pan body by surrounding rack edges. Upper and lower surfaces of the pan rack are respectively provided with a handle seat which is provided with a handle hole bearing the handle. A pan cover covering the through hole is covered above the pan rack. A grid pan used for filtering oil is placed in the pan body, and the upper end of the grid pan penetrates out from the through hole of the pan rack. The pan rack is erected with a steaming pan used for steaming, and the bottom end of the steaming pan is erected on the through hole. The inner part of the pan body is provided with a barbecuing rack used for barbecue. The utility model has the advantages of reasonable structure and good using effect. The pan rack can prevent oil splash and is convenient for placing the steaming pan, the grid pan, etc.



73) Family number: 34131464 (CN2855267Y)

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Title: Anti-splashing protective pot cover**Priority:** CN200520029570U 20051219

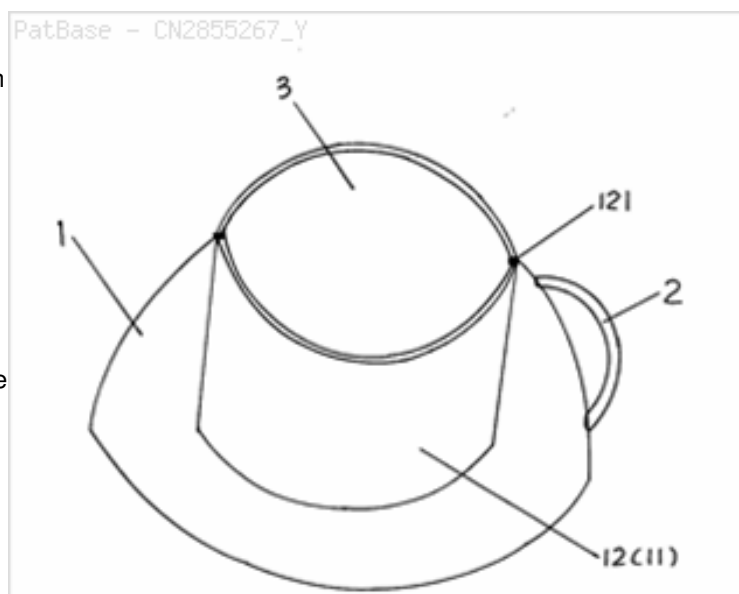
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2855267 Y</u>	20070110	CN200520029570U	20051219

Probable Assignee: LI HUI**Assignee(s):^(std):** LI HUI**Inventor(s):^(std):** LI HUI**Inventor(s):** HUI LI

International class A47J36/06 A47J36/38 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN103727573,**Abstract:**

Source: CN2855267Y A splash-shield pan cover is disclosed as the utility model. The pan cover has the vent holes in its middle and the working holes located laterally. A cover gate is built at the pivot of the working hole. The net piece is located transversely on the inner side of the cover and near to the working hole. Since no vent hole is built on the pan cover, the oil smoke and the steam both caused by applying the pan to the cookery is discharged through the vent hole so as to prevent against the splash. In addition, the oil smoke and the water vapor are sucked away by the ventilator because the oil smoke and the water vapor are discharged through the vent hole but the distance between the vent hole and the ventilator is shorter than the distance between the cooking pan and the ventilator. The working hole is designed to allow the cooking tools to extend into the hole so as to handle the fried food at the time when the pan cover remains above the pan. Usually, the work hole is covered by the gate cap fixed with the pivot so as to prevent the oil smoke, the steam or the splashed oil from spilling or splashing out of the pan.



0) US2015354693A – DRIVE UNIT FOR VEHICLES

74) Family number: 57134669 (US2015354693A)

© PatBase

Title: DRIVE UNIT FOR VEHICLES

Priority: JP20130019130 20130204 WO2013JP66112 20130611

Family:

Publication number	Publication date	Application number	Application date
CN104968975 A	20151007	CN201380072182	20130611
DE112013006585 T5	20160121	DE201311006585T	20130611
JP2014149061 A2	20140821	JP20130019130	20130204
JP5920235 B2	20160518	JP20130019130	20130204
US2015354693 AA	20151210	US20130760860	20130611
WO14119024 A1	20140807	WO2013JP66112	20130611

Probable Assignee: TOYOTA JIDOSHA KK

Assignee(s):^(std): TOYOTA MOTOR CO LTD ; TOYOTA MOTOR CORP

Assignee(s): TOYOTA JIDOSHA KK

Inventor(s):^(std): HIGASHI HIDEYUKI ; KOHNO TETSUYA ; MOTOIKE KAZUTOSHI ; YAMAMOTO KOZO ; KONO TETSUYA ; AZUMA HIDEYUKI

Agent(s): WATANABE TAKEO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

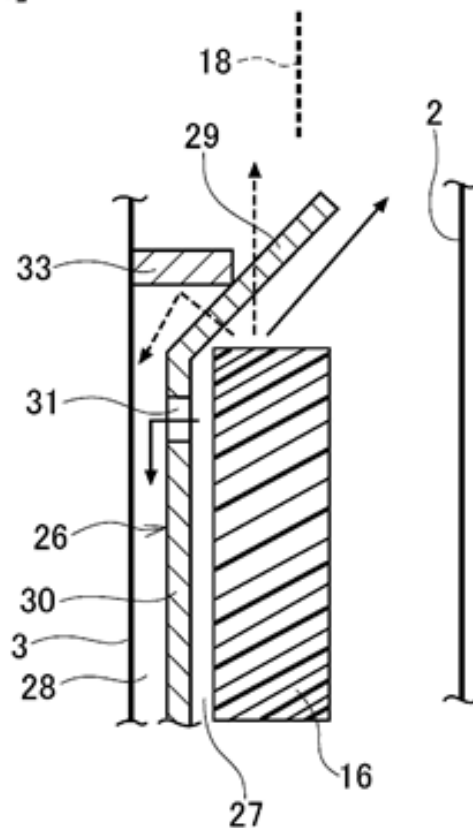
International class [F16H57/027](#) [F16H57/04](#) (Advanced/Invention)
(IPC 8-9):

CPC: [F16H57/0457](#) [F16H2057/02052](#) [F16H57/0483](#) [F16H57/027](#) [F16H57/0423](#)

US class: [475/160](#)

[Classification Explorer](#)

Cited documents: US5505112 A, US2012178571 AA, US2012096968 AA, US2011245009 AA, US2011011204 AA, US2008041179 AA, US2006048600 AA, US05505112, JP9236167 A2, JP61157749 U1, JP61157749 U, JP61157749 U, JP60128058 U1, JP60128058 U, JP60128058 U, JP59174450 U1, JP59174450 U, JP59174450 U, JP5488728 U, JP54088728 U1, JP54088728 U, JP50103322 U1, JP50103322 U, JP50103322 U, JP201121663, JP2011021663 A2, JP2007113636 A2, JP2007113636, JP1166856 U1, JP09236167, JP01166856 U, CN201891825 U, CN102734448 A,



Title: VENTILATION FAN
Priority: JP19790031629 19790316

Family:	Publication number	Publication date	Application number	Application date
	JP1390801 C3	19870723	JP19790031629	19790316
	<u>JP55123935 A2</u>	19800924	JP19790031629	19790316
	<u>JP61052891 B4</u>	19861115	JP19790031629	19790316

Probable Assignee: HITACHI LTD
Assignee(s):^(std) HITACHI LTD
Inventor(s):^(std) SHIMOJIMA FUKUMI ; KAMATA SAKAE

International class F24F7/013 (Advanced/Invention);
 (IPC 8-9): F24F7/013 (Core/Invention)

International class F24F7/013
 (IPC 1-7):

[Classification Explorer](#)

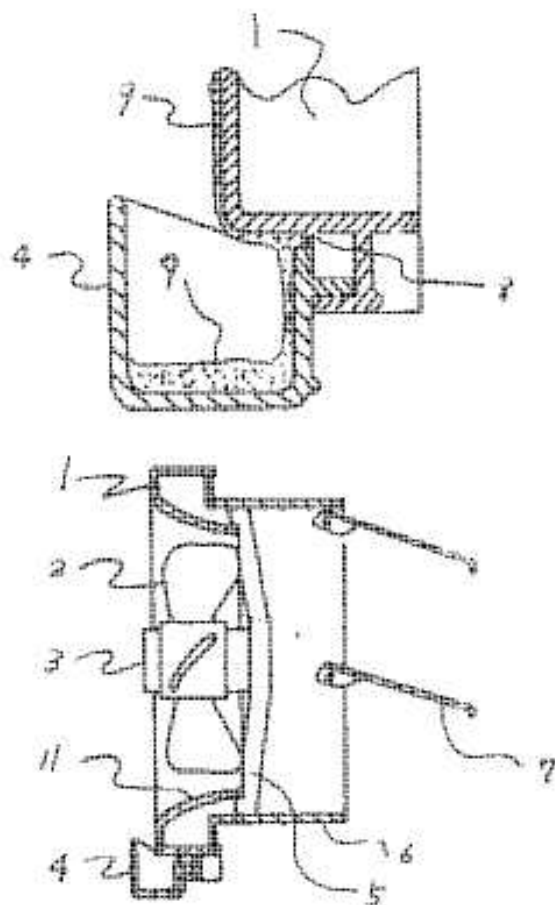
Cited documents: JP52029758 U1,

Forward Citations: JP2014202420,

Abstract:

Source: JP55123935A PURPOSE:To prevent oil from flowing out of an oil pan and effectively collect oil into the pan by a method wherein the whole or a part of that face of an oil pan which contacts a cover is slanted down toward the inside of the pan. CONSTITUTION:A motor fitted with vanes 2 through a vane cap 3 is fixed to a motor supporting arm 5 fitted on a main body 6. At the portion where the oil splashed from the vanes 2 to a vane guide 11 flows out, an oil pan 4 is removably engaged with a handle portion of the cover 1. The oil 9 splashed from the vanes 2 to the guide 11 collects in the lower portion of the guide 11, then flows along the front face of the cover 1 and along a junction portion 8 between the cover 1 and the oil pan 4, to collect in the recessed portion of the pan 4. The whole or a part of the portion 8 is slanted down toward the inside of the pan 4, so that the oil 9 is wholly collected in the pan 4 without flowing out of the pan 9.

PatBase - JP61052891_B4

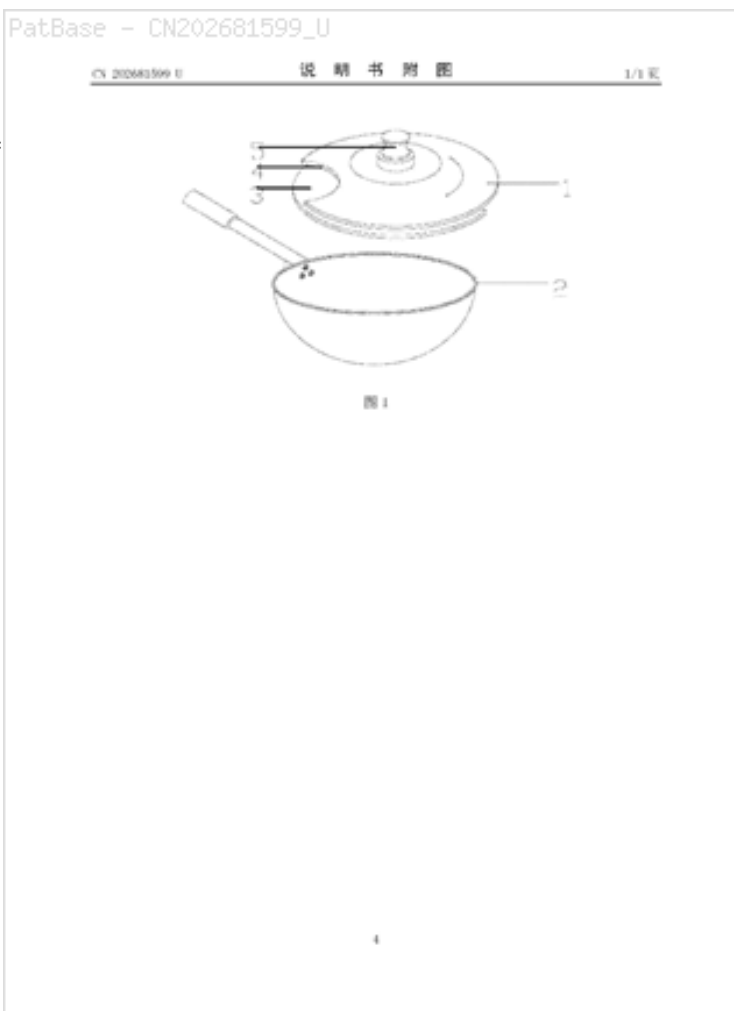


Title: Anti-scald pan**Priority:** CN201220380778U 20120802

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202681599 U</u>	20130123	CN201220380778U	20120802

Probable Assignee: JI HONGJIE**Assignee(s):**^(std): JI HONGJIE**Inventor(s):**^(std): JI HONGJIE**International class** A47J27/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN202681599U An anti-scald pan belongs to kitchen tools, and mainly solves the problem that a traditional pan is easy to scald a person during cooking. The anti-scald pan structurally comprises a pan body consisting of a cover and a body, wherein the cover consists of an upper cover, a lower cover, and a pinching handle, a middle part of the upper cover and a middle part of the lower cover are rotatably connected through a rotating shaft, one side of the upper cover and one side of the lower cover are respectively provided with a gap, a middle part of an external surface of the upper cover is fixedly connected with the pinching handle. With a shield effect of the cover, the anti-scald pan can prevent splashing oil from scalding the person; when the anti-scald pan is used for steaming and boiling food, a user can rotate the upper cover to stagger the gap of the upper cover and the gap of the lower cover, so as to form an enclosed cover and prevent steam leakage; the anti-scald pan of the utility model has the advantages of simple structure, safe and convenient use, and wide application range.



0) US2669322A – SPLASH TYPE LUBRICATING DEVICE FOR SINGLE CYLIN...

77) Family number: 22664028 (US2669322A)

© PatBase

Title: SPLASH TYPE LUBRICATING DEVICE FOR SINGLE CYLINDER HORIZONTAL
INTERNAL-COMBUSTION ENGINES

Priority: US19520296393 19520630

Family:	Publication number	Publication date	Application number	Application date
	<u>US2669322 A</u>	19540216	US19520296393	19520630

Probable Assignee: BRIGGS AND STRATTON CORP

Assignee(s):^(std): BRIGGS AND STRATTON CORP

Inventor(s):^(std): BROWN HUGH S

International class F01M9/06 (Advanced/Invention);
^{(IPC 8-9):} F01M9/00 (Core/Invention)

International class F01M9/06 F16N7/26
^{(IPC 1-7):}

CPC: F01M9/06

European class: F01M9/06

US class: 123/195R 184/13.1

[Classification Explorer](#)

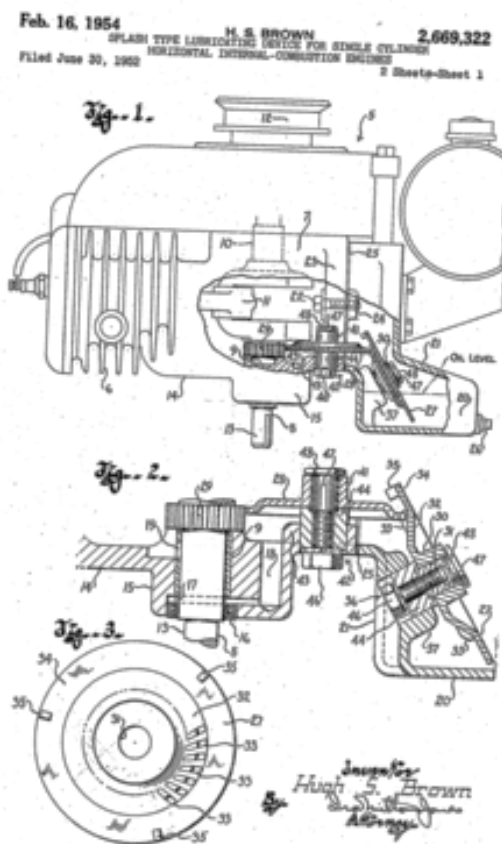
Cited documents: US2539619 A, US1326833 A,

Forward Citations: WO15168048, US4766859, US4470389, US4426964, US4412515, US2693789,
FR2507248,

Abstract:

Source: US2669322A (Claim 1) 1. In an internal combustion engine having a vertical crankshaft journaled in axially aligned top and bottom bearings, a crankcase and a horizontal cylinder at one side of the crankshaft: means defining an oil sump in open communication with the interior of the crankcase and having a portion thereof near the bottom bearing of the crankshaft; a rotatable oil slinger; means rotatably mounting the slinger with its axis disposed at an acute angle to an axis parallel to that of the crankshaft and with part of the slinger disposed in that portion of the oil sump near the bottom bearing and extending beneath the normal oil level; and a geared driving connection between the crankshaft and said rotatable slinger, so that the slinger rotates during operation of the engine and acts to throw oil from the sump upwardly into the crankcase interior to lubricate the moving engine parts therein.

PatBase - US2669322_A



Title: Frying pan
Priority: CN201120576261U 20111207

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202312935 U</u>	20120711	CN201120576261U	20111207

Probable Assignee: SHIZE SUN

Assignee(s):^(std): SHIZE SUN

Assignee(s): SUN SHIZE

Inventor(s):^(std): SHIZE SUN

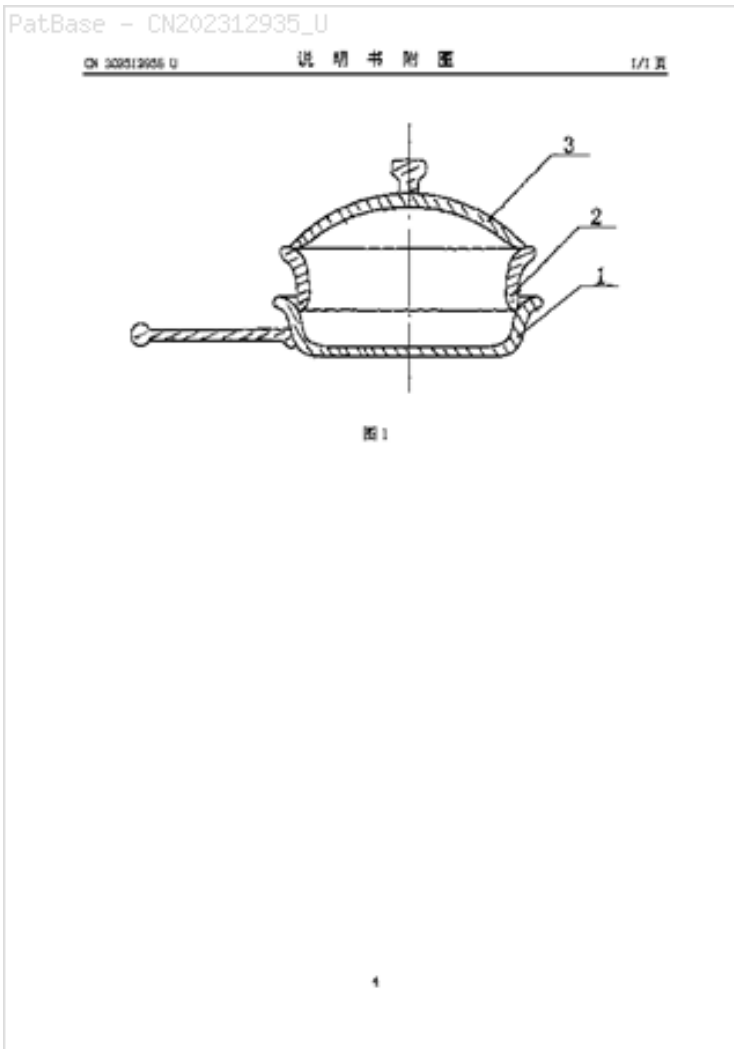
Inventor(s): SUN SHIZE

International class A47J43/10 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN202312935U The utility model discloses a frying pan. The frying pan comprises a pan body and a pan cover, the frying pan is further provided with a pan sheath, and the pan sheath is positioned between the pan body and the pan cover. Since the pan sheath is arranged between the pan body and the pan cover, when oil drops are splashed, the pan sheath is put on the pan body for covering a part of space on the pan body, the splashed oil can be blocked, and no influence on observation or turning of food can be caused.



Title: ELECTROMAGNETIC ACTUATOR**Priority:** JP20130080442 20130408**Family:**

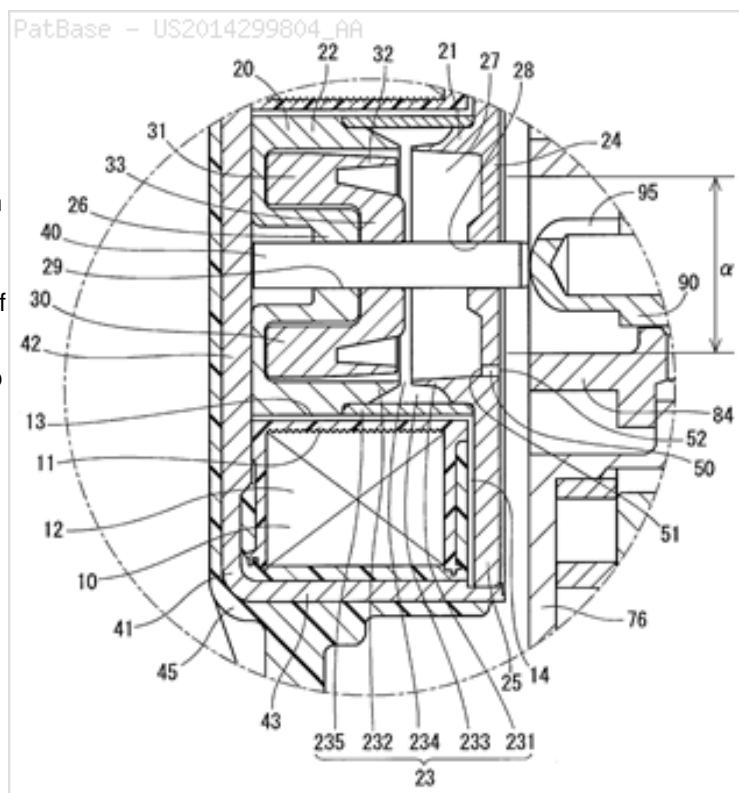
Publication number	Publication date	Application number	Application date
CN104100323 A	20141015	CN201410138364	20140408
DE102014206635 A1	20141009	DE201410206635	20140407
JP2014202311 A2	20141027	JP20130080442	20130408
JP5761247 B2	20150812	JP20130080442	20130408
US2014299804 AA	20141009	US20140244220	20140403

Probable Assignee: DENSO CORP**Assignee(s):**^(std): DENSO CORP ; NIPPON DENSO CO**Inventor(s):**^(std): ARAO MASASHI ; MASASHI ARAO**International class**
^(IPC 8-9): [F01L1/344](#) [F01L1/356](#) [F01L9/04](#) [F02D13/02](#) [F16K31/06](#) [H01F7/06](#) [H01F7/128](#)
[H01F7/16](#) (Advanced/Invention)**CPC:** [F02D13/02](#) [F16K31/0675](#) [F01L1/3442](#) [F01L2001/3443](#) [F01L2001/34469](#)
[F01L2101/00](#) [F01L2810/02](#)**US class:** [251/129.15](#)[Classification Explorer](#)**Cited documents:** US8534247 BB, US8427263 BB, US7959128 BB, JP2012163050 A2, JP2003056737 A2,
DE102010060180 A1

CN102042051 A, CN101922321 A,

Forward Citations: JP2015090206,**Abstract:**

Source: US2014299804A An electromagnetic actuator, which is arranged at a position opposing to a hydraulic control valve, has a movable-core chamber for movably accommodating a movable core and an air breathing passage for communicating the movable-core chamber to the atmosphere. An inside opening of the air breathing passage is formed in an inner wall of the movable-core chamber, while an outside opening of the air breathing passage is formed in an outer wall of the actuator, which is in contact with the atmosphere. The outside opening is formed at such a position out of an oil-splashing area, to which oil discharged from an oil-discharge port of the hydraulic control valve is directly splashed. According to the above structure, it is possible to prevent the oil discharged from the oil-discharge port from rushing into the movable-core chamber through the air breathing passage.



0) CN104739258A – FRYING PAN

80) Family number: 59641515 (CN104739258A)

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Title: FRYING PAN

Priority: CN201310743088 20131230

Family:

Publication number	Publication date	Application number	Application date
<u>CN104739258 A</u>	20150701	CN201310743088	20131230

Probable Assignee: SUN SHIZE

Assignee(s):^(std): SUN SHIZE

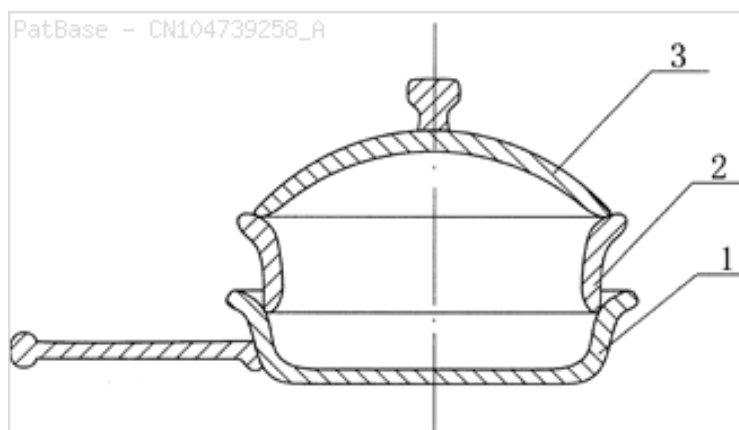
Inventor(s):^(std): SUN SHIZE

International class A47J37/12 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN104739258A The invention discloses a frying pan. The frying pan comprises a pan body and a pan cover; the frying pan is provided with a pan sleeve; and the pan sleeve is located between the pan body and the pan cover. The pan sleeve is installed between the pan body and the pan cover. While oil drops splash all around, the pan sleeve is placed on the pan body, so that partial space on the pan body can be sleeved, the oil drops can be blocked, and the observing or turning of foods is not affected.



81) Family number: 12343650 (JP11022955A)

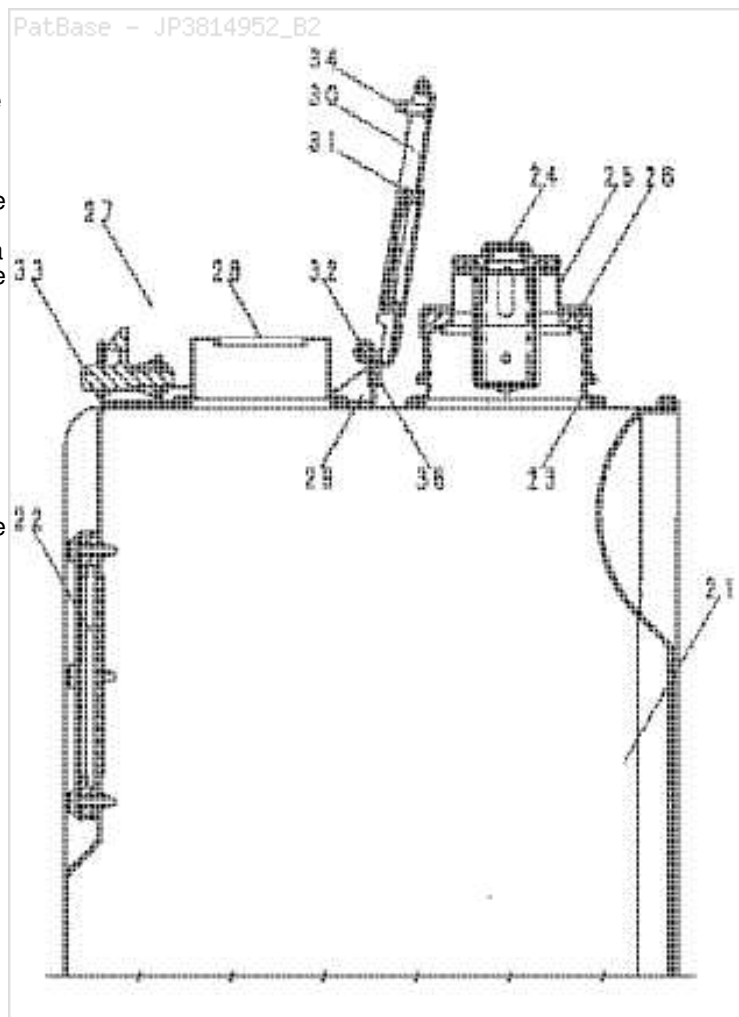
© PatBase

Title: CARTRIDGE TYPE OIL SUPPLY TANK**Priority:** JP19970176734 19970702**Family:**

Publication number	Publication date	Application number	Application date
<u>JP11022955 A2</u>	19990126	JP19970176734	19970702
<u>JP3814952 B2</u>	20060830	JP19970176734	19970702

Probable Assignee: MATSUSHITA ELECTRIC IND CO LTD**Assignee(s):^(std):** MATSUSHITA ELECTRIC IND CO LTD**Assignee(s):** MATSUSHITA ELECTRIC INDUSTRIAL CO LTD**Inventor(s):^(std):** AKUTSU TSUNEO ; TOMIOKA MITSU HARU**International class** F23K5/14 (Advanced/Invention);
(IPC 8-9): F23K5/02 (Core/Invention)**International class** F23K5/14
(IPC 1-7):[Classification Explorer](#)**Abstract:**

Source: JP11022955A PROBLEM TO BE SOLVED: To openably rotate an oil supply plug making no contact with fuel, in a cartridge type oil supply tank for a petroleum combustion apparatus. SOLUTION: This tank comprises an oil supply tank 21 placed on an oil pan, a full display means 22 disposed at the upper side of the oil supply tank 21, and an oil supply plug 27 composed of a cap 25 having a valve means 24 disposed on the upper surface of the oil supply tank 21, an oil supply port 28 juxtaposed with the periphery of the cap 25, and an oil supply port cover 30 openably rotating by a lock means arranged at the oil supply port 28 through a packing material 31. Since the oil supply plug 27 for exclusive use is arranged in juxtaposition with the cap 25 having the valve means 24 arranged on the upper surface of the oil supply tank 21, the oil supply plug 27 is simply opened by the lock means and oil supply is practicable. Since the rotating oil supply port cover 30 has an outer surface making entirely contact with fuel, sagging of fuel, splashing of fuel, and soiling of a hand with fuel are prevented from occurring.



82) Family number: 43343660 (CN201234901Y)

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Title: Anti-splash safety cooker lid
Priority: CN200820121698U 20080722
Family:

Publication number	Publication date	Application number	Application date
<u>CN201234901 Y</u>	20090513	CN200820121698U	20080722

Probable Assignee: WENYANG ZHAO

Assignee(s):^(std): WENYANG ZHAO

Assignee(s): ZHAO WENYANG

Inventor(s):^(std): WENYANG ZHAO

Inventor(s): ZHAO WENYANG

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

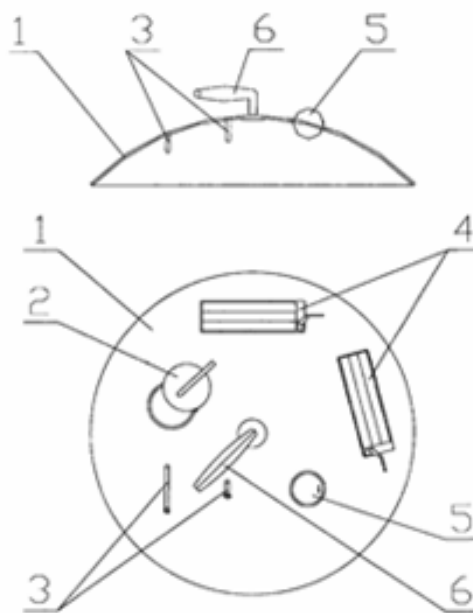
[Classification Explorer](#)

Forward Citations: WO11143803, CN103584740, CN103284616,

Abstract:

Source: CN201234901Y Disclosed is a cover which can be used by cooks to finish cooking without opening the cover, thereby realizing the purposes of protecting the cooks from damages caused by splashing oil and splashed soup or hot steam, guiding the exhaust of oil smoke, keeping the sanitation of a hearth and a kitchen, and the health of the cooks. The cover is formed by a cover body, and a cover handle, a food flavoring filling port cover, an exhaust port cover, a pancake turner inlet and a pancake turner shelf which are arranged on the cover body. Users who use the cover can put food flavoring into a pan through opening the food flavoring filling port cover, opens and closes the exhaust port cover to exhaust or isolate steam in the pan, penetrates the pancake turner into the pan to fry and agitate food through the pancake turner inlet, and places the pancake turner on the pancake turner shelf, thereby finishing the cooking without opening the cover in the cooking process.

PatBase - CN201234901_Y



83) Family number: 47060615 (KR200316877Y)

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Title: Disposable Oil shatterproof cover (Machine translation)**Priority:** KR20030008158U 20030319

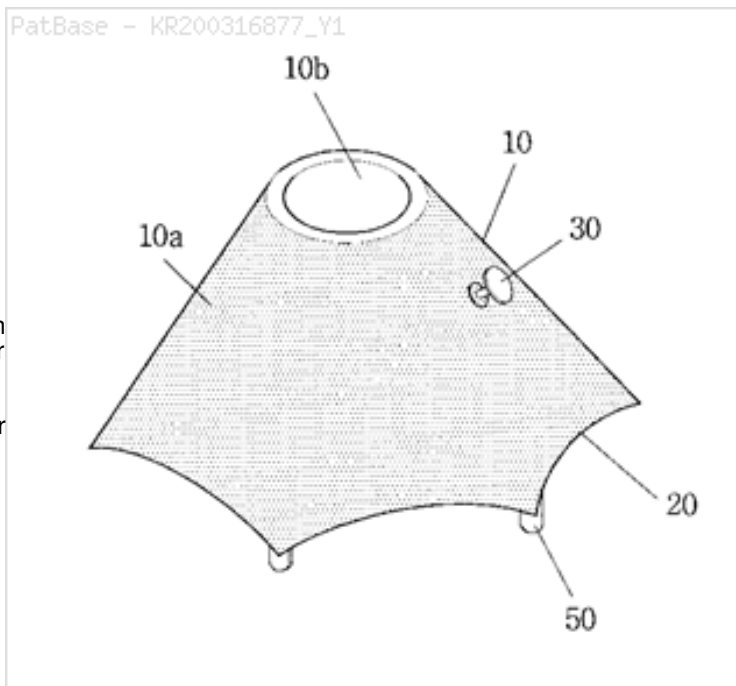
Family:	Publication number	Publication date	Application number	Application date
	KR200316877 Y1	20030619	KR20030008158U	20030319

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/06 (Advanced/Non-invention)

International class A47J36/06
 (IPC 1-7):

[Classification Explorer](#)**Forward Citations:** KR101424993,**Abstract:**

Source: KR200316877Y The subject innovation relates to an oil splash prevention cover, and more particularly to phase, to the lower portion side of the open oil scatter-proof cover so that taper toward the top, by using the cooking utensils such as a frying pan or grill food when you cook, the present invention relates to hot oil is prevented from being scattered to the outside while cooking in the event of odor disposable oil shatterproof covers to make clean the air inside of a kitchen and restaurant by vented in one direction being. , and the upper and lower achieve the object of the present invention opened and formed gradually tapering to the upper oil splash prevention cover, and a lower portion of the oil splash prevention cover is a plurality of grooves arcuately formed, the oil splash prevention cover the outer surface is made of a foil material, it characterized in that the inner surface is formed of oil absorbent paper. Oil, fly, food, cooking utensils, taper



84) Family number: 50120827 (KR20110135008A)

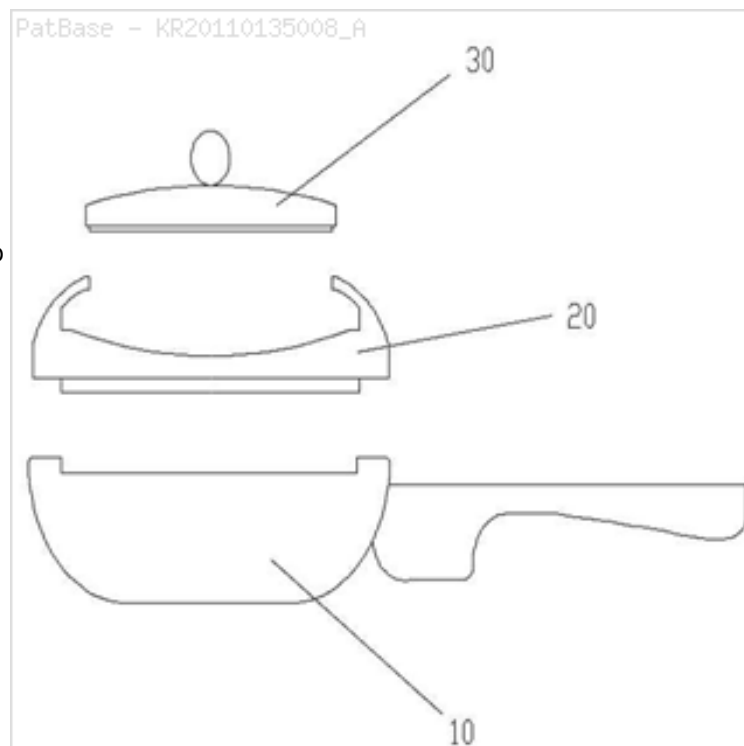
© PatBase

Title: A FRIED FOOD PREVENTION FRYING PAN**Priority:** KR20100054696 20100610

Family:	Publication number	Publication date	Application number	Application date
	<u>KR20110135008 A</u>	20111216	KR20100054696	20100610

Probable Assignee: KIM MIN WOO**Assignee(s):**^(std): KIM MIN WOO**Inventor(s):**^(std): KIM MIN WOO**International class** A47J37/10 (Advanced/Invention)
(IPC 8-9):**CPC:** A47J37/10 A47J37/108[Classification Explorer](#)**Abstract:**

Source: KR20110135008A PURPOSE: A frying pan for preventing oil splashing is provided to prevent smoke by opening the top of a lid while cooking but closing the top of the lid while not cooking. CONSTITUTION: A frying pan for preventing oil splashing comprises a main body(10), an oil splash prevention cover(20), and a lid(30). The oil splash prevention cover is arranged on the top of the main body. The lid is arranged on the top of the oil splash prevention cover. The main body is oval shape. The lid is transparent.



85) Family number: 54169714 (CN203000610U)

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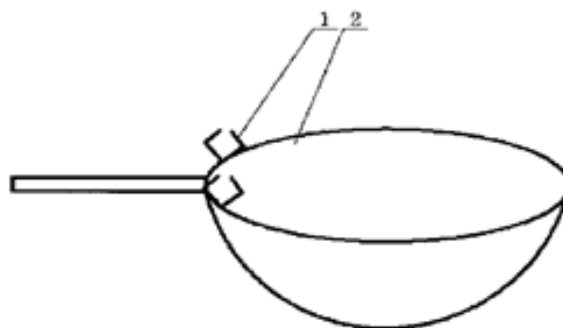
Title: FRYING PAN WITH PAN COVER FORMED STRUCTURE**Priority:** CN201220646435U 20121130**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203000610 U</u>	20130619	CN201220646435U	20121130

Probable Assignee: JI HONGYU**Assignee(s):**^(std): JI HONGYU**Inventor(s):**^(std): JI HONGYU**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN203000610U The utility model relates to a frying pan with a pan cover formed structure. The frying pan is characterized in that two pan cover supports are symmetrically arranged on pan edges at two sides of a handle. According to the frying pan with the pan cover formed structure, the two pan cover supports are arranged on the pan edges at the handle and can be used for clamping the pan cover thereon, so that oil is prevented from splashing on a body when the frying pan is used for frying foods, and higher safety is realized.

PatBase - CN203000610_U



86) Family number: 64028537 (CN205682969U)

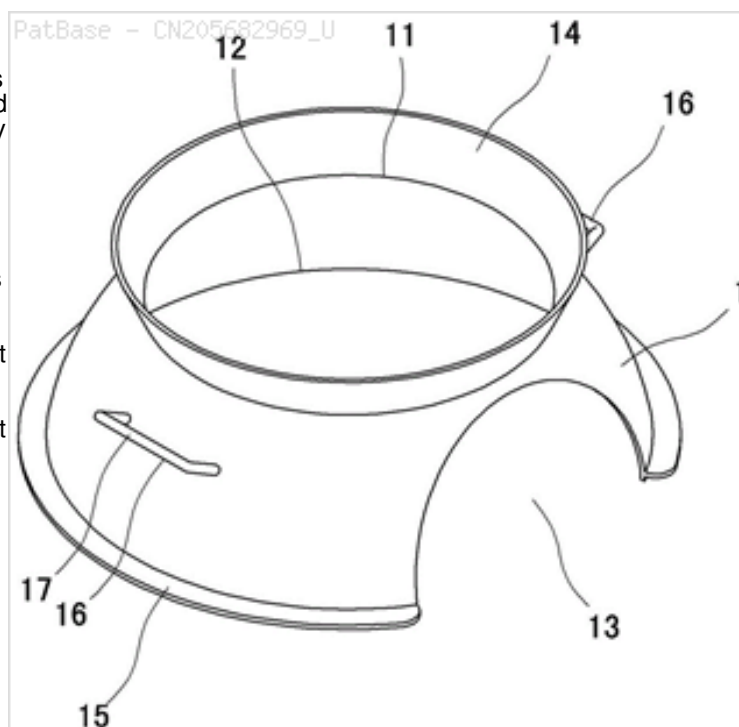
© PatBase

Title: FRYING PAN SPLASH GUARD**Priority:** CN201620339744U 20160421

Family:	Publication number	Publication date	Application number	Application date
	<u>CN205682969 U</u>	20161116	CN201620339744U	20160421

Probable Assignee: WANG JIAN**Assignee(s):**^(std): WANG JIAN**Inventor(s):**^(std): WANG JIAN**International class** A47J36/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN205682969U The utility model relates to a frying pan splash guard, it includes the splash guard cover body (1), the upper and lower communicating thin wall cover form body of profit spill was equipped with a side direction opening and downwardly extending and frying pan mouth and fries mouth (13) to communicating the turning over of interface (12) when the splash guard cover body (1) was equipped with the frying pan mouth and is used for the cover to prevent to stir -fry on the frying pan mouth to interface (12) for upper portion is equipped with oil smoke steam outlet (11), lower part on the well lower part lateral wall of the splash guard cover body (1). Outside can preventing the oily spill pot of heat in the pot when using it to explode the pot and cook, avoid the waste of edible oil, can also normally turn over the stir -fry to the dish of frying in the frying pan. It can block the profit from spill in the pot and prevent to spatter polluted environment to the mesa in kitchen and the wall on, can also make the profit flow back in the frying pan, reaches the purpose of practicing thrift the environmental protection. Can the normal use pot cover when not using, can not influence other normal function of frying pan.



Title: Improvements in internal combustion engines

Family:

Publication number	Publication date	Application number	Application date
<u>GB256927 A</u>	19261104	GB19260010237	19260419

Probable Assignee: STUDEBAKER CORP

Assignee(s):^(std) STUDEBAKER CORP

International class F16N39/06 (Advanced/Invention);
(IPC 8-9); F16N39/00 (Core/Invention)

International class F01M1/10
(IPC 1-7);

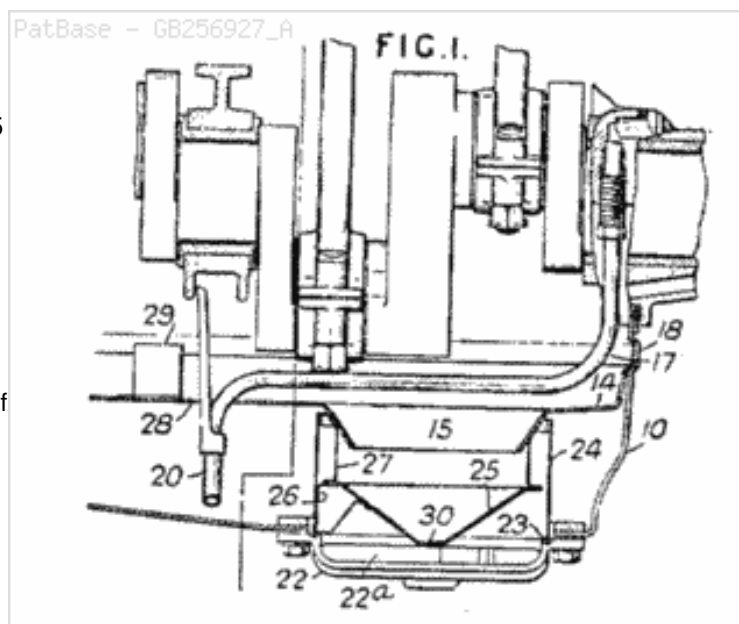
CPC: F16N39/06

European class: F16N39/06

[Classification Explorer](#)

Abstract:

Source: GB256927A Filters having sheet filtering-materials. A strainer mounted in the crank case 10 of an internal-combustion engine to receive oil from a conical opening 15 in a splash pan 14 comprises an outer cylindrical screen 24 positioned over a pediment pocket 22 in a cover plate 22, a conical baffle member 25 having a central opening 30, and an inner screen 27 supported by the baffle. The lower edge of the screen 24 rests in an annular groove 23 in the cover 22, while the upper edge is spaced from the wall of the opening 15. The baffle-25 is supported on legs 26 resting on the cover 22 and secured to the screen 24, and the upper end of the screen 27 is made conical to contact with the wall of the opening 15 and has a flange contacting with and secured to the upper edge of the screen 24.



88) Family number: 4203347 (EP0411296A1)

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Title: Drive device of a vehicle.**Priority:** DE19893925411 19890801 DE19905000287 19900621

Family:	Publication number	Publication date	Application number	Application date
	<u>DE3925411 A1</u>	19910207	DE19893925411	19890801
	<u>DE59000287 D1</u>	19921008	DE19905000287	19900621
	<u>EP0411296 A1</u>	19910206	EP19900111732	19900621
	<u>EP0411296 B1</u>	19920902	EP19900111732	19900621

Probable Assignee: MAN NUTZFAHRZEUGE AG**Assignee(s):^(std):** MAN NUTZFAHRZEUGE AG**Assignee(s):** MAN NUTZFAHRZEUGE AG 8000 MUENCHEN DE ; MAN NUTZFAHRZEUGE AKTIENGESELLSCHAFT**Inventor(s):^(std):** HAGIN FAUST DIPL ING ; DREWITZ HANS ING GRAD**Inventor(s):** HAGIN DIPL ING FAUST W 8000 MUENCHEN 2 DE ; DREWITZ ING GRAD HANS W 8000 MUENCHEN 40 DE ; DREWITZ HANS ING GRAD 8000 MUENCHEN DE**Designated states:** DE FR GB IT SE

International class
^(IPC 8-9): C23C22/16 C23C22/18 C23C22/36 C23C22/77 F01M1/12 F01M11/06 (Advanced/Invention);
F01M11/00 (Advanced/Non-invention);
C23C22/05 C23C22/73 F01M1/00 F01M11/00 (Core/Invention)

International class
^(IPC 1-7): B60K17/04 B60K6/10 B60T1/10 F01M1/12 F01M11/00 F01M11/06 F01M11/12 F16H57/04

CPC: C23C22/16 C23C22/18 C23C22/36 C23C22/77 F01M1/12 F01M11/06 F01M2011/0041 F16H57/0421**European class:** C23C22/16 C23C22/18 C23C22/36 C23C22/77 F01M1/12 F01M11/06 F16H57/04M3 R01M11/00B14B[Classification Explorer](#)**Cited documents:** US4677948 A, US4519348 A, US3106263 A, US2525946 A, GB411325 A, FR856123 A, FR502791 A, EP0140108 A1, DE403609 A, DE3619296 A1, DE2701939 A1, DE1948186 A1, DE1908240 A1, DE1450724 A1,**Forward Citations:** US9399935, DE102014013580, DE102011080710, DE102011079824, DE102004060595, DE102004060595, DE10017271,

Abstract:

In a drive device of a vehicle, at the underside of the engine-gearbox unit, an oil sump (1) from which oil can be fed to a circuit (6) by means of a servo pump (2) via a suction line (3) having a nonreturn valve (4) opening in the suction direction. Extending into the region of the oil sump, to below the maximum oil level (9), is a rotational body such as a gearwheel, chainwheel, flywheel or the like, which forms part of the drive device. To avoid a situation in which splashing oil impairs the running of the rotational body during driving, the rotational body (7) is assigned within the oil sump a protection element (11) which protects it to a large extent against splashing oil by at least partially overlapping its lower region. Measures are also taken for collecting and sucking off any oil which has penetrated into the interior of the protection element. The protection element (11) can be formed by an upwardly open cup or a closed casing.

PatBase - EP0411296_A1

EP 0 411 296 A1

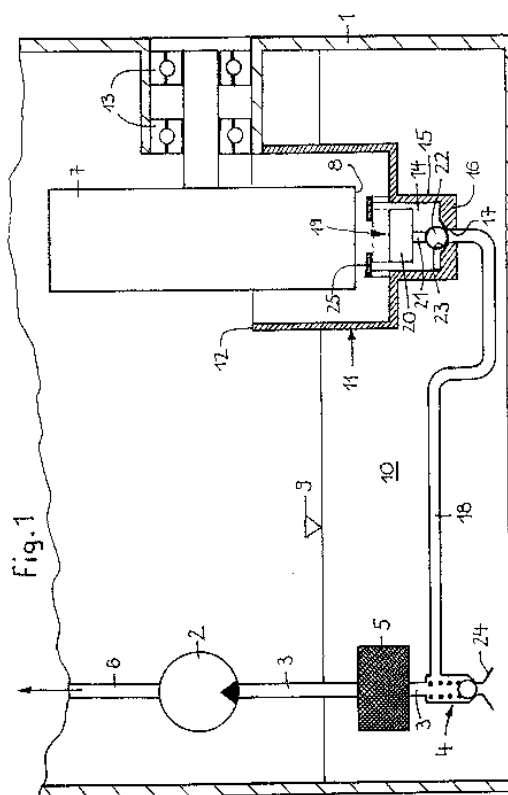


Fig. 1

0) JP11223115A – ENGINE OIL PASSAGE STRUCTURE FOR MOTORCYCLE

89) Family number: 13138300 (JP11223115A)

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Title: ENGINE OIL PASSAGE STRUCTURE FOR MOTORCYCLE

Priority: JP19980023447 19980204

Family:	Publication number	Publication date	Application number	Application date
	<u>JP11223115 A2</u>	19990817	JP19980023447	19980204
	<u>JP3521727 B2</u>	20040419	JP19980023447	19980204

Probable Assignee: SUZUKI MOTOR CO

Assignee(s):^(std): SUZUKI MOTOR CO

Assignee(s): SUZUKI MOTOR CORP ; SUZUKI KABUSHIKI KAISHA

Inventor(s):^(std): NAKAMURA EIICHI

International class
(IPC 8-9): F01M1/06 F02B61/02 F02B75/22 F02F7/00 (Advanced/Invention);
F02B75/02 F02B75/18 (Advanced/Non-invention);
F01M1/06 F02B61/00 F02B75/00 F02F7/00 (Core/Invention);
F02B75/02 (Core/Non-invention)

International class
(IPC 1-7): F01M1/06 F02B61/02 F02F7/00

CPC: F02B61/02 F02B75/22 F02B2075/027 F02B2075/1808

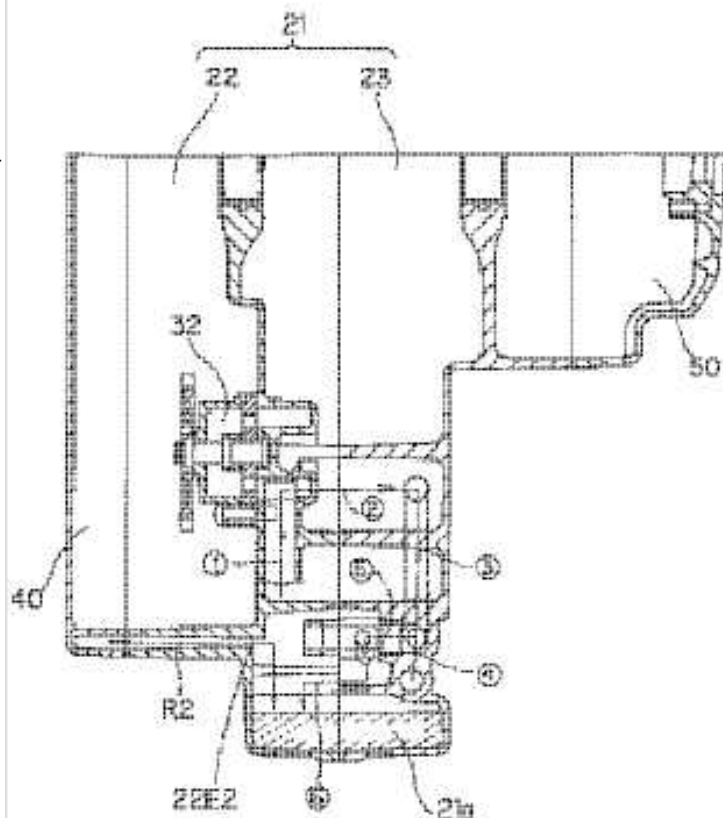
European class: F02B61/02 F02B75/22 R02B75/02S4 R02B75/18C2

[Classification Explorer](#)

Abstract:

Source: JP11223115A PROBLEM TO BE SOLVED: To prevent the splash of oil to an undesired part by forming a recessed groove on at least one of joint faces of an engine case and a cover body, and allowing the oil to flow inside the recessed groove from an inlet formed on the recessed groove, and further allowing the same to flow to an oil pan through an outlet. SOLUTION: The oil in an oil pan 21a is sucked by the operation of an oil pump when an engine is driven, to be fed by pressure to a journal part of a crankshaft, a sliding face of a cylinder and a piston, and a valve gear. The oil after lubricating each part, is allowed to flow through a cylinder head and an oil returning passage mounted on the cylinder. Further the oil is allowed to flow into an oil passage R2 formed by the recessed groove communicating with a lower end of the oil returning passage from a lower part of the cylinder, the oil is allowed to flow into a relief valve chamber surrounded by an anti-scattering wall around a relief valve 32 mounted on a left crank case structural member 23 through an outlet 22E2 at the lower end of the passage R2, and the oil is further allowed to flow into the lower oil pan 21a.

PatBase - JP3521727_B2



0) CN2214787Y – ANTI-SPLASHING FRYING-PAN

90) Family number: 17572202 (CN2214787Y)

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Title: Anti-splashing frying-pan
Priority: CN19952007090U 19950414

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2214787 Y</u>	19951213	CN19952007090U	19950414

Probable Assignee: WO ERKE ELECTROMECHANICAL TECH

Assignee(s):^(std): WO ERKE ELECTROMECHANICAL TECH ; WO ERKE ELECTROMECHANICAL TECHNOLOGY CO LTD BEIJ

Assignee(s): WO ERKE ELECTROMECHANICAL TECHNOLOGY CO LTD BEIJIN ; WO ERKE ELECTROMECHANICAL TECHNOLOGY CO ; WO ERKE ELECTROMECHANICAL TECHNOLOGY CO LTD

Inventor(s):^(std): CHAOZHONG ZHANG ; HUAZHI LI ; LI HUAZHI ; ZHANG CHAOZHONG

International class A47J37/12 (Advanced/Invention) ;
^{(IPC 8-9) :} A47J37/12 (Core/Invention)

International class A47J37/12
^{(IPC 1-7) :}

[Classification Explorer](#)

Abstract:

Source: CN2214787Y The utility model relates to an anti-splashing frying-pan which is composed of a pan body, pan handles, a pan cover, etc., wherein, the bottom face and the lateral face of the pot body are connected in arc shape, both ends of the pan body are provided with pan handles, and the upper end of the pan body is provided with a flanging; the shape of the pan cover corresponds with that of the pan body, the pan cover can be in tight fit with the pan body and is provided with a concave oil draining area, and oil draining holes which can be round holes, long grooves or in other shapes are distributed at the bottom of the area. The utility model has the advantages of safety, sanitation and convenient operation and is convenient for draining excess oil left on food.

0) US1961664A – RAILWAY JOURNAL LUBRICATOR

91) Family number: 19539102 (US1961664A)

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Title: RAILWAY JOURNAL LUBRICATOR

Priority: US19310558719 19310822

Family:	Publication number	Publication date	Application number	Application date
	US1961664 A	19340605	US19310558719	19310822

Probable Assignee: HENNESSY JAMES J

Assignee(s):^(std): HENNESSY JAMES J

Inventor(s):^(std): HENNESSY JAMES J

International class
(IPC 8-9): [B61F17/24](#) (Advanced/Invention);
[B61F17/00](#) (Core/Invention)

International class
(IPC 1-7): [B61F17/24](#)

CPC: [B61F17/24](#)

European class: [B61F17/24](#)

US class: [384/169](#)

[Classification Explorer](#)

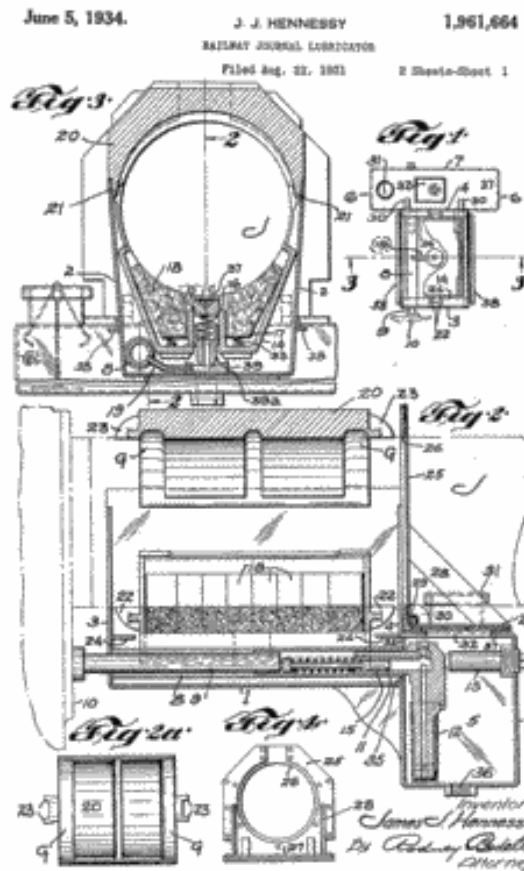
Forward Citations: DE3200557,

Abstract:

Source: US1961664A What is claimed is: 1. In a railway journal lubricator, a cellar including a body portion, a pump cylinder mounted on one side thereof, an oil reservoir at one end thereof, a sub-cellar movable therein with its bottom beneath the level of the upper portion of said Cylinder and with its side walls extending upwardly for contacting with the surface of a journal to be lubricated, and an oil conduit extending laterally from said cylinder and through said sub-cellar. 2. In a railway journal lubricator, a cellar including a body portion having upright side and end walls, there being a lubricant reservoir extending outwardly and downwardly from one of said end walls and extending above the bottom of said cellar, said last mentioned end wall constituting an upright partition for restraining the passage of liquid from said cellar to said reservoir, a pump device including an intake arm extending downwardly in said reservoir and a cylinder extending through said end wall into said body portion, said reservoir including a top wall integral with the side walls of the reservoir and with said cellar end wall and provided with a restricted opening and said intake arm being rotatable about said cylinder to permit removal of said pump device through the opening in said top wall. 3. In a railway journal lubricator, a cellar including a body portion having side walls arranged to receive a journal between them and having an end wall arranged to fit beneath said journal, there being a lubricant reservoir extending outwardly and downwardly from said body portion, an end member comprising an upright plate, arranged to surround said journal and a cover said reservoir extending outwardly from said plate, and means for detachably securing said end member to said body portion with said end plate contacting with the adjacent ends of said side walls. 4. In a railway journal lubricator, a cellar including a

body portion having side walls arranged to receive a journal between them and having an end wall arranged to fit beneath said journal, there being a lubricant reservoir extending outwardly and downwardly from said body portion, an end member comprising a cover for said reservoir and an upstanding plate thereon adapted to surround said journal, said plate being lined with suitable packing material and fitting against the ends of said side walls, there being a diagonal brace between points on said cover and plate spaced from the corner formed by them, and means for detachably securing said end member in position. » 5. A structure as described in claim 4 in which the securing means includes an ear on said cellar projecting through said end member, and an element interengaging with said ear and said member. 6. In a railway journal lubricator, a cellar including a body portion and an oil reservoir, said body portion having upstanding side and end walls and being arranged to retain lubricant throughout its length and width, a sub-cellar positioned above the bottom of said body portion and including oil distributing elements for application to a journal, the ends of said sub-cellar being spaced substantially from the end walls of said body portion, a pump for supplying said distributing elements with oil from said reservoir, there being passages extending inwardly from the end walls of said body portion towards said sub-cellar to prevent undue splashing of oil in said body portion and the escape of oil between the ends of said sub-cellar and cellar and said journal. 7. In a railway journal lubricator, a cellar having a body portion for receiving a journal and arranged to retain lubricant, and a reservoir at one end thereof, said body portion and reservoir having a common partition wall extending above the bottom of said body portion, there being a horizontal passage on the body side of said wall above the bottom of said body portion to prevent the splashing of lubricant from said body portion over the top of said partition wall. 8. In a railway journal lubricator, a cellar having a body portion and a lubricant reservoir extending outwardly and downwardly therefrom, there being a transverse partition wall between said body portion and reservoir, a sub-cellar in said body portion provided with lubricant distributing means, the lower portion of said sub-cellar extending below the level of the top of said partition wall, and a pump for supplying oil from said reservoir to said distributing means, there being an overflow hole in said partition above the bottom of said sub-cellar and below the top of said reservoir. 9. A structure as described in claim 8 in which a restricted hole is present in said partition just above the bottom wall of said body portion to provide for slow drainage of water from said body portion to said reservoir. 10. In a railway journal lubricator, a cellar including a body portion and a reservoir both formed of relatively light sheet metal walls, a separately formed pump device including a housing member secured to one of the side walls of said body portion, and an intake arm extending in said reservoir, a

PatBase - US1961664_A



separately formed sub-cellar movably mounted in said body portion at one side of said pump device, and means for discharging lubricant from said device to said sub-cellar and from thence to a journal to which the lubricator is applied. 11. In a railway journal lubricator, a cellar having a body portion and a lubricant reservoir extending outwardly and downwardly therefrom, there being a transverse partition wall between said body portion and reservoir, a sub-cellar in said body portion provided with lubricant distributing means, the lower portion of said sub-cellar extending below the level of the top of said partition wall, and a pump for supplying oil from said reservoir to said distributing means, there being a restricted opening in said partition just above the bottom wall of said body portion to provide slow drainage of water from said body portion to said reservoir. 12. In a railway journal lubricator, a lubricant cellar, a sub-cellar supported above the floor of said cellar, a lubricant distributor carried by said sub-cellar, a lubricant reservoir adjacent said cellar, a lubricant restraining partition between said cellar and reservoir, there being a passage from said cellar to said reservoir above the cellar floor to permit overflow of lubricant in said cellar to said reservoir, and means for conducting lubricant from said reservoir through said partition, sub-cellar and distributor to said cellar floor adjacent said partition, said partition functioning to temporarily prevent return to said reservoir of lubricant collected in said cellar to permit settling of water and other foreign matter in the collected lubricant, JAS. J.

Title: NOVEL CONVENIENT PAN
Priority: CN201320158662U 20130402
Family:

Publication number	Publication date	Application number	Application date
<u>CN203138058 U</u>	20130821	CN201320158662U	20130402

Probable Assignee: YANG ZHIBIN

Assignee(s):^(std): YANG ZHIBIN

Inventor(s):^(std): YANG ZHIBIN

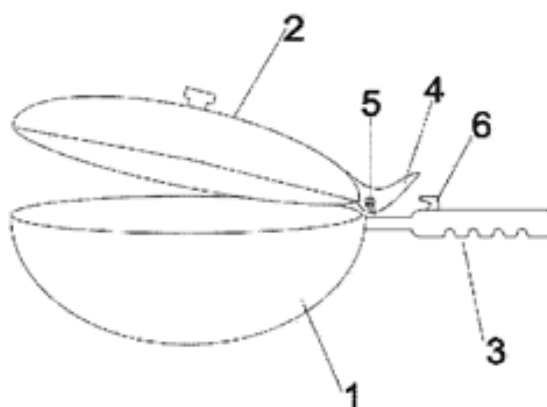
International class A47J27/00 A47J36/10 A47J45/06 (Advanced/Invention)
 (IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN203138058U A novel convenient pan comprises a pan body, a pan cover and a pan handle. The pan handle is connected at the upper end of the pan body. A shaft is arranged on the pan handle. A cover pressing handle is arranged at one end of the pan cover. The cover pressing handle is connected on the shaft. A clamping groove matched with the cover pressing handle is formed in the pan handle. The cover pressing handle is clamped in the clamping groove during cooking, the pan cover is opened upwards and blocks the body of a user so that oil cannot be splashed on the body, trouble is reduced for people, and opening is convenient.

PatBase - CN203138058_U



0) CN204127315U – SEALING BOX FOR INPUT SHAFT OF DRILLING SLURRY ...

93) Family number: 58369326 (CN204127315U)

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Title: SEALING BOX FOR INPUT SHAFT OF DRILLING SLURRY PUMP

Priority: CN201420461591U 20140815

Family:	Publication number	Publication date	Application number	Application date
	<u>CN204127315 U</u>	20150128	CN201420461591U	20140815

Probable Assignee: CHINA PETROCHEMICAL CORP

Assignee(s):^(std): BOHAI DRILLING GENERAL CO SINOPEC SHENGLI PETROLEUM ENGINEERING CO LTD ; CHINA PETROCHEMICAL CORP ; SINOPEC GROUP CO

Assignee(s): SINOPEC SHENGLI PETROLEUM ENGINEERING CO LTD BOHAI DRILLING CO ; BOHAI DRILLING GENERAL CO SINOPEC SHENGLI PETROLEUM ENGINEERING CO

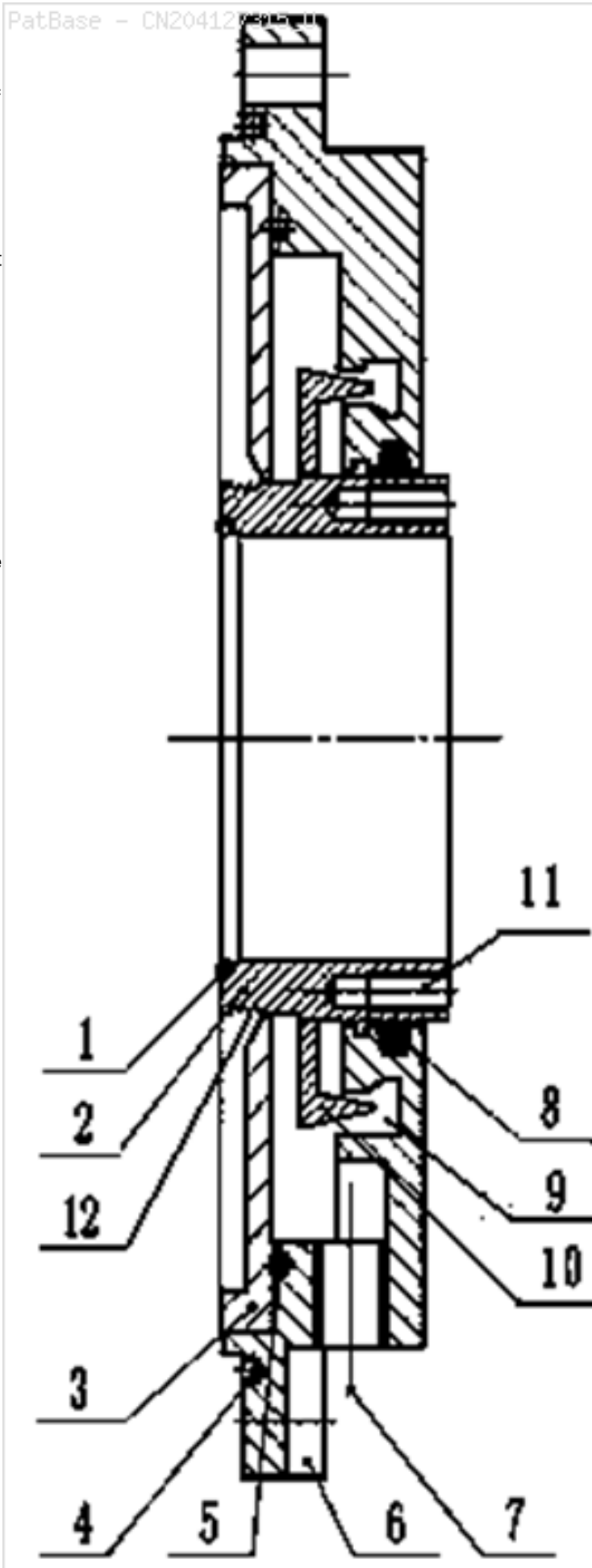
Inventor(s):^(std): BI XINZHONG ; GUO XINGMIN ; LI JUN ; LIU DONGZHANG ; LIU QING ; LIU ZONGGUO ; PAN YUEMING ; ZHAI YANJUN ; ZHANG JIPING

International class F04B53/00 F16J15/16 F16J15/447 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN204127315U The utility model relates to a sealing box for an input shaft of a drilling slurry pump. According to the technical scheme of the sealing box for the input shaft of the drilling slurry pump, the periphery of an oil-stopping disc and a bearing cover are sealed through a third rubber sealing ring, and an interval of 1–2 mm is reserved between the tail end of the oil-stopping disc and an oil slinger sleeve to block most lubricating oil splashed when a bearing is extruded; the oil slinger sleeve is compressed on the input shaft through a check ring at the outer side of the input shaft, the oil slinger sleeve forms dynamic sealing through oil slinging threads at the inner side, an L-shaped oil slinger in the middle and a labyrinthic groove in a bearing cover at the outer side in order to jointly throw the lubricating oil unblocked by the oil slinger away from the oil slinger sleeve through rotation centrifugal force, and the thrown lubricating oil and the lubricating oil in the labyrinthic groove flow back to an oil pan through an oil leakage hole in the lower portion. The sealing box for the input shaft of the drilling slurry pump has the advantages of being capable of effectively preventing leakage of gear oil of the input shaft of the slurry pump, preventing inward invasion of dust and slurry water, guaranteeing good sealing performance of the input shaft of the slurry pump, and prolonging the service life of the slurry pump.



0) WO16016705A1 – INTERNAL COMBUSTION ENGINE MOTEUR A COMBUSTION...

94) Family number: 61603276 (WO16016705A1)

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Title: INTERNAL COMBUSTION ENGINE

Priority: JP20140155907 20140731

Family:	Publication number	Publication date	Application number	Application date
	JP2016033340 A2	20160310	JP20140155907	20140731
	WO16016705 A1	20160204	WO2015IB01265	20150728

Probable Assignee: TOYOTA JIDOSHA KK

Assignee(s):^(std): TOYOTA MOTOR CO LTD ; TOYOTA MOTOR CORP

Assignee(s): TOYOTA JIDOSHA KK

Inventor(s):^(std): KUROSAKA TETSUYA

Agent(s): ONDA HIRONORI; ONDA MAKOTO

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
^(IPC 8-9): [F01M13/04](#) [F01M9/10](#) [F02M59/10](#) (Advanced/Invention);
[F01L1/053](#) [F02B67/04](#) (Advanced/Non-invention)

CPC: [F01M9/101](#) [F01L2810/02](#) [F02B67/04](#) [F02M59/10](#) [F01L1/022](#) [F01L2001/0537](#) [F01L1/053](#)

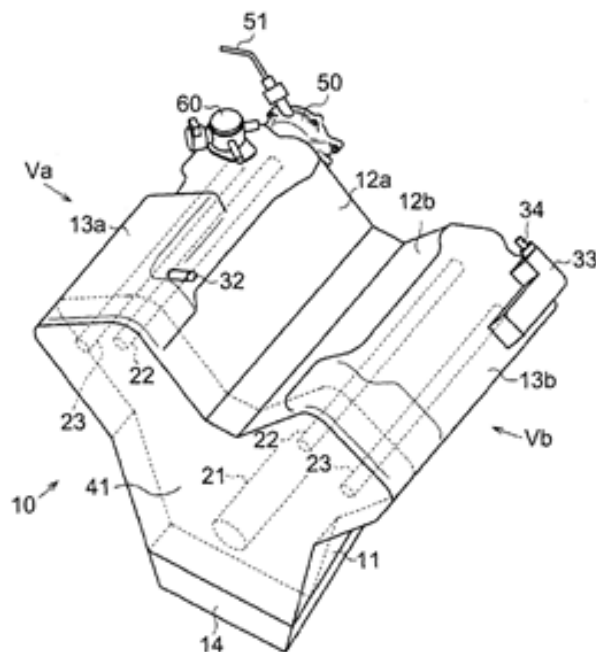
[Classification Explorer](#)

Cited documents: WO13080600 A1, WO08010051 A1, JP2013113108 A2, JP2012237234 A2, EP2787195 A1, EP1847695 A2,

Abstract:

An internal combustion engine includes a camshaft, a cylinder head, a head cover, a high-pressure pump, and a vacuum pump. The high-pressure pump includes a plunger that abuts against a cam provided on the camshaft. The high-pressure pump is configured to be driven by rotation of the cam such that oil that has lubricated abutting portions of the cam and the plunger collides with an inside wall of the head cover. The vacuum pump is mounted to the cylinder head. The vacuum pump is configured to draw in air from an inlet and discharge an oil mist with air from an outlet. The outlet is arranged such that the oil mist with air from the outlet is discharged into a space where an oil mist formed by a spray of oil that has collided with the inside wall of the head cover stagnates.

PatBase - W016016705_A1

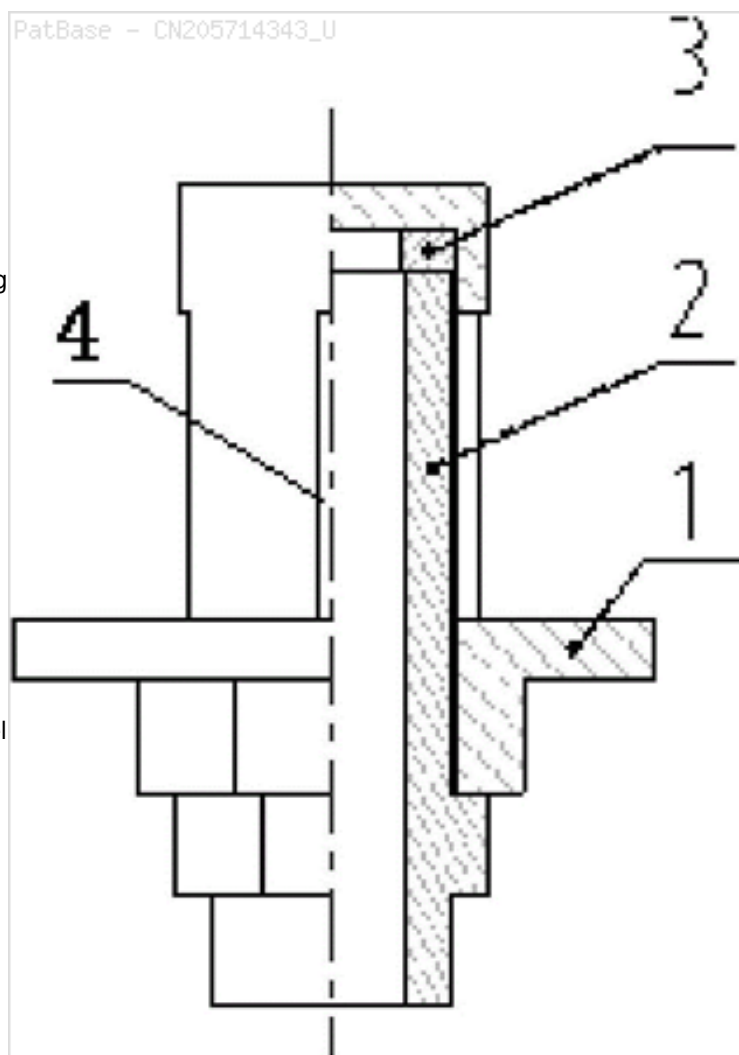
FIG. 1

Title: EXPERIMENTAL BY –PASS PLUG OF USING**Priority:** CN201620697858U 20160630**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205714343 U</u>	20161123	CN201620697858U	20160630

Probable Assignee: GUANGXI YUCHAI MACHINERY CO LTD**Assignee(s):^(std):** GUANGXI YUCHAI MACHINERY CO LTD**Assignee(s):** GUANGXI YUCHAI MACHINERY CO**Inventor(s):^(std):** BAN ZHIBO ; CAI XIAOWEI ; KANG XINGYU ; LIN TIEJIAN ; YANG JIAN**International class** F01M11/04 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN205714343U The utility model discloses an experimental by –pass plug of using. This experimental by –pass plug of using includes: fixed cover, it be one end confined pipe box form, should fixed periphery of overlapping has oil pan external screw thread portion, backstop flange and hexagon head, oil pan external screw thread portion sets up the oil drain groove of through fixed cover inner chamber, fixed cover have the plug screw screw thread an interior week, the oil drain plug screw, it is the tubulose, and the lumen of this oil drain plug screw was oily passageway, the outside of oil drain plug screw has fixed cover external screw thread, backstop flange and outer union, fixed cover external screw thread with plug screw screw thread adaptation spiro union, the outer union is the tubular type for external pipeline, and seal gasket, it is installed between the blind end and oil drain plug screw of fixed cover. This experimental by –pass plug of using can improve engine oil and consume the reduction operation degree of difficulty of the experimental precision of test, can avoid engine oil to consume and test the back, and overheated machine oil splashes and leads to the injury on one's body to operating personnel during the operating personnel oil drain.



96) Family number: 64341642 (CN205767189U)

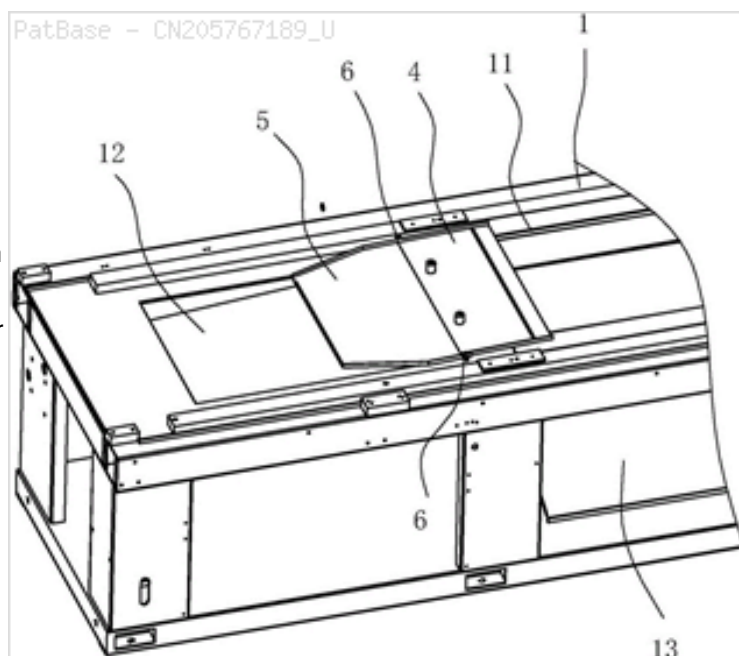
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Title: A anti-product oil-injection molding machine (Machine translation)**Priority:** CN201620472654U 20160523**Family:**

Publication number	Publication date	Application number	Application date
<u>CN205767189 U</u>	20161207	CN201620472654U	20160523

Probable Assignee: NINGBO HENG PRECISION MACHINERY LTD**Assignee(s):** NINGBO HENG PRECISION MACHINERY LTD**International class** B29C45/17 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN205767189U This practical new involved a anti-products was oil of injection machine, including organic frame, and moving template and set template, machine frame of Central set has Hopper, machine frame table has and waste oil received oil disc connected of product oil slot, its features is moving template below connection has to hopper side extends of protection cover, and the protection cover and machine frame table keep a distance, in injection machine in open die State Xia, the protection cover can and hopper phase convergence. Due to the addition of protective cover, you can block oil on the table so that products drop, will also fall on the protective cover, so that products cannot be exposed to oil pollution, which solved the problem of products encountered oil led products scrap. In addition, configure the splash pan, drop movable injection oil will not be able to accumulate in a rack on the table, but flows to the waste oil collected in the splash Pan drip pan, and can be quickly and easily removed for cleaning when required, it can greatly improve the working environment and can effectively ensure the rack will be kept in a clean condition.



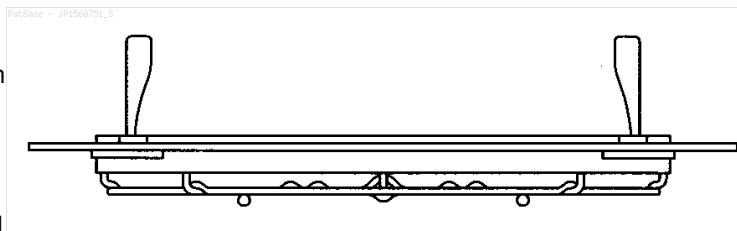
Title: Oil smoke pot lid (Machine translation)**Priority:** JP20160012192F 20160607

Family:	Publication number	Publication date	Application number	Application date
	JP1568751 S	20170206	JP20160012192F	20160607

Probable Assignee: TAKEUCHI HIROKO**Assignee(s):** TAKEUCHI HIROKO ; TAKEUCHI NAOKI**Locarno class:** 07/02**Abstract:**

Source: JP1568751S This article is in oil smoke pot lid to lid said fry pan cook frying pan with oil, and can be used as a dinner plate after the FRY Cook. This article can be put on a semicircular protrusion surface of large-diameter on the outer edge of the body formed by semicircular protrusion of the small body and annular plate parts can be separated and formed on the inside edge of the circular

plate part three notch on the outer edge of the body formed to match the direction around rotating circular plate part also can be integrated. To enhance fashion by the appropriate colors and designs to use as dinner plates, circular plate part becomes the outer edge of the plate, and this Circular plate part can be replaced with. If used for oil smoke pot on the net of this material (body bottom) kneeling shielding materials such as aluminum foil oil absorbing sheets of kitchen paper and the other on further oil absorbing sheets of kitchen paper to laminate multiple sheets (example 3), use the. Accept as a dinner plate, put some on the multiple sheet laminate that cooked fried oil absorbent sheet retains heat. Can absorb the liquid due to the water vapor can be used, placed in the middle of oil absorbing sheets attached to the back side shielding material sheets of shielding materials, and can be used as a dry oil absorbing sheets laminated surface, shielding and moisture to the surface. Frying pan to cover the spread sheets in this article prevents the diffusion of fumes and flying oil splashing around oil stains are studied that should be good enough to prevent. The oil absorbing sheets and shielding material sheets are that users prepare from time to time, be exchanged from time to time in the employer. To appear identical to the plan of the annular plate bottom of annular plate sign identical to the annular plate portions right side view left side view of the annular plate sign identical to the annular plate parts front view back view of circular plate part each omitted.



0) US2222017A – FEEDING MECHANISM FOR SEWING MACHINES

98) Family number: 21358182 (US2222017A)

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Title: Feeding mechanism for sewing machines

Priority: US19380211345 19380602 US19390286546 19390726

Family:	Publication number	Publication date	Application number	Application date
	<u>US2222016 A</u>	19401119	US19380211345	19380602
	<u>US2222017 A</u>	19401119	US19390286546	19390726

Probable Assignee: SINGER MFG CO

Assignee(s):^(std): SINGER MFG CO

Assignee(s): THE SINGER MANUFACTURING COMPANY

Inventor(s):^(std): RUDOLPH BECKER

Inventor(s): BECKER RUDOLPH

International class
(IPC 8-9): D05B27/02 D05B71/00 (Advanced/Invention);
D05B27/00 D05B71/00 (Core/Invention)

International class
(IPC 1-7): D05B27/02 D05B71/00

CPC: D05B71/00 D05B27/02

European class: D05B27/02 D05B71/00

US class: 112/256 112/323 184/104.1 184/6.15 226/165

[Classification Explorer](#)

Forward Citations: US3398709, US2483036, DE1485194, DE1132781,

Source: US2222017A 1. A feeding mechanism for sewing machines comprising a drive shaft, a feed-rocker journaled on an axis substantially parallel to said drive shaft, a horizontally disposed feed-bar slidably connected to said feed-rocker and arranged substantially parallel to said drive shaft, a feed-dog carried by said feed-bar and arranged transversely thereof, means to rock said feed-rocker thereby to give to the feed-dog its feed and return movements, and means actuated by said drive shaft to effect vertical sliding movements of said feed-bar relative to said feed-rocker thereby to give the feed-dog rising and falling movements.

Nov. 19, 1940.

R. BECKEN

2,222,017

FEEDING MECHANISM FOR SEWING MACHINES

Original Filed June 8, 1938 3 Sheets-Sheet 1

Fig. 1.

Inventor
Hansel & Becker

John H. Case

John F. Hine

Title:

Disposicoes construtivas introduzidas em cesto de papeis para toalete Constructive provisions introduced in basket of papers for toilet (Machine translation)

Priority:

BR1996MU00862U 19960509

Family:

Publication number	Publication date	Application number	Application date
BRMU7600862 U	19980707	BR1996MU00862U	19960509

Probable Assignee:

RAIA ANTONIO

Assignee(s):(std):

RAIA ANTONIO

Inventor(s):(std):

RAIA ANTONIO

Inventor(s):

ANTONIO RAIA

International class (IPC 8-9):

B65F1/16 (Advanced/Invention);

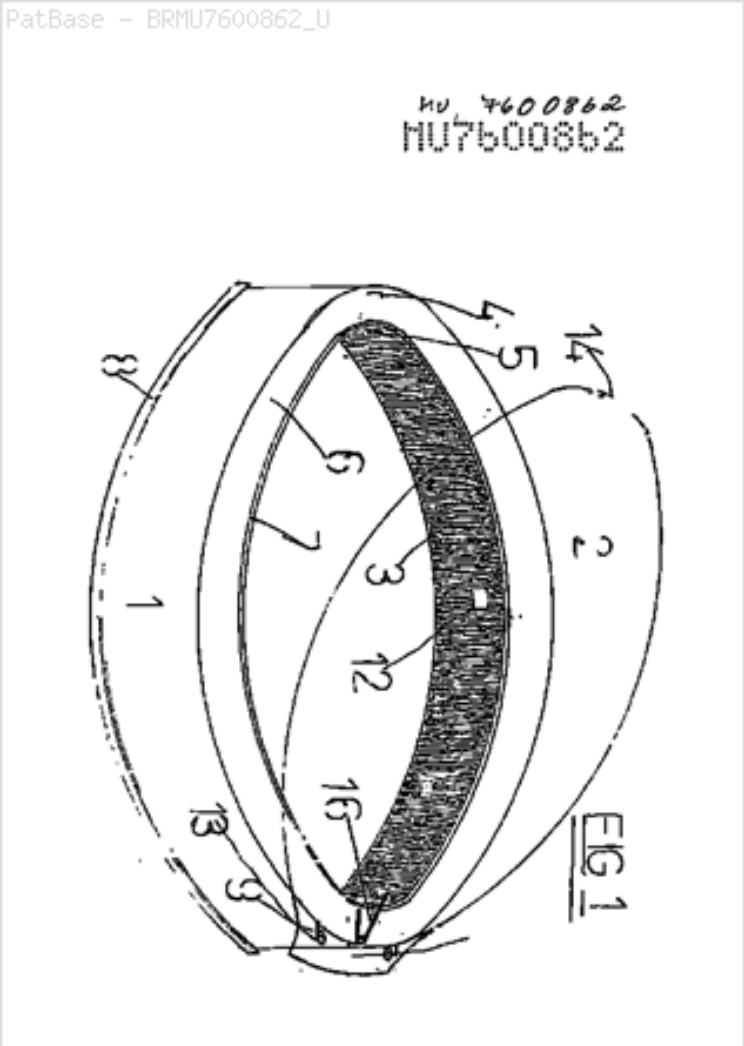
B65F1/16 (Core/Invention)

International class (IPC 1-7):

B65F1/16

[Classification Explorer](#)

Abstract:
Source: BRMU7600862U [Source: Claim 1] ...
... S... s.ss:.... s.. s"...?ss ss..."... i
REIVINDICACOES 1") "DISPOSICOES
CONSTRUTIVAS INTRODUZIDAS EM
TAMPA PARA FRIGIDEIRA OU PAN RI i AR".
fpiillo cnrntorizndo por no constituir do duns
tmmps interna o oxtoma com curvas,
ressaltos, 05 v pinos do soida de vapor,
encaixe e recuos, podera ser construida em
metal variados ou outra meteria prima
conveniente, que fara conjunto com frigideiras
o panelas, caldeiros o etc., o podera ser
usada tambem em outros diametros ou
formatos em lanchonetes, restaurantes, bares
c etc. io. 2ss) "DISPOSICOES
CONSTRUTIVAS INTRODUZIDAS EM
TAMPA PARA FRIGIDEIRA OU PANELAS",
de acordo com reivindicacoes anterior,
podendo apresentar um outro tipo do tampa. E
uma tampa que podera ter sua construcao om
umn ou duns pecas nao alterando seu
funcionamento que e reter respingos de oleo
15 ou gorduras o liberando o vapor. A tampa 6
um corpo cilindrico com duas soccoos, esto
copra cilindrico pelo seu lado interno faz unia
parte da retencao de oleos e gorduras, a outra
parto quo 6 denominada do tampa externa faz
a retencao da parto lateral desta estao
aberturas ou orificios quo liborao 20' o vapor.
Esto conjunto podo tor n tampa oxtoma
(tampa do cima) rosquemam ou ononixnfln, ou
nindn umn so poca, sendo quo na chias
tampas sao construidas em uma so peca. e • i
botao (4) externo, esses botoes (4) e (5) por
serem tipo gangorra, quando acionado o botao
(4) e o botao (5) empurra a tampa (2) que esta
equilibrada para cima a agua corre para o lado
oposto ficando acumulada na bolsa (10) que
pesada ergue a tampa na posicao 05 vertical,
seu fechamento se fara baixando-a
levemente. [Source: Claim 1]... S... s.ss:....
s.. s. " . . ?**... "... i CLAIMS 1") "CONSTRUCTIVE PROVISIONS INTRODUCED in COVER for SKILLET or
PAN RI i" AIR. fpiillo cnrntorizndo by the tmmps in the form internal oxtoma with some curves, bumps, 05 v



steam soida pins, fitting and setbacks, could be built in a variety of metal or another put convenient, which will press set with pans the pans, the caldeiroes etc., can be used also in other diameters or formats in coffee shops, restaurants, bars, c etc. it. ss 2) "CONSTRUCTIVE PROVISIONS INTRODUCED in COVER for SKILLET or PANS", according to previous claims, and may present another type of cover. And a lid that can have its construction om umn or some parts not by changing its operating and retain 15 oil or grease splatters the releasing steam. 6 1 cylindrical body cover with two soccoos, copra internal cylindrical for its part makes United part of oils and fat retention, another labor quo 6 named Cap makes the retention side of this labor are gaps or holes quo liborao 20 ' the steam. This can set tor n oxtoma cover (top lid) rosqueman or ononixnfln, or nindn an so, quo in be begging for mercy are covers being constructed in one piece. and • i (4) external button, these buttons (4) and (5) for being kind seesaw when triggered the button (4) and (5) button push the lid (2) that this balanced up the water runs to the opposite side getting accumulated in the bag (10) that lifts the lid on heavy 05 position vertical, its closure if fara downloading it lightly.

100) Family number: 34560619 (CN2897107Y)

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Title: Pot cover against oil spurttering fo frying pan**Priority:** CN200620050733U 20060426

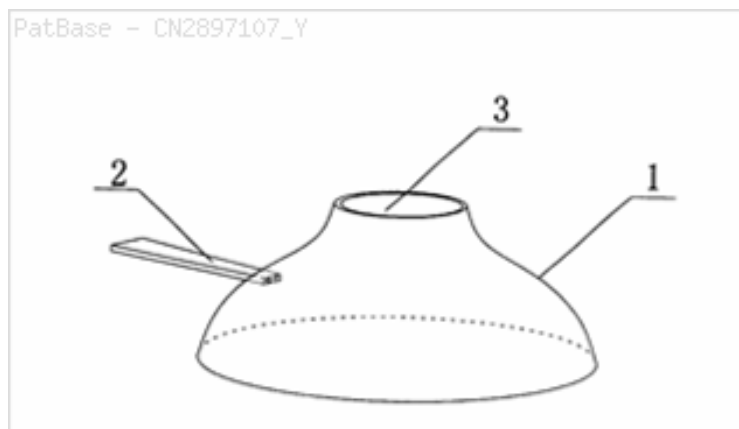
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2897107_Y</u>	20070509	CN200620050733U	20060426

Probable Assignee: WANG ENFU**Assignee(s):^(std):** WANG ENFU**Inventor(s):^(std):** WANG ENFU**Inventor(s):** ENFU WANG

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN2897107Y The utility model discloses an anti-splash pan cover for the frying pan, comprising a cover body and a handle. The handle is provided on the cover body. An opening is provided on the top of the cover body. The utility model is a safe and practical anti-splash pan cover for the fried pan which can effectively protect against splashing of the high temperature oil or water out in the fried pan and freely observes the situation in the pan and ensure the air permeability of the pan.

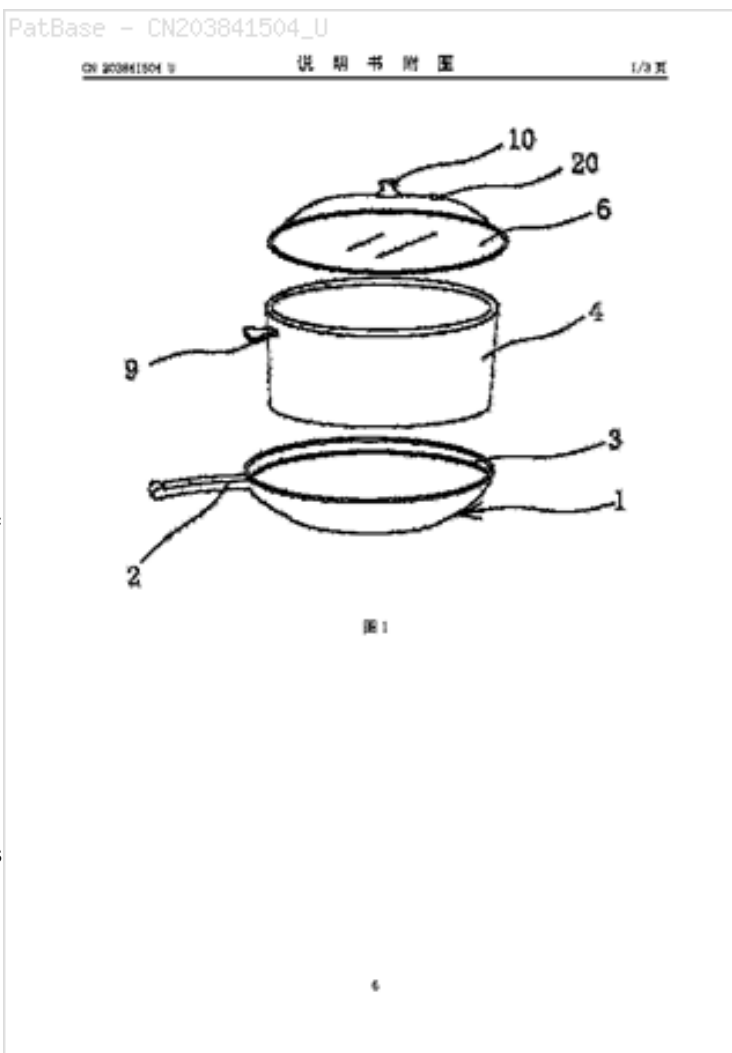


Title: MULTIFUNCTIONAL FRYING PAN**Priority:** CN201420200380U 20140423

Family:	Publication number	Publication date	Application number	Application date
	CN203841504 U	20140924	CN201420200380U	20140423

Probable Assignee: YU JIAQING**Assignee(s):**^(std): YU JIAQING**Inventor(s):**^(std): YU JIAQING**International class** A47J27/00 A47J36/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN203841504U The utility model provides a multifunctional frying pan, belongs to the technical field of cooking utensils, and solves the technical problems that the existing frying pan has single function. The multifunctional frying pan comprises a pan body and a handle; the handle is fixed at the upper end of the pan body; the pan body comprises a bottom and a body, the lower end of the body is fixedly connected with the bottom, the upper end of the body is open, the upper surface, close to the upper edge, of the body is provided with a locking groove along the periphery of the body. The multifunctional frying pan further comprises a steaming barrel, a steaming partition and a pan cover; the steaming barrel is in a barrel shape and has two ends open; the lower end of the steaming barrel is locked in the locking groove; the steaming partition is provided with a plurality of air holes; the steaming partition is horizontally disposed inside the steaming barrel and is detachably connected to the lower end of the steaming barrel; the pan cover is fastened to the upper end of the steaming barrel. The multifunctional frying pan can serve as a common frying pan and can also serve as a steamer using the steaming barrel, the steaming partition and the pan cover; extra steamers are saved, and cost and kitchen space are saved; the steaming barrel can be solely fastened to the pan body, splashing of boiling oil is prevented effectively, and safety is improved.



102) Family number: 61377958 (KR20160004610A)

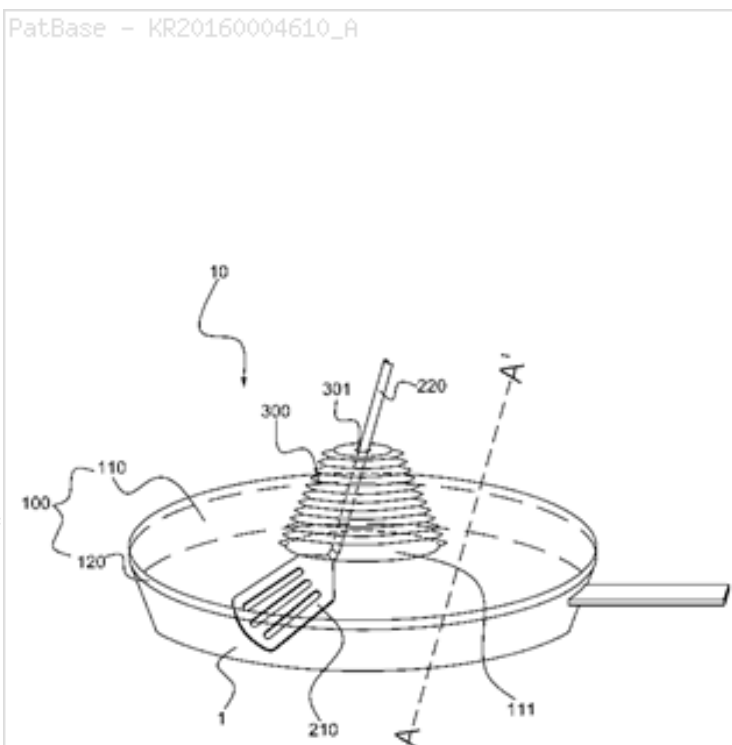
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Title: FRYING PAN COVER HAVING TUNER OF COOKING**Priority:** KR20140083138 20140703

Family:	Publication number	Publication date	Application number	Application date
	<u>KR20160004610 A</u>	20160113	KR20140083138	20140703

Probable Assignee: KIM JONG WOO**Assignee(s):**^(std): KIM JONG WOO**Inventor(s):**^(std): KIM JONG WOO**International class** A47J36/06 A47J37/10 A47J43/28 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: KR20160004610A Provided is a frying pan cover having a cooking turner. According to an embodiment of the present invention, the frying pan having a cooking turner may comprise: a frying pan cover which has a through-hole formed at a central portion thereof and is placed on an upper portion of a frying pan to prevent oil from splashing to the outside when cooking foods such as a pancake and a pan-fried vegetable pancake in the frying pan; a cooking turner including a turner part, which has one or more long holes formed on one side thereof and is provided in a plate form, and a handle part which is formed to extend through the through-hole from the other side of the turner part and provides a gripping area to a user; and a bellows which is provided to seal the through-hole from the outside in a peripheral area of the through-hole at an upper portion of the frying pan cover, includes a fixing hole formed at an upper end thereof to fix the handle part as the handle part passes therethrough and, at the same time, facilitates the movement of the turner part. According to the present invention, a user can be prevented from getting scalded or a surrounding area can be prevented from being contaminated in advance, by blocking oil splashing from the frying pan or the food being cooked to be scattered over the user when cooking foods such as a pancake, a pan-fried vegetable pancake, and the like in the frying pan.



0) TWM522679Y – PAN COVER FOR PREVENTING OIL SPLASH

103) Family number: 62662374 (TWM522679Y)

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Title: PAN COVER FOR PREVENTING OIL SPLASH

Priority: TW20150218681U 20151120

Family:	Publication number	Publication date	Application number	Application date
	<u>TWM522679 Y</u>	20160601	TW20150218681U	20151120

Probable Assignee: UNIV KAO YUAN

Assignee(s):^(std) KAO YUAN UNIV ; UNIV KAO YUAN

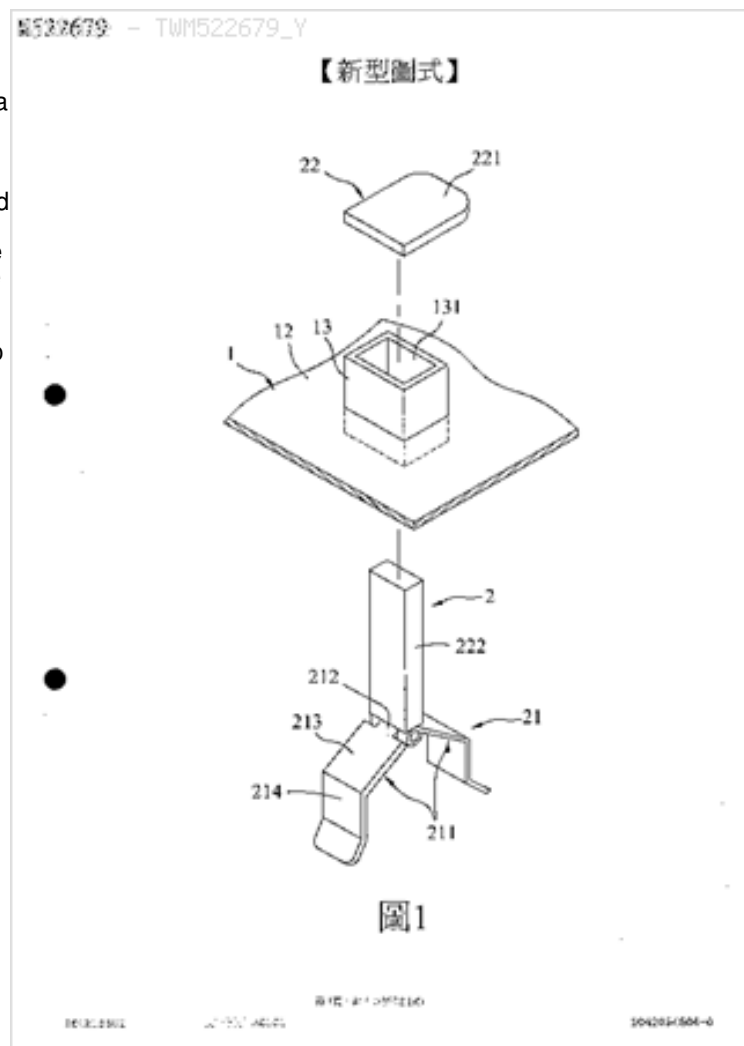
Inventor(s):^(std) LIN WEN JIE ; ZHANG ZHE FU

International class A47J36/06 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: TWM522679Y One kind of splash oil lid for the cover is provided on the bottom of a pot, and set up a supply of food that contains a splash oil cover lid body and a fixture. The lid is detachably provided on the lid of the pot bottom, and the bottom pan fried cooperate to define a space. The jig mounted on the lid, and extends into the space holding the fried food. The food can be clamped by the clamp can be provided in this new cover to the bottom of the pot, then the hot food into hot oil, take precautions not to put the food covered caused fried spray splashing issues in order to avoid the user's skin burns.



104) Family number: 1600467 (US4075960A)

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Title: Lubricating oil sealing device for a sewing machine**Priority:** DE19762629713 19760702

Family:	Publication number	Publication date	Application number	Application date
	<u>DE2629713 A1</u>	19780105	DE19762629713	19760702
	DE2629713 B2	19780511	DE19762629713	19760702
	<u>DE2629713 C3</u>	19790104	DE19762629713	19760702
	<u>ES460335 A1</u>	19780401	ES19770460335	19770701
	<u>GB1580925 A</u>	19801210	GB19770026765	19770627
	<u>IT1082083 A</u>	19850521	IT19770023931	19770524
	JP1251022 C3	19850214	JP19770071191	19770617
	<u>JP53006149 A2</u>	19780120	JP19770071191	19770617
	<u>JP59022558 B4</u>	19840528	JP19770071191	19770617
	<u>US4075960 A</u>	19780228	US19770809777	19770624

Probable Assignee: PFAFF IND MASCH**Assignee(s):**^(std) PFAFF IND MASCH ; PFAFF INDUSTRIEMASCHINEN GMBH**Assignee(s):** PFAFF INDUSTRIEMASCHINEN GMBH 6750 KAISERSLAUTERN**Inventor(s):**^(std) KLUNDT KURT ; KLUNDT KURT ING GRAD ; KURUTO KURUNTO**Inventor(s):** KLUNDT KURT ING GRAD 6751 HIRSCHHORN ; KLUNDT KURT ING

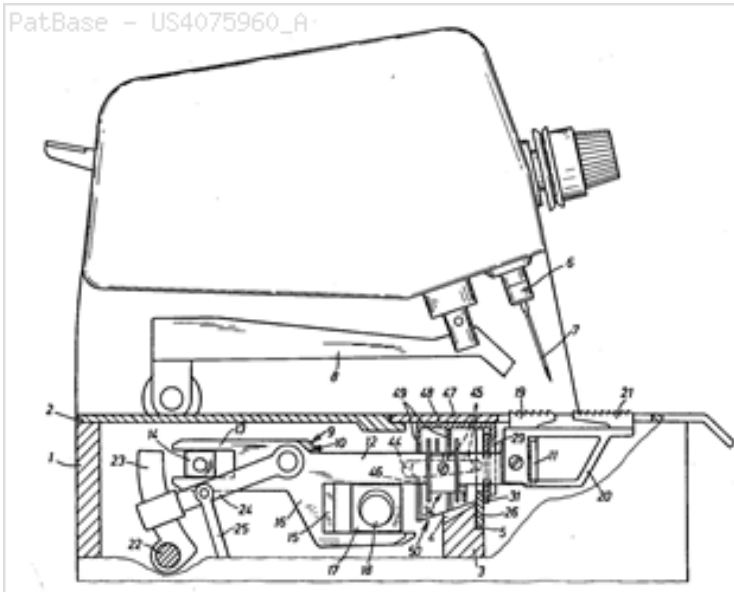
International class
^{(IPC 8-9):} D05B71/00 (Advanced/Invention) ;
D05B71/00 (Core/Invention)

International class
^{(IPC 1-7):} D05B71/00

CPC: D05B71/00**European class:** D05B71/00**US class:** 112/256[Classification Explorer](#)**Cited documents:** US2199666, US1899816, US1555187,**Forward Citations:** US4809628, US4555881, US4284019, KR101085480, FR2505891, FR2465023, DE3033153,

Abstract:

Source: US4075960A A sewing machine includes a housing located below a reciprocating needle which contains two feed supports which are driven by operating mechanism so that they move through a substantially rectangular course of motion in their own plane. The feed supports include elongated members which extend through an opening in a front wall of a base of the sewing machine, and this wall is substantially closed against the outward splashing of oil by a first gasket which is engaged over the two support members which operate alongside each other and it is mounted so that it moves vertically to accommodate the vertical movement of the members. A second seal is effected by U-shaped sealing elements which engage over respective feed supports from respective opposite sides inwardly so that when the two supports are in alignment, the sealing members form a complete encircling web. The sealing elements are disposed so that they move in a space within a frame located in the wall opening and the operation is such that any oil which is picked up by the supports is deflected either directly downwardly off the support or into inlets defined in the two feed supports which lead to an oil duct defined therebetween and then to an oil discharge which extends downwardly to a location below the machine base, for example, into an oil pan.



105) Family number: 19006954 (ES2011558A)

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Title: Protective element which is coupled to frying pans to guard against splashes of boiling oil**Priority:** ES19890001344 19890418

Publication number	Publication date	Application number	Application date
<u>ES2011558 AF</u>	19900116	ES19890001344	19890418

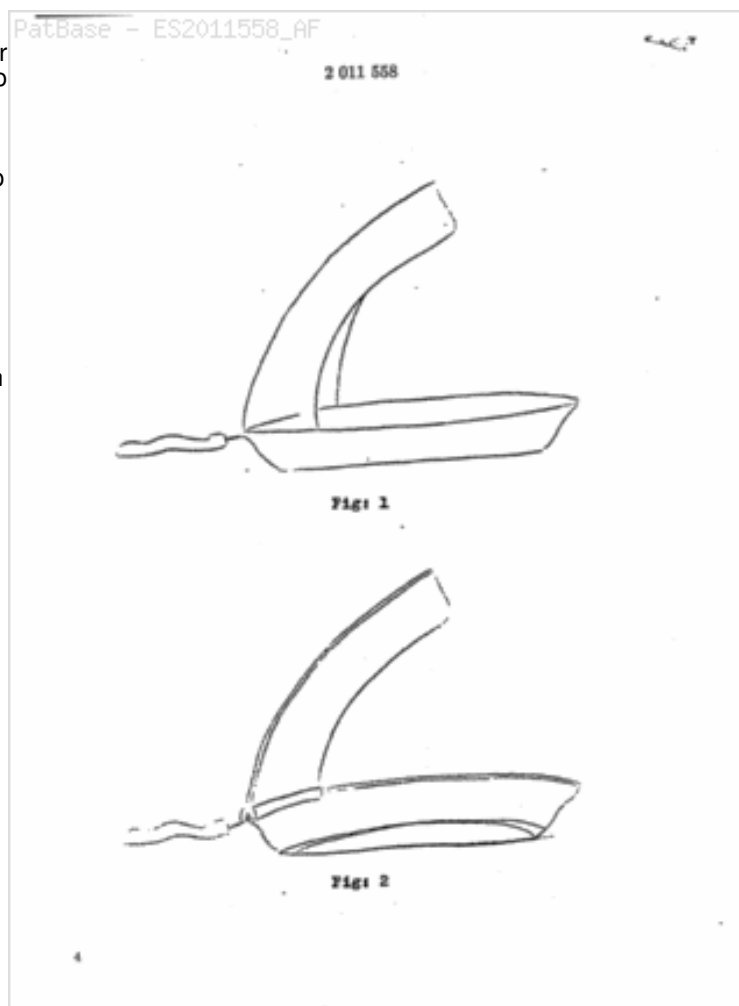
Probable Assignee: CARMONA VALLEJO ANGEL**Assignee(s):^(std):** CARMONA VALLEJO ANGEL

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

International class A47J36/6
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

This piece or element serves as impact wall for drops of boiling oil, thereby preventing burns to various parts of the body and clothing of the cook, its shape being similar to a motorcycle windscreen and its size may vary depending on the diameter of the frying pan, being able to be fixed or to move around the frying pan and to be removed therefrom by virtue of a rail which allows this and which will be located principally on the upper edge of the frying pan, the protector being coupled to (or there being made in it) a rotational shaft or piece which allows the rotation or folding-down thereof, it being possible for this to be used as frying pan lid. The material from which this piece or element is produced is transparent and resistant to heat and/or flame.



0) US1824409A – REVERSIBLE CENTRIFUGAL PUMP

106) Family number: 20163859 (US1824409A)

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Title: REVERSIBLE CENTRIFUGAL PUMP

Priority: US19260113793 19260604 US19280282532 19280604

Family:	Publication number	Publication date	Application number	Application date
	US1821772 A	19310901	US19260113793	19260604
	US1824409 A	19310922	US19280282532	19280604

Probable Assignee: RUTHMAN EDWARD J

Assignee(s):^(std): RUTHMAN EDWARD J

Inventor(s):^(std): RUTHMAN EDWARD J

International class
(IPC 8-9): [F04D13/02 F04D29/06 F04D29/48 F04D7/02](#) (Advanced/Invention);
[F04D13/02 F04D29/06 F04D29/46 F04D7/00](#) (Core/Invention)

International class
(IPC 1-7): [F04D13/02 F04D13/08 F04D29/04 F04D29/22 F04D29/48](#)

CPC: [F04D29/486 F04D29/061 F04D7/02 F04D13/02 Y10T74/19688](#)

European class: [F04D13/02 F04D29/06P F04D29/48P F04D7/02](#)

US class: [105/164 237/8R 384/369 415/118 415/175 74/423](#)

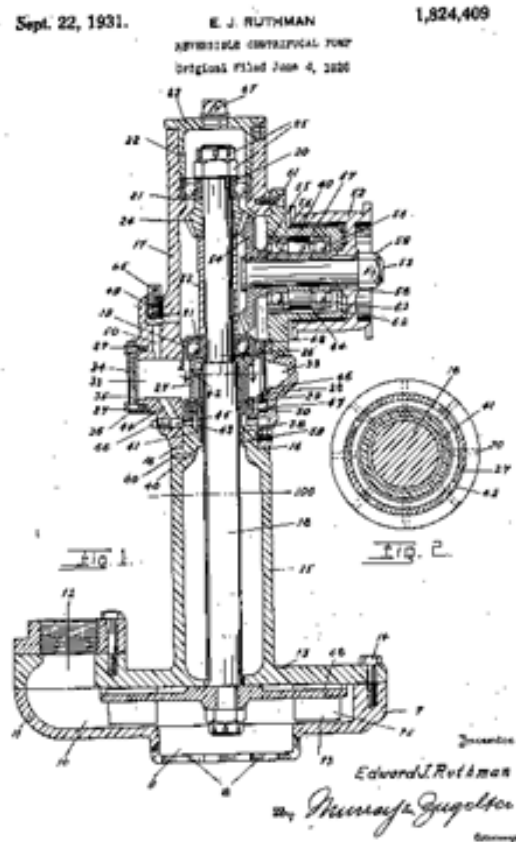
[Classification Explorer](#)

Forward Citations: US4657481, US4655681, US4407631, US3012514, US2981525, US2957425, US2890660, US2868134, US2823964, US2698583, US2655869, US2649051, US2622537, US2591127, US2547645,

Abstract:

Source: US1824409A VVhat is claimed is: V 1. In a device of the class described the combination of a. tubular housing, a shaft eX~tending through the housing, a ball bearing having an inner and an outer race, a, second ball bearing having an inner and an outer race, means for securing the inner races of said bearings to the shaft, means for securing the outer race of one of said bearings to the housing, a second shaft disposed at an angle to the first mentioned shaft, meshing bevel gears carried by said shafts, means for imparting rotation to the second mentioned shag, means surdiounding the first mentioned Sha 1 for provi`ng all oil well in the housing, an impeller disposed in the oil well and aituatxid by said Hrst iyentzionid shaft w iere y 01 ma_ ic umpec in 0 t at ortion of the hoisingpcontaining the bldvel gears for permitting the gears to splash oil one upon the other and on to the ball bearings. 2. A visible feed circulating lubricating mechanism for centrifugal pumps and the like coniprising a vertical housing, a vertical shaft extending through said housing, a pair of ball bearings 'for the vertical shaft and each comprising an inner race secured to said shaft and outer race, the outer race of one of said ball bearings being secured to the housing, a second shaft disposed at right angles to the first mentioned shaft and extending through the housing, a pairof ball bearings comprising inner and outer races and having the inner races thereof secured to said second shaft, interineshing bevel gears on the frst and second mentioned shafts, a sleeve surrounding the vertical shaft and secured interiorly of the housing for providing an oil well therein, a second shouldered sleeve secured to the shaft and surrounding the first mentioned sleeve, an impeller carried by the second mentioned sleeve and rotatable in the lubricant Well, a pipe having its lower end disposed adjacent the impeller and having its upper end disposed adjacent the bevel gear on the second mentioned shaft for directing a lubricant pumped by the impeller through the pipe to said last mentioned bevel gear whereby the lubricant may be distributed over the gears and bearings by the rotation of said bevel gear, and a. transparent niem~ lm? comprisigg an outer wall portion for the u wricant we . 3. In at device of the class described the combination of a hollow housing, a shaft extending longitudinally through said housing, a shoulder on the housing adjacent the upper end of the shaft, a ball bearing on the upper end of the shaft and having an outer race secured to the shoulder in the housing, El/ bevel gear on said shaft abutting the inner race of said bearing, a sleeve on the shaft abutting the gear, a shoulder on the shaft, a second ball bearing having an inner race disposed intermediate the shoulder on the shaft andthe sleeve, and means on the Hrst mentioned end" of the shaft forvloeking the partstogether for -rotation with the shaft; » » ~ -' 'Ina device»o:E theclass described the' combinationof a hollow housingya shaft ex~tending longitudinallythroughli said housing, a shoulder on the housing adjacent the upper end of the' shaft, a ball bearingvon the upper end of - the sh'aft"and having all outer race secured to the shoulder in.the housing. .91-Ear on said shaft abuttinw the inner race of said bearing, a sleeve on the shaft abutting: the gear, a _shoulder on the shaft, a second ball bearing'l,m,ving'an inner race disposed intermediatethe shoulderfon. the shaft and the sleeve, means on the first mentioned end of, the shaft _for -locking" the partstovether 'for rotation with fl1e'shaft.,a~l1ollow flanged retaining member secured to the housing, a second 'shaft extendinglthrough said retaining member, a shoulder on _the end of said shaft, a bevel gear secured =in» abutment with said shoulder and meshing with the gear on the first mentioned shaft, ball bearings on the second mentioned shalt, a sleeve~1neinber in# terposod between the inner races of said ball bearings, a hollow pulley overha~nging.the`retaining member, a. flanged hub on the pulley abutting the inner race of one of theball bearings on the shaft, and means on. the end of the shaft for locking-the pulley,;ball bearings, and gear' to theshaft. 1 ~ 5. In, afldeviiefofthe class described the combination of a vertical housing, a vertical shaft in said housing, complementary bearing means whereby said shaft is rotatably and vertically suspended Within the housing, a sleeve secured interiorly of the housing, surrounding the shaft and providing an annular oil _well in the housing, a tube having its lower end in open communication with the oil well and its upper end opening above the said complementary shaft bearing, and an impeller structure lixed on the shaft and depending into the oilwell. i 6. In a device of the class described the combination of a tubular housing having an annular oil reservoir, a shaft extending through the housing and reservoir, bearings for the shaft disposed in the housing

PatBase - US1824409_A



above the reservoir, a tube communicating at its opposite ends with the reservoir and the housing above one of said bearings and an impeller carried by the shaft and depending into the annular reservoir. 7. In combination, a hollow housing having an annular reservoir therein, a tubular member within the housing forming an inner wall for the reservoir, a shaft extending through the housing and tubular member, bearings for the shaft above the tubular member, an inverted sleeve surrounding the tubular member and secured to the shaft, a tube extending from the reservoir upwardly to one of the bearings and an impeller means carried by the sleeve for pumping liquid from the reservoir to the bearing. 8. In a pulley drive structure for vertical pumps and the like—the combination of an upright housing having an opening, in the side wall, a pair of ball bearings disposed one above and one below the opening and each having the outer race thereof fixed on the housing, a vertical shaft having the inner races of said ball bearings fixed thereto and rotatably suspended in the housing by said bearings, a gear on the vertical shaft, a short shaft, its shoulder on one end of the shaft, a gear on the short shaft abutting the shoulder, a pair of spaced ball bearings and an interposed sleeve on said shaft, a hollow projecting member receiving the ball bearings therein with the outer races of the bearings freely rotatable upon the inner wall of the hollow projecting member, a hollow pulley having a hub portion extending through the hollow projecting member and abutting the inner race of one of said ball bearings, securing means on the free end of said short shaft for binding the gear, inner races of the bearings, sleeve and pulley together for rotation as a unit and means to mount the hollow projecting member over the opening in the housing with the gear thereon engaging the gear on the vertical shaft. In testimony whereof I have hereunto subscribed my name this 2nd day of June, 1928.

107) Family number: 61539441 (US2016025045A)

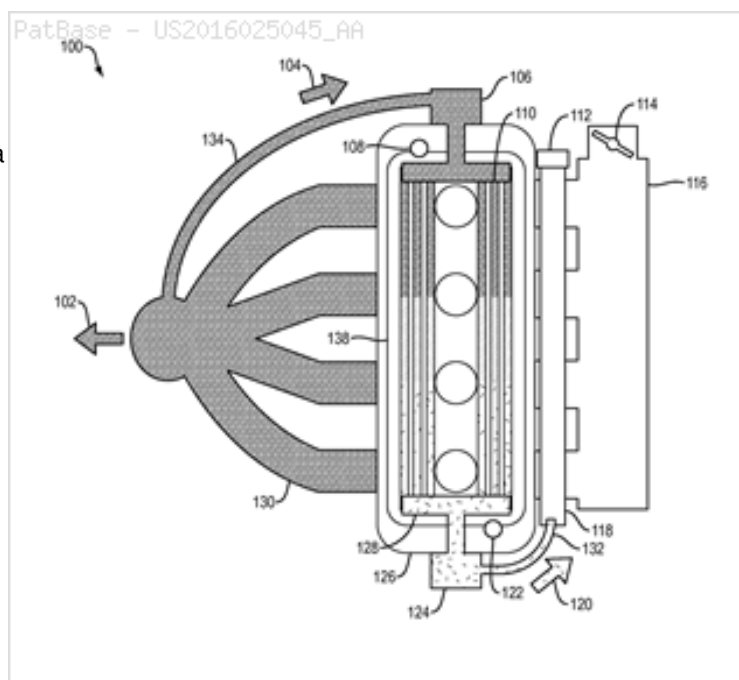
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Title: INTEGRATED SHORT PATH EQUAL DISTRIBUTION EGR SYSTEM**Priority:** KR20150030009 20150303 US20140338537 20140723

Family:	Publication number	Publication date	Application number	Application date
	CN105317587 A	20160210	CN201410573484	20141023
	DE102014115453 A1	20160128	DE201410115453	20141023
	KR101673328 B1	20161107	KR20150030009	20150303
	KR20160012067 A	20160202	KR20150030009	20150303
	US2016025045 AA	20160128	US20140338537	20140723

Probable Assignee: HYUNDAI AMERICA TECHNICAL CENTER INC**Assignee(s):**^(std): HYUNDAI MOTOR CO LTD ; KIA MOTORS CORP ; KIA MOTORS CO ; HYUNDAI AMERICA TECHNICAL CT INC**Assignee(s):** HYUNDAI MOTOR CO ; HYUNDAI AMERICA TECHNICAL CENTER INC ; HYUNDAI MOTOR COMPANY ; KIA MOTORS CORPORATION**Inventor(s):**^(std): NAYAN ENGINEER ; ENGINEER NAYAN**International class**
(IPC 8-9): [F01M5/00](#) [F01M5/02](#) [F02M25/07](#) (Advanced/Invention)**CPC:** [F02M25/0726](#) [F02M25/0731](#) [F02M25/0735](#) [F02M26/32](#) [F02M26/20](#) [F02M26/28](#)
[F02M26/30](#) [F02M26/22](#) [F01M5/002](#) [F01M5/005](#) [F01M5/02](#) [F02M26/23](#)**US class:** [123/568.12](#)[Classification Explorer](#)**Cited documents:** US7707997 BB, US6360702 BA, US6311678 BA, US4258687 A, US2014224213 AA, US2014137554 AA, US2013263797 AA, US2013213367 AA, US2013081601 AA, US2012085300 AA, US2010170482 AA, US2009114171 AA, US2006157002 AA, US2002005190 AA, KR20010014892 A, KR20010014892, JP5180091 A2, JP5180091, JP2005337141 A2, JP2005299592 A2, JP2005299592,**Forward Citations:** US2016265487, US2016169166,**Abstract:**

Source: US2016025045A In one embodiment, an exhaust gas recirculation (EGR) system for an engine is disclosed. The EGR system includes an EGR cooler that cools recirculated engine exhaust gas and is mounted between a valve cover and valve train of a cylinder head in the engine.



108) Family number: 34326379 (CN2875262Y)

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Title: Pot cover with anti oil splash and cook oil saving function**Priority:** CN200620089588U 20060307

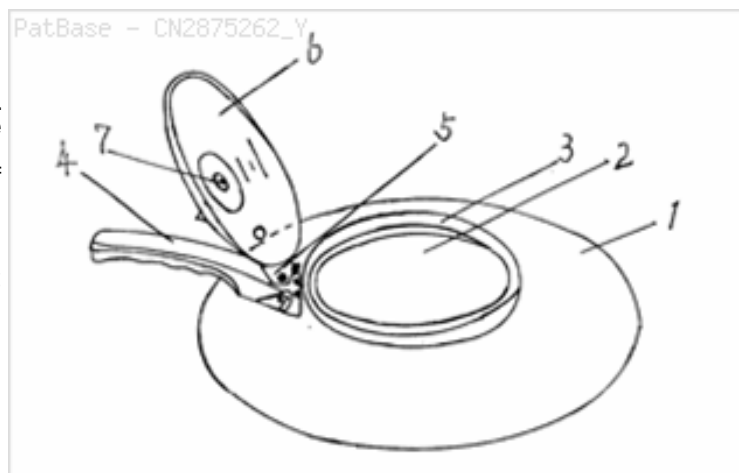
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2875262 Y</u>	20070307	CN200620089588U	20060307

Probable Assignee: GUAN YIYING**Assignee(s):**^(std): GUAN YIYING**Inventor(s):**^(std): GUAN YIYING**Inventor(s):** YIYING GUAN

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN2875262Y An anti-splatter and oil-saving pan cover pertains to the kitchenware and comprises a metal pan cover. The utility model is characterized in that a hole whose circumferential edge is provided with an upward protruding station while the rest part of the metal pan cover is provided with a handle whose front edge is near the side wall of the protruding station, which locates in the center hole of the metal pan cover and the upper part of the handle is provided with a elastic supporting iron blade, the other end of which connects to the side wall of the tiny glass bottle cap of the center hole; the tiny glass bottle cap is provided with a small handle in the center on the protruding station. In comparison to prior art, the utility model concentrates the advantage of iron bottle cap and that of the glass bottle cap and has the features of safety, anti-splatter and oil-saving by blocking the spraying oil drops back into the pan.



109) Family number: 41113044 (JP2007321649A)

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Title: VERTICAL INTERNAL COMBUSTION ENGINE HAVING TRANSMISSION COVER**Priority:** JP20060152864 20060531

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2007321649 A2</u>	20071213	JP20060152864	20060531

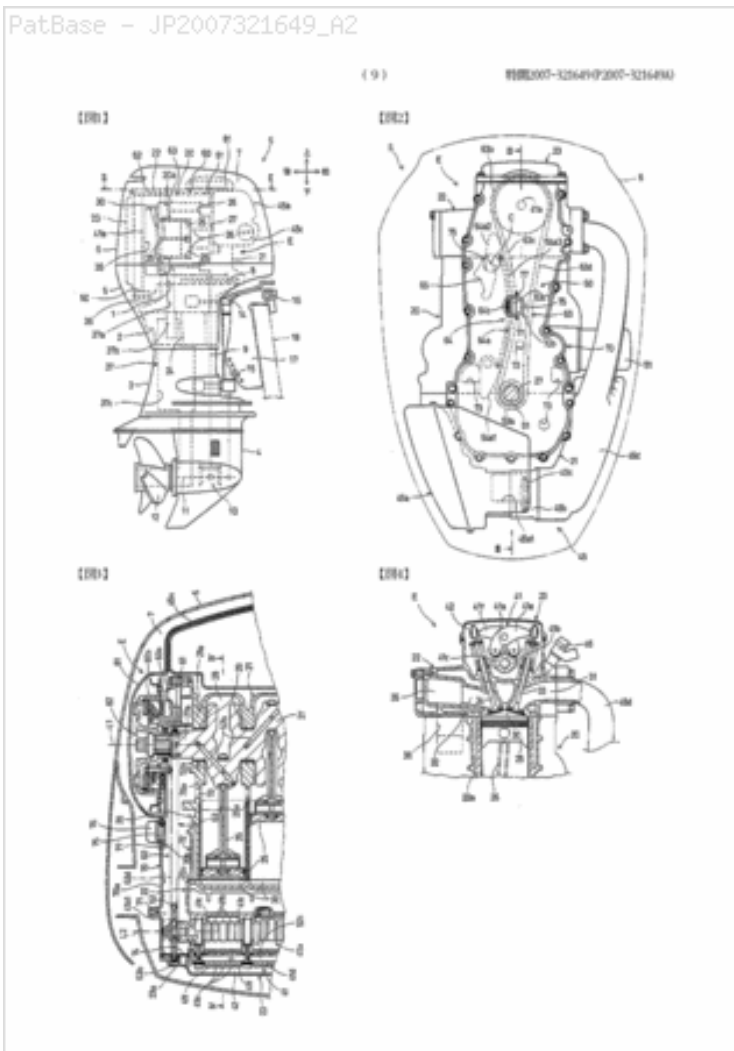
Probable Assignee: HONDA MOTOR CO LTD**Assignee(s):^(std):** HONDA MOTOR CO LTD**Inventor(s):^(std):** ABE SO ; ISHIZAKA KAZUHIRO ; TSUBOUCHI MASANORI

International class B63H20/00 F01M11/04 F02B67/00 F02B67/06 (Advanced/Invention);
 (IPC 8-9): B63H20/00 F01M11/04 F02B67/00 F02B67/06 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** JP2012246851,**Abstract:**

Source: JP2007321649A PROBLEM TO BE SOLVED: To improve lubricity in respective lubricating places when starting operation, by splashing new oil on a crankshaft and a valve gear in a process until the oil injected from an oil filler port reaches an oil pan. SOLUTION:

This vertical internal combustion engine E has: the crankshaft 27 stored in a crankcase; the valve gear having a camshaft 41a and stored in a valve system chamber; a transmission mechanism 60 having a chain 63 and stored in a chain chamber; and a transmission cover 70 covering the transmission mechanism 60 from above and joined to an upper end part of an engine body. The oil filler port 75 injecting the oil stored in the oil pan, is arranged in the transmission cover 70. The oil injected into the chain chamber from the oil filler port 75, reaches the oil pan via the crankcase and the valve system chamber. The oil filler port 75 exists in a position overlapping with the chain 63 in a plan view.



0) CN201782614U – SAFETY FRYING PAN COVER

110) Family number: 48734526 (CN201782614U)

© PatBase

Title: Safety frying pan cover
Priority: CN201020509031U 20100830

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201782614 U</u>	20110406	CN201020509031U	20100830

Probable Assignee: DAN ZHANG

Assignee(s):^(std): DAN ZHANG

Assignee(s): ZHANG DAN

Inventor(s):^(std): DAN ZHANG

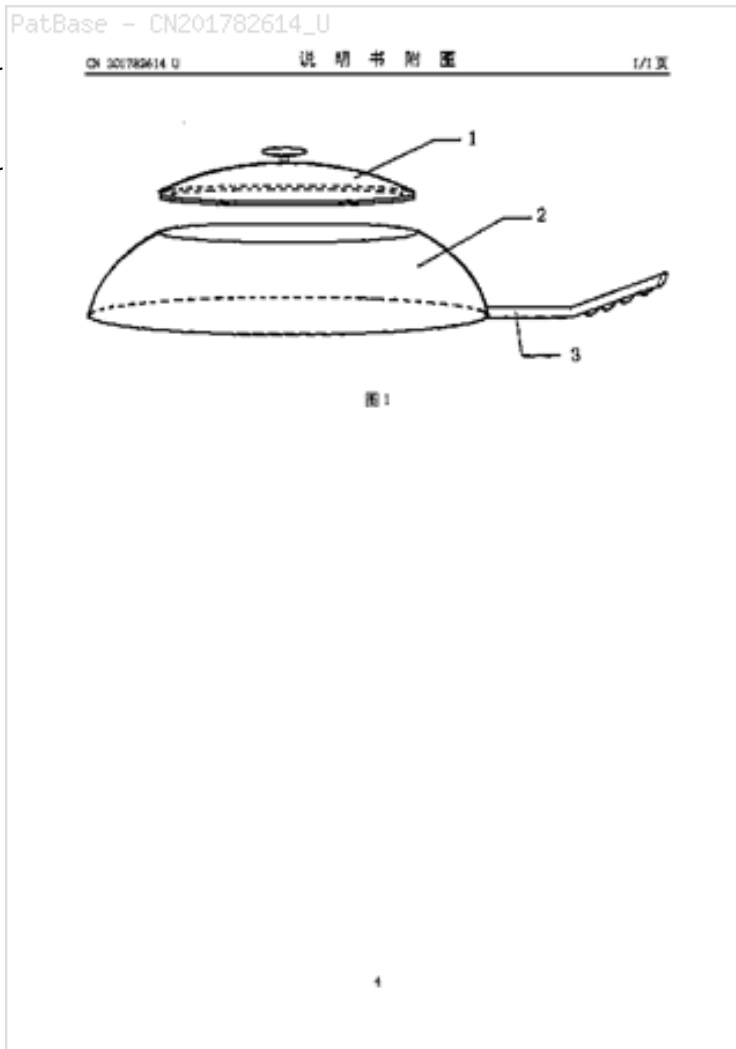
Inventor(s): ZHANG DAN

International class A47J36/06 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN201782614U A safety frying pan cover comprises an upper cover, a lower cover and a cover handle. The upper cover is arranged on a circular hole at the top end of the lower cover; the cover handle is connected with the lower end of the periphery of the lower cover; and the upper cover can be freely mounted or detached. The safety frying pan cover has the advantages of not only having the functions of a general pan cover, but also being capable of effectively avoiding potential safety hazards such as skin scalding caused by high-temperature oil drop splashing and the like.



111) Family number: 52090959 (CN202458029U)

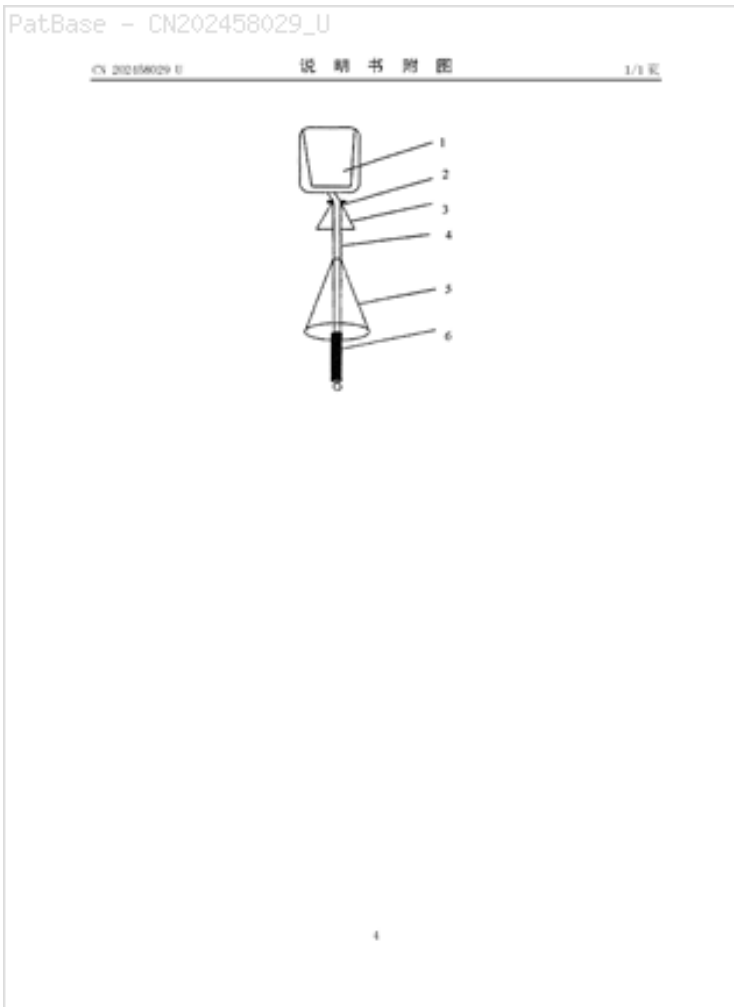
© PatBase

Title: Oil–splash preventing pan turner**Priority:** CN201220061814U 20120223

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202458029 U</u>	20121003	CN201220061814U	20120223

Probable Assignee: JUNYU YE**Assignee(s):**^(std): JUNYU YE**Assignee(s):** YE JUNYU**Inventor(s):**^(std): JUNYU YE**Inventor(s):** YE JUNYU**International class** A47J43/28 (Advanced/Invention)
(IPC 8–9).[Classification Explorer](#)**Forward Citations:** CN105105665, CN104921620, CN102885587,**Abstract:**

Source: CN202458029U The utility model provides an oil–splash preventing pan turner which is characterized in that the pan turner is welded with a turner handle, wherein a triangular bracket is mounted on the turner handle through a screw shaft; a transparent plastic oil–splash preventing cover is sleeved on the turner handle; and a scald preventing rubber sleeve is arranged at the bottom end of the turner handle. The oil–splash preventing pan turner has the beneficial effects that by using the transparent plastic oil–splash preventing cover, hands of a cook can be covered when the cook cooks, so as to prevent the hands from being scaled; and by using the triangular bracket, the pan turner can be held on a cooking bench when not in use, thereby keeping the pan turner being hygienic.



0) KR200464419Y – SEPARATION TYPE COVER OF FRYPAN

112) Family number: 52669128 (KR200464419Y)

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Title: SEPARATION TYPE COVER OF FRYPAN

Priority: KR20120006477U 20120720

Family:

Publication number	Publication date	Application number	Application date
<u>KR200464419 Y1</u>	20130102	KR20120006477U	20120720

Probable Assignee: IAE IAA I AAAE

Assignee(s): IAE IAA I AAAE

International class A47J36/06 A47J37/10 (Advanced/Invention)
(IPC 8-9).

CPC: A47J36/06 A47J36/04 A47J37/101

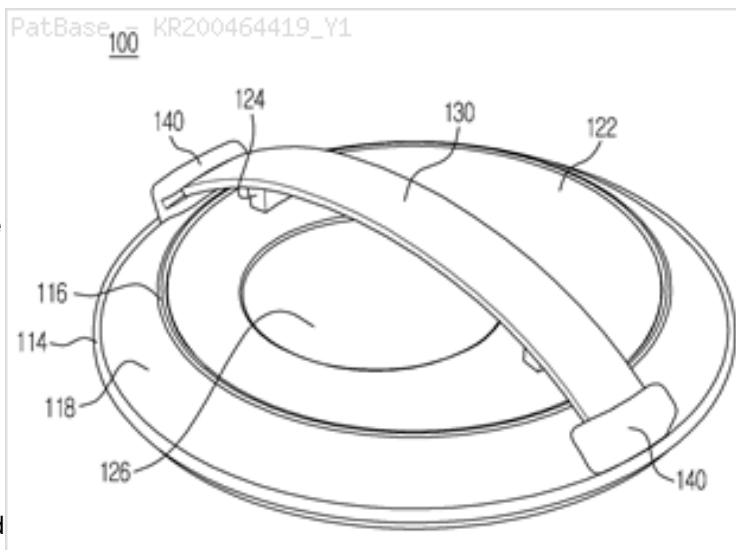
[Classification Explorer](#)

Cited documents: KR200405544 Y1, KR200232899 Y1,

Abstract:

Source: KR200464419Y

Machine translation: Detachable lid on skillet of heating oil to the outside, pop the lid covering the upper surface of the body of the frying pan, do not scatter present invention, the upper surface of the main body of the skillet in the center of the skillet from the inside of the body deopdoe water enshrined Hall and smoke emission is formed, the first cover and the handle is formed across the first cover is formed on the first cover enshrined enshrined in the Hall of the second cover and the second cover formed on both ends of the handle combined formed on the first cover is formed with a joint slot includes a locking block that features a removable lid of the skillet is disclosed. Accordingly, the first cover depending on your needs covered skillet on the body only, or the first cover and the second cover assembly cover skillet body heating oil splash to the outside can be prevented as much as possible.



Title: FRY PAN AND ITS LID**Priority:** JP19970303347 19971020

Family:	Publication number	Publication date	Application number	Application date
	JP11113760 A2	19990427	JP19970303347	19971020

Probable Assignee: KOIKE HIROYUKI**Assignee(s):**^(std): KOIKE HIROYUKI**Inventor(s):**^(std): KOIKE HIROYUKI

International class A47J36/06 A47J37/10 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J37/10 (Core/Invention)

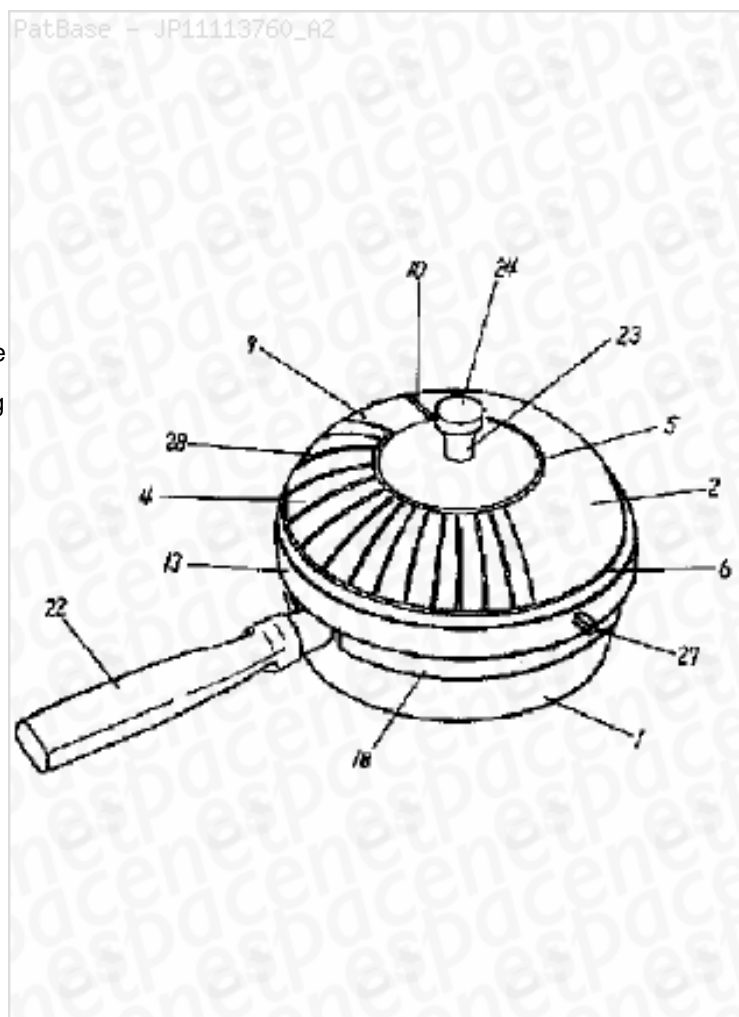
International class A47J36/06 A47J37/10
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: JP11113760A PROBLEM TO BE

SOLVED: To obtain an effect equal to a dedicated weight lid by freely fixing a lid to a frying pan main body and fixing a slide cover, which makes an opening part provided at the lid freely openable and closable, to the lid.

SOLUTION: A this frying pan, the lid 2 if freely fixed to the frying pan main body 1 and the slide cover, which makes the opening part provided at the lid 2 freely openable and closable, is fixed. Thereby, at the time of using this frying pan for panfrying such as Chinese fried rice or for deep frying such as tempura, the falling of cooked rice and the splash of oil to the surrounding are prevented to avoid making a kitchen dirt and clearing is simply finished. On the other hand, at the time of using for the last finish of steamed dish such as shaomais, an effect equal to a dedicated weight lid is obtained in spite of preparing it.



114) Family number: 30392996 (EP0821144A1)

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Title: Cylinder head arrangement of an internal combustion engine
Priority: DE19961030192 19960726 DE19961030192U 19960726 DE19975004174 19970605
Family:

Publication number	Publication date	Application number	Application date
<u>DE19630192 A1</u>	19980129	DE19961030192	19960726
<u>DE19630192 C2</u>	19980528	DE19961030192	19960726
<u>DE59704174 D1</u>	20010906	DE19975004174	19970605
<u>EP0821144 A1</u>	19980128	EP19970109097	19970605
<u>EP0821144 B1</u>	20010801	EP19970109097	19970605
<u>JP10082312 A2</u>	19980331	JP19970200103	19970725

Probable Assignee: PORSCHE AG
Assignee(s):^(std): PORSCHE AG
Assignee(s): DR ING H C F PORSCHE AG ; DR ING H C F PORSCHE AG 70435 STUTTGART DE ; DR ING H C F PORSCHE AKTIENGESELLSCHAFT
Inventor(s):^(std): HAUF ROLAND ; SCHMAUDER JOACHIM ; SCHMAUDER JOACHIM DIPL ING
Inventor(s): SCHMAUDER JOACHIM DIPL ING 71272 RENNINGEN DE ; HAUF ROLAND 71229 LEONBERG DE
Designated states: DE FR GB IT

International class
 (IPC 8-9): F01L1/053 F01M9/06 F01M9/10 F02B75/24 F02F1/42 (Advanced/Invention);
F02B75/02 F02B75/18 F02F1/24 (Advanced/Non-invention);
F01L1/04 F01M9/00 F02B75/00 F02F1/42 (Core/Invention);
F02B75/02 F02F1/24 (Core/Non-invention)

International class
 (IPC 1-7): F01L1/00 F01L1/053 F01M9/06 F01M9/10

CPC: F01L1/0532 F01M9/106 F02B75/243 F02B2075/027 F02B2075/1824 F02B2275/18 F02F1/4214 F02F2001/245

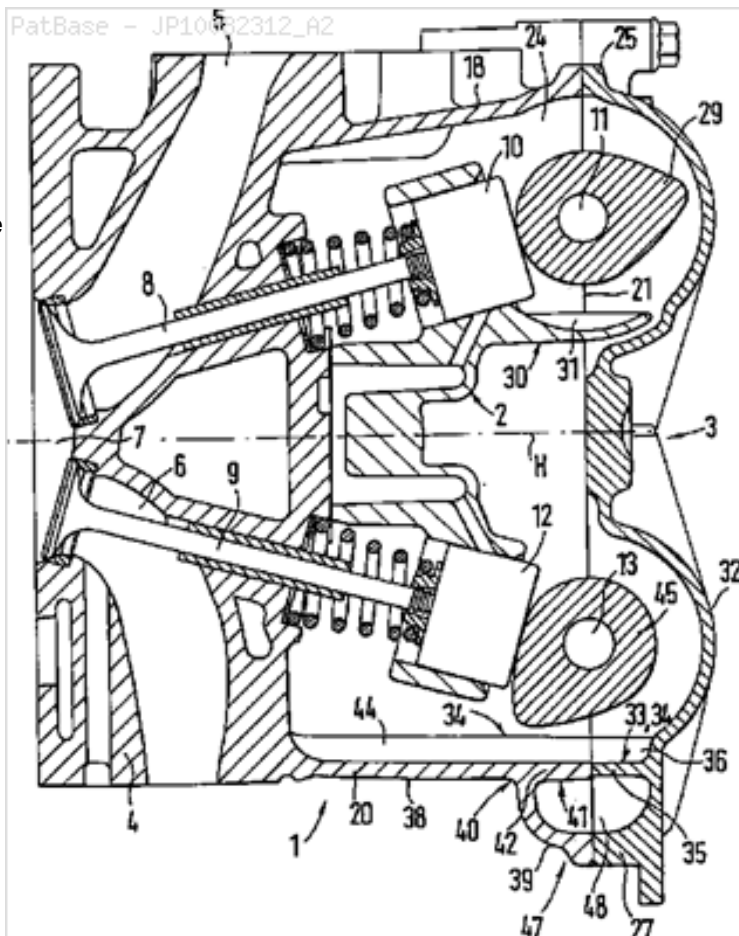
European class: F01L1/053B F01M9/10R F02B75/24B F02F1/42B R02B275/18 R02B75/02S4 R02B75/18C6 R02F1/24D2

[Classification Explorer](#)

Cited documents: JP5209506 A2, FR2401312 A1, EP0377829 B1, EP0377829 A2, DE2737901 C2,
Forward Citations: WO15104499, WO03023197, US8201538, US6135082, JP2009270495, FR3016409, FR2959683, EP2020484, EP1427918, DE19828308, DE19828307, DE10118888,

Abstract:

At least the cam point of one cam dips into the oil groove (31,34). The oil groove (34) provided for the lower camshaft (13) runs at least beneath the camshaft at a distance from the wall (47) of the cylinder head arrangement. The lower camshaft, operates two valves (9) per cylinder of the internal combustion engine using two cams (45), and a common oil groove is provided for the two cams. The oil groove is in two parts, one part (41) being formed in the cylinder head basic housing (1) and the second part (33) in a cylinder head cover (3). The lower wall of the cylinder head arrangement in the installed position of the engine is inclined against the horizontal (H).



115) Family number: 3828209 (US3701872A)

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Title: HEATING AND LOADING IMPLEMENT FOR MICROWAVE ENERGY

Priority: US19650470809 19650709 US19650483144 19650827 US19720281182 19720816
 US19720293006 19720928 US19680704389 19680209 US19710193940 19711029
 US19720381182 19720816 US19760713235 19760806 US19730400416 19730924
 US19740529052 19741203 US19750572385 19750428 US19750572385 19750428
 US19730391146 19730823 US19730325330 19730122 US19780927397 19780724
 US19790004324 19790117 US19800129360 19800311 US19800173006 19800728

Family:	Publication number	Publication date	Application number	Application date
	US3701872 A	19721031	US19680704389	19680209
	US3731037 A	19730501	US19710193940	19711029
	US3777099 A	19731204	US19720293006	19720928
	US3854023 A	19741210	US19730391146	19730823
	US3881027 A	19750429	US19730325330	19730122
	US3985990 A	19761012	US19740529052	19741203
	US3985991 A	19761012	US19730400416	19730924
	US4103431 A	19780801	US19760713235	19760810
	US4390554 A	19830628	US19800129360	19800311
	US4390555 A	19830628	US19800173006	19800728

Probable Assignee: LEVINSON M**Assignee(s):^(std)** LEVINSON M ; LEVINSON MELVIN L**Assignee(s):** MELVIN L LEVINSON ; LEVINSON M US**Inventor(s):^(std)** LEVINSON MELVIN L ; LEVINSON M**Inventor(s):** LEVINSON M US ; MELVIN L LEVINSON

International class [A23L1/01](#) [A23L3/365](#) [A23L5/10](#) [A47J36/02](#) [F26B3/347](#) [H05B6/64](#) [H05B6/74](#)
^(IPC 8-9) [H05B6/80](#) (Advanced/Invention);
[A23L1/01](#) [A23L3/365](#) [F26B3/32](#) [H05B6/64](#) (Core/Invention)

International class [A23L1/00](#) [A23L1/01](#) [B65B29/00](#) [B65B29/08](#) [F26B3/28](#) [H05B6/64](#) [H05B9/06](#)
^(IPC 1-7)

CPC: [H05B6/6402](#) [H05B6/74](#) [A47J36/027](#) [H05B6/6494](#) [A23L5/15](#) [F26B3/347](#) [A23L3/365](#)**European class:** [A23L1/01F](#) [A23L3/365](#) [A47J36/02M](#) [F26B3/347](#) [H05B6/64A](#) [H05B6/64T4C](#) [H05B6/74](#)

US class: [206/204](#) [206/205](#) [219/10.55E](#) [219/10.55M](#) [219/703](#) [219/712](#) [219/725](#) [219/729](#) [219/730](#)
[219/733](#) [219/752](#) [219/756](#) [219/759](#) [219/763](#) [229/87.08](#) [229/87F](#) [34/259](#) [34/4](#) [426/107](#)
[426/113](#) [426/124](#) [426/232](#) [426/234](#) [426/241](#) [426/243](#) [426/302](#) [426/393](#) [426/412](#) [426/523](#)
[99/425](#) [99/426](#)

[Classification Explorer](#)

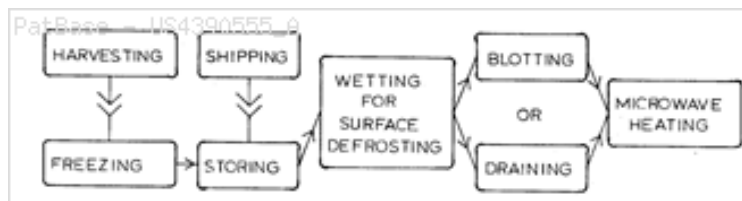
Cited documents: US819650 A, US4154861 A, US4132811 A, US4054672 A, US4027132 A, US4015085 A, US4013798 A, US3985991 A, US3985990 A, US3972277 A, US3928045 A, US3906115 A, US3889009 A, US3835280 A, US3716687 A, US3597228 A, US3556817 A, US3539751 A, US3469053 A, US3429359 A, US3420923 A, US3415662 A, US3411433 A, US3410697 A, US3410116 A, US3391846 A, US3322319 A, US3271169 A, US3256101 A, US3230864 A, US3219460 A, US3209978 A, US3188215 A, US3182164 A, US3179780 A, US3171009 A, US2879367 A, US2830162 A, US2820127 A, US2714070 A, US2674536 A, US2648047 A, US2633284 A, US2622187 A, US2600566 A, US2599033 A, US2582174 A, US2495435 A, US2486964 A, US2480679 A, US1436754 A, DE1049019 B, CA479968 A,

Forward Citations: WO9417646, WO9213432, WO9104787, WO9003717, WO9003716, WO9003715, WO9003714, WO8902210, WO8607389, WO09042580, WO08128023, WO07095234, WO07095234, WO03063663, WO0187737, WO0149077, WO0052405, USRE38924, USD717162, USD680426, USD653495, USD639656, USD639186, USD638701, USD636218, USD635817, USD635816, USD610903, USD594328, USD510024,

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Abstract:

Source: US3701872A A process and an implement for converting microwave energy into heat energy which includes a body having a plurality of resistive particles therein. Upon subjecting the particles to microwave irradiation, a plurality of electric arcs are generated throughout the particles, thereby resulting in the microwave energy being converted into heat energy, and the electric arcs serving as a load for the microwave irradiation source. The implement is particularly useful with microwave ovens.



0) CN201481117U – POT COVER CAPABLE OF FRYING DISHES

116) Family number: 45082662 (CN201481117U)

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Title: Pot cover capable of frying dishes

Priority: CN200920191378U 20090808

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201481117 U</u>	20100526	CN200920191378U	20090808

Probable Assignee: QUANFENG YU

Assignee(s):^(std): QUANFENG YU

Assignee(s): YU QUANFENG

Inventor(s):^(std): QUANFENG YU

Inventor(s): YU QUANFENG

International class A47J36/06 A47J43/28 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN201481117U The utility model relates to a pot cover, in particular to a pot cover capable of frying dishes, comprising a pot cover body and a pot cover handle, wherein the pot cover handle is fixed on the pot cover body; and the pot cover body arranged between the pot cover handle and the outer edge of the pot cover body is provided with a through hole through which a round-bottomed frying pan can pass. The utility model has simple structure and convenient use; and since only one through hole which can hold the round-bottomed frying pan is reserved on the pot cover, oil droplets are shielded by the pot cover, thereby greatly reducing the harm of oil droplet splashing to cooks.

PatBase - CN201481117_U

117) Family number: 47668746 (CN201631043U)

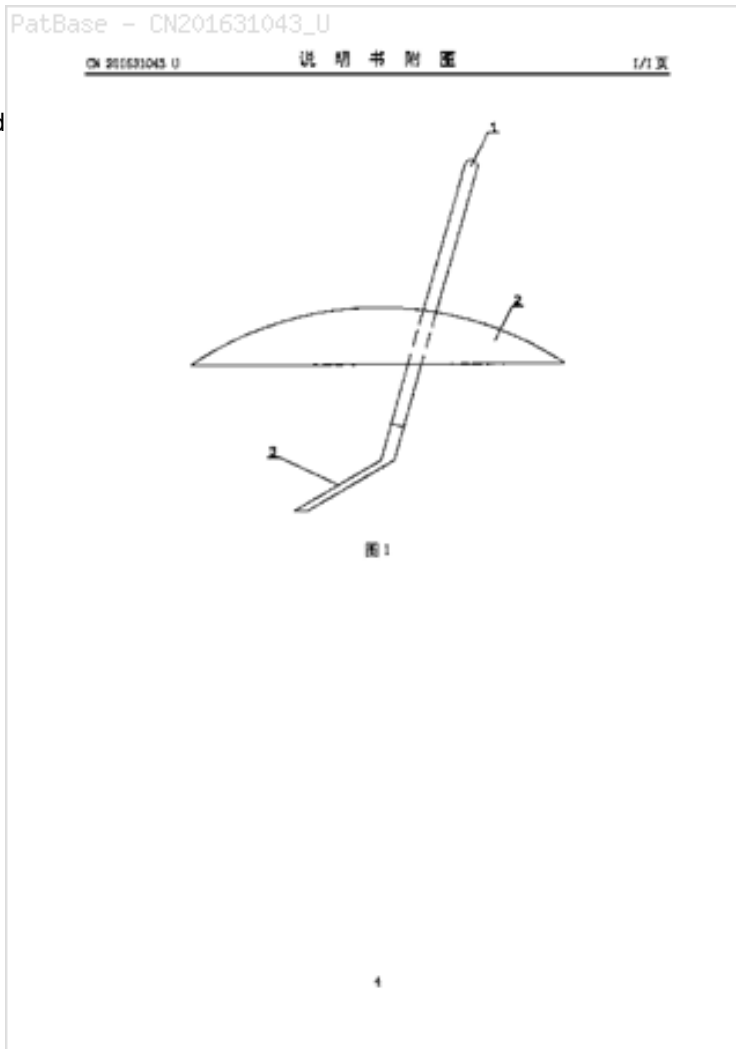
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Title: Pancake turner for preventing oil from splashing**Priority:** CN201020100711U 20100118**Family:**

Publication number	Publication date	Application number	Application date
<u>CN201631043 U</u>	20101117	CN201020100711U	20100118

Probable Assignee: HANYU ZHANG**Assignee(s):^(std):** HANYU ZHANG**Assignee(s):** ZHANG HANYU**Inventor(s):^(std):** HANYU ZHANG**Inventor(s):** ZHANG HANYU**International class** A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201631043U The utility model discloses a pancake turner for preventing oil from splashing, which consists of a turner handle, a turner head and a pan cover-shaped protecting shield. The pan cover-shaped protecting shield is arranged at the position in the middle of the turner handle and close to the turner head, the maximum circle diameter of the pan cover-shaped protecting shield is equivalent to that of a pan mouth, and the pan cover-shaped protecting shield is made of high temperature prevention toughened glass. The pancake turner for preventing oil from splashing has simple structure, the cleanness of a cooking bench surface can be better maintained when the pancake turner is used, and a cooker is protected not to be injured by the splashing of boiled oil.



Title: Drain Pump
Priority: JP19990041146 19990219
Family:

Publication number	Publication date	Application number	Application date
CN1120938 C	20030910	CN20001001026	20000106
CN1263996 A	20000823	CN20001001026	20000106
DE69900973 D1	20020411	DE19996000973	19991223
DE69900973 T2	20021121	DE19996000973T	19991223
EP1030063 A2	20000823	EP19990125699	19991223
EP1030063 A3	20001004	EP19990125699	19991223
EP1030063 B1	20020306	EP19990125699	19991223
ES2173699 T3	20021016	ES19990125699T	19991223
JP2000240581 A2	20000905	JP19990041146	19990219
JP4294143 B2	20090708	JP19990041146	19990219
KR200000057773 A	20000925	KR20000002386	20000119
TW445349 B	20010711	TW19990121963	19991215

Probable Assignee: FUJI KOKI KK

Assignee(s):^(std) FUJI KOKI KK ; FUJIKOKI CORP ; FUJI KOKI MFG

Assignee(s): FUJI KOKI CORP ; FUJIKOKI CORP TOKIO TOKYO ; FUJI KOKI MFG K K

Inventor(s):^(std) NINOMIYA DASTUSHI ; TATSUSHI JIMIYA ; NINOMIYA TATUSHI ; MASAYUKI IMAI ; IMAI MASAYUKI ; NINOMIYA TATSUSHI

Inventor(s): JIMIYA TATSUSHI

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

International class
^{(IPC 8-9):} [F04D1/14](#) [F04D11/00](#) [F04D13/06](#) [F04D29/08](#) [F04D29/10](#) [F04D29/22](#) ^{(Advanced/Invention);}
[F04D1/00](#) [F04D11/00](#) [F04D13/06](#) [F04D29/08](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [F04D1/14](#) [F04D11/00](#) [F04D29/04](#) [F04D29/08](#) [F04D29/10](#) [F04D29/22](#)

CPC: [F04D13/06](#) [F04D29/106](#) [F05B2240/70](#)

European class: [F04D13/06](#) [F04D29/10P](#) [R05B240/70](#)

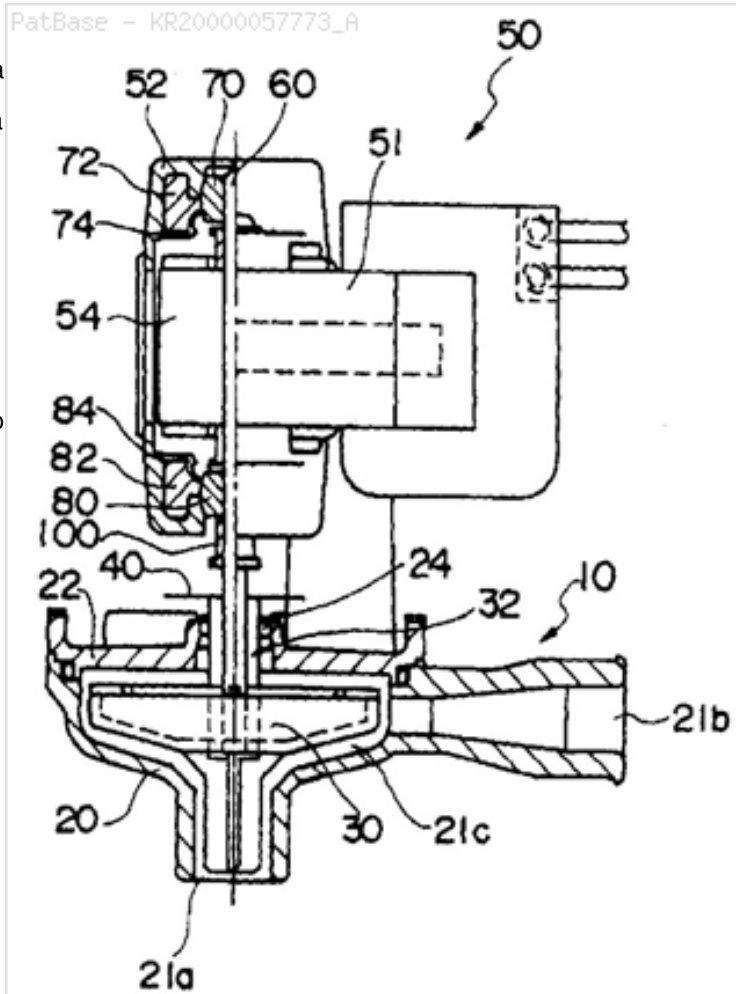
[Classification Explorer](#)

Cited documents: US3655295 A, US3614272 A, JP10110693, GB562907 A, EP0760428 A1,

Forward Citations: US7670105, US7435048, JP4737701, JP2014107893, JP2002371984, EP2113669, CN102444590, CN102444590,

Abstract:

Source: EP1030063A2 A drain pump 10 comprises a housing 20 of a pump body, and a rotary vane 30 placed inside the housing 20. A penetrating hole 24 is formed to the center of a lid 22 mounted to the upper portion of the housing 20, and a shaft 32 of the rotary vane 30 penetrates through the hole 24 and protrudes to the upper portion of the lid 22. A rotor 54 is equipped inside a bracket 52 of a motor 50, which rotates a driving shaft 60 of the motor. The driving shaft 60 is supported through bearings 70 and 80 to the motor bracket 52, and is press-fitted to the hole 34 with a bottom formed to the shaft 32 of the rotary vane 30, so as to drive the rotary vane 30. The collar 100 comprises a cylindrical portion 105 and a disk-shaped flange 110, wherein the flange 110 positioned above the penetrating hole 24 prevents a deflector disk from moving upwards. The flange 110 also prevents the drain water leaking out from the hole 24 of the lid 22 from splashing on the motor. A lubricant oil collect area is formed between the upper surface 120 of the cylindrical portion 105 and the bearing 80.



Title: GEAR UNIT HAVING A HOUSING**Priority:** DE201310018711 20131108 WO2014EP02829 20141021

Family:	Publication number	Publication date	Application number	Application date
	<u>DE102013018711 A1</u>	20150513	DE201310018711	20131108
	<u>EP3066364 A1</u>	20160914	EP20140789169	20141021
	<u>US2016265650 AA</u>	20160915	US20140034820	20141021
	<u>WO15067342 A1</u>	20150514	WO2014EP02829	20141021

Probable Assignee: SEW EURODRIVE GMBH AND CO**Assignee(s):**^(std) SEW EURODRIVE GMBH AND CO ; SEW EURODRIVE GMBH AND CO KG**Inventor(s):**^(std) WU ZILI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class F16H57/02 F16H57/021 F16H57/03 F16H57/032 F16H57/04 (Advanced/Invention)
(IPC 8-9):

CPC: F16H57/0424 F16H57/021 F16H57/03 F16H57/032 F16H57/0409 F16H2057/0216 F16H57/0421

US class: 74/606R

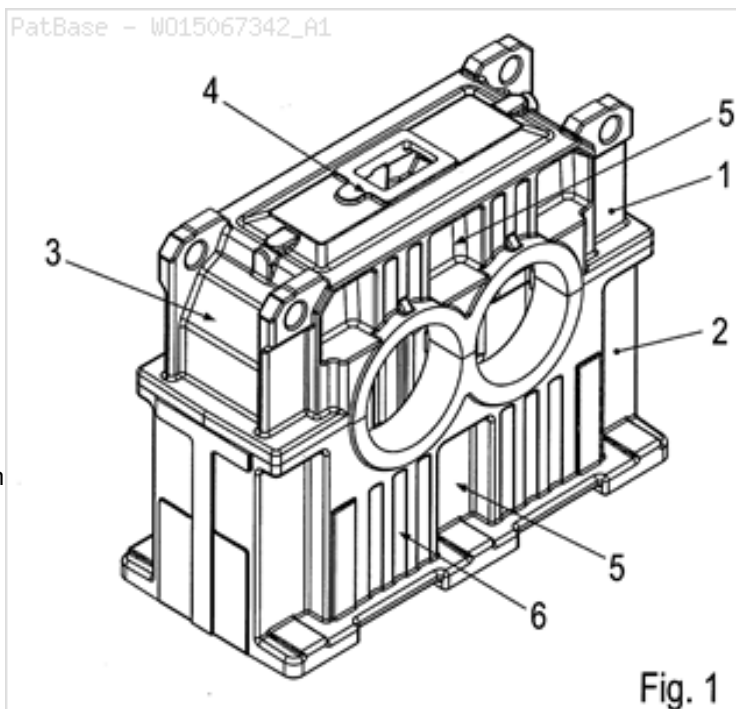
[Classification Explorer](#)

Cited documents: US5085100 A, US4778000 A, US4693133 A, SU983361 T, JP6018754 U1, JP55047462 U1, GB561876 A, DE20312235 U1, DE1047820 B,

DE102006034153 A1

Abstract:

Source: US2016265650A A gear unit includes a housing, a trough for guiding oil and reducing losses due to splashing surrounding a circumferential section of a toothing part, particularly a gear wheel, especially in the radial and axial direction. The trough includes at least three parts, e.g., at least one bottom plate and two side walls, the bottom plate being screw-connected to the two side walls. The trough is fastened to the housing and includes an opening, particularly a channel, especially at its lowest surface area, e.g., particularly at the surface area having the greatest radial distance. In particular, during rotational movement of the gear wheel, oil is conveyed from the oil pan of the gear unit through the opening between the trough and gear wheel, especially to a position higher than the level of the oil pan. The bottom plate and the side walls are stamped bent parts.



120) Family number: 15647125 (US6105677A)

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Title: METHOD OF EXTINGUISHING STOVETOP GREASE FIRES AND FIRE EXTINGUISHER THEREFOR

Priority: US19980084547P 19980507 US19990289923 19990412 US20000614469 20000711

Family:

Publication number	Publication date	Application number	Application date
<u>US6105677 A</u>	20000822	US19990289923	19990412
<u>US6276461 BA</u>	20010821	US20000614469	20000711

Probable Assignee: STAGER DANIEL J

Assignee(s):^(std): STAGER DANIEL J

Inventor(s):^(std): STAGER DANIEL J

International class
(IPC 8-9): A62C37/12 A62C99/00 (Advanced/Invention);
A62C37/08 A62C99/00 (Core/Invention)

International class
(IPC 1-7): A62C2/00 A62C25/00 A62C35/02 A62C37/12

CPC: Y10S169/03 A62C37/12 A62C3/006 A62C99/0045 A62C35/04

European class: A62C37/12 A62C99/00B6

US class: 169/26 169/47 169/52 169/57 169/65 169/DIG.3 239/379 239/524

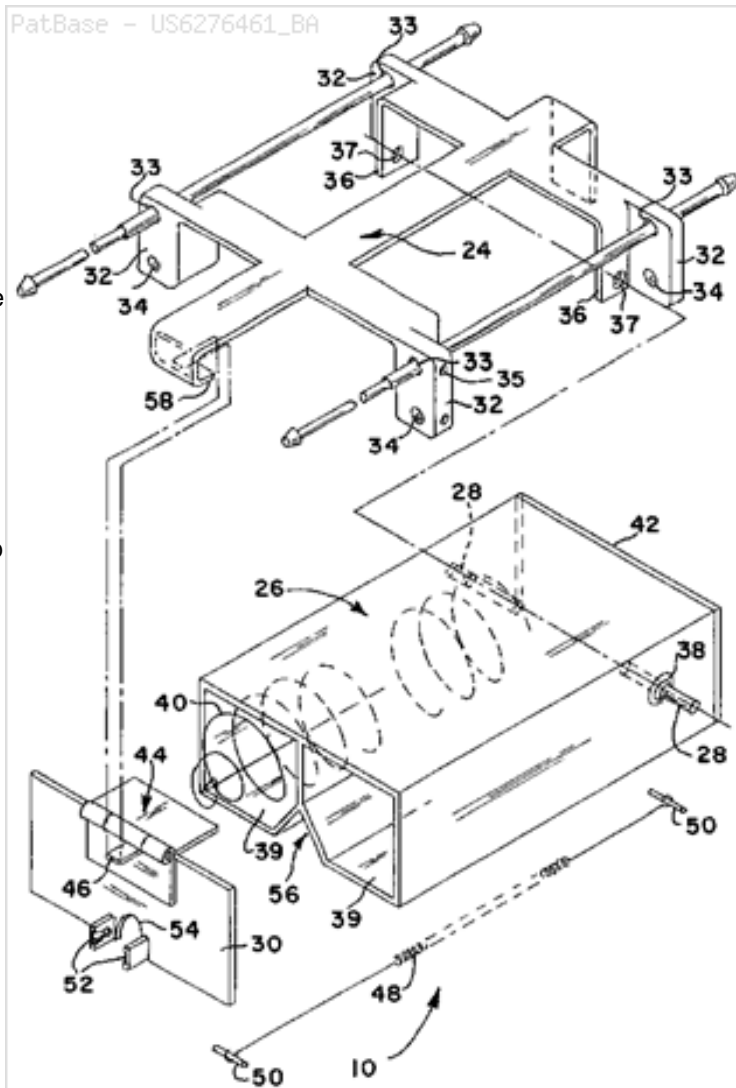
[Classification Explorer](#)

Cited documents: US5871057 A, US5868205 A, US5518075 A, US5355026 A, US5063998 A, US4088192 A, US3918526 A, US3884307 A, US3884306 A, US3773111 A, US3747685 A, US3216506 A, US3209837 A, US2749993 A, US1063228 A,

Forward Citations: WO16099823, WO16085935, WO15126608, WO05077465, US9604081, US9597534, US9517370, US9440101, US9421405, US9044627, US8844643, US8695720, US8622147, US8561712, US7934564, US7610966, US7172221, US2016329114, US2015238790, US2015238788, US2014076588, US2012227370, US2012103638, US2011147017, US2008314602, US2006086511, US2003106944, JP2007517583, EP2978507, EP2978506, EP2447508, CN1997428, AU2015219465,

Abstract:

Source: US6105677A A simple, inexpensive container that may be a canister similar to an aerosol spray can is fixedly or pivotally mounted in inverted fashion above a cooking burner. The canister contains a particulate fire suppressant material and has a closable, downwardly-facing opening directed at the burner. A fusible or meltable material maintains a cap that covers the opening in the closed condition at all times except when a flame results from ignition of fat in a pan on the cooking burner. Upon reaching a temperature of 220 degrees F. or above, the fusible material quickly melts, enabling the cap to open, and the fire suppressant material cascades by gravity into the pan and fat, causing it to be extinguished in a matter of seconds. The cap may be guided on a member having a stop at its lower end to capture the cap and prevent it from splashing into the fat upon ejection. Alternatively, the cap may be hinged to the container and be held in place at the hinge once the container is opened. The material cascades over and around the captured cap in the shape of an inverted conical shower, extinguishing the flame. The fat and fire suppressant material combine to minimize flaring-up even though the burner still remains active.



0) GB859902A – ROLLER COTTON GIN

121) Family number: 20580687 (GB859902A)

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Title: Roller cotton gin

Priority: 19590102

Family:	Publication number	Publication date	Application number	Application date
	<u>GB859902 A</u>	19610125	GB19590010099	19590324

Probable Assignee: CONTINENTAL GIN CO

Assignee(s):^(std): CONTINENTAL GIN CO ; CONTINENTAL GIN COMPANY

International class D01B1/06 (Advanced/Invention);
(IPC 8-9); D01B1/00 (Core/Invention)

International class D01B1/06
(IPC 1-7);

CPC: D01B1/06

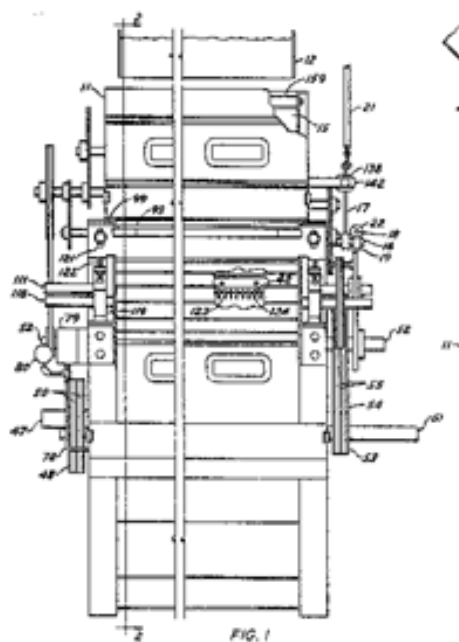
European class: D01B1/06

[Classification Explorer](#)

Abstract:

Source: GB859902A 859,902. Gins.
CONTINENTAL GIN CO. March 24, 1959 [Jan 2, 1959], No. 10099/59. Class 120(1). [Also in Group XXXIV] A roller cotton gin having a camshaft driving a reciprocating knife is provided with a crankshaft housing constituting a receptacle for lubricating oil and a pump to supply oil under pressure to the bearings of the crank shaft. The knife 72, Fig. 3, is carried in housings 71 mounted on connecting rods 64 that may have oil passages for transmission of oil from the lower bearings 65 to the upper bearings, the oil being received from crankshaft journals 62 through bores in the crankshaft. Expansive elements 70 attached to the crank case cover 66 and housings 71 prevent oil splashes passing outwardly and dirt inwardly. Circulation of the oil is by a pump 73 and conduit 78 to journals 62. Should the oil pressure fall below a predetermined level, a switch is opened and the driving motor is stopped. Extending rearwardly from knife 72 are rods 82, Fig. 2, that are adjustably mounted on a shaft 85 in a manner permitting adjustment of the knife 72 relative to the ginning roller 39. By reason of the reciprocation of the knife 72, shaft 85 is oscillated and, through an adjustable linkage, seed finger assembly 42 is oscillated. Means for adjusting the doctor knife 38, the ginning roller 39 and the throw of the pusher assembly 33 are described. A linkage is arranged between the gin and pretreatment machinery operated by a pivoted and counterweighted feed plate 15.

PatBase - GB859902_A



122) Family number: 2310120 (JP57024473A)

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Title: BEARING DEVICE FOR PISTON TYPE COMPRESSOR**Priority:** JP19800098036 19800717

Family:	Publication number	Publication date	Application number	Application date
	<u>JP57024473 A2</u>	19820209	JP19800098036	19800717

Probable Assignee: AICHI MACHINE IND**Assignee(s):**^(std): AICHI MACHINE IND**Inventor(s):**^(std): OOYA KOJI ; OOYA KOUJI

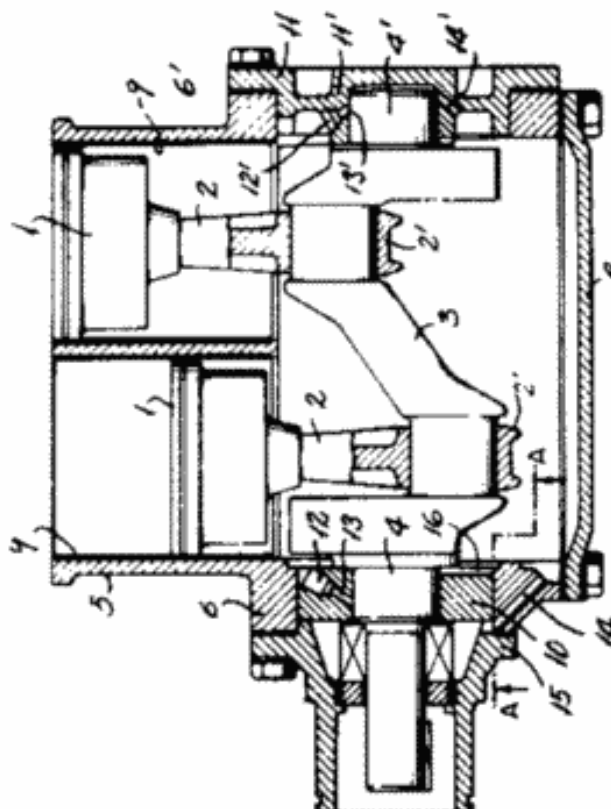
International class F04B39/00 (Advanced/Invention);
 (IPC 8-9): F04B39/00 (Core/Invention)

International class F04B39/00
 (IPC 1-7):

[Classification Explorer](#)**Forward Citations:** JP58073875, JP2006161761,**Abstract:**

Source: JP57024473A PURPOSE: To eliminate the need for a roller bearing by providing in the upper part of the journal section of the oil splashing surface an oil supply hole which is connected to a journal section, and in the lower part of the journal section an oil return hole which is connected to an oil pan. CONSTITUTION: Splashing oil supply type oil sump holes 12 and 12' which open in the upper part of the bearing 11' of a ring-type metal 10 or a rear cover 11 i.e. in the lower course of the splashed oil flow, and oil supply holes 13 and 13' which are connected to said oil pump holes and journal sections 4 and 4' are formed. Oil return holes 14 and 14' which are connected to the lower part of a bearing housing 6 or the bearing boss 11' i.e. to an oil pan 8, are provided so that they can be connected from the journal sections 4 and 4'.

PatBase - JP57024473_A2



123) Family number: 31650401 (BRMU7600861U)

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Title: Disposicoes construtivas introduzidas em tampa para frigideiras ou panelas Constructive provisions introduced in tampa to frying pans or pots (Machine translation)

Priority: BR1996MU00861U 19960509

Family:	Publication number	Publication date	Application number	Application date
	<u>BRMU7600861 U</u>	19980707	BR1996MU00861U	19960509

Probable Assignee: RAIA ANTONIO

Assignee(s):^(std): RAIA ANTONIO

Inventor(s):^(std): RAIA ANTONIO

Inventor(s): ANTONIO RAIA

International class A47J36/06 (Advanced/Invention);
(IPC 8-9): A47J36/00 (Core/Invention)

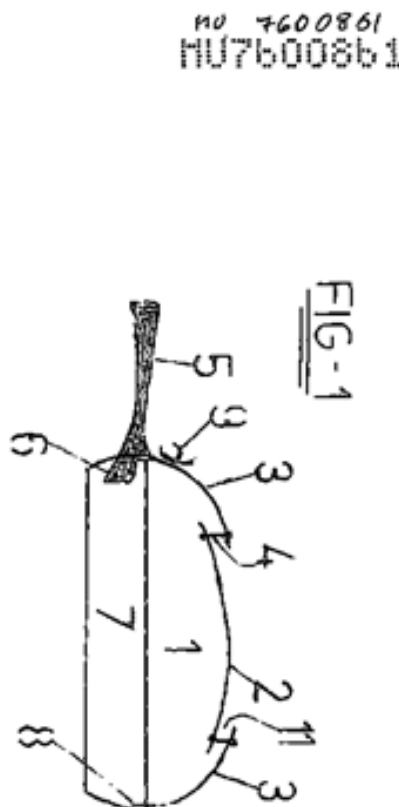
International class A47J36/06
(IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: BRMU7600861U [Source: Claim 1] REIVINDICACOES Ia) "DISPOSITOES CONSTRUTIVAS INTRODUZIDAS EM TAMPA PARA FRIGIDEIRA OU PANELAS", sendo caracterizado por se constituir de duas tampas interna e externa com curvas, ressaltos, 05 pinos de saida de vapor, encaixe e recuos, podera ser construida em metal variados ou outra meteria prima conveniente, que fara conjunto com frigideiras e panelas, caldeiros e etc., e podera ser usada tambem em outros diametros ou formatos em lanchonetes, restaurantes, bares e etc. 10 2') "DISPOSITOES CONSTRUTIVAS INTRODUZIDAS EM TAMPA PARA FRIGIDEIRA OU PANELAS", de acordo com reivindicacoes anterior, podendo apresentar um outro tipo de tampa. E uma tampa que podera ter sua construcao em uma ou duas pecas nao alterando seu funcionamento que e reter respingos de oleo 15 ou gorduras e liberando o vapor. A tampa e um corpo cilindrico com duas seccoes, este cqpro cilindrico pelo seu lado interno faz uma parte da retencao de oleos e gorduras, a outra parte que e denominada de tampa externa faz a retencao da parte lateral desta estao aberturas ou orificios que liberao 20 o vapor. Este cojunto pode ter a tampa externa (tampa de cima) rosqueada ou encaixada, ou ainda uma so peca, sendo que as duas tampas sao construidas em uma so peca. [Source: Claim 1] CLAIMS A1) "CONSTRUCTIVE PROVISIONS INTRODUCED in COVER for SKILLET or PANS", being characterized by consist of two covers with internal and external curves, bumps, 05 steam output pins, fitting and setbacks, could be built in a variety of metal or another put convenient, which will press set with pans and pots, caldeiros and etc., and can be used also in other diameters or formats in snack bars, restaurants, bars and etc. 10 2') "CONSTRUCTIVE PROVISIONS INTRODUCED in COVER for SKILLET or PANS", according to previous claims, and may present another type of cover. And a lid

PatBase - BRMU7600861_U



that can have its construction in one or two pieces not by changing its operating and retain 15 oil or grease splatters and releasing steam. The lid and a cylindrical body with two sections, this internal cylindrical cap for its part makes a part of oils and fat retention, the other party to that and called Cap makes the retention side of this are gaps or holes that 20 free steam. This conjunto might have the outer Cap (lid off) or threaded docked, or a sin, being that the two covers are built in one piece.

0) CN201759381U – NETTED PAN COVER

124) Family number: 48475163 (CN201759381U)

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Title: Netted pan cover

Priority: CN201020505164U 20100824

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201759381 U</u>	20110316	CN201020505164U	20100824

Probable Assignee: SHANGHAI ZHABEI DISTR MIDDLE AND PRIMARY SCHOOL SCIENCE AND TECHNOLOGY INSTRUCTION STATION

Assignee(s):^(std): SHANGHAI ZHABEI DISTR MIDDLE AND PRIMARY SCHOOL SCIENCE AND TECHNOLOGY INSTRUCTION STATION

Assignee(s): SHANGHAI ZHABEI DISTRICT MIDDLE AND PRIMARY SCHOOL SCIENCE AND TECHNOLOGY INSTRUCTION STATION

Inventor(s):^(std): TIANQING LI

Inventor(s): LI TIANQING

International class A47J36/06 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Forward Citations: CN102764069, CN102764069,

Abstract:

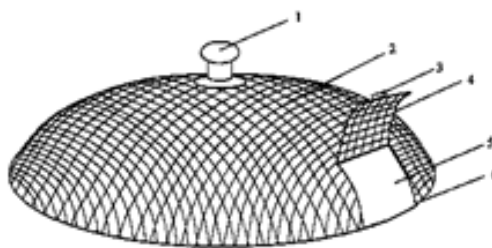
Source: CN201759381U The utility model relates to a netted pan cover which is a cover for a kitchen cooking pan and comprises a holding button, a pan cover net, a hard ring and an operating window. The pan cover has the characteristics of transparency and air permeability and the functions of preventing oil splashing and preventing pan overflow. The adopted measure is that the cover is made of a stainless steel material to be netted and fixed on a hard bottom ring, and the operating window which can be opened and closed is arranged on the position close to the edge of the pan cover.

PatBase - CN201759381_U

CN 201759381 U

说明书附图

1/1页



125) Family number: 51641930 (JP2012136986A)

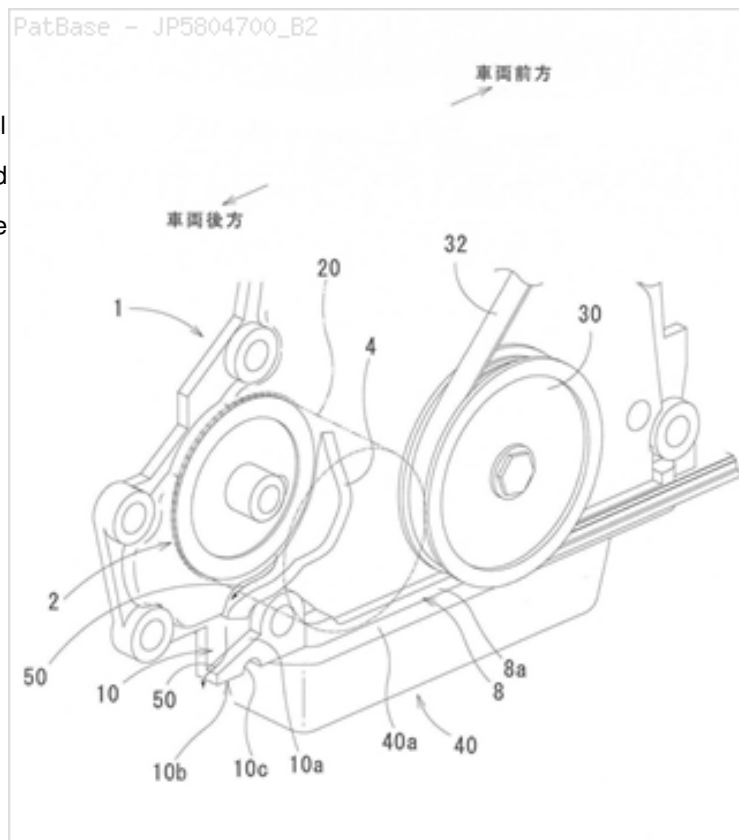
© PatBase

Title: DRIPPING GUIDING STRUCTURE**Priority:** JP20100288950 20101224**Family:**

Publication number	Publication date	Application number	Application date
JP2012136986 A2	20120719	JP20100288950	20101224
JP5804700 B2	20151104	JP20100288950	20101224

Probable Assignee: DAIHATSU MOTOR CO LTD**Assignee(s):**^(std) DAIHATSU MOTOR CO LTD**Inventor(s):**^(std) MITO YASUHIRO**International class** [F01M11/03](#) [F02B67/06](#) [F02F7/00](#) (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Cited documents:** JP58086452 U, JP2006266207, JP2005061232, JP2000104523, JP2000002107,**Forward Citations:** JP6048069, JP6041656, JP6000784, JP5958302, JP2014118853, JP2014101868, JP2014084829, JP2014070563,**Abstract:**

Source: JP2012136986A PROBLEM TO BE SOLVED: To provide a dripping guiding structure, which guides the flow of dripping of remaining oil around an attaching seat of an oil filter, thereby preventing adhesion of the dripped oil to the mating face of an oil pan, and also which facilitates the assemblability of an engine. SOLUTION: The attaching seat 2 of the oil filter 20 is provided on the side surface of a chain cover 1. A splash preventive wall 4 preventing oil splash to a V-belt 32 is formed between the attachment seat 2 and a crank pulley 30. Part of a lower side of the attaching seat 2 out of the outer peripheral end 8a of a flange receiving part 8 receiving an attaching flange 40a of the oil pan 40, is extended and forms an extension 10. A slope 10a downward sloped as separating from the oil pan 40 is formed on an upper surface of the extension 10. A recess 10c partitioning an extended end side from the oil pan side is formed on a lower surface side.



126) Family number: 52616295 (US2013125687A)

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Title: INDUSTRIAL GEAR MECHANISM**Priority:** DE201220009415U 20121001 EP20110183304 20110929 WO2012EP69206 20120928**Family:**

Publication number	Publication date	Application number	Application date
CN104136805 A	20141105	CN201280047008	20120928
DE202012009415 U1	20130103	DE201220009415U	20121001
DE502011003530 D1	20140807	DE201150003530T	20110929
EP2574824 A1	20130403	EP20110183304	20110929
EP2574824 B1	20140625	EP20110183304	20110929
ES2493924 T3	20140912	ES20110183304T	20110929
IN00505KN2014 A	20140509	IN2014KN00505	20140311
US2013125687 AA	20130523	US20120632830	20121001
US9157508 BB	20151013	US20120632830	20121001
WO13045625 A1	20130404	WO2012EP69206	20120928

Probable Assignee: SIEMENS AG**Assignee(s):^(std):** SIEMENS AG**Assignee(s):** SIEMENS AKTIENGESELLSCHAFT**Inventor(s):^(std):** ALLGAIER PETER ; SCHNURR WOLFGANG**Agent(s):** CARVAJAL Y ISABEL; HENRY M FEIEREISEN LLC

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class (IPC 8-9): [B60K17/346](#) [F16C25/06](#) [F16C35/063](#) [F16C35/067](#) [F16H1/20](#) [F16H57/00](#) [F16H57/022](#) [F16H57/023](#) [F16H57/031](#) [F16H57/038](#) [F16H57/04](#) (Advanced/Invention)

CPC: [F16H1/20](#) [F16C35/067](#) [F16H1/203](#) [F16H57/022](#) [F16H57/023](#) [F16H57/031](#) [F16H57/038](#) [F16H57/0421](#) [F16H57/0424](#) [F16H57/0457](#) [F16H57/0469](#) [F16H57/0471](#) [F16H57/0495](#) [F16H2057/0221](#) [F16H2057/0235](#) [F16C19/548](#) [F16C25/06](#) [F16C35/063](#) [Y10T74/19674](#) [F16C2361/61](#)

European class: [F16H1/20B](#) [F16H57/022](#) [F16H57/023](#) [F16H57/031](#) [F16H57/038](#) [F16H57/04M3](#) [F16H57/04V](#) [F16H57/04Y5](#) [R16H57/022A](#) [R16H57/023B](#)

US class: [1/1 74/420](#)[Classification Explorer](#)

Cited documents: WO9410482 A1, US8474347 BB, US7827878 BB, US7707909 BB, US7703352 BB, US7232398 BB, US6889572 BB, US6474405 BA, US6349781 BA, US5242033 A, US2197926 A, US2010307270 AA, US2008196527 AA, US2007117672 AA, US2006219037 AA, US2006089226 AA, US1894927 A, US1492380 A, JP3917819 B2, JP2002213582 A2, EP1961993 A1, EP1787845 A1, DE10252192 A1, DE1000654 B, CN1966295 A,

Forward Citations: US9435399, US2016076635, US2015053035, US2015013489,

Abstract:

Source: US2013125687A An industrial gear mechanism with a bevel gear stage having a bevel gear and a bevel pinion in engagement therewith. The bevel gear and the bevel pinion are surrounded by a gear mechanism housing having bearing seats for a bevel gear shaft and a bevel pinion shaft. A first and a second bevel pinion shaft bearing are arranged in an O-arrangement, with the first bevel pinion shaft bearing arranged on a first end of the bevel pinion shaft facing the bevel pinion and the second bevel pinion shaft bearing arranged on a second end of the bevel pinion shaft remote from the bevel pinion. A gearwheel of a spur gear stage on the drive side is arranged axially between the first and second bevel pinion shaft bearings in fixed rotative connection with the bevel pinion shaft and in engagement with a drive pinion of the spur gear stage.

PatBase - W013045625_A1

WD 2013045625

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PCT/EP2013/069206

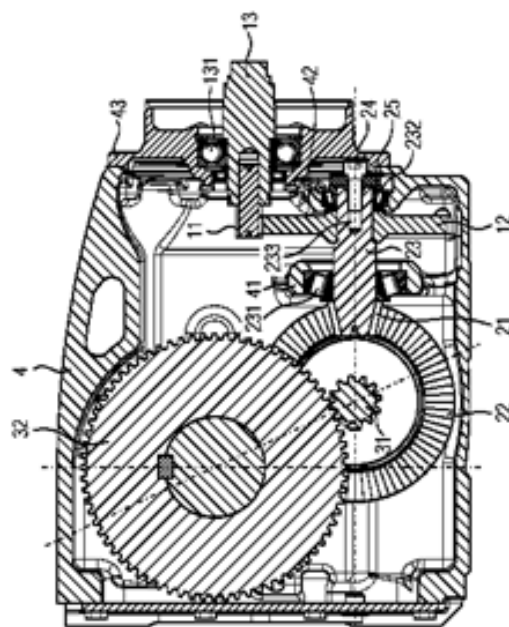


FIG 1

127) Family number: 63343666 (CN105877504A)

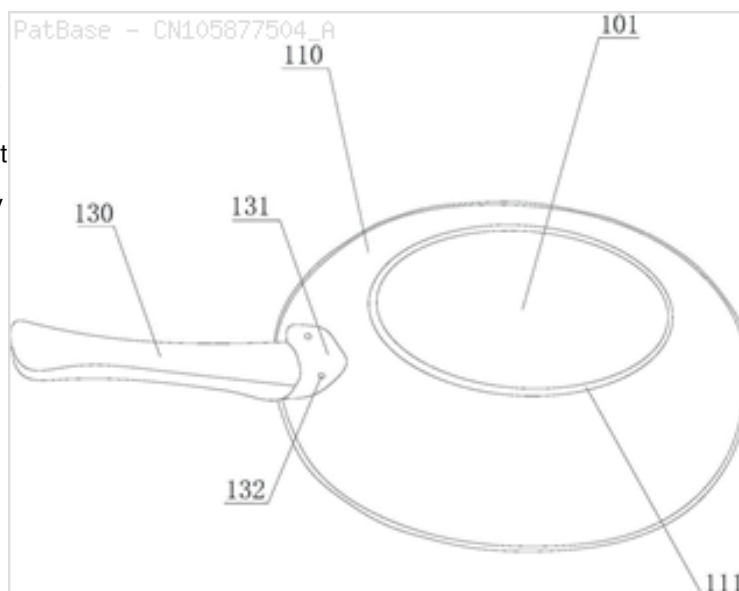
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Title: FRYING PAN COVER**Priority:** CN201610486709 20160627**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105877504 A</u>	20160824	CN201610486709	20160627

Probable Assignee: YANG XIAODONG**Assignee(s):**^(std): YANG XIAODONG**Inventor(s):**^(std): YANG XIAODONG**International class** A47J36/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN105877504A The invention relates to the field of kitchen utensils, in particular to a frying pan cover. The frying pan cover comprises a cover body, wherein an opening for cooking vegetables is formed in the top part of the cover body; and a head cover which is used for sealing the opening and is detachably connected with the cover body is arranged at the part, corresponding to the opening, of the cover body. By using the frying pan cover, oil and other substances in a pan cannot easily splash out when vegetables are cooked, so that a kitchen stove is relatively clean when the vegetables are cooked.



Title: ANTI-SCALD SPATULA FOR ADDITION OF COOKING SEASONING

Priority: CN201610480642 20160628

Family:

Publication number	Publication date	Application number	Application date
CN105962807 A	20160928	CN201610480642	20160628

Probable Assignee: ZHAO LIJUN

Assignee(s):^(std): ZHAO LIJUN

Assignee(s): LIJUN

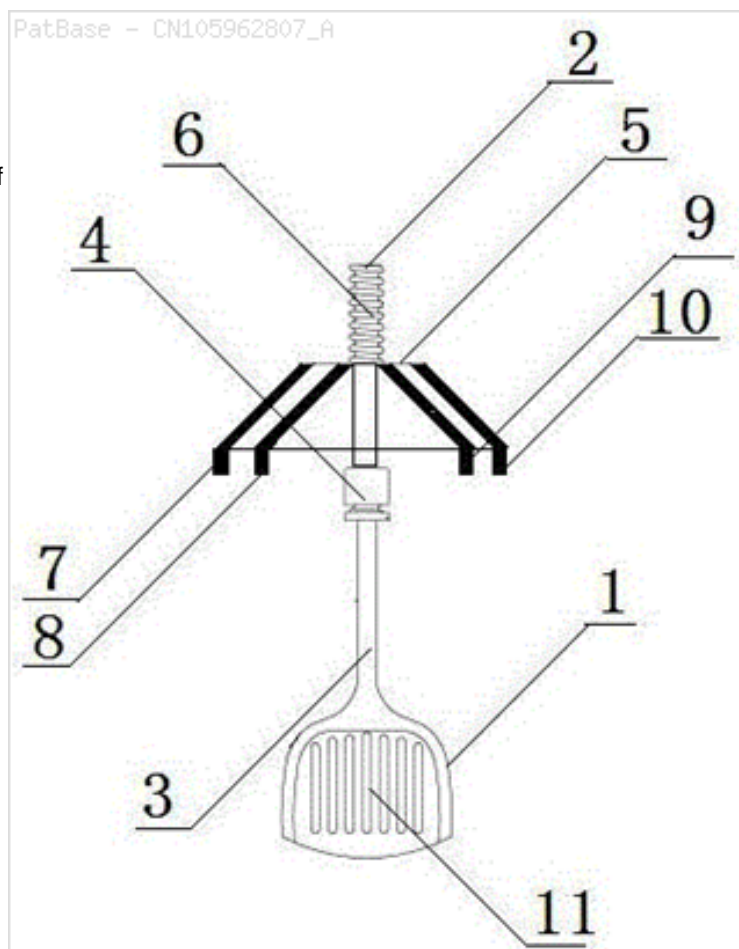
Inventor(s):^(std): ZHAO LIJUN

International class A47J43/28 (Advanced/Invention)
(IPC 8-9).

Classification Explorer

Abstract:

Abstract: Source: CN105962807A The invention discloses an anti-scald spatula for addition of cooking seasoning. The anti-scald spatula comprises a spatula body, a spatula handle and a connecting bar, wherein the spatula body is fixedly connected with the lower end of the connecting bar, and the upper end of the connecting bar is fixedly connected with the lower end of the spatula handle; an oil-proof cover is arranged at the lower part of the spatula handle, the bottom of the oil-proof cover is tightly attached to a connecting sleeve, and a plurality of seasoning tubes for accommodating the seasoning are arranged on the oil-proof cover. The anti-scald spatula achieves the beneficial effects as follows: (1) the oil-proof cover is arranged on the spatula handle, and injuries to hands due to oil splashes can be prevented; (2) the plurality of seasoning tubes are arranged on the oil-proof cover, so that the seasoning is added to a pan without scalding of the hands by oil; (3) the displacement of the oil-proof cover can be limited by the connecting sleeve, and the anti-scald spatula is quite convenient to use by a user.



129) Family number: 2999213 (US4836123A)

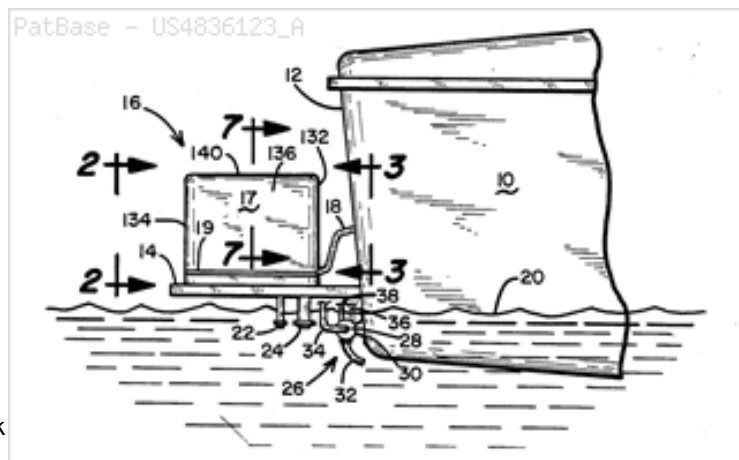
© PatBase

Title: Compact motor/generator set for providing alternating current power to a marine craft**Priority:** US19880178534 19880407

Family:	Publication number	Publication date	Application number	Application date
	<u>JP1257688 A2</u>	19891013	JP19880189570	19880728
	<u>US4836123 A</u>	19890606	US19880178534	19880407

Probable Assignee: SANSHIN KOGYO KABUSHIKI KAISYA A CORP OF JAPAN**Assignee(s):^(std):** SANSHIN KOGYO KK ; YAMAHA MOTOR CO LTD**Assignee(s):** YAMAHA HATSUDOKI KABUSHIKI KAISYA ; YAMAHA HATSUDOKI KABUSHIKI KAISHA ; YAMAHA HATSUDOKI KABUSHIKI KAISYA A CORP OF JAPAN ; SANSHIN IND CO LTD ; SANSHIN KOGYO KABUSHIKI KAISHA ; SANSHIN KOGYO KABUSHIKI KAISYA ; SANSHIN KOGYO KABUSHIKI KAISYA A CORP OF JAPAN**Inventor(s):^(std):** GRINDE JAMES E ; KURODA KAZUO ; JIEEMUSU II GURAINDO**International class**
(IPC 8-9): B63J3/04 F01P5/10 F02B61/04 F02B63/04 F02B75/00 (Advanced/Invention);
B63J3/00 F01P5/00 F02B61/00 F02B63/00 F02B75/00 (Core/Invention)**International class**
(IPC 1-7): B63B35/00 B63J3/04 F01P5/10 F02B63/04**CPC:** B63J3/04 F02B61/04 F02B63/04 F02B75/007**European class:** B63J3/04 F02B61/04 F02B63/04 F02B75/00V**US class:** 114/270 114/382 440/113 440/3 440/6[Classification Explorer](#)**Cited documents:** US4723928 A, US4545559 A, US3230698 A,**Forward Citations:** US9562456, US9404488, US9303498, US8839611, US8769940, US8739882, US8607554, US8298023, US7819205, US7413492, US7320628, US7061148, US7005756, US6979912, US6975042, US6851397, US6655341, US6414399, US6321677, US6309268, US6283808, US6240885, US6116374, US5929394, US5876256, US5125378, US5014660, US2014234134, US2014202704, US2013174771, US2010252227, US2010248561, US2007238372, US2006234566, US2006131080, US2006027618, US2005012409, US2004021377, US2004021320, US2002121780, TWI323313, JP4035065, ITMO20090254, ITBO20100590, EP1352435, EP1120556, DE19944015, CN102562244, AU2008257714,**Abstract:**

Source: US4836123A Contained within a splash water impervious housing and secured to a shock-mounted equipment support plate are an internal combustion engine, a water pump and a generator, each with a vertically-oriented shaft. Also disposed on the support plate immediately adjacent the engine's exhaust manifold is a water-cooled muffler. Combustion air for the engine and cooling air for the generator is drawn into the housing through a labyrinthian passage, which is effective to block the entry of splash water into the enclosure defined by the housing. The water pump and generator are driven by the engine with the water pump delivering cooling water to the engine's oil pan and cylinder block as well as to the muffler. The heated water is then discharged with the engine's exhaust through the muffler. Because of the cooling system employed, the engine, generator, water pump, muffler and the controls therefor can be compactly positioned relative to one another within the water-tight shroud, allowing the motor/generator set to be mounted exterior to the hull of the marine craft on its swim platform or, alternatively, in a bilge area where space is at a premium.



0) CN202790472U – ANTI-OIL-LEAK BRIDGE TYPE CRANE SPEED REDUCER

130) Family number: 53220965 (CN202790472U)

© PatBase

Title: ANTI-OIL-LEAK BRIDGE TYPE CRANE SPEED REDUCER

Priority: CN201220503955U 20120929

Family:	Publication number	Publication date	Application number	Application date
	CN202790472 U	20130313	CN201220503955U	20120929

Probable Assignee: TONGLING DESHENG MECHANICAL AND ELECTRICAL PRODUCTS CO LTD

Assignee(s):^(std): TONGLING DESHENG MECHANICAL AND ELECTRICAL PRODUCTS CO LTD

Assignee(s): TONGLING DESHENG MECHANICAL AND ELECTRICAL PRODUCTS CO

Inventor(s):^(std): WU CONGSHU

International class [F16H57/029](#) (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Forward Citations: CN103742631, CN103267128, CN103267128,

Abstract:

Source: CN202790472U The utility model relates to an anti-spill bridge crane reducer, comprising a housing (1), an output shaft (2), pinion shaft (3), cover (4), gland, cover includes a first end cover (5), the second end cap (6) with (3) on the gear shaft block oil pan (7), said first end cap (5), the second end cap (6) near the gland at the housing mating surface features embedded O-type rubber seal groove (8), the first end cap and the output shaft with the face near the lid of the oil seal with a built-in J-type trench (9). With this structure, when the work gear reducer drive oil splash, grease blocked most of the oil pan baffle; part not block oil pan baffle grease into the output shaft, J-type skeleton oil seal blocking the leakage gap; O-type rubber seal provided to ensure the sealing cap with the housing assembly at the gap.

131) Family number: 16209024 (US4569323A)

© PatBase

Title: Oil separator**Priority:** JP19830115419U 19830725 JP19830121514U 19830803

Family:	Publication number	Publication date	Application number	Application date
	JP60023205 U1	19850218	JP19830115419U	19830725
	JP60030310 U1	19850301	JP19830121514U	19830803
	US4569323 A	19860211	US19840631174	19840716

Probable Assignee: AISIN SEIKI**Assignee(s):^(std):** AISIN SEIKI**Assignee(s):** AISIN SEIKI KABUSHIKI KAISHA ; AISIN SEIKI KK**Inventor(s):^(std):** OKUMURA SHUJI

International class [B01D39/20](#) [F01M13/04](#) (Advanced/Invention);
 (IPC 8-9): [F01M13/00](#) [F02F7/00](#) (Advanced/Non-invention);
[F02F7/00](#) (Core/Non-invention)

International class [B01D39/20](#) [F01M13/00](#) [F01M13/04](#)
 (IPC 1-7):

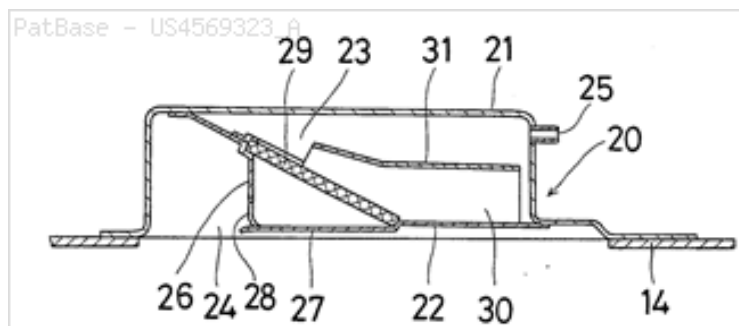
CPC: [F01M13/0011](#) [F01M13/0416](#) [F01M2013/0438](#) [F02F7/006](#)**European class:** [F01M13/04D](#)**US class:** [123/41.86](#) [123/41.8C](#) [123/572](#) [123/573](#)[Classification Explorer](#)

Cited documents: US4103650 A, US4102314 A, US3949719 A, US3875916 A, US3340859 A, US2493617 A, US2354722 A, US1372939 A, US1323048 A, JP58042356 B4, JP57076213 B4, JP57059911 B4, JP57043310 B4, JP51068948 B4, JP50054673 B4, JP49011094 U1,

Forward Citations: WO02068802, US9463403, US8726876, US8156926, US7475680, US7096847, US7080636, US6725849, US6695658, US6619114, US6561171, US6478018, US6247463, US6035836, US5983873, US5944001, US5927258, US5794602, US5501202, US5474035, US5285754, US5277154, US5129371, US5022376, US4996956, US4962745, US4922881, US2015052862, US2014076661, US2013125865, US2010319665, US2010024788, US2006226155, US2005092309, US2004261776, JP61197206, JP4624119, JP4506656, JP2010248934, JP2007146719, JP2005233182, DE4214324, DE4214324, DE19951028, DE19838247, DE102004014693,

Abstract:

Source: US4569323A An oil separator mounted on a cylinder head cover of an internal combustion engine to separate the lubricating oils within the blowby gases includes a buffer to intercept splashes of oil within the cylinder head cover, an inclined porous filter of foaming metal material positioned downstream of the buffer and an oil reservoir for depositing of the oil trapped by the filter.



0) DE20215777U1 – SPRAY GUARD COVER FOR COOKING HOB HAS ANNULAR C...

132) Family number: 30492723 (DE20215777U1)

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Title: SPRAY GUARD COVER FOR COOKING HOB HAS ANNULAR CONCENTRIC OUTER RINGS TO SUIT DIFFERENT HOB SIZES AND CENTRAL MESH AREA

Priority: DE20012017076U 20011017 DE20022015777U 20021014

Family:	Publication number	Publication date	Application number	Application date
	CN2566771 Y	20030820	CN20022034562U	20020513
	DE20117076 U1	20020307	DE20012017076U	20011017
	DE20215777 U1	20030213	DE20022015777U	20021014

Probable Assignee: HEINRICH BERNDES HAUSHALTSTECH

Assignee(s):^(std): HEINRICH BERNDES HAUSHALTSTECH ; HEINRICH BOERNS FAMILY TECHNOL

Assignee(s): HEINRICH BOERNS FAMILY TECHNOLOGY AG ; HEINRICH BERNDES HAUSHALTSTECHNIK GMBH AND CO KG

Inventor(s):^(std): KLOPSCHDECK GERD

Inventor(s): GERD KLOPSCHDECK

International class
(IPC 8-9): [A47J36/06 A47J37/10](#) (Advanced/Invention);
[A47J36/00 A47J37/10](#) (Core/Invention)

International class
(IPC 1-7): [A47J36/06 A47J36/38 A47J37/10](#)

CPC: [A47J36/06 A47J37/101](#)

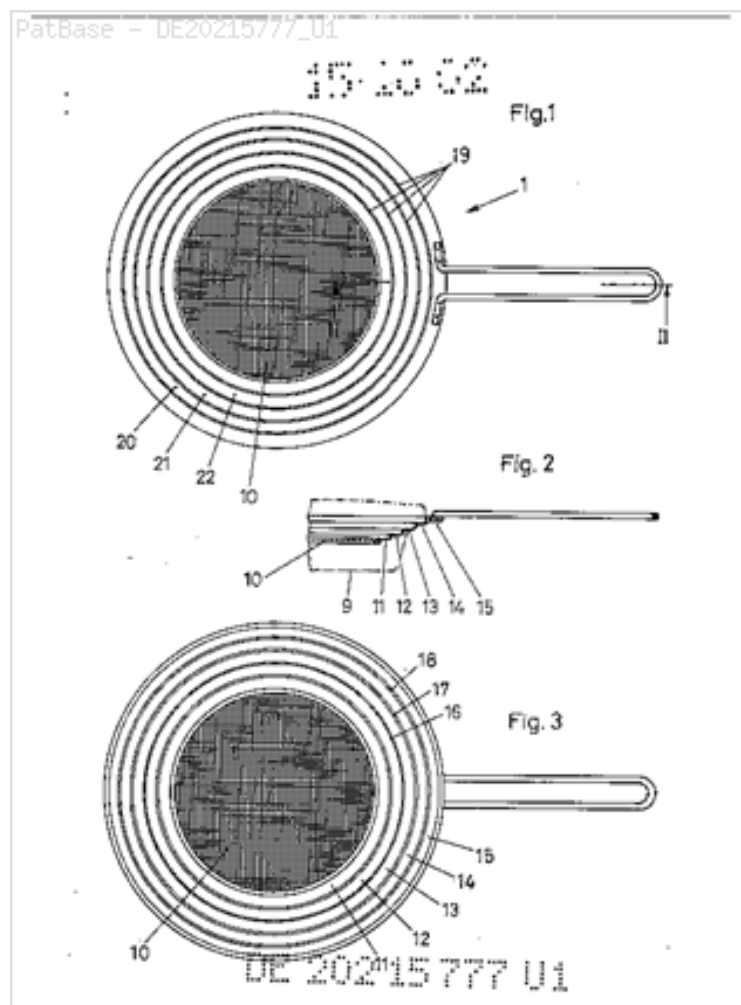
European class: [A47J36/06 A47J37/10A](#)

[Classification Explorer](#)

Forward Citations: DE202010011950, CN102764069, CN102764069,

Abstract:

Source: DE20215777U1 The spray guard cover (1) for a cooking hob has an attached handle for handling and multiple concentric annular guard cover sections of different diameters to suit different cooking ring sizes. The guard also has a central mesh area (10), the mesh size being such as to let steam through but not fat or oil. the central mesh area is flat.



Title: COVERED TYPE OIL COOKING PAN**Priority:** JP19940130994 19940519

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2826070 B2</u>	19981118	JP19940130994	19940519
	<u>JP7308257 A2</u>	19951128	JP19940130994	19940519

Probable Assignee: NAGAO KEN**Assignee(s):**^(std) NAGAO KEN**Inventor(s):**^(std) NAGAO KEN

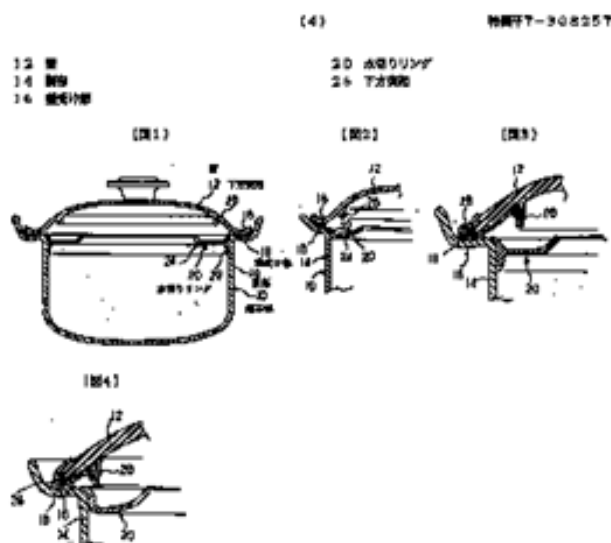
International class A47J36/06 A47J37/10 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J37/10 (Core/Invention)

International class A47J36/06 A47J37/10
 (IPC 1-7):

[Classification Explorer](#)**Cited documents:** JP62139613 A2, JP50125841 U1,**Forward Citations:** KR200481116, KR100766465,**Abstract:**

Source: JP7308257A PURPOSE: To restrain splashing of water content and oil content from between a pan main body and a cover when oil cooking is conducted with a cover placed on. CONSTITUTION: This pan consists of a pan main body 10 constituted of a thick metal body having a cutwater ring 20 detachably locked to the inside of a cover receiving part 16 formed at an upper end of a barrel part 14, and a cover for covering an upper part of the pan main body 10, placed on the cover receiving part 16, and projectingly and annularly provided with an underneath projection 26 on the rear face corresponding to the above of a position of the cutwater ring 20.

PatBase - JP7308257_A2



134) Family number: 15014177 (US6213063B)

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Title: Engine water pump structure**Priority:** JP19980279429 19980914

Family:	Publication number	Publication date	Application number	Application date
	BRPI9904105 A	20000919	BR1999PI04105	19990913
	CN1103861 C	20030326	CN19991018635	19990908
	CN1249395 A	20000405	CN19991018635	19990908
	DE19941891 A1	20000316	DE19991041891	19990902
	DE19941891 B4	20100429	DE19991041891	19990902
	IT1310688 B1	20020222	IT1999TO00747	19990907
	ITTO990747 A1	20010307	IT1999TO00747	19990907
	JP2000087744 A2	20000328	JP19980279429	19980914
	JP4080610 B2	20080423	JP19980279429	19980914
	US6213063 BA	20010410	US19990395737	19990914

Probable Assignee: HONDA GIKEN KOGYO KK**Assignee(s):^(std):** HONDA GIKEN KOGYO KABUSHIKI KAISHA ; HONDA GIKEN KOGYO HONDA MOTOR CO KK ; HONDA MOTOR CO LTD**Assignee(s):** HONDA GIKEN KOGYO K K ; HONDA GIKEN KOGYO KABUSHIKI KAISHA (HONDA... ; HONDA GIKEN KOGYO KABUSHIKI KAISHA HONDA MOTOR CO LTD ; HONDA GIKEN KOGYO KK**Inventor(s):^(std):** CHUTARO KOBAYASHI ; KATSUNORI TAKAHASHI ; KATSUTOKU TAKAHASHI ; KOBAYASHI CHUTARO ; NAKANO SHINICHI ; OKA TAMOO ; OKA TOMOO ; OKA TOMOSEI ; SHINICHI NAKANO ; SUZUKI YOSHIKI ; TAKAHASHI KATSUNORI ; TAKAHASHI KATSUTOKU ; TOMOO OKA ; TOMOSEI OKA ; YOSHIKI SUZUKI

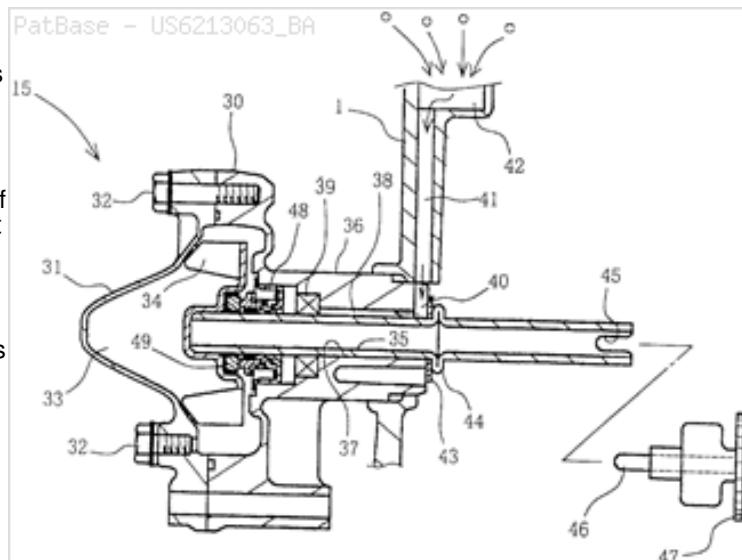
International class
 (IPC 8-9): [F01M5/02](#) [F01M9/10](#) [F01P5/10](#) [F01P5/12](#) [F04D29/04](#) [F04D29/041](#) [F04D29/043](#)
[H05K7/20](#) (Advanced/Invention);
[F01M11/02](#) [F01M9/08](#) (Advanced/Non-invention);
[F01M5/00](#) [F01M9/00](#) [F01P5/00](#) [F04D29/04](#) [H05K7/20](#) (Core/Invention);
[F01M11/02](#) (Core/Non-invention)

International class
 (IPC 1-7): [F01P5/10](#) [F01P5/12](#) [F04D29/04](#)

CPC: [F01M9/08](#) [F01M9/108](#) [F01M11/02](#) [F01P5/10](#) [F02B2275/18](#) [F04D29/0413](#) [F04D29/043](#)
[F05B2240/61](#)**European class:** [F01M9/10T](#) [F01P5/10](#) [F04D29/04](#) [F04D29/041B](#) [F04D29/043](#) [F04D29/04P](#) [R01M11/02](#)
[R01M9/08](#) [R02B275/18](#) [R05B240/61](#)**US class:** [123/41.44](#)[Classification Explorer](#)**Cited documents:** US869887 A, US5159901 A, US4784088 A, US1100327 A, DE4092019 C2, DE325822 A, DE19639930 C2, DE19639928 A1, DE1178639 B,**Forward Citations:** WO05071237, US8245683, US7478612, US7343883, US7159682, US7000727, US6896486, US2010050976, US2008243448, US2007074681, US2005284677, US2002017418, TWI379943, EP1400701, DE102004049187, DE102004049187, CN104863901, CN103629143,

Abstract:

Source: US6213063B A water pump includes a pump body and a pump cover. An impeller is housed in a pump chamber defined by the pump body and pump cover. The impeller is attached to one end of a hollow pump shaft. The pump shaft is engaged with a driving section at its other end. An intermediate part of the pump shaft is supported by a shaft support section, in the form of a cylindrical section, of the pump body. The shaft support section is longer than a diameter of the pump shaft. The shaft support section is lubricated via an oil groove. One end of the shaft support section is brought into contact with a flange of the pump shaft via a washer. The flange is integrally formed on the pump shaft by a beading process.



135) Family number: 16593821 (DE8200618U1)

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Title: WASSERWELLENKRAFTMASCHINE WATER ENGINE OIL (Machine translation)

Priority: DE19820000618U 19820111

Family:	Publication number	Publication date	Application number	Application date
	<u>DE8200618 U1</u>	19820624	DE19820000618U	19820111

Probable Assignee: HIRSCH HARTMUT 1000 BERLIN DE

Assignee(s): HIRSCH HARTMUT 1000 BERLIN DE

International class F03B13/12 (Advanced/Invention);
(IPC 8-9); F03B13/00 (Core/Invention)

International class F03B13/12
(IPC 1-7);

[Classification Explorer](#)

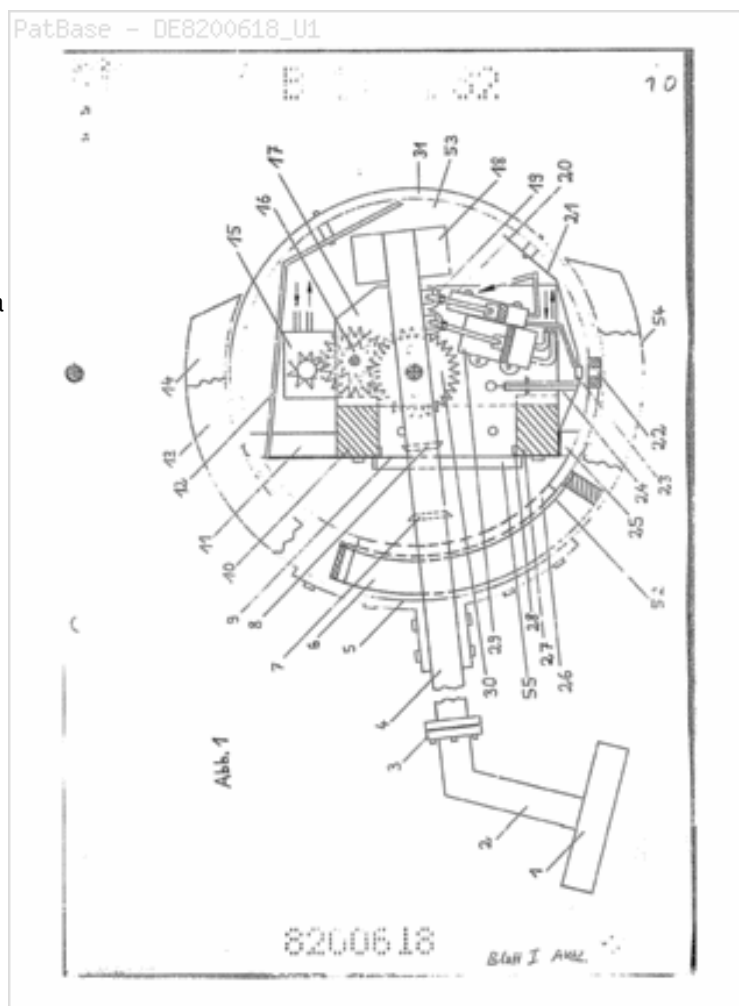
Abstract:

Source: DE8200618U1 (Claim 1)

Schutzansprueche – Die Erfindung bezieht sich auf eine Wasserwellenkraftmaschine zur gewerblichen Nutzung. Die durch die Auftriebskraft eines Schwimmers umweltfreundlich gewonnene mechanische Energie ist fuer den Antrieb aller mechanisch angetriebenen Maschinen geeignet.

Machine translation: (Claim 1)

Schutzansprueche – The invention relates to a water wave power machine for commercial use. By the buoyancy of a float environmentally friendly mechanical energy is derived for the drive of all mechanically driven machines.



136) Family number: 29330048 (US5718651A)

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Title: DRIVING ARRANGEMENT FOR A MOTOR VEHICLE**Priority:** DE19951029586 19950811 DE19965000892 19960725

Family:	Publication number	Publication date	Application number	Application date
	DE19529586 C1	19960814	DE19951029586	19950811
	DE59600892 D1	19990114	DE19965000892	19960725
	EP0762017 A1	19970312	EP19960111980	19960725
	EP0762017 B1	19981202	EP19960111980	19960725
	JP3079129 B2	20000821	JP19960226078	19960809
	JP9048251 A2	19970218	JP19960226078	19960809
	US5718651 A	19980217	US19960695604	19960812

Probable Assignee: DAIMLERCHRYSLER AG**Assignee(s):^(std):** PORSCHE AG ; DAIMLER BENZ AG

Assignee(s): DAIMLER BENZ AKTIENGESELLSCHAFT ; DAIMLER BENZ AKTIENGESELLSCHAFT 70567 STUTTGART DE ; DAIMLERCHRYSLER AG ; DR ING H C F PORSCHE AG ; DAIMLER AG ; MERCEDES BENZ AG ; MERCEDES BENZ AKTIENGESELLSCHAFT 70327 STUTTGART D ; DR ING H C F PORSCHE AG 70435 STUTTGART DE ; MERCEDES BENZ AKTIENGESELLSCHAFT ; MERCEDES BENZ AKTIENGESELLSCHAFT 70327 STUTTGART DE ; MERCEDES BENZ 70327 STUTTGART DE AG ; DRINGHC F PORSCHE 70435 STUTTGART DE AG

Inventor(s):^(std): FUUBERUTO MIYURAA ; FUUBERUTO MYURAA ; HANSU MERUKURE ; MERKLE HANS ; MERKLE HANS DIPL ING ; MUELLER HUBERT ; MUELLER HUBERT DIPL ING

Inventor(s): MUELLER HUBERT DIPL ING 75233 TIEFENBRONN DE ; MUELLER HUBERT 75233 TIEFENBRONN DE ; MERKLE HANS DIPL ING 70599 STUTTGART DE ; MERKLE HANS 70599 STUTTGART DE

Designated states: DE FR GB IT

International class [B60K17/16 F16H57/04](#) (Advanced/Invention) ;
^{(IPC 8-9):} [B60K17/16 F16H57/04](#) (Core/Invention)

International class [B60K17/16 F16H37/04 F16H57/04](#)
^{(IPC 1-7):}

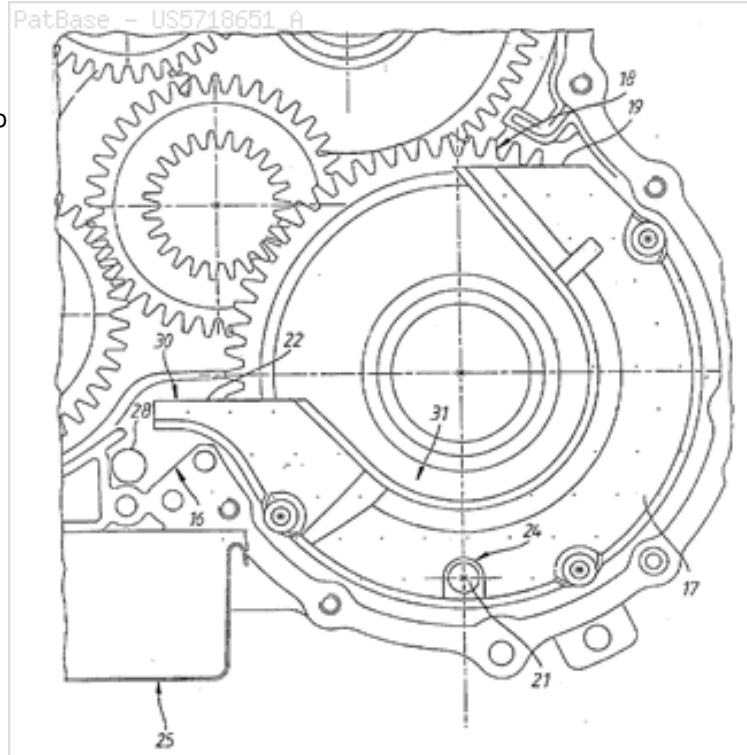
CPC: [Y10T74/2186 F16H57/0421 F16H57/0483 F16H57/0493](#)**European class:** [F16H57/04M3 F16H57/04Z2B F16H57/04Z6](#)**US class:** [475/159 475/160 74/606R](#)[Classification Explorer](#)

Cited documents: US5505112 A, US5445041 A, US5279188 A, US4879921 A, US4319499 A, US3838751 A, JP60176821 A2, JP5876855 U, JP58094672 A2, JP5180308 A2, JP5106710 A2, FR1199681 A, EP0512214 A2, DE4318713 A1, DE4318713 A1, DE3939651 C1, DE3939651 A1, DE3906330 A1, DE1946942 U, DE1946942 A1,

Forward Citations: WO10108600, US9062754, US8973458, US8967334, US8833193, US8707826, US8535193, US8371978, US7624660, US6865970, US2011245010, US2011162482, US2006196304, JP2014084897, EP2411702, DE19856941, DE19711743, DE102006046850,

Abstract:

Source: US5718651A In the case of a driving arrangement for a motor vehicle having a gearing casing which carries a gear box shaft with a gearwheel which is situated in parallel to a geometrical main axis and having a partial casing which carries differential gearing which has a ring gear meshing with the gear wheel and is arranged concentrically with respect to the main axis, a storage chamber is provided in the partial casing which is concentric with respect to the main axis.



137) Family number: 32411192 (JP2005279229A)

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Title: COVER FOR PREVENTING COOKING OIL FROM SPLASHING**Priority:** JP20040130506 20040329

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2005279229 A2</u>	20051013	JP20040130506	20040329

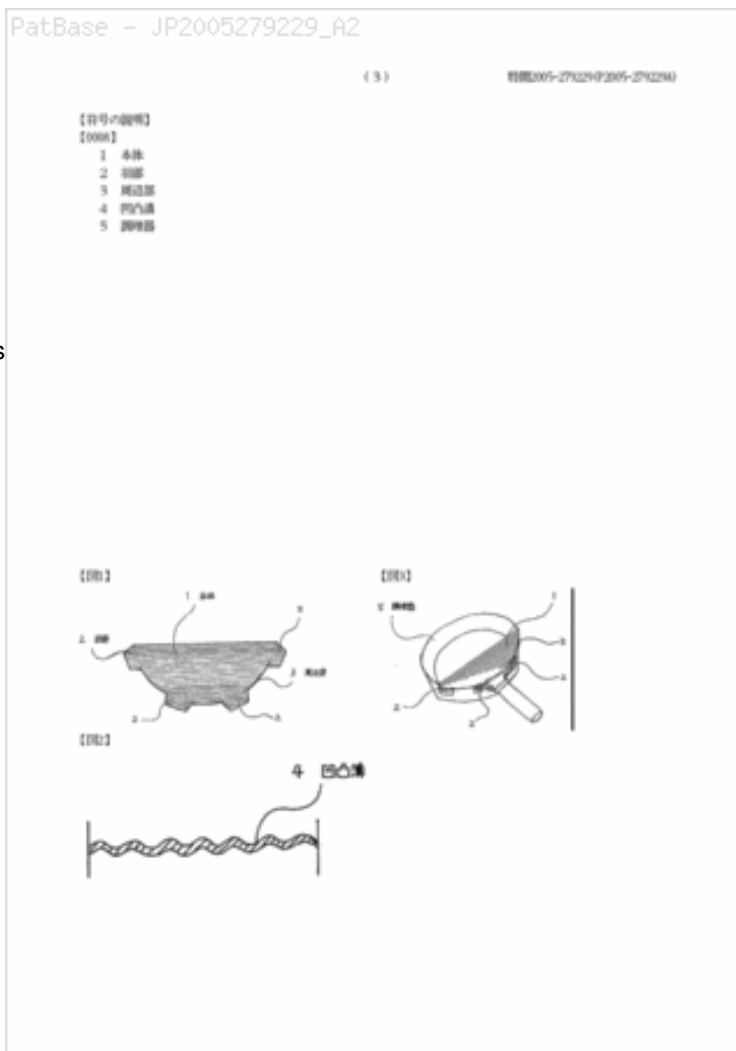
Probable Assignee: KANESHIRO HIROKO**Assignee(s):**^(std): KANESHIRO HIROKO**Inventor(s):**^(std): KANESHIRO HIROKO

International class A47J27/00 A47J36/06 F24C15/12 (Advanced/Invention);
 (IPC 8-9): A47J27/00 A47J36/00 F24C15/12 (Core/Invention)

International class A47J27/00 A47J36/06 F24C15/12
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: JP2005279229A PROBLEM TO BE SOLVED: To provide a cover for preventing cooking oil from splashing and formed of an aluminum foil or an aluminum-processed fireproof material. SOLUTION: The cover for preventing the cooking oil from splashing comprises a cover main body formed of the aluminum foil or the aluminum-processed fireproof material provided with protrusive and recess grooves and having a form to cover the front side of an opening part of any cooker using the cooking oil, such as a frying pan or a tempura-pan, and a plurality of foldable blades provided on a peripheral part of the main body corresponding to the outside position of the cooker.



138) Family number: 33567959 (CN2827229Y)

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Title: Multi-functional round-bottomed frying pan**Priority:** CN200520091725U 20050708**Family:**

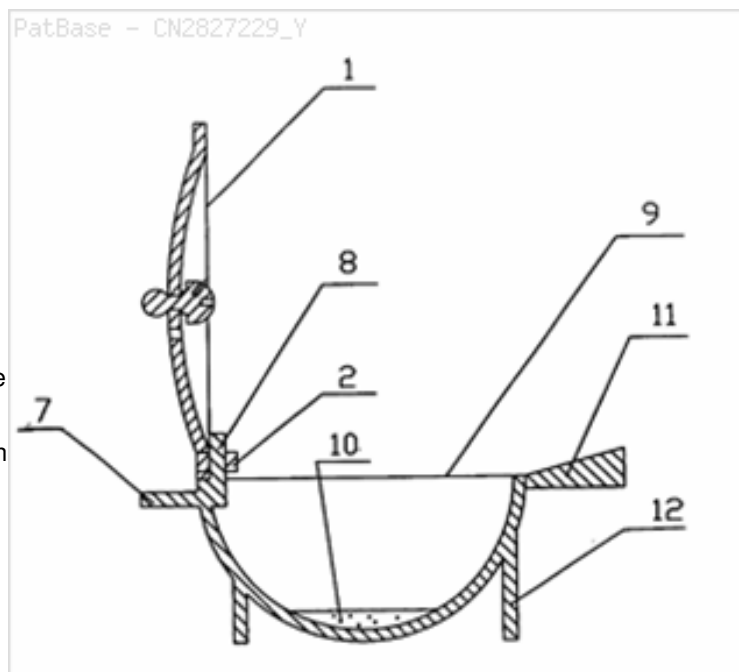
Publication number	Publication date	Application number	Application date
<u>CN2827229 Y</u>	20061018	CN200520091725U	20050708

Probable Assignee: JIN BAOCHANG**Assignee(s):^(std):** JIN BAOCHANG**Inventor(s):^(std):** JIN BAOCHANG**Inventor(s):** BAOCHANG JIN

International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN2827229Y The utility model provides a multifunctional frying pan. The technology is mainly characterized in that the outer bottom part of the frying pan is welded with a support bracket to prevent the frying pan from inclining. A pan edge part is welded with an L-shaped component, and a convex hole of a pan cover can be inserted into a longitudinal post of the L-shaped component, hung on a transverse post of the L-shaped component, or clamped into a U-shaped opening formed by the L-shaped component and the pan edge. Thus, the pan cover can prevent oil from outward splashing to injure the human body. The utility model has the advantages of novel structure, strong practicability, oil splashing prevention, pollution reduction, no human body's harm, stable placement and no inclination.



139) Family number: 50645552 (CN102342769A)

© PatBase

Title: Oil–splashing proof safe pancake turner**Priority:** CN201110299929 20110930

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102342769 A</u>	20120208	CN201110299929	20110930

Probable Assignee: AOTIAN JIN**Assignee(s):^(std):** AOTIAN JIN**Assignee(s):** JIN AOTIAN**Inventor(s):^(std):** AOTIAN JIN ; MIN ZHAO**Inventor(s):** ZHAO MIN ; JIN AOTIAN**International class** A47J43/28 (Advanced/Invention)
(IPC 8–9).[Classification Explorer](#)**Abstract:**

Source: CN102342769A The invention discloses an oil–splashing proof safe pancake turner which comprises a pancake turner, wherein the front end of the handle of the pancake turner is provided with a taper–shaped hollow cover; and the opening of the taper–shaped hollow cover faces the handle of the pancake turner. According to the invention, the pancake turner is combined with the taper–shaped hollow cover, so that the oil–splashing proof safe pancake turner has practical functions and is safe and convenient, and hot oil in a pan can be effectively prevented from splashing onto the hands of people so as to prevent the hands of a user from being hurt by splashed hot oil.

0) KR20130005477U – FRYING PAN LID

140) Family number: 54790344 (KR20130005477U)

© PatBase

Title: FRYING PAN LID

Priority: KR20120001872U 20120309

Family:

Publication number	Publication date	Application number	Application date
KR20130005477 U	20130923	KR20120001872U	20120309

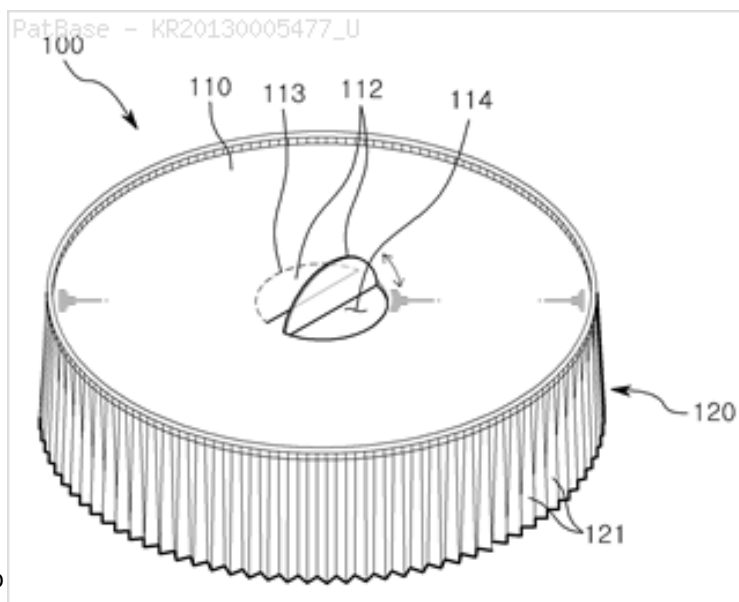
International class A47J36/06 (Advanced/Invention)
(IPC 8-9).

CPC: A47J36/06 A47J37/101

[Classification Explorer](#)

Abstract:

Source: KR20130005477U According to the present invention, a plate-shaped body portion; and on the edge of the body part that extends downwardly to combine a plurality of folds formed in a row, including wrinkles frying pan lid cover unit is provided. Frying pan lid in accordance with the present invention, wrinkle cover parts equipped according to the specifications of the Frying Pan scalable advantages. Also, cooking oil when cooking food to avoid splashing outside the hygienic and pan lid opening in the center of the pan through a vent opening to the internal heat of the exhaust even the food is cooked according to Sikkim has the advantage of learning. Moreover, the cooking process that occurs during the outbreak of water vapor from the contaminated area, and has the effect of blocking the smell. In addition, to make use of disposable paper shoji paper as possible by re-produced with economical and easy to manufacture and has the advantage of increasing productivity.



Title: SHOVEL
Priority: CN201310577278 20131115

Family:	Publication number	Publication date	Application number	Application date
	<u>CN103637715 A</u>	20140319	CN201310577278	20131115

Probable Assignee: ZHANGJIAGANG CITY SHENGDA METAL TOOLS CO LTD

Assignee(s):^(std): ZHANGJIAGANG CITY SHENGDA METAL TOOLS CO LTD

Assignee(s): ZHANGJIAGANG CITY SHENGDA METAL TOOLS CO

Inventor(s):^(std): HE CHENLIAN

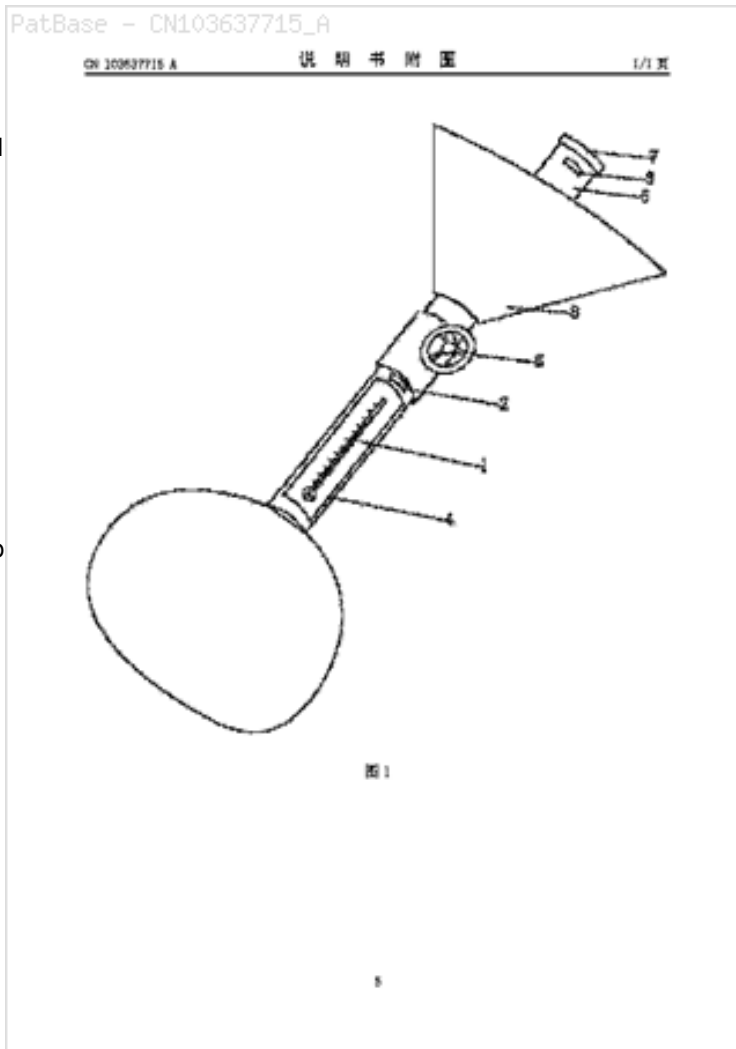
International class A47J43/28 (Advanced/Invention)
 (IPC 8-9):

[Classification Explorer](#)

Cited documents: CN202941973 U, CN202515505 U, CN202027454 U, CN201929812 U, CN201767829 U, CN200948090 Y, CN200941984 Y,

Abstract:

Source: CN103637715A The invention discloses a shovel which comprises a shovel handle and a shovel face. A thermometer is embedded in the shovel handle. The shovel is characterized in that a temperature sensor and an alarm which are connected through a wire are arranged on the shovel handle; the shovel handle comprises a first hollow rod and a second hollow rod, the first hollow rod is connected with the second hollow rod through a valve, the upper end of the second hollow rod is connected with an upper end cover in a threaded mode and an umbrella-shaped oil-splash-proof device is connected to the shovel handle in a threaded mode; the outer surface of the shovel handle is provided with anti-sliding materials. The temperature sensor is used for detecting the oil temperature, when the oil temperature exceeds a certain value, the alarm can promote a user to open the valve on the shovel handle to directly add soup or oil which is poured in advance to cool an oil pan. Extra cooling liquid is not needed to be found and convenience is brought to the user. In addition, the umbrella-shaped oil-splash-proof device can protect the skin of the hands of the user against scalding by splashed oil.



0) CN204617959U – SPLASH –PROOF PAN –LID

142) Family number: 60330765 (CN204617959U)

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Title: SPLASH –PROOF PAN –LID

Priority: CN201520338109U 20150522

Family:	Publication number	Publication date	Application number	Application date
	<u>CN204617959 U</u>	20150909	CN201520338109U	20150522

Probable Assignee: SHANGHAI MINHANG HIGH SCHOOL

Assignee(s):^(std): SHANGHAI MINHANG HIGH SCHOOL

Assignee(s): SHANGHAI MINHANG SCHOOL

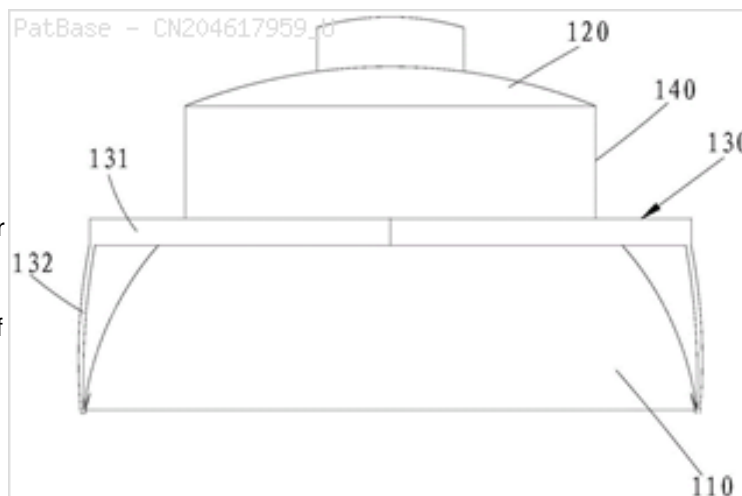
Inventor(s):^(std): GU QIUHUI ; LU JIA

International class A47J36/06 (Advanced/Invention)
(IPC 8–9) :

[Classification Explorer](#)

Abstract:

Source: CN204617959U The utility model provides a splash –proof pan –lid, is including main lid, upper cover and regulating bottom, main lid is the bowl form of back –off, and its upside has a circular shape opening, and the opening upwards perpendicular the extension constitutes the cross –section and is annular wall body, the upper cover is located the upper shed department of wall body, regulating bottom comprises two plate bodys, two plate bodys are followed the side slip insert of main lid in in the main lid, the inner amalgamation of the two plate bodys in wall body under shed department, and the outer end of two plate bodys has the hook and locates the main pothook that covers the lower limb, regulating bottom, wall body and upper cover three surround constitution food material and place the chamber. The utility model discloses simple structure, convenient operation has been stained with water even eat the material, and hot oil also will not spatters on hand, and the security is high.

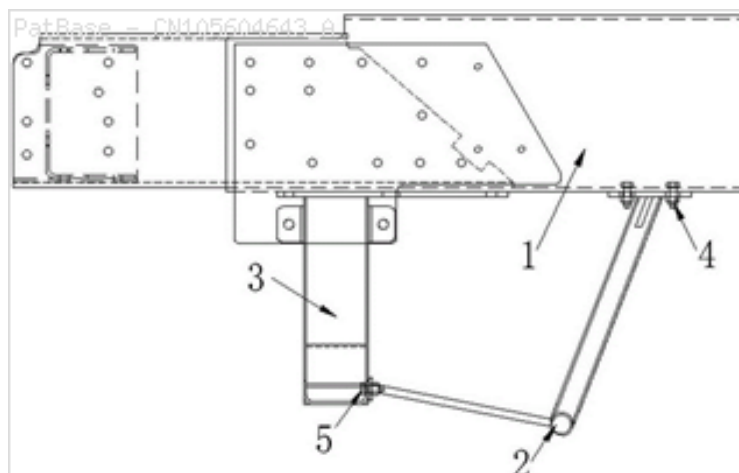


Title: ENGINE OIL PAN PROTECTION COVER**Priority:** CN201610036159 20160120

Family:	Publication number	Publication date	Application number	Application date
	CN105604643 A	20160525	CN201610036159	20160120

Probable Assignee: SINO TRUK JINAN POWER CO LTD**Assignee(s):**^(std) SINO TRUK JINAN POWER CO LTD**Assignee(s):** CHINA SINOTRUK JINAN POWER CO LTD ; SINO TRUK JINAN POWER CO**Inventor(s):**^(std) CHANG YONG ; CHENG LIJUN ; GAO YANG ; HU HUANHUAN ; WANG JIE**International class** F01M11/10 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN105604643A An engine oil pan protection cover comprises a U-shaped lower protection tube, a plurality of round tubes and a reinforcing beam mounted at the lower end of a frame assembly. The round tubes are fixed to the lower end of the lower protection tube and are parallel. The upper end of the lower protection tube is fixed to the lower end of the frame assembly through a connecting piece I, the outer ends of the round tubes are fixed to the lower end of the reinforcing beam through connecting pieces II, a U-shaped protection structure is formed by the lower protection tube, the round tubes and the reinforcing beam, and an engine oil pan is located in the U-shaped protection structure. The U-shaped protection structure is formed by the reinforcing beam, the round tubes and the lower protection tube and wraps and protects the engine oil pan, and therefore the situation that an oil pan is broken and leaks oil due to the impact of splashed finger stone is effectively avoided, the service life of an engine is prolonged, and the performance of a whole car is improved. Engine heat dissipation is facilitated through clearances formed between the round tubes, and the service life of the engine is further prolonged.



144) Family number: 17548247 (CN2110443U)

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Title: PAN CAP CAPABLE OF PREVENTING OIL FROM SPUTTERING**Priority:** CN19922010194U 19920130

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2110443 U</u>	19920722	CN19922010194U	19920130

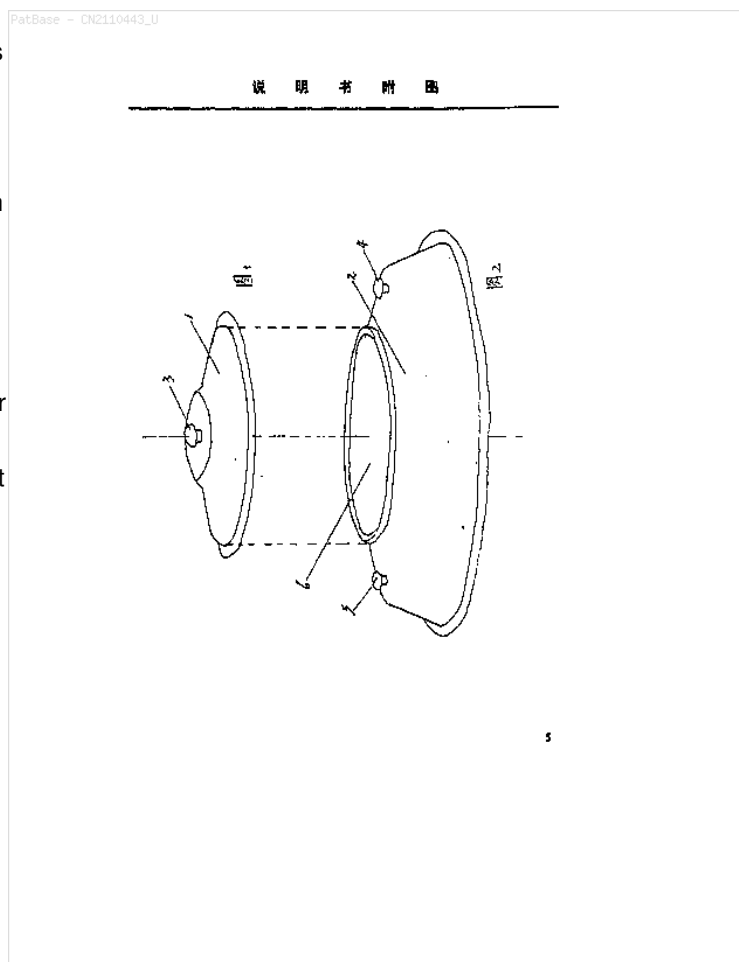
Probable Assignee: GUO XIMING**Assignee(s):**^(std): GUO XIMING**Inventor(s):**^(std): GUO XIMING ; XIMING GUO

International class A47J36/06 (Advanced/Invention);
^{(IPC 8-9):} A47J36/00 (Core/Invention)

International class A47J36/06
^{(IPC 1-7):}

[Classification Explorer](#)**Abstract:**

Source: CN2110443U The utility model relates to an improved technique of common pot cover, which suits to be used for small pots or big ladles. A double-layer structure is adopted by the structure of the improved technique which is composed of two parts, the upper layer is a top cover, the lower layer is a bottom cover, the center of the bottom cover is provided with a round opening, and when the top cover is placed on the bottom cover, the top cover is tightly matched with the bottom cover, and the round opening is just fastened. The utility model has the advantages that the bottom cover is firstly placed to prevent cooking fume from splashing, the bottom cover is secondly placed to effectively prevent the cooking fume from overflow, and the surrounding environmental sanitation is kept at the same time.



0) CN2792369Y – GREASE–SHIELD COVER

145) Family number: 33288271 (CN2792369Y)

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Title: Grease–shield cover
Priority: CN200520100716U 20050224

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2792369 Y</u>	20060705	CN200520100716U	20050224

Probable Assignee: QIAN LONGBIAO

Assignee(s):^(std): QIAN LONGBIAO

Inventor(s):^(std): QIAN LONGBIAO

Inventor(s): LONGBIAO QIAN

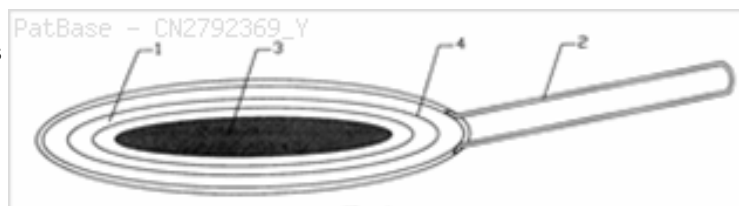
International class A47J36/00 B01D29/00 (Advanced/Invention);
 (IPC 8–9): A47J36/00 B01D29/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN2792369Y The utility model relates to a grease–shield cover. A cover body is provided with a handle, and the middle part of the cover body is provided with a filtration screen. When vegetables are fried or food is fried, the grease–shield cover is covered on a pan. The filtration screen can splash grease point outwards for shielding to have the

function of avoiding splashing grease. Simultaneously, a user can conveniently observe conditions in the pan from the filtration screen to make the frying of the vegetables or frying work convenient. Moreover, after the food is fried completely, the grease–shield cover of the utility model can be placed on a grease storage basin as oil leakage. The cover body is provided with a plurality of steps in a circular ring shape. The steps in the circular ring shape can be applied to pans of various specifications and sizes to make the grease–shield cover have good applicability.



146) Family number: 42009391 (CN201076342Y)

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Title: Scald and contaminate prevention pan**Priority:** CN200720024603U 20070629

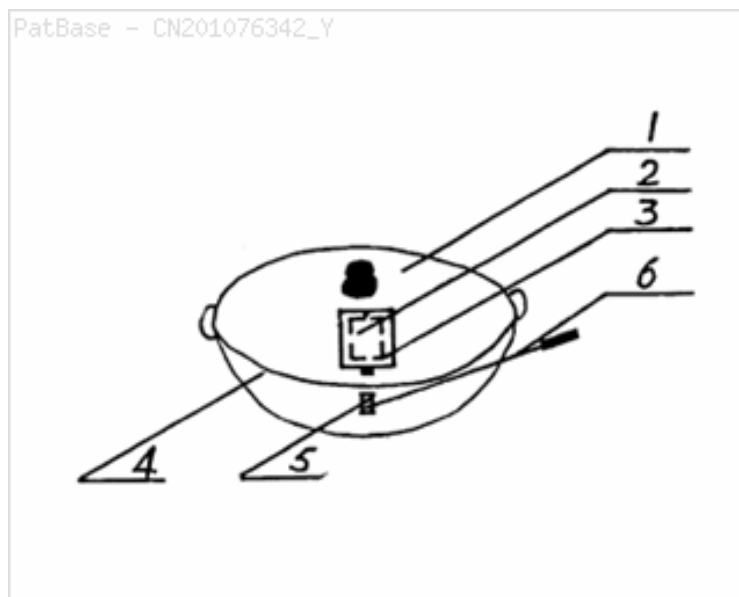
Family:	Publication number	Publication date	Application number	Application date
	<u>CN201076342 Y</u>	20080625	CN200720024603U	20070629

Probable Assignee: RAO FU**Assignee(s):^(std):** RAO FU**Assignee(s):** FU RAO**Inventor(s):^(std):** RAO FU ; LE LI**Inventor(s):** FU RAO ; LI LE

International class A47J27/00 A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J27/00 A47J36/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN104739224,**Abstract:**

Source: CN201076342Y The utility model discloses a scalding resistant and anti-pollution wok, which is composed of a cover, a baffle plate for a feed inlet of the cover, a pan and a shovel. The upper portion on the side face of the pan is provided with a hole for placing the shovel, the shovel is placed in the pan via the hole, the cover is provided with the feed inlet, the baffle plate of the feed inlet is connected with the cover, and the cover is buttoned with the pan. The utility model resolves the problem that hot oil splashes all around to scald people when the food is cooked and oil smoke pollutes environment.



147) Family number: 43343082 (CN201234900Y)

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Title: Air discharge apparatus of cooker lid of dumpling frying furnace**Priority:** CN200820057171U 20080411

Family:	Publication number	Publication date	Application number	Application date
	CN201234900 Y	20090513	CN200820057171U	20080411

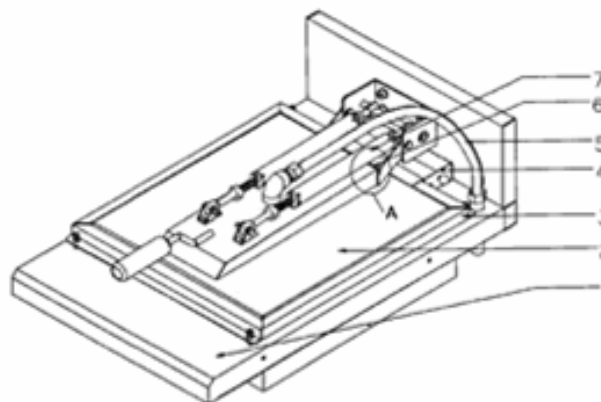
Probable Assignee: SHANGHAI HOTEL EQUIPMENT ENGIN**Assignee(s):^(std):** SHANGHAI HOTEL EQUIPMENT ENGIN**Assignee(s):** SHANGHAI HOTEL EQUIPMENT ENGINEERING MATCHED SET NANXIANG PLANT CO**Inventor(s):^(std):** CHAO YANG**Inventor(s):** YANG CHAO

International class A47J36/06 A47J36/08 A47J37/10 (Advanced/Invention);
 (IPC 8-9): A47J36/00 A47J37/10 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN201234900Y The utility model relates to a gas-exhausting device for a cover of a fried dumpling stove, which comprises a table-board (1), a pan assembly (3) which is arranged on the table-board (1), a cover assembly (2) which is arranged on the pan assembly (3), a cover brace rod (7) on the cover assembly (2), an oil trap (4) on the rear end of the table-board (1), and a spray pipe (5) which is arranged on the table-board (1), wherein at least more than one holes (6) are opened on the rear end of the cover assembly (2) close to the oil trap (4). The utility model has the beneficial effects that water and oil can splash on the set rear position, and all can be collected by the oil trap, thereby keeping the device clean and sanitary.

PatBase - CN201234900_Y



148) Family number: 30479779 (US2001029618A)

© PatBase

Title: Transgenic maize with increased mannitol content

Priority:

AU19940077169	19940824	AU19980056404	19980302	EP19900912722	19900808
EP19940927962	19940824	US19890392176	19890809	US19900513298	19900417
US19900565844	19900809	US19940233067	19940426	US19930113561	19930825
US20000097333	20001208	US19950446930	19950523	US19950446931	19950523
US19950447985	19950523	US19970852340	19970507	US19960599714	19960119
US19960594861	19960119	US19950446933	19950523	US19980062405	19980420
US19940357497	19941216	US19990312721	19990517	US19960604789	19960119
WO1994US09699	19940824	WO1990US04462	19900808	WO1997US00983	19970117
WO1997US00978	19970117	US20000732439	20001207	US20020171498	20020613
US20000733300	20001208	US20050196176	20050803	US20030353726	20030129

Family:

Publication number	Publication date	Application number	Application date
AR005664 AA	19990714	AR1997P100213	19970120
AR005665 AA	19990714	AR1997P100214	19970120
AR011462 AB	20000816	AR1998P101552	19980406
AR059315 AB	20080326	AR2007P100465	20070205
AR059316 AB	20080326	AR2007P100466	20070205
AT160174 E	19971115	AT19900912722T	19900808
AU199062903 A1	19910311	AU19900062903	19900808
AU199477169 A1	19950321	AU19940077169	19940824
AU199717065 A1	19970811	AU19970017065	19970117
AU199717066 A1	19970811	AU19970017066	19970117
AU199856404 A1	19980604	AU19980056404	19980302
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AU684105 B2	19971204	AU19940077169	19940824
AU712874 B2	19991118	AU19980056404	19980302
AU724987 B2	20001005	AU19970017066	19970117
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BRPI9407355 A	19970819	BR1994PI07355	19940824
BRPI9707017 A	19990720	BR1997PI07017	19970117
BRPI9707055 A	19990720	BR1997PI07055	19970117
CA2064761 AA	19920131	CA19902064761	19900808
CA2064761 C	20060613	CA19902064761	19900808
CA2170260 AA	19960223	CA19942170260	19940824
CA2243268 AA	19980716	CA19972243268	19970117
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DE69031711 D1	19971218	DE19906031711	19900808
DE69031711 T2	19980409	DE19906031711T	19900808
EP0485506 A1	19920520	EP19900912722	19900808
EP0485506 B1	19971112	EP19900912722	19900808
EP0721509 A1	19960717	EP19940927962	19940824
EP0814166 A2	19971229	EP19970108223	19900808
EP0814166 A3	19980513	EP19970108223	19900808
EP0879292 A1	19981125	EP19970903052	19970117
EP0889967 A2	19990113	EP19970903051	19970117
EP2107118 A1	20091007	EP20090164563	19940824
ES2110417 T3	19980216	ES19900912722T	19900808
HU218465 B	20000928	HU19920000394	19900808

<u>HU60781 A2</u>	19921028	HU19920000394	19900808
<u>HU74392 A2</u>	19961230	HU19960000425	19940824
<u>HU9200394 A0</u>	19920428	HU19920000394	19900808
<u>HU9600425 A0</u>	19960429	HU19960000425	19940824
<u>HU9900387 AB</u>	19990528	HU19990000387	19970117
<u>HU9900387 AC</u>	20010228	HU19990000387	19970117
<u>HU9900514 AB</u>	19990528	HU19990000514	19970117
<u>HU9900514 AC</u>	20010628	HU19990000514	19970117
<u>IL110781 A0</u>	19941111	IL19940110781	19940825
<u>IL125070 A0</u>	19990126	IL19970125070	19970117
<u>IL125304 A0</u>	19990312	IL19970125304	19970117
<u>JP2000503541 T2</u>	20000328	JP19970526289T	19970117
<u>JP5501352 T2</u>	19930318	JP19900512239T	19900808
<u>US2001029618 AA</u>	20011011	US20000732439	20001207
<u>US2002061570 AA</u>	20020523	US20000733300	20001208
<u>US2003126634 AA</u>	20030703	US20020171498	20020613
<u>US2003167514 AA</u>	20030904	US20030353726	20030129
<u>US2006168680 AA</u>	20060727	US20050196176	20050803
<u>US5489520 A</u>	19960206	US19940233067	19940426
<u>US5550318 A</u>	19960827	US19900565844	19900809
<u>US5780709 A</u>	19980714	US19960594861	19960119
<u>US5874265 A</u>	19990223	US19950446931	19950523
<u>US5919675 A</u>	19990706	US19950446933	19950523
<u>US5969213 A</u>	19991019	US19950446930	19950523
<u>US6118047 A</u>	20000912	US19960604789	19960119
<u>US6271016 BA</u>	20010807	US19990312721	19990517
<u>US6281411 BA</u>	20010828	US19960599714	19960119
<u>US6395966 BA</u>	20020528	US19940357497	19941216
<u>US6399861 BA</u>	20020604	US19950447985	19950523
<u>US6515201 BB</u>	20030204	US20000733300	20001208
<u>US6803499 BA</u>	20041012	US19970852340	19970507
<u>US7288403 BB</u>	20071030	US20050196176	20050803
<u>US7705215 BA</u>	20100427	US19930113561	19930825
<u>WO9102071 A2</u>	19910221	WO1990US04462	19900808
<u>WO9102071 A3</u>	19920514	WO1990US04462	19900808
<u>WO9506128 A2</u>	19950302	WO1994US09699	19940824
<u>WO9506128 A3</u>	19950914	WO1994US09699	19940824
<u>WO9726365 A2</u>	19970724	WO1997US00978	19970117
<u>WO9726365 A3</u>	19970912	WO1997US00978	19970117
<u>WO9726366 A1</u>	19970724	WO1997US00983	19970117
<u>ZA9406488 A</u>	19951130	ZA19940006488	19940825
<u>ZA9604217 A</u>	19960826	ZA19960004217	19940825
<u>ZA9700398 A</u>	19981019	ZA19970000398	19970117
<u>ZA9700399 A</u>	19980406	ZA19970000399	19970117

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International class
(IPC 8-9): A01H1/00 A01H4/00 A01H5/00 A01H5/10 C07H21/04 C07K14/41 C07K14/415 C12N1/20 C12N15/05 C12N15/09 C12N15/11 C12N15/29 C12N15/52 C12N15/53 C12N15/60 C12N15/64 C12N15/66 C12N15/82 C12N15/87 C12N5/00 C12N5/04 C12N5/10 C12N9/04 C12N9/88 (Advanced/Invention);
A01H1/00 A01H5/00 C12N15/09 C12N15/29 C12N15/53 C12N15/60 C12N5/10 C12P13/22 C12P7/64 C12R1/91 (Advanced/Non-invention);
C07K14/41 C12N15/82 C12N5/10 (Core/Invention)

International class
(IPC 1-7): A01H1/00 A01H1/06 A01H4/00 A01H5/00 A01H5/10 A01N31/02 C07H21/04 C12N1/14 C12N1/20 C12N13/00 C12N15/00 C12N15/05 C12N15/09 C12N15/11 C12N15/29 C12N15/52 C12N15/53 C12N15/60 C12N15/64 C12N15/82 C12N15/87 C12N5/00 C12N5/04 C12N5/10 C12N9/04 C12N9/10 C12N9/88 C12P13/22

CPC: C12N15/8216 C12N15/8251 C12N15/8254 Y10S47/01 A01H4/008 A01H4/00 A01H4/001 C07K14/415 C12N5/0025 C12N5/04 C12N15/8207 C12N15/87 C12N9/0006 C12N9/88 C12N15/8209 C12N15/8241 C12N15/8245 C12N15/8273

European class: A01H4/00 A01H4/00B A01H4/00E C07K14/415 C12N15/82A6D C12N15/82A8 C12N15/82B C12N15/82C C12N15/82C4B10 C12N15/82C4B10B C12N15/82C4B2 C12N15/82C8B2 C12N15/87 C12N5/00M1 C12N5/04 C12N9/00P2 C12N9/88 M07K207/00 M12N207/00 M12N209/00

US class: 435/108 435/108S 435/172.1 435/172.3 435/183 435/189 435/193 435/193P 435/232 435/240.4 435/240.45 435/240.5 435/252.3 435/287 435/320.1 435/320.100S 435/410 435/412 435/412S 435/413 435/419 435/419S 435/424 435/468 435/468S 47/58 47/DIG.1 536/23.2 536/23.200S 536/23.6 536/23.7 536/24.1 536/27.1 800/205 800/235 800/250 800/260 800/265 800/266 800/267 800/268 800/275 800/278 800/278P 800/279 800/279S

800/281 800/284 800/287 800/288 800/291 800/292 800/293 800/295 800/298 800/300
800/300.1 800/301 800/302 800/303 800/312 800/312S 800/320 800/320.1 800/320.100S
800/320.2 800/320.200S 800/320.3 800/320.300S 800/320S 800/DIG.52 800/DIG.55
800/DIG.56 800/DIG.58 935/52 935/55 935/67 935/85

Classification Explorer

Cited documents:

WOUS00183, WO9905296, WO9722703, WO9629857 A1, WO9600789 A1, WO9600789, WO9530005 A1, WO9530005, WO9513389 A1, WO9513389, WO9506128 A2, WO9506128, WO9421805, WO9421805, WO9420628, WO9420628, WO9414970 A1, WO9414970, WO9410315, WO9410315, WO9408031 A1, WO9408031, WO9321335, WO9321335, WO9319190 A1, WO9319190, WO9314210, WO9314210, WO9311245, WO9309237 A1, WO9309237, WO9308682, WO9308682, WO9307278 A1, WO9307278, WO9306220 A1, WO9306220, WO9219731 A1, WO9219731, WO9217580 A1, WO9217580, WO9214822, WO9214822, WO9212250 A1, WO9212250, WO9209696, WO9209696, WO9206205 A1, WO9206205, WO9206201 A1, WO9204449 A1, WO9116432, WO9116432, WO9113972 A1, WO9110725 A1, WO9110725, WO9109948 A1, WO9104323 A1, WO9104323, WO9104270, WO9104270, WO9102071 A2, WO9102071, WO9100183 A1, WO9100183, WO9010725 A1, WO9010725, WO9010691 A1, WO9010691, WO9002801, WO9002801, WO9001869, WO9001869, WO9001551, WO9001551, WO8912102 A1, WO8912102, WO8911789, WO8911789, WO8910396, WO8910396, WO8904371 A1, WO8904371, WO8808034, WO8808034, WO8705629 A1, WO8705629, WO8704181 A1, WO8704181, WO8603776, WO8603776, WO8601536, WO8601536, WO8502973 A1, WO8502973, WO8502972 A1, WO8502972, WO8501856 A1, WO8501856, US7288403 BB, US7037692 BA, US6803499 BA, US6603061 BA, US6515201 BB, US6399861 BA, US6395966 BA, US6281411 BA, US6271016 BA, US6258999 BA, US6258999, US6118047 A, US6117677 A, US6075183 A, US6025545 A, US6025545, US6022846 A, US6022846, US6020539 A, US6020539, US6013863 A, US6013863, US5990390, US5990390, US5990387 A, US5990387, US5969213 A, US5969213, US5919675 A, US5919675, US5886244 A, US5886244, US5874265 A, US5874265, US5780709 A, US5780709, US5780708 A, US5780708, US5773691 A, US5773691, US5756345, US5743477 A, US5743477, US5693507 A, US5693507, US5677474 A, US5677474, US5668292 A, US5641876 A, US5641876, US5641664 A, US5641664, US5625136 A, US5623067 A, US5596131 A, US5595733 A, US5593963 A, US5593963, US5589616 A, US5589616, US5589615 A, US5580761 A, US5580716 A, US5578702 A, US5576203 A, US5567862 A, US5567600 A, US5565347 A, US5563324 A, US5563324, US5563052 A, US5561236 A, US5559223 A, US5554798 A, US5550318 A, US5550318, US5545545 A, US5538880 A, US5538877 A, US5516668 A, US5508468 A, US5500365 A, US5498830 A, US5495071 A, US5491288 A, US5489520 A, US5484956 A, US5472869 A, US5464763 A, US5451513 A, US5447857 A, US5436393 A, US5436389 A, US5422254 A, US5407824 A, US5405765 A, US5384253 A, US5380831 A, US5371015 A, US5371003 A, US5367110 A, US5352605 A, US5350689 A, US5349123 A, US5349123, US5310667 A, US5302523 A, US5290924 A, US5278325 A, US5276268 A, US5273894 A, US5272072 A, US5268463 A, US5258300 A, US5254799 A, US5250515 A, US5250515, US5240841 A, US5231020 A, US5215912 A, US5196342 A, US5188958 A, US5188958, US5187267 A, US5187073 A, US5177010 A, US5164310 A, US5145777 A, US5145777, US5134074 A, US5110732 A, US5097093 A, US5094945 A, US5082767 A, US5082767, US5077399 A, US5057419 A, US5049500 A, US5036006 A, US5034322 A, US5015580 A, US5015580, US5013658 A, US5004863 A, US5001060 A, US4971908 A, US4956282 A, US4956282, US4945050 A, US4940835 A, US4886878 A, US4885357 A, US4864810 A, US4761373 A, US4761373, US4743548 A, US4727028 A, US4708818 A, US4683202 A, US4666844 A, US4666844, US4665030 A, US4642411 A, US4634665 A, US4581847 A, US4559302 A, US4559301 A, US4559301, US4536475 A, US4535060 A, US4520113 A, US4399216 A, US4370160 A, US4370160, US2007016981 AA, US2003167514 AA, US2001029618 AA, PCTUS9100183, NL8801444 A, NL8801444, JPS61134343, JP96512578, JP96253871, JP8512578 T2, JP8266179, JP8266179, JP8253871 A2, JP8103267, JP8103267, JP61224990, JP61134343 A2, JP61134343, GB8810120, GB2159173 A1, GB2159173, FR2661421 A1, FR2661421, EP86400521, EP1413733 A2, EP1316231 A1, EP1265372 A2, EP0620281, EP0620281, EP0616644 A1, EP0589110 A1, EP0589110, EP0550162, EP0537178 A1, EP0507698 A1, EP0485970 A3, EP0485970 A2, EP0485970, EP0469273 A1, EP0469273, EP0459643 A2, EP0459643, EP0452269 A2, EP0452269, EP0442175 A1, EP0442175, EP0442174 A1, EP0442174, EP0424047 A1, EP0424047, EP0422174, EP0420358, EP0420358, EP0408403 A1, EP0408403, EP0385962 A1, EP0385962, EP0360750 A2, EP0360750, EP0359617 A2, EP0359617, EP0359472, EP0359472, EP0358962, EP0353908 A2, EP0353908, EP0348348 A2, EP0348348, EP0335528 A2, EP0335528, EP0334539 A2, EP0334539, EP0331855 A2, EP0331855, EP0331083, EP0331083, EP0301749 A2, EP0301749, EP0299552 A1, EP0299552, EP0292435 A1, EP0292435, EP0290395 A2, EP0290395, EP0289479 A2, EP0289479, EP0282164 A2, EP0282164, EP0280400 A2, EP0280400, EP0275957 A2, EP0275957, EP0275069 A2, EP0275069, EP0271408 A2, EP0271408, EP0270356 A2, EP0270356, EP0269601, EP0269601, EP0262971 A2, EP0262971, EP0257472 A2, EP0257472, EP0242246 A1, EP0242246, EP0242236 A1, EP0242236, EP0218571 A2, EP0204549 A2, EP0204549, EP0202668 A2, EP0202668, EP0193259 A1, EP0193259, EP0189707 A2, EP0189707, EP0174791

A2, EP0174791, EP0160390 A2, EP0160390, EP0154204 A2, EP0154204, EP0142924, EP0142924, EP0141373 A2, EP0141373, EP0131623 B1, EP0131623 A1, EP0131623, EP0126537 A2, EP0126537, EP0115673 A2, EP0027140 A1, DE4013099 A1, DE4013099, DE3738874 A1, DE3738874, DE293207, CA2120514, CA2064761, CA2064761, CA2032443 AA, CA2032443, AU8089387 A1, AU8089387, AU549686 B2, AU549686, AU2795292 A1,

Forward Citations:

WO9949058, WO9949058, WO9949013, WO9949013, WO9940209, WO9932642, WO9927116, WO9927116, WO9925465, WO9911800, WO9910514, WO9905902, WO9856921, WO9850562, WO9844140, WO9840505, WO9840504, WO9820144, WO9820144, WO9816650, WO9806862, WO9805785, WO9802562, WO9802562, WO9728247, WO9728247, WO9726365, WO9726365, WO9710328, WO9710328, WO9704114, WO9704114, WO9704103, WO9704103, WO9640951, WO9640951, WO9506128, WO9506128, WO9413822, WO9413822, WO9304178, WO17042259, WO17040380, WO17019491, WO16207219, WO16205445, WO16193073, WO16186986, WO16168230, WO16168229, WO16166077, WO16165729, WO16130516, WO16120697, WO16110780, WO16099916, WO16087401, WO16077624, WO16075305, WO16071758, WO16061206, WO16044092, WO16037096, WO16022516, WO15183710, WO15164228, WO15160620, WO15160619, WO15160618, WO15138394, WO15130783, WO15120276, WO15120270, WO15116753, WO15093946, WO15082587, WO15082586, WO15082536, WO15079064, WO15061548, WO15057600, WO15040493, WO15022429, WO15013509, WO15004102, WO14206953, WO14184164, WO14177582, WO14170364, WO14170345, WO14170218, WO14160304, WO14160122, WO14159306, WO14153242, WO14153234, WO14153032, WO14152507, WO14147127, WO14143996, WO14143304, WO14138672, WO14138339, WO14132137, WO14130770, WO14124379, WO14124375, WO14124373, WO14124369, WO14124368, WO14124361, WO14122161, WO14112875, WO14100525, WO14099798, WO14096259, WO14095677, WO14093835, WO14093485, WO14090765, WO14086764, WO14086759, WO14086758, WO14086753, WO14086750, WO14086749, WO14086748, WO14086747, WO14083089, WO14083088, WO14083033, WO14083031, WO14082950, WO14079789, WO14072357, WO14066497, WO14066141, WO14065945, WO14059155, WO14059002, WO14058896, WO14056956, WO14056927, WO14056922, WO14056921, WO14056920, WO14056919, WO14056917, WO14056916, WO14055477, WO14055477, WO14047653, WO14043435, WO14037438, WO14029808, WO14027880, WO14027062, WO14019983, WO14009473, WO14009435, WO14009432, WO13189972, WO13188291, WO13185184, WO13184764, WO13178808, WO13176548, WO13174836, WO13173535, WO13167545, WO13167544, WO13163590, WO13160762, WO13160248, WO13160247, WO13156559, WO13153143, WO13149858, WO13139949, WO13138358, WO13138309, WO13134651, WO13130813, WO13130456, WO13127704, WO13119302, WO13113622, WO13110766, WO13110594, WO13110591, WO13109754, WO13103371, WO13103365, WO13098185, WO13098147, WO13098146, WO13097940, WO13096818, WO13096810, WO13096603, WO13095132, WO13092519, WO13091547, WO13090814, WO13089889, WO13087821, WO13087027, WO13079566, WO13079533, WO13079531, WO13079015, WO13076259, WO13076253, WO13075817, WO13074956, WO13063006, WO13053899, WO13053730, WO13053729, WO13052660, WO13050410, WO13049073, WO13043910, WO13041689, WO13040049, WO13037958, WO13037956, WO13037955, WO13037717, WO13026796, WO13026740, WO13026015, WO13024021, WO13023992, WO13021065, WO13021064, WO13021063, WO13021062, WO13021061, WO13021060, WO13021059, WO13019827, WO13019780, WO13014241, WO13010783, WO13009825, WO13006756, WO12171914, WO12168124, WO12149192, WO12136653, WO12135719, WO12130685, WO12130684, WO12128946, WO12126938, WO12125025, WO12122477, WO12120105, WO12109133, WO12103350, WO12103322, WO12103300, WO12103293, WO12103288, WO12101206, WO12096573, WO12088289, WO12082548, WO12074868, WO12072696, WO12072660, WO12072489, WO12071040, WO12071039, WO12068509, WO12062817, WO12062220, WO12061615, WO12059053, WO12058566, WO12044915, WO12044836, WO12044835, WO12042037, WO12034067, WO12030858, WO12030849, WO12030845, WO12030844, WO12030811, WO12030799, WO12030711, WO12021797, WO12021794, WO12021785, WO12018933, WO12012741, WO12012698, WO12006440, WO12005572, WO12003379, WO12000026, WO11163632, WO11163557, WO11163269, WO11159797, WO11159684, WO11157791, WO11156588, WO11154525, WO11154159, WO11154158, WO11152722, WO11146862, WO11146754, WO11133512, WO11127802, WO11126976, WO11123450, WO11109524, WO11108930, WO11106298, WO11095528, WO11095460, WO11094205, WO11094199, WO11090690, WO11089021, WO11088299, WO11082429, WO11082425, WO11080354, WO11080352, WO11076892, WO11076889, WO11076885, WO11076882, WO11076877, WO11067712, WO11062962, WO11061656, WO11059740, WO11057086, WO11057083, WO11056544, WO11050037, WO11050029, WO11035027, WO11034433, WO11025826, WO11022465, WO11020852, WO11019652, WO11017492, WO11014458, WO11005867, WO11005341, WO11003901, WO10147825, WO10141801, WO10141325, WO10138971, WO10129347, WO10123904, WO10118477, WO10108836, WO10101818, WO10099431, WO10096510, WO10088463, WO10088387, WO10086277, WO10086220, WO10084488, WO10077775, WO10075143, WO10074972, WO10074955, WO10068800, WO10068738, WO10068650, WO10057246, WO10045324, WO10042481, WO10020552, WO10009499, WO10002984, WO09094647, WO09067580, WO09029831, WO08137475, WO08134072, WO08133643, WO08125362, WO08116829,

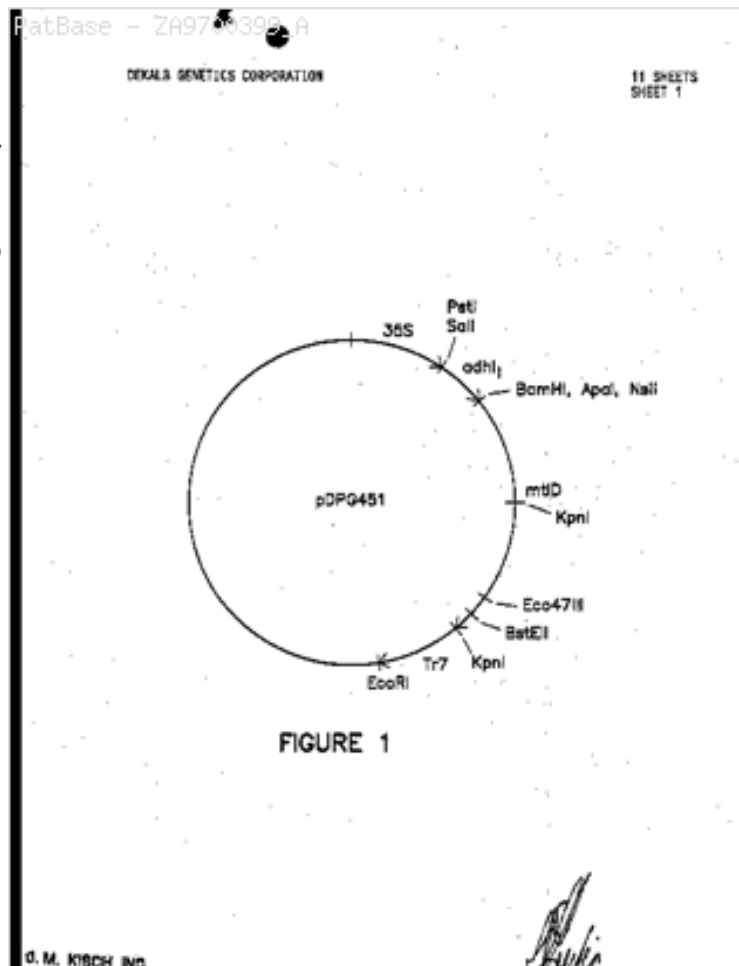
WO08113078, WO08112645, WO08112633, WO08105890, WO08099013, WO08091154,
WO08067547, WO08057642, WO08048964, WO08028115, WO08028115, WO08027592,
WO08014484, WO07143690, WO07139608, WO07134234, WO07134122, WO07127522,
WO07103768, WO07098042, WO07095469, WO07090121, WO07041419, WO07039317,
WO07035650, WO07031547, WO07011479, WO06133983, WO06124678, WO06120197,
WO06108674, WO06108674, WO06103107, WO06099249, WO06089950, WO06073727,
WO06069017, WO06069017, WO06029296, WO06023869, WO06022958, WO06005520,
WO05123926, WO05110068, WO05077116, WO05069986, WO05054453, WO05019409,
WO05016504, WO04101741, WO04101741, WO04099403, WO04073641, WO04053134,
WO03099216, WO03092363, WO03092363, WO03049700, WO03038112, WO03007698,
WO03007698, WO0236787, WO0234923, WO02102979, WO02102979, WO02101061,
WO02101061, WO02095002, WO02090497, WO02090497, WO02063011, WO0204647,
WO0164850, WO0151654, WO0151654, WO0119859, WO0119859, WO0105980,
WO0016610, WO0011138, WO0011138, WO0006757, WO0006757, WO0005386,
WO0005386, WO0005386, WO0004160, WO0004159, WO0004158, WO0004158,
WO0004158, USRE41943, USRE39220, USRE37287, USRE36449, USH2074,
US9598700, US9593317, US9592250, US9587246, US9574201, US9572835,
US9556102, US9550718, US9540642, US9538124, US9534022, US9528121,
US9474784, US9474293, US9464333, US9453237, US9447397, US9434935,
US9428569, US9422558, US9422557, US9422352, US9416363, US9414600,
US9393292, US9371394, US9364532, US9353377, US9322069, US9315792,
US9315559, US9309512, US9303250, US9279144, US9279130, US9277762,
US9273102, US9265252, US9249474, US9241493, US9217164, US9212370,
US9122219, US9206137, US9192112, US9187761, US9180151, US9180149,
US9167758, US9150873, US9139848, US9139838, US9121028, US9121022,
US9115370, US9101964, US9089520, US9085631, US9084781, US9084746,
US9055743, US9045729, US9040774, US9029116, US9017690, US9006513,
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CN104869808, CN102770543, AU757208, AU684105, AU2007286176, AU2002313983,
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Abstract:

Source: US2001029618A The present invention provides a method for conferring tolerance or resistance to water or salt stress in a monocot plant, and/or altering the osmoprotectant content of a monocot plant, by introducing a preselected DNA segment into the plant. This invention also relates to the transformed cells and seeds, and to the fertile plants grown from the transformed cells and to their pollen.



Title:	Cooker			
Priority:	CN20032044932U 20030409			
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2614592 Y</u>	20040512	CN20032044932U	20030409
Probable Assignee:	SAMHOSA CO LTD			
Assignee(s):^(std):	SAMHOSA CO LTD			
Assignee(s):	SAMHOSA CO			
Inventor(s):^(std):	MINGYO PARK			
Inventor(s):	PARK MINGYO			
International class (IPC 8-9):	<u>A47J27/00</u> (Advanced/Invention); <u>A47J27/00</u> (Core/Invention)			
International class (IPC 1-7):	<u>A47J27/00</u>			

[Classification Explorer](#)

Abstract:

Source: CN2614592Y The utility model discloses a cooking pot, the perimeter of the bottom of the cooking pot body is provided with pot edge which is gradually turned up, and the outside of the pot edge portion is provided with a handle. The flat perimeter of the bottom of a cover body is also provided with pot edge which is gradually turned up, and the outside of the cover edge portion is provided with a handle corresponding with the cooking pot body. The edge portion of one side of the opposite of the handle of each cooking pot body and the cover body is provided with a hinged joint which can lead to the cover body control the switch by one side of the handles of the cooking pot body. The food can be heated and cooked under the condition of pressurization, thereby the utility model can avoid tearing off of the fragrance and the taste of food can be avoided, can reduce the cooking time and meanwhile can avoid the splash of the oil. The cooking pot body can be easily washed and sanitized due to the hinged joints of the cooking pot body and the cover body, at the same time the cover body can be used as a frying pan. After the cooking pot body and the cover body are detached, the cover body can be laid on the top of the cooking pot body and the opening of the cover body is laid upwards, thereby spacing can not be occupied.

150) Family number: 16415066 (CN2292496Y)

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Title: Non-cooking-fume sputter-proof cooking pan**Priority:** CN19962012157U 19960603

Family:	Publication number	Publication date	Application number	Application date
	CN2292496 Y	19980930	CN19962012157U	19960603

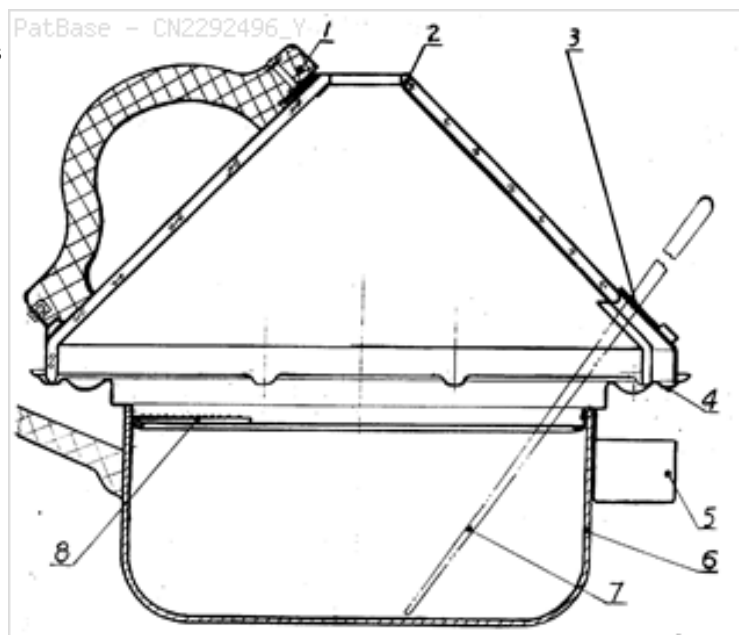
Probable Assignee: YIN JIAZHEN**Assignee(s):**^(std): YIN JIAZHEN**Inventor(s):**^(std): JIAZHEN YIN ; YIN JIAZHEN

International class A47J37/10 (Advanced/Invention);
 (IPC 8-9): A47J37/10 (Core/Invention)

International class A47J37/10
 (IPC 1-7):

[Classification Explorer](#)**Forward Citations:** USD495196, CN102178468,**Abstract:**

Source: CN2292496Y The utility model relates to a fume-free anti-splashing cooking pot, which is composed of a compound cover, a ring, a leakage cup and a pot, and the utility model can be used for frying, sauting and boiling food. The utility model mainly limit the fume in the pot via the compound cover, after mixing with the steam in the pot, the fume can convect with coal air flown in to the pot from a lower edge of the compound cover, and the fume can quickly condense into oil-water mixed liquor and enter the leakage cup. Therefore, the fume can not outwardly leak in the process of cooking, oil can not splash out of the cover, and the oil steam can not form oil dirt. Therefore, the utility model can accomplish the purpose of fume-free and anti-splashing.



Title: PROTECTOR PARA SARTENES, PERFECCIONADO.

Priority: ES19920000558U 19920224

Family:

Publication number	Publication date	Application number	Application date
<u>ES1020309 UA</u>	19920616	ES19920000558U	19920224
<u>ES1020309 Y1</u>	19930116	ES19920000558U	19920224
<u>ES1020309 YA</u>	19930116	ES19920000558U	19920224

Probable Assignee: GONZALEZ EPALZA TOMAS

Assignee(s):(std): GONZALEZ EPALZA TOMAS

International class A47J37/10 (Advanced/Invention);
(IPC 8-9): A47J37/10 (Core/Invention)

International class A47J37/10
(IPC 1-7).

Classification Explorer

Abstract:

Source: ES1020309U 1. Protector para sartenes, perfeccionado, que estando previsto para impedir que el aceite salpi- que hacia el frente durante la fritura de determi- nados productos, y constituyendose a partir de un cuerpo (1), preferentemente transparente, de congruaci on circular con ambas bases o extre- mos abiertos, en donde el plano correspondiente al borde superior (2) es inclinado, esencialmente se caracteriza porque en correspondencia apro- ximadamente con una mitad o contorno semicir- cunferencial la pared del cuerpo (1) esta afectada de un rebaje (4) determinante de una considerable menor altura de la pared de esa mitad semicircun- ferencial; habiendose previsto que el borde infe- rior este dotado de un rebaje anular (5) consti- tutivo de un apoyo adaptado al borde superior de la respectiva sarten (6), mientras que en dos zonas opuestas de su pared, el cuerpo (1) esta afectado de sendas guas horizontales (7) continuadas en guas verticales (8), en las que son susceptibles de ubicarse y posicionarse respectivos resaltes (11) pertenecientes al borde de la correspondiente tapa (10), quedando esta en una disposicion inclinada superior o inferior de acuerdo con la ubicacion de sus saliente 11 en las guas horizontales (7) o en las guas verticales (8). 1. Case for pans, perfected, which being provided to prevent oil splattering it forward during frying of certain products, and constituting itself from a body (1), preferably transparent, circular congruaci on both bases or open ends, wherein the edge corresponding to the upper (2) is inclined plane, essentially characterized in that in correspondence with approximately half or semicircular contour circumferential wall of the body (1) is affected by a recess (4) determining a height considerably lower than the half wall semicircun differential; it being provided that the bottom edge of this gifted an annular recess (5) consti- lishing support tailored to the upper edge of the respective pan (6), while in two opposite parts of its wall, the body (1) this affected paths horizontal guides

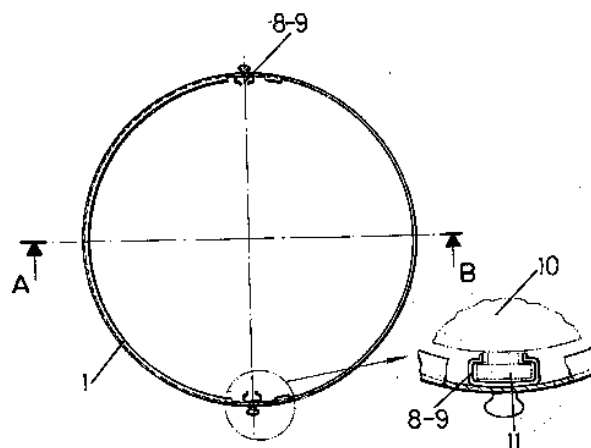


FIG. 1

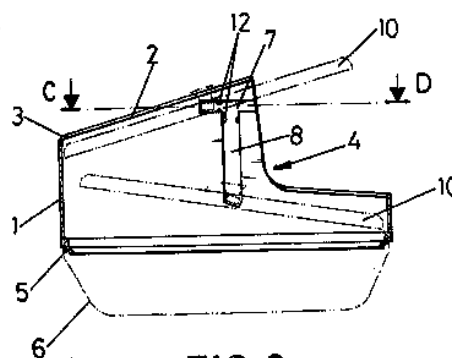


FIG. 2
A-B

(7) Continuing on vertical guides (8), which are likely to be located and positioned respective bosses (11) belonging to the edge of the corresponding cover (10), being this an upper inclined disposition or lower according to the location of its projection 11 on the horizontal guides (7) or vertical guides (8).

0) CN2732149Y – SPLASH-PROOF PAN-LID

152) Family number: 32357648 (CN2732149Y)

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Title: Splash-proof pan-lid

Priority: CN20042070258U 20040811 CN200420070258U 20040811

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2732149 Y</u>	20051012	CN200420070258U	20040811

Probable Assignee: LIANG ENSI

Assignee(s):^(std): LIANG ENSI

Inventor(s):^(std): LIANG ENSI

Inventor(s): ENSI LIANG

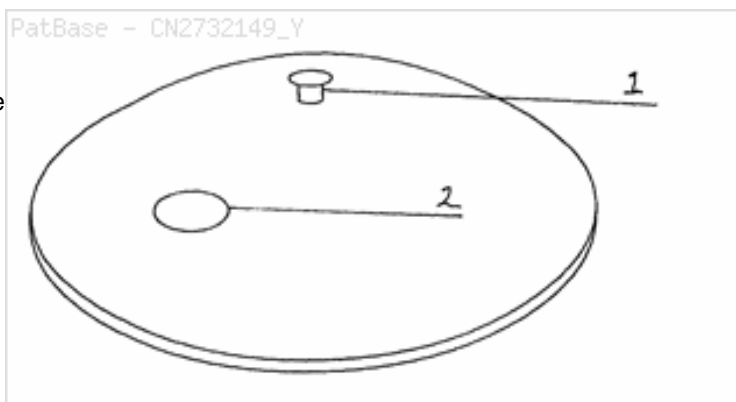
International class A47J36/00 A47J36/06 (Advanced/Invention);
(IPC 8-9): A47J36/00 (Core/Invention)

International class A47J36/00 A47J36/06
(IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: CN2732149Y The utility model relates to a splash-proof pan-lid. The center of the pan-lid is provided with a handle, and one side of the handle is provided with a funnel-shaped passage hole. The utility model has the advantages of simple structure and easy use. The utility model can effectively block the splashed hot oil and avoid the danger of scald.



153) Family number: 37021804 (GB191228278A)

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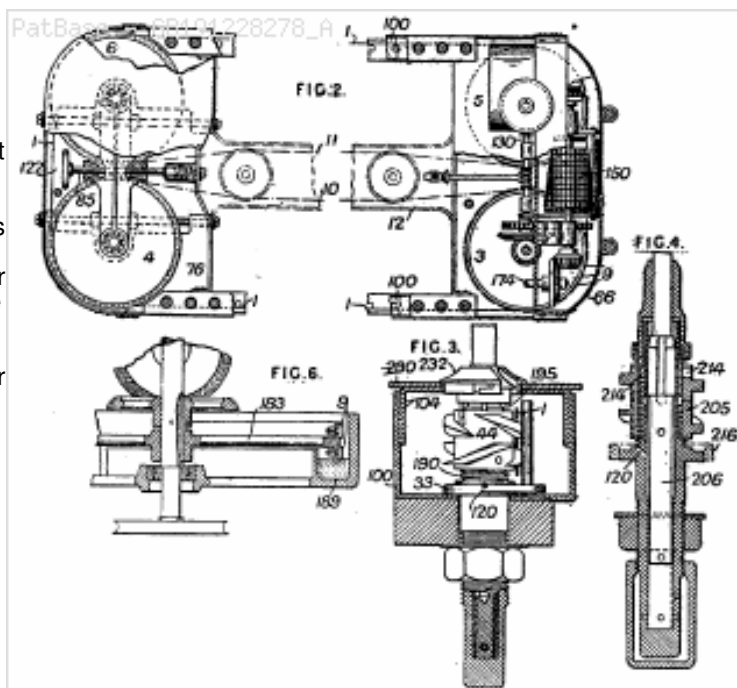
Title: Improvements in and relating to Spinning, Twisting and analogous Machines.**Priority:** 19120418

Family:	Publication number	Publication date	Application number	Application date
	<u>GB191228278 A</u>	19130519		00000000

Probable Assignee: CLARK D ARCY MELVILLE**Assignee(s):^(std):** CLARK D ARCY MELVILLE**Assignee(s):** D ARCY MELVILLE CLARK**Inventor(s):^(std):** CLARK D ARCY MELVILLE**Inventor(s):** D ARCY MELVILLE CLARK**International class** D01H1/20 (Advanced/Invention);
(IPC 8-9): D01H1/00 (Core/Invention)**CPC:** D01H1/20**European class:** D01H1/20[Classification Explorer](#)**Abstract:**

Source: GB191228278A 28,278. Clark, D'A. M., [Brown Spin Wright Co April 18.

Driving-arrangements spindle rails spindle apparatus.—Relates to the application of positive-driving band mechanism, such as that described in Specifications 11,884/10 and 12,243/10, to spinning, twisting, and the like frames of ordinary construction, and comprises change-gear, as described in Specification 20,590/11, between the spindles and rollers for varying the twist, and means for lubricating the spindles and the driving-mechanism. The spindles are driven by means of a perforated metal band 1, Fig. 2, which passes around four pulleys 3, 4, 5, 6, one or more of which are provided with teeth 9 and serve as the actuating-members, their shafts being driven by rope-sheaves or belt pulleys, or by gear-wheels suitably enclosed to permit circulation of lubricant by means of a pump and operated from a source of power which may comprise an electromotor. The band is kept taut by means of a screw shaft 85 which engages the bracket that carries the pulleys 4, 6. The pulleys 3, 5 are of suitable diameter, say seventeen inches, to prevent deterioration of the band. The pulleys 3, 4, 5, 6 are carried in pans 66, 76, which are secured to the spindle rail and are connected by covered troughs or conduits 100 of compressed fibre, so that lubricant will be splashed forward by the driving-band over the spindle gears and circulated through the conduits and pans. If a band is used for each row of spindles, as shown in broken lines 10, 11, a return conduit 12 is fitted. The conduit is held in place on the spindle rail by the flanges 33, Fig. 3, of the spindles and is provided with a cover 104. Ports 120 through which oil passes to the spindle bearings are arranged at such a height that detritus will not enter but will be carried along by the oil to a sump 122. The gears 44 on the spindles are supported by springs 190 and may be in one piece, or in two pieces connected together by prongs 195, which in both cases secure the gears to the spindle blades as described in Specification 11,885/10. The bolster 206, Fig. 4, is of ordinary type having ports and grooves, through which the lubricant passes and finally escapes through ports 214 in the bolster, bushing 205, and the gears. The bushing 205 is made of brass and is either free or fixed to the gear or bolster base. A curb 216 serves to guide the lubricant to a port 120 in the bolster base. A nipple 232 secured by means of a bayonet joint to a metal rail 230, or a slide arranged between the metal rail and the cover of the trough serves to hold the spindle in place during doffing. The trough may be inverted and bolted to the spindle rail, a packing consisting of a layer of lead with layers of rubber on each side



forming a joint between the trough and rail. The lubricant circulates through the spindle bearings and the excess escapes through ducts in the rail. A catch on the trough engages with a shoulder on the spindle wharfl to prevent displacement of the spindle. The pressure of the lubricant is, as described in Specification 28,029/09, sufficient to float the spindle out of contact with any metal surface. The lubricant is supplied from a storage tank by a rotary pump which may be driven from the rollers. A nest of graded gear-wheels 150 is interposed between the shaft that drives the spindle-driving pulley and the roller shaft 174, as described in Specification 20,590/11, three selective gear-wheels, any one of which may be geared with any one of the wheels in the nest, being provided in order to vary the twist. The selective gear-wheels are splined on a shaft geared with a countershaft 130 connected with the shaft of the spindle-driving pulley. The building-motion shaft is driven from the shaft 130 through worm, sprocket, and chain gearing, or through additional shafts provided with universal joints. Teeth 9 are secured in grooves in the driving-pulley by means of nuts, and the pulley may comprise a spider 183, Fig. 6, secured to the shaft and carrying a rim enclosed by an annular conduit 189 to receive lubricant. Two or more of the shafts carrying the pulleys 3, 4, 5, 6, may be connected by any suitable gearing.

0) CN101632563A – PAN SHOVEL WITH PROTECTIVE COVER

154) Family number: 44289645 (CN101632563A)

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Title: Pan shovel with protective cover

Priority: CN200810048544 20080725

Family:	Publication number	Publication date	Application number	Application date
	CN101632563 A	20100127	CN200810048544	20080725

Probable Assignee: XIAONAN CHEN

Assignee(s):^(std): XIAONAN CHEN

Assignee(s): CHEN XIAONAN

Inventor(s):^(std): XIAONAN CHEN

Inventor(s): CHEN XIAONAN

International class [A47J43/28](#) (Advanced/Invention);
(IPC 8-9) [A47J43/00](#) (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN101632563A The invention provides a pan shovel with a protective cover. A handle of the pan shovel is provided with a soft body protective cover. When the pan shovel with the protective cover is used, the soft body protective cover can effectively prevent oil in a hot pan from being splashed onto a hand and can avoid the phenomenon of scalding the hand.



155) Family number: 50979480 (CN202191205U)

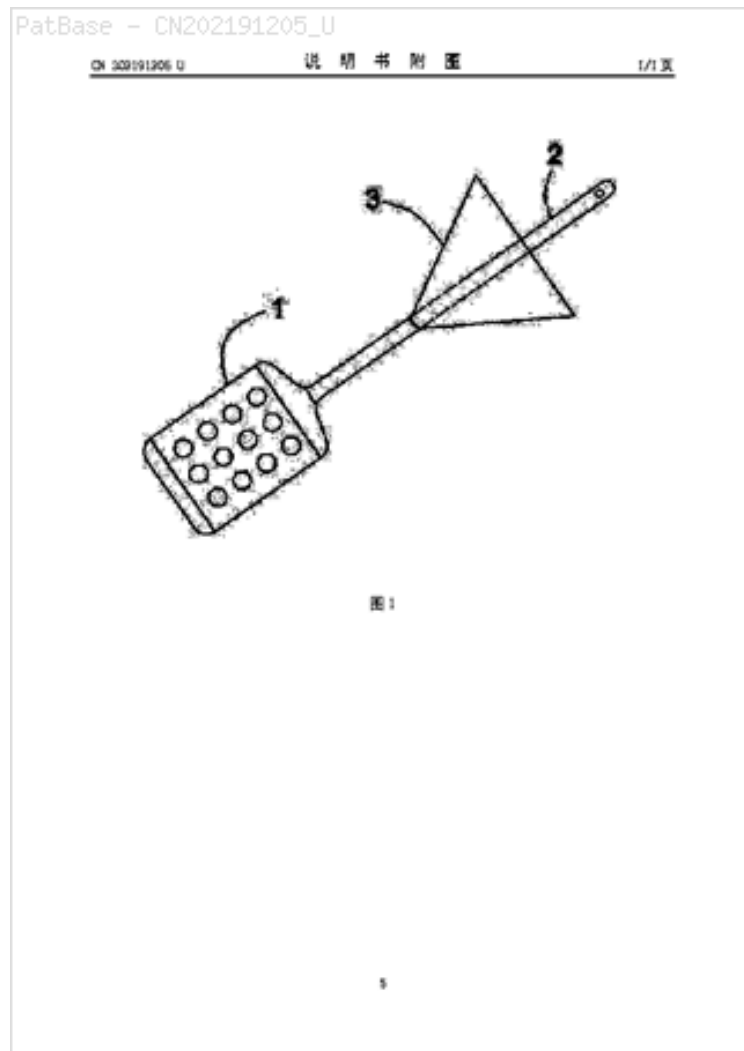
© PatBase

Title: Oil splashing preventive turner**Priority:** CN201120285177U 20110808

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202191205 U</u>	20120418	CN201120285177U	20110808

Probable Assignee: JIAQI MEI**Assignee(s):^(std):** JIAQI MEI**Assignee(s):** MEI JIAQI**Inventor(s):^(std):** JIAQI MEI**Inventor(s):** MEI JIAQI**International class** A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202191205U The utility model provides an oil splashing preventive turner, which comprises a turner handle. A turner head is arranged at the top end of the turner handle, and a protective cover is sleeved on the turner handle and is semispherical. The oil splashing preventive turner can effectively avoid scald accidents due to the fact that high-temperature oil drips are splashed out of a pan. Besides, the oil splashing preventive turner is simple and convenient in use.



156) Family number: 51584949 (CN102589023A)

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Title: Split, adjustable and splash-proof range hood with low noise and energy saving**Priority:** CN201110004153 20110111**Family:**

Publication number	Publication date	Application number	Application date
<u>CN102589023 A</u>	20120718	CN201110004153	20110111

Probable Assignee: FENG XUE**Assignee(s):^(std):** FENG XUE**Assignee(s):** XUE FENG**Inventor(s):^(std):** FENG XUE**Inventor(s):** XUE FENG**International class** F24C15/20 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN102589023A The invention discloses a split, adjustable and splash-proof range hood with low noise and energy saving. A range hood cover is separated with a draught fan and is connected with the draught fan through a soft air hose and a hard air hose; the draught fan is installed away from a cooking bench or is installed outdoor; a vertical shaft and a horizontal shaft are added; the horizontal shaft can move along the vertical shaft; each of the two ends of the horizontal shaft is provided with a casing which can move left and right and can rotate along the horizontal shaft; connecting plates are arranged at the lateral sides of the casings; a fume hood is fixed on the connecting plates; and in such way, the fume hood can move left and right and up and down or rotate along the horizontal shaft. A screw rod and a motor can also be added to drag the horizontal shaft to move up and down. According to the invention, the split, adjustable and splash-proof range hood with low noise and energy saving has the advantages that influences on physical and mental health of a user caused by noises of the draught fan and the electromagnetic radiation can be avoided; an exhaust opening with the biggest suction of the fume hood can be directly aiming at a frying pan and can be lowered to almost cover the frying pan, so the power of the draught fan can be reduced; the fume hood can also rotate, so splash of hot oil can be prevented; and the cheap fume hood can be made into various shapes with different patterns and is easy to be disassembled for washing and replacing.

PatBase - CN102589023_A

CN 102589023 A 说明书附图 1/3页

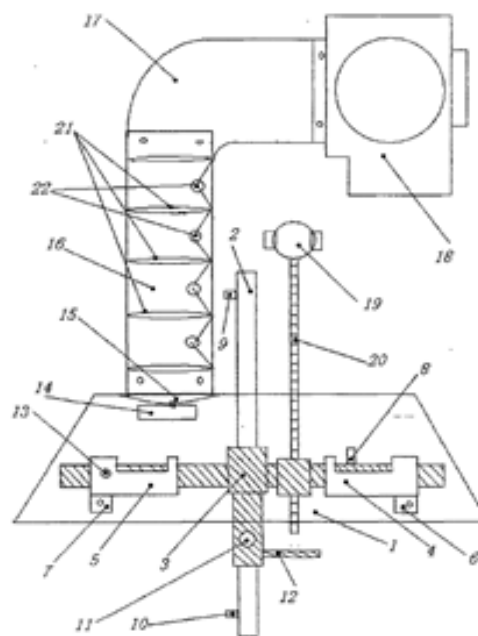


图 1

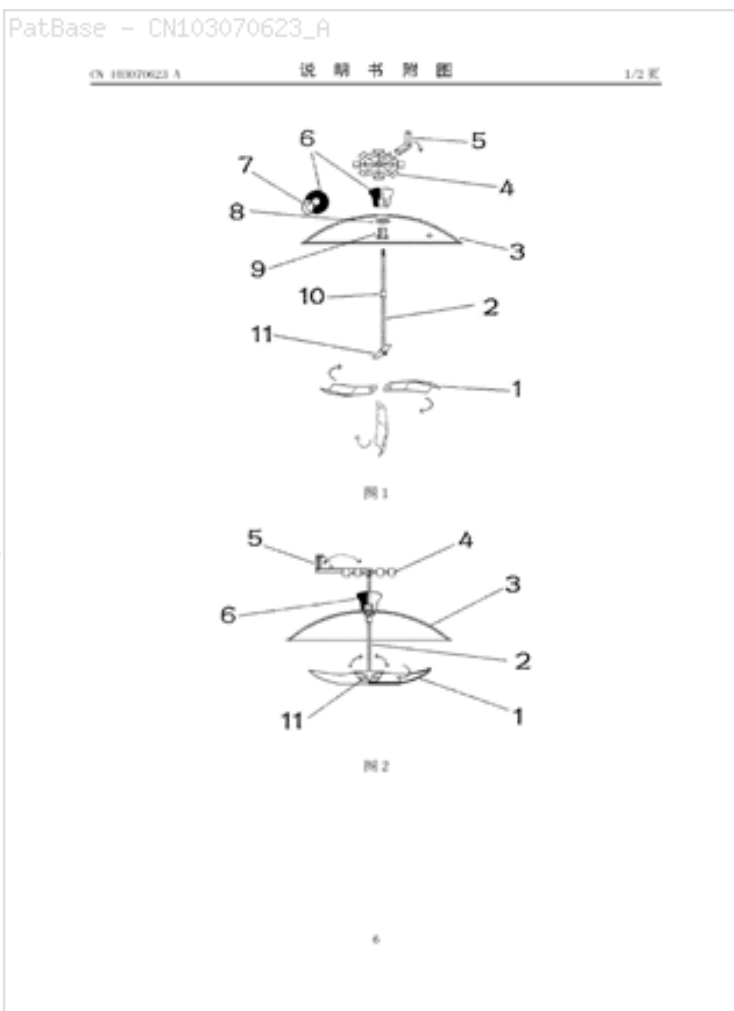
5

Title: ENCLOSED ROTATIONAL TURNER**Priority:** CN201310054043 20130220

Family:	Publication number	Publication date	Application number	Application date
	CN103070623 A	20130501	CN201310054043	20130220

Probable Assignee: XIE FENGHUA**Assignee(s):^(std):** XIE FENGHUA**Inventor(s):^(std):** XIE FENGHUA ; XIE FENGJIE**International class** A47J36/06 A47J43/28 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN103070623A The invention discloses an enclosed rotational turner, which is characterized in that a turner sheet clamp (11) which is connected to the lower part of a rotating shaft (2) is connected with turner slip sheets (1); the upper part of the rotating shaft (2) is connected with a rotating ring (4) and a swinging arm (5); the middle part of the rotating shaft (2) is provided with a limiting ring (10) for adjusting an interval; a glass cover (3) is arranged above the limiting ring (10); the turner slip sheets (1) are connected with the rotating shaft (2) and are enclosed in a pan (12); the turner slip sheets (1) are connected with the rotating shaft (2), enclosed in the pan, and contacted with the bottom surface of the pan; and the rotating ring (4) and the swinging arm of which the upper parts are connected with each other are manually driven to rotate at certain speeds along a certain direction. According to the enclosed rotational turner, the aim of overturning or stirring foods is fulfilled, the way of overturning or stirring dishes by opening a pan cover with the conventional turner is changed, the aim of frying without opening the pan cover is fulfilled, the thermal efficiency is high, frying is performed easily in a labor-saving way, the labor intensity is lowered, hot oil in the pan is prevented from splashing and scalding human bodies, and the defects of diffusion and overflow of oil smoke during earlier-stage cooking of foods are overcome; and the enclosed rotational turner contributes to saving energy, is environment-friendly, and is used together with various ordinary pans or non-stick pans.



158) Family number: 62345521 (CN105559516A)

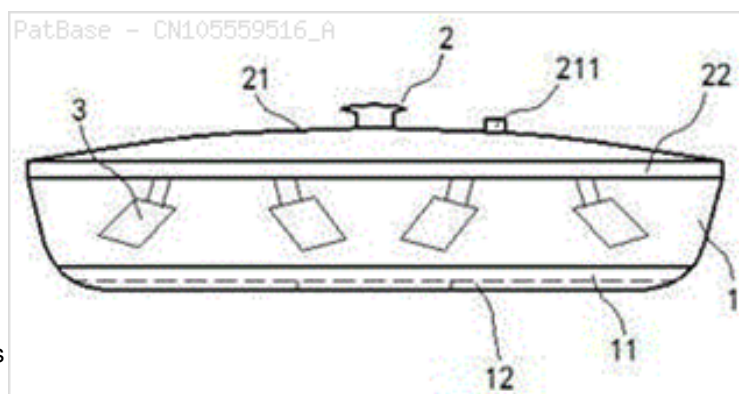
© PatBase

Title: FULL-AUTOMATIC ELECTRIC FRYING PAN**Priority:** CN201510747706 20151106**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105559516 A</u>	20160511	CN201510747706	20151106

Probable Assignee: HU ZHENHUA**Assignee(s):^(std):** HU ZHENHUA**Inventor(s):^(std):** HU ZHENHUA**International class** A47J27/00 A47J36/00 A47J36/24 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN105559516A The invention relates to a full-automatic electric frying pan, which comprises a pan body and a cover body, wherein a heating plate is arranged on the inner bottom of the pan body, and the heating plate is electrically connected to a power supply; a rotary tray is arranged below the heating plate; permanent magnetic sheets are distributed on the circumferential direction of the rotary tray by equal spacing; the magnetic pole directions of the various permanent magnetic sheets are perpendicular to the heating plate, and the magnetic pole directions of the adjacent permanent magnetic sheets are opposite; the cover body comprises a transparent cover plate and a rotary meshed surface, and the rotary meshed surface is arranged below the transparent cover plate; stir-frying shovels are arranged on the circumferential direction of the rotary meshed surface; each stir-frying shovel comprises a rod end and a shovel head; the rod ends are fixedly arranged on the rotary meshed surface; the shovel heads are pin-jointed with the rod ends; the shovel heads are made from permanent magnets; and the magnetic pole directions of the permanent magnets are perpendicular to the heating plate. The electric frying pan can be used for automatically stir-frying dishes conveniently and rapidly, without the phenomenon of splashing of oil drops; and the electric frying pan can achieve efficient stir-frying.



159) Family number: 4861785 (US4541399A)

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Title: Breather arrangement for internal combustion engine**Priority:** JP19830035508 19830303 JP19830041926 19830314

Family:	Publication number	Publication date	Application number	Application date
	JP1477215 C3	19890127	JP19830035508	19830303
	JP1477216 C3	19890127	JP19830041926	19830314
	<u>JP59160021 A2</u>	19840910	JP19830035508	19830303
	<u>JP59188019 A2</u>	19841025	JP19830041926	19830314
	<u>JP63026245 B4</u>	19880528	JP19830035508	19830303
	<u>JP63026246 B4</u>	19880528	JP19830041926	19830314
	<u>US4541399 A</u>	19850917	US19840584892	19840229

Probable Assignee: MAZDA MOTOR**Assignee(s):^(std):** MAZDA MOTOR**Assignee(s):** MAZDA MOTOR CORP ; TOYO KOGYO CO LTD ; MATSUDA KK ; MAZDA KK**Inventor(s):^(std):** ABE RIYOUJI ; ABE RYOJI ; ASANOMI KOJI ; ASAUMI KOUJI ; TANAKA TOSHIMASU ; TANAKA TOSHIMITSU**Inventor(s):** ASAUMI KOJI

International class
 (IPC 8-9): F01M13/02 F01M13/04 F02B75/22 (Advanced/Invention);
F02B75/18 (Advanced/Non-invention);
F01M13/00 F02B75/00 (Core/Invention)

International class
 (IPC 1-7): F01M13/00 F01M13/04 F02M25/06

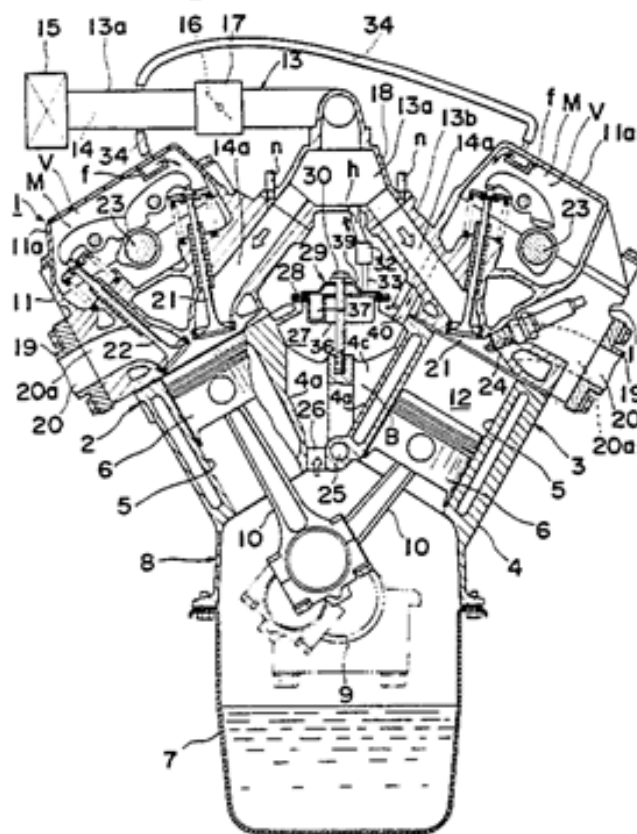
CPC: F01M13/023 F01M13/0416 F02B75/22 F02B2075/1824 F02B2275/20 F02F2200/06**European class:** F01M13/02N2B F01M13/04D F02B75/22 R02B275/20 R02B75/18C6 R02F200/06**US class:** 123/572 123/573[Classification Explorer](#)**Cited documents:** US4156406 A, US3949719 A, US3946710 A, US3730160 A, US2796853 A, US2782775 A, US2493617 A, JP57183510 A2,

Forward Citations: WO09087458, WO08021806, WO07000281, US9523297, US9243529, US8875686, US8511291, US8161951, US8156905, US8061336, US7509950, US7395800, US6978773, US6666183, US6415778, US5647337, US5131357, US5115791, US4958613, US4886020, US4712532, US4656991, US4597372, US2015275719, US2014366855, US2010288224, US2010101514, US2009101124, US2007107688, US2006180131, US2004144375, JP62032208, JP61097514, JP5285327, JP5125399, JP2010236522, JP2009097489, JP1262309, EP2050935, DE112006003475, AU762920,

Abstract:

Source: US4541399A A V-type internal combustion engine having cam shafts respectively provided in first spaces defined between cylinder heads and head covers of a pair of upwardly diverging cylinder banks and a breather arrangement which includes a pressure buffer chamber provided between the cylinder banks of a cylinder block and having side walls constituted by cylinder block walls of said cylinder banks so as to be closed at its upper portion and communicated with an interior of a crankcase, and a communicating passage for communicating said pressure buffer chamber with an intake passage at a downstream of a throttle valve, and a baffle plate provided in said pressure buffer chamber to confront the open end of said communicating passage.

PatBase - US4541399_A



0) US4563986A – SPLASH LUBRICATED OVER HEAD VALVE ENGINE

160) Family number: 17835548 (US4563986A)

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Title: Splash lubricated over head valve engine

Priority: JP19830140575U 19830909

Family:	Publication number	Publication date	Application number	Application date
	<u>JP1751347 Y</u>	19890427	JP19830140575U	19830909
	<u>JP60047812 U1</u>	19850404	JP19830140575U	19830909
	<u>JP63013377 Y2</u>	19880415	JP19830140575U	19830909
	<u>US4563986 A</u>	19860114	US19840646143	19840831

Probable Assignee: KUBOTA LTD

Assignee(s):^(std): KUBOTA LTD

Inventor(s):^(std): NAKANO KEIICHI

International class
^{(IPC 8-9):} F01M13/00 F01M13/04 F01M9/06 F01M9/10 (Advanced/Invention);
F01M13/04 (Advanced/Non-invention)

International class
^{(IPC 1-7):} F01M13/04 F01M9/10

CPC: F01M9/06 F01M9/10 F01M13/0011 F01M13/0416 F02B2275/34

European class: F01M13/00B F01M9/06 F01M9/10 R01M13/04D R01M9/06 R02B275/34

US class: 123/196M 123/572 123/90.38

[Classification Explorer](#)

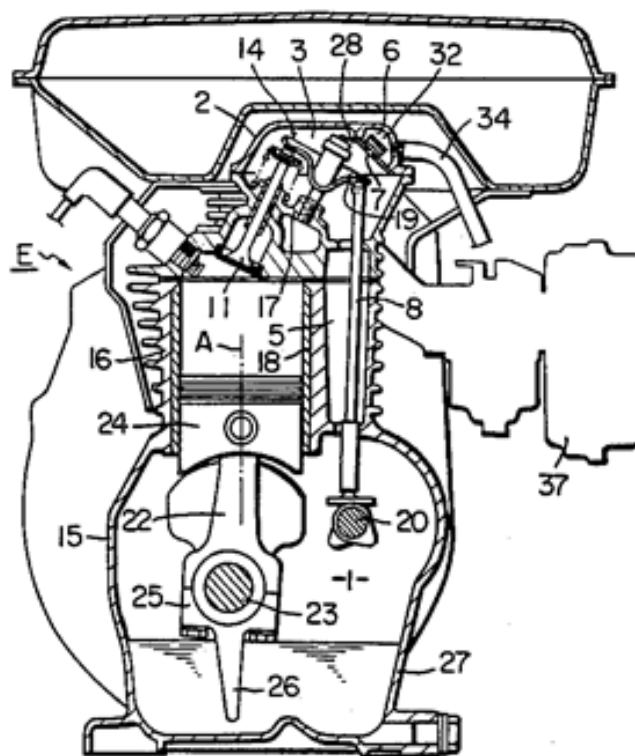
Cited documents: US4501234 A, US4404936 A, US3908617 A, US3469565 A, JP57073316 U1,

Forward Citations: US8171923, US6863043, US6772726, US6666184, US6622688, US6568364, US6374796, US6244231, US6227160, US6047678, US6039020, US5950590, US5752475, US5005553, US4969434, US4771745, US4762098, US4696267, US2009288631, US2004177825, US2004107938, JP2009281241, EP2123867, EP0967375, EP0845197, EP0835988,

Abstract:

Source: US4563986A A splash lubricated over head valve engine provided with a gas inducing and a oil return passages both communicate the crank room and the rocker arm chamber, and with a breather disposed inside the rocker arm cover, wherein: the outlet opening of the gas inducing passage and inlet opening of the breather are disposed at opposite end portions of the rocker arm chamber, so as to make the flow of blow-by gas in the rocker arm chamber traverse across the rocker arms aslant.

PatBase - US4563986_A



161) Family number: 23204481 (ES2165264A)

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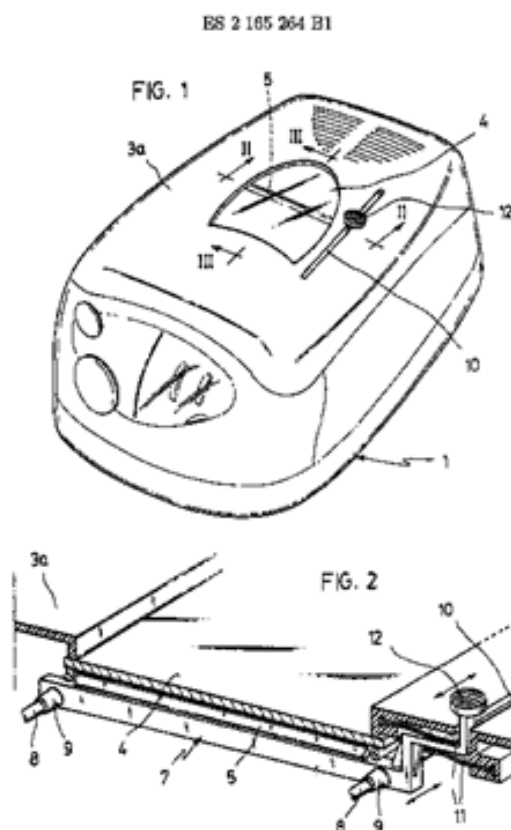
Title: Improvements in containers and appliances for cooking food**Priority:** ES19990000642 19990330**Family:**

Publication number	Publication date	Application number	Application date
ES2165264 AA	20020301	ES19990000642	19990330
ES2165264 BA	20030601	ES19990000642	19990330

Probable Assignee: TAURUS SL ELECTRODOMESTICOS**Assignee(s):^(std):** ELECTRODOMESTICOS TAURUS SL ; TAURUS SL ELECTRODOMESTICOS**Assignee(s):** ELECTRODOMESTICOS TAURUS S L**Inventor(s):^(std):** CODINA VILANA ANTONI ; TRENCH ROCA LLUIS**International class** [A47J36/06](#) (Advanced/Invention)
(IPC 8-9):**International class** [A47J36/06](#)
(IPC 1-7):[Classification Explorer](#)**Cited documents:** US4636618, US4100612, US3598105, EP0263084, EP0138249,**Abstract:**

Improvements in containers and appliances for cooking food. These improvements in containers and appliances for cooking food are especially designed for cases in which cooking is performed in oil and in which the cover of the container or appliance in which the cooking is performed is equipped with resources for viewing inside of them and these are composed of a fixed transparent glass part. According to said improvements, resources are provided to allow the correct viewing of the inside of the container or appliance through its fixed transparent glass part; said appropriate viewing resources include a brush that, when applied against the inside face of said transparent glass part, wipes said face along its entire length and/or a lighting position that lights the inside of the container or appliance where cooking is being performed.

PatBase - ES2165264_BA



162) Family number: 41134882 (CN200975213Y)

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Title: SELF-LUBRICATING AND SEALED TYPE SLEWING TABLE APPARATUS**Priority:** CN200620005495U 20060209

Family:	Publication number	Publication date	Application number	Application date
	<u>CN200975213 Y</u>	20071114	CN200620005495U	20060209

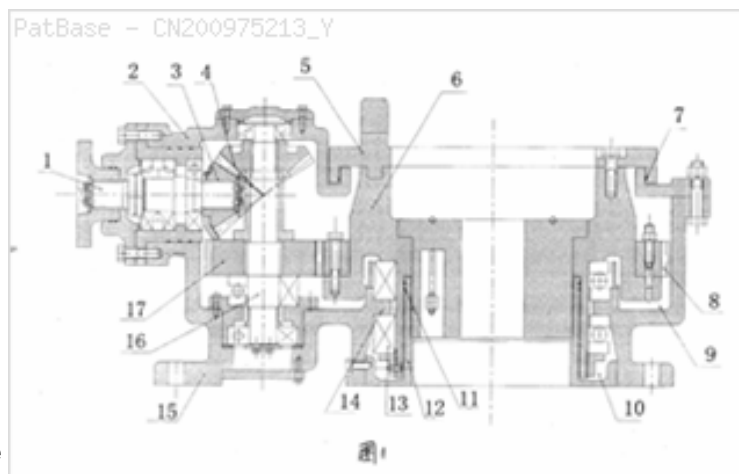
Probable Assignee: HUANG SHANZHI**Assignee(s):^(std):** HUANG SHANZHI**Inventor(s):^(std):** HUANG SHANZHI**Inventor(s):** SHANZHI HUANG

International class E21B3/04 F16H1/20 F16H57/00 F16H57/023 F16H57/029 F16H57/04 (Advanced/Invention);
 (IPC 8-9): E21B3/00 F16H1/02 F16H57/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN105134922, CN101915284,**Abstract:**

Source: CN200975213Y The utility model discloses a sealed rotary-disc means with self-lubricating function. An input shaft is arranged at the center of the meridian section of the closure, and located at the highest point of the driving structure; the bevel gear on the input shaft and the bevel gear on the upper end of the center shaft engage with each other; and the gear at the lower end of the center shaft engages with the big gear arranged on the turn table, the pair of gears are arranged in the oil bath in the base cavity, the two bevel gears are lubricated by the oil mist and oil drops splashed by the big gear, and as a result, self-lubrication is achieved. On the upper and lower ends of the trapezoid stage lower than the lubricant level in the base cavity, two plane bearings are provided to

support the turn table and the big gear on the breading of the turn table respectively. The lower end of the trapezoid stage in the base cavity is connected to the oil pan, the groove formed in the middle is just the oil bath where the plane bearing is oiled and lubricated. A circular groove is provided either on the circumference where the turn-table cover contacts with the closure cover or on the circumference where the turn table contacts with the oil pan, and sealing rings are applied to achieve structural sealing. Through such measure, the frequency of maintenance during operation is reduced and the service life is increased.



163) Family number: 42213125 (JP3112730U)

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Title: Deep fryer (Machine translation)**Priority:** JP20050003517U 20050523**Family:**

Publication number	Publication date	Application number	Application date
JP3112730 U	20050825	JP20050003517U	20050523

International class A47J37/12

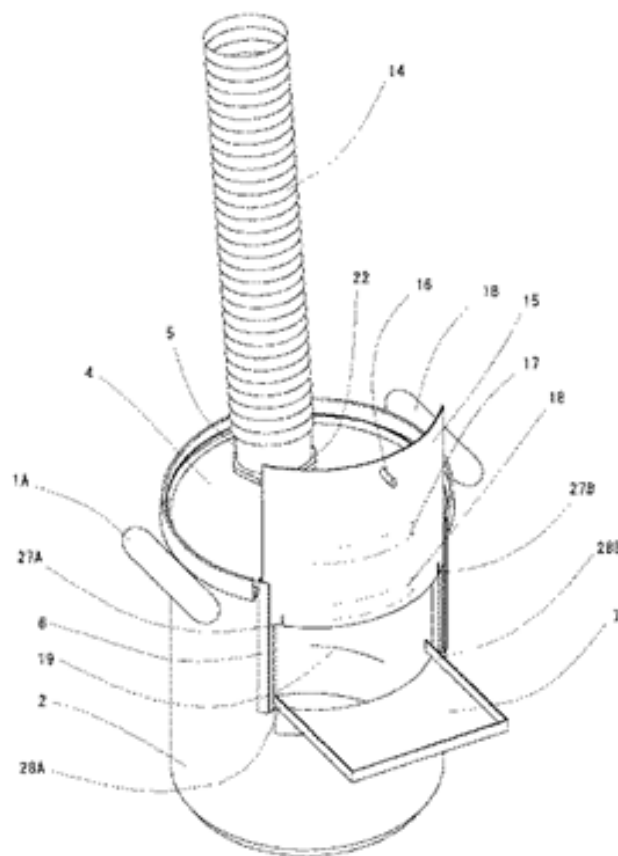
(IPC 1-7)

Abstract:

Source: JP3112730U

Machine translation: [summary] While checking the degree of flow off of the ingredients in the eye even if you cook the food cooks juicy The challenge [], can be safely cooked in a tempura like chopsticks, splatters of oil to prevent oil stains due, soot, oil to provide a deep fryer also prevent the spread of odors. window member 6 is attached to the body (2) for cooking pot for cooking the formation of approximately rectangular openings on the side of the circular body pan means [resolution], of approximately rectangular, the lid member 15 is also mounted on a window portion for cooking that. In addition, attached is fitted on top of the pot and the main body 2, the lid body 14 is attached to the exhaust pipe 4. For the four body lid are formed in heat-resistant glass heat-resistant transparent, to prevent oil stains by the scattering of oil, is exhausted by the exhaust stack smoke, smell oil, it is possible to reduce the dirt is safe with it.

PatBase - JP3112730_U



164) Family number: 42378804 (JP3066740U)

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Title: Pot lid support device (Machine translation)

Priority: JP19990630699U 19990820

Family:

Publication number	Publication date	Application number	Application date
<u>JP3066740 U</u>	20000307	JP19990006306U	19990820

International class A47J36/12 A47J37/10 A47J37/12

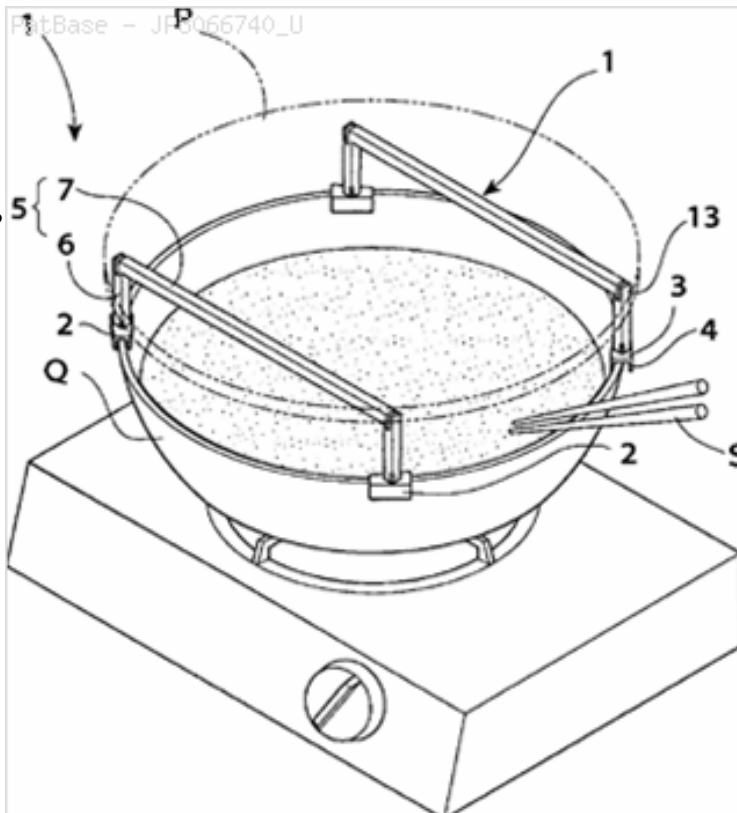
(IPC 1-7)

Forward Citations: JP6077153, JP2011240063,

Abstract:

Source: JP3066740U

Machine translation: [summary] Or the like so as not to inflict burns to workers splashed cooking oil to fly from body heat pot [challenge], does not stain or be scattered by the ambient moisture, steam, steam, oil, etc., above the pot body to support the lid body. ?? fitted with two pair of wedge-grooves formed in a shape gradually expanding toward the side to removably mounting rack for the opening edge of a different caliber of Q various body pan means [resolution], this a pot lid to form a supporting device 5 from the client side support frame consisting of the erection section 7 stand to be placed next to the lid body P between the support legs 6 is grounded in two respective ?? fitted. In addition, the mounting rack mounting respectively on the opening edge of the field Q pot a supporting device lid pot of the pair through the 2 ?? fit to be placed opposite the respective five stand next to support, stand next to the respective five stand next to support to support the lid in the upper body P Q pot body by placing the lid body P to pass over in between unit 7.



165) Family number: 43217678 (US2009117642A)

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Title: ALPHA-AMYLASE VARIANTS WITH ALTERED PROPERTIES

Priority: JP20100533079 20081103 JP20100533079T 20081103 US20080026056 20080204
 JP20100533081 20081103 US20070985619P 20071105 JP20100533081T 20081103
 US20080026579 20080206 US20080041075 20080331 US20080059411 20080606
 US20080059403 20080606 US20080026056P 20080204 US20080059403P 20080606
 US20080026579P 20080206 US20080041075P 20080331 US20080263631 20081103
 US20080263958 20081103 US20080263804 20081103 US20080264006 20081103
 WO2008US12411 20081103 WO2008US12410 20081103 WO2008US12412 20081103
 WO2008US12413 20081103 US20110151905 20110602 US20120410486 20120302
 US20120540064 20120702 US20090365646 20090204 US20120472058 20120515
 US20080263886 20081103 US20080059411P 20080606 US20130899057 20130521
 WO2009US33027 20090204

Family:

Publication number	Publication date	Application number	Application date
AR069167 AA	20100106	AR2008P104805	20081103
AR069168 AA	20100106	AR2008P104806	20081103
AU2008325248 AA	20090514	AU20080325248	20081103
AU2008325248 BB	20131107	AU20080325248	20081103
AU2008325249 AA	20090514	AU20080325249	20081103
AU2008325249 BB	20131010	AU20080325249	20081103
AU2008325250 AA	20090514	AU20080325250	20081103
AU2008325250 BB	20130613	AU20080325250	20081103
AU2009212526 AA	20090813	AU20090212526	20090204
BRPI0820500 A2	20150616	BR2008PI20500	20081103
BRPI0820503 A2	20150616	BR2008PI20503	20081103
BRPI0908768 A2	20150728	BR2009PI08768	20090204
CA2704555 AA	20090514	CA20082704555	20081103
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CN101932703 A	20101229	CN200880114761	20081103
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CN101970634 A	20110209	CN200980104122	20090204
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EP2212410 A2	20100804	EP20080847204	20081103
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EP2215110 A2	20100811	EP20080846486	20081103
EP2215201 A2	20100811	EP20080846268	20081103
EP2215202 A2	20100811	EP20080846670	20081103
EP2245130 A2	20101103	EP20090709225	20090204
HK1154264 A1	20140926	HK20110108023	20110802
IN02315DN2010 A	20100910	IN2010DN02315	20100405

<u>IN02388DN2010 A</u>	20110204	IN2010DN02388	20100407
<u>IN02423DN2010 A</u>	20101001	IN2010DN02423	20100408
<u>IN02538DN2010 A</u>	20120120	IN2010DN02538	20100413
<u>IN05233DN2010 A</u>	20110225	IN2010DN05233	20100720
<u>JP2011502508 T2</u>	20110127	JP20100533081T	20081103
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<u>RU2010122896 A</u>	20111220	RU20100122896	20081103
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<u>RU2499044 C2</u>	20131120	RU20100122901	20081103
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<u>US8460916 BB</u>	20130611	US20120540064	20120702
<u>US8507244 BB</u>	20130813	US20120410486	20120302

<u>US8962283 BB</u>	20150224	US20130899057	20130521	
<u>WO09061378 A2</u>	20090514	WO2008US12410	20081103	
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<u>WO09061379 A3</u>	20090827	WO2008US12411	20081103	
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<u>WO09061380 A3</u>	20090903	WO2008US12412	20081103	
<u>WO09061380 A4</u>	20091105	WO2008US12412	20081103	
<u>WO09061380 A8</u>	20170323	WO2008US12412	20081103	
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<u>WO09061381 A3</u>	20091119	WO2008US12413	20081103	
<u>WO09098229 A2</u>	20090813	WO2009EP51268	20090204	
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<u>WO09100102 A3</u>	20100422	WO2009US33027	20090204	

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Assignee(s): DANISCO A S ; DANISCO US INC GENENCOR DIVISION

Inventor(s):^(std): ANDREW SHAW ; CASCAO PEREIRA LUIS ; CASCAOPEREIRA LUIS ; CASPER VROEMAN ; CHANG KLODIN ; CHOJ KLEMENT ; CHRIS LEEFLANG ; CLAUDINE CHANG ; CLEMENT CHOY ; DZHOUNZ BRAJAN EH ; ISTABRUK MELODI ; KELLIS DZHEJMS T ML ; KELLIS JAMES T JR ; KELLIS JR JAMES T ; KOKLMAN MARC ; KOLKMAM MARC ; KOLKMAN MARK ; KRAUGH KARSTEN ; LEEFLANG KRIS ; MANSI GOYAL ; MARC KOLKMAN ; MELODIE ESTABROOK ; PAUEHR SKOTT D ; KASKAO PEREIRA LUIS ; POLSON BREDLI ; SANDRA RAMER ; VICTORIA HUANG ; VROEMEN CASPER ; VRUMEN KASPER ; WALTER WEYLER ; WARD DONALD ; WARD DONALD E ; YOON MEE YOUNG ; SHETTY JAYARAMA K ; SHARMA VIVEK ; PAULSON BRADLEY ; LUIS CASCAO PEREIRA ; KELLIS JAMES T ; WEYLER WALTER ; VROEMAN CASPER ; RAMER SANDRA ; LEEFLANG CHRIS ; KRAUGH KARSTEN M ; KOLKMAN MARC ; JONES BRIAN E ; HUANG VICTORIA E ; HUANG VICTORIA ; GRAYCAR THOMAS P ; GRAYCAR THOMAS ; GOYAL MANSI ; ESTABROOK MELODIE ; CHOY CLEMENT ; CHANG CLAUDINE Y ; CHANG CLAUDINE ; VIVEK SHARMA ; JR ; DONALD WARD ; BRADLEY PAULSON ; VROEMEN CASPER WILLEM ; PEREIRA LUIS GUSTAVO CASCAO ; PAULSON BRADLEY A ; KRAUGH KARSTEN MATTHIAS ; JONES BRIAN ; JOON MI JANG ; SHAW ANDREW ; RAMER SANDRA W ; POWER SCOTT D ; MEE YOUNG YOON ; JONES BRIAN E ; SHO EHNDRIJU ; THOMAS GRAYCAR ; UEHJLER UOLTER ; UORD DONALD D ; SHETTI DZHAJARAMA K ; CASPER VROEMEN ; CASCAO PEREIRA LUIS G

Inventor(s): BRIAN E JONES ; UORD DONALD D ; KARSTEN M KRAUGH ; SCOTT D POWER ; KELLIS DZHEJMS T ; LUIS G CASCAO PEREIRA ; JAMES T KELLIS ; JAMES T KELLIS JR ; JAYARAMA K SHETTY

Agent(s): HOULIHAN2; HOULIHAN2 PTY LTD; HOULIHAN2; BERESKIN AND PARR LLP SENCRL SRL; KREMER SIMON MARK; SUGIYAMA NAOTO; SHIROGANE HIROSHI; AKAMATSU TOSHIKI; YAMASAKI YUKUZO; GENENCOR INT INC ATTENTION LEGAL DEPARTMENT; DANISCO US INC ATTENTION LEGAL DEPARTMENT; STEVEN G BACSI DANISCO US INC GENENCOR DIVISION; DRINKER BIDDLE AND REATH (DC); DRINKER BIDDLE AND REATH; DRINKER BIDDLE AND REATH LLP; DANISCO US INC; MEYER MERCEDES K; BACSI STEVEN G ET AL; DANISCO US INC GENENCOR DIVISION; INSPICOS A S; TODD STEPHEN

Designated states:

AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI
CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH
GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC
LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE
NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV
SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9):

A21D2/00 A21D2/16 A21D2/26 A21D8/04 A23C17/00 A23G3/00 A23K1/165 A23K1/18
A23L1/03 A23L1/09 A23L1/202 A23L1/28 A61K38/46 C07H21/00 C07H21/04 C07K1/00
C07K14/32 C07K14/43 C07K14/435 C07K17/00 C08B30/12 C11D17/06 C11D17/08
C11D3/02 C11D3/37 C11D3/386 C11D3/395 C11D3/40 C11D3/48 C11D3/50 C11D3/60
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C11D3/386 C12N15/09 C12N15/56 C12N15/75 C12N9/14 C12N9/28 (Advanced/Non-invention);
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D06M16/00 (Core/Invention);
C11D C12N (Subclass/Invention)

International class
(IPC 1-7):

C07K14/195 C11D3/386 C12N1/21 C12N15/56 C12N15/75 C12N9/26 C12N9/28

CPC:

C11D3/38681 C11D3/386 D06M16/003 A21D8/042 C11D3/38609 C11D3/38618
C12N9/2417 Y02E50/16 A23K20/189 A23K50/75 Y02E50/17 A23L29/06

European class:

A21D8/04B A23K1/165B A23K1/18L2 A23L1/03E C11D3/386 C11D3/386A C11D3/386B
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US class:

424/94.6 426/11 426/11P 426/42 426/48 426/56 426/64 426/64P 426/653 426/653S
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435/195 435/196 435/197 435/197S 435/198 435/198S 435/200 435/201 435/201S
435/202 435/202P 435/202S 435/252.3 435/252.300S 435/252.31 435/252.310S
435/252.33 435/252.330S 435/252.34 435/252.340S 435/252.35 435/252.350S 435/252.5
435/252.500S 435/252.8 435/252.800S 435/253.3 435/253.300S 435/253.5 435/253.500S
435/254.11 435/254.110S 435/254.2 435/254.21 435/254.3 435/263 435/263P 435/263S
435/264 435/264S 435/275 435/275S 435/320.1 435/320.100S 435/325 435/348 435/69.1
435/91.1 435/99 510/218 510/218S 510/226 510/235 510/236 510/236S 510/300
510/300S 510/320 510/320S 510/392 510/392S 510/530 510/530S 530/350 536/22.1
536/22.100S 536/23.1 536/23.2 536/23.200S 536/23.7

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Cited documents:

WO9949740 A1, WO9928448, WO9920770 A2, WO9919467 A1, WO9834946 A1,
WO9823732 A2, WO9820116 A1, WO9820115 A1, WO9815257 A1, WO9743424 A1,
WO9742825, WO9707205 A1, WO9707202 A2, WO9707202 A1, WO9706775,
WO9704079 A1, WO9700324 A1, WO9639528 A2, WO9628567 A1, WO9627002 A1,
WO9623873 A1, WO9613580 A1, WO9612012 A1, WO9600292 A1, WO9535381 A1,
WO9530744 A2, WO9526397 A1, WO9522625 A1, WO9522615 A1, WO9521247 A1,
WO9514807 A1, WO9514783 A1, WO9510602 A1, WO9506720 A1, WO9502044 A1,
WO9425583 A1, WO9425578 A1, WO9418314 A1, WO9402597 A1, WO9401541 A1,
WO9324618 A1, WO9219729 A1, WO9219709 A1, WO9219708 A1, WO9206221 A1,
WO9206165 A1, WO9206154 A1, WO9205249 A1, WO9200381 A1, WO9117243 A1,
WO9116422 A1, WO9100353 A2, WO8909259 A1, WO8906279 A1, WO8906270 A1,
WO8601831 A1, WO8402921 A2, WO200666596, WO200292797, WO09061380,
WO09061379 A2, WO08153925 A2, WO08097620 A1, WO07148224 A2, WO06066596
A2, WO06043178 A2, WO06037483 A2, WO06002643 A2, WO05111203 A2,
WO05056783, WO05056782, WO04113551 A1, WO04091544 A2, WO04091544 A1,
WO0231124 A2, WO0214490 A2, WO0210355 A2, WO02092797 A2, WO0134899,
WO0114629, WO0060060 A2, WO0004136, USRE32153 E, US8535927 BA, US8507244
BB, US8206966 BB, US8153412 BB, US7713723 BA, US7541026 BB, US7498158 BB,
US7122334 BB, US6867031 BB, US6562612 BB, US6528298 BA, US6475762 BA,
US6403355 BA, US6326443 BA, US6297038 BA, US6143708 A, US6093562 A,
US6077316 A, US6017867 A, US5942431 A, US5827718 A, US5814501 A, US5776757
A, US5691178 A, US5648263 A, US5589207 A, US5427936 A, US5324649 A,
US5231017 A, US4760025 A, US4689297 A, US4683202 A, US4661452 A, US4643736
A, US4587215 A, US4536182 A, US4435307 A, US4335208 A, US4316956 A,
US4106991 A, US3912590 A, US2010190681 AA, US2010099598 AA, US2010099597
AA, US2010048446 AA, US2009314286 AA, US2009280527 AA, US2009252828 AA,
US2009143270 AA, US2009117642 AA, US2008293610 AA, US2007212768 AA,
US20070212768, US2005250663 AA, US2005202535 AA, US2004096952 AA,

US2002155574 AA, US0212768, RU2315811, RU2258739, RU2235775 C2, RU2085590 C1, RU2060666 C1, RU2034923 C1, JPS6474992, JP64074992 A2, JP64020089 A2, JP5520828 B2, JP5520828 B2, JP5259723 B2, JP5259723 B2, JP2013252135 A2, JP2013252135, JP2011504100 T2, JP2011504100, JP2011502508 T2, JP2011502508, JP2010529842 T2, JP2010529842, JP2010528657 T2, JP2010528657, JP2010528656 T2, JP2010528656, JP2010517573 T2, JP2010517573, JP2007508802 T2, JP2007508802, JP2004508815 T2, JP2004508815, JP11501813 T2, JP11501813, GB1483591 A, GB1372034 A, GB1296839 A, EP1538155 B1, EP1538155 A2, EP1423513 B1, EP1423513 A2, EP1199356 A2, EP0815208 B1, EP0815208 A1, EP0585988 A1, EP0407225 A1, EP0331376 A2, EP0305216 A1, EP0260105 A2, EP0258068 A2, EP0252730 A2, EP0252666 A2, EP0238216 A1, EP0238023 A2, EP0218272 A1, EP0135138 A2, EP0119920 A2, EP0063909 A2, EP0063909 A1, DE102005062984, CN1759178, CN1118172, CA2202553 AA, AU2008325250 AA, 51A1, 2004.12.29, ;CN,

Forward Citations:

WO16205755, WO16202785, WO16202739, WO16201069, WO16201044, WO16201040, WO16196874, WO16196872, WO16184944, WO16176296, WO16176282, WO16176280, WO16176241, WO16176240, WO16162558, WO16162556, WO16135351, WO16106011, WO16100324, WO16100323, WO16100320, WO16099861, WO16099860, WO16099859, WO16099858, WO16096996, WO16090192, WO16087401, WO16081437, WO16079305, WO16079110, WO16069569, WO16069557, WO16069552, WO16069548, WO16069544, WO16061438, WO16001319, WO15195960, WO15195777, WO15189371, WO15181286, WO15181119, WO15155351, WO15150457, WO15149641, WO15138283, WO15134737, WO15134729, WO15123323, WO15112341, WO15112340, WO15112339, WO15112338, WO15095358, WO15089447, WO15089441, WO15077126, WO15065871, WO15057517, WO15050724, WO15050723, WO15049370, WO15044448, WO15001017, WO14207227, WO14207224, WO14205355, WO14195356, WO14194054, WO14194034, WO14194032, WO14186183, WO14184164, WO14183921, WO14164834, WO14164777, WO14159309, WO14151447, WO14131861, WO14131861, WO14096259, WO14087011, WO14085439, WO14059273, WO14043288, WO14029821, WO14029819, WO13189972, WO13181647, WO13171241, WO13167581, WO13110766, WO13096305, WO13063460, WO13028071, WO12149275, WO11127820, WO11100410, WO11098531, WO11082425, WO10134035, WO10115028, WO10115021, WO10036515, WO09149130, WO09149130, WO09100138, WO09100138, US9493730, US9434932, US9416355, US9284544, US9080137, US8962283, US8936924, US8877478, US8852912, US8841107, US8815560, US8809031, US8722381, US8617837, US8545907, US8507244, US8507243, US8486681, US8445250, US8252573, US8236545, US8206966, US8153412, US8084240, US8021705, US7713723, US2016017305, US2016010129, US2014342965, US2014342431, US2013052250, US2013011882, US2013000055, US2012282658, US2012088291, US2012021485, US2011244526, US2011212876, US2011171694, US2011136206, US2011105376, US2010190681, US2010136113, US2010099161, US2010021587, US2009252828, US2009226569, US2009209026, US2009143270, US2009048136, KR101358405, JP5898108, JP2014520517, JP2013516166, JP2013135683, JP2011510665, JP2011502508, JP2011084790, EP3106508, EP3101127, EP3101109, EP3101108, EP3088506, EP3088505, EP3088504, EP3088503, EP3088502, EP3034597, EP3034596, EP3034592, EP3034591, EP3034590, EP3034589, EP3034588, EP2803725, EP2623591, EP2486799, EP2414514, EP2357220, CN105007744, CN104769106, CN104066838, CN103966180, CN103917642, CN103764836, CN103695386, CN103695386, CN103215240, CN103215240, CN103068975, CN103038340, CN102994474, CN102994474, CN102899880, CN102897936, CN102753670, CN102573516, AU2011203460, AU2010250810,

Abstract:

Source: US2009117642A Disclosed are compositions comprising variants of a parent *G. stearothermophilus* alpha-amylase that have alpha-amylase activity and which exhibit altered properties relative to a parent AmyS-like alpha-amylase from which they are derived. The compositions comprise an additional enzyme such as a phytase. Also disclosed are methods of using the compositions, and kits related thereto.

PatBase - W009100102_A2

WD 3029100102

PCT/US2009/033427

1/19

SEQ ID NO: 1

Sequence of AmyT823 (full-length molecule, mature chain, 593 amino acids; no signal sequence):

ntapinetmgyfewdipndgtlwtkvkneaanlaelgitalwlpaykgtseq
edvgygvydlydlgefnqkgitrtkygtktqyiqaiqaakaagmqvyadvfn
hkegedgtefvdavevdpenmgetegtyqiawtkidfpggrntyesfkwrw
yhfddgtddesxklnriykrftgkawdewdtenngnydylnfaddmdhpev
vtelknwgtwyvnttnidgfildavkhikyafpdlwtyvrnqtgknlfavge
fwydvnlhnyitktngesel fdeplhnnfytaekesgyfdmryllnntlnk
dgelavtlvdnhdtpggqelqswvepwfklpayefiltrqegypcvfygdy
gipkynipglkaidplliaradyaytqrddyidhqdiqwtregidtkpneq
laalidgpggagkwyvgkhhagkvfydltnredvtvtinadgwefkvngge
vsiwvaktentvftvnnatttggqnyvvanipeigmentanaikmpespyt
wxatialpqqkaiefkfkiddqagmviwestenrtytvpfstggytaewvnp

Figure 1

SEQ ID NO: 2

Sequence of AmyT823t (truncated molecule, mature chain):

ntapinetmgyfewdipndgtlwtkvkneaanlaelgitalwlpaykgtseq
edvgygvydlydlgefnqkgitrtkygtktqyiqaiqaakaagmqvyadvfn
hkegedgtefvdavevdpenmgetegtyqiawtkidfpggrntyesfkwrw
yhfddgtddesxklnriykrftgkawdewdtenngnydylnfaddmdhpev
vtelknwgtwyvnttnidgfildavkhikyafpdlwtyvrnqtgknlfavge
fwydvnlhnyitktngesel fdeplhnnfytaekesgyfdmryllnntlnk
dgelavtlvdnhdtpggqelqswvepwfklpayefiltrqegypcvfygdy
gipkynipglkaidplliaradyaytqrddyidhqdiqwtregidtkpneq
laalidgpggagkwyvgkhhagkvfydltnredvtvtinadgwefkvngge
vsiwvak

Figure 2

166) Family number: 49562527 (CN201958586U)

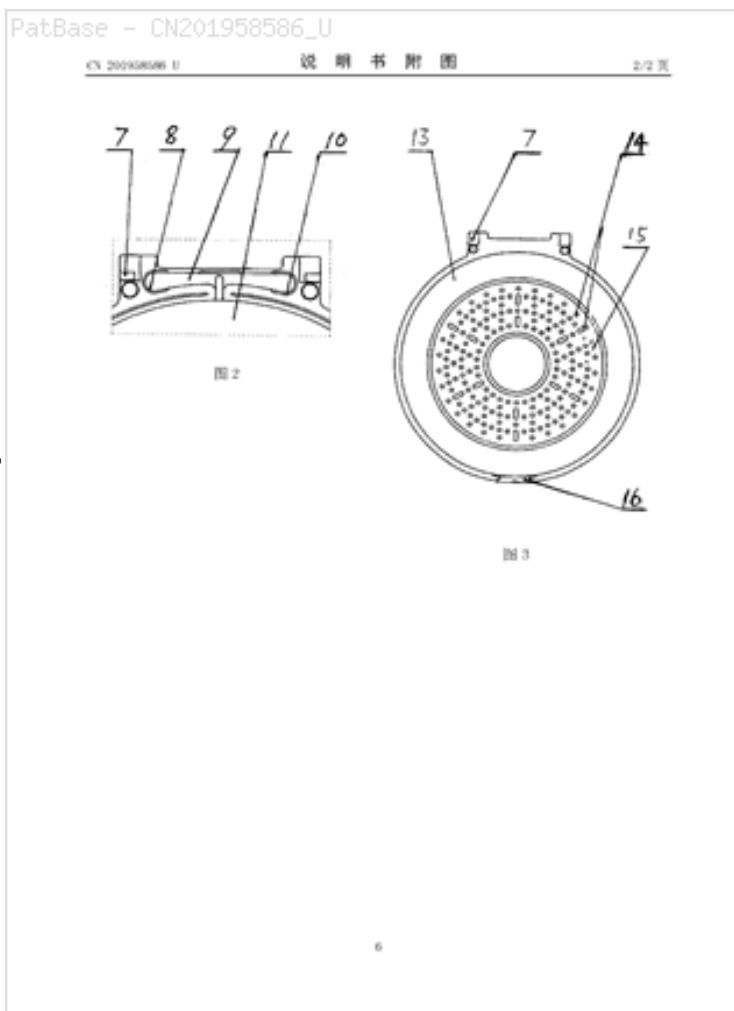
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Title: A double-sided multi-purpose pan (Machine translation)**Priority:** CN200920058861U 20090622

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201958586 U</u>	20110907	CN200920058861U	20090622

Probable Assignee: XIA XUN**Assignee(s):** XIA XUN**International class** A47G19/12 A47J27/00 A47J36/00 A47J36/38 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** US2013334207,**Abstract:**

Source: CN201958586U A double-sided multi-purpose pan, pot and lid can be used as an outsole flat heating surface heating surface using magnetic materials (eg stainless iron) or composite materials (such as aluminum – stainless iron), suitable for cookers and fire stove. Bottom of the pot and the lid hinge at one end of the shaft can make the bottom of the pot and lid separately, but also can open the bottom of the pot and the lid in a fixed angle, add seasonings and convenient food in full bloom. Activities pot handle can be removed, so that the pot as serving food and serve dishes directly. Bottom of the pot and the lid of the joints with a vent, oil tank and slinger, double-sided pan to ensure safe cooking at low pressure seal in good condition, reduce soot and dripping water, to avoid splashing the oil and gas, the utility The new structure is simple, reliable performance, safety, environmental protection, energy saving, easy to use.

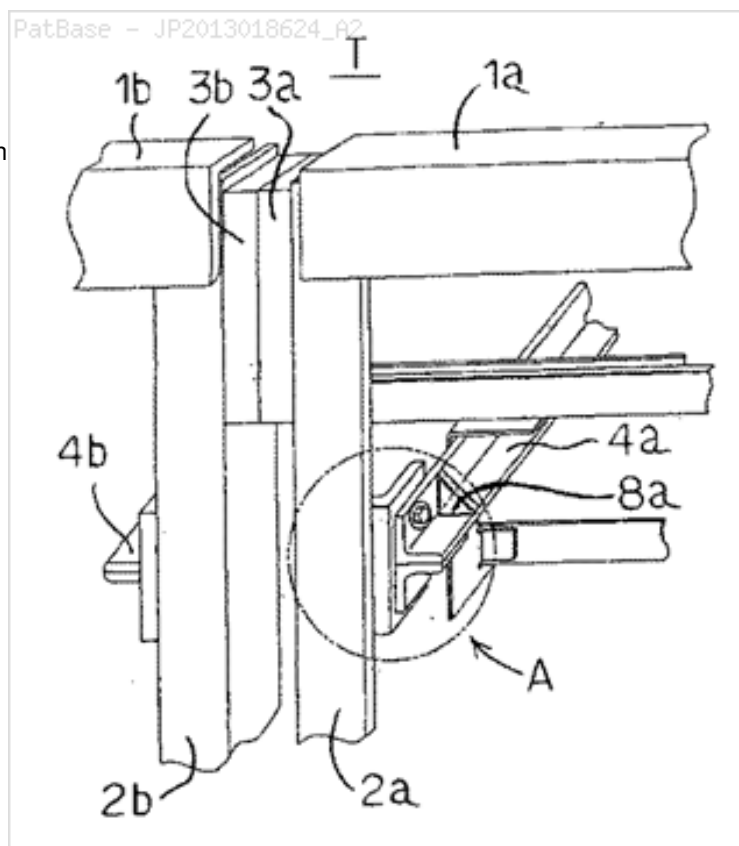


Title: PASSENGER CONVEYER**Priority:** JP20110154032 20110712**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2013018624 A2</u>	20130131	JP20110154032	20110712

Probable Assignee: TOSHIBA ELEVATOR CO LTD**Assignee(s):**^(std): TOSHIBA ELEVATOR CO LTD**Inventor(s):**^(std): UCHIDA KIYOSHI**Agent(s):** TOMITA KATSUYUKI; TSUTADA MASATO; NAKAMURA SATOSHI; TSUTADA AKIKO; PU SEJIN**International class** B66B23/00 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: JP2013018624A PROBLEM TO BE SOLVED: To provide a passenger conveyer in which an oil blocking plate is provided in a middle lateral beam to eliminate oil leakage to an exterior panel and an oil leakage prevention cover is provided in a missing part of an oil pan to eliminate the oil leakage. SOLUTION: In a flow path from middle lateral beams 4a, 4b through connection vertical beams 2a, 2b to a connection part of an L-shaped angle in a main beam on a lower part side from which an oil droplet drops, an oil leakage prevention body 8a is provided to prevent oil that splashes into a truss T from leaking through the flow passage.



168) Family number: 58294708 (KR20150005255A)

© PatBase

Title: OIL SPATTER PREVENTION FRYING PAN

Priority: KR20130078930 20130705

Family:	Publication number	Publication date	Application number	Application date
	<u>KR20150005255 A</u>	20150114	KR20130078930	20130705

Probable Assignee: KIM JONG HA

Assignee(s):^(std): KIM JONG HA

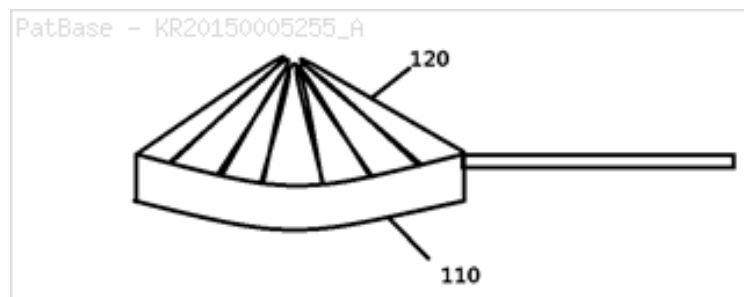
Inventor(s):^(std): KIM JONG HA

International class A47J37/10 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: KR20150005255A The present invention relates to a frying pan capable of preventing oil splatter. More specifically, the frying pan includes: a frying pan part on which food is cooked; and an upper cover part which is joined with an upper part of the frying pan part to prevent oil splatter.



169) Family number: 59346643 (CN104643969A)

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Title: PANCAKE TURNER EQUIPPED WITH HAND PROTECTING COVER

Priority: CN201310580672 20131119

Family:	Publication number	Publication date	Application number	Application date
	<u>CN104643969 A</u>	20150527	CN201310580672	20131119

Probable Assignee: ZHUGELIANG MIDDLE SCHOOL

Assignee(s):^(std): ZHUGELIANG MIDDLE SCHOOL

Assignee(s): ZHUGE LIANG XIANGYANG CITY SCHOOL

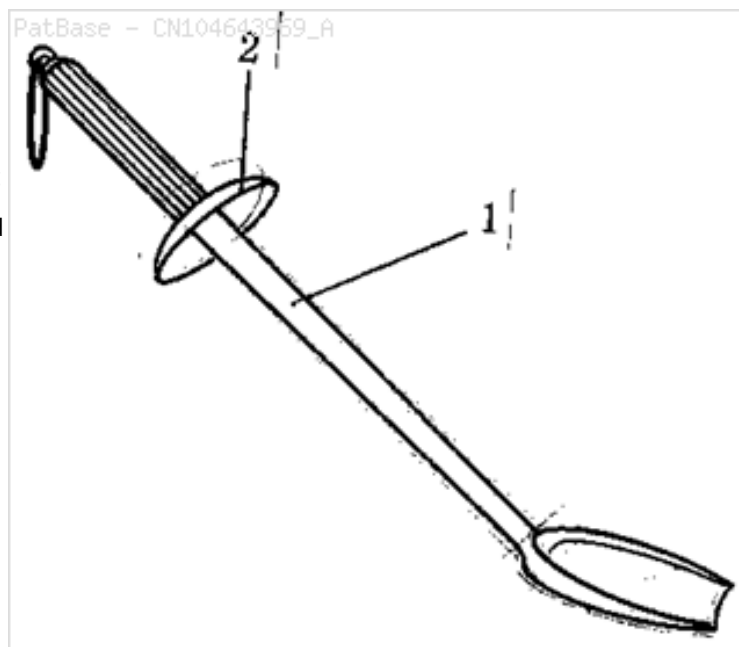
Inventor(s):^(std): LIN MEIRU

International class A47J43/28 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN104643969A The invention provides a pancake turner equipped with a hand protecting cover. The pancake turner equipped with the hand protecting cover is characterized in that the protecting cover capable of stopping splashed oil is mounted at a handle rod; when using in cooking, the protecting cover can cover the hot oil splashed from a pan to the outside, and thus the phenomenon that the hand is scalded by accident can be avoided.



170) Family number: 60427720 (CN204654651U)

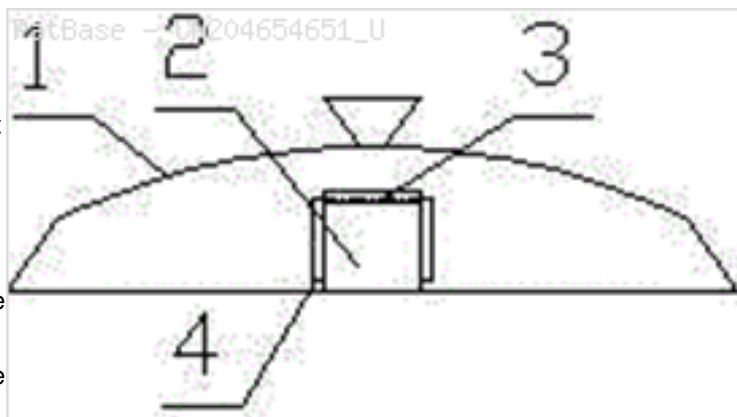
© PatBase

Title: PREVENT SPLASHING AND SPATTER POT COVER**Priority:** CN201520066299U 20150130**Family:**

Publication number	Publication date	Application number	Application date
<u>CN204654651 U</u>	20150923	CN201520066299U	20150130

Probable Assignee: GAO LIUZHONG**Assignee(s):^(std):** GAO LIUZHONG**Assignee(s):** HIGH STAY IN**Inventor(s):^(std):** GAO LIUZHONG**International class** A47J36/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN204654651U The utility model discloses a prevent splashing and spatter pot cover, it includes the lid, has seted up an opening in the edge of lid, opening department is provided with an apron, the apron through a round pin axle with side edge is articulated on the opening, and the apron can be around round pin axle free rotation. The utility model has the advantages of simple structure and reasonable design, during the use, stretch into the frying pan with the slice in to be located the handle of slice the opening in, just so can thoroughly avoid the in –process of stir –frying because oil drips to splash spatters and pollute the phenomenon of the top of a kitchen range, clothes, wall and other cooking utensils and take place, high temperature oil after a little while, can not take place yet and drip the spill of the splashing health phenomenon of burning for the clothes of wearing the clothes hot day.

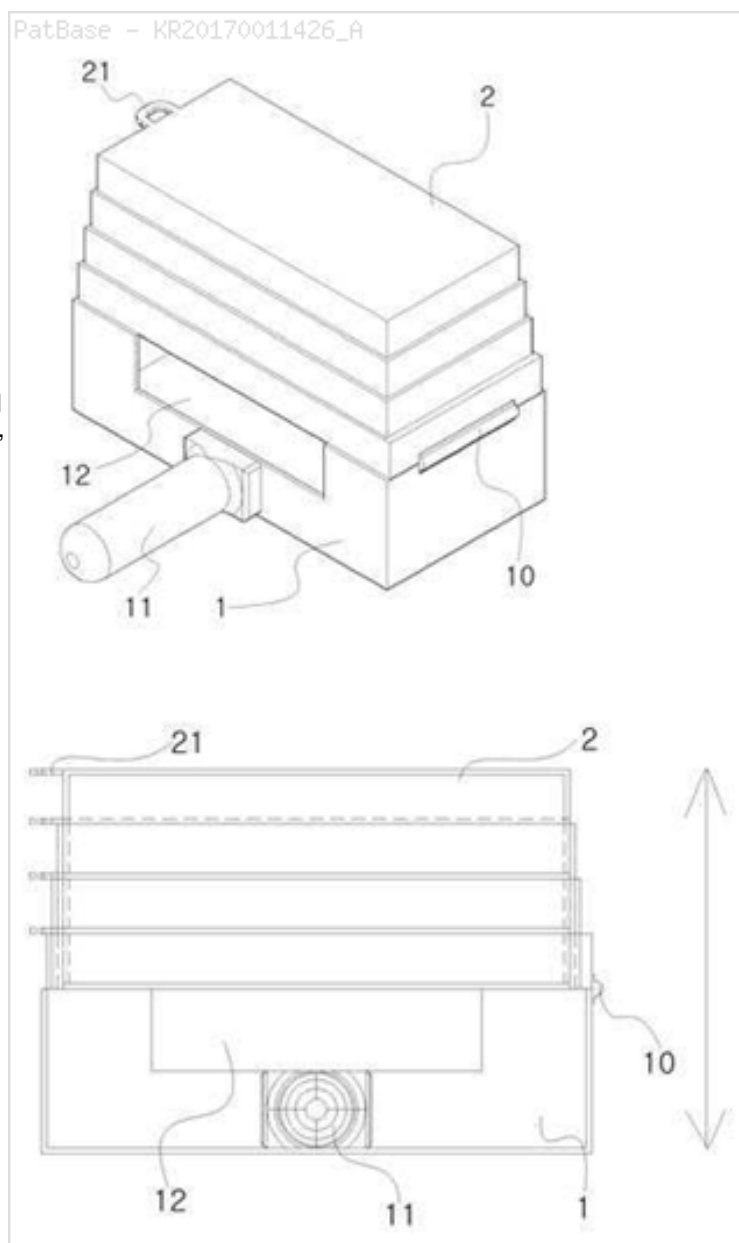


Title: SAFETY FRYPAN**Priority:** KR20150104043 20150723**Family:**

Publication number	Publication date	Application number	Application date
<u>KR20170011426 A</u>	20170202	KR20150104043	20150723

Probable Assignee: BAKDONGHYEON**Assignee(s):** BAKDONGHYEON**International class** A47J37/10 (Advanced/Invention)
(IPC 8-9).**CPC:** A47J37/10 A47J37/101 A47J37/108[Classification Explorer](#)**Abstract:**

Source: KR20170011426A This invention relates to a frying pan for cooking, the more detail is when oil is used in a lot of cooked food, close the lid while cooking by allowing them to do a flip, oil popped out of the burn and prevent accidents by safe and efficient cooking, cooking tools that can do. According to this invention, the user popped out of a frying pan when cooking oil in order to prevent the risk of burns with the lid in the form of the upper part of the tower is formed with a folded fold unfolding at the same time, body and fittings connected with closures and a retractable open body is required by the ORB back home out of commitments to close the lid also prevent the safe and clean the oil splatter, it is possible to cook a safe frying pan to.



0) GB688262A – IMPROVEMENTS RELATING TO GRILLING APPLIANCES

172) Family number: 20056393 (GB688262A)

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Title: Improvements relating to grilling appliances

Priority: GB19490023573 19490913

Family:	Publication number	Publication date	Application number	Application date
	<u>GB688262 A</u>	19530304	GB19490023573	19490913

Probable Assignee: ARTHUR FREDERICK OATLEY

Assignee(s):^(std): ARTHUR FREDERICK OATLEY ; CANNON IRON FOUNDRIES LTD

Assignee(s): CANNON IRON FOUNDRIES LIMITED

International class A47J37/06 (Advanced/Invention);
(IPC 8-9): A47J37/06 (Core/Invention)

International class A47J37/06 B65G65/72
(IPC 1-7):

CPC: A47J37/06

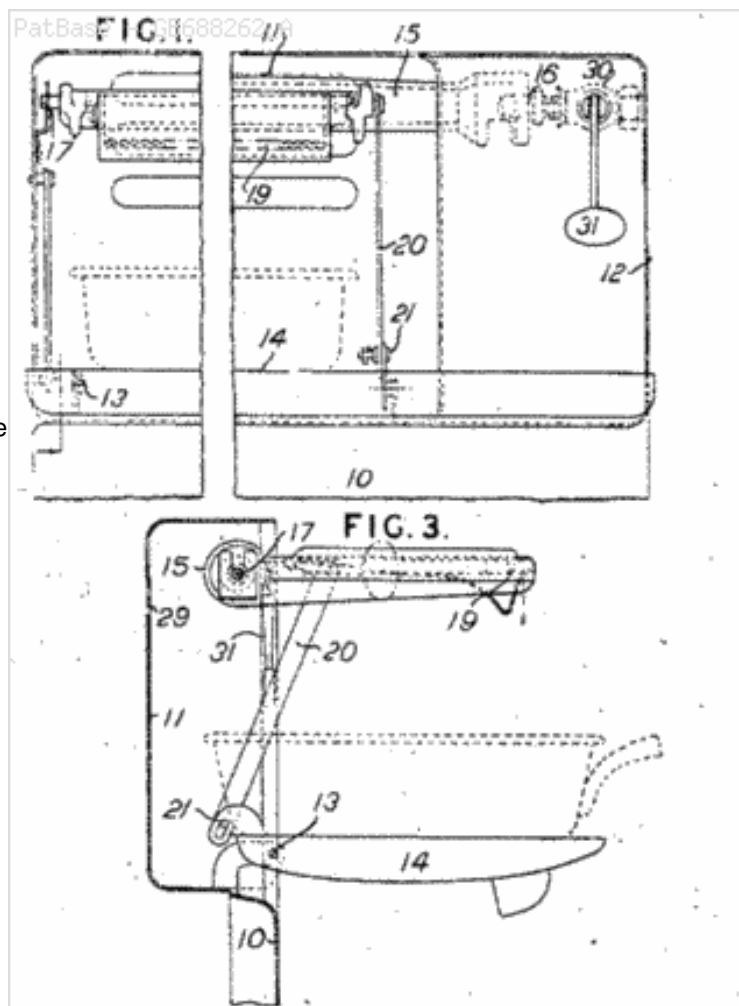
European class: A47J37/06

[Classification Explorer](#)

Forward Citations: US3188940, US3169470,

Abstract:

Source: GB688262A 688,262. Grilling-stoves. CANNON IRON FOUNDRIES, Ltd., and OATLEY, A. F. Sept. 8, 1950 [Sept. 13, 1949; Feb. 14, 1950], Nos. 23573/49 and 3705/50. Class 126 A grilling appliance has a pivotally mounted gas heated grill which can be stowed in a vertical position and supported in a horizontal operative position, and an open-fronted housing for the grill with a food support hinged to a lower part of the housing. A grill is mounted in an openfronted housing 11 above the splash plate 10 of a cooker, one of the side walls 12 of the housing extending sideways in front of the burner entry point. A food support 14 is pivoted at 13 so that it is be swung up to close the front of the housing. The burner 15 is pivoted about supply iet 16 and trunnion 17 and the fret 19 lies to one side of the burner axis. Vents 29 are provided in the back of the housing. The food support 14 and grill fret 19 are connected to linkage 20, 21 according to Specification 675,974 so that the grill moves to an operative position when the support is swung down. The gas supply cock 30 has a drop handle 31 of such length that the housing cannot be closed when the gas supply is turned on. In one modification, Figs. 4 and 5 (not shown), the burner is fixed and the fret rotates about a bearing at one end of the burner and a trunnion secured to the housing. In a further modification, Figs. 6, 7, 8 (not shown), the burner and grill fret lie on opposite sides of the axis about which they turn, the burner axis being only slightly offset from the axis of rotation.



0) GB1287075A – COOKING UTENSIL

173) Family number: 743181 (GB1287075A)

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Title: COOKING UTENSIL
Priority: GB19710008184 19710330

Family:	Publication number	Publication date	Application number	Application date
	<u>GB1287075 A</u>	19720831	GB19710008184	19710330

Probable Assignee: HARRIS JOHN MADISON

Assignee(s):^(std): HARRIS JOHN MADISON

Assignee(s): JOHN MADISON HARRIS

Inventor(s):^(std): HARRIS JOHN MADISON

Inventor(s): JOHN MADISON HARRIS

International class A47J37/10 (Advanced/Invention);
^{(IPC 8-9):} A47J37/10 (Core/Invention)

International class A47J36/00
^{(IPC 1-7):}

CPC: A47J37/101

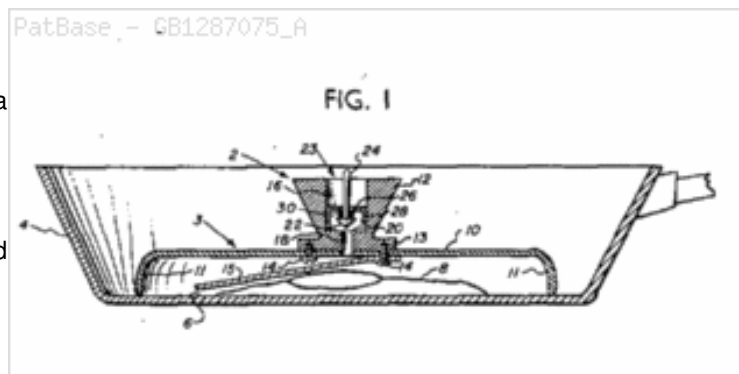
European class: A47J37/10A

[Classification Explorer](#)

Forward Citations: US4759342, US4498376, US4488479,

Abstract:

Source: GB1287075A 1287075 Cooking utensil J M HARRIS 30 March 1971 8184/71
 Heading A4A A cooking utensil for use inside a frying pan enables both sides of an egg to be cooked without turning. The egg 8 is placed in the pan 4 in the usual way and the utensil placed over it. Water from the reservoir 23 can enter the pan by means of the passage 18 causing the upper side of the egg to be cooked by steam. The reservoir is sealed by the manually operable valve assembly 24. The conical tip of the valve 22 is held seated at the top of the passage 18 by a spring 30. The knob 2 and the cover 3 may be formed integrally or may be held together by screws 14. A means 15 of deflecting the water away from the egg may be incorporated on the underside of the utensil.



174) Family number: 29509071 (US4656991A)

© PatBase

Title: Breather device for internal combustion engine**Priority:** JP19840183231U 19841204 JP19840255132 19841204

Family:	Publication number	Publication date	Application number	Application date
	<u>CA1274133 A1</u>	19900918	CA19850496725	19851203
	<u>DE3542900 A1</u>	19860605	DE19853542900	19851204
	<u>DE3542900 C2</u>	19900222	DE19853542900	19851204
	<u>FR2574128 A1</u>	19860606	FR19850017956	19851204
	<u>FR2574128 B1</u>	19880916	FR19850017956	19851204
	<u>GB2167810 A1</u>	19860604	GB19850029934	19851204
	<u>GB2167810 B2</u>	19871209	GB19850029934	19851204
	GB8529934 A0	19860115	GB19850029934	19851204
	<u>JP1020291 B4</u>	19890414	JP19840255132	19841204
	JP1539376 C3	19900116	JP19840255132	19841204
	<u>JP1975804 Y</u>	19940223	JP19840183231U	19841204
	<u>JP4037217 Y2</u>	19920902	JP19840183231U	19841204
	<u>JP61097513 U1</u>	19860623	JP19840183231U	19841204
	<u>JP61135914 A2</u>	19860623	JP19840255132	19841204
	<u>US4656991 A</u>	19870414	US19850804676	19851204

Probable Assignee: HONDA GIKEN KOGYO KK**Assignee(s):^(std):** HONDA GIKEN KOGYO KK ; HONDA MOTOR CO LTD**Assignee(s):** HONDA GIKEN KOGYO K K ; HONDA GIKEN KOGYO K K TOKIO TOKYO JP ; HONDA GIKEN KOGYO KABUSHIKI KAISHA**Inventor(s):^(std):** FUKUO KOICHI ; FUKUO KOICHI ET SASAKI SHINJI ; KOICHI FUKUO ; SASAKI SHINJI ; SHINJI SASAKI**Inventor(s):** SASAKI SHINJI WAKO SAITAMA JP

International class
(IPC 8-9): F01M13/00 F01M13/04 F02B75/22 (Advanced/Invention);
F01M11/00 F01M13/02 (Advanced/Non-invention);
F01M13/00 F02B75/00 (Core/Invention);
F01M11/00 (Core/Non-invention)

International class
(IPC 1-7): B60H3/00 F01M13/00 F01M13/04 F02B75/22 F02M25/06

CPC: F01M2011/0033 F02B75/22 F01M13/00 F01M13/022 F02B2275/20 F02F2200/06**European class:** F01M13/00 F02B75/22 R01M11/00B12 R01M13/02N2 R02B275/20 R02F200/06**US class:** 123/41.86 123/572[Classification Explorer](#)

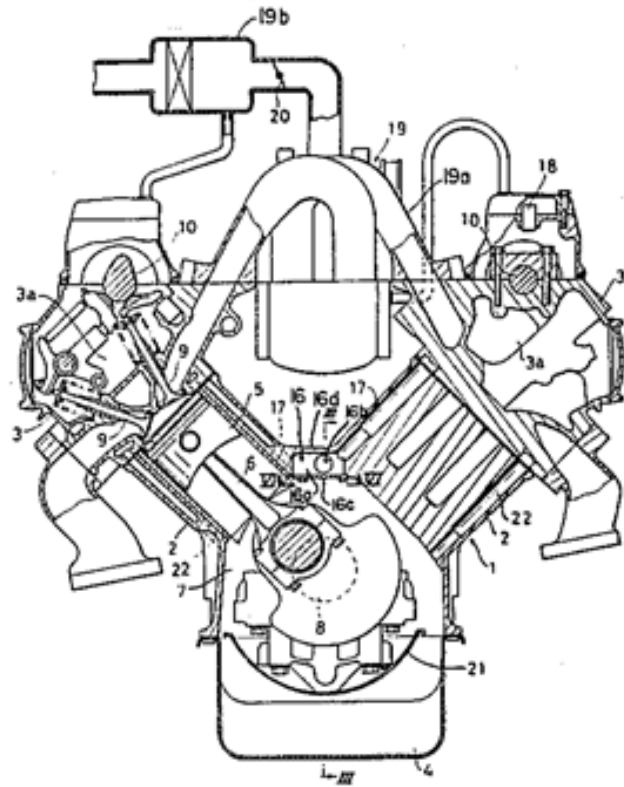
Cited documents: US4541399 A, US3077871 A, US2906252 A, US2797674 A, US2782775 A, US2660987 A, US1916522 A, US1851051 A, JP60147708 U1, JP60147708 U, JP59100910 A2, JP59100909 A2, JP58025605 U1, JP58025605 U, JP57183510, JP56121812 A2, GB2134976 A1, DE3414710 A1, DE1916788 A1,

Forward Citations: WO08021806, WO08021806, USD514035, USD426494, US9328638, US8869780, US8739768, US8511291, US8490608, US7717100, US7395800, US6978773, US6883505, US6666183, US6279554, US6263847, US6189521, US6178932, US5647337, US5603290, US5542401, US4996956, US4958613, US4947812, US4875438, US4712532, US2015133008, US2013098342, US2012145135, US2012017866, US2010101514, US2007107688, US2007062500, US2004244832, US2004144375, JP2010500500, GB2248880, GB2234011, GB2234011, FR2663990, EP1026372, EP0471886, EP0463267, EP0291358, DE19720383, DE19720383, DE10131004, CN103061912, CN103061912,

Abstract:

Source: US4656991A A crankcase blow-by gas breather device and arrangement where the ends of the crankcase are provided with spaces beyond the end supporting walls for the crankshaft, which spaces conduct the blow-by gas directly to a breather chamber for separating at least some of the entrained oil. The breather chamber is connected to the overhead valve chambers which, in turn, are connected to the intake system for recycling the blow-by gases to the engine. In a V-type engine the breather chamber is integrally formed in the bottom wall of the "V".

PatBase - US4656991_A



175) Family number: 42221652 (JP3106658U)

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Title: Oil fry pan lid to prevent splashing (Machine translation)

Priority: JP20040004043U 20040611

Family:

Publication number	Publication date	Application number	Application date
JP3106658 U	20050120	JP20040004043U	20040611

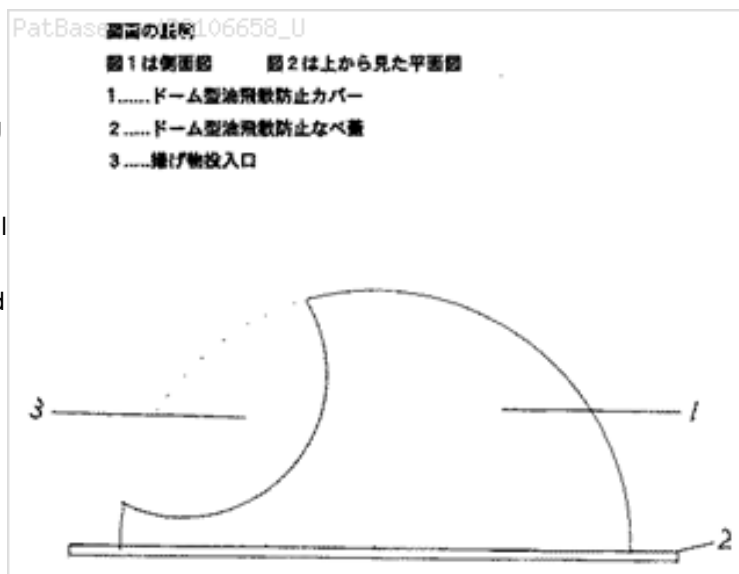
International class A47J36/06

(IPC 1-7):

Abstract:

Source: JP3106658U

Machine translation: [summary] With the shape of the collar to form a circular opening in the dome-shaped part of the ceiling [challenge], and wrought wider horizontally as a unit from the end of the bottom of dome-shaped ceiling, pan fried to prevent oil splashing offer of the lid. also be used to take advantage of such a pan which was by a wide margin to the integrated structure and a wider portion of the dome portion and the edge of the circumference of the dome-shaped shatterproof oil means [resolution] is now possible range spread.



176) Family number: 43345176 (CN201234921Y)

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Title: Scald-proof round-bottomed frying pan**Priority:** CN200820025610U 20080711

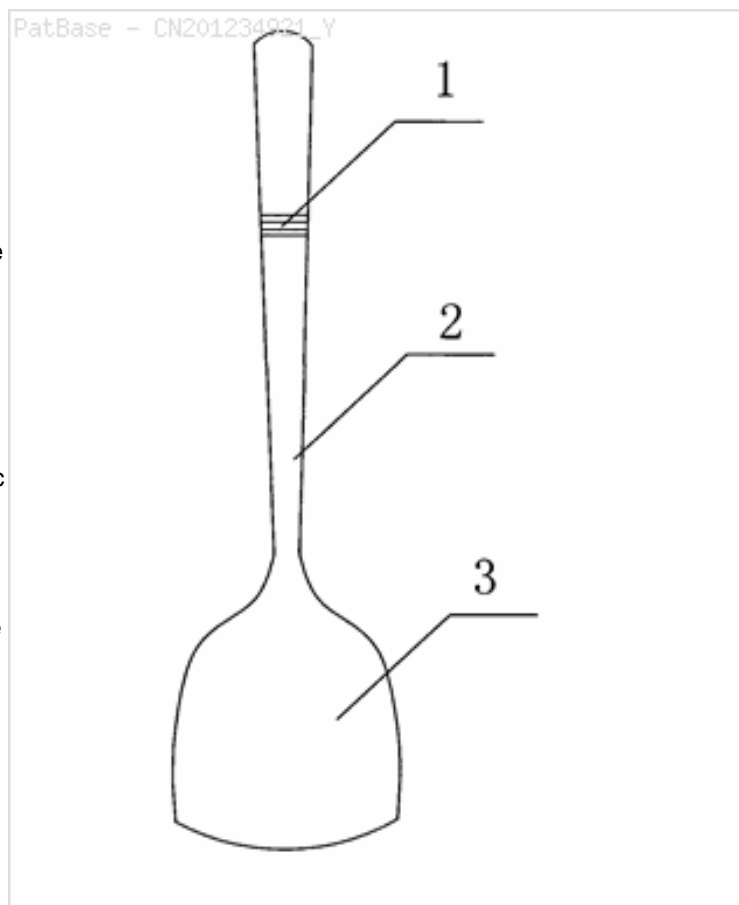
Family:	Publication number	Publication date	Application number	Application date
	<u>CN201234921_Y</u>	20090513	CN200820025610U	20080711

Probable Assignee: AIMIN HOU**Assignee(s):^(std):** AIMIN HOU**Assignee(s):** HOU AIMIN**Inventor(s):^(std):** AIMIN HOU**Inventor(s):** HOU AIMIN

International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN201234921Y The utility model relates to a scalding prevention type frying spoon, which comprises a spoon body and a spoon handle, and is characterized in that a protective cover is further provided, the protective cover and the spoon handle are mutually locked through a groove and a lug boss, a groove is opened on the upper half portion of the spoon handle, and an insert hole and a strip hole which are suitable for the shape of the spoon handle are opened on the protective cover, and convex areas are arranged on the insert hole and the strip hole. The scalding preventing type frying spoon is characterized in that the protective cover is in a plane or an arched arc surface, and can effectively prevent splashing edible oil from scalding people when in frying. The arched arc surface type protective cover can be used to cover food preventing dust or other winged insects, and the protective cover is locked with the spoon handle through the groove and the lug boss, and can be detached conveniently. The utility model has the advantages of simple structure, convenient manufacturing, low cost and suitable popularization and application.



177) Family number: 63361436 (KR200233176Y)

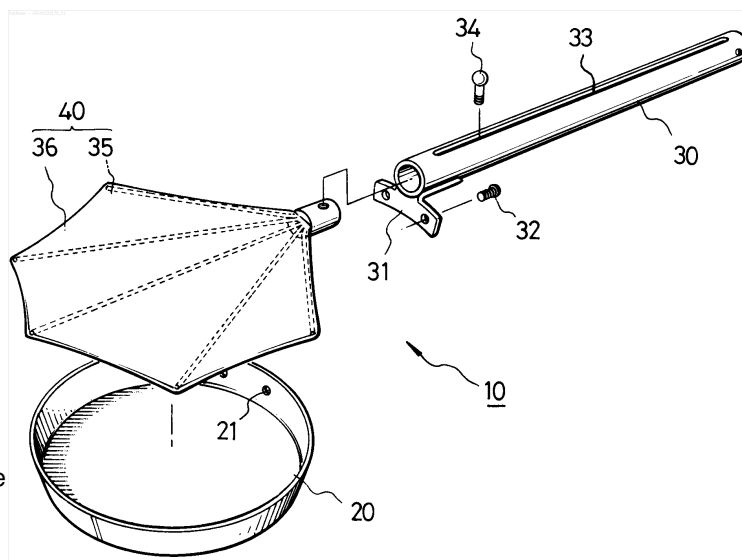
© PatBase

Title: Frying pan (Machine translation)**Priority:** KR20010002591U 20010203**Family:**

Publication number	Publication date	Application number	Application date
<u>KR200233176 Y1</u>	20011018	KR20010002591U	20010203

Probable Assignee: IMGIDONG**Assignee(s):** IMGIDONG**International class** A47J37/10
(IPC 1-7).**Abstract:**

Source: KR200233176Y This is designed, relates to a frying pan, and a receiving section for receiving the food, in the skillet handle is attached to one side of the receiving portion, the pans are; And the handle is attached to one side of the receiving portion is formed in a hollow through before and after the /; And guide grooves formed in the longitudinal direction of the grip surface; It is accommodated in the inside of the handle to move front / rear along the guide groove by a user's operation, and characterized by including a cover that is going out from the tip end region of the handle to cover the upper portion of the receiving area. Thereby, the oil can be used when cooking food, such as promoting the safety of the user due to the splashing oil because it blocks splashing to the outside and is provided with a frying pan to keep the cleanliness of the surrounding particularly, countertops. Skillet, cover



178) Family number: 63761068 (CN105996816A)

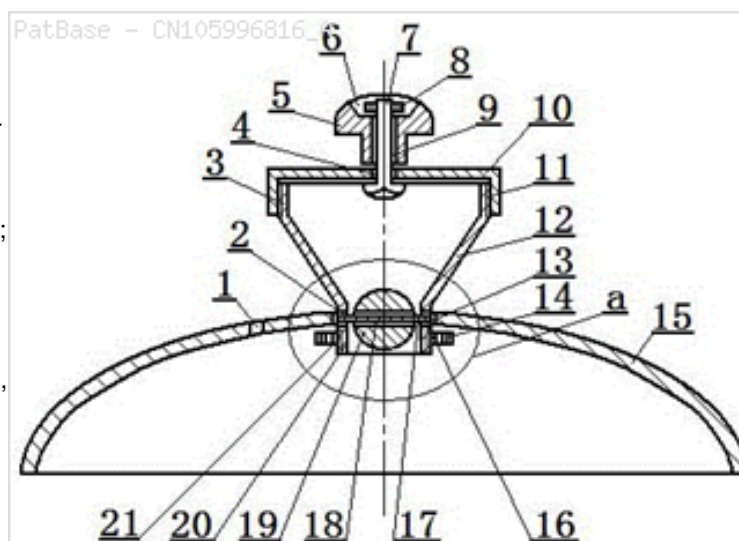
© PatBase

Title: POT COVER FACILITATING DEEP FRYING OF LOACHES**Priority:** CN201610661299 20160813**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105996816 A</u>	20161012	CN201610661299	20160813

Probable Assignee: LUO DAOQIAN**Assignee(s):^(std):** LUO DAOQIAN**Assignee(s):** LUO TAO QIAN**Inventor(s):^(std):** LUO DAOQIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN105996816A The invention discloses a pot cover facilitating deep frying of loaches. A large round through hole is formed in the top end of a pot cover body, and a lower round pipe, penetrating through the large round through hole downwards, of a funnel body is provided with a lower external thread connected with a large nut in a matched mode; a second small round through hole and a first small round through hole are formed in the left wall thickness part and the right wall thickness part of the lower round pipe respectively, a round movable plate is provided with a third small round through hole in the radial direction, and the middle of a rotary shaft is inserted into the third small round through hole; the left end and the right end of the rotary shaft are inserted into the second small round through hole and the first small round through hole respectively and are jacked through the left inner wall and the right inner wall of the large round through hole respectively; an upper external thread of an upper round pipe is connected with an internal thread of a small cover in a matched mode; a cross bolt penetrates through a second middle round through hole and a first middle round through hole upwards, and a handle and the small cover are tightly locked together through a small nut in a groove. The pot cover is especially suitable for deep frying of the loaches besides keeping the original function, and the situation that human skin is scalded and clothes on the body are stained by oil droplets splashed from an oil pan can be avoided.



179) Family number: 3265675 (US4885953A)

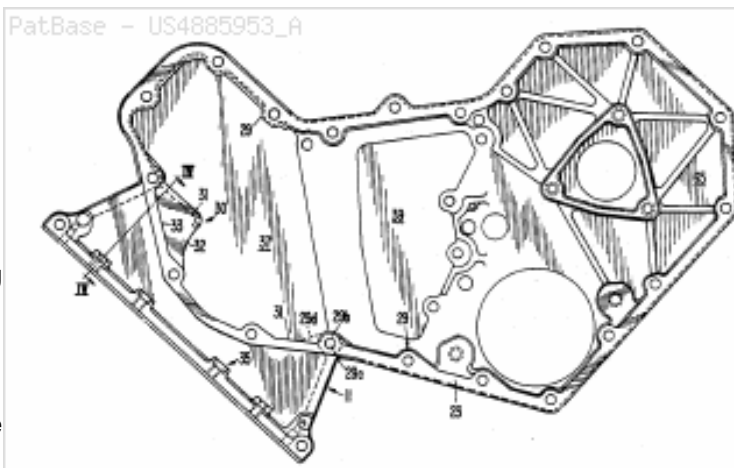
© PatBase

Title: GEAR TRAIN HOUSING OF AN ENGINE**Priority:** US19840626936 19840702

Family:	Publication number	Publication date	Application number	Application date
	<u>US4885953 A</u>	19891212	US19840626936	19840702

Probable Assignee: CUMMINS ENGINE IP INC**Assignee(s):^(std):** CUMMINS ENGINE CO INC**Assignee(s):** CUMMINS ENGINE CO INC A CORP OF IN ; CUMMINS ENGINE COMPANY INC ; CUMMINS ENGINE IP INC**Inventor(s):^(std):** HAGER FRANCIS M ; SWEETLAND ROGER D**International class**
(IPC 8-9): F01M11/00 F02F7/00 F16H57/04 (Advanced/Invention);
F01M11/00 F02F7/00 F16H57/04 (Core/Invention)**International class**
(IPC 1-7): F01M13/02 F16H57/02**CPC:** F02F7/0073 F01M11/00 F02F7/0065 F16H57/0408 F16H57/0423 Y10T74/2186**European class:** F01M11/00 F02F7/00E F02F7/00E3 F16H57/04F R16H57/04M3A**US class:** 123/196CP 74/606.00R 74/606R[Classification Explorer](#)**Cited documents:** US4433593 A, US4353332 A, US4270497 A, US4242923 A, US4124011 A, US2211154 A,**Forward Citations:** WO9105965, US8800403, US8794107, US7004879, US6415758, US5979254, US5657672, US5622077, US5509329, US5048370, US4958537, US2013068201, US2012070230, US2006157939, US2006117876, US2005153811,**Abstract:**

Source: US4885953A A gear train housing of an engine of the type having an internal gear space located within housing parts which include at least one housing body part and at least one cover part. In accordance with a preferred embodiment, the lower end of the gear space is substantially of a V-shape defined laterally on opposite sides by a radially facing sloping walls of the housing body part. In order to minimize oil related problems, bosses on the upwardly facing sloping walls have a wedge-like shape with a downwardly inclined, inwardly facing surface and are free of upwardly sloping surface portions which can collect fluid flowing over the bosses in proximity to a gasket seal between edge faces of the housing parts, and a splash shield is formed for preventing excessive quantities of oil from being splashed, by a crankshaft gear, into the area of other gears of the gear train, so as to reduce associated frictional losses.



0) CA2556882A – INGREDIENT FEEDING COOKING SPATULA WITH OIL–SPL...

180) Family number: 41571682 (CA2556882A)

© PatBase

Title: INGREDIENT FEEDING COOKING SPATULA WITH OIL–SPLASHING PREVENTION ABILITY

Priority: CA20062556882 20060815

Family:	Publication number	Publication date	Application number	Application date
	<u>CA2556882 AA</u>	20080215	CA20062556882	20060815

Probable Assignee: QU CHARLES C Q

Assignee(s):^(std): QU CHARLES C Q

Assignee(s): QU CHARLES CQ

Inventor(s):^(std): QU CHARLES C Q

Inventor(s): QU CHARLES CQ

International class A47J43/28 (Advanced/Invention);
^{(IPC 8–9):} A47J43/00 (Core/Invention)

CPC: A47J43/28

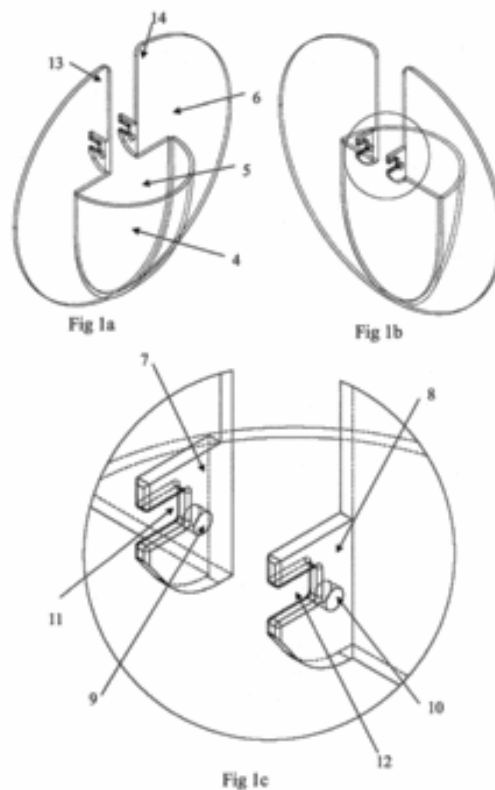
European class: A47J43/28

[Classification Explorer](#)

Abstract:

Source: CA2556882A A cooking spatula containing a spatula body; an ingredient feeding cap pivotally attached to the spatula body; and an internal controlling component, which allows the user to control the movement of the cap from the handle section of the spatula. The cap component has a close position and an open position, and is able to transform between the two positions by pivotally moving along the pivot points on the spatula body where the cap is attached. At close position, the cap and the spatula head together forms a pocket for holding the cooking ingredients. When switch the cap to open position, the cap releases the ingredients into the cooking device such as a wok for cooking; and at open position, the cap would act as a cover which stops any splashing activity from splashing over the cap.

PatBase - CA2556882_A0 (A 02556882 2006-08-15)



0) KR20130049282A – FRYER FOR THE FAMILY WHOM A FRYING PAN FUNCTION...

181) Family number: 53733802 (KR20130049282A)

© PatBase

Title: FRYER FOR THE FAMILY WHOM A FRYING PAN FUNCTION WAS IMPOSED

Priority: KR20110114207 20111104

Family:	Publication number	Publication date	Application number	Application date
	KR101379444 B1	20140331	KR20110114207	20111104
	KR20130049282 A	20130514	KR20110114207	20111104

Probable Assignee: JANG SUNG NAM

Assignee(s):^(std): JANG SUNG NAM ; KIM JUNG IL

Inventor(s):^(std): JANG SUNG NAM ; KIM JUNG IL

International class [A47J36/00](#) [A47J37/10](#) [A47J37/12](#) (Advanced/Invention)
(IPC 8-9).

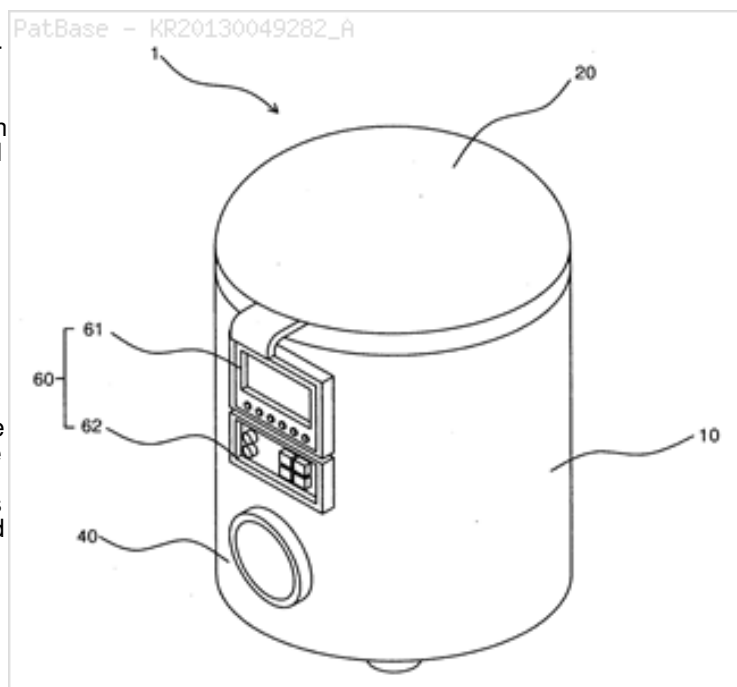
CPC: [A47J37/12](#) [A47J37/103](#) [A47J37/1266](#) [A47J2203/00](#)

[Classification Explorer](#)

Cited documents: KR20010003193 A,

Abstract:

Source: KR20130049282A PURPOSE: A fryer for household use with a function of a frying pan is provided to lead oil to the upper part of a first part by enlarging a groove part formed in the first part and a second part of the fryer and to prevent water and oil from splattering. CONSTITUTION: A fryer(1) for household use with a function of a frying pan comprises a main body(10), a frying container, a filter member(40), a heater, a vent, and a controller(60). The main body comprises a lid(20). The frying container is installed inside the main body and an upper part is opened. The frying container comprises a first part accommodating water to predetermined level and a second part(32) accommodating oil. The filter member is formed to be penetrated to the frying container. The heater is installed to the second part of the frying container. The vent is installed to one side of the frying container and discharges the water and the oil inside the frying container. The controller comprises a temperature sensor(62) sensing the temperature of the frying container and a control part(61).



0) CA2116150A – HANDLE AND LATCH FOR A COOKING APPARATUS AND DU...

182) Family number: 8458152 (CA2116150A)

© PatBase

Title: HANDLE AND LATCH FOR A COOKING APPARATUS AND DUAL SIDE SURFACE
COOKING APPARATUS WITH REMOVABLE TRAY

Priority: CA19942116150 19940222 US19930029496 19930311 US19930029497 19930311

Family:

Publication number	Publication date	Application number	Application date
<u>AU199457504 A1</u>	19940915	AU19940057504	19940302
<u>CA2116150 AA</u>	19940912	CA19942116150	19940222

Probable Assignee: BLACK AND DECKER INC

Assignee(s):^(std): BLACK AND DECKER INC

Assignee(s): ECKERT LEE H ; NAFT STUART ; RASKIN JAMES R

Inventor(s):^(std): ECKERT LEE H ; NAFT STUART ; RASKIN JAMES R

Inventor(s): STUART NAFT ; JAMES R RASKIN ; LEE H ECKERT

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK
INTELLECTUAL PROPERTY PTY LTD; GOWLING LAFLEUR HENDERSON LLP

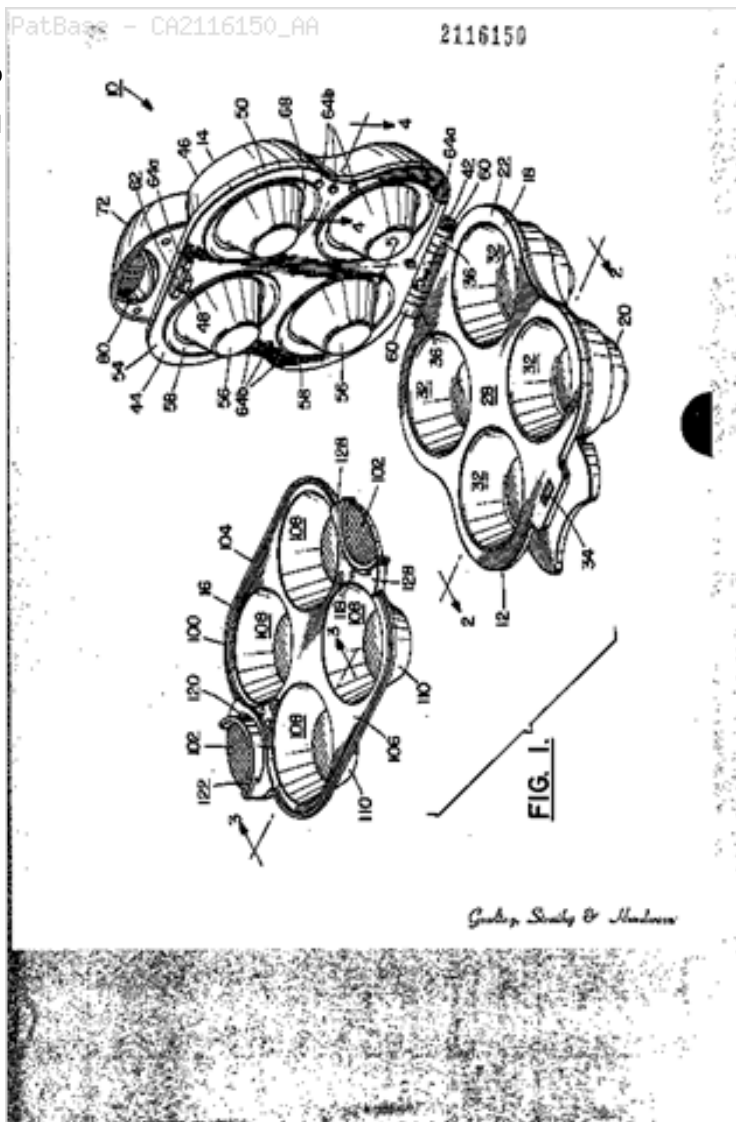
International class A47J27/00 A47J27/14 A47J37/00 (Advanced/Invention);
(IPC 8-9): A47J27/00 A47J27/14 A47J37/00 (Core/Invention)

International class A47J27/00 A47J27/14 A47J37/00
(IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: CA2116150A ABSTRACT A dual side surface cooking apparatus is provided with two opposing top and bottom heaters pivotally connected to each other and a removable food tray adapted to be positioned between the two heaters. The heaters each include an aluminum block with a tubular heater attached to each block. One block has cup-like recesses and the other block has projections adapted to project into the recesses. The tray has pockets that are positioned in the cup-like recesses and make direct contact with the block of the bottom heater. When the two heaters are in a closed position, with the tray therebetween, shell-like cooking areas are formed between the tray and the top heater. After cooking, the top heater can be moved and the tray with cooked food can be removed to cool. The apparatus includes a labyrinth to allow water vapor to escape, but substantially contain grease and oil splatterings within the apparatus. The top housing includes two spaced heat barrier walls with an air gap therebetween and a slot through the top housing into the air gap. A push-button latch release controls the opening of a latch which automatically latches the top and bottom heaters together at a closed position.



183) Family number: 10872494 (US5509949A)

© PatBase

Title: APPARATUS FOR VENTING A TRANSMISSION**Priority:** US19940308735 19940919

Family:	Publication number	Publication date	Application number	Application date
	AT186592 E	19991115	AT19950114096T	19950908
	BRPI9504697 A	19961008	BR1995PI04697	19950919
	DE69513257 D1	19991216	DE19956013257	19950908
	DE69513257 T2	20000713	DE19956013257T	19950908
	EP0702169 A2	19960320	EP19950114096	19950908
	EP0702169 A3	19970102	EP19950114096	19950908
	EP0702169 B1	19991110	EP19950114096	19950908
	ES2139805 T3	20000216	ES19950114096T	19950908
	JP3588729 B2	20041117	JP19950263451	19950918
	JP8178026 A2	19960712	JP19950263451	19950918
	KR100309687 B1	20011228	KR19950030638	19950919
	US5509949 A	19960423	US19940308735	19940919

Probable Assignee: EATON CORP**Assignee(s):**^(std): EALTON CORP ; EATON CORP**Assignee(s):** EATON CORP CLEVELAND

Inventor(s):^(std): DEIJII OSHIONI OZOMAROO ; GLUYS JAMES D ; GLUYS JAMES DUKE ; JIEEMUZU DOYUUKU GURUISU ; JIERARUDO EDOWAADO MADODOTSUKU ; JIYON GERAADO MURUBUIHIRU ; MADDOCKS GERALD E ; MADDOCKS GERALD EDWARD ; MADDOCKS GERARD EDWARD ; MULVIHILL JOHN G ; MULVIHILL JOHN GERARD ; OZOMARO DAZY O ; OZOMARO DAZY OSIONI

Inventor(s): DAZY OSIONI OZOMARAO ; JOHN GERARD MULVIHILL ; JIERARUDO EDOWAADO MADODOTSUKUSU ; JAMES DUKE GLUYS ; GERALD EDWARD MADDOCKS

Designated states: AT DE ES FR GB IT SE

International class
 (IPC 8-9): [F16H57/02](#) [F16H57/027](#) (Advanced/Invention);
[F16H57/02](#) (Core/Invention)

International class
 (IPC 1-7): [B01D50/00](#) [F01M13/04](#) [F01M13/04](#) [F16H57/02](#) [F16H57/04](#)

CPC: [Y10T74/2186](#) [F16H57/027](#)**European class:** [F16H57/027](#)**US class:** [55/385.3](#) [553/853](#) [74/606R](#) [96/189](#)[Classification Explorer](#)

Cited documents: US5404964 A, US5341951 A, US5275636 A, US5024345 A, US4987795 A, US4794942 A, US4595118 A, US4554844 A, US4446755 A, US4151761 A, US3686973 A, US3422982 A, FR1333338 A, EP0506571 A1, DE4300441 C1, DE4244405 C1, DE3201217 A1,

Forward Citations: WO16123354, WO06009318, US9347545, US9303839, US9168489, US8887870, US8715382, US8529657, US8414672, US7419531, US7370729, US7211123, US6923449, US6840137, US6553865, US6447565, US6422107, US6123175, US6058969, US6029696, US6015444, US5694817, US2015062940, US2013042757, US2010032242, US2009084078, US2009000874, US2007295158, US2007062373, US2006096411, US2004173051, US2004140162, US2003188928, US2003093981, US2003067119, US2003047024, KR101382242, KR100857063, JP2010014213, JP2009533633, EP0939250, CN103542075,

Abstract:

Source: US5509949A An apparatus for venting a transmission is disclosed which provides a transmission breather for allowing pressure equalization between the interior and exterior of a transmission while reducing or eliminating fluid expulsion from the transmission due to bridging of a fluid film across the breather. The breather includes a standpipe disposed within a housing which contains a filter. Air, transmission fluid, mist, and vapor flow through the standpipe and through the filter which captures the fluid, mist and vapor while allowing filtered air to be vented to the environment through at least one aperture in the housing. The filter facilitates coalescence of the transmission fluid which is returned to the transmission via at least one space formed between the standpipe and the housing. In one embodiment, the breather is mounted to a shift bar housing of the transmission. The shift bar housing includes an annular protrusion for shielding the breather from excessive exposure to the fluid while also resisting formation of a fluid film across its opening.

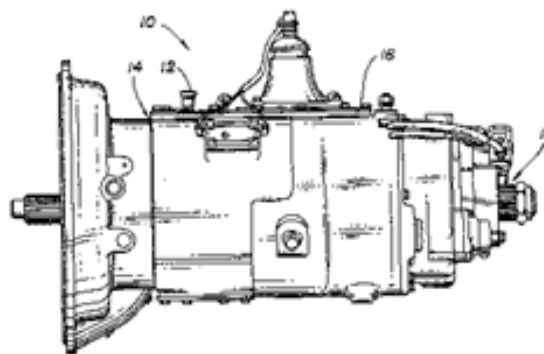
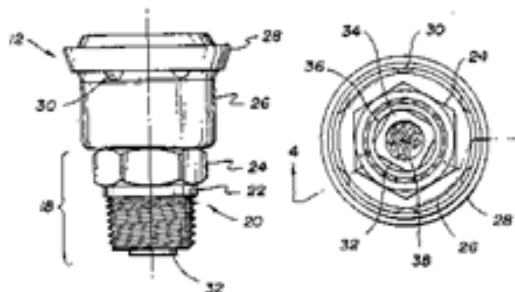
PatBase - US5509949_A

U.S. Patent

Apr. 23, 1996

Sheet 1 of 2

5,509,949

*Fig. 1**Fig. 2**Fig. 3*

184) Family number: 22877501 (FR1243062A)

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Title: INSTALLATION DE REFROIDISSEMENT DE L'HUILE, MONTEE SUR LE CARTER DU MOTEUR, PLUS PARTICULIEREMENT DE MOTEURS A COMBUSTION COOLING
INSTALLATION OF OIL UP ON MOTOR HOUSING, MORE PARTICULARLY COMBUSTION ENGINES (Machine translation)

Priority: 19581105 FR19590808932 19591030

Family:	Publication number	Publication date	Application number	Application date
	<u>FR1243062 A</u>	19601007	FR19590808932	19591030

Probable Assignee: LINDES EISMASCHINEN AG

Assignee(s):^(std) LINDES EISMASCHINEN A G GES ; LINDES EISMASCHINEN AG

Assignee(s): F LINDES EISMASCHINEN A G GES ; GESELLSCHAFT FUER LINDES EISMASCHINEN A G

International class
(IPC 8-9): F01P11/08 (Advanced/Invention) ;
F01M5/00 (Advanced/Non-invention) ;
F01P11/08 (Core/Invention) ;
F01M5/00 (Core/Non-invention)

International class
(IPC 1-7): F01M5/00 F01P11/08 F02F7/00

CPC: F01M5/002 F01P11/08

European class: F01P11/08 R01M5/00C

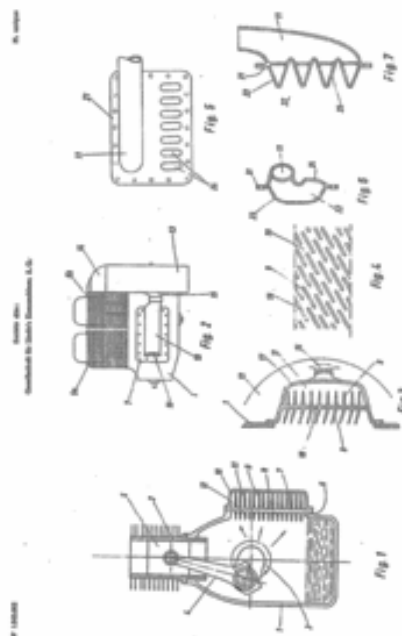
[Classification Explorer](#)

Abstract:

Source: FR1243062A (Claim 1) 1. La paroi extérieure du carter est munie d'une surface d'échange de chaleur soumise à un courant d'air de refroidissement guide, tandis que la paroi intérieure correspondante du carter est munie d'une surface d'échange de chaleur soumise à l'huile de graissage, de préférence à des éclaboussures d'huile, respectivement à un brouillard d'huile;

Machine translation: (Claim 1) 1. The outer wall of the housing is provided with a heat exchange surface subjected to a stream of cooling air guide, while the corresponding inner wall of the housing is provided with a heat exchange surface subjected to the lubricating oil, preferably a splash of oil, respectively, has an oil mist

PatBase - FR1243062_A



0) JP2006305261A – OIL STAIN PREVENTIVE LID EXCLUSIVE FOR IH COOKI...

185) Family number: 34008812 (JP2006305261A)

© PatBase

Title: OIL STAIN PREVENTIVE LID EXCLUSIVE FOR IH COOKING HEATER

Priority: JP20050158014 20050427

Family:	Publication number	Publication date	Application number	Application date
	<u>JP2006305261 A2</u>	20061109	JP20050158014	20050427

Probable Assignee: OBARA NAOYA

Assignee(s):^(std): OBARA NAOYA

Inventor(s):^(std): OBARA NAOYA

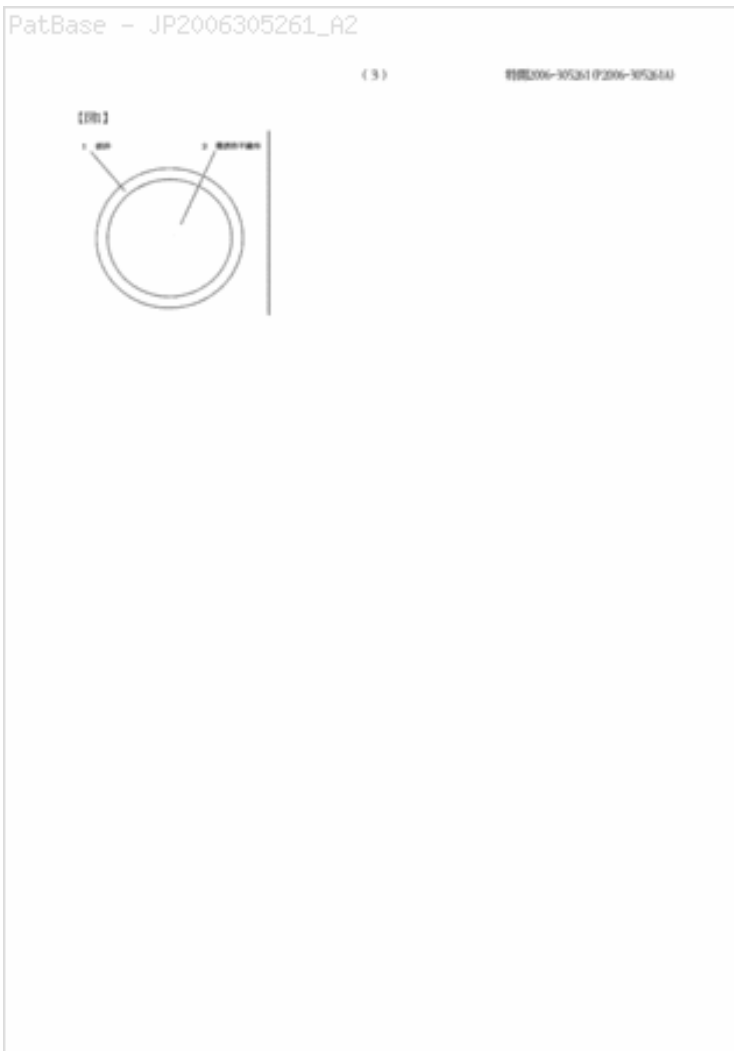
International class
^(IPC 8-9): A47J36/06 A47J36/16 A47J37/10 (Advanced/Invention);
A47J36/00 A47J37/10 (Core/Invention)

[Classification Explorer](#)

Forward Citations: JP2009148323, EP1921433,

Abstract:

Source: JP2006305261A PROBLEM TO BE SOLVED: To prevent oil stain by directly covering a frying pan with a lid, which is made of a flame-retardant non woven fabric and has a filter shape in order to minimize the stain in a kitchen or a burn due to the splashing of oil when frying is performed by an IH cooking heater. SOLUTION: The flame-retardant non woven fabric 2 is stuck onto a paper frame 1, thereby obtaining the lid capable of directly covering the frying pan.



186) Family number: 44156942 (JP2009275927A)

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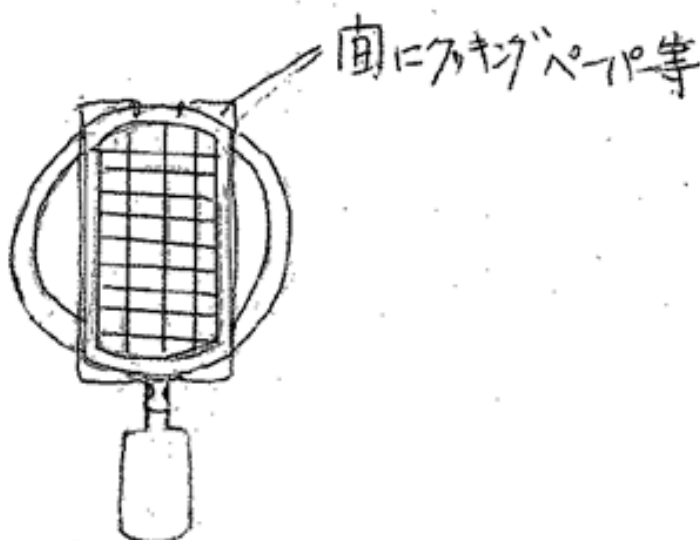
Title: OIL SMUDGE AND OIL SPLASH PREVENTING IMPLEMENT**Priority:** JP20080124726 20080512**Family:**

Publication number	Publication date	Application number	Application date
<u>JP2009275927 A2</u>	20091126	JP20080124726	20080512

Probable Assignee: SHIBAZAKI HIROMI**Assignee(s):**^(std): SHIBAZAKI HIROMI**Inventor(s):**^(std): SHIBAZAKI HIROMI**International class** F24C15/12 (Advanced/Invention);
(IPC 8-9): F24C15/12 (Core/Invention)[Classification Explorer](#)**Abstract:**

Source: JP2009275927A PROBLEM TO BE SOLVED: To solve problems wherein oil is scattered in deep-frying to soil the periphery and spattered to get burnt, but a lid cannot be put directly because heat is retained to cause a fire, and cooking was performed without using the lid also because the inside becomes invisible, and even if cooking is performed while covering a pan with cooking paper, it gets into an unhandled state in an instant. SOLUTION: A frame with non-slip unevenness with a plastic grip so as not to get hot is provided with meshes at an inner portion (and fitted with heat-resistant glass or the like as observation windows in part). A frame with unevenness provided only with a net part with meshes in an inner portion is placed on top of the above frame and joined in part, and cooking paper or the like found at home is inserted between the frames. The cooking paper or the like is replaced whenever it gets very dirty and can be thrown away as common trash. The unevenness of the frame is for preventing dislocation of the cooking paper or the like. The observation windows are fitted to both ends to keep balance. A lid is directly put on a pan for deep-frying and stir-frying cooking of such constitution.

PatBase - JP2009275927_A2



187) Family number: 57185833 (JP2014133073A)

© PatBase

Title: CRIMP PAPER ABSORBING OIL IN FRYING PAN**Priority:** JP20130014788 20130111

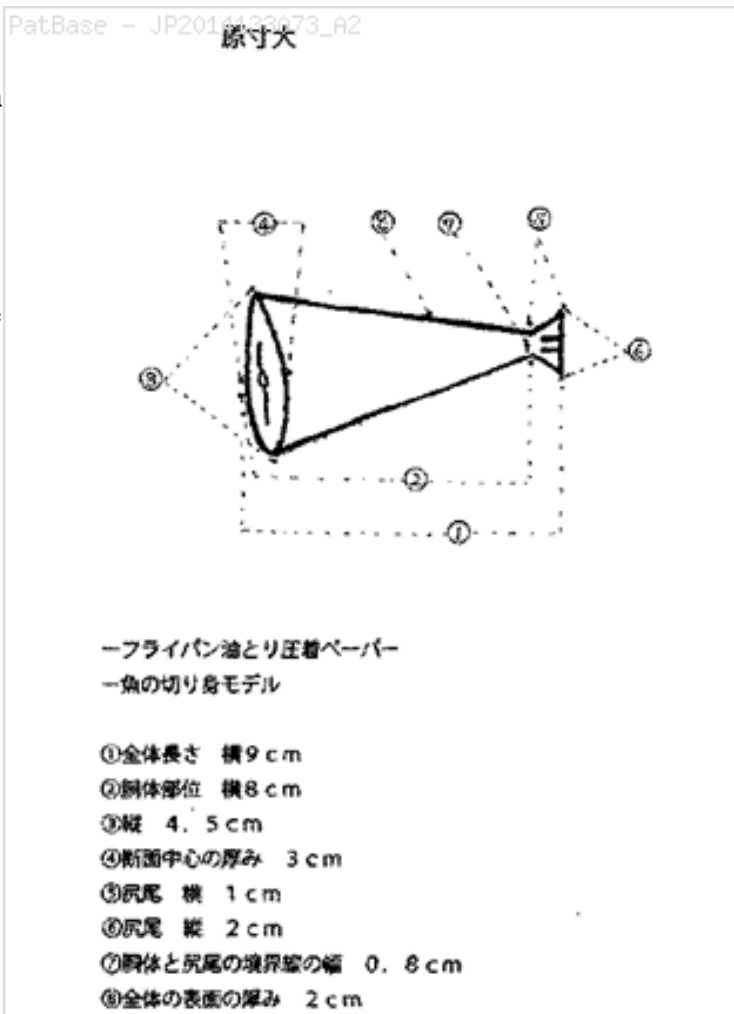
Family:	Publication number	Publication date	Application number	Application date
	JP2014133073 A2	20140724	JP20130014788	20130111

Probable Assignee: KOKUSAI SHOJI CO LTD**Assignee(s):**^(std): KOKUSAI SHOJI CO LTD**Inventor(s):**^(std): OSAWA MOTOKO

International class A47L13/16 (Advanced/Invention);
 (IPC 8-9): A47J36/16 A47J37/00 A47J37/10 (Advanced/Non-invention)

[Classification Explorer](#)**Cited documents:** JP9206271 A2, JP3173531 U, JP3050394 U, JP2010216060 A2,**Abstract:**

Source: JP2014133073A PROBLEM TO BE SOLVED: To solve a problem that fat of meat and fish splashes around during cooking with a frying pan, and to cook a healthy dish by absorbing fat moderately and lowering calorie. SOLUTION: Crimp paper absorbing oil in frying pan is made of a material of a cooking paper partial lid sold in market. When cooking meat or fish with a frying pan, unnecessary fat can be absorbed effectively and the fat in cooking can be controlled usefully by cooking the crimp paper absorbing oil with the foodstuff from the beginning.



188) Family number: 61120082 (CN303503949S)

© PatBase

Title: Oil splashing wok cover (Machine translation)

Priority: CN201530309634F 20150818

Family:	Publication number	Publication date	Application number	Application date
	<u>CN303503949 S</u>	20151216	CN201530309634F	20150818

Probable Assignee: XING HU DI

Assignee(s): XING HU DI

Locarno class: 07/02

Abstract:

Source: CN303503949S 1. This design product name: anti-oil splashing wok cover. 2. The product design Uses: This product design for anti-splash oil pan guard. 3. The design features a design product: the overall shape. 4. The best indicator of the design elements of the design pictures or photographs: a perspective view.



0) CN105595875A – TURNER WITH PROTECTING COVER

189) Family number: 62425234 (CN105595875A)

© PatBase

Title: TURNER WITH PROTECTING COVER

Priority: CN201410632111 20141112

Family:

Publication number	Publication date	Application number	Application date
<u>CN105595875 A</u>	20160525	CN201410632111	20141112

Probable Assignee: YICHENG NO 3 SENIOR HIGH SCHOOL

Assignee(s):^(std): YICHENG NO 3 SENIOR HIGH SCHOOL

Assignee(s): YICHENG NO3 SENIOR HIGH SCHOOL ; YICHENG THIRD HIGH SCHOOL

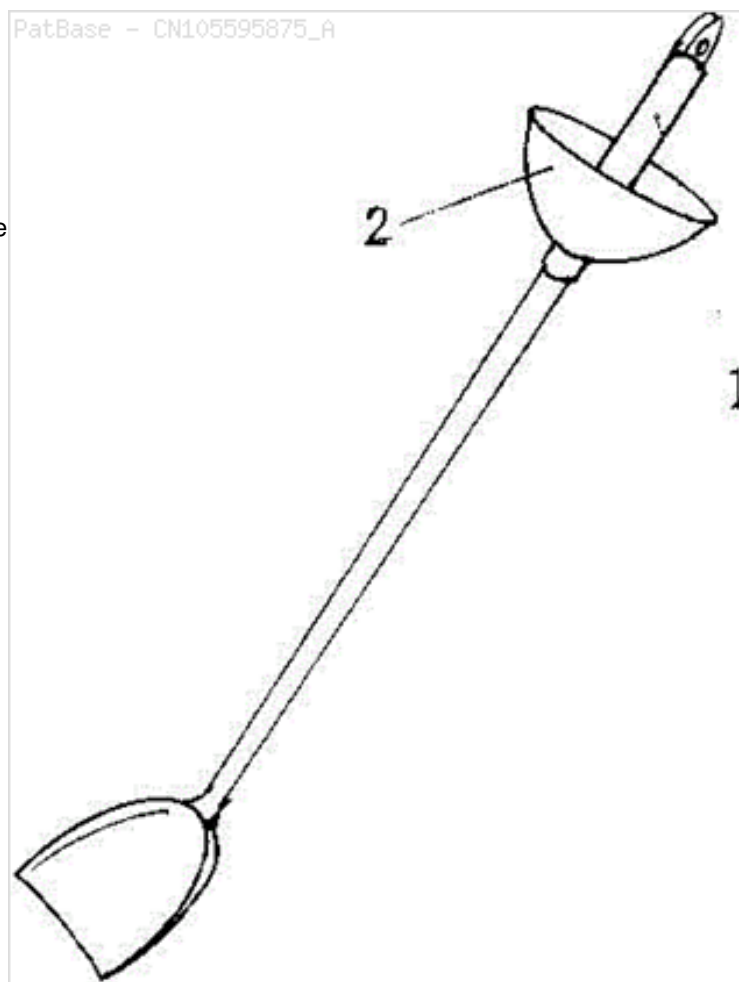
Inventor(s):^(std): ZENG HUIHUI

International class A47J43/28 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN105595875A The invention provides a turner with a protecting cover. The front end of a handle of the turner is provided with a protecting cover capable of sliding. When the turner is used, the protecting cover can prevent hot oil in a pan from splashing to the hand. The protecting cover can be adjusted up and down, so that the height of the protecting cover can be adjusted according to the requirements of different people to meet the requirements in practical operation.



190) Family number: 63452527 (KR200238402Y)

© PatBase

Title: Frying pan (Machine translation)**Priority:** KR20010007915U 20010322**Family:**

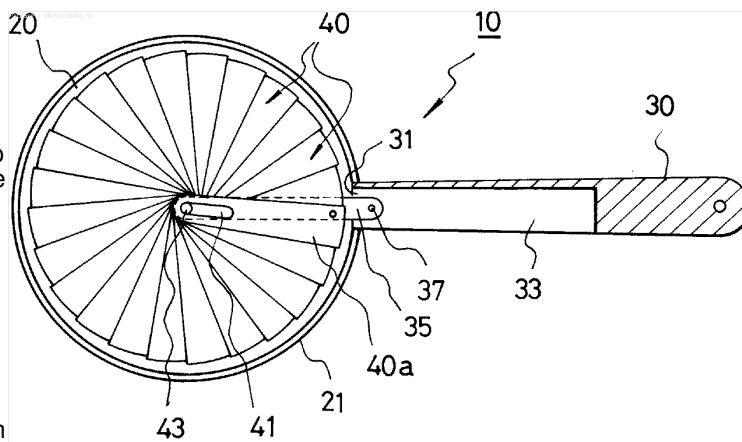
Publication number	Publication date	Application number	Application date
KR200238402 Y1	20011008	KR20010007915U	20010322

International class A47J37/10

(IPC 1-7):

Abstract:

Source: KR200238402Y This is designed, relates to a frying pan, and a receiving section for receiving the food, in the skillet handle is attached to one side of the receiving portion, the pans are; It attached to the receiving portion at one side and with the handle receiving groove is formed along the longitudinal direction with one end the opening shape; It is installed so as to be rotated by the pin in the inlet region of the receiving groove and the support to be folded is accommodated in the receiving groove; Stacked plurality by a pin at the leading end area of the support is provided to enable folding and deployment in accordance with the rotation characterized in that it comprises a cover plate that covers the upper portion of the receiving area. Thus, semi-permanent, and yet such as oil is used to cook the food can be improved the safety of the user due to the splashing oil according to block splashing to the outside, there is provided a frying pan to keep the cleanliness of the surrounding counter. Skillet, cover



0) GB286854A – IMPROVEMENTS IN WASHING BOILERS

191) Family number: 18446097 (GB286854A)

© PatBase

Title: Improvements in washing boilers

Priority: GB19270003776 19270210

Family:	Publication number	Publication date	Application number	Application date
	GB286854 A	19280315	GB19270003776	19270210

Probable Assignee: CYRIL DAVIES

Assignee(s):^(std): CYRIL DAVIES

International class
(IPC 8-9): [D06F1/08](#) (Advanced/Invention);
[D06F1/00](#) (Core/Invention)

International class
(IPC 1-7): [D06F1/08](#)

CPC: [D06F1/08](#)

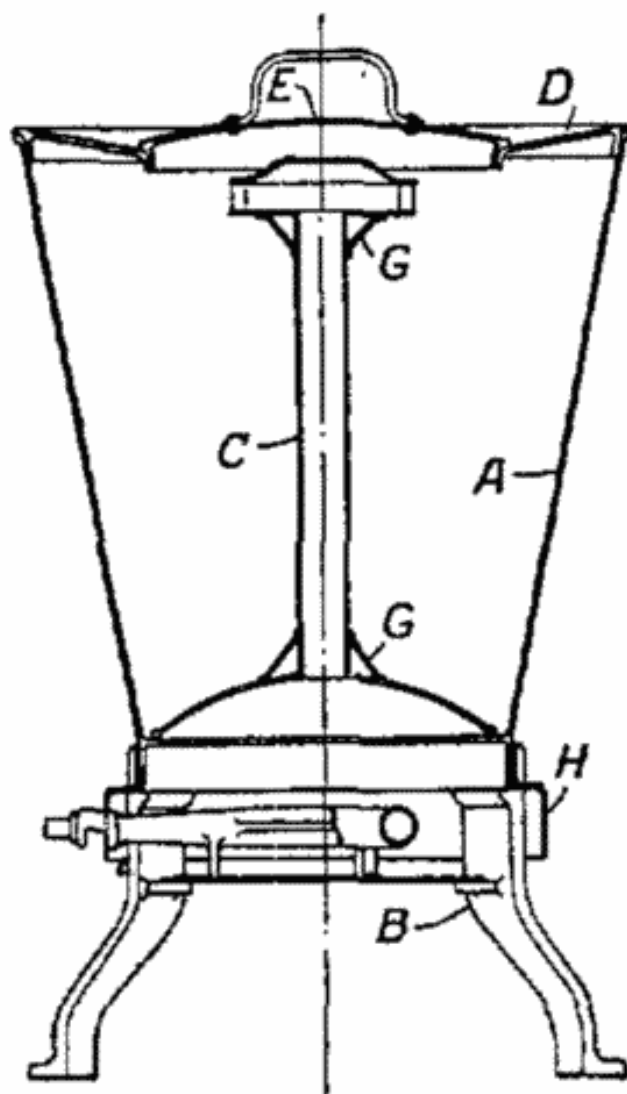
European class: [D06F1/08](#)

[Classification Explorer](#)

Abstract:

Source: GB286854A Washing boilers of the type in which the pan A is supported at the lower end by feet and c. B are provided with covers consisting of an outer ring D shaped to prevent spilling of the contents and a central lid E, removable or hinged to the ring D, which can be opened without disturbing a wringer and c. that can be mounted on the outer ring. A removable circulating device has strengthening cones G at the junction of the tube C with the bottom and top. A stepped flange H is attached to the bottom of the pan to act as a flame protector.

PatBase - GB286854_A



192) Family number: 30915464 (EP0318633A2)

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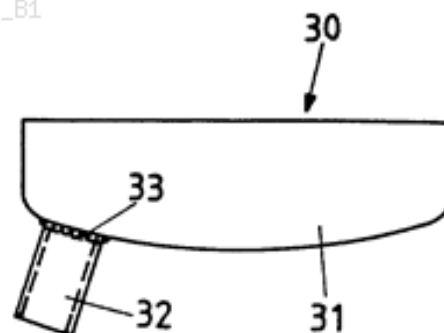
Title: REFUSE CONTAINER.**Priority:** DE19870015839U 19871130 EP19880106176 19880419 EP19880106176 19880419
EP19880106176 19880419 DE19883877158 19880419**Family:**

Publication number	Publication date	Application number	Application date
<u>AT84005 E</u>	19930115	AT19880106176T	19880419
<u>DE3877158 D1</u>	19930211	DE19883877158	19880419
<u>DE8715839 U1</u>	19881229	DE19870015839U	19871130
<u>EP0318633 A2</u>	19890607	EP19880106176	19880419
<u>EP0318633 A3</u>	19900516	EP19880106176	19880419
<u>EP0318633 B1</u>	19921230	EP19880106176	19880419
<u>ES2037126 T3</u>	19930616	ES19880106176T	19880419

Probable Assignee: KUEHMICHEL FA ALFRED**Assignee(s):^(std):** ALFRED KUEHMICHEL FA ; KUEHMICHEL ALFRED FA ; KUEHMICHEL FA ALFRED**Assignee(s):** FA ALFRED KUEHMICHEL 6295 MERENBERG DE ; FIRMA ALFRED KUEHMICHEL**Inventor(s):^(std):** KUEHMICHEL MANFRED**Inventor(s):** KUEHMICHEL MANFRED W 6295 ALLENDORF WEILBURG DE**Designated states:** AT BE CH DE ES FR GB IT LI NL SE**International class** B62B1/26 B62B5/00 B65F1/00 B65F1/14 B65F1/16 (Advanced/Invention);
(IPC 8-9): B62B1/00 B62B5/00 B65F1/00 B65F1/14 B65F1/16 (Core/Invention)**International class** B62B1/26 B65D43/16 B65D43/22 B65D8/02 B65D88/06 B65D90/62 B65F1/0 B65F1/16
(IPC 1-7):**CPC:** B62B5/0083 B62B2202/20 B65F1/1468 B65F1/16**European class:** B62B5/00S B65F1/00 B65F1/14G B65F1/16 L62B202/20[Classification Explorer](#)**Cited documents:** US2072813 A, GB501677 A, GB1033992 A, FR2547258 A1, DE8711309 U, DE2425458 A1,**Forward Citations:** US5515892, US5127523, EP0705774, DE3936099,**Abstract:**

Refuse container for receiving waste, consisting of a commercially available barrel (1), a barrel top (10, 20) and a rolling device (70). The barrel top contains a fastening ring (60) for making fast on the upper edge (3) of the barrel (1) and a hinged cover (20) to protect the barrel contents against rain and splashing. The rolling device (70) comprises hooks (71, 72) and an annular support (80) as well as rollers (88, 89) arranged thereon, so that the refuse container (1) can be moved in an inclined position.

PatBase - EP0318633_B1

Fig. 4

0) DD204524B – MECHANISIERTE VERSCHLUSSVORRICHTUNG FUER ARBEIT...

193) Family number: 15347574 (DD204524B)

© PatBase

Title: MECHANISIERTE VERSCHLUSSVORRICHTUNG FUER ARBEITSOEFFNUNGEN VON DRUCKBEHAELTERN

Priority: DD19820236790 19820115

Family:	Publication number	Publication date	Application number	Application date
	<u>DD204524 A1</u>	19831130	DD19820236790	19820115
	<u>DD204524 B1</u>	19870225	DD19820236790	19820115

Probable Assignee: EISEN UND HUETTENWERK THALE VE

Assignee(s):^(std): EISEN U HUETTENWERK THALE DD VEB ; EISEN U HUETTENWERK THALE VE ; EISEN U HUETTENWERKE THALE DD VEB ; EISEN UND HUETTENWERK THALE VE ; THALE EISEN HUETTENWERK

Assignee(s): VEB EISEN UND HUETTENWERK THALE DD ; VEB EISEN UND HUETTENWERKE THALE DD

Inventor(s):^(std): GAST DIETER ; GAST DIETER DD ; KOHLMANN GERHARD ; KOHLMANN GERHARD DD ; SPECKHALS GERHARD ; SPECKHALS GERHARD DD

International class
(IPC 8-9): F16J13/00 F16J13/02 (Advanced/Invention);
F16J13/00 (Core/Invention)

International class
(IPC 1-7): F16J13/00 F16J13/02

[Classification Explorer](#)

Forward Citations: WO9304307,

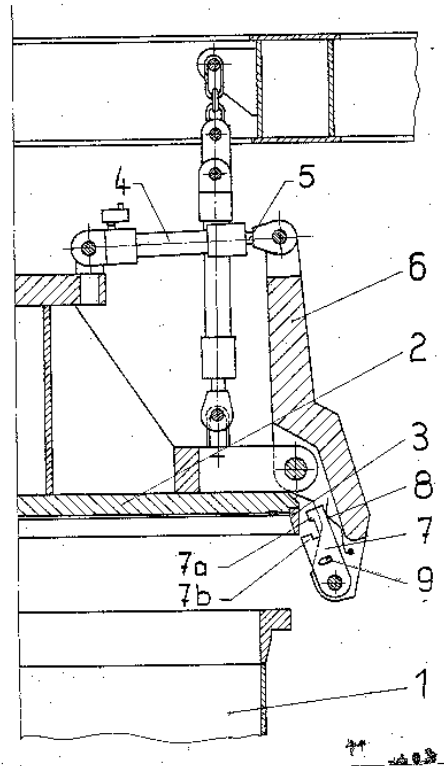
Abstract:

Source: DD204524A [Source: Claim 1] 1. Mechanisierte Verschlussvorrichtung fuer Arbeits- oeffnungen von Druckhehaeltern, dadurch gekenn- | zeichnet, dass eine Anzahl von Hebeln (6) am Um- fang des Deckels (2) angeordnet sind, die ueber mit Druckoel beaufschlagte Hydraulikzylinder (4) betaetigt werden und in denen im unteren Teil ge- lenkig Spannklaunen (7) gelagert sind, die durch eine Feder (8) und einen Bolzen (9) in einem Langloch zwangsgefuehrt werden. 2. Mechanisierte Verschlussvorrichtung nach Punkt 1, dadurch gekennzeichnet, dass die Spannklaunen (7) beim Einschwenken der Spannhebel (6) unter den Plansch des Druckbehalters (1) gefuehrt werden und sich dabei mit ihrer Hase (7a) gegen den aeusseren Umfang des am Deckel (2) angeordneten Ringes (3) legen, wodurch die Spannklaunen (7) den Deckel (2) mit dem Plansch des Druckbehalters (1) verspannen. HierzaJL-Seiten Zeichnungen [Source: claim 1] 1st mechanized locking device for working apertures of Druckhehaeltern, this tagged | draws, that a number of levers (6) on the re start the cover (2) are arranged, which are operated by acting with pressure oil hydraulic cylinder (4) and where in the lower part, steering side clamps (7) stored by a spring (8) and a bolt (9), be captive in a long hole. 2. Mechanized locking device for point 1, characterised by the fact that paddling the clamps (7) when swivelling the lever (6) among the run of pressure vessel (1) and this with their Bunny (7a) to the outer perimeter of the ring on the lid (2) (3) lie, which the clamps (7) the lid (2). with the splash of the pressure vessel (1) tense. HierzaJL pages drawings

PatBase - DD204524_B1

Fig. 1

236790 6



0) KR20090009067A – COOKING COVER

194) Family number: 43066428 (KR20090009067A)

© PatBase

Title: COOKING COVER

Priority: KR20070073213 20070719

Family:	Publication number	Publication date	Application number	Application date
	<u>KR20090009067 A</u>	20090122	KR20070073213	20070719

Probable Assignee: JANG HO SANG

Assignee(s):^(std): JANG HO SANG

Inventor(s):^(std): JANG HO SANG

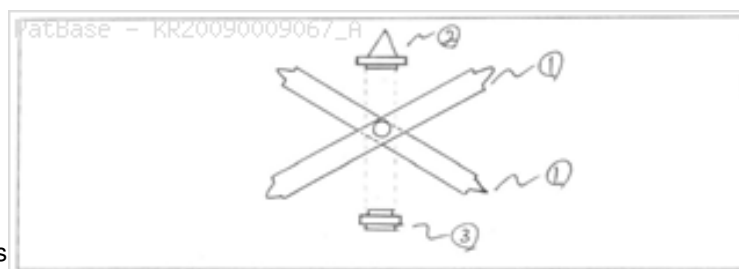
International class
(IPC 8-9): A47J36/06 (Advanced/Invention);
A47J36/06 (Advanced/Non-invention);
A47J36/00 (Core/Invention)

CPC: A47J37/101 A47J36/06

[Classification Explorer](#)

Abstract:

Source: KR20090009067A A cooking cover is provided to improve the safety and wholesomeness of cooking by blocking splashed oil in the procedure of frying food. A cooking cover includes a supporting plate(1) for keeping the shape of a pan cover sheet formed of paper or fabric continuously and a handle part for opening or closing the cover sheet easily. Two of such the supporting plates are rotatively coupled with each other by button elements(2,3) which are fixed thereto in the center. The supporting plates have superior bending and restoring characteristics.



0) WO11157923A2 – DEVICE FOR PROTECTING THE EXPOSED FACE OF ACCES...

195) Family number: 50142886 (WO11157923A2)

© PatBase

Title: DEVICE FOR PROTECTING THE EXPOSED FACE OF ACCESSORIES IN A MOTOR VEHICLE FITTED WITH AN ALTERNATOR-STARTER-TYPE "STOP AND START" SYSTEM

Priority: FR20100054677 20100614 WO2011FR51282 20110607

Family:	Publication number	Publication date	Application number	Application date
	EP2580445 A2	20130417	EP20110795247	20110607
	FR2961357 A1	20111216	FR20100054677	20100614
	FR2961357 B1	20130726	FR20100054677	20100614
	WO11157923 A2	20111222	WO2011FR51282	20110607
	WO11157923 A3	20120412	WO2011FR51282	20110607

Probable Assignee: PEUGEOT CITROEN AUTOMOBILES SA

Assignee(s):^(std) PEUGEOT CITROEN AUTOMOBILES SA ; PITAUD BERNARD

Inventor(s):^(std) PITAUD BERNARD

Inventor(s): BERNARD PITAUD

Agent(s): LAURIN GHISLAIN NICOLAS; PEUGEOT CITROEN AUTOMOBILES SA; LAURIN GHISLAIN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

International class
(IPC 8-9): [F02B67/06](#) [F02B77/00](#) [F16H7/24](#) [H02K5/10](#) (Advanced/Invention)

CPC: [F02F7/0073](#) [F16H7/02](#)

European class: [F02F7/00E3](#) [R16H7/02](#)

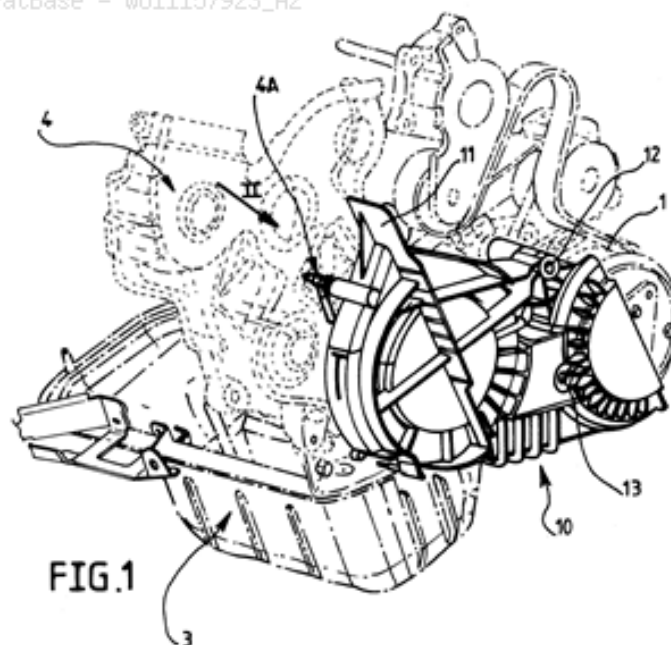
[Classification Explorer](#)

Cited documents: US6178939 BA, JP2007198138 A2, FR2895361 A3, FR1054677 A,

Abstract:

The protective device consists of a protective casing (10) mounted, via a positioning and fixing means, on a support secured to the body shell of the vehicle. This protective casing (10) limits the amount of water or chippings splashed onto or thrown up against various accessories such as the alternator-starter belt (1), the belt tensioners and the alternator, compressor and crankshaft pulleys. Motor vehicles fitted with an alternator-starter-type "stop and start" function.

PatBase - W011157923_A2



196) Family number: 60154040 (JP1526540S)

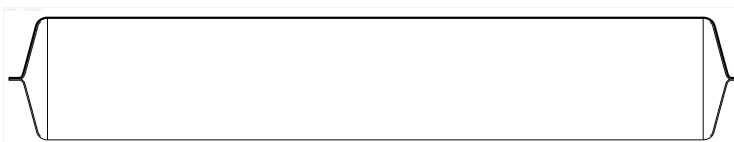
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Title: Packaging bag (Machine translation)**Priority:** JP20140021965F 20141002

Family:	Publication number	Publication date	Application number	Application date
	<u>JP1526540 S</u>	20150615	JP20140021965F	20141002

Probable Assignee: AST INC**Assignee(s):** AST INC**Locarno class:** 09/05**Abstract:**

Source: JP1526540S Containing pulp fibers called wax paper, paper, paper towels or tissue paper this article is non-woven fabric or wrapping paper—?ita paper bags for packaging in. When cooking ingredients such as meat, fish and vegetables in the kitchen or kitchen Dish drainer, and hand cloth wipe the hand can be used as a substitute for oil, lid, chopping block overlay, overlay the tray, etc., wiping of dishes during the cleaning of the kitchen and kitchen equipment, can be used as a dining table, microwave, exhaust fan cleaning stains wipe, wipe the oil in the frying pan, etc., wet kitchen, kitchen and toilet is in fact may be used, and its function is used in many applications, but also for various uses, be used. This paper, from the secular customs over paper, or because of the emphasis on ease of carved upon getting out of one 2?? paper take up with the discharge mouth out face. But burnt atmosphere of the location of smoke and FRY oil! was omitted would stain the paper, suspended, reveal the surface directly takes the water splashed on paper has exposed you to splash water from a faucet or the smoke or oil adheres to the paper surface. Therefore, shown in the fold of paper folded to fit this article contents guide front view with displacement of two folded and given sheets of paper to align the upper and lower part, is stacked. And perforation associated with displacement of packing bags, appearing on the front view to trying to take out. Also open the perforated paper stored in packaging bag, so less affected by external atmosphere stains easily. Not to bare onto paper removal can accurately extracting piece by piece to be [helpful perspective view fig. 2]: paper bags for packaging. This paper is kept clean because hygiene in. You can further enhance the cleanliness and bags for packaging put keep down top with perforated outlet, the outlet is closed.If you omit for symmetrically to the right side of the picture appears on the left side.



197) Family number: 65017479 (CN106419528A)

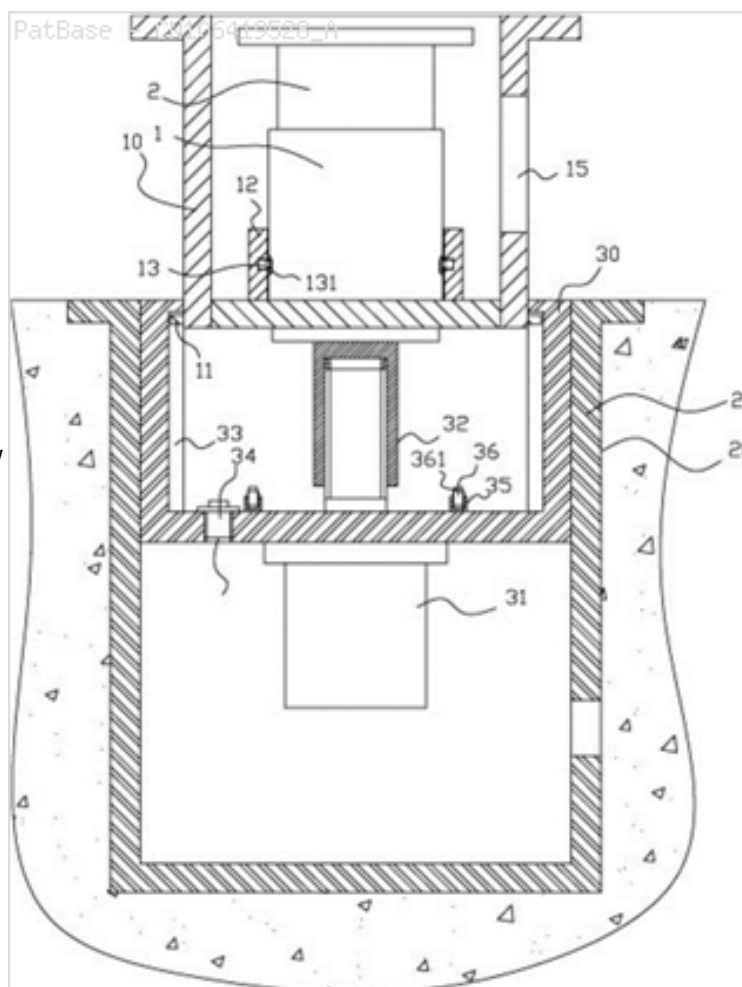
© PatBase

Title: A pan with automatic telescopic protection mechanism (Machine translation)**Priority:** CN201611012320 20161117**Family:**

Publication number	Publication date	Application number	Application date
<u>CN106419528 A</u>	20170222	CN201611012320	20161117

Probable Assignee: FOSHAN SERENE WISDOM TECHNOLOGY CO LTD**Assignee(s):** FOSHAN SERENE WISDOM TECHNOLOGY CO LTD**International class** A47J27/14 A47J36/34 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN106419528A This invention public has a pot with automatically telescopic protection institutions, including coat tube, by said outside sleeve of floor of top surface has burning furnace, burning furnace Shang placed has pot, ground Shang has installation pass slot, installation cover body plug sets in installation pass slot in the, installation cover body of outside side wall fixed in installation pass slot of inside wall Shang, within Sleeve Plug sets in installation cover body in the, within sleeve of outside side wall fixed in installation cover body of inside wall Shang, within sleeve of floor of end of surface fixed has drive motor, Drive motor output shaft upward out of the sleeve and screw the roof lifting screw, fixed at the top of the lifting screw on the underside of the outer sleeve, jacket tube socket in the lower part of the inner sleeve, sleeve has limited vertical grooves on the inside of the wall. It will burn furnace and boiler is in the outer sleeve, can be used to automatically upgrade, which can prevent water splashes when you put food in the Pan liquid or oil man, has a protective effect.



198) Family number: 8740286 (US4582118A)

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Title: DIRECT CHILL CASTING UNDER PROTECTIVE ATMOSPHERE

Priority: AU19860052462 19860117 CA19840466580 19841030 JP19860016969 19860130
 US19840658652 19841009 EP19860100510 19860116 US19830550466 19831110
 US19860850488 19860411 US19860941810 19861215 US19870138392 19871228
 US19840658653 19841009

Family:

Publication number	Publication date	Application number	Application date
<u>AU198434887 A1</u>	19850516	AU19840034887	19841101
<u>AU198652462 A1</u>	19870723	AU19860052462	19860117
<u>AU569337 B2</u>	19880128	AU19840034887	19841101
<u>AU575237 B2</u>	19880721	AU19860052462	19860117
<u>CA1225816 A1</u>	19870825	CA19840466580	19841030
<u>DE3472638 D1</u>	19880818	DE19843472638	19841109
<u>EP0142341 A1</u>	19850522	EP19840307741	19841109
<u>EP0142341 B1</u>	19880713	EP19840307741	19841109
<u>EP0229211 A1</u>	19870722	EP19860100510	19860116
JP1782205 C3	19930813	JP19840235319	19841109
<u>JP4069019 B4</u>	19921105	JP19840235319	19841109
<u>JP60127059 A2</u>	19850706	JP19840235319	19841109
<u>JP62176642 A2</u>	19870803	JP19860016969	19860130
<u>US4582118 A</u>	19860415	US19840658653	19841009
<u>US4593745 A</u>	19860610	US19840658652	19841009
<u>US4610295 A</u>	19860909	US19830550466	19831110
<u>US4709740 A</u>	19871201	US19860850488	19860411
<u>US4724887 A</u>	19880216	US19860941810	19861215
<u>US4882831 A</u>	19891128	US19870138392	19871228

Probable Assignee: ALCOA INC

Assignee(s):^(std): ALUMINUM CO OF AMERICA ; ALUMINUM CO OF AMERICA ALCOA

Assignee(s): ALUMINUM COMPANY OF AMERICA ; ALUMINUM CO OF AMERICA A CORP OF PA ; RAMSER ROBERT A ; JACOBY JOHN E ; YU HO ; ALCOA INC ; ALUMINIUM CO OF AMERICA ; ALUMINUM CO

Inventor(s):^(std): HOO YUU ; JACOBY JOHN E ; JACOBY JOHN ELWOOD ; JIYON ERUUTSUDO JIYAKOBI ; JIYON ERUUTSUDO JIYAKOBI ; RAMSER ROBERT A ; RAMSER ROBERT ALLEN ; ROBAATO AREN RAMUZAA ; YU HO

Inventor(s): HO YU ; ROBERT ALLEN RAMSER ; JOHN ELWOOD JACOBY ; JON ERUTSUDO JAKOBI

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR

Designated states: DE FR GB IT

International class
 (IPC 8-9): B22D11/00 B22D11/04 B22D11/041 B22D11/049 B22D11/124 C09K21/08 C22C1/02 C22F1/00 C22F1/04 (Advanced/Invention);
B22D11/00 B22D11/04 B22D11/041 B22D11/049 C22C1/02 C22F1/00 (Advanced/Non-invention);
B22D11/00 B22D11/04 B22D11/041 B22D11/049 B22D11/124 C09K21/00 C22C1/02 C22F1/00 (Core/Invention)

International class
 (IPC 1-7): B22D11/00 B22D11/04 B22D11/07 B22D11/124 B22D21/04 B22D27/04 B22D27/18 B23P17/00 C09K21/08 C22C1/02 C22F1/04

CPC: B22D11/04 Y10T29/49988 B22D11/124 B22D11/1245 C22F1/002

European class: B22D11/04 B22D11/124 B22D11/124M C22F1/00B

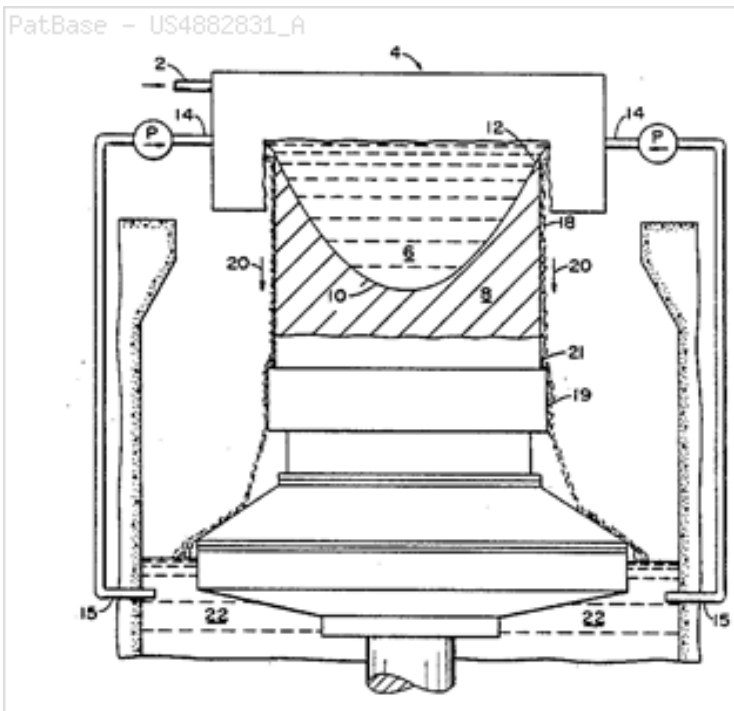
US class: 164/128 164/444 164/472 164/475 164/485 164/487 164/5 29/527.5

Cited documents: US4724887 A, US4473106 A, US4243439 A, US4157728 A, US4000625 A, US3976119 A, US3600239 A, US3381741 A, US2915390 A, US2515284 A, US2301027 A, JP58093548 A2, JP58093547 A2, FR2477923 A1, EP0142341 A1, EP0080433 A1, EP0038319 A1, DE891725 A, DE3146684 C1, DE3146683 C1,

Forward Citations: WO9720962, WO14166683, WO14121297, WO14121295, WO13173655, WO13173651, WO13173651, WO13173649, WO13173649, WO11151162, WO10094852, US9566643, US8479802, US8365808, US8302657, US8066053, US7331374, US7267158, US7216691, US7165600, US7147031, US7147031, US7121318, US7121318, US6675870, US6622774, US6543122, US6491087, US6039850, US5830336, US5490886, US5415220, US5167918, US4969959, US4930566, US4882831, US4770697, US4699200, US2012160020, US2011209843, US2010212855, US2008000609, US2005178521, US2005000677, US2004108088, US2004050524, US2004045698, US2003234092, US2003178172, US2002147494, JP9150248, JP3197806, JP2015516307, JP2007523745, FR2942479, EP3117931, EP2878399, EP2789706, EP2664398, EP2664397, EP2664397, EP0865513, EP0707081, EP0337769, EP0229211, EP0229211, CN104520030, CN104470654, CN102325611,

Abstract:

Source: US4582118A A method for continuously casting lithium-containing alloys by a direct chill process includes cooling the alloy to form a continuous ingot having a solid shell, further cooling the ingot by direct chill with an organic coolant, and inhibiting fire by covering the coolant with fire retardant atmosphere.



0) US5246024A – CLEANING DEVICE WITH A COMBUSTIBLE SOLVENT

199) Family number: 11290972 (US5246024A)

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Title: Cleaning device with a combustible solvent

Priority: JP19890242710 19890919 JP19890268765 19891016 US19920849804 19920311
US19900584529 19900918

Family:

Publication number	Publication date	Application number	Application date
JP1831606 C3	19940329	JP19890242710	19890919
JP1837394 C3	19940411	JP19890268765	19891016
<u>JP3106484 A2</u>	19910507	JP19890242710	19890919
<u>JP3131374 A2</u>	19910604	JP19890268765	19891016
<u>JP5043434 B4</u>	19930701	JP19890242710	19890919
<u>JP5049356 B4</u>	19930726	JP19890268765	19891016
<u>KR930009198 B1</u>	19930924	KR19900008270	19900605
<u>US5246024 A</u>	19930921	US19920849804	19920311

Probable Assignee: JAPAN FIELD KK

Assignee(s):^(std): JAPAN FIELD KK

Assignee(s): JAPAN FUIRUDO KK ; JAPAN FIELD CO LTD ; JAPAN FIELD COMPANY LTD

Inventor(s):^(std): UCHINO MASAhide

International class B08B3/02 B08B3/08 B08B3/10 C23G5/02 C23G5/04 H05K3/26 (Advanced/Invention);
(IPC 8-9); B08B3/08 (Core/Invention)

International class B08B3/02 B08B3/08 C23G5/02 C23G5/04 H05K3/26
(IPC 1-7);

CPC: B08B3/022 B08B3/10 C23G5/04 H05K3/26 H05K2201/012 H05K2203/075
H05K2203/0783 H05K2203/1509

European class: B08B3/02B B08B3/10 C23G5/04 H05K3/26 T05K201/01A4 T05K203/07B4
T05K203/07D1 T05K203/15A

US class: 134/105 134/114 134/122R 134/64.00R 134/64R

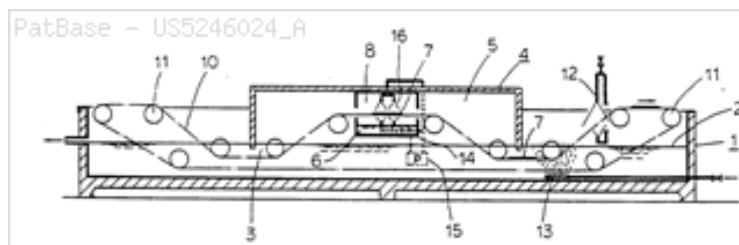
[Classification Explorer](#)

Cited documents: US5045120 A, US4596634 A, US4326556 A, US4184892 A, US3824917 A, US3656492 A, US3595254 A, US3552404 A, US3491779 A, US3058327 A, US3021235 A, US2923648 A, US2374535 A, US2273939 A,

Forward Citations: US8539967, US6530385, US5932025, US5378307, US2014332035, US2008276974, US2003145878, JP5267266, JP3335190, JP2007109761, DE10103359, DE10103359,

Abstract:

Source: US5246024A A cleaning device having a storing tank storing noncombustible or incombustible liquid, a covering member being formed by placing a lower end opening in the stored liquid in the storing tank, the combustible solvent and the cleaned object being brought into contact with the covering chamber of a spacing formed by the covering member and the stored liquid to constitute the cleaning part for performing the cleaning operation.



Title: Improvements in or relating to furnaces**Priority:** GB19560017734 19531028

Family:	Publication number	Publication date	Application number	Application date
	<u>GB775546 A</u>	19570529	GB19560017734	19531028

Probable Assignee: JOHN FREDERICK CROFTS**Assignee(s):^(std):** JOHN FREDERICK CROFTS

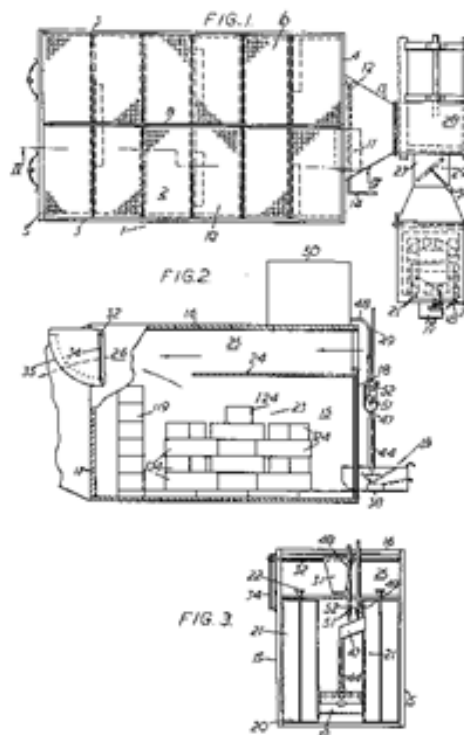
International class F26B21/00 (Advanced/Invention);
 (IPC 8-9); F26B21/00 (Core/Invention)

International class F26B9/00
 (IPC 1-7);

CPC: F26B21/00 F26B21/001**European class:** F26B21/00 F26B21/00B[Classification Explorer](#)**Abstract:**

Source: GB775546A 775,546. Liquid fuel burners. CROFTS, J. F. Oct. 28, 1954 [Oct. 28, 1953], No. 17734/56. Divided out of 775,545 [Group XIII]. Class 75(1) [Also in Groups XII and XIII] A burner for a furnace for producing a mixture of hot combustion gases and air (see Group XIII), comprises a chamber of rectangular cross-section containing a V-shaped perforated plate 43 carrying a curved splash plate 45 on to which a mixture of fuel oil and water, is, dropped from a pipe 44 after the plates 43, 45 have been initially heated by burning a highly inflammable substance in a pan 46. The latter is introduced through a front opening closed by a slide 41b which has air inlet holes. Fuel oil and water flow from separate pipes into an inclined trough feeding the pipe 44.

PatBase - GB775546_A



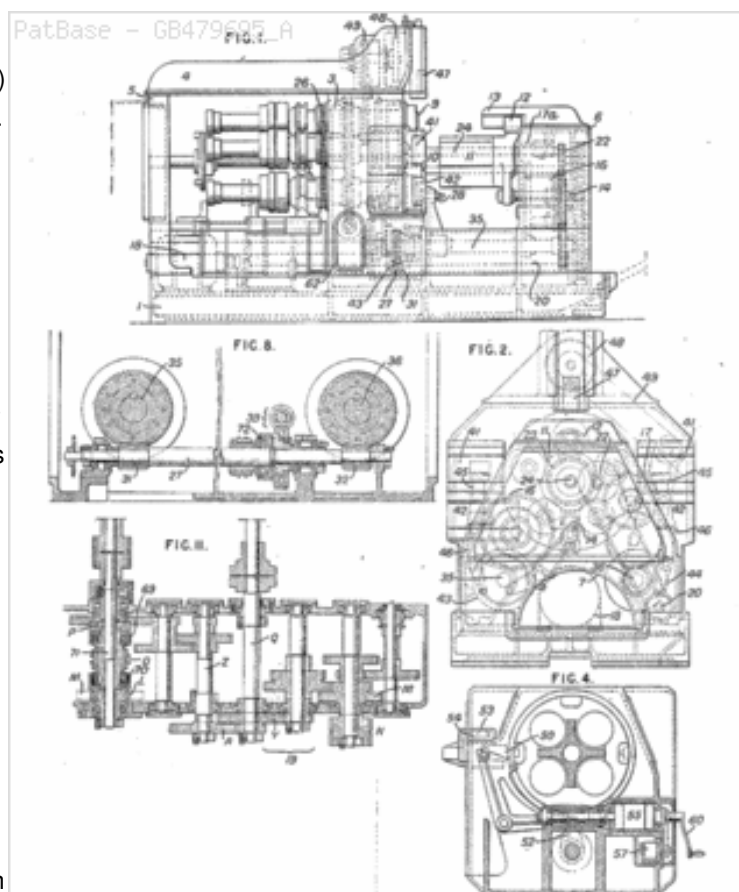
Title: Improvements in metal cutting machines**Priority:** GB19360026566 19360930

Family:	Publication number	Publication date	Application number	Application date
	GB479695 A	19380210	GB19360026566	19360930

Probable Assignee: NAT ACME CO**Assignee(s):^(std):** NAT ACME CO**Assignee(s):** THE NATIONAL ACME COMPANY**International class** B23B9/02 (Advanced/Invention)
(IPC 8-9):**CPC:** B23B9/02**European class:** B23B9/02[Classification Explorer](#)**Abstract:**

Source: GB479695A 479,695. Lathes. FAIRWEATHER, H. G. C. (National Acme Co.) Sept. 30, 1936, No. 26566. [Class 83 (iii).] An automatic multi-spindle lathe comprises a pair of spaced housings forming an open top machine with a reciprocating tool carrier located between the housings, one of the housings supporting an electrically indexed work turret, the cam shafts being located below the work turret and being driven by a power unit located behind the work turret. A central column 3 extending from the panbed 1 supports the spindle-carrier and is connected by a bracket 4 to the stock reel 5. The forward end of the bed carries a column 6 serving as a cam drum housing, leaving an open frame between the columns for the reception of chips which are removed through an opening 7. A chip shoot may be aligned with the sloping bottom of the bed and may serve as a guard for the opening 7. Two cam shafts 35, 36 one on each side of the machine are mounted between the housings 3, 6. The work turret carries five spindles 9 adapted to carry 5-inch bar stock and is integrally secured to a central stem 10 supported in the housing 6. The central sliding tool carrier 11 moves on the stem 10 and is guided at 12 on an extension 13 from the housing 6. The slide is operated by a rod 14 and cam drum 16. Another cam drum 17 located within the housing 6, is driven from the cam shaft 36 and controls tool spindles 17a, for boring, turning, reaming, and c., these spindles being supported on the main tool slide but operated independently thereof

so that if the main slide travels one inch to start an operation the spindles 17a may travel two or three times this distance to finish the piece. The motor 18 drives a gear box 19, Fig. 11, from which a shaft 20 extends into the housing 6 where it is connected by a chain to a gear 22 engaging a central gear 23 on a shaft 24, extending into the work turret and driving the gears 26 on the work spindles. An oscillating stock stop 28, Fig. 1, is operated from the cam shaft 35. A shaft 71 of the gear box is connected through worm gearing 39 to a shaft 27 which extends across the machine and drives through worm gearing 31, 32 the cam shafts 35, 36. A clutch 72 enables hand control of the slides for setting to be performed. Two cross slides 41, 42 are arranged at each side of the machine and are operated from cam discs 43, 44 by rack segment levers 45, 46. A top slide 47 for forming cutting-off, knurling, and c., is operated by a cam disc 48 driven through chain gearing 49 from the cam shaft 36. The turret indexing mechanism is electrically actuated and comprises a spring pressed locking bolt 50 operated by a cam



52, Fig: 4, acting through a lever arm. When the bolt leaves its seating it operates a switch 53 to start the motor 55 which then rotates the turret until the index bolt drops into the next notch and switches off the current. A governor 57 stops the motor within half a revolution thus allowing the bolt to seat firmly. A spring cushions the worm to prevent strain when the bolt engages its seating. The turret may be turned by hand through the crank 60. For this purpose the cover plate 62 must be removed and thus a switch in the electrical circuit which is normally kept closed by the cover plate, is opened to prevent electrical operation during the hand adjustment. Another safety mechanism is provided by inter-connected levers which control a clutch in the cam shaft drive and are arranged to operate a switch to cut off current from the indexing mechanism. The gear M, Fig. 11, on a shaft driven from the motor through chain sprockets N, engages a wheel L on shaft 71 and when clutch 70 is engaged a high speed is imparted to shaft 27 to return the tool slide and operate the indexing and stock feed mechanism. When the sleeve O is changed over to the braking clutch 69 the shaft 71 is slowed until a roller clutch P engages for the positive low speed drive derived from gear box shaft Q through change gears A and shaft Z. The shaft Q of the gear box drives the spindles through the shaft 20 as above described and is driven through change gears Y. The machine is lubricated throughout by an oil splash system. Specifications 410,135 and 479,744 are referred to.

Title: Starter for starting an engine**Priority:** JP19940222324 19940919 JP19950239883 19950919

Family:	Publication number	Publication date	Application number	Application date
	AU199512399 A1	19960426	AU19950012399	19950221
	AU680582 B2	19970731	AU19950012399	19950221
	CN1066244 C	20010523	CN19951006684	19950523
	CN1119247 A	19960327	CN19951006684	19950523
	DE69509026 D1	19990520	DE19956009026	19950214
	DE69509026 T2	19991209	DE19956009026T	19950214
	EP0702145 A1	19960320	EP19950102019	19950214
	EP0702145 B1	19990414	EP19950102019	19950214
	ES2129684 T3	19990616	ES19950102019T	19950214
	JP3508324 B2	20040322	JP19950239883	19950919
	JP8144903 A2	19960604	JP19950239883	19950919
	KR0147753 B1	19980817	KR19950009823	19950425
	KR19960011122 A	19960420	KR19950009823	19950425
	US5610466 A	19970311	US19950390531	19950216

Probable Assignee: NIPPONDENSO CO LTD**Assignee(s):^(std):** NIPPON DENSO CO ; DENSO CORP**Assignee(s):** DENSO CORP KARIYA ; DENSO CORP KARIYA AICHI JP ; NIPPONDENSO CO LTD ; NIPPON DENSO KK ; NIPPON DENSO CO LTD ; NIPPONDENSO CO**Inventor(s):^(std):** HAYASHI NOBUYUKI ; NIIMI MASAMI ; OMI MASANORI ; OOMI MASANORI ; SHIGA TSUTOMU ; OHMI MASANORI ; SIGA TSUTOMU**Inventor(s):** TSUTOMU SHIGA ; OHMI MASANORI ANJYO CITY AICHI PREF 446 JP ; SHIGA TSUTOMU NUKATA GUN AICHI PREF 444 01 JP ; NIIMI MASAMI HANDA CITY AICHI PREF 475 JP ; NOBUYUKI HAYASHI ; HAYASHI NOBUYUKI NAGOYA CITY AICHI PREF 460 JP ; MASAMI NIIMI ; MASANORI OHMI**Agent(s):** GRIFFITH HACK**Designated states:** DE ES FR GB IT

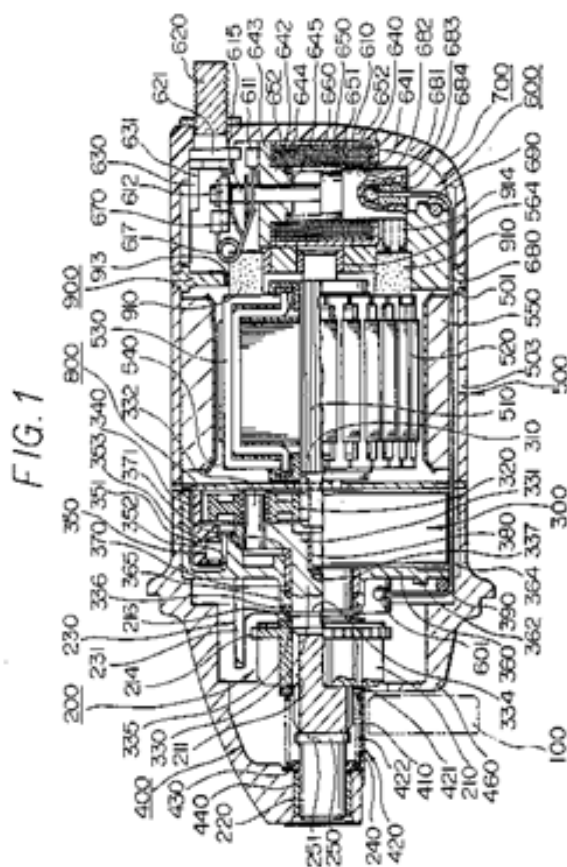
International class [F02N11/00 H02K13/00 H02K7/10](#) (Advanced/Invention);
^{(IPC 8-9):} [F02N11/00](#) (Advanced/Non-invention);
[F02N11/00 H02K13/00 H02K7/10](#) (Core/Invention)

International class [F02N11/00 H02K13/00 H02K5/14 H02K7/10](#)
^{(IPC 1-7):}

CPC: [F02N11/00](#)**European class:** [F02N11/00](#)**US class:** [290/38A 290/38R 310/233 310/239 310/245 310/247 310/68B 310/75R](#)[Classification Explorer](#)**Cited documents:** US5065039 A, US5019739 A, US4978984 A, US4868442 A, US4559465 A, US4406963 A, JP63071474 A2, FR2203202 A1, EP0277566 A1,**Forward Citations:** US9062646, US7893593, US7847467, US7608956, US5898229, US5895995, US2013167686, US2010001614, US2010001613, US2006267446, US2005168100,

Source: US5610466A A starter which optimally maintains the characteristics of a spring which presses a brush and reduces its axial direction length. A compressed coil spring is arranged around an outer circumference of a plunger of a magnet switch and the length of the spring can be set as long as the radial direction length of the magnet switch. The spring effectively uses the space around the outer circumference of the magnet switch, so the axial direction length of the spring need not be added to the axial direction length of the starter.

5,610,466



203) Family number: 42738918 (CN201155810Y)

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Title: Negative oxygen ion jet type flow guiding cover for fume exhauster**Priority:** CN200720016492U 20071207

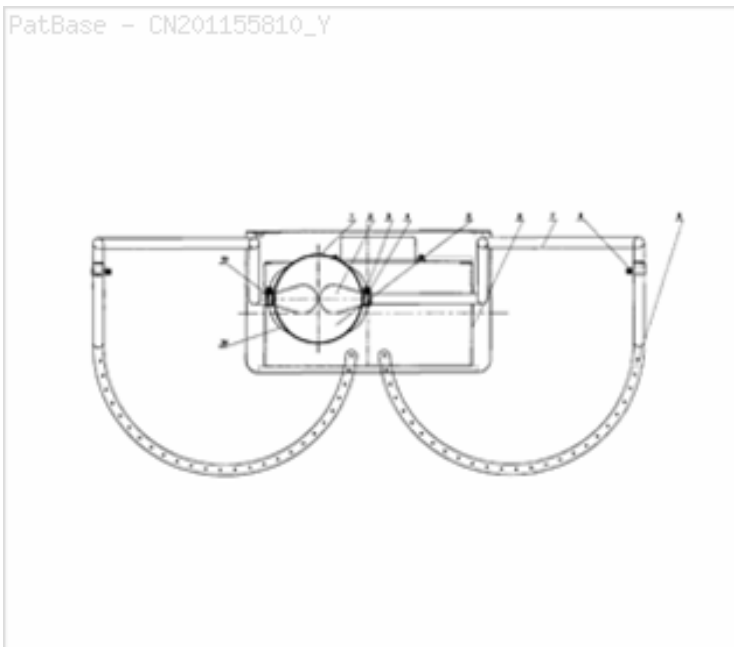
Family:	Publication number	Publication date	Application number	Application date
	<u>CN201155810 Y</u>	20081126	CN200720016492U	20071207

Probable Assignee: YUNLIANG WU**Assignee(s):^(std):** YUNLIANG WU**Assignee(s):** WU YUNLIANG**Inventor(s):^(std):** CHANGAN GAO ; LING GAO ; MINGDI WU ; XIAOMING QI ; XINGWANG LI ; YONGBANG YU ; GUANGJIE GAO ; JIAN GAO ; YUNLIANG WU ; ZHIYANG ZHAO**Inventor(s):** ZHAO ZHIYANG ; LI XINGWANG ; YU YONGBANG ; QI XIAOMING ; WU MINGDI ; WU YUNLIANG ; GAO CHANGAN ; GAO GUANGJIE ; GAO JIAN ; GAO LING

International class A61L2/14 F24C15/20 (Advanced/Invention);
 (IPC 8-9): A61L2/02 F24C15/20 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN102644954, CN102644954,**Abstract:**

Source: CN201155810Y The utility model relates to a negative oxygen ion jet guide cover for an exhaust hood, comprising a negative oxygen ion generator (10), a blow head (11) of the negative oxygen ion generator, two diverters (2), a lower connecting cylinder (1), an air duct (7) and a metal jet-pipe (9); wherein, the negative oxygen ion generator (10) is arranged at the front part of the panel, the blow head (11) of the negative oxygen ion generator is arranged at the inlet of the flue; the two diverters (2) are connected with the back of a filter screen which is arranged inside the lower connecting cylinder (1); either side of the lower connecting cylinder (1) is connected with an air duct (7) respectively; either air duct (7) extends the panel side of the exhaust hood, and the end head of the air duct is connected with the metal jet-pipe (9) on which nozzles are arranged; the metal jet-pipe (9) is suspended above the cooker, and the metal jet-pipe (9) points to the oil-gas separator. The oil and smoke in the exhaust fume are separated, processed by negative oxygen ion and filtered by the filter screen, and then enters into the metal jet-pipe; the gas ejected from the metal jet-pipe forms a conical air door to prevent the diffusion of the fume in the cooker and prevent the frying pan from oil splashing.

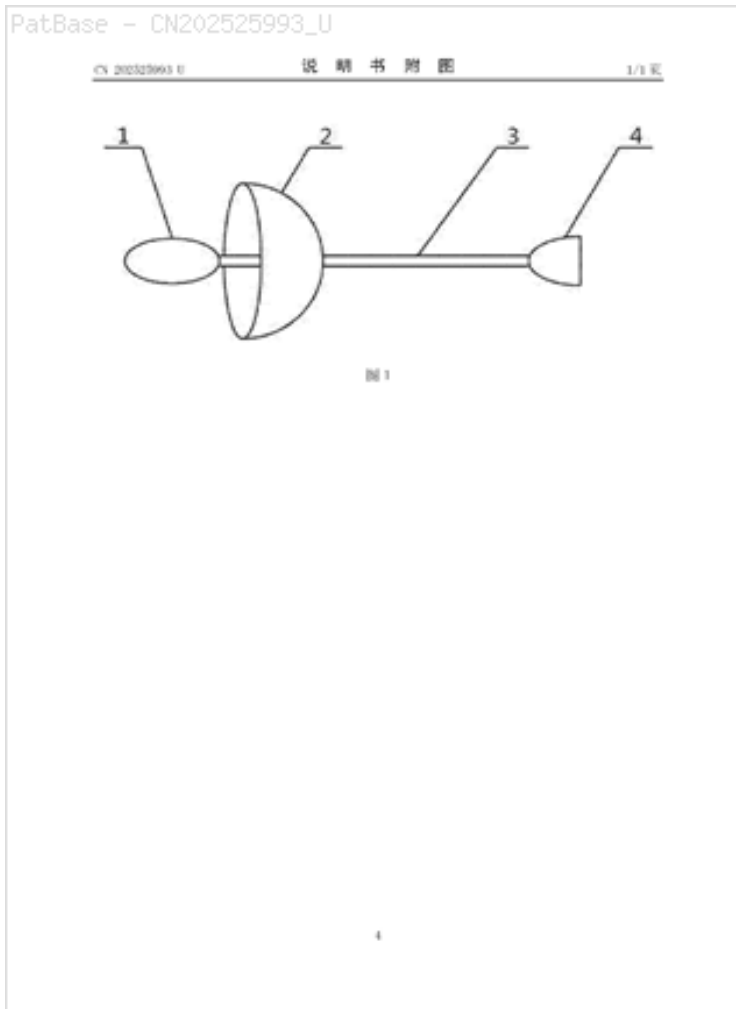


Title: Shovel**Priority:** CN201220137328U 20120404**Family:**

Publication number	Publication date	Application number	Application date
<u>CN202525993 U</u>	20121114	CN201220137328U	20120404

Probable Assignee: WENTAO YANG**Assignee(s):^(std):** WENTAO YANG**Assignee(s):** YANG WENTAO**Inventor(s):^(std):** WENTAO YANG**Inventor(s):** YANG WENTAO**International class** A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202525993U The utility model discloses a shovel which is composed of a grab handle body, a bowl-shaped hand protection cover, a long rod body and a shovel head. The shovel is characterized in that the grab handle body is disposed on the rear portion of the bowl-shaped hand protection cover. The long rod body is arranged on the front portion of the bowl-shaped hand protection cover. The shovel head is disposed on the front end of the long rod body. When the shovel is used, the grab handle body is held by one hand, the shovel head disposed on the front end of the long rod body is used for stir-frying food, and oil splashed out of a wok or a frying pan can be blocked by the bowl-shaped hand protection cover. The shovel has the advantages of simple structure, safety and reliability, and strong practicality.



0) DE20306993U1 – KITCHEN OVEN FRYING HOOD WITH HINGED ACCESS PAN...

205) Family number: 29023617 (DE20306993U1)

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Title: KITCHEN OVEN FRYING HOOD WITH HINGED ACCESS PANEL

Priority: DE20032006993U 20030505

Family:

Publication number	Publication date	Application number	Application date
<u>DE20306993 U1</u>	20030814	DE20032006993U	20030505

Probable Assignee: SCHOEN IRENE

Assignee(s):^(std): SCHOEN IRENE

International class F24C15/12 (Advanced/Invention);
(IPC 8-9): F24C15/12 (Core/Invention)

International class F24C15/12
(IPC 1-7):

CPC: F24C15/12

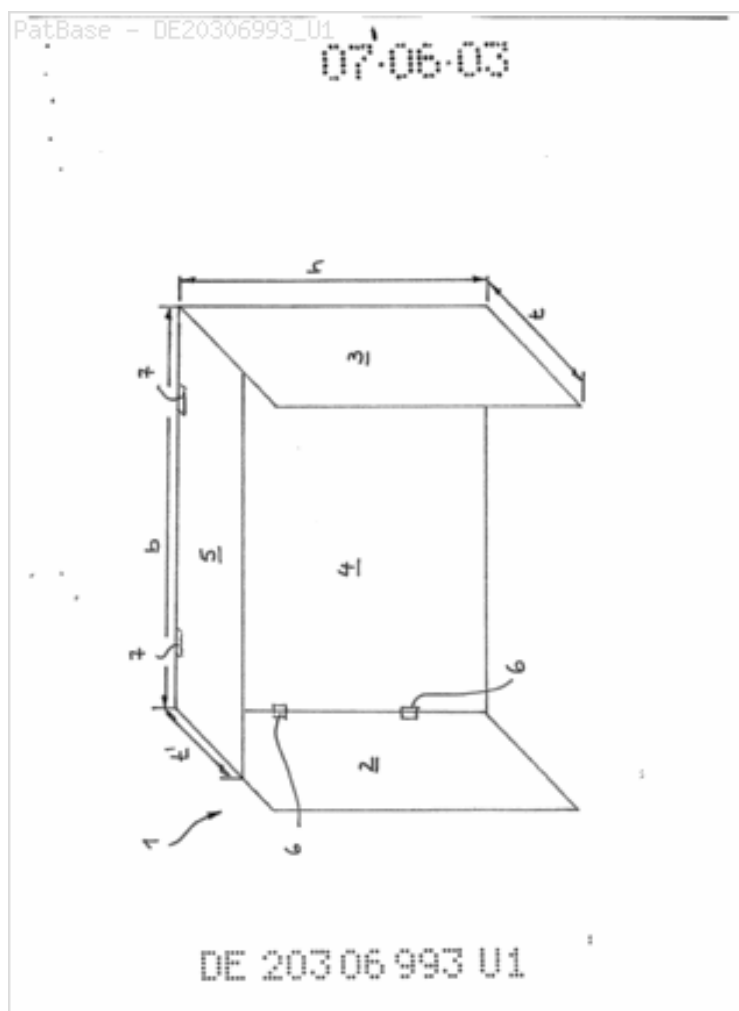
European class: F24C15/12

[Classification Explorer](#)

Forward Citations: DE102007045302,

Abstract:

A kitchen hotplate or gas grid is employed for the preparation of fried foods. The oven grid/hotplate is esp. covered by a hood (1) open at the base but with a cover over the frying food. The hood has a hinged access panel for the insertion/removal of pans etc.



Title: FENDER SUPPORT SYSTEM**Priority:** US20020310504 20021205

Family:	Publication number	Publication date	Application number	Application date
	<u>US2004108753 AA</u>	20040610	US20020310504	20021205
	<u>US6805400 BB</u>	20041019	US20020310504	20021205

Probable Assignee: FCA US LLC**Assignee(s):^(std):** DAIMLER CHRYSLER CORP ; SHINEDLING MIKE ; THOMAS RICHARD P ;
PEARLMAN DANIEL J ; BRUDERICK MARK L**Assignee(s):** CHRYSLER GROUP GLOBAL ELECTRIC MOTORCARS LLC ; CHRYSLER GROUP LLC ;
CHRYSLER LLC ; CITIBANK NA ; DAIMLERCHRYSLER CORP ; NEW CARCO
ACQUISITION LLC ; UNITED STATES DEPARTMENT OF TREASURY ;
DAIMLERCHRYSLER CO ; US DEPARTMENT OF TREASURY ; DAIMLERCHRYSLER
CO LLC ; JPMORGAN CHASE BANK NA ; FCA US LLC ; FCA US LLC WAS KNOWN AS
CHRYSLER GROUP LLC.. ; WILMINGTON TRUST CO**Inventor(s):^(std):** BRUDERICK MARK L ; PEARLMAN DANIEL J ; SHINEDLING MIKE ; THOMAS
RICHARD P**International class** B62D25/08 B62D25/16 (Advanced/Invention) ;
^{(IPC 8-9) :} B62D25/08 B62D25/16 (Core/Invention)**International class** B60R27/00 B62D25/08
^{(IPC 1-7) :}**CPC:** B62D29/04 B62D25/082 B62D25/163**European class:** B62D25/08C B62D25/16C**US class:** 296/181.2 296/181.4 296/193.09 296/198 296/203.02 296/203.03 296/209[Classification Explorer](#)**Cited documents:** US6608133 BB, US6523886 BB, US6409255 BB, US5597198 A, US5466033 A,
US5031958 A, US4955663 A, US2003141745 AA, US2002195839 AA,**Forward Citations:** WO14064394, WO13120728, US9227667, US8905465, US8905464, US8702161,
US8696051, US8596713, US8449018, US7914070, US7828369, US7766420,
US7374233, US7204545, US7083224, US7070309, US2013320707, US2013088045,
US2013088044, US2011316306, US2011168473, US2011101734, US2010263956,
US2009321169, US2009008818, US2008296932, US2008150326, US2008079290,
US2007256882, US2006001293, US2005242625, US2005189790, US2005057076,
US2004160784, KR101473116, JP2015520056, FR2997370, FR2986774, FR2921627,
FR2918342, FR2889832, EP2657108, EP2011722, DE102012112286, CN104105633,
CN103375079,

Abstract:

Source: US2004108753A A fender support system, including at least one molded fender support arrangement configured to couple to at least one fender arrangement, in which the fender support arrangement is configured to provide at least one of primary and secondary attachments for under-the-hood vehicle components.

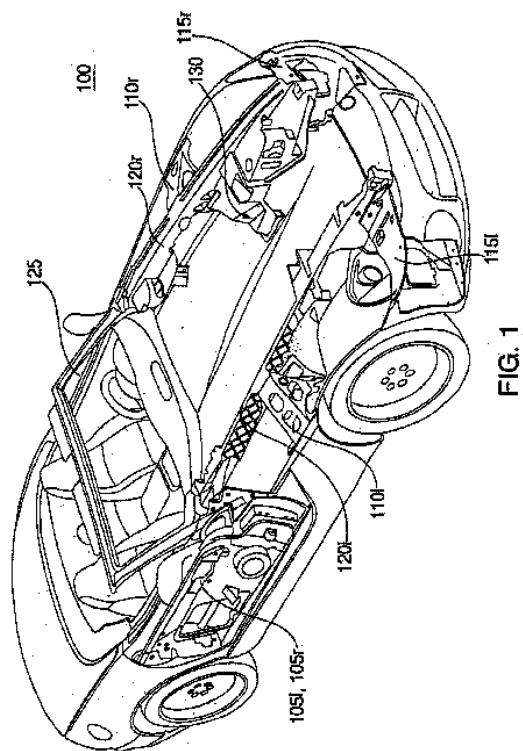
PatBase - US6805400_BB

U.S. Patent

Oct. 19, 2004

Sheet 1 of 7

US 6,805,400 B2



0) GB190228865A – AN APPARATUS FOR APPLYING A CAPSULE OF SEALING ...

207) Family number: 36863307 (GB190228865A)

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Title: An Apparatus for Applying a Capsule of Sealing Wax to Bottles, Jars and the like.

Priority: 19021231

Family:	Publication number	Publication date	Application number	Application date
	<u>GB190228865 A</u>	19030730		00000000

Probable Assignee: MCNAIR ALEXANDER

Assignee(s):^(std): MCNAIR ALEXANDER

Assignee(s): ALEXANDER MCNAIR

Inventor(s):^(std): MCNAIR ALEXANDER

Inventor(s): ALEXANDER MCNAIR

Abstract:

Source: GB190228865A 28,865. McNair, A.

Dec. 31. Oil and spirit stoves; gas stoves.

—Relates to stoves for use out of doors for

melting sealing—wax for bottles. The

sealing—wax is melted in a pan A supported in

a chamber C which contains a lamp B. The top

of the chamber is covered over up to the

edges of the pan A by a plate D bent over at

the edges and secured to the chamber by

studs so as to leave space for the escape of

products of combustion, for which holes

are also made in the top of the casing at H.

The cover D prevents wax from splashing over on

to the lamp. E is a hinged lid, and G are

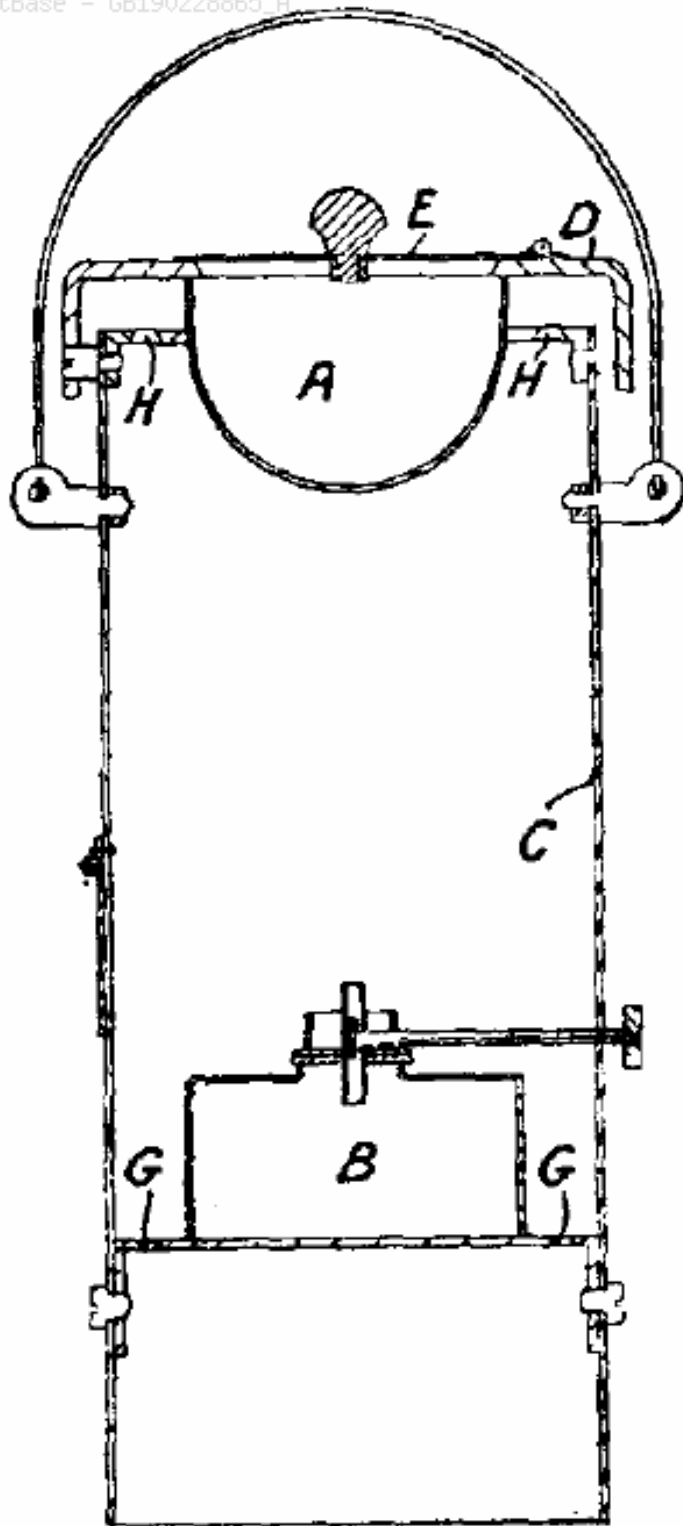
air holes. The lamp may be secured to the

chamber C by pins fitting in bayonet slots.

When portability is not a consideration the wax

may be heated by gas.

PatBase - GB190228865_A



208) Family number: 59447726 (KR200477266Y)

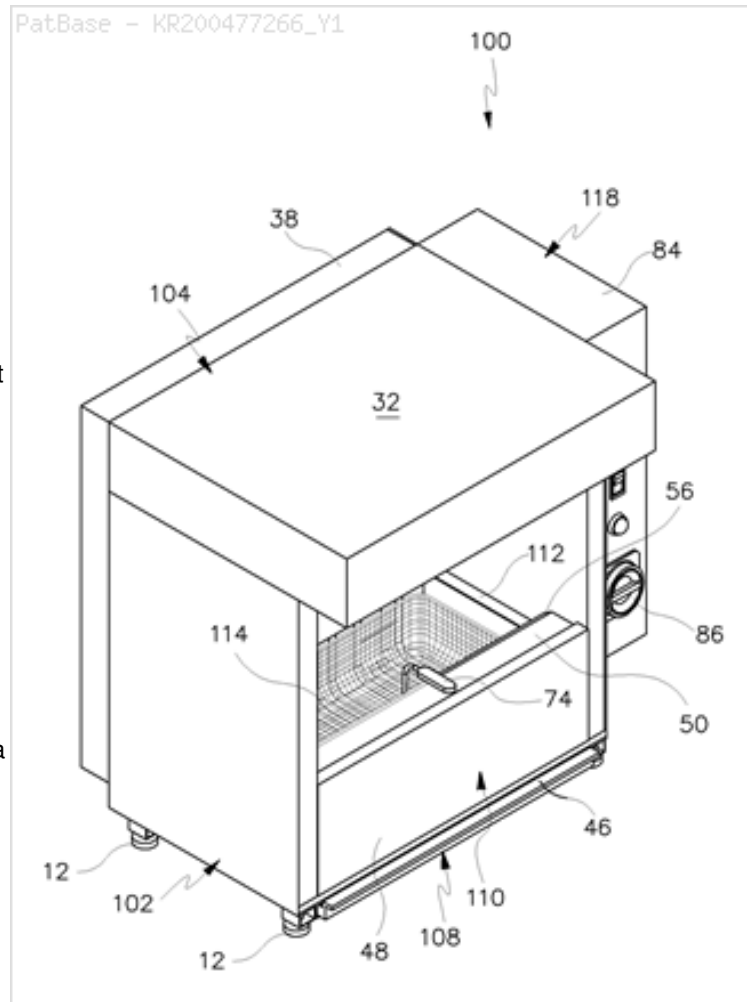
© PatBase

Title: A MULTIPURPOSE CABINET TYPE FRYER**Priority:** KR20140008098U 20141106

Family:	Publication number	Publication date	Application number	Application date
	KR200477266 Y1	20150526	KR20140008098U	20141106

Probable Assignee: GIMSEONGGI**Assignee(s):** GIMSEONGGI ; IAE IA A I AAEE ; YUNDONGGYU**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).**CPC:** A47J37/12 A47J36/38 A47J37/1276[Classification Explorer](#)**Cited documents:** KR20100009994 U, KR200416339 Y1, KR200278016 Y1, KR200278014 Y1,**Abstract:**

Source: KR200477266Y This is intended for fries in the fryer vat, such as networks for cooking and frying, remove the front can be removed and a valve structure that can move through the deep-fried heating means to facilitate internal cleaning of the fryer and the oil vapor This dust can be cleaned easily on a versatile cabinet-type fryer. The present invention is to, the storage space in the inner portion 11 is made of a rectangular box-like form IT IS front portion being formed to be opened to insert and remove from the front, a mounting groove 18 is formed through tab 14 to the inner portion, and an inner compartment (11) inside the body (106) which is formed body 102; And a dust extraction device 104 can be disposed to absorb and adsorb the fibrosis occurring in the installation and the deep-fried top and rear of the body portion (102); Drip pan 108 and the oil in the fryer is provided that receives the insert to be fitted in front of the lower portion of the body portion (102); Open cover 110 for preventing the oil from splashing to the outside when the fry obscure the whole of the body portion (102); Jidoe into the body 76 of the hollow formed to take on the mounting groove 18 on the inner body part 106 of the body portion 102 is formed, the body 76 has a power line 78 and a heater including 80, characterized by comprising a heating means formed of (116).



209) Family number: 30812160 (US3614796A)

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Title: METHOD AND APPARATUS FOR TREATING TEXTILE MATERIALS

Priority: CH19690015616 19691020 DE1959F029701 19591026 DE1959F029940 19591126
DE1959F030156 19591222 DE1960F030429 19600201 JP19680076091 19681021

Family:	Publication number	Publication date	Application number	Application date
	<u>CA921273 A1</u>	19730220	CA19690064809	19691014
	<u>CH507028 A</u>	19710515	CH19700005566	19691020
	<u>DE1107630 B</u>	19610531	DE1959F030156	19591222
	<u>DE1148515 B</u>	19630516	DE1959F029701	19591026
	<u>DE1214639 B</u>	19660421	DE1959F029940	19591126
	<u>DE1214640 B</u>	19660421	DE1960F030429	19600201
	<u>DE1952747 A1</u>	19700604	DE19691952747	19691020
	DE1952747 B2	19730308	DE19691952747	19691020
	<u>DE1952747 C3</u>	19730927	DE19691952747	19691020
	<u>ES372497 A1</u>	19720116	ES19690372497	19691014
	<u>FR2021131 A1</u>	19700717	FR19690035626	19691017
	<u>FR392479 A</u>	19081127		00000000
	<u>GB1003599 A</u>	19650908	GB19630028391	19630718
	<u>GB1278608 A</u>	19720621	GB19690051124	19691017
	<u>GB913723 A</u>	19621228	GB19600040403	19601124
	<u>GB942930 A</u>	19631127	GB19600035294	19601014
	<u>NL140166 B</u>	19731115	NL19690015824	19691020
	<u>NL6915824 A</u>	19700423	NL19690015824	19691020
	<u>US3098371 A</u>	19630723	US19600065159	19601026
	<u>US3614796 A</u>	19711026	US19690867682	19691020

Probable Assignee: ITOH C AND CO LTD

Assignee(s):^(std): ITOH AND CO LTD C ; ITOH AND CO C ; ITOH C AND CO LTD ; ITOH AND COMPANY LTD C ; ITOH ET CO LTD ; FLEISSNER GMBH ; ISAAC EMERSON PALMER ; FLEISSNER G M B H ; TANAKA IRON WORKS CO LTD ; TANAKA IRON WORKS ; WALKDEN MAKIN AND CO LTD ; TANAKA IRON WORKS CO LTD KYOTO EN C ITOH AND CO L ; TANAKA IRON WORKS COMPANY LTD ; WALKDEN MAKIN AND COMPANY LTD

Assignee(s): TANAKA IRON WORKS CO ; TANAKA IRON WORKS CO LTD KYOTO ; TANAKA IRON WORKS CO LTD KYOTO EN C ITOH AND CO LTD OSAKA JAPAN ; YOSHIYUKI TANAKA ; TANAKA IRON WORKS COMPANY LIMITED ; WALKDEN MAKIN AND COMPANY LIMITED ; C ITOH AND CO LTD OSAKA ; C ITOH AND CO ; C ITOH AND CO LTD ; C ITOH AND COMPANY LIMITED ; HIROSHI FUJITA

Inventor(s):^(std): DOWNING SAMUEL ; FLEISSNER DR HEINZ ; FLEISSNER GEROLD ; FUJITA HIROSHI ; GEROLD FLEISSNER ; HIROSHI FUJITA ; PALMER ISAAC EMERSON ; TANAKA YOSHIYUKI ; TANAKA YOSHIYUKU ; YOSHIYUKI TANAKA

International class
(IPC 8-9): D06B1/14 D06B3/00 D06B3/10 D06B3/20 D06B5/10 D06C7/02 D06N3/00 F26B13/16 (Advanced/Invention);
D06B1/00 D06B3/00 D06B5/00 D06C7/00 D06N3/00 F26B13/10 (Core/Invention)

International class
(IPC 1-7): B05B13/02 B05B3/02 B05B3/08 B05C1/10 B05C5/00 B05C8/00 B05C8/04 B32B27/12 D06B1/02 D06B5/04 D06C D06N3/00 F26B13/16 F26B17/28

CPC: D06N3/0077 Y10S68/902 Y10S68/903 D06C7/02 D06B3/00 D06B3/10 D06B3/201 D06B5/10 D06B2700/09 D06C7/00 F26B13/16 D06B1/144

European class: D06B1/14F D06B3/00 D06B3/10 D06B3/20B D06B5/10 D06C7/02 D06N3/00F6 F26B13/16 N06B700/09

US class:

Classification Explorer

Cited documents: US354797 A, US2919496 A, US2494807 A, US2080635 A, US1907429 A, US1807580 A, DE940107 A, DE578399 A, DE1061729 B, AU207264, AT171548 B,

Forward Citations: WO9509262, WO11127885, US8997371, US7036748, US6634192, US6523279, US6092399, US5953938, US4835880, US4137646, US4074441, US4025305, US3895908, US3837796, US3469423, US3445947, US3417484, US3345756, US3242702, US2004050957, JP51078893, GB2209966, EP1218583, EP1048914, EP0096192, EP0022333, DE3123564, DE2837571, DE20317689, DE1902182, DE1785165, DE1629033, DE1604850, DE1560714, DE1240032, DE102009053770, CN102859306, CN102859306,

Abstract:

Source: US3614796A ABSTRACT OF THE DISCLOSURE A method of treating textile materials with a liquid. A treating liquid is ejected through holes bored through the wall of a rotary hollow shaft, splashed by radial blades mounted on and rotating with the rotary hollow shaft under the influence of centrifugal force and divided into fine particles by conflict members which are arranged surrounding the outer peripheral edges of the blades and against which the splashin.— treating liquid impinges. The thus finely divided particles of the treating liquid hit and penetrate the textile material engaged around the outer ed,—es of the conflict members, whereby the textile m.,t—terials are treated with the liquid. An apparatus for practicing the method of treating textile materials with a liquid. A large number of equally spaced radial blades are mounted on a rotary shaft having a ntumber of holes bored through the wall thereof. A pair of opposed side plates are rotatably mounted on the opposite ends of the rotary hollow shaft and a large number of conflict members are provided extending across the outer peripheral edges of the side plates in suitably spaced relation so as to surround the outer peripheral edges of the blades with a suitable space therebetween, for carrying the textile material thereon.

PatBase - US3614796_A

BEST AVAILABLE COPY

Oct. 26, 1971

YOSHIYUKI TANAKA ET AL

3,614,796

METHOD AND APPARATUS FOR TREATING TEXTILE MATERIALS

Filed Oct. 20, 1969

3 Sheets Sheet 1

FIG. 1

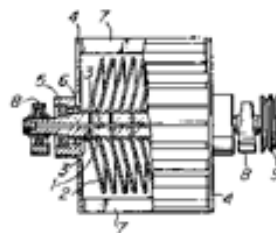
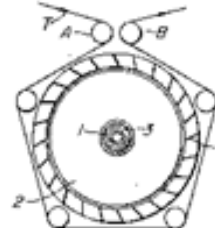


FIG. 2



FIG. 3



210) Family number: 51458710 (CN102528551A)

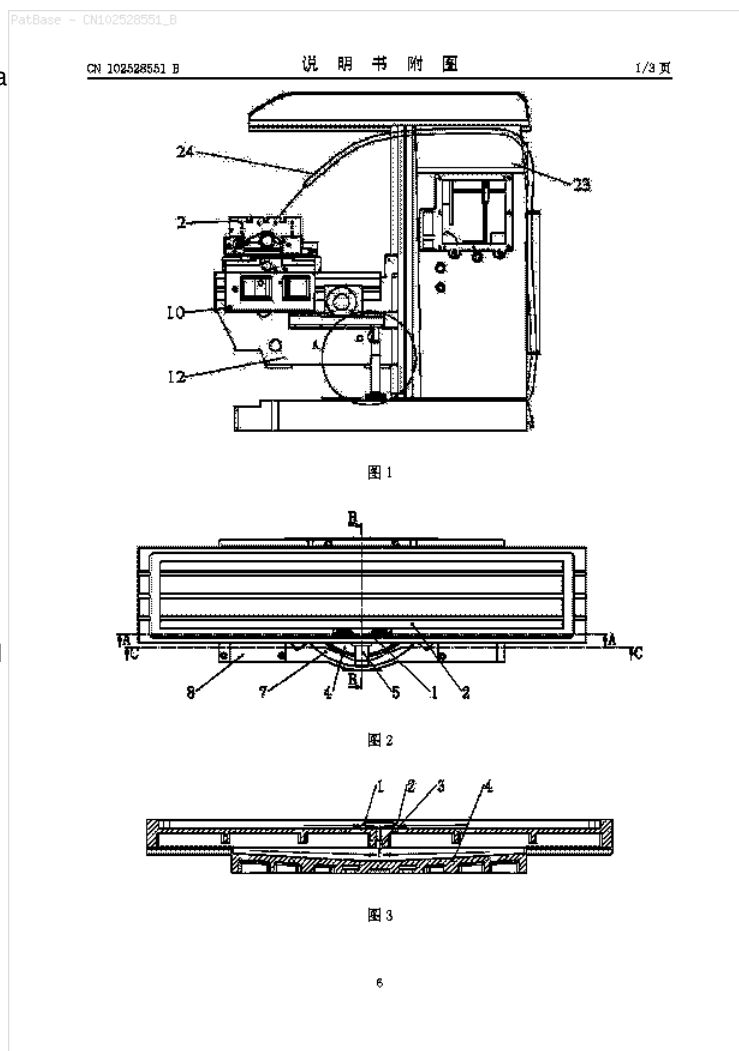
© PatBase

Title: COOLING LIQUID REFLUXING SYSTEM FOR MILLING MACHINE**Priority:** CN201110446357 20111228**Family:**

Publication number	Publication date	Application number	Application date
<u>CN102528551 A</u>	20120704	CN201110446357	20111228
<u>CN102528551 B</u>	20130918	CN201110446357	20111228

Probable Assignee: HUANGSHAN WANNAN MACHINE TOOL CO LTD**Assignee(s):^(std):** HUANGSHAN WANNAN MACHINE TOOL CO LTD**Assignee(s):** HUANGSHAN WANNAN MACHINE TOOL CO**Inventor(s):^(std):** GAO LAN ; GE WENWEI ; GUIHONG HU ; HU GUIHONG ; LAN GAO ; LI QIN ; LIU WEI ; QIN LI ; WEI LIU ; WENBIN YU ; WENWEI GE ; YU WENBIN**International class** B23Q11/12 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Cited documents:** JP2006278747 A2, CN202428268 U, CN101758420 A,**Forward Citations:** CN103659454,**Abstract:**

Source: CN102528551A The invention discloses a cooling liquid refluxing system for a milling machine, comprising a hidden refluxing groove in a worktable component, a relatively independent cavity in a control box component, an oil receiving pan which is on one side of a lifting platform component and used for collecting the cooling liquid, and a communicating sleeve for making filtered cooling liquid flow back to a lathe body component. A hidden cooling refluxing system for the milling machine is advantageous in eliminating a rubber pipe employed by a traditional lathe, and improving the appearance quality of the lathe. The technical scheme of the invention is featured by employing a hidden water drainage design, removing a structure such as the rubber pipe with the premise of satisfying the water drainage performance of the lathe, improving the appearance quality of the product to a large extent, employing multiplex oil filtration screens, a hidden refluxing groove design and a design of adding a cover plate on an exposed part, not only increasing the repeated utilization rate of the cooling liquid, but also decreasing leaking and splashing phenomena of the cooling liquid, and keeping a clean working environment.



0) CN202981722U – SLICE

211) Family number: 54088911 (CN202981722U)

© PatBase

Title: SLICE

Priority: CN201220735250U 20121227

Family:

Publication number	Publication date	Application number	Application date
<u>CN202981722 U</u>	20130612	CN201220735250U	20121227

Probable Assignee: WUXI COUNTY WENFENG VOCATIONAL SCHOOL

Assignee(s):^(std): WUXI COUNTY WENFENG VOCATIONAL SCHOOL

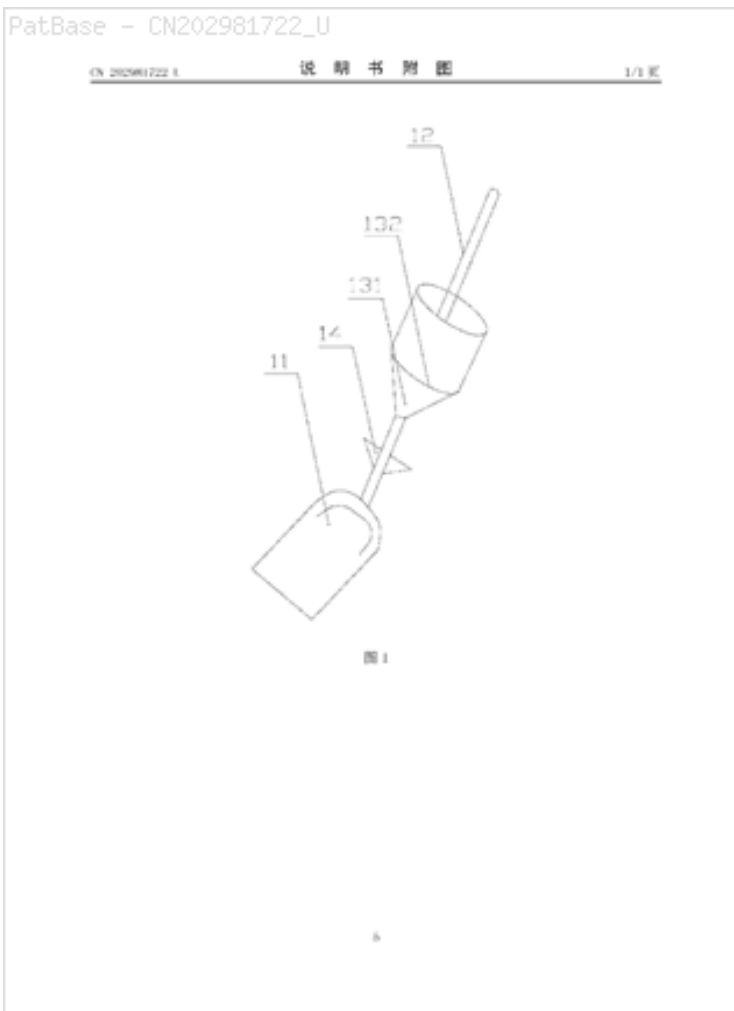
Inventor(s):^(std): WANG WEITAO

International class A47J43/28 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN202981722U The utility model discloses a slice. The slice comprises a slice body and a slice handle; an oil prevention protection cover is detachably arranged on the slice handle and consists of an umbrella-shaped protection umbrella and a protection cylinder which extends along the central axis of the slice handle from the edge of the protection umbrella, so that the protection umbrella and the protection cylinder can protect a hand and an arm of a user, and the condition that oil in a pan splashes to burn the hand or the arm of the user can be avoided.



Title: FRIGIDEIRA ELETRICA ELECTRIC SKILLET (Machine translation)**Priority:** BR1985PI06707 19851220

Family:	Publication number	Publication date	Application number	Application date
	BRPI8506707 A	19870714	BR1985PI06707	19851220

Probable Assignee: GERAL SARTORIO EQUIPAMENTOS IN**Assignee(s):^(std):** GERAL SARTORIO EQUIPAMENTOS IN**Assignee(s):** GERAL SARTORIO EQUIPAMENTOS INDUSTRIAIS LTDA**Inventor(s):^(std):** SARTORIO RAUL RENE PAULO**Inventor(s):** RAUL RENE PAULO SARTORIO

International class A47J37/10 (Advanced/Invention);
 (IPC 8-9): A47J37/10 (Core/Invention)

International class A47J37/10
 (IPC 1-7):

[Classification Explorer](#)**Abstract:**

Source: BRPI8506707A rs «# ...: s
 RESUMO Patents da Invencaoss "
 FRIGIDEIRA ELETRICA ", compreendi- da
 por um gabinete (1) provido de tanque da frigr
 (5) com tampa (6)# estando em contato com o
 fundo do dito ten 3- que (5) um bloco
 aquecedor (8) formado por raalatenclaa '
 eletricas paralelas, de alta capacidade
 Irradiante, monta daa em forma da sanduiche
 prensado por camadas isolantea, e na parte
 frontal do gabinete (l) tem um painel (9) onde
 sa localizam oa dispositivos de comando e
 controla, e ten_ 10ss do superiormente uma
 colune de egua (19) provido de tuboss flexivel
 (20), para suprimento de agua ao
 equipamento. Rs': s Patents of
 Invention ss SUMMARY "ELECTRIC
 SKILLET", I understood-by a cabinet (1)
 provided with sizzling tank (5) with lid (6) #
 being in contact with the bottom of the said ten
 3-(5) a block heater (8) formed by
 raalatenclaa ' parallel, high-capacity electric
 Chipper, mount daa in the form of pressed
 sandwich by isolantea layers, and on the front
 side of the Cabinet (l) has a Panel (9) where
 sa locate oa command devices and controls,
 and ten_ 10 ss of superiorly a column of egua
 (19) ss flexible tube with (20), for water supply
 to the equipment.

PatBase - BRPI8506707_A

-1-

38506707

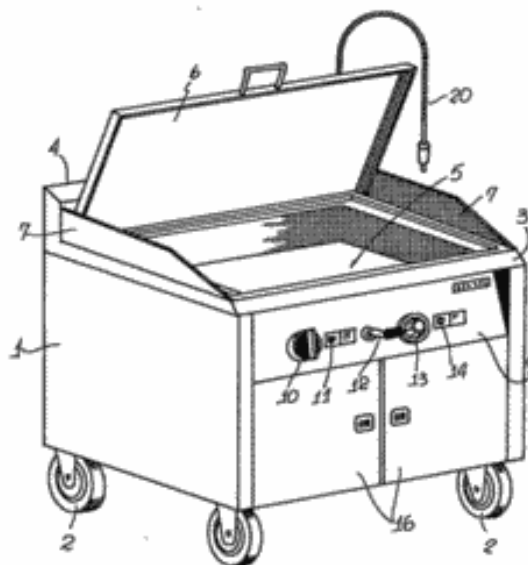


FIG. 1

213) Family number: 1833530 (DE2944645A1)

© PatBase

Title: VERFAHREN UND VORRICHTUNG ZUR REINIGUNG VON BLUMENTOEPFEN
CLEANING SYSTEM FOR FLOWERPOTS – HAS PRESSURISED WATER DIRECTED
AT OUTSIDE OF POT INSIDE CLEANING CHAMBER

Priority: DE19792944645 19791106

Publication number	Publication date	Application number	Application date
<u>DE2944645 A1</u>	19810507	DE19792944645	19791106

Probable Assignee: POEPELMANN JOSEF POEP

Assignee(s):^(std): POEPELMANN INHABER JOSEF POEP ; POEPELMANN JOSEF POEP

Assignee(s): GEBR POEPELMANN INHABER JOSEF POEPELMANN KUNSTSTOFFWERK
WERKZEUGBAU ; GEBRPOEPELMANN INHABER JOSEF POEPELMANN
KUNSTSTOFFWERK WERKZEUGBAU

Inventor(s):^(std): SIEVE GREGOR

International class A01G9/06 (Advanced/Invention);
^{(IPC 8-9):} A01G9/06 (Core/Invention)

International class A01G9/06
^{(IPC 1-7):}

CPC: A01G9/06

European class: A01G9/06

[Classification Explorer](#)

0) FR1359830A – BOITE A ENGRENAGE AVEC GUIDAGE D'HUILE POUR VEH...

214) Family number: 20962265 (FR1359830A)

© PatBase

Title: BOITE A ENGRENAGE AVEC GUIDAGE D'HUILE POUR VEHICULES SUR RAIL GEAR BOX WITH OIL GUIDE RAIL VEHICLE (Machine translation)

Priority: FR19630928544 19630319

Family:	Publication number	Publication date	Application number	Application date
	FR1359830 A	19640430	FR19630928544	19630319

Probable Assignee: SIEMENS AG

Assignee(s):^(std): SIEMENS AG

Assignee(s): SIEMENS SCHUCKERTWERKE AG ; SIEMENS SCHUCKERTWERKE AKTIENGESELLSCHAFT

International class
(IPC 8-9): B61C17/08 (Advanced/Invention);
B61C17/00 (Core/Invention)

International class
(IPC 1-7): B61C9/00

CPC: B61C17/08 B61C17/12

European class: B61C17/08

[Classification Explorer](#)

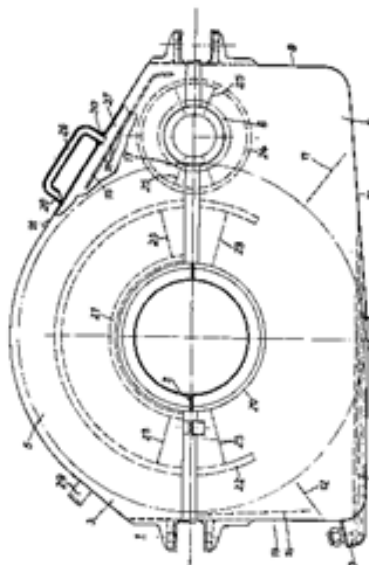
Abstract:

Source: FR1359830A (Claim 1) 1. La tole de guidage montee entre la paroi verticale de la boite et en face de la couronne dentee est disposee a une faible distance de la face de cette couronne dentee;;

Machine translation: (Claim 1) 1. The guide plate mounted between the vertical wall of the box and in front of the ring gear is arranged at a short distance from the face of this ring gear;;

PatBase - FR1359830_A

N° 1.359.830 Société dite :
Siemens Schuckertwerke Aktiengesellschaft Pl. unique



0) DE3224910C1 – DEEP FAT FRYER

215) Family number: 3179816 (DE3224910C1)

© PatBase

Title: Deep fat fryer

Priority: DE19823224910 19820703

Family:	Publication number	Publication date	Application number	Application date
	<u>DE3224910 C1</u>	19831027	DE19823224910	19820703

Probable Assignee: ROWENTA WERKE GMBH

Assignee(s):^(std): ROWENTA WERKE GMBH

Assignee(s): ROWENTA WERKE GMBH 6050 OFFENBACH DE

Inventor(s):^(std): HALBSCHMIDT PETER

Inventor(s): HALBSCHMIDT PETER 6456 LANGENSELBOLD DE

International class
(IPC 8-9): A47J37/12 (Advanced/Invention);
A47J37/12 (Core/Invention)

International class
(IPC 1-7): A47J37/12

CPC: A47J37/1219

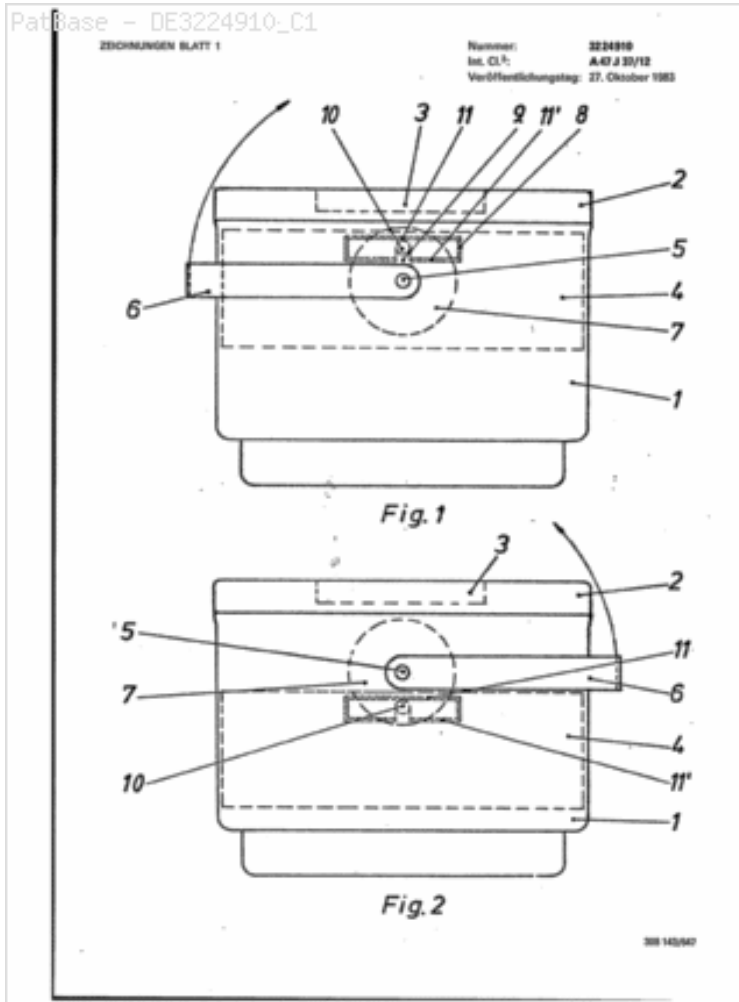
European class: A47J37/12C

[Classification Explorer](#)

Cited documents: DE2833327,

Abstract:

Source: DE3224910C1 The invention relates to a frying basket for an electrically heated deep fat fryer, comprising a pan with carrying bracket pivotally articulated thereto and the frying basket held in the pan. With the aid of a crank mechanism, which is in effective connection with the carrying bracket, the frying basket can be moved vertically in the pan by pivoting the carrying bracket.



216) Family number: 41845928 (US2008121309A)

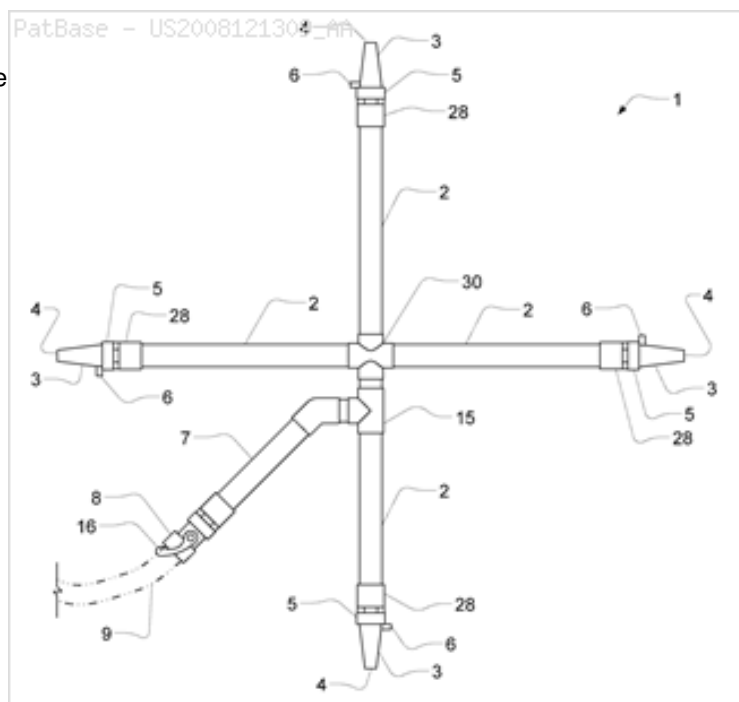
© PatBase

Title: SYSTEM, METHOD, AND APPARATUS FOR BALLOON AND TOY FILLER, KIT, AND STAND**Priority:** US20060557116 20061107

Family:	Publication number	Publication date	Application number	Application date
	US2008121309 AA	20080529	US20060557116	20061107

Probable Assignee: BOISE LEO WAYNE**Assignee(s):^(std):** BOISE LEO WAYNE ; BOISE WAYNE SCOTT ; WOOD LAWRENCE WILLIAM**Inventor(s):^(std):** BOISE LEO WAYNE ; BOISE WAYNE SCOTT ; WOOD LAWRENCE WILLIAM**Agent(s):** MAXVALUEIP CONSULTING**International class** B65B1/04 (Advanced/Invention);
(IPC 8-9): B65B1/04 (Core/Invention)**CPC:** A63H27/10 A63H2027/1033**European class:** A63H27/10 K63H27/10G**US class:** 141/313[Classification Explorer](#)**Cited documents:** US6932125 BB, US6351675 BA, US6149488 A, US6112781 A, US5603361 A, US5439199 A, US4909518 A, US4243220 A,**Forward Citations:** WO15119516, USD739474, USD633598, US9533779, US9527612, US9399176, US9352240, US9315282, US9314706, US9283491, US9242749, US9226630, US9192870, US9051066, US8789565, US8708765, US8141326, US2016083121, US2013118640, US2012030895, US2011030847, US2011030844, US2009050234, ITM120100146, GB2537748, GB2525306, GB2476817, GB2476817, FR2955036, ES2376563, DE202015007466, AU2016100289, AU2015101248, AU2010200104,**Abstract:**

Source: US2008121309A This is a balloon filling system or device that can fill one or more balloons at a time. The balloon filler is intended for use in water balloon activities, such as games, where many balloons need to be filled at the same time. The balloon filler can be attached to any source or filler. The balloon filler can also be attached to a stand, such as a set of legs or a freestanding or mobile container, with a set of wheels. Some versions of the balloon filler can be preassembled, while others can be sold as a kit, which a user can assemble into many desired arrangements or configurations. The balloon material and the filling material can be from many choices. It can also cover the toys attached to the system.

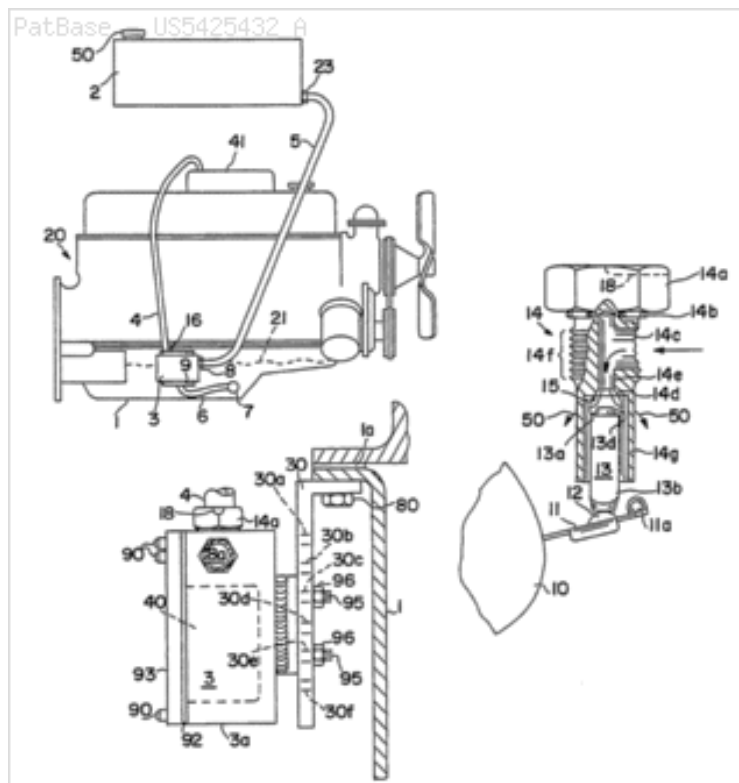


Title: Oil addition device**Priority:** US19940201743 19940225 US19940221859 19940401

Family:	Publication number	Publication date	Application number	Application date
	<u>US5425432 A</u>	19950620	US19940221859	19940401

Probable Assignee: PARKER HANNIFIN CORP**Assignee(s):** HURNER ERWIN E ; PARKER HANNIFIN CORP ; PARKER INTANGIBLES LLC**Inventor(s):**^(std) HURNER ERWIN E**International class**
(IPC 8-9): F01M11/06 G05D9/02 (Advanced/Invention);
F01M11/12 (Advanced/Non-invention)**International class**
(IPC 1-7): F01M11/12**CPC:** F01M11/06 F01M11/12 G05D9/02**European class:** F01M11/06 G05D9/02 R01M11/12**US class:** 184/103.2 184/74[Classification Explorer](#)**Cited documents:** US4603666, US3015371, US2886056, US2283303, US1883202, US1659859, US1541866, US1352954, US1230658, GB22270, GB19022270,**Forward Citations:** US8651239, US2012073905,**Abstract:**

Source: US5425432A The apparatus according to the invention causes the level of lubricating fluid in a crankcase of an internal combustion engine to be maintained at a predetermined level at all times without reliance on power to operate the valve used to control the flow of lubricating fluid coming from an auxiliary reservoir to the crankcase.



0) JP57001317A – OIL SPLASH AND FIRE PREVENTING LID MOUNTED TO F...

218) Family number: 2269389 (JP57001317A)

© PatBase

Title: OIL SPLASH AND FIRE PREVENTING LID MOUNTED TO FRYING PAN

Priority: JP19800074059 19800602

Family:

Publication number	Publication date	Application number	Application date
<u>JP57001317 A2</u>	19820106	JP19800074059	19800602

Probable Assignee: KATO KIYOUSUKE

Assignee(s):^(std): KATO KIYOUSUKE

Inventor(s):^(std): KATO KYOSUKE ; KATOU KIYOUSUKE

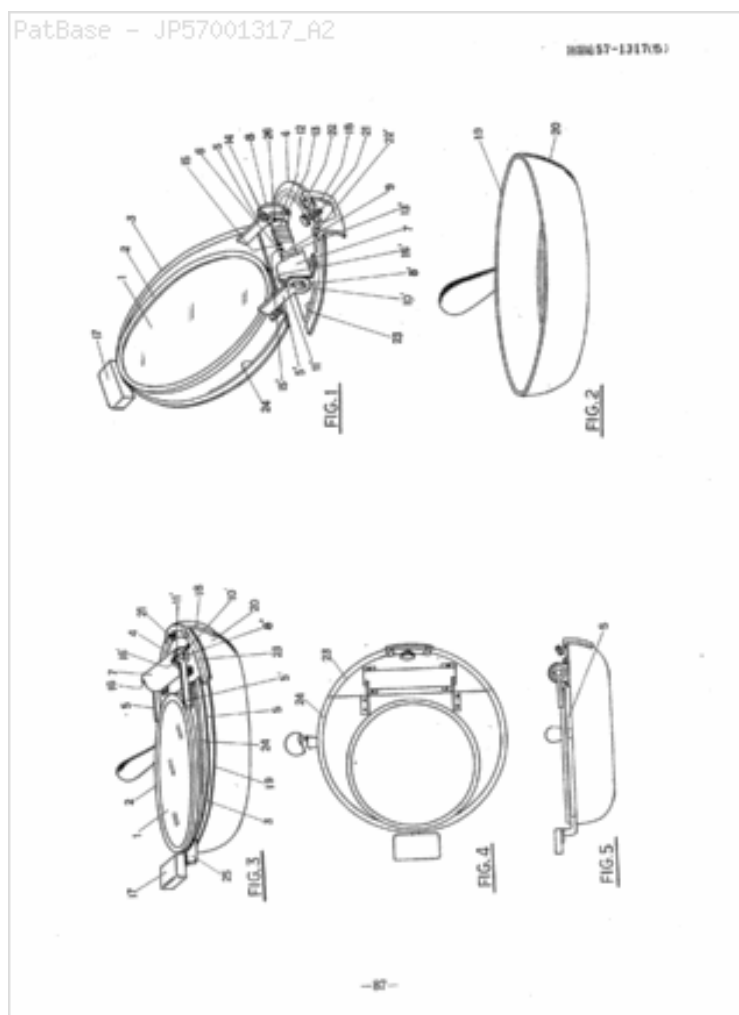
International class
(IPC 8-9): A47J27/00 A47J36/06 A47J37/10 (Advanced/Invention)

International class
(IPC 1-7): A47J36/06 A47J37/10

[Classification Explorer](#)

Cited documents: JP54054772, JP54001166,

Forward Citations: KR100905036,



0) IL166389A0 – IMPROVED COVER FOR A FRYING POT OR PAN, WHICH P...

219) Family number: 34888803 (IL166389A0)

© PatBase

Title: IMPROVED COVER FOR A FRYING POT OR PAN, WHICH PREVENTS OIL SPLASHING

Priority: IL20050166389 20050119

Family:	Publication number	Publication date	Application number	Application date
	<u>IL166389 A0</u>	20060115	IL20050166389	20050119

Probable Assignee: YOUNG AND ENTREPRENEURS

Assignee(s)^(std): YOUNG AND ENTREPRENEURS

Assignee(s): YOUNG AND ENTREPRENEURS

International class A47J
(IPC 1-7):

220) Family number: 42327347 (JP3026483U)

© PatBase

Title: Safety Pan (Machine translation)

Priority: JP19950014815U 19951228

Family:

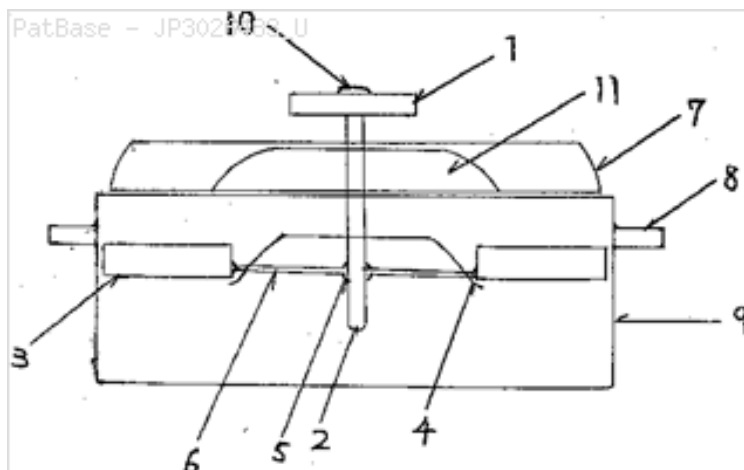
Publication number	Publication date	Application number	Application date
JP3026483 U	19960712	JP19950014815U	19951228

International class A47J37/12
(IPC 1-7):

Abstract:

Source: JP3026483U

Machine translation: [summary] Pot with a lid to prevent splashing when frying oil and fried tempura Purpose. [configuration] iron, plated



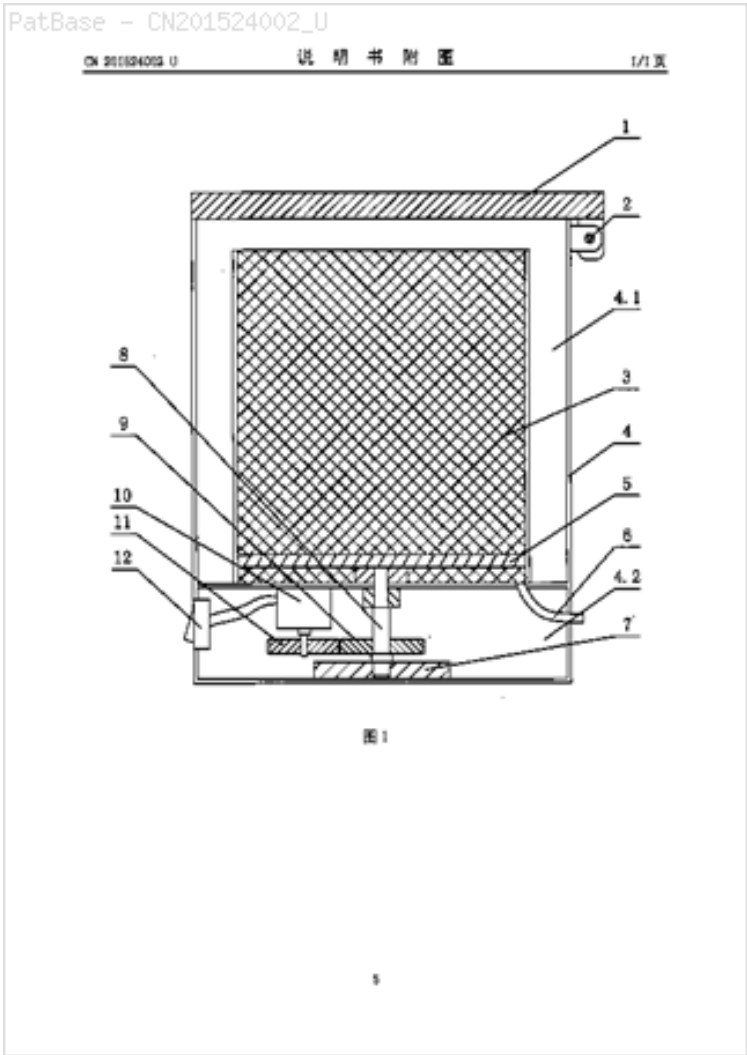
Title: Kitchen food swing dryer
Priority: CN200920199436U 20091023
Family:

Publication number	Publication date	Application number	Application date
CN201524002 U	20100714	CN200920199436U	20091023

Probable Assignee: GUOXING HU
Assignee(s):^(std): GUOXING HU
Assignee(s): HU GUOXING
Inventor(s):^(std): GUOXING HU
Inventor(s): HU GUOXING
International class A47J43/24 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:
Source: CN201524002U A kitchen food swing dryer comprises a shell provided with an upper cavity and a lower cavity, wherein the upper cavity is internally and fixedly provided with an inner barrel; the peripheral wall of the inner barrel is grid-shaped; a rotating disc is arranged in the inner barrel; the lower cavity is provided with a rotating shaft one end of which extends into the upper cavity and is connected with the rotating disc and the lower cavity is also internally provided with a speed-down motor; and a transmission gear fixed on an output shaft of the speed-down motor is meshed with a driven gear on the rotating shaft. The bottom part of the upper cavity is provided with a drain pipe communicated with the outside of the shell, the side wall of the shell is provided with a control switch connected with the speed-down motor and an upper cover articulated with the shell is arranged above the shell. Through the rotation of the rotating disc, the food swing dryer causes the tap water attached to food to be thrown off under the action of centrifugal force. The instant eating of food after swing drying can avoid stomachache or bellyache caused by the microorganisms from the tap water, and the cooking can prevent hot oil from splashing when vegetables or meats are put in a frying pan.



Family:

Publication number	Publication date	Application number	Application date
JP53017480 A2	19780217	JP19760091127	19760730

Inventor(s):^(std): TSUCHIYA MAMORU

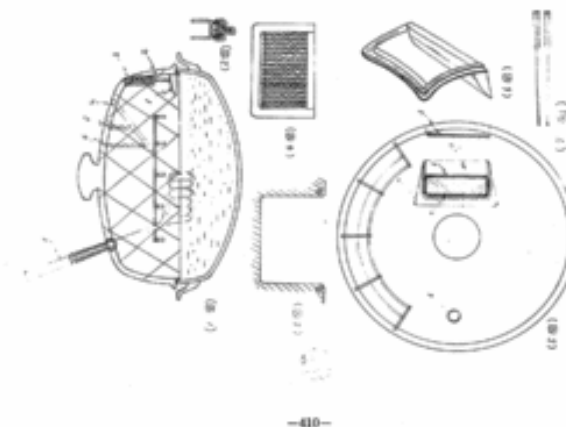
International class A47J27/00 A47J37/00 A47J37/12 (Advanced/Invention);
(IPC 8-9). A47J27/00 A47J37/00 A47J37/12 (Core/Invention)

International class A47J37/00
(IPC 1-7).

特許 4253—17488 (2)

[illegible]

同書の簡章に説く
①道の新築、②道内領の敷付計画、③新お家の
坪数図、④道の幅員＝7丈、⑤道内の平均値、⑥
道の両側におおむねはぬえと杉、⑦道の端に竹藪の帯



223) Family number: 59231648 (KR20150001823U)

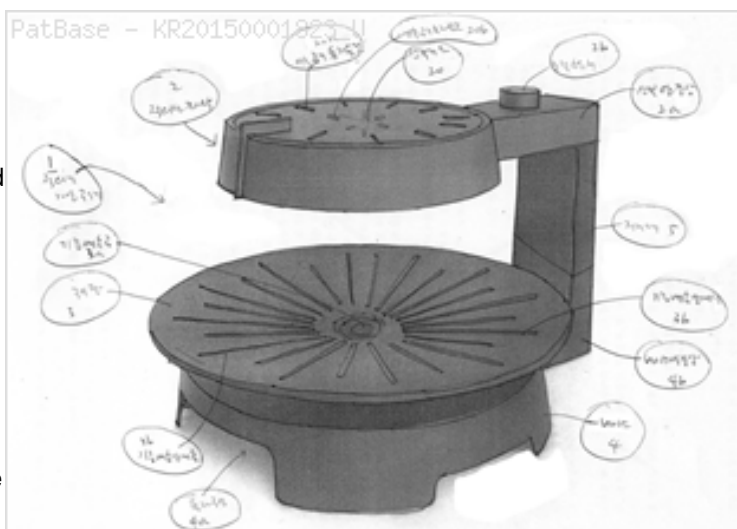
© PatBase

Title: INFRARED LIGHT HEATING ROASTER**Priority:** KR20130009079U 20131105

Family:	Publication number	Publication date	Application number	Application date
	KR200477329 Y1	20150604	KR20130009079U	20131105
	KR20150001823 U	20150513	KR20130009079U	20131105

Assignee(s): HOME POWER CO LTD ; IAE AAE IAE AA IA AE IAE AE IA IA AE IAE AEAE**International class** [A47J37/06 F24C7/04](#) (Advanced/Invention)
(IPC 8-9):**CPC:** [A47J37/06 A47J36/2488 A47J37/07](#)[Classification Explorer](#)**Cited documents:** KR20120082379 A, KR100928392 B1,**Forward Citations:** KR101624872,**Abstract:**

Source: KR200477329Y Guyigi infrared heating according to the subject innovation, a base (4); Oven-tray (3) is installed above the base (4); Stands extending upwardly from one side of the base 4, the support (5); The support 5 is connected to the upper elongated arm in the horizontal direction from the upper end of (2a); Is connected to the upper connecting arm (2a) is located above the Oven-tray (3), for the infrared is installed toward Oven-tray (3) check block (2); And the upper portion of the connecting arm provided on the surface (2a) is adjusted to control the heating operation switch (2b) of the infrared irradiation unit (2); wherein the said infrared irradiation unit (2), the upper connecting arm (2a) and integrally connected to and Oven-tray (3) toward the bottom of the upper portion toward the internal seating space to secure the part 204 is provided with the lead (20), inside the seating space 204 of the upper lid (20) When electricity is applied to the infrared lamp heating arrangement (22); Protection wire mesh (21) positioned under the infrared lamp (22); Located on the upper side of the infrared lamp 22, the first cooling fan for reflecting the heat generated towards the Oven-tray (3) from the infrared lamp (22) (pan, 23); It disposed above the first cooling fan (23) and a third central hole (26a) is a second cooling fan disposed in the center 26; And a blower fan coupled to a third central hole (26a) of the second cooling fan (26) (fan, 27); and including, the fan 27 is the Oven-tray past the infrared lamp 22 winds (3) by sending up, inhibits splashing the oil when the food cooked by the Oven-tray (3).



224) Family number: 18856324 (GB433310A)

© PatBase

Title: Improvements relating to chassis lubricating installations**Priority:** GB19340004733 19340213

Family:	Publication number	Publication date	Application number	Application date
	<u>GB433310 A</u>	19350813	GB19340004733	19340213

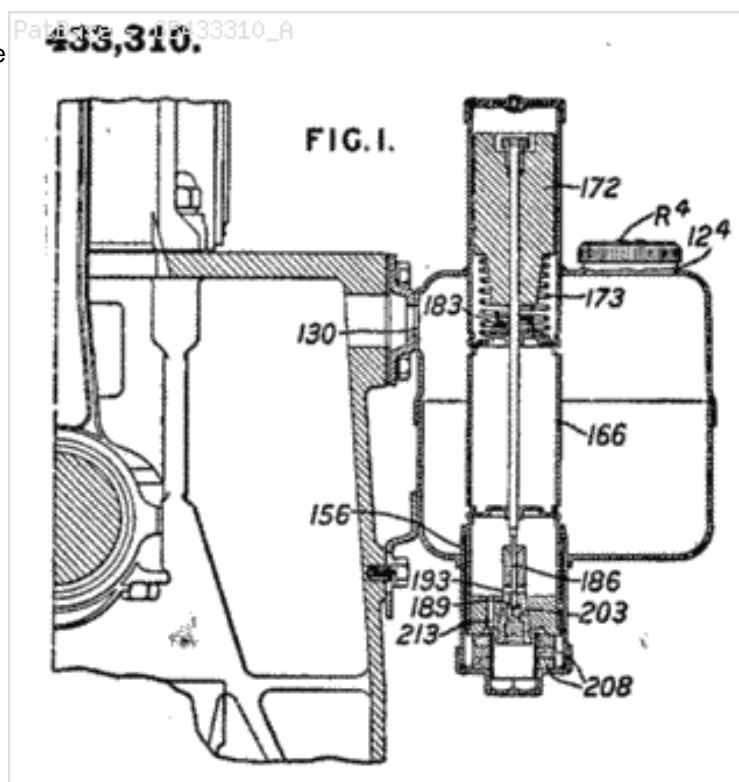
Probable Assignee: BIJUR LUBRICATING CORP**Assignee(s):**^(std): BIJUR LUBRICATING CORP

International class B60R17/02 (Advanced/Invention);
^{(IPC 8-9):} B60R17/00 (Core/Invention)

International class B60R17/02
^{(IPC 1-7):}

CPC: B60R17/02**European class:** B60R17/02[Classification Explorer](#)**Abstract:**

Source: GB433310A 4733. [Class 102 (i)] [See also Group XXXIV] A chassis-lubricating pump mounted in a reservoir R <4> on the engine crank case may be operated by inertia or by pressure variations in the vacuum fuel feed arrangement. The inertia pump shown comprises a cylindrical casing 166, carrying a weight 172 connected to the plunger 186 and supported on springs 173, 183. Oil passes from the reservoir through an orifice 156, filter 208 and passage 213 to the casing 166, whence it enters the pump cylinder through plunger controlled ports 193. Discharge is effected through valve 189 and ports 203.



0) GB1257798A – STEAM OR HYDRAULIC ENGINE.

225) Family number: 734656 (GB1257798A)

© PatBase

Title: Steam or hydraulic engine.

Priority: GB19680040162 19680822

Family:	Publication number	Publication date	Application number	Application date
	GB1257798 A	19711222	GB19680040162	19680822

International class F01B17/04 (Advanced/Invention)
(IPC 8-9):

International class F01B7/02
(IPC 1-7):

CPC: F01B17/04 F01B2170/0447

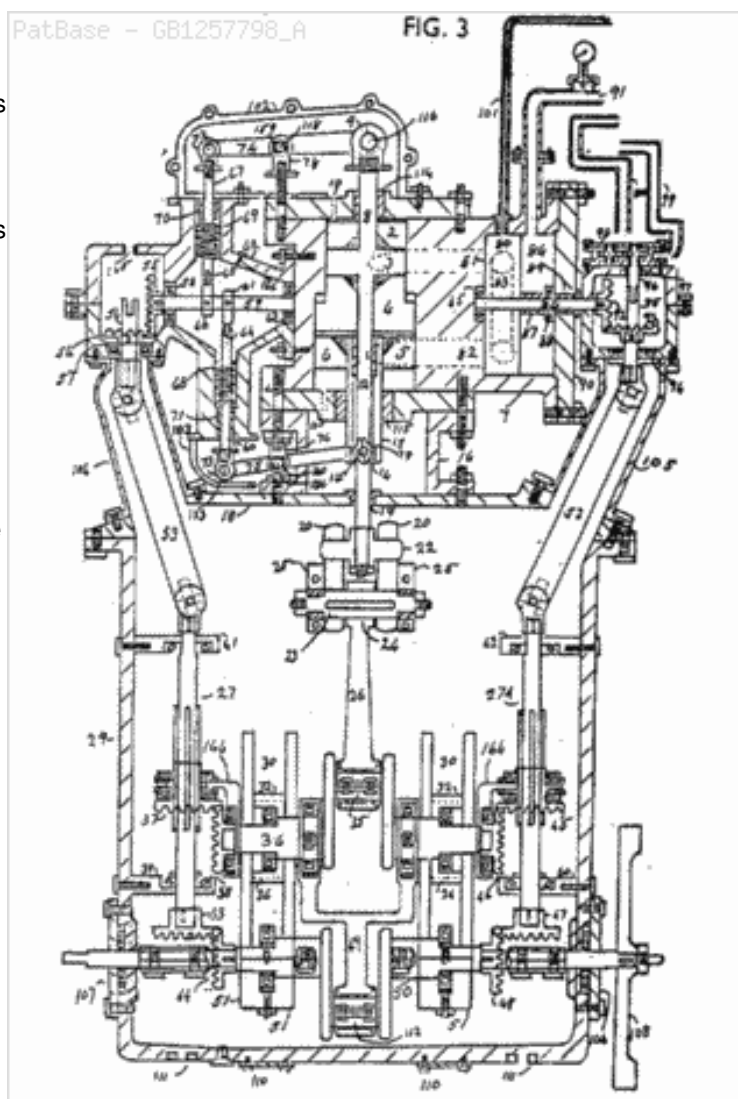
European class: F01B17/04 R01B170/04A8

[Classification Explorer](#)

Forward Citations: US4747271,

Abstract:

Source: GB1257798A 1,257,798. Steam or hydraulic engine. J. T. THOMSON. Aug. 22, 1969 [Aug. 22, 1968], No.40162/68. Headings F1A and F1M. A steam or hydraulic upright reciprocating engine comprises a centre stepped piston 4 and two outer pistons 2, 6 transferring the change of steam or pressurized fluid from top to bottom chambers in the cylinder with the co-operation of a rotary valve 7. The top crank-shaft 36 is coupled to a bottom crank-shaft through a connecting rod 49 and gear pinions 37, 45 free to move on splines on two vertical shafts 27, 27A which are rotatably driven from gear pinions 38, 46 fixed on either side of the top crank-shaft. The vertical shafts are coupled to the bottom crank-shaft by pinion wheels 43, 47 fixed on the bottom of the vertical shafts and engaged with two similar pinions 44, 48 on the bottom crank-shaft. (For Figure see next page)



0) GB623109A – 3507. [CLASSES 52 (I) AND 52 (III)] A CORNER CU...

226) Family number: 19953965 (GB623109A)

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Title: 3507. [Classes 52 (i) and 52 (iii)] A corner cupboard A of table height, for use with adjacently arranged cupboard...

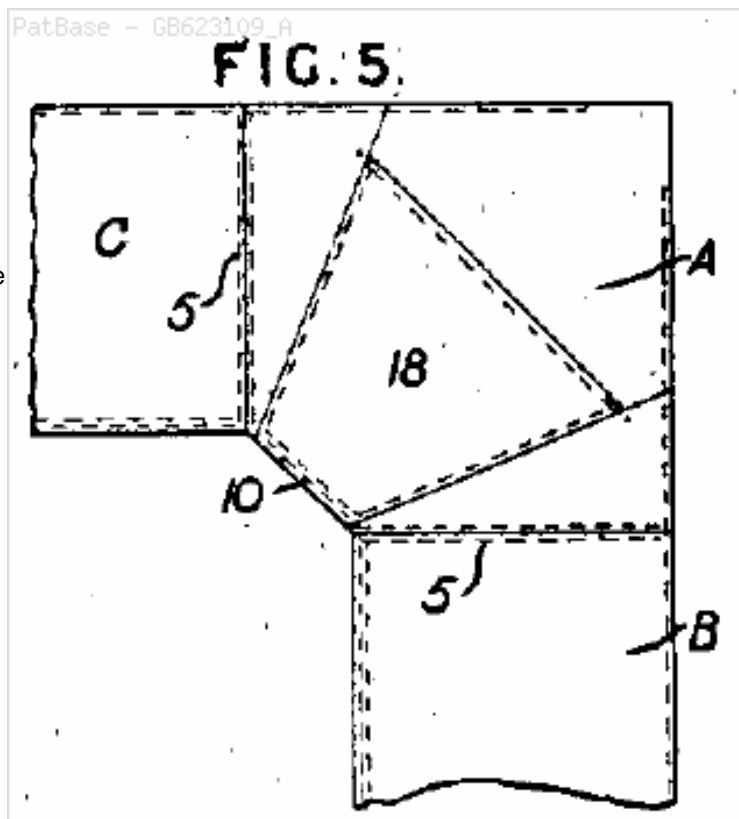
Family:

Publication number	Publication date	Application number	Application date
GB623109 A	00000000		00000000

International class A47B77/02
(IPC 1-7).

Abstract:

Source: GB623109A 623,109. Cabinets. WELDALL and ASSEMBLY. Ltd., and LIGHTBOURNE, R. C. Feb. 6, 1947, No. 3507. [Classes 52 (i) and 52 (iii)] A corner cupboard A of table height, for use with adjacently arranged cupboard structures B, C as part of a kitchen fitment, has a diagonally arranged door-frame 10 and side frames 5. The top has a hinged section 18 giving access to a wash-boiler housed in the compartment. Specification 614,013 is referred to.



227) Family number: 25747502 (AT226939B)

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Title: MASCHINE ZUM AUTOMATISCHEN VERPUTZEN VON WAENDEN MACHINE FOR AUTOMATIC PLASTERING OF WALLS (Machine translation)

Priority: 19600528

Family:	Publication number	Publication date	Application number	Application date
	AT226939 B	19630425	AT19610004073	19610525

Probable Assignee: ECKERLE OTTO

Assignee(s):^(std): ECKERLE OTTO

Assignee(s): OTTO ECKERLE

Inventor(s):^(std): ECKERLE OTTO

Inventor(s): OTTO ECKERLE

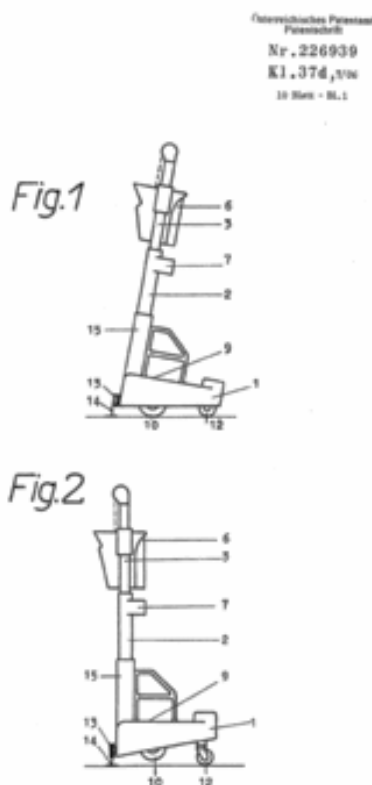
International class E04F21/10
(IPC 1-7):

Abstract:

Source: AT226939B [Source: Claim 1] 1.

Maschine zum automatischen Verputzen von Waenden mit einem Kastenfuß, zwei an dem Kastenfuß befestigten ausfahrbaren Staendern zum Verspannen der Maschine zwischen dem Boden und der Decke des zu verputzenden Raumes und einem Foerderwagen, der auf den Staendern heb- und senkbar gelagert ist und den Moertel- 25 spritzbehälter trägt, wobei als ausfahrbare Staender jeweils zwei teleskopartig ineinander verschiebbare Rohrpaare dienen, dadurch gekennzeichnet, dass die Rohre als Druckluftzylinder ausgebildet sind und das untere Ende der in den festen Rohren (2,4) verschiebbaren Rohre (3,5) einen Kolben (51) aufweist, der den Innenraum der festen Rohre (2,4) von dem Innenraum der verschiebbaren Rohre (3,5) trennt, und dass in den verschiebbaren Rohren (3,5) je ein Doppelkolben (59) angeordnet ist, der ueber ein Zuelement, z.B. eine 30 Kette (63), und ein jeweils in den Staenderkoepfen (55,58) untergebrachtes Getriebe mit einer Welle (66) verbunden ist, auf welcher die Seiltrommeln (67) zum Anheben des Foerderwagens (6) befestigt sind. [Source: claim 1] 1 machine to the automatic plastering of walls with a base, two on the base mounted retractable stands for tightening the machine between the floor and the ceiling of the to verputzenden Raumes and a tram, which is lifting – and adjustable bearings and splash tank carries the mortar 25, two telescopic mesh sliding tube pairs serve as a telescopic stand, characterized on the stands, that die Rohre as a compressed air cylinder are trained and has the lower end of the einen Kolben in the festen Rohren (2,4) verschiebbaren Rohre (3,5) (51), the the Innenraum space of the festen Rohre (2,4) separates from the Interior of the sliding tubes (3,5), and based on a double piston (59) is arranged in the sliding tubes (3,5), which is connected via a traction element, for example a 30 chain (63), and a gearbox with a shaft (66), housed in the stand heads (55,58), on which the cable drums (67) to lift the trolley (6) are attached.

PatBase – AT226939_B



228) Family number: 26436542 (CH257520A)

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Title: POMPE A PISTONS A COMMANDE PAR AXE ROTATIF. PUMP PISTON CONTROL ROTARY AXIS. (Machine translation)

Family:	Publication number	Publication date	Application number	Application date
	<u>CH257520 A</u>	19481015		19460801

Probable Assignee: BOBARD EMILE

Assignee(s):^(std): BOBARD EMILE

Inventor(s):^(std): EMILE BOBARD

Inventor(s): BOBARD EMILE

International class
(IPC 8-9): F04B9/04 (Advanced/Invention);
F04B9/02 (Core/Invention)

International class
(IPC 1-7): F04B9/04

CPC: F04B9/04

European class: 27BD9C5 F04B9/04

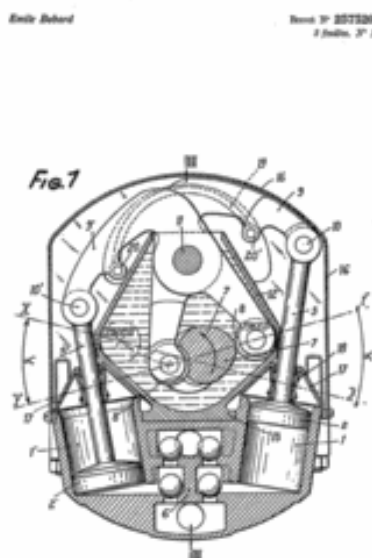
[Classification Explorer](#)

Abstract:

Source: CH257520A (Claim 1) 1. Pompe suivant la revendication, caractérisée en ce que l'ensemble de ses organes de commande est fixé dans un carter à deux faces parallèles et une face inférieure, laquelle sert à la fixation de la boîte à clapets et des deux cylindres.?

Machine translation: (Claim 1) 1. Pump according to claim, characterized in that all its actuators is fixed in a housing has two parallel faces and a lower face, which is used to, the fixing of the reed valve and the two cylinders.?

PatBase - CH257520_A



- **search:** SS6 ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) (Results 328)
- **search:** SS7 ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and perforated (Results 3)
- List: SS7 1–50 (ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and perforated) (Results 3)

0) US2005120715A – HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW A...

1) Family number: 30545299 (US2005120715A)

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Title: HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW APPLICATIONS

Priority: CA20022397847 20020812 CA20022404410 20020920 PH20040000148 20040325
 US19880255719 19881013 US19860820082 19860121 US19840631321 19840719
 US19880177599 19880405 US19880255657 19881013 US19840631322 19840719
 US20050795835 20050727 US19970058062P 19970905 US19900472753 19900131
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 WO2005US26793 20050727 US19970999729 19971223 US19980137499 19980820

Family:	Publication number	Publication date	Application number	Application date
	AP200704109 A0	20070831	AP20070004109	20050727
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	AU2005325208 BB	20120329	AU20050325208	20050727
	CA2397847 AA	20040212	CA20022397847	20020812
	CA2404410 AA	20040320	CA20022404410	20020920
	CA2599414 AA	20070823	CA20052599414	20050727
	CN101146981 A	20080319	CN200580049207	20050727
	EA200701538 A1	20081030	EA20070001538	20050727
	EP1851418 A1	20071107	EP20050779535	20050727
	EP1851418 A4	20090513	EP20050779535	20050727
	IN05612DN2007 A	20070831	IN2007DN05612	20070719
	US2005120715 AA	20050609	US20050039624	20050120
	US2008155985 AA	20080703	US20050795835	20050727
	US4756666 A	19880712	US19840631321	19840719
	US4859146 A	19890822	US19880177599	19880405
	US5027735 A	19910702	US19900472753	19900131
	US5052902 A	19911001	US19860820082	19860121
	US5056447 A	19911015	US19880255657	19881013
	US5094595 A	19920310	US19890376002	19890815
	US5435259 A	19950725	US19930097655	19930727
	US5507943 A	19960416	US19910811470	19911218
	US6293121 BA	20010925	US19980137499	19980820
	US6327994 BA	20011211	US19970999729	19971223
	US8051637 BB	20111108	US20050795835	20050727
	WO06078315 A1	20060727	WO2005US26793	20050727
	WO06078315 C1	20061102	WO2005US26793	20050727

Probable Assignee: CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST

Assignee(s):^(std): CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ;
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 GAUDENCIO AQUINO ; GAUDENCIO LABRADOR ; LABRADOR GAUDENCIO ;
 CHRISTIAN SCHOOL OF TECHNOLOGY

Assignee(s): CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI ; CHRISTION
 SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATION TRUST ; CHRISTION
 SCHOOL OF TECHNOLOGY CHARITABLE FOUNDATI

Inventor(s):^(std): LABRADOR GAUDENCIO AQUINO ; LABRADOR GAUDENCIO A ; CHRISTIAN
 SCHOOL OF TECHNOLOGY

Inventor(s): LABRADOR GAUDENCIO ; CHRISTIAN SCHOOL OF TECHNOLOGY CHARITABLE ;
 GAUDENCIO AQUINO LABRADOR

Agent(s):

ROGER SYN AND CO PATENT AND TRADE MARK ATTORNEYS; FURMAN AND KALLIO; OYEN WIGGS GREEN AND MUTALA LLP; GAUDENCIO AQUINO LABRADOR

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): B01D61/10 B63B1/10 B63B1/12 B63B35/00 B63B35/44 B63B39/06 B63B43/06 B63G1/00 B63G8/30 B63H19/02 B63H9/06 B63H9/10 B63J3/00 B64C31/04 B64C31/06 E02B3/06 F01K13/00 F01K23/10 F01K27/00 F02C1/00 F02C1/05 F02G5/00 F03B13/18 F03D11/04 F03D5/00 F03D5/04 F03G7/00 F24F5/00 F24F6/14 F28D5/00 (Advanced/Invention); B63B1/24 B63J1/00 F24F1/00 (Advanced/Non-invention); B01D61/02 B63B1/00 B63B35/00 B63B35/44 B63B43/00 B63H9/00 B63J3/00 E02B3/06 F01K23/10 F01K27/00 F02C1/00 F02G5/00 F03B13/00 F03D5/00 F03G7/00 (Core/Invention)

International class
(IPC 1-7): B01D61/10 B63B17/00 B63B35/00 B63B7/00 F01K23/10 F03D5/02 F03D5/04 F03G7/00 F04B35/00 F24F6/14 F28D5/00

CPC: B63H9/06 B63H9/1021 F05D2260/212 F01K27/00 F02C1/05 F03G7/00 Y02T50/672 Y02T50/676 B63B1/121 Y02W10/33 Y02W10/37 B63B1/107 B63B1/24 B63B39/06 B63B2039/067 B63G1/00 B63G8/30 B63H19/02 B63J1/00 C02F1/04 F05B2240/40 Y02T70/59 B63B35/00 B63B43/06 B63J3/00 E02B3/062 E02B2017/0091 F03B13/182 F03D5/04 F24F5/0035 F24F6/14 Y02B10/30 Y02B10/50 Y02E10/38 F03D13/20 F28D5/00 B01D61/10 B63B35/44 B63B2035/446 B63B2035/4466 B64C31/04 B64C31/06 F03D5/00 F05B2240/921 F05B2240/922 F24F2001/0088 Y02B30/545 Y02E10/70 Y02E10/728 B63H9/10 F05B2210/18

European class: B01D61/10 B63B1/10C B63B1/12B B63B35/00 B63B35/44 B63B39/06 B63B43/06 B63G1/00 B63G8/30 B63H19/02 B63H9/06 B63H9/10 B63H9/10C B63J3/00 B64C31/04 B64C31/06 E02B3/06B F01K27/00 F02C1/05 F03B13/18B2D F03D11/04 F03D5/00 F03D5/04 F03G7/00 F24F5/00C7 F24F6/14 F28D5/00 L63B1/24 L63B35/44 L63B35/44E7 L63B35/44E9 L63B39/06R L63B43/06 L63H9/10 L63J1/00 L63J3/00 M02F1/04 P02B17/00M R05B210/18 R05B240/40 R05B240/921 R05B240/922 R05B240/931 R05B260/212 R24F1/00G1 Y02B10/30 Y02B10/50 Y02B30/14 Y02B30/54D Y02E10/38 Y02E10/70 Y02E10/72L Y02E10/72N Y02E20/18 Y02T50/67B2 Y02T50/67F2 Y02T70/59

US class: 114/102 114/267 114/382 114/39.1 114/39.2 114/39.26 114/39.29 114/39.31 210/136 210/170 210/259 210/321.87 244/153.00R 244/153R 244/24 405/76 415/5 416/8 417/330 417/332 60/39.01 60/506 60/618 60/618P 60/676 60/698 60/698P 60/772 62/304 62/310 62/314 623/40

[Classification Explorer](#)

Cited documents: US6880344 BB, US6327994 BA, US6293121 BA, US5797274 A, US5775121 A, US5598719 A, US5497633 A, US5435259 A, US5272879 A, US5168722 A, US4993348 A, US4829928 A, US4756666 A, US4738212 A, US4708078 A, US4694770 A, US4612868 A, US4598659 A, US4572962 A, US4562786 A, US4544331 A, US4540313 A, US4447738 A, US443641 A, US4358254 A, US4341177 A, US4313391 A, US4303834 A, US4302684 A, US4230060 A, US4206608 A, US4182128 A, US4175910 A, US4163905 A, US4160624 A, US4124182 A, US4118941 A, US4116151 A, US4115034 A, US4112864 A, US411252 A, US4111609 A, US4087209 A, US4052134 A, US3996741 A, US3937166 A, US3933110 A, US3846858 A, US3809507 A, US3730643 A, US3504988 A, US3326392 A, US3190545 A, US2454058 A, US2423720 A, US210573 A, US2028331 A, US1887316 A, US1526631 A, US1504057 A, US1266472 A, US1061091 A, US1046026 A, GB25234, GB219873 A, GB2131491 A1, GB2131490 A1, GB189425234 A, GB1588600 A, FR993473 A, FR975126 A, FR2523220 A1, FR2312666 A1, DE2836922 A1,

Forward Citations: WO9604479, WO9510706, WO9421913, WO16176184, WO16154757, WO16130438, WO15083154, WO15049551, WO13150320, WO13150320, WO13063606, WO13052752, WO13052752, WO11121557, WO11024084, WO11024084, WO10151237, WO10096656, WO10096656, WO10043987, WO10043987, WO10000100, WO09118427, WO09059111, WO09058637, WO09052202, WO09052202, WO09003362, WO08124037, WO08072269, WO08054131, WO08031904, WO08006413, WO07065717, WO07027544, WO07000788, WO06117593, WO06113988, WO06078315, WO06028454, WO05064155, WO03092847, WO03092847, WO02072479, WO02063165, WO02056989, WO02056989, WO0141897, USD749231, USD747450, USD746966, USD746425, USD729925, USD729376, USD729375, USD729374, USD729373, USD729372, USD728770, USD728769, USD728092, USD718208, USD581438, US9599995, US9599368, US9599356, US9598826, US9587630, US9581255, US9581140, US9581135, US9568021, US9568006, US9546099, US9534581, US9513028, US9511859, US9506656,

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Abstract:

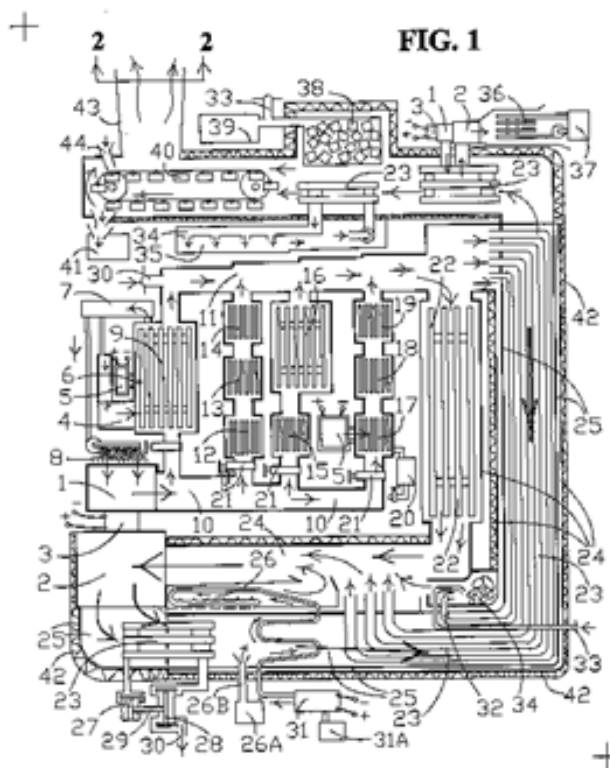
Source: US2005120715A What has been created is a plurality and a variety of processes and a variety of devices correspondingly supportive to each process, wherein, a new partnership between; (1) a heat absorbing radiator compressed air pipes/tubes and (2) a gas turbine engine or a reciprocating piston engine,—is used to recapture and reconvert the, otherwise wasted, heat energies expelled by engines, by factories, by smelting plants, by distillation plants, by chillers/coolers/freezers, by cooking ovens, by lamps/stoves, by trash burners, and the heat energies created by the solar heat on the desert/ocean water,—into electric power and finally into hydrogen–deuterium fuel,—by having the engine's tailpipes submerged in cold compressed air inside the heat absorbing radiator pipes in reverse air flow, to further drive and re–drive the same engine; wherein, in order to capture fusion heat energy the hydrogen bomb is detonated in the deep ocean to catch the flames by the water and the hot water is used to energize the compressed air inside the heat absorbing radiator pipes; wherein, in order to produce fusion energy, an abundant electric arc is passed across liquid deuterium or across gaseous deuterium by the electro–plasma torch and sparkplug in the internal combustion engine, and by detonating a dynamite inside a liquid deuterium; wherein diamond is produced by placing carbon inside the hydrogen bomb; and wherein, deuterium fusion flame is used first in smelting glass to large sizes before running an engine.

PatBase - W006078315_A1

WO 2006/078315

1/29

PCT/US2005/025793



2) Family number: 17916773 (US3610133A)

© PatBase

Title: APPARATUS FOR COOKING CHICKEN
Priority: US19690824430 19690514 US19700024517 19700401 US19720272180 19720717
Family:

Publication number	Publication date	Application number	Application date
AU197014807 A1	19711118	AU19700014807	19700508
BE750352 A1	19701016	BE19700750352	19700513
CA918943 A1	19730116	CA19700082553	19700512
CA973754 A1	19750902	CA19710105723	19710218
DE2022337 A1	19701119	DE19702022337	19700506
DE7017113 U	19720518	DE19700017113U	19700506
FR2042635 A1	19710212	FR19700017483	19700513
GB1271161 A	19720419	GB19700023099	19700513
GB1271162 A	19720419	GB19710030748	19700513
IT1032010 A	19790530	IT19710049124	19710317
IT983069 A	19741031	IT19700050651	19700513
JP51018508 B4	19760610	JP19700041285	19700514
NL7007027 A	19701117	NL19700007027	19700514
US3610133 A	19711005	US19690824430	19690514
US3845702 A	19741105	US19720272180	19720717

Probable Assignee: MIES PRODUCTS INC

Assignee(s):^(std): MIES FILTER PROD INC ; MIES FILTER PRODUCTS INC ; NIES FILTER PRODUCTS INC

Assignee(s): MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LOUISVILLE KENTUCKY 40204 E U A ; WINSTON L SHELTON ; MIES FILTER PRODUCTS INC 708 710 BARRETT AVENUE LO ; MIES PRODUCTS INC ; MIES FILTER PROD INC US ; MIES FILTER PRODUCTS ; CARL P MIES JR ; MIES CARL P

Inventor(s):^(std): MIES C ; MIES C P ; MIES CARL P ; MIES CARL P JR ; SHELTON W L ; SHELTON WINSTON L ; L SHELTON WINSTON ; P MIES CARL

Inventor(s): MIES C US ; CARL P MIES ; CP MIES ; CARL P MIES JR ; C P MIES ; WL SHELTON ; WINSTON L SHELTON ; W L SHELTON

International class
 (IPC 8-9): [A23L1/31](#) [A23L1/315](#) [A23L13/50](#) [A47J27/08](#) [A47J37/12](#) (Advanced/Invention);
[A23L1/31](#) [A23L1/315](#) [A47J27/08](#) [A47J37/12](#) (Core/Invention);
[A22C](#) (Subclass/Invention)

International class
 (IPC 1-7): [A22C](#) [A23L1/315](#) [A47J](#) [A47J37/00](#) [A47J37/12](#) [E05F](#)

CPC: [Y10S210/08](#) [A47J27/0817](#) [Y10T137/86397](#)

European class: [A47J27/08R](#)

US class: [137/624.12](#) [210/162](#) [210/489](#) [210/DIG.8](#) [220/324](#) [392/459](#) [99/337](#) [99/342](#) [99/408](#) [99/410](#) [993/370](#)

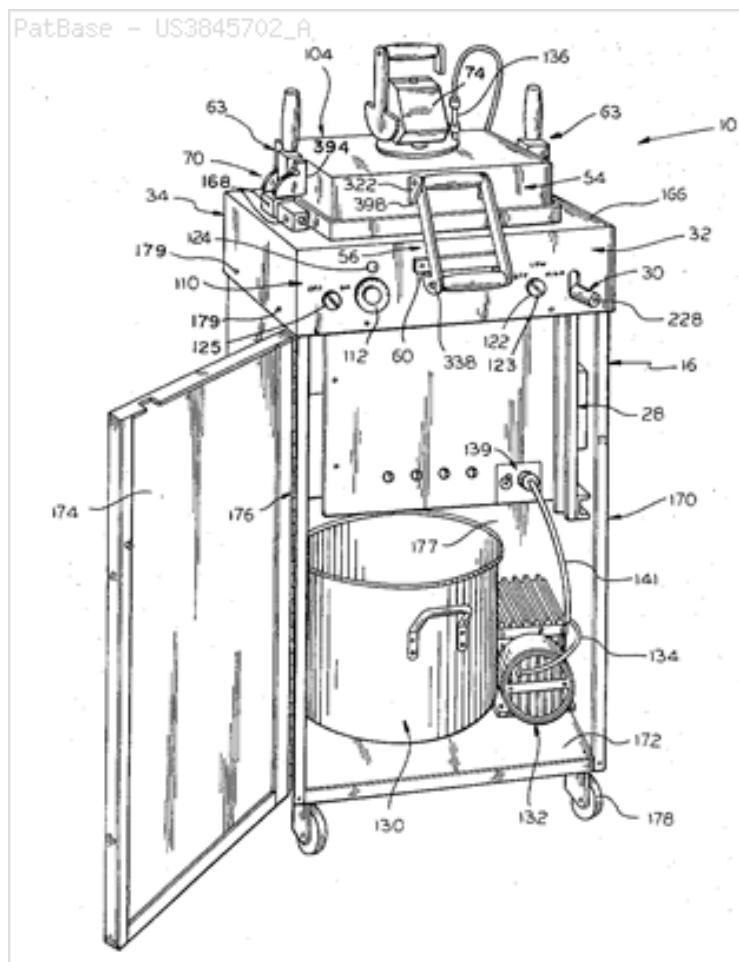
[Classification Explorer](#)

Cited documents: US3655411 A, US3363541 A, US3263596 A, US3245800 A, US3194662 A, US2914063 A, US2128738 A, US1707786 A,

Forward Citations: WO03032794, USRE33712, US8707857, US8354620, US8067717, US7856923, US7314001, US7227107, US6773237, US6711992, US6666131, US6451125, US6374835, US6328045, US6095163, US6044854, US5247878, US5002196, US4798939, US4721094, US4487691, US4325491, US4313371, US4273991, US4230574, US3977973, US3861286, US3853044, US3816703, US3793940, US3750560, US2015129509, US2011049123, US2009013879, US2009007799, US2008233257, US2006091137, US2006065582, US2004079238, US2003039557,

Abstract:

Source: US3610133A ABSTRACT OF THE DISCLOSURE This application discloses important aspects of the method disclosed in the copending application of Carl P. Mies, Jr., Ser. No. 24,517, filed Apr. 1, 1970, and assigned to the assignee of the instant application.



0) US3147220A – FILTER

3) Family number: 22500808 (US3147220A)

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Title: FILTER

Priority: US19600043624 19600718

Family:	Publication number	Publication date	Application number	Application date
	GB910348 A	19621114	GB19610025753	19610717
	US3147220 A	19640901	US19600043624	19600718

Probable Assignee: THEODORE PAUL AVERY

Assignee(s):^(std): AVERY THEODORE P ; THEODORE PAUL AVERY

Inventor(s):^(std): AVERY THEODORE P

International class
(IPC 8-9): [A47J37/12 B01D29/27 B01D35/02 B01D37/02](#) (Advanced/Invention);
[A47J37/12 B01D29/13 B01D35/00 B01D37/00](#) (Core/Invention)

CPC: [Y10S210/08 B01D37/02 A47J37/1223 B01D29/27](#)

European class: [A47J37/12D B01D23/00 B01D29/27 B01D37/02](#)

US class: [210/315 210/338 210/445 210/479 210/484 210/DIG.8](#)

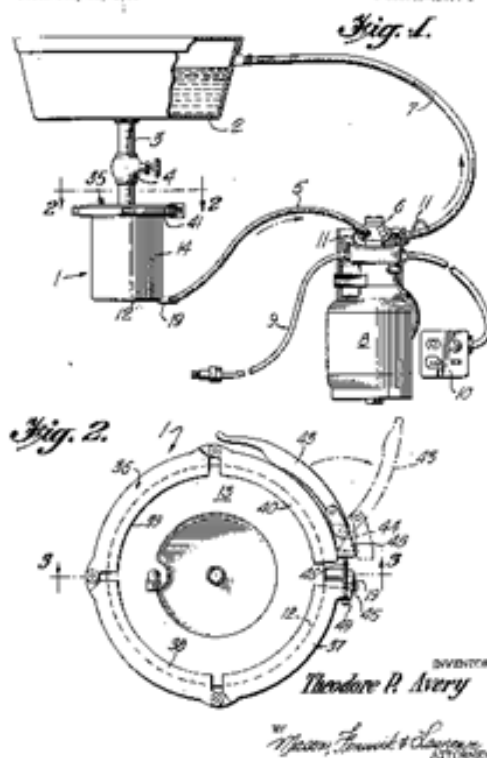
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Cited documents: US540940 A, US2727634 A, US2633990 A, US2133004 A, US2100951 A, US2066364 A, US1810965 A, US1602343 A, US1563904 A, US1065992 A, GB185925 A,

Forward Citations: WO05117671, WO04080571, USRE34636, US8163098, US7704387, US7698994, US7309422, US6890428, US6572764, US5870945, US5731024, US5709899, US5667566, US5653870, US5595107, US5407565, US5247878, US5228985, US4842737, US4839048, US4818398, US4805525, US4390425, US4282094, US4024065, US3658179, US2010192981, US2008196596, US2008060528, US2007170110, US2007062515, US2005072309, US2004222145, US2003196940, JP49037259, FR2374874, EP0092297, EP0089219,

Source: GB910348A 910,348. Filters. AVERY, T. P. July 17, 1961 [July 18, 1960], No. 25753/61. Class 46. [Also in Group XXV] A filter comprises a cylindrical can 12 having an outlet 18 and a peripheral flange 16, a perforated cylindrical basket 22 seated laterally loosely within the can, a cloth filter bag 20 having a paper rim lying in an annular seat in the flange 16, and a steel perforated container 24 for filter aid with a peripheral flange also lying in the annular seat. There is a baffle 27 having a diffuser 29. A cover 13 having an inlet 3 for oil to be filtered is releasably secured by a toggle lever and a hinged locking rim (see Group XXV). The filtrate is withdrawn by a pump and delivered to a fry kettle, from which used oil gravitates to the filter, the feed pipes having electrical heating elements. In a modification, Fig. 5 (not shown) the baffle is omitted and the cover has a depending annular rib, over which there is a porous closure plate.

Sept. 1, 1964	T. P. AVERY	3,147,220
	PLATE	
Filed July 28, 1960		2 Sheets-Draw 1



- **search:** SS8 ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and hole* (Results 46)
- **List:** SS8 1–50 (ft=(lid or cover) and (splash* or splat*) and oil and (cook* or fry*) and (crank or handle) and hole*) (Results 46)

0) US2001009128A – ROTISSERIE OVEN HAVING A HEAT SHIELD

1) Family number: 28328965 (US2001009128A)

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Title: ROTISSERIE OVEN HAVING A HEAT SHIELD

Priority:

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Family:

Publication number	Publication date	Application number	Application date
AT295109 E	20050515	AT20020090002T	20020108
AT333230 E	20060815	AT20020075354T	20020108
AU200210080 A5	20020718	AU20020010080	20020107
AU777121 B2	20040930	AU20020010080	20020107
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CA2550036 AA	20020712	CA20022550036	20020104
DE60204060 D1	20050616	DE20026004060	20020108
DE60204060 T2	20060316	DE20026004060T	20020108
DE60213291 D1	20060831	DE20026013291	20020108
EP1222889 A1	20020717	EP20020090002	20020108
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EP1535556 A1	20050601	EP20050075354	20020108
EP1535556 B1	20060719	EP20050075354	20020108
EP1700550 A1	20060913	EP20060090100	20020108
HK1048240 A1	20051118	HK20030100435	20030117
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KR20020061116 A	20020722	KR20020001777	20020111
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Probable Assignee: RONCO HOLDINGS INC

Assignee(s):^(std): POPEIL RON ; RONCO CORP ; RONCO MARKETING CORP ; RONCO ACQUISITION CORP ; ADVANTAGE PARTNERS ; ADVANTAGE PARTNERS IP LLC ; ADVANTAGE PARTNERS LLC ; BACKUS ALAN L ; RONCO HOLDING INC

Assignee(s): RONCO HOLDINGS INC ; CROSSROADS FINANCIAL LLC ; KALLINA CORP ; ALAN L BACKUS ; LAURUS MASTER FUND LTD ; ROMCO MARKETING CORP ; LV

ADMINISTRATIVE SERVICES INC ; POPEIL RONALD M ; RON POPEIL ; RONCO
AQUISITION LLC ; LV ADMINISTRATIVE SERVICES AGENT AS

Inventor(s):(std): ALAN L BACKUS ; BACKUS ALAN L ; POPEIL RON ; POPEIL RONALD M ; RON
POPEIL

Inventor(s): BACKUS ALAN ; POPEIL RONALD

Agent(s): FB RICE; FETHERSTONHAUGH AND CO; JEFFER MANGELS BUTLER AND
MARMARO LLP; CONNOLLY BOVE LODGE AND HUTZ LLP; JEFFER MANGSIS
BUTLER AND MARMARO LLP

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

International class
(IPC 8-9): A21B1/00 A21B1/22 A21B2/00 A21B3/00 A22C7/00 A23L1/01 A23L5/10 A23P1/00
A47J36/06 A47J37/00 A47J37/04 A47J37/06 A47J37/07 A47J43/18 B65D25/26
F27D11/02 F27D3/12 (Advanced/Invention);
A47J36/06 A47J37/07 F24C15/16 (Advanced/Non-invention);
A47J37/04 A47J37/06 (Core/Invention);
F24C15/16 (Core/Non-invention)

International class
(IPC 1-7): A22C7/00 A23L1/00 A23P1/00 A47J27/00 A47J27/62 A47J37/00 A47J37/04 A47J37/06
A47J37/07 A47J43/18

CPC: Y10S220/912 A47J37/0629 A47J37/0664 A47J37/0641 A47J36/06 A47J37/041
A47J37/042 A47J37/043 A47J37/047 A47J37/0623 A47J37/0635 A47J37/0745 A47J43/18

European class: A47J37/04A A47J37/04B A47J37/04C A47J37/04G A47J37/06C A47J37/06C10
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K47J37/06C10

US class: 126/190 126/194 126/198 126/273.5 126/275E 219/403 219/405 219/411 220/326
220/573.1 220/573.100P 220/655 220/655S 220/912 426/241 426/243 426/523 426/523S
99/326 99/326P 99/327 99/331 99/331S 99/332 99/335 99/339 99/349 99/357 99/357S
99/395 99/419 99/419P 99/419S 99/421 99/421.00H 99/421.00HP 99/421.00HS
99/421.00R 99/421.00RS 99/421H 99/421HH 99/421HV 99/421P 99/421R 99/421V
99/427 99/427P 99/427S 99/447 993/270 993/490 993/950 994/210R

[Classification Explorer](#)

Cited documents: WO8604978 A1, WO8604978, WO0028869 A1, WO0028869, USD434939 S1,
USD434939, USD433867 S1, USD433867, USD422172 S1, USD422172, USD415923
S1, USD415923, USD395980 S1, USD395980, USD391799 S1, USD391799,
USD347762 S1, USD347762, USD199712 S1, US961543 A, US904382 A, US848018 A,
US807162 A, US7225730 BB, US7225729 BB, US714430 A, US7138609 BB, US7021204
BB, US7021203 BB, US6988445 BA, US6965095 BA, US693725 A, US6874408 BB,
US6837150 BB, US6782806 BB, US6782805 BB, US6742445 BB, US6734914 BA,
US6658991 BB, US6570613 BA, US6568316 BA, US6568315 BB, US6536334 BB,
US6450087 BB, US6422136 BA, US6408742 BA, US6393972 BA, US6363841 BA,
US6330855 BB, US6279165 BA, US6279165, US6265697 BA, US6257128 BA,
US6257128, US6253665 BA, US6250214 BA, US6250211 BA, US6250211, US6240838
BA, US6182560 BA, US6182560, US6178879 BA, US6178879 B1, US6178879,
US6173645 BA, US6173645 B1, US6170390 BA, US6170390 B1, US616964 A,
US6167800 BA, US6167800 B1, US6167800, US616694 A, US6142064 A, US6138553 A,
US6138553, US6131505 A, US6119586 A, US6119586, US6085642 A, US6085642,
US6080967 A, US6079322 A, US6079322, US6079319 A, US6079319, US6076453 A,
US6076453, US6047633 A, US6047633, US6041694 A, US6041694, US6038965 A,
US6038965, US6023049 A, US6023049, US6009797 A, US6009797, US5997928 A,
US5997928, US5981926 A, US5981926, US5974956 A, US5974956, US5970854 A,
US5970854, US5961866 A, US5957557 A, US5918589 A, US5918534 A, US5918534,
US5910332 A, US5910332, US5908576 A, US5887513 A, US5887513, US5881640 A,
US5881640, US5845563 A, US5845563, US5837980 A, US5819639 A, US5819639,
US5814795 A, US5809995 A, US5809995, US5802962 A, US5802962, US5801362 A,
US5801362, US5801357 A, US5801357, US5799569 A, US5799569, US5798505 A,
US5798505, US5793610 A, US5793610, US5785046 A, US5785046, US5780815 A,
US5780815, US5778766 A, US5778766, US5761991 A, US5761991, US5746116 A,
US5746116, US5740724 A, US5740724, US5740722 A, US5740722, US5735191 A,
US5735191, US5727719 A, US5727719, US5726424 A, US5720217 A, US5720217,
US5716657 A, US5716657, US5715744 A, US5715744, US5697289 A, US5697289,
US5671659 A, US5671659, US5669290 A, US5669290, US5665258 A, US5665258,
US5639497 A, US5639497, US5634559 A, US5632265 A, US5632265, US5632098 A,
US5632098, US5619909 A, US5619909, US5611265 A, US5611265, US5601070 A,
US5601070, US5598769 A, US5598769, US5598582 A, US5598582, US559720 A,
US5592869 A, US5592869, US5588353 A, US5588353, US5579681 A, US5579681,
US5575196 A, US5575196, US5566997 A, US5566997, US5562022 A, US5562022,
US5560285 A, US5560285, US5545874 A, US5545874, US553363 A, US5533440 A,

US5533440, US5518127 A, US5518127, US5515774 A, US5515774, US5515773 A,
US5497697 A, US5497697, US5485780 A, US5485780, US5477029 A, US5473977 A,
US5473977, US5471915 A, US5471915, US5471914 A, US5471914, US5469782 A,
US5469782, US5465653 A, US5465653, US5451744 A, US5451744, US5447620 A,
US5447620, US5447096 A, US5447096, US5445065 A, US5445065, US5445064 A,
US5445064, US5442999 A, US5442999, US5441037 A, US5441037, US5431093 A,
US5431093, US5429042 A, US5429042, US5427015 A, US5427015, US5417148 A,
US5417148, US5410950 A, US5410950, US5410948 A, US5410948, US5405627 A,
US5405627, US5404795 A, US5404795, US5390588 A, US5390588, US5379685 A,
US5379685, US5373809 A, US5373809, US5373778 A, US5373778, US5369497 A,
US5367950 A, US5367950, US5361686 A, US5361686, US5361685 A, US5361685,
US5325767 A, US5325767, US5297534 A, US5297534, US5275095 A, US5275095,
US5235903 A, US5235903, US5235148 A, US5235148, US5205208 A, US5205208,
US5205207 A, US5205207, US5203252 A, US5193444 A, US5193444, US5184540 A,
US5184540, US5182981 A, US5182981, US5176124 A, US5176124, US5172628 A,
US5172628, US5163358 A, US5163358, US5148737 A, US5148737, US5146842 A, US5146842,
US5136933 A, US5136933, US5134927 A, US5134927, US5101715 A, US5058493 A,
US5058493, US5044262 A, US5044262, US504256 A, US5039535 A, US5039535, US5038748 A,
US5038748, US5001971 A, US5001971, US4986174 A, US4986174, US4968515 A,
US4968515, US4924766 A, US4924766, US4889972 A, US4889972, US4886044 A,
US4886044, US4870896 A, US4870896, US4867051 A, US4867051, US4839186 A,
US4839186, US4817514 A, US4817514, US4743737 A, US4743737, US4726352 A,
US4726352, US4717802 A, US4688541 A, US4688541, US4661669 A, US4661669,
US4625634 A, US4625634, US4600254 A, US4600254, US4591683 A, US4591683,
US4585661 A, US4585661, US4583452 A, US4583452, US4572062 A, US4572062,
US4562771 A, US4562771, US4556046 A, US4556046, US4555986 A, US4555986,
US4548130 A, US4548130, US4520791 A, US4520791, US4508024 A, US4508024,
US4505195 A, US4505195, US4491065 A, US4491065, US4483241 A, US4483241,
US4470343 A, US4470343, US4455928 A, US4455928, US4455319 A, US4455319,
US4454805 A, US4454805, US4450758 A, US4450758, US4442763 A, US4442763, US442758 A,
US442758, US4421016 A, US4421016, US4418261 A, US4418261, US4410553 A, US4410553,
US4409452 A, US4409452, US4407189 A, US4407189, US4372199 A, US4372199,
US4366750 A, US4366750, US4355626 A, US4355626, US4355569 A, US4355569,
US4335289 A, US4335289, US4327274 A, US4327274, US4321857 A, US4321857,
US4304177 A, US4304177, US4301718 A, US4301718, US4300443 A, US4300443,
US4286133 A, US4286133, US427671 A, US4270444 A, US4270444, US4250955 A,
US4244979 A, US4244979, US422172 A, US4214516 A, US4214516, US4181074 A,
US4181074, US4176592 A, US4176592, US4165684 A, US4165684, US4165683 A,
US4163894 A, US4163894, US4158992 A, US4158992, US4154154 A, US4154154,
US4119020 A, US4119020, US4114523 A, US4114523, US4112832 A, US4106473 A,
US4106473, US4103606 A, US4103606, US4103605 A, US4103605, US4089258 A,
US4089258, US4051838 A, US4051838, US4005646 A, US4005646, US3980010 A,
US3980010, US395980 A, US395980, US3959620 A, US3959620, US3943837 A,
US3943837, US3939761 A, US3939761, US3935807 A, US3935807, US3935806 A, US3935806,
US3931758 A, US3931758, US3901136 A, US3901136, US3893442 A, US3867877 A,
US3867877, US3867605 A, US3867605, US3848525 A, US3848522 A, US3848522,
US3838538 A, US3838538, US3812840 A, US3807292 A, US3807292, US3805762 A,
US3805762, US3802331 A, US3802331, US3797379 A, US3797379, US3782268 A,
US3782268, US3734740 A, US3734740, US3732803 A, US3693538 A, US3693538,
US3566777 A, US3566777, US3559565 A, US3559565, US3529536 A, US3529536,
US3527155 A, US3527155, US3511170 A, US3511170, US3503323 A, US3503323,
US3473464 A, US3473464, US3473463 A, US3362350 A, US3362350, US3362320 A, US3362320,
US3355573 A, US3355573, US3348471 A, US3348471, US3335712 A, US3335712,
US3333529 A, US3333529, US3329082 A, US3329082, US3315591 A, US3315591,
US3298301 A, US3285238 A, US3285238, US3276351 A, US3269299 A, US3248518 A,
US3240147 A, US3235238 A, US3227405 A, US3215338 A, US3205812 A, US3196776 A,
US3188939 A, US3186776 A, US3182585 A, US3181453 A, US3129653 A, US3129653,
US3127889 A, US3126814 A, US3125015 A, US3121424 A, US3104605 A, US3103161 A,
US3100435 A, US3085500 A, US3079208 A, US3074360 A, US3070953 A, US3045581 A,
US3045581, US3025783 A, US2983218 A, US2979053 A, US2940380 A, US2939383 A,
US2938450 A, US2925081 A, US2917988 A, US2898437 A, US2895408 A, US2888872 A,
US2888872, US2887994 A, US2887944 A, US2885950 A, US2882812 A, US2867163 A,
US2851575 A, US2846941 A, US2845941 A, US2839989 A, US2831421 A, US2831420 A,
US2828733 A, US2827847 A, US2821187 A, US2815707 A, US2811099 A, US2809579 A,
US2762293 A, US2760428 A, US2759411 A, US2754401 A, US2727315 A, US2722885 A,
US2722882 A, US2705450 A, US2701516 A, US2700682 A, US2696163 A, US2681001 A,
US2664490 A, US2649852 A, US2638841 A, US2619951 A, US2618730 A, US2616360 A,
US2607286 A, US257609 A, US2565967 A, US251657 A, US2502685 A, US2501104 A,
US2472164 A, US2297825 A, US2245220 A, US2142390 A, US2136658 A, US2133667 A,
US2130259 A, US2102097 A, US2085169 A, US2049481 A, US2048769 A, US2012811 A,
US2007145061 AA, US2006144248 AA, US2005178275 AA, US199712 A, US1993607 A,
US1976989 A, US1786300 A, US1723704 A, US1666394 A, US1584121 A, US1471122 A,
US1282195 A, US1093883

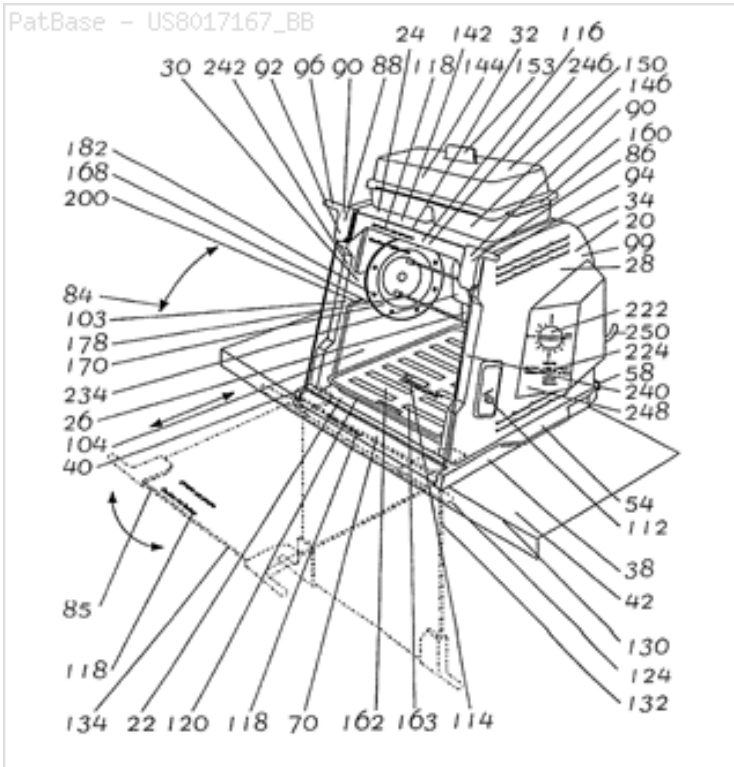
A, US1063516 A, US1045049 A, SE550872, SE500872 C2, SE500872, SE323756, SE323756, KR206810, KR100206810 B1, JPS6122133, JP61022133 A2, JP61022133, JP60049785 A2, JP60049785, JP60019785 A2, IT555893 A, IT555893, IT555893, IT555893, GB996233 A, GB996233, GB996223 A, GB880899, GB880899, GB850083 A, GB850083, GB478044, GB478044, GB1257945, GB1257945, FR853400 A, FR853400, FR2739272, FR2625668 A1, FR2625668, FR2603178 A3, FR2603178, FR2498915 A1, FR2498915, FR2477396 A1, FR2477396, FR24477396, FR2276799 A1, FR2276799, FR2078609, FR2078609, FR1300126, FR1300126, FR1265159, FR1265159, FR1218203 A, FR1218203, FR1116586 A, FR1116586, ES2029576 AF, ES2029576 a2, ES2029576, EP1700550, EP1535556, EP1222889, EP0853400, EP0853400, EP0396470 A1, EP0396470, EP0332505 A1, EP0332505, EP0281866 A1, EP0281866, DE91799 A, DE7407464, DE7407464, DE7407464, DE7213693, DE7213693, DE7213693, DE7047203, DE7047203, DE7047203, DE657089, DE657089, DE4413059, DE4413050 C1, DE4413050, DE43251, DE43251, DE43251, DE4226098 A1, DE4226098, DE4113050, DE4112325 A1, DE4112325, DE3606800 A1, DE3401002 A1, DE3401002, DE3235985 A1, DE3214818 A1, DE3214818, DE3000653 A1, DE3000653, DE29916242 U1, DE29916242 U, DE29916242, DE29916242, DE29916161 U1, DE29916161 U, DE29916161, DE29916161, DE29909108 U1, DE29909108 U, DE29909108, DE29909108, DE29602405 U1, DE29602405 U, DE29602405, DE29602405, DE2646811 A1, DE2646811, DE2601877 A1, DE2601877, DE2430233 A1, DE2430233, DE2425346 A1, DE2425346, DE2358119, DE2358119, DE2310390, DE2310390, DE2308779, DE2308779, DE2307575, DE2307575, DE2205703, DE2205703, DE1998600, DE1998600, DE1998600, DE1779063, DE1779063, DE1679001, DE1679001, DE1679001, DE1454157, DE1454157, DE1454157, DE1454014, DE1454014, DE1454014, DE1454011, DE1429829, DE1429829, DE1429829, DE1162985, DE1162985, DD2601877, DD2430233, DD2425346, DD2358119, DD2310390, DD2308779, DD2307575, CH662496, CH662496, CH603430, CH603130, CH603130, CH424144, CH424144, AU238395 A1, AU238395, AT238395, AT238395, AT223335, AT223335,

Forward Citations:

WO17021887, WO14195219, WO14195129, WO14120239, WO13043285, WO10053538, WO09105111, WO03007765, WO03007765, USD771994, USD703993, USD693643, USD650228, USD629639, USD532654, US9513016, US9480364, US9402505, US9326639, US9289543, US9288997, US9211035, US9155422, US9155421, US9096364, US9003960, US8943953, US8877064, US8850966, US8850965, US8776774, US8752538, US8739693, US8707857, US8687842, US8584580, US8575520, US8549993, US8516952, US8485176, US8438970, US8408120, US8402885, US8375848, US8330083, US8330080, US8309151, US8272321, US8186265, US8151697, US8110237, US8065954, US8053707, US8051768, US8043087, US8017167, US8015727, US7981459, US7964824, US7958650, US7937929, US7934494, US7921768, US7878111, US7823502, US7798139, US7793648, US7739948, US7626142, US7536946, US7514651, US7487716, US7478586, US7412922, US7404354, US7325484, US7306555, US7263990, US7241977, US7164850, US7060942, US6941857, US6923110, US6837151, US6782805, US6637319, US6568316, US6561083, US6509549, US6497175, US6363841, US2015375468, US2015250187, US2015164088, US2015020284, US2014299002, US2014246008, US2014245897, US2014157997, US2013233182, US2013193130, US2012260809, US2012199017, US2012174906, US2012097046, US2012076350, US2012037012, US2011283893, US2011262113, US2011220573, US2011203570, US2011142998, US2011136587, US2011061545, US2011030670, US2010313878, US2010303973, US2010270282, US2010269712, US2010258109, US2010224079, US2010206287, US2010206179, US2010199855, US2010059038, US2010037782, US2010000417, US2009282989, US2009196970, US2009191322, US2009178665, US2009178664, US2009178579, US2009178578, US2009178577, US2009173240, US2009139981, US2009126366, US2009120303, US2009090248, US2009087535, US2009087534, US2009044706, US2009032007, US2008289511, US2008250940, US2008229937, US2008223845, US2008164246, US2008145282, US2008098903, US2008092751, US2008005918, US2008002383, US2007293385, US2007283945, US2007256571, US2007102418, US2007101869, US2007045201, US2007034621, US2007028912, US2007028781, US2007028780, US2007006869, US2006289530, US2006278211, US2006225580, US2006191156, US2006124627, US2006124561, US2006112837, US2006076789, US2006031234, US2005276892, US2005268794, US2005261475, US2005102854, US2005072018, US2005022676, US2005000371, US2004250693, US2004142082, US2004103795, US2004079239, US2004055477, US2003110955, TWI554235, KR100743273, ITVI20110317, ITVI20090078, ITMO20100357, GB2461395, GB2447284, GB2412296, GB2412296, EP2482866, EP2085003, EP1994864, EP1796475, EP1700550, EP1222889, DE102009045095, DE102009045095, CN104172941, CN104172941, CN103770666, CN102920357, AU777121,

Abstract:

Source: US2001009128A Enclosed rotisserie with added convenience, including a countertop resting box-like enclosure housing a safety rear mounted heating element and a power rotated dual rod spit assembly. The gear driven spit assembly may be easily inserted and removed straight into and out of the enclosure without need for angling or coupling the assembly to a power drive socket. The spit assembly may also be mounted at various distances from the heating element to decrease cooking times. The open front of the enclosure is from time to time covered by an inclined glass panel door which may be opened in various ways to facilitate food insertion into and removal from the enclosure, and which may be easily removed for cleaning or other purposes. The embodiment's design makes efficient use of valuable counter space by recessing back and raising off the countertop its controls. A contained light as well as room light emitted through the inclined glass door illuminate the enclosure's interior to make the rotisserie cooking into a taste tempting show. Two countertop supported sizes for the embodiment are suggested, one for larger families and entertaining, and the other for small families and singles. Cooking times are decreased and manufacture simplified by the embodiment heating element remaining on constantly during the cooking process. Maintenance is minimized by various embodiment parts being removable for cleaning including a cleaning shield located behind the heating element, the glass door, and a drip pan with slotted cover. A variety of foods may be cooked using the spit and accessories that attach to the spit. Such accessories include wire baskets and a rotating stir fryer. Foods may be cooked on top of the embodiment as well using an included warming tray and an inserted steaming tray with cover. Grease-tight rotisserie/barbecue gloves make food handling easier and safer, as can also be said for a spit support platform which supports the spit assembly for food mounting and carving. Self-rotating kabob rods cook kabobs on all sides evenly and allow for increasing rotisserie capacity by increasing the length of rotating rods available for rotisserie food mounting.



0) US2005120715A – HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW A...

2) Family number: 30545299 (US2005120715A)

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Title: HEAT ENERGY RECAPTURE AND RECYCLE AND ITS NEW APPLICATIONS

Priority: CA20022397847 20020812 CA20022404410 20020920 PH20040000148 20040325
 US19880255719 19881013 US19860820082 19860121 US19840631321 19840719
 US19880177599 19880405 US19880255657 19881013 US19840631322 19840719
 US20050795835 20050727 US19970058062P 19970905 US19900472753 19900131
 US19890376002 19890815 US19930097655 19930727 US19910773680 19911008
 US19950506335 19950725 US19910811470 19911218 US20050039624 20050120
 WO2005US26793 20050727 US19970999729 19971223 US19980137499 19980820

Family:	Publication number	Publication date	Application number	Application date
	AP200704109 A0	20070831	AP20070004109	20050727
	AU2005325208 AA	20060727	AU20050325208	20050727
	AU2005325208 BB	20120329	AU20050325208	20050727
	CA2397847 AA	20040212	CA20022397847	20020812
	CA2404410 AA	20040320	CA20022404410	20020920
	CA2599414 AA	20070823	CA20052599414	20050727
	CN101146981 A	20080319	CN200580049207	20050727
	EA200701538 A1	20081030	EA20070001538	20050727
	EP1851418 A1	20071107	EP20050779535	20050727
	EP1851418 A4	20090513	EP20050779535	20050727
	IN05612DN2007 A	20070831	IN2007DN05612	20070719
	US2005120715 AA	20050609	US20050039624	20050120
	US2008155985 AA	20080703	US20050795835	20050727
	US4756666 A	19880712	US19840631321	19840719
	US4859146 A	19890822	US19880177599	19880405
	US5027735 A	19910702	US19900472753	19900131
	US5052902 A	19911001	US19860820082	19860121
	US5056447 A	19911015	US19880255657	19881013
	US5094595 A	19920310	US19890376002	19890815
	US5435259 A	19950725	US19930097655	19930727
	US5507943 A	19960416	US19910811470	19911218
	US6293121 BA	20010925	US19980137499	19980820
	US6327994 BA	20011211	US19970999729	19971223
	US8051637 BB	20111108	US20050795835	20050727
	WO06078315 A1	20060727	WO2005US26793	20050727
	WO06078315 C1	20061102	WO2005US26793	20050727

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Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

International class
(IPC 8-9): B01D61/10 B63B1/10 B63B1/12 B63B35/00 B63B35/44 B63B39/06 B63B43/06 B63G1/00 B63G8/30 B63H19/02 B63H9/06 B63H9/10 B63J3/00 B64C31/04 B64C31/06 E02B3/06 F01K13/00 F01K23/10 F01K27/00 F02C1/00 F02C1/05 F02G5/00 F03B13/18 F03D11/04 F03D5/00 F03D5/04 F03G7/00 F24F5/00 F24F6/14 F28D5/00 (Advanced/Invention); B63B1/24 B63J1/00 F24F1/00 (Advanced/Non-invention); B01D61/02 B63B1/00 B63B35/00 B63B35/44 B63B43/00 B63H9/00 B63J3/00 E02B3/06 F01K23/10 F01K27/00 F02C1/00 F02G5/00 F03B13/00 F03D5/00 F03G7/00 (Core/Invention)

International class
(IPC 1-7): B01D61/10 B63B17/00 B63B35/00 B63B7/00 F01K23/10 F03D5/02 F03D5/04 F03G7/00 F04B35/00 F24F6/14 F28D5/00

CPC: B63H9/06 B63H9/1021 F05D2260/212 F01K27/00 F02C1/05 F03G7/00 Y02T50/672 Y02T50/676 B63B1/121 Y02W10/33 Y02W10/37 B63B1/107 B63B1/24 B63B39/06 B63B2039/067 B63G1/00 B63G8/30 B63H19/02 B63J1/00 C02F1/04 F05B2240/40 Y02T70/59 B63B35/00 B63B43/06 B63J3/00 E02B3/062 E02B2017/0091 F03B13/182 F03D5/04 F24F5/0035 F24F6/14 Y02B10/30 Y02B10/50 Y02E10/38 F03D13/20 F28D5/00 B01D61/10 B63B35/44 B63B2035/446 B63B2035/4466 B64C31/04 B64C31/06 F03D5/00 F05B2240/921 F05B2240/922 F24F2001/0088 Y02B30/545 Y02E10/70 Y02E10/728 B63H9/10 F05B2210/18

European class: B01D61/10 B63B1/10C B63B1/12B B63B35/00 B63B35/44 B63B39/06 B63B43/06 B63G1/00 B63G8/30 B63H19/02 B63H9/06 B63H9/10 B63H9/10C B63J3/00 B64C31/04 B64C31/06 E02B3/06B F01K27/00 F02C1/05 F03B13/18B2D F03D11/04 F03D5/00 F03D5/04 F03G7/00 F24F5/00C7 F24F6/14 F28D5/00 L63B1/24 L63B35/44 L63B35/44E7 L63B35/44E9 L63B39/06R L63B43/06 L63H9/10 L63J1/00 L63J3/00 M02F1/04 P02B17/00M R05B210/18 R05B240/40 R05B240/921 R05B240/922 R05B240/931 R05B260/212 R24F1/00G1 Y02B10/30 Y02B10/50 Y02B30/14 Y02B30/54D Y02E10/38 Y02E10/70 Y02E10/72L Y02E10/72N Y02E20/18 Y02T50/67B2 Y02T50/67F2 Y02T70/59

US class: 114/102 114/267 114/382 114/39.1 114/39.2 114/39.26 114/39.29 114/39.31 210/136 210/170 210/259 210/321.87 244/153.00R 244/153R 244/24 405/76 415/5 416/8 417/330 417/332 60/39.01 60/506 60/618 60/618P 60/676 60/698 60/698P 60/772 62/304 62/310 62/314 623/40

[Classification Explorer](#)

Cited documents: US6880344 BB, US6327994 BA, US6293121 BA, US5797274 A, US5775121 A, US5598719 A, US5497633 A, US5435259 A, US5272879 A, US5168722 A, US4993348 A, US4829928 A, US4756666 A, US4738212 A, US4708078 A, US4694770 A, US4612868 A, US4598659 A, US4572962 A, US4562786 A, US4544331 A, US4540313 A, US4447738 A, US443641 A, US4358254 A, US4341177 A, US4313391 A, US4303834 A, US4302684 A, US4230060 A, US4206608 A, US4182128 A, US4175910 A, US4163905 A, US4160624 A, US4124182 A, US4118941 A, US4116151 A, US4115034 A, US4112864 A, US411252 A, US4111609 A, US4087209 A, US4052134 A, US3996741 A, US3937166 A, US3933110 A, US3846858 A, US3809507 A, US3730643 A, US3504988 A, US3326392 A, US3190545 A, US2454058 A, US2423720 A, US210573 A, US2028331 A, US1887316 A, US1526631 A, US1504057 A, US1266472 A, US1061091 A, US1046026 A, GB25234, GB219873 A, GB2131491 A1, GB2131490 A1, GB189425234 A, GB1588600 A, FR993473 A, FR975126 A, FR2523220 A1, FR2312666 A1, DE2836922 A1,

Forward Citations: WO9604479, WO9510706, WO9421913, WO16176184, WO16154757, WO16130438, WO15083154, WO15049551, WO13150320, WO13150320, WO13063606, WO13052752, WO13052752, WO11121557, WO11024084, WO11024084, WO10151237, WO10096656, WO10096656, WO10043987, WO10043987, WO10000100, WO09118427, WO09059111, WO09058637, WO09052202, WO09052202, WO09003362, WO08124037, WO08072269, WO08054131, WO08031904, WO08006413, WO07065717, WO07027544, WO07000788, WO06117593, WO06113988, WO06078315, WO06028454, WO05064155, WO03092847, WO03092847, WO02072479, WO02063165, WO02056989, WO02056989, WO0141897, USD749231, USD747450, USD746966, USD746425, USD729925, USD729376, USD729375, USD729374, USD729373, USD729372, USD728770, USD728769, USD728092, USD718208, USD581438, US9599995, US9599368, US9599356, US9598826, US9587630, US9581255, US9581140, US9581135, US9568021, US9568006, US9546099, US9534581, US9513028, US9511859, US9506656,

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US2010013236, US2010013225, US2009314625, US2009312134, US2009292577,
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US2005166615, US2005121302, US2005120715, US2005116671, US2005115099,
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Abstract:

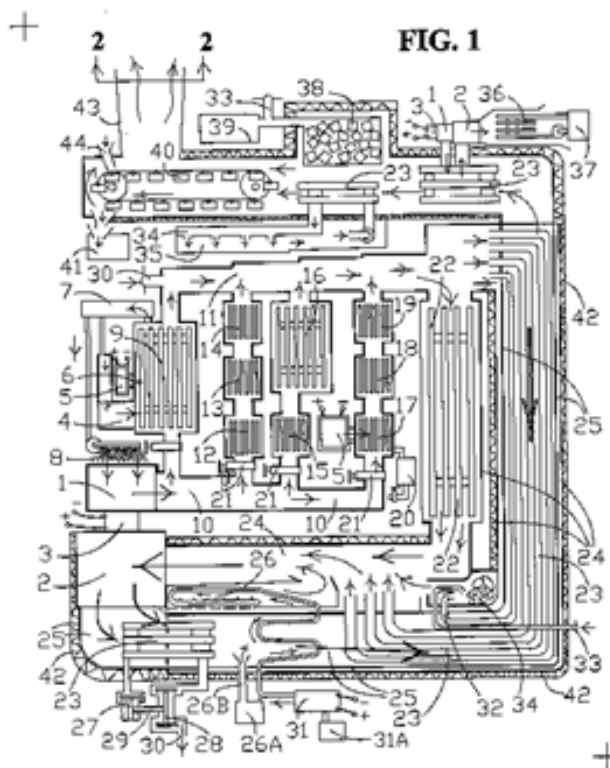
Source: US2005120715A What has been created is a plurality and a variety of processes and a variety of devices correspondingly supportive to each process, wherein, a new partnership between; (1) a heat absorbing radiator compressed air pipes/tubes and (2) a gas turbine engine or a reciprocating piston engine,—is used to recapture and reconvert the, otherwise wasted, heat energies expelled by engines, by factories, by smelting plants, by distillation plants, by chillers/coolers/freezers, by cooking ovens, by lamps/stoves, by trash burners, and the heat energies created by the solar heat on the desert/ocean water,—into electric power and finally into hydrogen–deuterium fuel,—by having the engine's tailpipes submerged in cold compressed air inside the heat absorbing radiator pipes in reverse air flow, to further drive and re–drive the same engine; wherein, in order to capture fusion heat energy the hydrogen bomb is detonated in the deep ocean to catch the flames by the water and the hot water is used to energize the compressed air inside the heat absorbing radiator pipes; wherein, in order to produce fusion energy, an abundant electric arc is passed across liquid deuterium or across gaseous deuterium by the electro–plasma torch and sparkplug in the internal combustion engine, and by detonating a dynamite inside a liquid deuterium; wherein diamond is produced by placing carbon inside the hydrogen bomb; and wherein, deuterium fusion flame is used first in smelting glass to large sizes before running an engine.

PatBase - W006078315_A1

WO 2006/078315

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PCT/US2005/025793



0) US2014020569A – TURKEY FRYER WITH COMPLETE SPLATTER PROTECTION ...

3) Family number: 55662608 (US2014020569A)

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Title: TURKEY FRYER WITH COMPLETE SPLATTER PROTECTION

Priority: US20120552732 20120719

Family:	Publication number	Publication date	Application number	Application date
	<u>US2014020569 AA</u>	20140123	US20120552732	20120719
	<u>US9016190 BB</u>	20150428	US20120552732	20120719

Probable Assignee: WEBB JAMES

Assignee(s):^(std): WEBB JAMES

Inventor(s):^(std): WEBB JAMES

Agent(s): FRANK H; KREMBLAS AND FOSTER

International class A47J37/12 A47J43/18 (Advanced/Invention)
(IPC 8-9):

CPC: A47J37/1204

US class: 99/418 99/421A

[Classification Explorer](#)

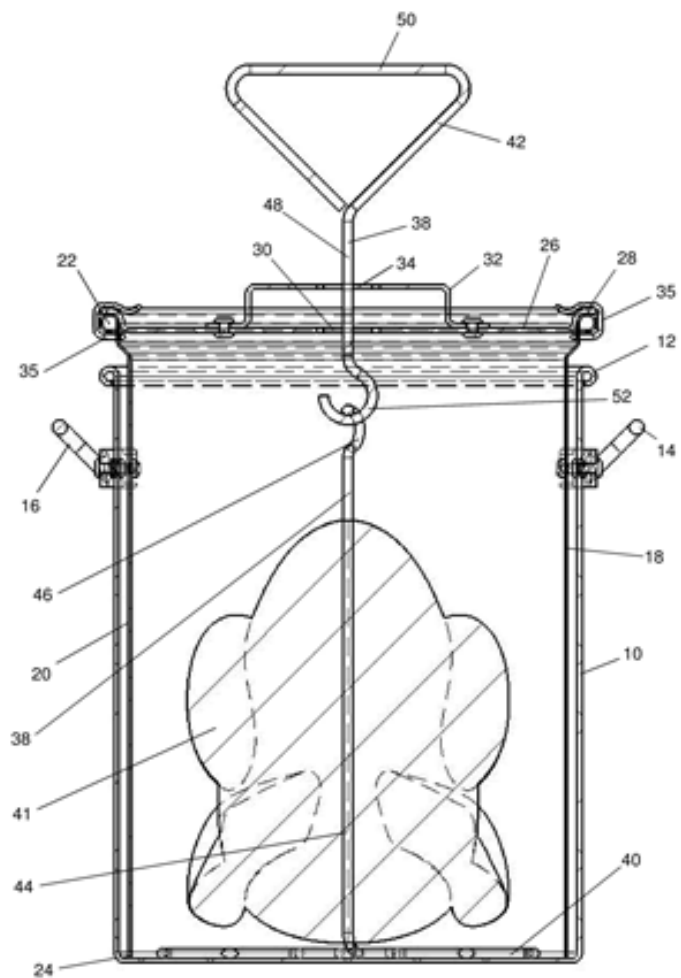
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Forward Citations: USD752921, US2015014326,

Abstract:

Source: US2014020569A A fryer for deep frying a turkey has an outer cooking pot for containing hot oil. A splatter sleeve is telescopically slidable into the pot, the sleeve having a surrounding side wall, an open top surrounded by a top sleeve rim and an open bottom surrounded by a bottom sleeve rim. A lid is sealingly seatable upon the top sleeve rim and has a lid hole. A lid latch latches the lid to the top sleeve rim. A turkey support has a turkey support base, extends upwardly from the base to a handle top end and is insertable through the hole in the lid. When these components and a turkey are assembled, suspended from the handle and lowered into hot cooking oil, the sleeve is sufficiently long that it enters the oil before the turkey thereby assuring a complete splatter barrier.

PatBase - US9016190_BB



0) CA2116150A – HANDLE AND LATCH FOR A COOKING APPARATUS AND DU...

4) Family number: 8458152 (CA2116150A)

© PatBase

Title: HANDLE AND LATCH FOR A COOKING APPARATUS AND DUAL SIDE SURFACE
COOKING APPARATUS WITH REMOVABLE TRAY

Priority: CA19942116150 19940222 US19930029496 19930311 US19930029497 19930311

Family:	Publication number	Publication date	Application number	Application date
	<u>AU199457504 A1</u>	19940915	AU19940057504	19940302
	<u>CA2116150 AA</u>	19940912	CA19942116150	19940222

Probable Assignee: BLACK AND DECKER INC

Assignee(s):^(std): BLACK AND DECKER INC

Assignee(s): ECKERT LEE H ; NAFT STUART ; RASKIN JAMES R

Inventor(s):^(std): ECKERT LEE H ; NAFT STUART ; RASKIN JAMES R

Inventor(s): STUART NAFT ; JAMES R RASKIN ; LEE H ECKERT

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK
INTELLECTUAL PROPERTY PTY LTD; GOWLING LAFLEUR HENDERSON LLP

International class
^{(IPC 8-9):} A47J27/00 A47J27/14 A47J37/00 (Advanced/Invention);
A47J27/00 A47J27/14 A47J37/00 (Core/Invention)

International class
^{(IPC 1-7):} A47J27/00 A47J27/14 A47J37/00

[Classification Explorer](#)

Abstract: CA2116150A ABSTRACT A dual side surface cooking apparatus is provided with two opposing top and bottom heaters pivotally connected to each other and a removable food tray adapted to be positioned between the two heaters. The heaters each include an aluminum block with a tubular heater attached to each block. One block has cup-like recesses and the other block has projections adapted to project into the recesses. The tray has pockets that are positioned in the cup-like recesses and make direct contact with the block of the bottom heater. When the two heaters are in a closed position, with the tray therebetween, shell-like cooking areas are formed between the tray and the top heater. After cooking, the top heater can be moved and the tray with cooked food can be removed to cool. The apparatus includes a labyrinth to allow water vapor to escape, but substantially contain grease and oil splatterings within the apparatus. The top housing includes two spaced heat barrier walls with an air gap therebetween and a slot through the top housing into the air gap. A push-button latch release controls the opening of a latch which automatically latches the top and bottom heaters together at a closed position.



0) US2005051035A – FRYING APPARATUS

5) Family number: 31730742 (US2005051035A)

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Title: FRYING APPARATUS
Priority: US20030658318 20030909
Family:

Publication number	Publication date	Application number	Application date
US2005051035 AA	20050310	US20030658318	20030909
US7044049 BB	20060516	US20030658318	20030909

Probable Assignee: JOHNSTON JR JOSEPH H

Assignee(s):^(std) JOHNSTON JOSEPH H ; JOHNSTON JR JOSEPH H ; JOHNSTON SR JOSEPH H

Inventor(s):^(std) JOHNSTON JOSEPH H ; JOHNSTON JR JOSEPH H ; JOHNSTON SR JOSEPH H

Inventor(s): JR JOSEPH H ; SR JOSEPH H ; JOHNSTON ; JOHNSTON JOSEPH

Agent(s): JUDY JARECKI BLACK PHD JD; JUDY

International class
(IPC 8-9): [A47J37/00 A47J37/12](#) (Advanced/Invention);
[A47J37/00 A47J37/12](#) (Core/Invention)

International class
(IPC 1-7): [A47J37/12](#)

CPC: [A47J37/1271](#)

European class: [A47J37/12L](#)

US class: [126/385.1 126/386.1 99/337 99/339 99/403 99/645 993/370](#)

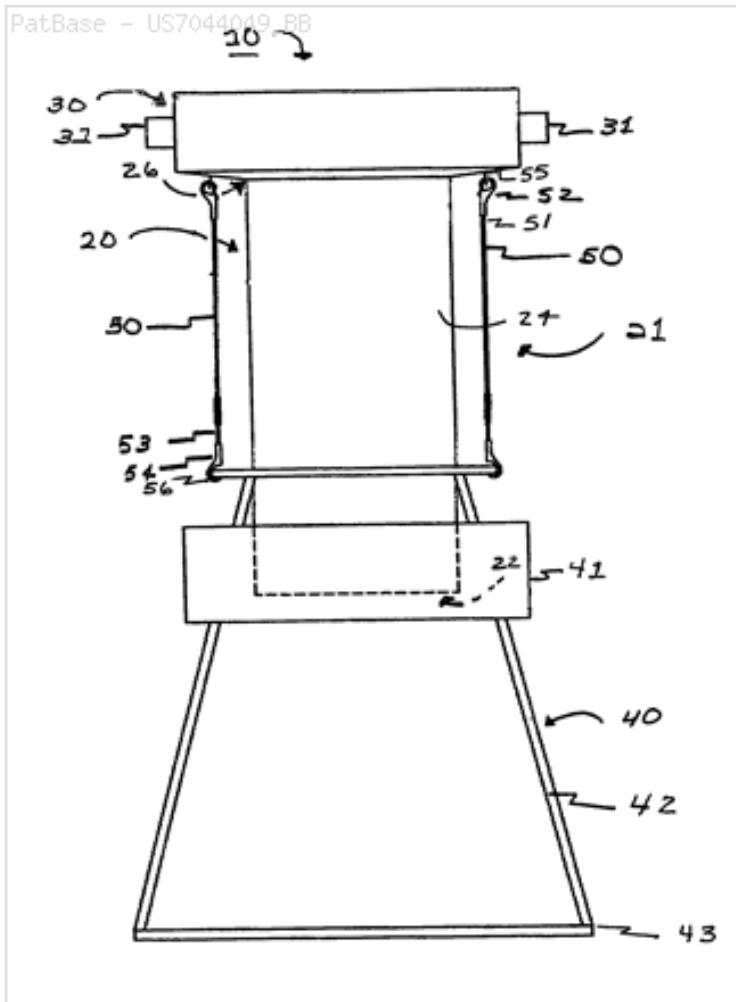
[Classification Explorer](#)

Cited documents: US5813321 A, US53421 A, US5193524 A, US5033453 A, US1766797 A,

Forward Citations: US9016190, US8850965, US8707857, US8309151, US8186265, US2014227411, US2010288138, US2010269712, US2008277558, US2007028780,

Abstract:

Source: US2005051035A The present invention relates generally to a frying apparatus and, in particular, to a frying apparatus comprising a cooking container for containing oil or the like for cooking a turkey, a chicken, or seafood; a shield for shielding the operator from oil splatters and preventing the over-spill of the oil from the cooking container; a supporting stand for holding the cooking container; and a plurality of securing straps for securing the cooking container to the supporting stand such that the cooking container is stably positioned onto the supporting stand of the frying apparatus. One embodiment of the present invention contemplates a cooking container generally configured to removably receive the shield such that the shield, when inserted into the open end of the cooking container securely adjoins and abuts the cooking container so that oil does not spill-over between the shield and the cooking container. However, the present invention also contemplates a frying apparatus having a shield made as a unitary piece with the cooking container.

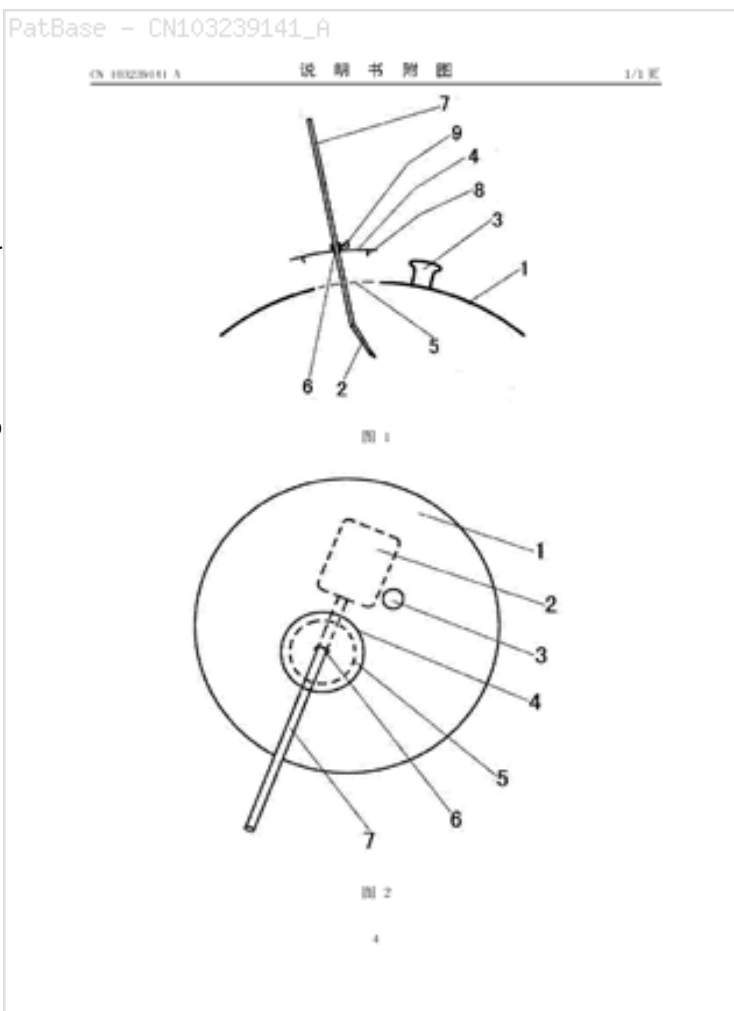


Title: ANTI-OIL-SPLASHING PAN COVER**Priority:** CN201210023041 20120202**Family:**

Publication number	Publication date	Application number	Application date
<u>CN103239141 A</u>	20130814	CN201210023041	20120202

Probable Assignee: ZHONG ZIHONG**Assignee(s):^(std):** ZHONG ZIHONG**Inventor(s):^(std):** ZHONG ZIHONG**International class** A47J36/06 A47J43/28 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN103239141A An anti-oil-splashing pan cover comprises a cover body and is characterized in that a cover body hole and a detachable movable lid are arranged on the cover body. A through hole for inserting a slice handle is arranged on the movable lid, and a fastener used for fixing the slice handle in the through hole is arranged at the position of the through hole. The anti-oil-splashing pan cover has the advantage that the cover can be used as a common pan cover by connecting the movable lid with the cover body and can prevent splashing of hot oil by taking down the movable lid from the cover body, inserting and fixing the movable lid on the slice handle and stretching a slice fixed with the movable lid into a pan from the cover body hole to stir-fry a dish. The cover body hole is arranged to be larger, the movable lid is connected with the slice through the fastener, and moving space of the slice can be adjusted by changing the height of the movable lid fixed on the slice handle to ensure stir-frying operation convenience. Condiment is added in the pan from the cover body hole under the movable lid without opening the cover body. The cover is simple in structure, convenient to use and large in popularization value.



0) GB1287075A – COOKING UTENSIL

7) Family number: 743181 (GB1287075A)

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Title: COOKING UTENSIL
Priority: GB19710008184 19710330

Family:	Publication number	Publication date	Application number	Application date
	<u>GB1287075 A</u>	19720831	GB19710008184	19710330

Probable Assignee: HARRIS JOHN MADISON

Assignee(s):^(std): HARRIS JOHN MADISON

Assignee(s): JOHN MADISON HARRIS

Inventor(s):^(std): HARRIS JOHN MADISON

Inventor(s): JOHN MADISON HARRIS

International class A47J37/10 (Advanced/Invention);
^{(IPC 8-9):} A47J37/10 (Core/Invention)

International class A47J36/00
^{(IPC 1-7):}

CPC: A47J37/101

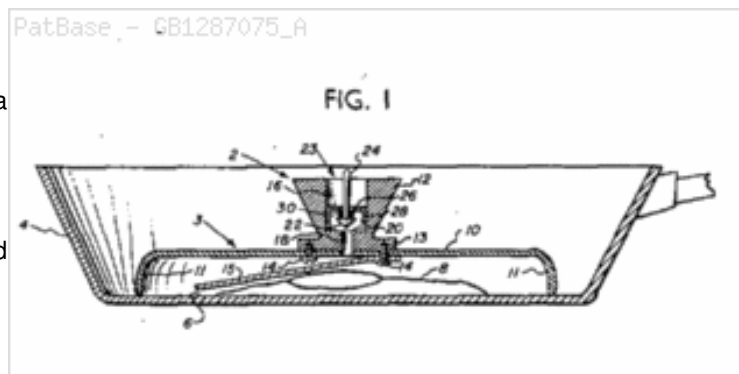
European class: A47J37/10A

[Classification Explorer](#)

Forward Citations: US4759342, US4498376, US4488479,

Abstract:

Source: GB1287075A 1287075 Cooking utensil J M HARRIS 30 March 1971 8184/71
Heading A4A A cooking utensil for use inside a frying pan enables both sides of an egg to be cooked without turning. The egg 8 is placed in the pan 4 in the usual way and the utensil placed over it. Water from the reservoir 23 can enter the pan by means of the passage 18 causing the upper side of the egg to be cooked by steam. The reservoir is sealed by the manually operable valve assembly 24. The conical tip of the valve 22 is held seated at the top of the passage 18 by a spring 30. The knob 2 and the cover 3 may be formed integrally or may be held together by screws 14. A means 15 of deflecting the water away from the egg may be incorporated on the underside of the utensil.



8) Family number: 14621773 (WO0226092A1)

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Title: COOKING CONTROL AID**Priority:** GB20000023576 20000926 WO2001GB04243 20010924

Family:	Publication number	Publication date	Application number	Application date
	AT432029 E	20090615	AT20010969962T	20010924
	DE60138841 D1	20090709	DE20016038841	20010924
	EP1469764 A1	20041027	EP20010969962	20010924
	EP1469764 B1	20090527	EP20010969962	20010924
	GB200023576 A0	20001108	GB20000023576	20000926
	WO0226092 A1	20020404	WO2001GB04243	20010924

Probable Assignee: MCKEAND PETER WILSON**Assignee(s):**^(std): BURGESS ROSEMARY J ; BURGESS ROSEMARY JACYNTH ; MCKEAND PETER WILSON**Inventor(s):**^(std): BURGESS ROSEMARY JACYNTH**Designated states:** AT BE BR CA CH CY DE DK ES FI FR GB GR IE IT LI LU MC MX NL NO NZ PT SE TR US ZA

International class
^{(IPC 8-9):} [A47J36/16](#) [A47J37/04](#) [A47J37/07](#) ^{(Advanced/Invention):}
[A47J36/00](#) [A47J37/04](#) [A47J37/07](#) ^(Core/Invention)

International class
^{(IPC 1-7):} [A47J37/04](#)

CPC: [A47J36/16](#) [A47J37/0786](#)**European class:** [A47J36/16](#) [A47J37/07L](#)[Classification Explorer](#)**Cited documents:** WO0033711 A1, US1359749 A, GB2232876 A1, FR1409366 A,

Abstract:

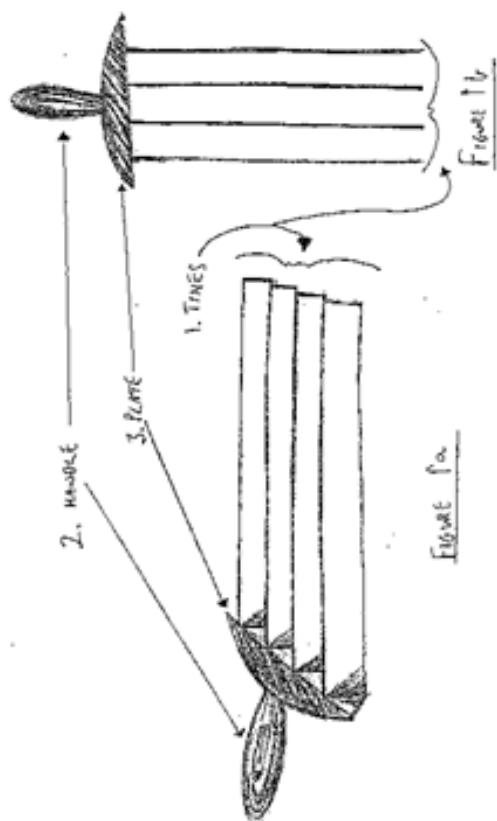
This invention relates to a mechanical means of supporting and or holding steady food items during cooking by frying, grilling or barbecuing. The invention comprises an array of tines (1) of two or more in number, and usually attached to a supporting handle (2), each tine being capable, in conjunction with its neighbouring tine, of supporting an item being cooked sufficiently vertical to the source of cooking heat for the purpose of concentrating the cooking heat on the desired edge rather than generally on a wider area or the main bulk of the item.

PatBase - W00226092_A1

W00226092

1/5

PC/CMW/0443



Title: Oil splash preventing roasting kettle cover
Priority: CN20042031094U 20040407 CN200420031094U 20040407

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2713952 Y</u>	20050803	CN200420031094U	20040407

Probable Assignee: YU AIQUN

Assignee(s):^(std): YU AIQUN

Inventor(s):^(std): YU AIQUN

Inventor(s): AIQUN YU

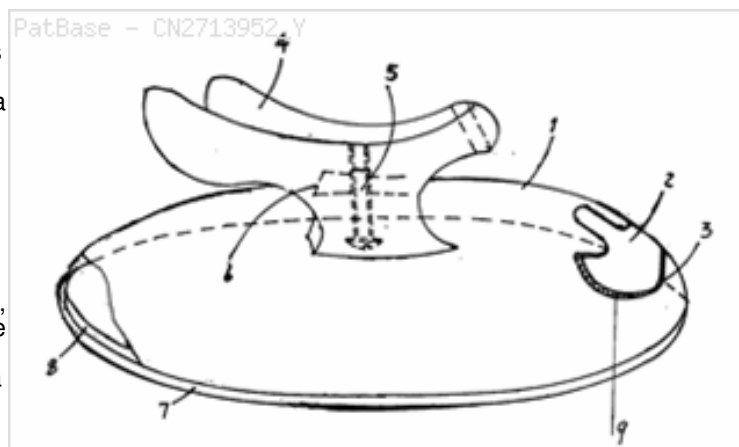
International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

International class A47J43/28
 (IPC 1-7):

[Classification Explorer](#)

Abstract:

Source: CN2713952Y The utility model relates to an oil splash preventing roasting kettle cover, belonging to a cooker which is used in a kitchen. The utility model is characterized in that a cover body is made of transparent material, the outer circumference of the cover body is provided with a stainless steel ring, an oil receiving groove is arranged at the connecting point thereof, the cover body is provided with a shovel hole, a non-toxic plastic ring is arranged around the shovel hole, the shape and the size of a small cover are the same as the shovel hole, the small cover can be covered on the shovel hole, the bottom of a kettle cover handle which is arranged on the cover body is provided with a parent-child groove, the cover body is connected with the kettle cover handle by screws, a spring is arranged in the kettle cover handle to form a clamp which can clamp a shovel handle, the kettle cover handle forms an A shape, and two fulcrums of the bottom are support frames. The utility model provides an oil splash preventing roasting kettle cover which can prevent the pollution of a cooker, surrounding environment and clothing caused by the oil splash as cooking, can solve the troubles of the environment, the sanitation and the cleanness in the kitchen when a human cooks to keep long-term cleanness in the kitchen, and can avoid the oil accumulation.



10) Family number: 54198977 (CN203016714U)

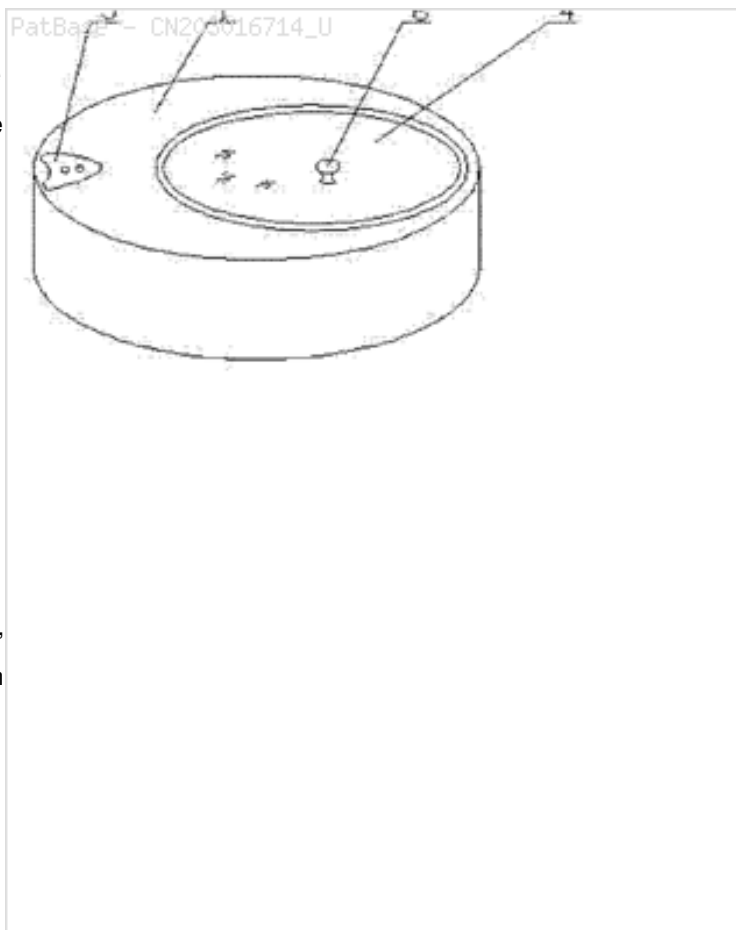
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Title: SPLASH-PROOF FRYING PAN COVER**Priority:** CN201320038788U 20130117

Family:	Publication number	Publication date	Application number	Application date
	CN203016714 U	20130626	CN201320038788U	20130117

Probable Assignee: GAO QINZHENG**Assignee(s):^(std):** GAO QINZHENG**Inventor(s):^(std):** GAO QINZHENG ; GAO YAXIAN**International class** [A47J36/06](#) (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103727573,**Abstract:**

Source: CN203016714U The utility model relates to a splash-proof frying pan cover. The traditional pan cover for cooking is of an integrated structure, the pan cover needs to be taken away when cooking, the pan cover is separated from a pan body, when vegetables are placed into a pan and touched with oil, hot oil in the pan can splash from the side as the vegetables contain moisture or the vegetables are placed heavily, and the splashed oil can not be taken out by a flue gas turbine, so that many problems are caused for sanitation and cleaning of a kitchen; and when stewing, the pan cover is opened in a midcourse, the pan body is completely exposed, heat in the pan is quickly dissipated, and energy is wasted. The splash-proof frying pan cover provided by the utility model comprises a cylindrical side wall (1) and a top surface, wherein an eccentric circle feeding hole (2) is formed in the top surface, an oil deflector (3) is arranged inside the eccentric circle feeding hole, a transparent cover (4) is arranged on the oil deflector, a main handle (5) is arranged on the top surface, and a secondary handle (6) is arranged on the transparent cover. The splash-proof frying pan cover provided by the utility model serves as a pan cover.



11) Family number: 52429934 (CN202537279U)

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Title: Oil shield for cooking vegetables**Priority:** CN201220032780U 20120202

Family:	Publication number	Publication date	Application number	Application date
	<u>CN202537279 U</u>	20121121	CN201220032780U	20120202

Probable Assignee: ZIHONG ZHONG**Assignee(s):^(std):** ZIHONG ZHONG**Assignee(s):** ZHONG ZIHONG**Inventor(s):^(std):** ZIHONG ZHONG**Inventor(s):** ZHONG ZIHONG**International class** A47J36/06 A47J43/00 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Forward Citations:** CN104248362,**Abstract:**

Source: CN202537279U An oil shield for cooking vegetables comprises a shield body and is characterized in that a shield body hole and a detachable moveable cover are arranged on the shield body; a through hole used for providing plugging for a shovel handle is arranged on the moveable cover; And a fastener used for fixing the shovel handle in the through hole is also arranged at the through hole. The oil shield for cooking vegetables provided by the utility model has the beneficial effects that the moveable cover is connected to the shield body, so that the oil shield for cooking vegetables can be served as a common pot cover; the moveable cover is detached from the shield body and plugged and fixed on the shovel handle, and the shovel fixed with the moveable cover extends from the shield body hole to a pot to cook vegetables, so that burning oil can be prevented from splashing; the shield body hole is arranged to be bigger, and the moveable cover is connected with the shovel through the fastener, so that height of the moveable cover fixed on the shovel handle is changed, a moveable space of the shovel can be adjusted, and the operation convenience of cooking vegetables is ensured. Seasonings are added from the shield body hole below the moveable cover to the pot without uncovering the shield body. The oil shield for cooking vegetables is simple in structure, convenient to use, and large in promotional value.

PatBase - CN202537279_U

CN 202537279 U 说明书附图 1/1 页

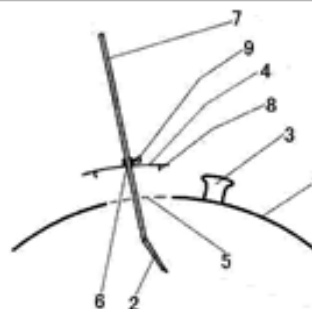


图 1

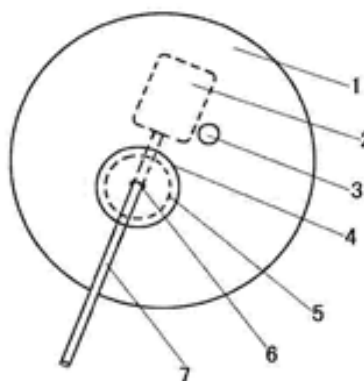


图 2

4

12) Family number: 23370815 (CN2495231Y)

© PatBase

Title: Cover for cooking vessel with prevention of cooking fume pollution**Priority:** CN20012028537U 20010820

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2495231 Y</u>	20020619	CN20012028537U	20010820

Probable Assignee: JIN GANLIN**Assignee(s):**^(std): JIN GANLIN**Inventor(s):**^(std): GANLIN JIN ; JIN GANLIN

International class A47J36/06 (Advanced/Invention);
^{(IPC 8-9):} A47J36/00 (Core/Invention)

International class A47J36/06
^{(IPC 1-7):}

[Classification Explorer](#)**Abstract:**

Source: CN2495231Y The utility model provides a frier cover to prevent oil smoke, which consists of a cove body, a top cover and a side cover. The side wall of the cover body is provided with an insulation handle; the side wall which is normal to the handle is provided with the side cover. The bolts of the side cover are inserted in the bolt holes of the cover body; the side cover is hung on the side wall of the frier cover; the top cover is arranged on the top of the frier cover; a convex ring arranged in the top cover props up the upper edge of the cover body. The top cover, the side cover and the cover body form an entire curved surface of the frier cover. The utility model is not only capable of preventing hot oil from splashing, but also capable of preventing oil smoke from being emitted out during frying. The structural style of the prior frier cover is simplified; the entire curved surface of the frier cover is capable of preventing oil stain from adhering to the frier cover; the cooking operation with the utility model is as convenient as traditional operation.

13) Family number: 34131464 (CN2855267Y)

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Title: Anti-splashing protective pot cover**Priority:** CN200520029570U 20051219

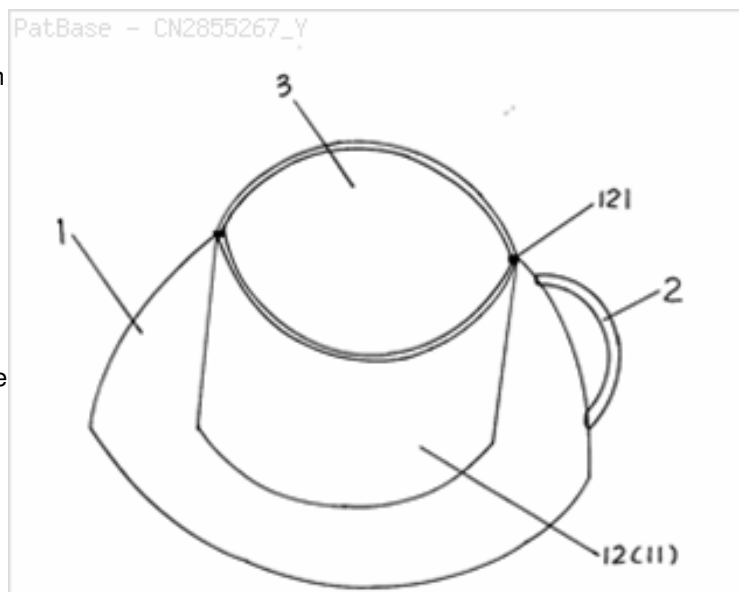
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2855267 Y</u>	20070110	CN200520029570U	20051219

Probable Assignee: LI HUI**Assignee(s):^(std):** LI HUI**Inventor(s):^(std):** LI HUI**Inventor(s):** HUI LI

International class A47J36/06 A47J36/38 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN103727573,**Abstract:**

Source: CN2855267Y A splash-shield pan cover is disclosed as the utility model. The pan cover has the vent holes in its middle and the working holes located laterally. A cover gate is built at the pivot of the working hole. The net piece is located transversely on the inner side of the cover and near to the working hole. Since no vent hole is built on the pan cover, the oil smoke and the steam both caused by applying the pan to the cookery is discharged through the vent hole so as to prevent against the splash. In addition, the oil smoke and the water vapor are sucked away by the ventilator because the oil smoke and the water vapor are discharged through the vent hole but the distance between the vent hole and the ventilator is shorter than the distance between the cooking pan and the ventilator. The working hole is designed to allow the cooking tools to extend into the hole so as to handle the fried food at the time when the pan cover remains above the pan. Usually, the work hole is covered by the gate cap fixed with the pivot so as to prevent the oil smoke, the steam or the splashed oil from spilling or splashing out of the pan.



14) Family number: 61377958 (KR20160004610A)

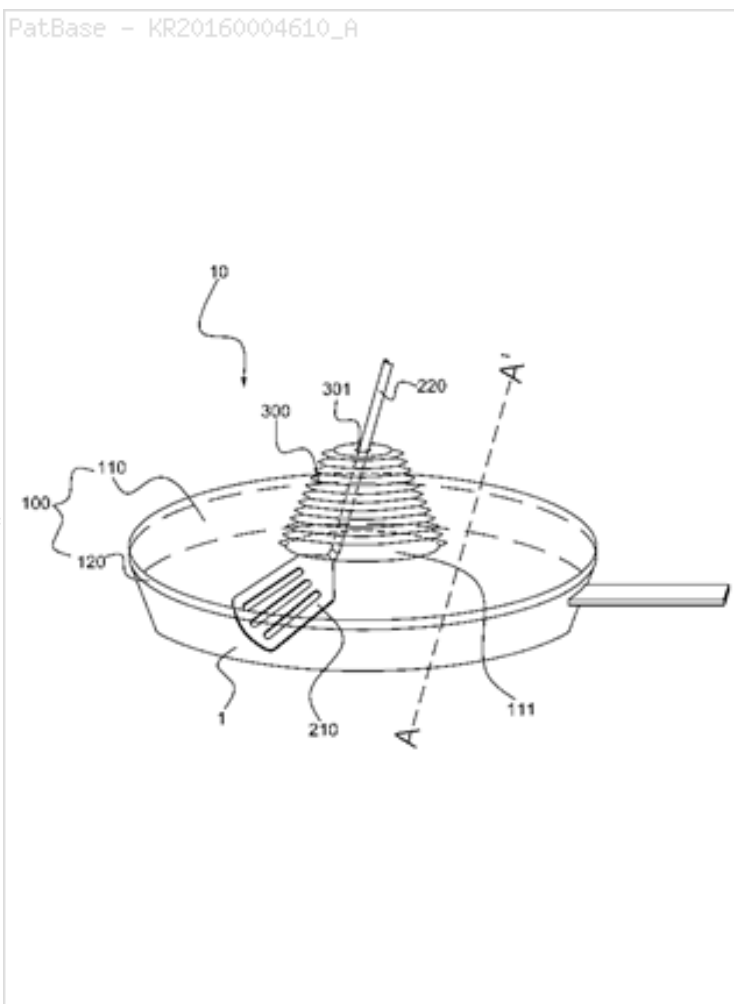
© PatBase

Title: FRYING PAN COVER HAVING TUNER OF COOKING**Priority:** KR20140083138 20140703**Family:**

Publication number	Publication date	Application number	Application date
<u>KR20160004610 A</u>	20160113	KR20140083138	20140703

Probable Assignee: KIM JONG WOO**Assignee(s):**^(std): KIM JONG WOO**Inventor(s):**^(std): KIM JONG WOO**International class** A47J36/06 A47J37/10 A47J43/28 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: KR20160004610A Provided is a frying pan cover having a cooking turner. According to an embodiment of the present invention, the frying pan having a cooking turner may comprise: a frying pan cover which has a through-hole formed at a central portion thereof and is placed on an upper portion of a frying pan to prevent oil from splashing to the outside when cooking foods such as a pancake and a pan-fried vegetable pancake in the frying pan; a cooking turner including a turner part, which has one or more long holes formed on one side thereof and is provided in a plate form, and a handle part which is formed to extend through the through-hole from the other side of the turner part and provides a gripping area to a user; and a bellows which is provided to seal the through-hole from the outside in a peripheral area of the through-hole at an upper portion of the frying pan cover, includes a fixing hole formed at an upper end thereof to fix the handle part as the handle part passes therethrough and, at the same time, facilitates the movement of the turner part. According to the present invention, a user can be prevented from getting scalded or a surrounding area can be prevented from being contaminated in advance, by blocking oil splashing from the frying pan or the food being cooked to be scattered over the user when cooking foods such as a pancake, a pan-fried vegetable pancake, and the like in the frying pan.



15) Family number: 51080686 (CN202207088U)

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Title: Household oil–smoke–preventing pot cover

Priority: CN201120285897U 20110808

Family:	Publication number	Publication date	Application number	Application date
	CN202207088 U	20120502	CN201120285897U	20110808

Probable Assignee: RONGSHOU JI

Assignee(s):^(std): RONGSHOU JI

Assignee(s): JI RONGSHOU

Inventor(s):^(std): RONGSHOU JI

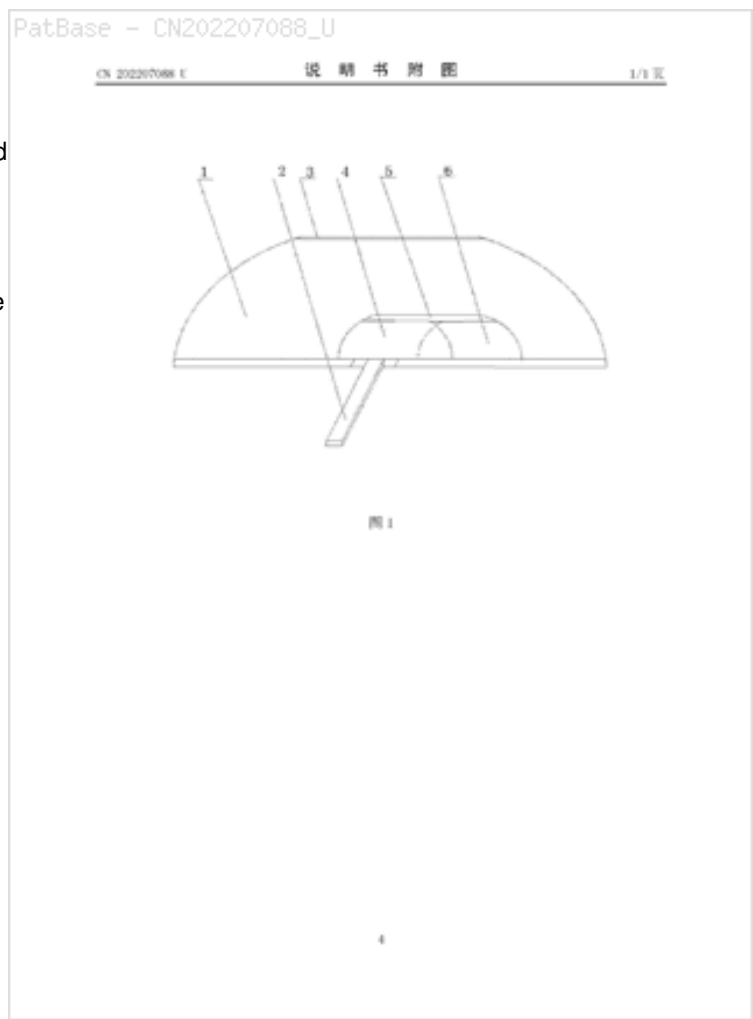
Inventor(s): JI RONGSHOU

International class A47J36/06 (Advanced/Invention)
(IPC 8–9).

[Classification Explorer](#)

Abstract:

Source: CN202207088U A household oil–smoke–preventing pot cover comprises a pot cover body. A handle is equipped on the pot cover body. The pot cover is characterized in that the top of the pot cover body is provided with a cover; the side edge of the pot cover body is provided with a dish frying hole; the upper end and the lower end of the dish frying hole are provided with chutes; and a movable closing door is equipped on the chutes. By equipping the dish frying hole on the side edge of the pot cover body, the household oil–smoke–preventing pot cover in the utility model enables a user to fry dishes or foods with a hand inserted into the dish frying hole. Meanwhile, the movable closing door which can be applied for closing the dish frying hole can effectively control the splashing of oil drops. The cover on the top of the pot cover body facilitates absorption and discharge of the oil smoke. Therefore, the household oil–smoke–preventing pot cover in the utility model has the characteristics of simple structure, convenience and practicality.



16) Family number: 33323885 (CN2801030Y)

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Title: Anti-overflow and anti-splash pot cover**Priority:** CN200520028599U 20050508

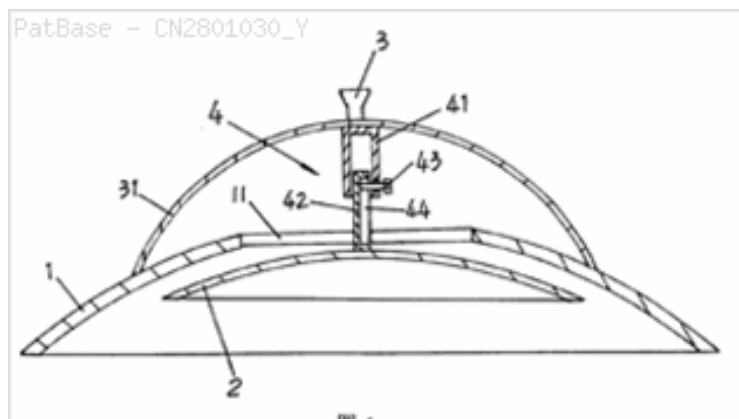
Family:	Publication number	Publication date	Application number	Application date
	<u>CN2801030 Y</u>	20060802	CN200520028599U	20050508

Probable Assignee: HAO ZONGQIANG**Assignee(s):^(std):** HAO ZONGQIANG**Inventor(s):^(std):** HAO ZONGQIANG**Inventor(s):** ZONGQIANG HAO

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Forward Citations:** CN102805563, CN102283583,**Abstract:**

Source: CN2801030Y The utility model discloses an anti-overflow and anti-splash cover. The utility model comprises an outer cover which is provided with a lifting button or a lifting handle. The utility model is characterized in that the utility model is also provided with an inner cover, the diameter of the inner cover is smaller than the diameter of the outer cover, the inner cover is positioned under the outer cover, the inner cover is connected with the outer cover through a connecting device, a gap is arranged between the inner cover and the outer cover, and the corresponding region of the outer cover, which is above the inner cover, is provided with a through steam hole. Because the outer cover of the utility model is provided with the through steam hole, when a pot or a sauting spoon is used for stewing dishes or frying food, generant steam is discharged from the through steam hole, the occurrence of an overflow phenomenon is prevented and a splashing phenomenon is reduced. Because the inner cover is arranged below the outer cover which is provided with the region of the through steam hole, the utility model can prevent splashed oil or water from ejecting form the through steam hole.



17) Family number: 60692250 (KR20150123116A)

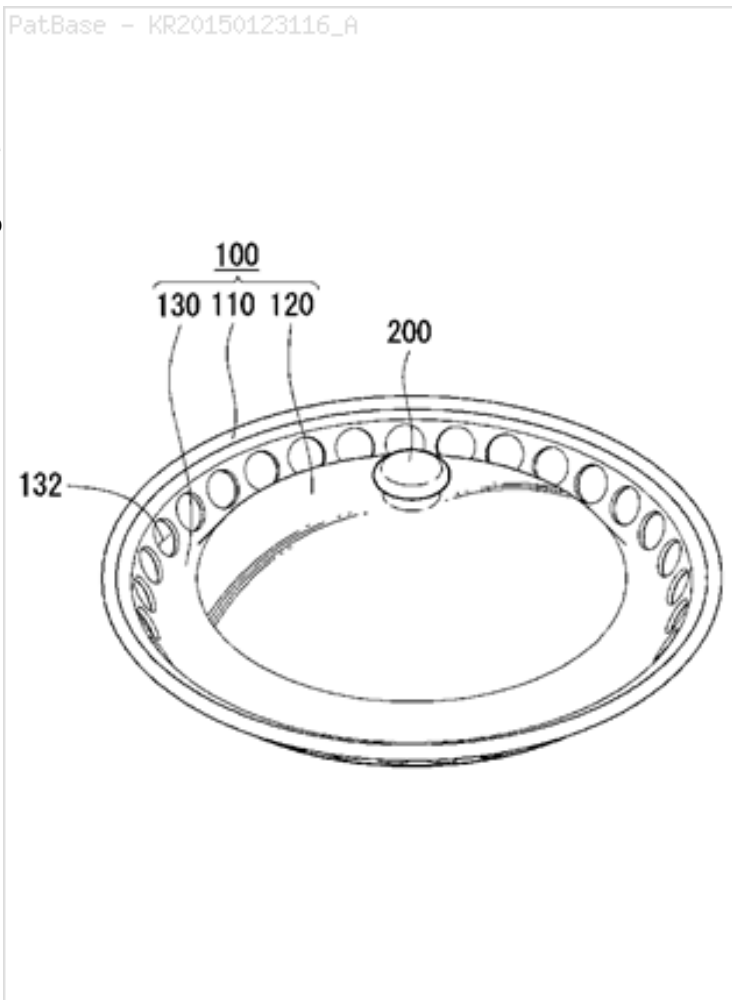
© PatBase

Title: COVER FOR COOKING POTS**Priority:** KR20140049619 20140424

Family:	Publication number	Publication date	Application number	Application date
	<u>CN105030083 A</u>	20151111	CN201510180912	20150416
	<u>KR20150123116 A</u>	20151103	KR20140049619	20140424

Probable Assignee: CHAE SOO YUN**Assignee(s):^(std):** CHAE SOO YUN**Assignee(s):** CHAESUYEON ; CAI SOO SOURCE**Inventor(s):^(std):** CHAE SOO YUN**International class** A47J27/00 A47J36/06 A47J37/10 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: KR20150123116A The present invention relates to a cover for a cooking container and, more specifically, to a cover for a cooking container, in which oil can be prevented from spattering and scattering to the outside of the cooking container, and steam generated during cooking can be actively discharged, so a tasty menu which is not damp can be prepared and a cooking state of a food can be visually confirmed while a cover is covered. The cover for a cooking container according to the present invention comprises: a body including a circumference unit being in contact with an upper circumference of the cooking container, a central unit disposed inside of the circumference unit, and a slope groove unit formed between the circumference unit and the central unit, and having a vertical cross-sectional shape downwardly protruding in a V or U shape; and a handle formed in the body. Multiple discharge holes are formed in a surface of the slope groove unit near the circumference unit to discharge vapor generated when food is cooked.



18) Family number: 43660290 (CN201286629Y)

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Title: Lid-in-lid cooker lid
Priority: CN200820186776U 20081104

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201286629 Y</u>	20090812	CN200820186776U	20081104

Probable Assignee: HAIXIA NI

Assignee(s):^(std): HAIXIA NI

Assignee(s): NI HAIXIA

Inventor(s):^(std): HAIXIA NI

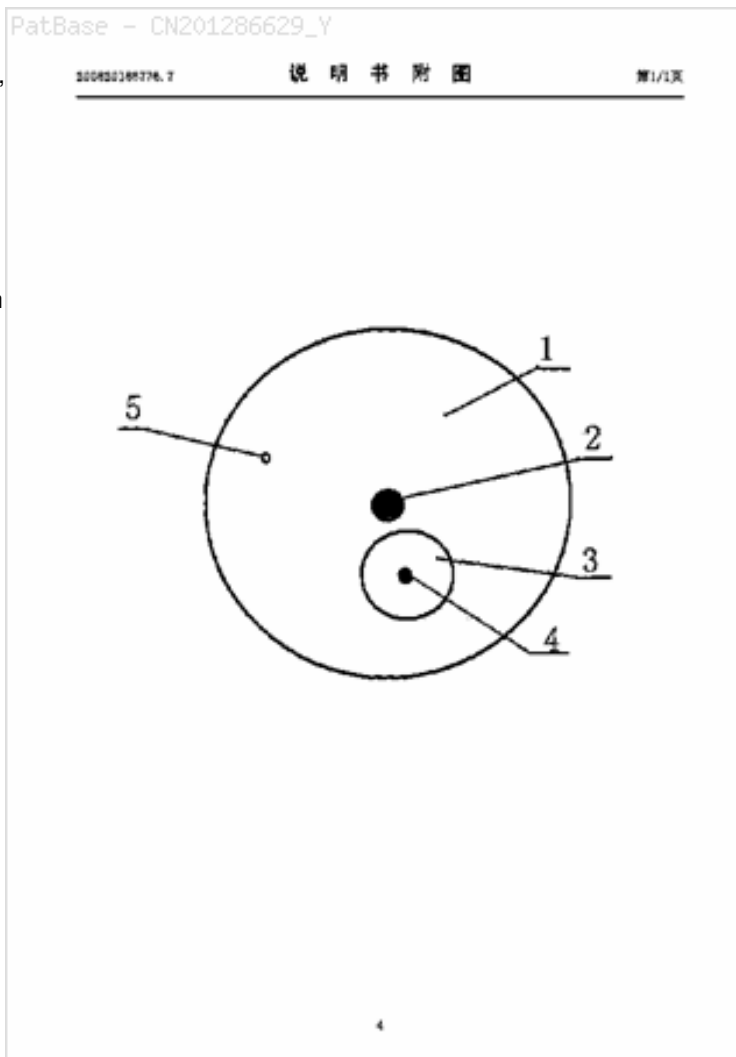
Inventor(s): NI HAIXIA

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN201286629Y A pot-lid with double lids comprises a pot-lid body, a handle, a hole, a small lid, exhaust vents, etc. The hole with proper size is formed on the pot-lid to lead a pancake turner to enter. In usual conditions, the hole is covered by the small lid and the pot-lid is the same as a common pot-lid; and when oil splashes out, the pot-lid is covered and the small lid on the pot-lid is opened and the pancake turner enters the pot through the small lid, so as to avoid oil splashing. The oil in a pot is easy to splash out when cooking, which can cause clothes spots, even scald injury, and prior pot-lid can not solve the problem. The utility model has the advantages of simple structure, low cost, convenient operation and safety and sanitation.



19) Family number: 63360256 (KR200232899Y)

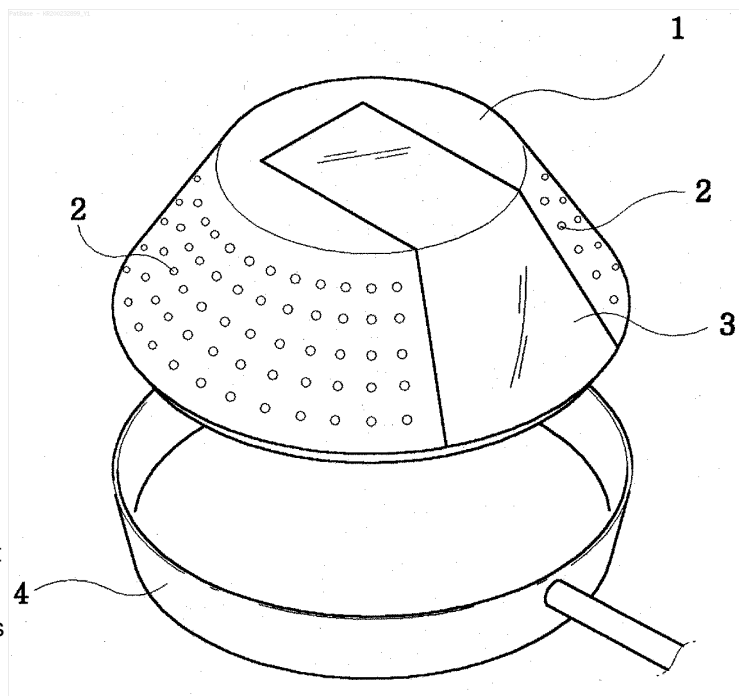
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Title: Oil shatterproof lid having compatibility (Machine translation)**Priority:** KR20010003948U 20010216

Family:	Publication number	Publication date	Application number	Application date
	KR200232899 Y1	20011025	KR20010003948U	20010216

Probable Assignee: YIEUNGSEOK**Assignee(s):** YIEUNGSEOK**International class** A47J36/06
(IPC 1-7).**Forward Citations:** WO03101266, KR200464419, KR100893320,**Abstract:**

Source: KR200232899Y That has a compatibility such that the subject innovation relates to an oil splash prevention cover having a compatible, and more particularly to prevent that that oil is scattered to the outer container when frying the food while the generated vapor and gases are emitted into a ball vent It relates to the oil scattering preventing cover. Conventionally, the top of the sanghyeop and a plurality of air vents (2) the container (4) the oil splash prevention cover with a form, and compatible with a fluoroscopy unit (3) in part to the body (1) made of a light-shaped by using to the seating, while the vapor or gas to prevent the oil is scattered and is emitted to the air vents (2), was designed to show status of the food through the see-through part (3). However, such a conventional scatter-proof cover is because they do not use if different from the size of the vessel to the scaling of the lid is not possible, compatible prevent significant fall of oil scattered with different sizes compatible for use in another container lid because there was a need to include a separate and costly problems. Thus, the subject innovation is shatterproof in the lid, the handle 12 is a



perspective section 11 to a circular support ring of the circular plate attached to prevent is seated on the top of the vessel 4 which oil is scattered bonded to (10), support ring (10) a continuous installation with a plurality of vent holes (15) part of the both side ends scattering preventing member 13 made in the periphery becomes overlapped, of each of the scattering prevention piece 13 and the top edge folded by hinged, scatter preventing member 13, since the size of the lid even if the size of the container installed at equal intervals at least three or more engaging part 16 is different adjustable in circumference compatibility is very excellent scattering of and Omri, the protection member as much as possible if the size is small, so storage is convenient, it is to prevent oil from scattering to mention the steam to be dissipated to the outside, and goby oil droplets that records from Dr the vents and flows back into the interior of the vessel outside do not fall at all, and can maintain a clean state continues to view the status of the food being cooked by a top perspective of the cooking is easy.

20) Family number: 64016262 (CN106108701A)

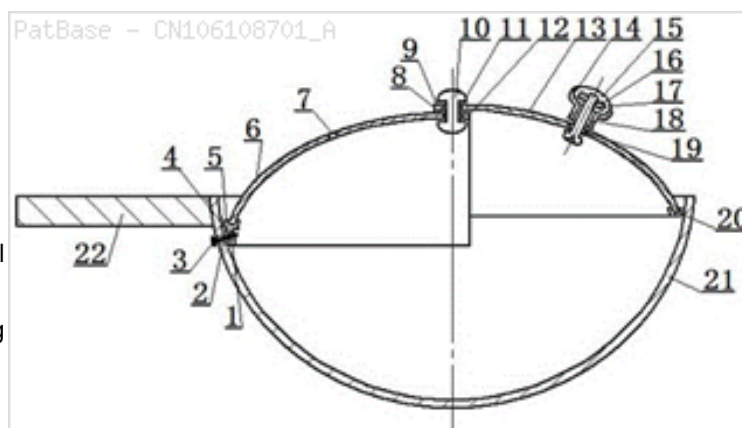
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Title: Suitable for frying food and cookware (Machine translation)**Priority:** CN201610732591 20160827

Family:	Publication number	Publication date	Application number	Application date
	<u>CN106108701 A</u>	20161116	CN201610732591	20160827

Probable Assignee: LUO TAO QIAN**Assignee(s):** LUO TAO QIAN**International class** A47J36/04 A47J36/06 A47J37/10 A47J37/12 A47J45/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN106108701A Is disclosed which is suitable for frying food and Cookware. Lid including left half lid and right half lid, left half lid of right end Department right extends formed of Xia cover collection Department of top has left Xia yuantong hole, right half lid of left end Department left extends formed of Shang cover collection Department of top has left Shang yuantong hole, through PIN axis will Shang cover collection Department activities fixed in Xia cover collection Department Shang, makes right half lid can flexible rotating 360 degrees; left arc strengthening Article down extends formed arc tablets, will small bolt twist tight in left thread hole and right thread hole within, Pot's left upper and lower part of the left half of the lid lock together; to be flexible under the large bolt up through the right hole and tact on the right in the hole and tighten the spherical grooved nut on the handle is locked in the right half of the lid; fastened with rivets at the right end of the handle in the upper left of the body. The invention can prevent hot oil droplets splashed onto human skin and body clothing, to avoid burns skin and stain on the clothes.



21) Family number: 45082662 (CN201481117U)

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Title: Pot cover capable of frying dishes**Priority:** CN200920191378U 20090808

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201481117 U</u>	20100526	CN200920191378U	20090808

Probable Assignee: QUANFENG YU**Assignee(s):^(std):** QUANFENG YU**Assignee(s):** YU QUANFENG**Inventor(s):^(std):** QUANFENG YU**Inventor(s):** YU QUANFENG**International class** A47J36/06 A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201481117U The utility model relates to a pot cover, in particular to a pot cover capable of frying dishes, comprising a pot cover body and a pot cover handle, wherein the pot cover handle is fixed on the pot cover body; and the pot cover body arranged between the pot cover handle and the outer edge of the pot cover body is provided with a through hole through which a round-bottomed frying pan can pass. The utility model has simple structure and convenient use; and since only one through hole which can hold the round-bottomed frying pan is reserved on the pot cover, oil droplets are shielded by the pot cover, thereby greatly reducing the harm of oil droplet splashing to cooks.

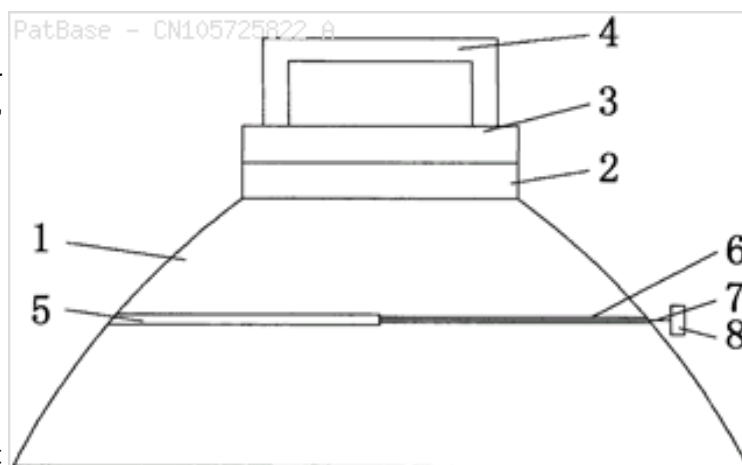
PatBase - CN201481117_U

Title: OIL–SPLASHING PREVENTION POT COVER**Priority:** CN201610243400 20160414**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105725822 A</u>	20160706	CN201610243400	20160414

Probable Assignee: WANG BEN**Assignee(s):^(std):** WANG BEN**Assignee(s):** WANG**Inventor(s):^(std):** WANG BEN**International class** A47J36/06 (Advanced/Invention)
(IPC 8–9).[Classification Explorer](#)**Abstract:**

Source: CN105725822A The invention provides an oil–splashing prevention pot cover which comprises a cover body, a sliding chute, a sliding block, a handle, a clamping groove, an opening, a baffle, a pull handle and a through hole, wherein the sliding chute is mounted at the top of the cover body; the through hole is formed in the middle of the sliding chute; the handle is mounted at the top of the sliding block; the sliding block is mounted on the sliding chute; the clamping groove is formed in the left side of the lower end inside the cover body; the opening is formed in the right side of the lower end of the cover body; the baffle penetrates through the opening and is inserted into the clamping groove; the pull handle is mounted on the right side of the baffle. The oil–splashing prevention pot cover is simple and reasonable in structure, economic and practical and convenient to use; due to coordinate application of the through hole and the baffle, an article can be stored on the baffle in advance, and the baffle can be pulled off to drop the article into an oil pot, so that the oil can be effectively prevented from splashing out to hurt people, and security and convenience are brought to people to cook.

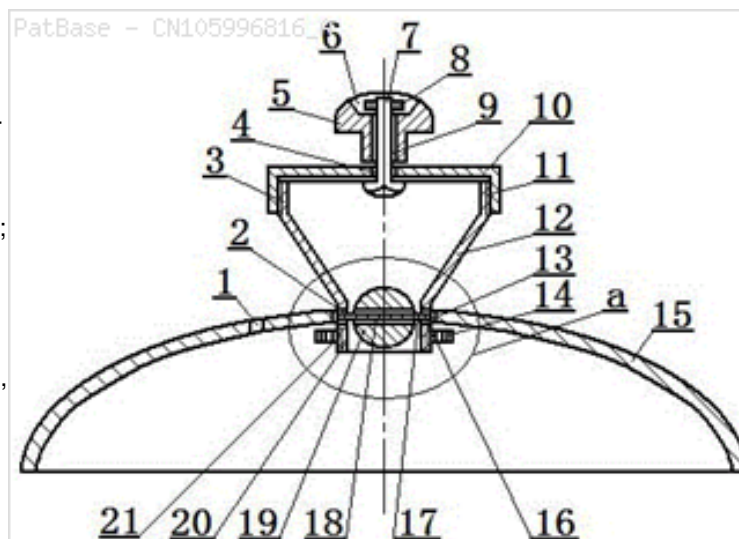


Title: POT COVER FACILITATING DEEP FRYING OF LOACHES**Priority:** CN201610661299 20160813**Family:**

Publication number	Publication date	Application number	Application date
<u>CN105996816 A</u>	20161012	CN201610661299	20160813

Probable Assignee: LUO DAOQIAN**Assignee(s):^(std):** LUO DAOQIAN**Assignee(s):** LUO TAO QIAN**Inventor(s):^(std):** LUO DAOQIAN**International class** A47J37/12 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN105996816A The invention discloses a pot cover facilitating deep frying of loaches. A large round through hole is formed in the top end of a pot cover body, and a lower round pipe, penetrating through the large round through hole downwards, of a funnel body is provided with a lower external thread connected with a large nut in a matched mode; a second small round through hole and a first small round through hole are formed in the left wall thickness part and the right wall thickness part of the lower round pipe respectively, a round movable plate is provided with a third small round through hole in the radial direction, and the middle of a rotary shaft is inserted into the third small round through hole; the left end and the right end of the rotary shaft are inserted into the second small round through hole and the first small round through hole respectively and are jacked through the left inner wall and the right inner wall of the large round through hole respectively; an upper external thread of an upper round pipe is connected with an internal thread of a small cover in a matched mode; a cross bolt penetrates through a second middle round through hole and a first middle round through hole upwards, and a handle and the small cover are tightly locked together through a small nut in a groove. The pot cover is especially suitable for deep frying of the loaches besides keeping the original function, and the situation that human skin is scalded and clothes on the body are stained by oil droplets splashed from an oil pan can be avoided.



24) Family number: 33567953 (CN2827223Y)

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Title: Pot cover of preventing cooking oil splashed–out**Priority:** CN200520091726U 20050708

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2827223 Y</u>	20061018	CN200520091726U	20050708

Probable Assignee: JIN BAOCHANG**Assignee(s):**^(std): JIN BAOCHANG**Inventor(s):**^(std): JIN BAOCHANG**Inventor(s):** BAOCHANG JIN

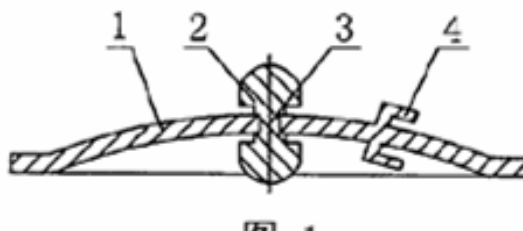
International class A47J36/06 (Advanced/Invention);
 (IPC 8–9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN2827223Y The utility model provides a pot cover capable of preventing oil from splashing. The utility model is characterized in that the pot cover is provided with a fixing hole, a clamping groove type handle is fixed near the fixing hole, the side end of a center hole is provided with a clamping plate and the clamping plate and a pot cover plate form a clamping groove. One end of the handle on the pot cover is hung and clamped on the rim of a pot, and the clamping groove of the side end of the center hole can be clamped on the rim of the pot.

When used for cooking dish, the utility model can prevent oil from splashing to a human body. The utility model has the advantages of novel structure and simple manufacture process, can prevent oil from outward splashing, avoid the scald of human bodies and prevent oil stain from polluting clothing.

PatBase – CN2827223_Y



25) Family number: 46825930 (MX2008014555A)

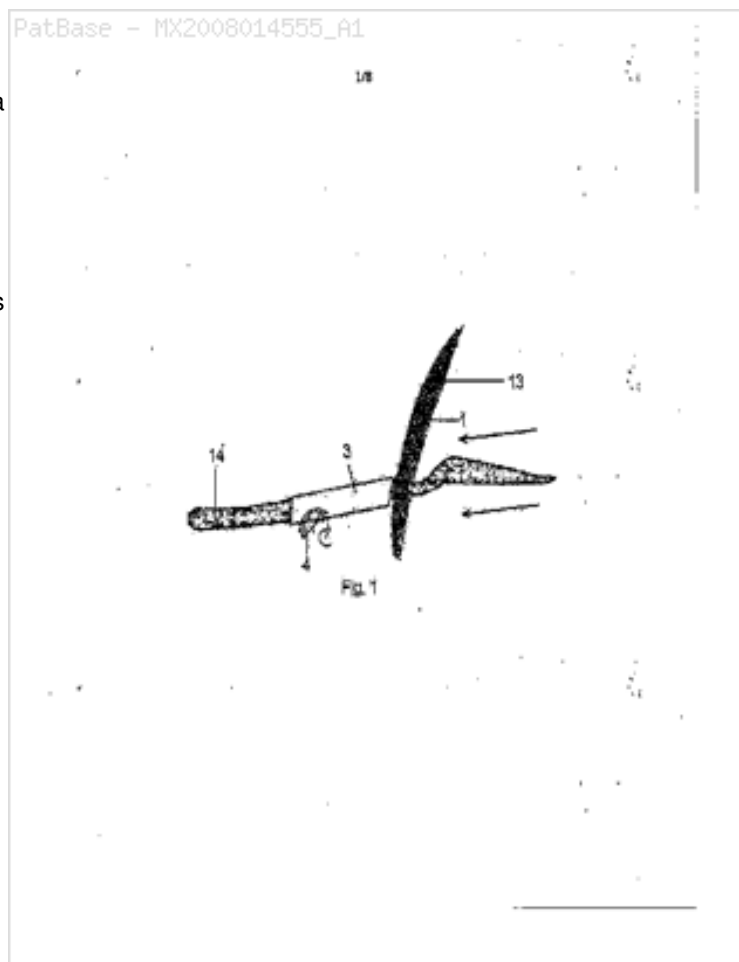
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Title: BURN PROTECTING MESH.**Priority:** MX20080014555 20081113

Family:	Publication number	Publication date	Application number	Application date
	<u>MX2008014555 A1</u>	20100513	MX20080014555	20081113

Probable Assignee: SILVERIO CARLOS ALBERTO GALICIA**Assignee(s):^(std):** SILVERIO CARLOS ALBERTO GALICIA**Assignee(s):** CARLOS ALBERTO GALICIA SILVERIO**Inventor(s):^(std):** SILVERIO CARLOS ALBERTO GALICIA**Inventor(s):** CARLOS ALBERTO GALICIA SILVERIO**International class** A61F13/00 (Core/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

The present invention refers to a device best known as Burn Protecting Mesh, which is designed to be used in the kitchen, since it is a device intended to be used at the moment of frying food with oil, the device being manually operated, where the design thereof may be used with most of the kitchen spatulas regardless of their handle size. Said Burn Protecting Mesh protects the cooker from suffering burns, caused by hot oil sparks, in upper limbs, such as arms, and face by means of a mesh that avoids the pass of oil while allows food being prepared to be checked; the inventive device is characterised in that it is displaced along with the kitchen spatula, thus protecting the upper limbs, i.e., the mesh is fastened to the spatula handle.



26) Family number: 47530713 (CN201617693U)

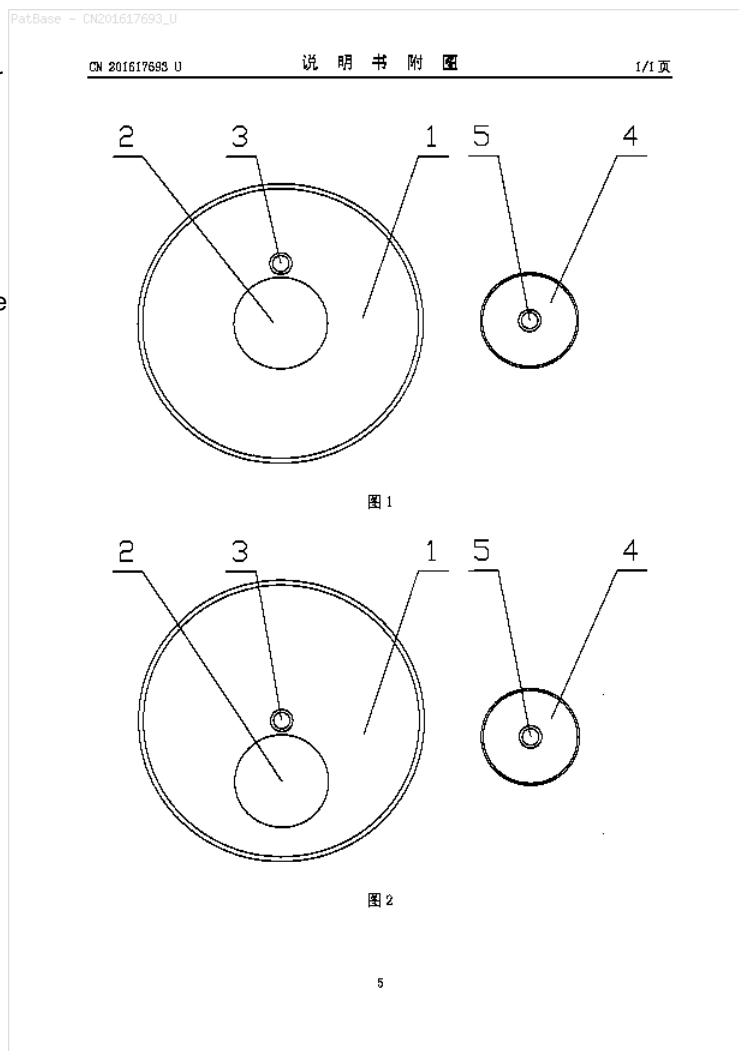
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Title: Oil splashing preventing pot cover**Priority:** CN201020130258U 20100315**Family:**

Publication number	Publication date	Application number	Application date
<u>CN201617693 U</u>	20101103	CN201020130258U	20100315

Probable Assignee: YU LU**Assignee(s):^(std):** YU LU**Assignee(s):** LU YU**Inventor(s):^(std):** YU LU**Inventor(s):** LU YU**International class** A47J36/06 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN201617693U The utility model discloses an oil splashing preventing pot cover which comprises a pot cover body (1) and is characterized in that the pot cover body (1) is provided with a hole (2); the diameter ratio of the hole (2) and the pot cover body (1) is 0.3–0.45:1; the pot cover body (1) is also provided with a handle (3); the hole (2) is also provided with a small pot cover (4) in a matching way; and the small pot cover (4) is provided with a small pot cover handle (5). The pot cover has simple and ingenious structure, and can effectively prevent oil stain or food in the pot from splashing in the cooking process to pollute the ambient environment and the clothes of a cooker and even cause hurt.

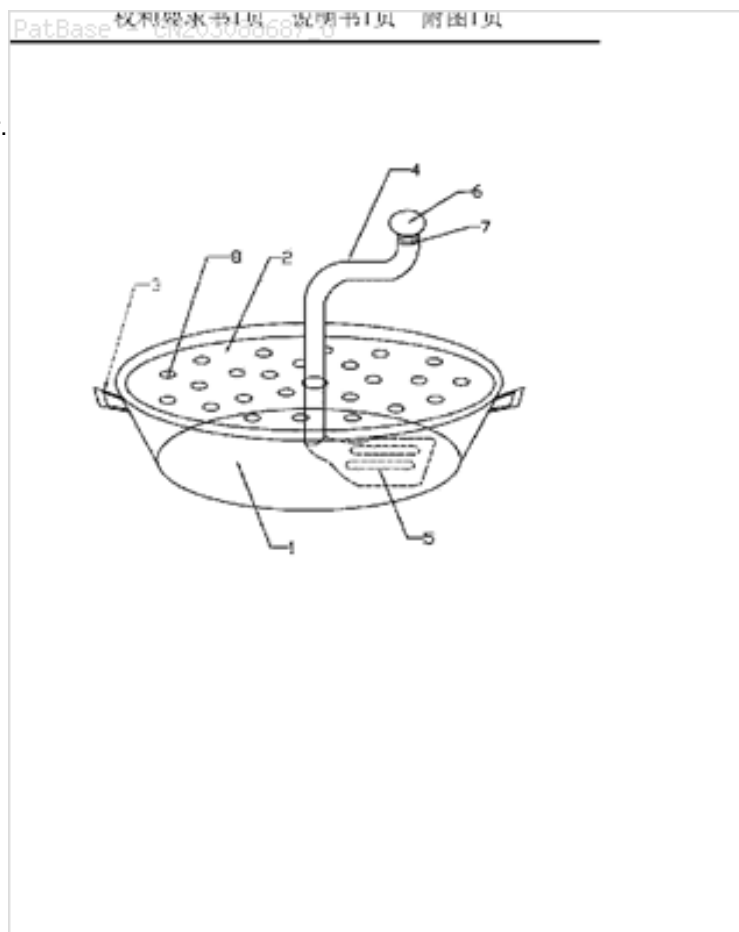


Title: SPLASH-PROOF WOK**Priority:** CN201220708048U 20121220

Family:	Publication number	Publication date	Application number	Application date
	<u>CN203088687 U</u>	20130731	CN201220708048U	20121220

Probable Assignee: ZHANG SHIQI**Assignee(s):**^(std): ZHANG SHIQI**Inventor(s):**^(std): ZHANG SHIQI**International class** A47J27/00 A47J36/00 A47J36/06 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Forward Citations:** CN103416503, CN102961035,**Abstract:**

Source: CN203088687U The utility model relates to a splash-proof wok and belongs to kitchen ware. The splash-proof wok structurally comprises a wok body and a cover. The cover is arranged above the wok body. Handles are arranged on two sides of the wok body. The cover is a transparent flat cover provided with a round hole at the center. Evenly distributed air holes are arranged around the round hole. A turner is arranged in the wok body and comprises a head and a bent rocking handle. The top end of the rocking handle penetrates the round hole of the cover and is connected with a spherical cap in threaded manner. The splash-proof wok can be covered with the cover to prevent oil flashing out of the wok to hands during cooking, and people's hands are protected from scalding during cooking.



28) Family number: 43345176 (CN201234921Y)

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Title: Scald-proof round-bottomed frying pan**Priority:** CN200820025610U 20080711

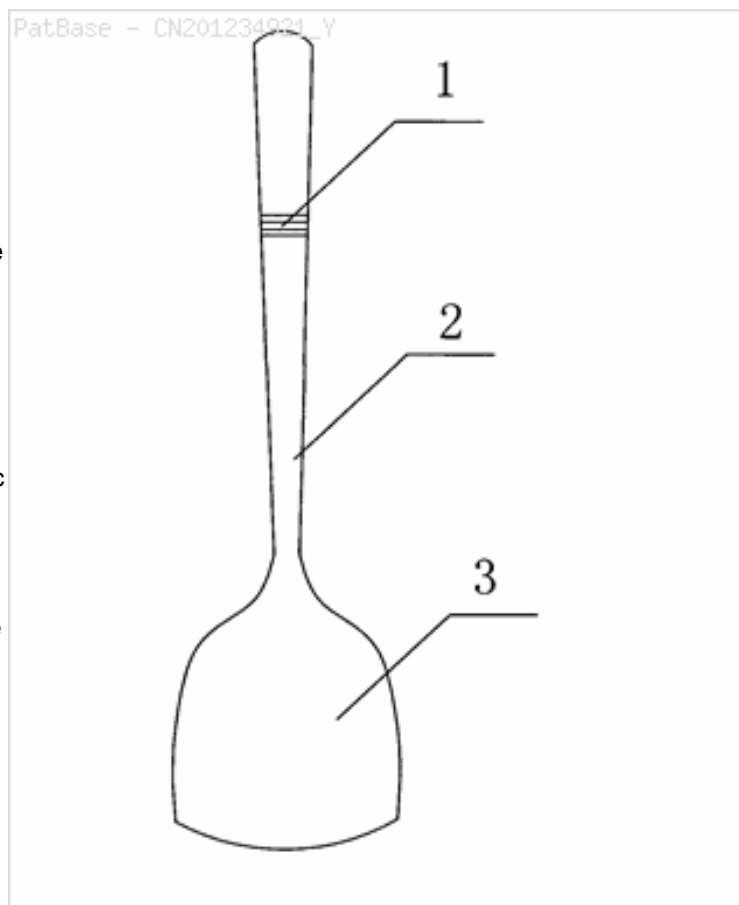
Family:	Publication number	Publication date	Application number	Application date
	<u>CN201234921_Y</u>	20090513	CN200820025610U	20080711

Probable Assignee: AIMIN HOU**Assignee(s):^(std):** AIMIN HOU**Assignee(s):** HOU AIMIN**Inventor(s):^(std):** AIMIN HOU**Inventor(s):** HOU AIMIN

International class A47J43/28 (Advanced/Invention);
 (IPC 8-9): A47J43/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN201234921Y The utility model relates to a scalding prevention type frying spoon, which comprises a spoon body and a spoon handle, and is characterized in that a protective cover is further provided, the protective cover and the spoon handle are mutually locked through a groove and a lug boss, a groove is opened on the upper half portion of the spoon handle, and an insert hole and a strip hole which are suitable for the shape of the spoon handle are opened on the protective cover, and convex areas are arranged on the insert hole and the strip hole. The scalding preventing type frying spoon is characterized in that the protective cover is in a plane or an arched arc surface, and can effectively prevent splashing edible oil from scalding people when in frying. The arched arc surface type protective cover can be used to cover food preventing dust or other winged insects, and the protective cover is locked with the spoon handle through the groove and the lug boss, and can be detached conveniently. The utility model has the advantages of simple structure, convenient manufacturing, low cost and suitable popularization and application.



29) Family number: 53223156 (CN102961035A)

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Title: STIR PAN CAPABLE OF PREVENTING OIL SPLASHING**Priority:** CN201210556390 20121220

Family:	Publication number	Publication date	Application number	Application date
	<u>CN102961035 A</u>	20130313	CN201210556390	20121220

Probable Assignee: ZHANG SHIQI**Assignee(s):^(std):** ZHANG SHIQI**Inventor(s):^(std):** ZHANG SHIQI**International class** A47J27/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Cited documents:** CN203088687 U, CN202020281 U, CN201157274 Y,**Abstract:**

Source: CN102961035A The invention discloses a stir pan capable of preventing oil splashing and belongs to kitchenware. The stir pan comprises a pan body and a pan cover, wherein the pan cover is arranged above the pan body; handles are arranged on the two sides of the pan body; the pan cover is a transparent flat-top pan cover; a round hole is formed in the center of the pan cover; uniformly distributed venting holes are formed around the round hole; a spatula is arranged in the pan body; the spatula comprises a spatula head and a bent rocking handle; and the top end of the rocking handle penetrates through the round hole of the pan cover and is in threaded connected with a spherical cap. The stir pan can be used for cooking under the condition that the pan cover is closed, and can prevent oil splashed from the pan from being splashed onto the hands so as to avoid scald injury of the hands when people cook.

30) Family number: 50127378 (CN202069474U)

Title: Multifunctional boiler cover
Priority: CN201120154279U 20110516
Family:

Publication number	Publication date	Application number	Application date
<u>CN202069474 U</u>	20111214	CN201120154279U	20110516

Probable Assignee: XIAOBIAO LIU

Assignee(s):^(std): XIAOBIAO LIU

Assignee(s): LIU XIAOBIAO

Inventor(s):^(std): XIAOBIAO LIU

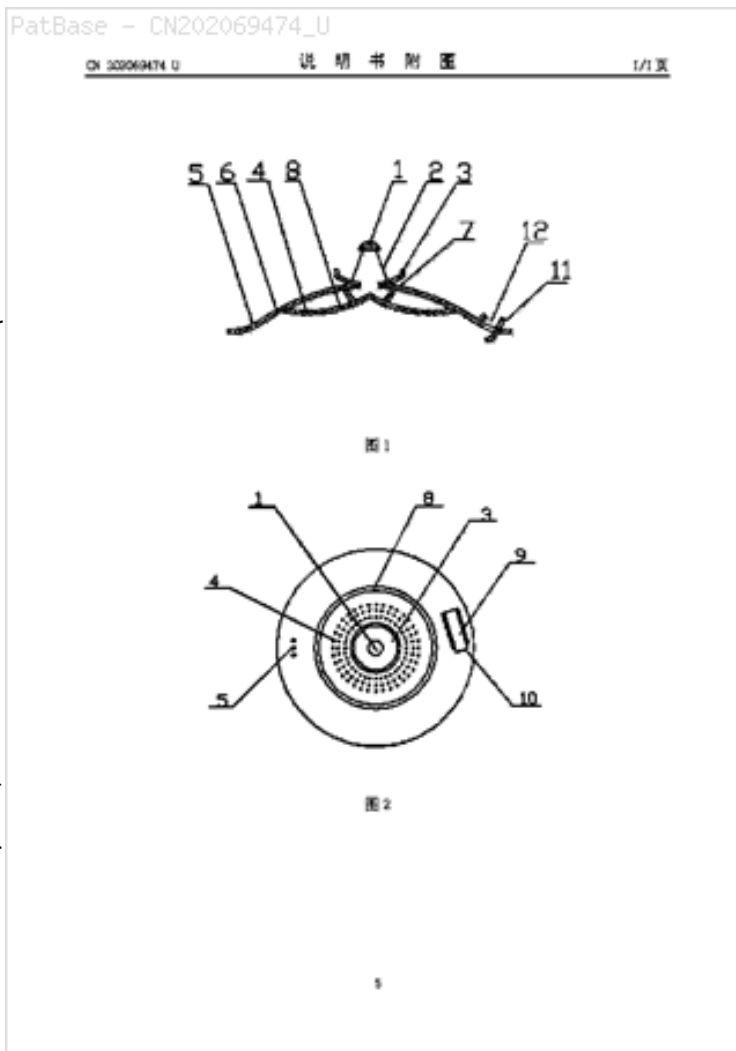
Inventor(s): LIU XIAOBIAO

International class A47J36/06 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN202069474U The utility model discloses a multifunctional boiler cover, which relates to a kitchen cooking utensil, in particular to a multifunctional boiler cover. The multifunctional boiler cover comprises a handle, a cover body and an exhaust hole, wherein the exhaust hole is formed on the cover body; the joint between the handle and the top of the cover body is provided with a concave water filling pool; the middle of the water filling pool is provided with an opening; and the inner wall of the side edge of the cover body is provided with a circular-arc water guide disk with a drain hole. The utility model has the beneficial effects that: the multifunctional boiler cover has a simple structure, and is convenient to use; and oil smoke is prevented from being splashed, and water and vegetables can be added into a boiler at any time, so that multiple functions are realized. Due to the arrangement of the concave water filling pool and the circular-arc water guide disk, water can be conveniently injected into the boiler, and water can be prevented from overflowing under the protection of the concave water filling pool; due to the formation of a transparent observation port, the mature degree of foods can be observed; and moreover, the transparent observation port can be taken as a vegetable filling port during frying, so that the oil smoke is prevented from being splashed and scalding a person by uncovering the boiler cover for adding the vegetables.



31) Family number: 65179055 (CN206006883U)

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Title: Anti-frying for a kind of stir-fry shielding cover (Machine translation)

Priority: CN201620613709U 20160619

Family:

Publication number	Publication date	Application number	Application date
<u>CN206006883 U</u>	20170315	CN201620613709U	20160619

Probable Assignee: ZHIHUA

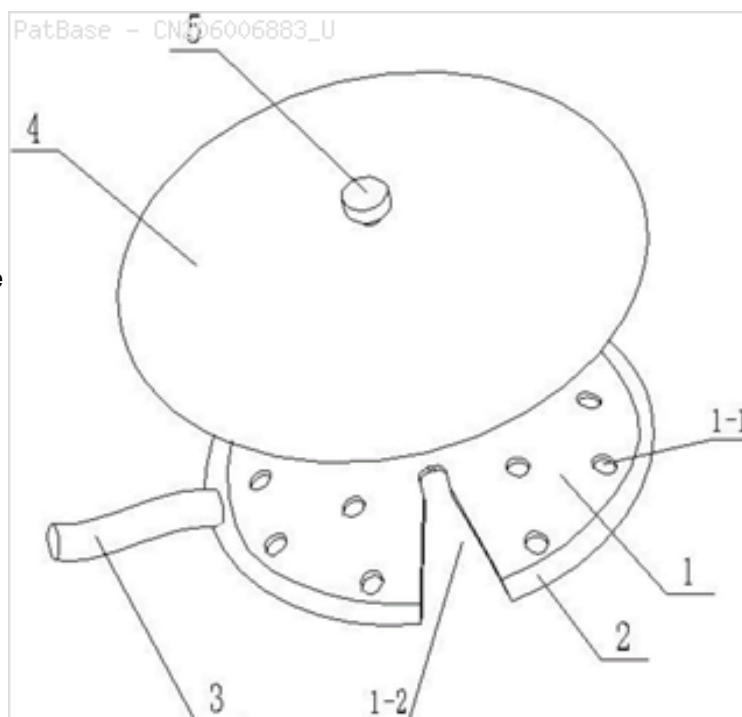
Assignee(s): ZHIHUA

International class A47J27/00 A47J36/00 A47J36/06 (Advanced/Invention)
(IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN206006883U The utility model involves areas of people's daily life, and more specifically is a kind of stir-fry with fried block-proof cover, including a transparent cover, retaining ring, handle, lid and handle, can effectively block the oil splash guarantee does not harm the human body to ensure people's safety, and can be used as lid, good. The transparent cover is provided with ventilation holes and gaps. Outer ring is on the edge of the transparent cover, handles are fixed on the outer guard, connecting the handle on top of the lid and cover on the handle is located in the middle. Cover in transparent cover on top.



32) Family number: 34326379 (CN2875262Y)

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Title: Pot cover with anti oil splash and cook oil saving function**Priority:** CN200620089588U 20060307

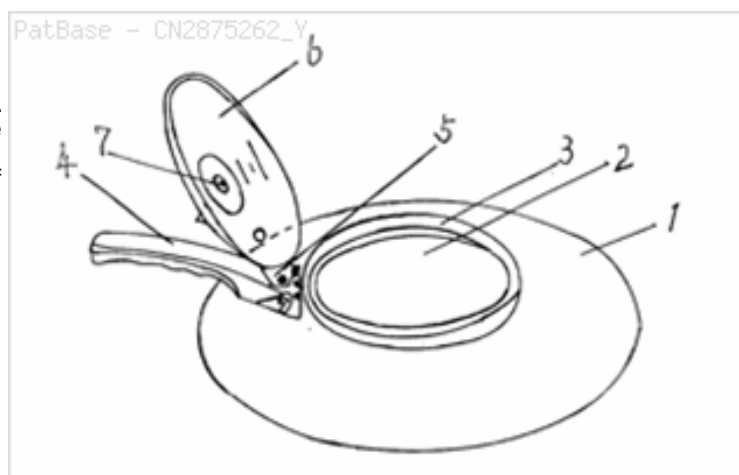
Family:	Publication number	Publication date	Application number	Application date
	CN2875262 Y	20070307	CN200620089588U	20060307

Probable Assignee: GUAN YIYING**Assignee(s):**^(std): GUAN YIYING**Inventor(s):**^(std): GUAN YIYING**Inventor(s):** YIYING GUAN

International class A47J36/06 (Advanced/Invention);
 (IPC 8-9): A47J36/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN2875262Y An anti-splatter and oil-saving pan cover pertains to the kitchenware and comprises a metal pan cover. The utility model is characterized in that a hole whose circumferential edge is provided with an upward protruding station while the rest part of the metal pan cover is provided with a handle whose front edge is near the side wall of the protruding station, which locates in the center hole of the metal pan cover and the upper part of the handle is provided with an elastic supporting iron blade, the other end of which connects to the side wall of the tiny glass bottle cap of the center hole; the tiny glass bottle cap is provided with a small handle in the center on the protruding station. In comparison to prior art, the utility model concentrates the advantage of iron bottle cap and that of the glass bottle cap and has the features of safety, anti-splatter and oil-saving by blocking the spraying oil drops back into the pan.



33) Family number: 48734526 (CN201782614U)

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Title: Safety frying pan cover
Priority: CN201020509031U 20100830

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201782614 U</u>	20110406	CN201020509031U	20100830

Probable Assignee: DAN ZHANG

Assignee(s):^(std): DAN ZHANG

Assignee(s): ZHANG DAN

Inventor(s):^(std): DAN ZHANG

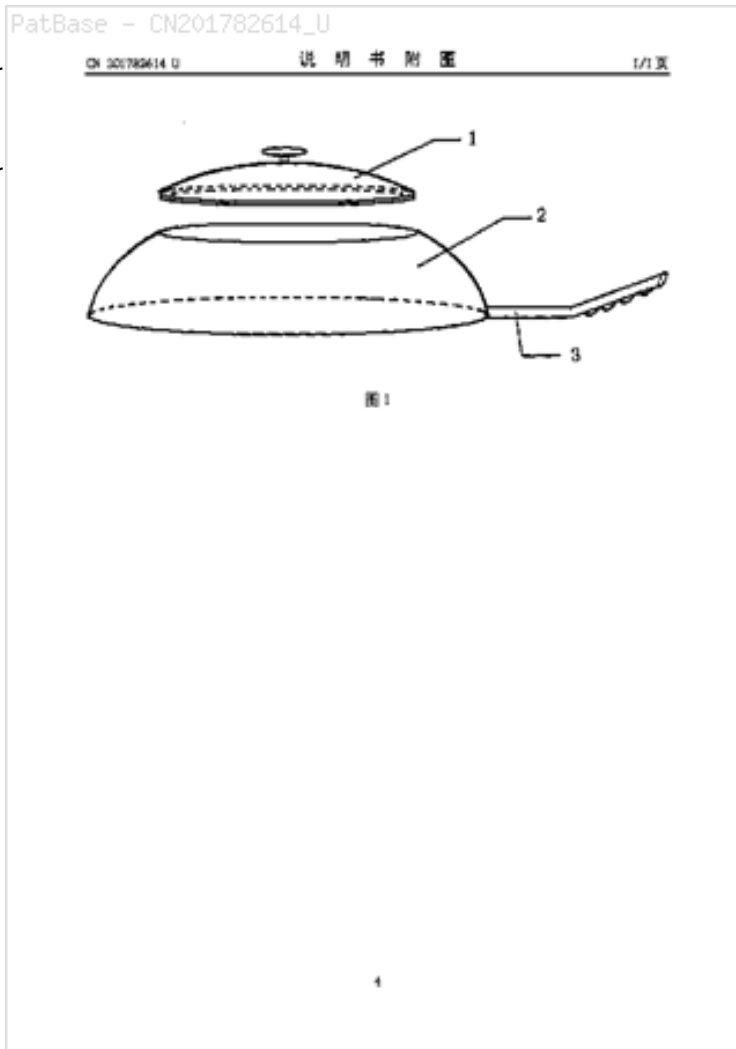
Inventor(s): ZHANG DAN

International class A47J36/06 (Advanced/Invention)
 (IPC 8-9).

[Classification Explorer](#)

Abstract:

Source: CN201782614U A safety frying pan cover comprises an upper cover, a lower cover and a cover handle. The upper cover is arranged on a circular hole at the top end of the lower cover; the cover handle is connected with the lower end of the periphery of the lower cover; and the upper cover can be freely mounted or detached. The safety frying pan cover has the advantages of not only having the functions of a general pan cover, but also being capable of effectively avoiding potential safety hazards such as skin scalding caused by high-temperature oil drop splashing and the like.



34) Family number: 56613341 (CN103844911A)

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Title: POT COVER WITH OIL SPLASHING PREVENTION EFFECT

Priority: CN201210516281 20121203

Family:	Publication number	Publication date	Application number	Application date
	CN103844911 A	20140611	CN201210516281	20121203

Probable Assignee: YAN NENGJIN

Assignee(s):^(std): YAN NENGJIN

Assignee(s): YAN CAN ENTER

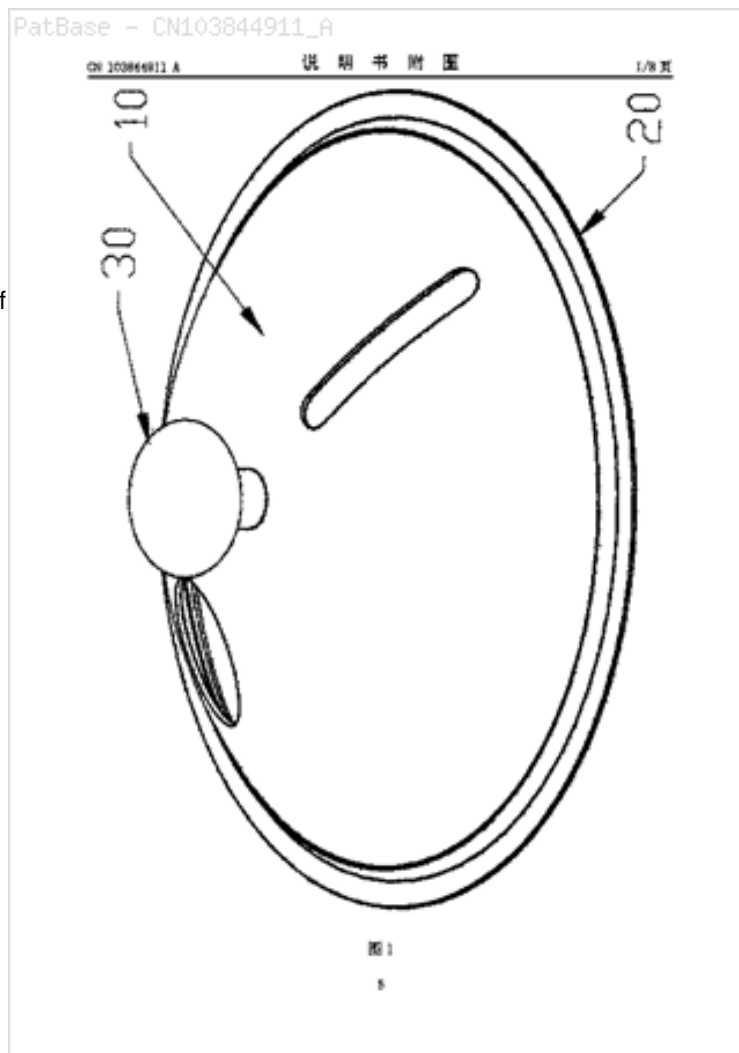
Inventor(s):^(std): YAN NENGJIN

International class A47J36/06 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN103844911A The invention relates to a pot cover with an oil splashing prevention effect. The pot cover comprises a pot cover main body, a covered edge, a handle, a screw and a pulley, and is characterized in that a long through hole and a large round through hole are formed in the pot cover main body, the edge of the pot cover main body is connected with a U-shaped clamp, and a through hole of the inclined edge of the covered edge is connected with a screw bolt of the pulley. The pot cover has the beneficial effects that stir-frying can be carried out in a pot cover covering way, so oil and water mixtures are prevented from being splashed out of a frying pot.



0) KR20010093888A – COOKER FOR ROASTING MEAT

35) Family number: 16308525 (KR20010093888A)

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Title: COOKER FOR ROASTING MEAT

Priority: KR20000009295U 20000331

KR20000017198 20000401

Family:

Publication number	Publication date	Application number	Application date
KR100344180 B1	20020720	KR20000017198	20000401
KR20010093888 A	20011031	KR20000017198	20000401
KR200196731 Y1	20000915	KR20000009295U	20000331

Probable Assignee: LEE WON MYUNG

Assignee(s):^(std): LEE WON MYUNG

Inventor(s):^(std): LEE WON MYUNG

International class [A47J37/06](#) (Advanced/Invention);
(IPC 8-9): [A47J37/06](#) (Advanced/Non-invention);
[A47J37/06](#) (Core/Invention)

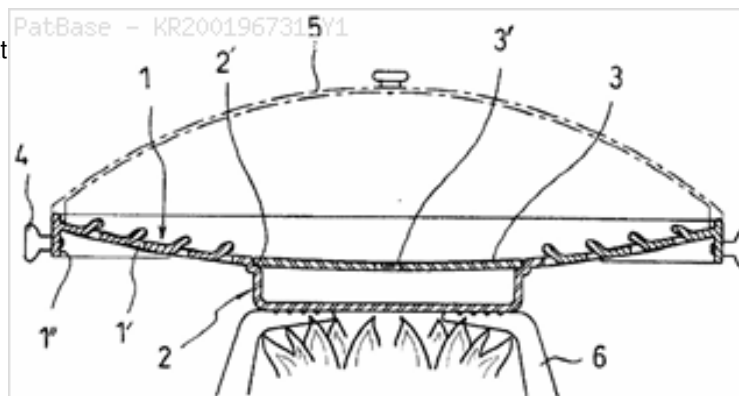
International class [A47J37/06](#)
(IPC 1-7):

[Classification Explorer](#)

Forward Citations: KR200449795,

Abstract:

Source: KR20010093888A PURPOSE: A meat roasting grill is provided to eliminate overcooking and inconvenience by heating indirectly, to cook efficiently with a containing part, and to improve convenience by frying oil inward. CONSTITUTION: A roast grill is composed of a recessed cooking part(1) having plural heat inlets(1') and a heat insulating part(2''); a containing part(2) recessed in the middle of the cooking part to contain gravy soup, oil or water; and an auxiliary roast plate settled in a sill of the containing part with an oil discharge hole. The gravy soup in the containing part is heated promptly, and the meat in the cooking part is broiled evenly with indirect heat. The roast grill is prevented from being replaced frequently with reducing the contamination of the cooking part. Oil and water are prevented from being splashed outward with the recessed cooking part. Food is steamed with boiling water in the containing part in closing a cover(5). The heat loss is reduced with the heat insulating part, and a handle(4) is prevented from being heated.



36) Family number: 57445008 (CN203841504U)

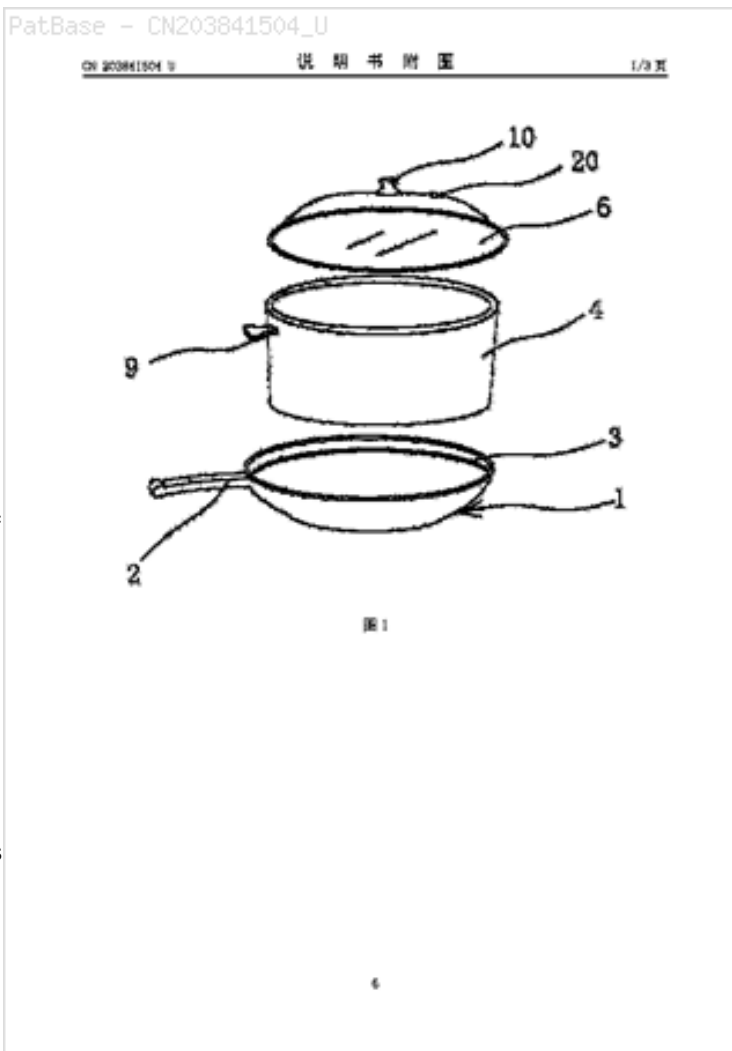
© PatBase

Title: MULTIFUNCTIONAL FRYING PAN**Priority:** CN201420200380U 20140423**Family:**

Publication number	Publication date	Application number	Application date
<u>CN203841504 U</u>	20140924	CN201420200380U	20140423

Probable Assignee: YU JIAQING**Assignee(s):^(std):** YU JIAQING**Inventor(s):^(std):** YU JIAQING**International class** A47J27/00 A47J36/00 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: CN203841504U The utility model provides a multifunctional frying pan, belongs to the technical field of cooking utensils, and solves the technical problems that the existing frying pan has single function. The multifunctional frying pan comprises a pan body and a handle; the handle is fixed at the upper end of the pan body; the pan body comprises a bottom and a body, the lower end of the body is fixedly connected with the bottom, the upper end of the body is open, the upper surface, close to the upper edge, of the body is provided with a locking groove along the periphery of the body. The multifunctional frying pan further comprises a steaming barrel, a steaming partition and a pan cover; the steaming barrel is in a barrel shape and has two ends open; the lower end of the steaming barrel is locked in the locking groove; the steaming partition is provided with a plurality of air holes; the steaming partition is horizontally disposed inside the steaming barrel and is detachably connected to the lower end of the steaming barrel; the pan cover is fastened to the upper end of the steaming barrel. The multifunctional frying pan can serve as a common frying pan and can also serve as a steamer using the steaming barrel, the steaming partition and the pan cover; extra steamers are saved, and cost and kitchen space are saved; the steaming barrel can be solely fastened to the pan body, splashing of boiling oil is prevented effectively, and safety is improved.



37) Family number: 33329624 (CN2803210Y)

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Title: General combined frying pot
Priority: CN200520013012U 20050704
Family:

Publication number	Publication date	Application number	Application date
<u>CN2803210 Y</u>	20060809	CN200520013012U	20050704

Probable Assignee: ZHUANG WENHUA

Assignee(s):^(std): ZHUANG WENHUA

Inventor(s):^(std): ZHUANG WENHUA

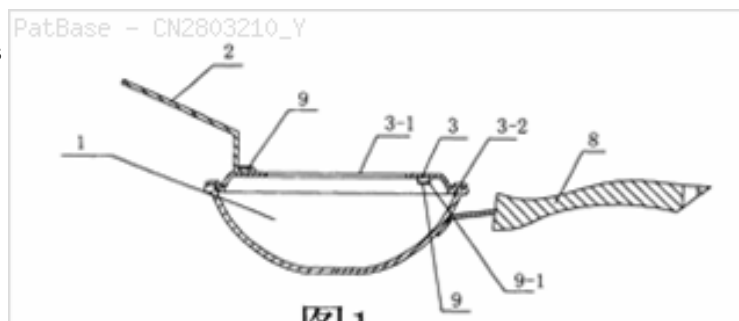
Inventor(s): WENHUA ZHUANG

International class A47J27/04 A47J36/16 A47J37/00 (Advanced/Invention);
 (IPC 8-9): A47J27/04 A47J36/00 A47J37/00 (Core/Invention)

[Classification Explorer](#)

Abstract:

Source: CN2803210Y The utility model relates to a universal combined frying pan which comprises a pan body provided with a handle. The pan opening part of the pan body is provided with a pan rack, and the middle part of the pan rack is upward protruded and is provided with a through hole. The pan rack is overlapped on the pan body by surrounding rack edges. Upper and lower surfaces of the pan rack are respectively provided with a handle seat which is provided with a handle hole bearing the handle. A pan cover covering the through hole is covered above the pan rack. A grid pan used for filtering oil is placed in the pan body, and the upper end of the grid pan penetrates out from the through hole of the pan rack. The pan rack is erected with a steaming pan used for steaming, and the bottom end of the steaming pan is erected on the through hole. The inner part of the pan body is provided with a barbecuing rack used for barbecue. The utility model has the advantages of reasonable structure and good using effect. The pan rack can prevent oil splash and is convenient for placing the steaming pan, the grid pan, etc.



38) Family number: 42831746 (CN201171593Y)

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Title: Oil–splashing prevention multipurpose cooking pots**Priority:** CN200820066431U 20080409

Family:	Publication number	Publication date	Application number	Application date
	<u>CN201171593 Y</u>	20081231	CN200820066431U	20080409

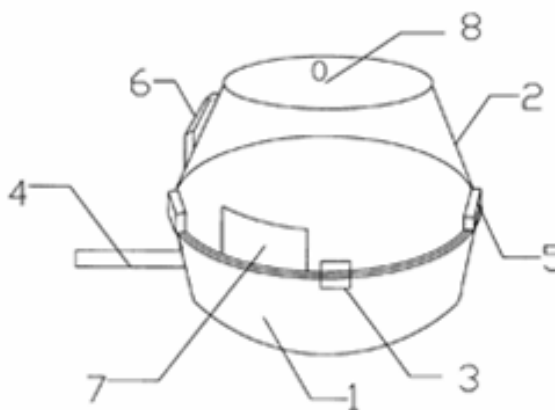
Probable Assignee: YUWEN WANG**Assignee(s):^(std):** YUWEN WANG**Assignee(s):** WANG YUWEN**Inventor(s):^(std):** YUWEN WANG**Inventor(s):** WANG YUWEN

International class A47J27/00 A47J36/06 (Advanced/Invention);
 (IPC 8–9): A47J27/00 A47J36/00 (Core/Invention)

[Classification Explorer](#)**Abstract:**

Source: CN201171593Y The utility model discloses an oil splash–proof multi–purpose boiler which is characterized in that four connecting buckles (3) are arranged at the edge of the boiler (1); wherein, one connecting buckle (3) is arranged at the upper side of a boiler handle (4), and the other three connecting buckles are evenly distributed on the edge of the boiler; four bulge blocks (5) are arranged at the connecting buckle position corresponding to a boiler cover (2); the connecting buckles (3) are buckled on the bulge blocks (5); the boiler cover (2) is a transparent round platform shape with a wide upper part and a thin lower part; a hole (7) with the length being 20 cm and the width being 15 cm is arranged at the edge of the side wall of the boiler cover (2); a plane cover body (8) which can be separated from the boiler cover (2) is arranged at the upper surface of the boiler cover (2). The multi–purpose boiler has simple structure and convenient and safe use, can be used for cooking dishes and stewing soup, and is suitable for use in home or restaurants.

PatBase – CN201171593_Y



39) Family number: 50515921 (CN202112958U)

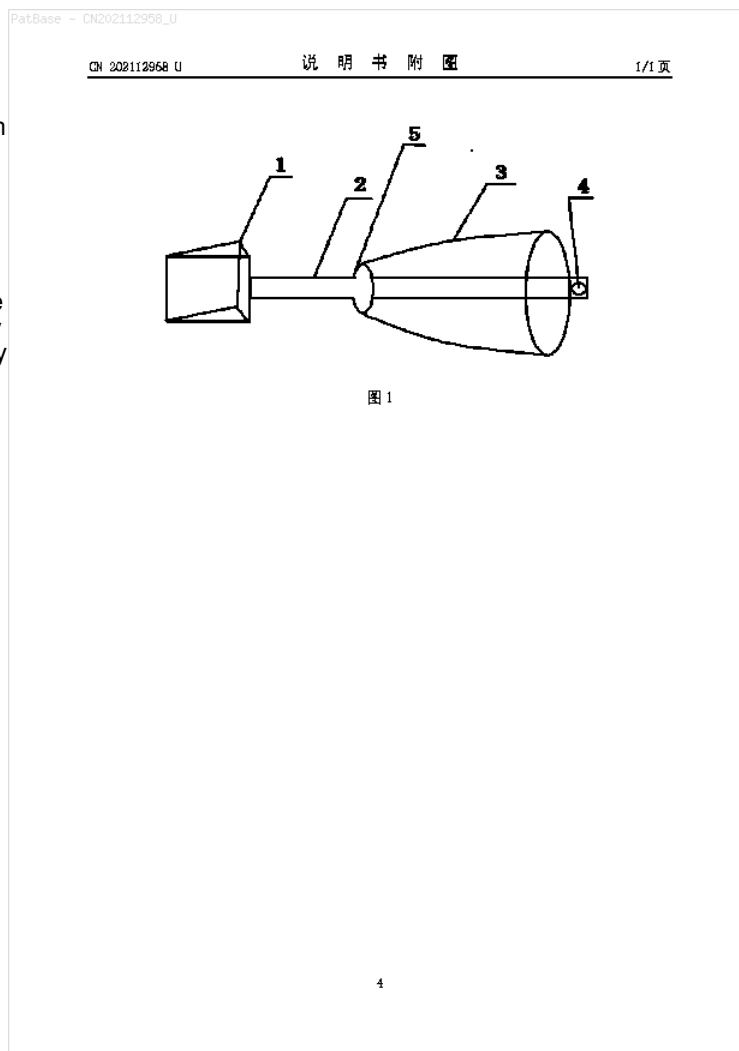
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Title: Hand protective shovel for frying**Priority:** CN201120172114U 20110526**Family:**

Publication number	Publication date	Application number	Application date
<u>CN202112958 U</u>	20120118	CN201120172114U	20110526

Probable Assignee: SHANGHAI BAOSHAN DISTR QILIAN CENTRAL SCHOOL**Assignee(s):**^(std): SHANGHAI BAOSHAN DISTR QILIAN CENTRAL SCHOOL**Assignee(s):** SHANGHAI BAOSHAN DISTRICT QILIAN CENTRAL SCHOOL**Inventor(s):**^(std): BIN YU ; RONGHUA XU**Inventor(s):** XU RONGHUA ; YU BIN**International class** A47J43/28 (Advanced/Invention)
(IPC 8-9).[Classification Explorer](#)**Abstract:**

Source: CN202112958U The utility model discloses a hand protective shovel for frying, which comprises a shovel body and a shovel handle. A hand protective cover is arranged on the shovel handle, a fastening ring at one end of the hand protective cover is sleeved on the shovel handle, and the hand protective cover is a hollow structure body with one closed end and one open end. A small hole is arranged at the tail end of the shovel handle, and the hand protective cover is a round table structure. The hand protective shovel for the frying effectively solves the problem of hand scalding caused by blasting oil and boiling water which splash on the hand during cooking, cannot hurt users when the hand protective shovel is used, and is simple in structure and safe and convenient.



0) CN205041234U – ANTI –OIL –SPATTER COOKER –COVER

40) Family number: 61736435 (CN205041234U)

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Title: ANTI –OIL –SPATTER COOKER –COVER

Priority: CN201520787429U 20151012

Family:

Publication number	Publication date	Application number	Application date
<u>CN205041234 U</u>	20160224	CN201520787429U	20151012

Probable Assignee: UNIV NANYANG NORMAL

Assignee(s):^(std): NANYANG NORMAL UNIV ; UNIV NANYANG NORMAL

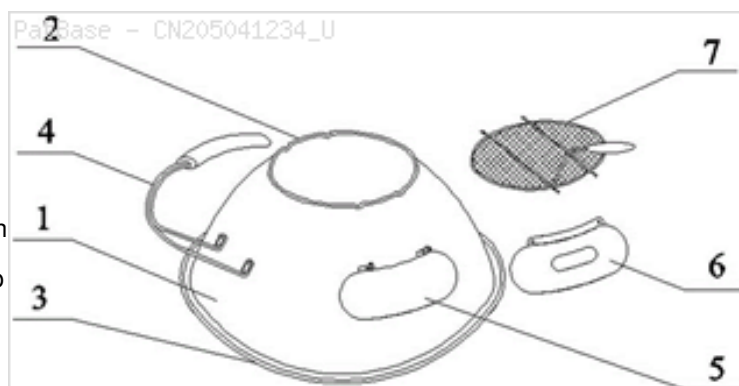
Inventor(s):^(std): LI XUEHUI ; LU YUNFENG ; TIAN LONG ; YUAN LINGXIANG

International class A47J36/06 (Advanced/Invention)
(IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN205041234U The utility model provides an anti –oil –spatter cooker –cover, including the pot cover main part, be equipped with slice hole, under shed and ke li handle in the pot cover main part, pot cover main part top sets up the upper shed, set up netted pot cover double –edged fine –toothed comb on the upper shed. The utility model discloses can prevent effectively that hot oil from splashing to people's injury and to the pollution of the top of a kitchen range, wall, also can effectively utilize the heat source simultaneously, be applicable to dining room, family's food and beverage operation, it is easy and simple to handle, very high stability of quality and fail safe nature have.



41) Family number: 19216 (BRMU7500303U)

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Title: Disposicoes introduzidas em fritadeira de salgadinhos a gas Provisions introduced in snack Fryer gas (Machine translation)

Priority: BR1995MU00303U 19950131

Family:	Publication number	Publication date	Application number	Application date
	<u>BRMU7500303 U</u>	19970128	BR1995MU00303U	19950131

Probable Assignee: FILHO DEMETRIO R

Assignee(s):^(std): COSTA CARLOS A ; FILHO DEMETRIO R

Inventor(s):^(std): COSTA CARLOS A ; DEMETRIO R FILHO

Inventor(s): CARLOS A COSTA

International class A47J37/12 (Advanced/Invention);
(IPC 8-9): A47J37/12 (Core/Invention)

International class A47J37/12
(IPC 1-7):

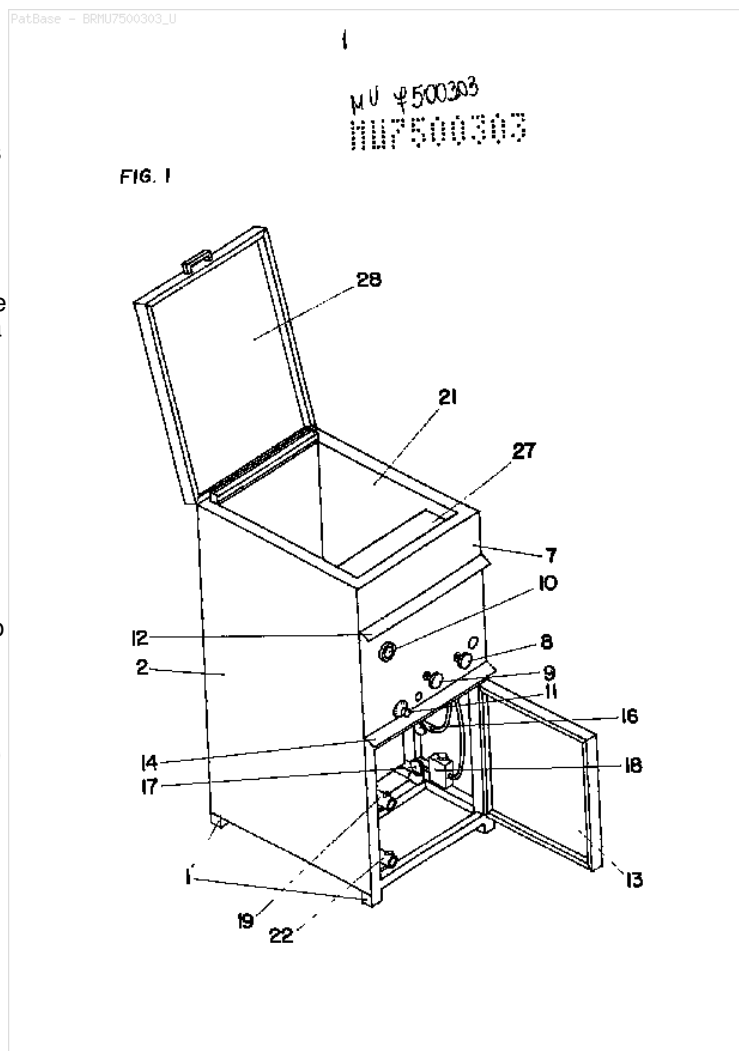
[Classification Explorer](#)

Abstract:

Source: BRMU7500303U [Source: Claim 1]

1-"DISPOSICOES INTRODUZIDAS EM FRITADEIRA DE SALGADINHOS A GAS"

caracterizado por estrutura (1) de perfis tubulares metalicos, com fechamentos laterais (2), 05 fechamento posterior (3) dotado de orificios de saida de ar quente (4), orificio de passagem da fiacao <5> e ori- ficio de passagem do duto de gas (6), alem de painel frontal (7), com botao de abertura e fechamento do fluxo de gas da chama-piloto e do corredor de fogo <8>, botao 10 de abertura e fechamento do fluxo de gas dois) quei- mador (es) (9), do termometro (10) e do botao de regulagem do termostato (11), protegidos por estreita aba laminar superior inclinada (12), para evitar respingos de oleo, e, sob dito painel, fica colocado portinhola de acesso 15 (13) dotado de puxador, com protecao de estreita aba la- minar superior inclinada (14), para acesso dos registros de regulagem da altura maxima da chama-piloto (15), da regulagem manual das chamas (16), quando da falta de energia eletrica, e da regulagem do fluxo para alimen- 20 tapao (17) pela valvula solenoide (13), fixada lateral- mente junto a referida estrutura (1), e do duto (19) com registro (20) para drenagem do oleo queimado, da parte intermediaria da cuba (21) e do duto (22) com registro de drenagem da agua salgada" da "parte inferior da referida cuba (21), dutos fixados a estrutura por ganchos, com camara longitudinal para retencao de calor (24) e duto (25) para acomodacao de vareta (2o) do ter- 05 mostato, dita cuba (21) dotada, em sua borda frontal, de pelo menos um degrau quebra-onda (27), cuba essa dotada de tampa (28) articulada posteriormente, que se abre em Sngulo maior que 90ss. [Source: Claim 1] 1-"PROVISIONS INTRODUCED in the SNACK FRYER GAS" characterized by structure (1) metallic tubular profiles, with closings (2), (3) lock 05 with hot air outlet holes (4) orifice fiacao <5 crossing) and ori-ficio passing gas duct (6) and front panel (7), with the



opening and closing button of the gas flow from the pilot and the hall of fire <8>, 10 button for opening and closing of the gas flow two) complained the transformer (s) (9), (10) thermometer and thermostat adjustment button (11), protected by narrow upper inclined laminar tab (12), to avoid oil splash, and under said Panel is placed 15 access door (13) with handle, with protection of close tab it undermine superior inclined (14) to access the records of maximum height adjustment of pilot (15), manual adjustment of the flame (16), when the lack of electric power, and flow regulator to 20 food tapao (17) the solenoid valve (13), side-mounted mind along this structure (1), and the duct (19) with registration (20) for draining the oil burned, the intermediate part of the tub (21) and (22> duct with salt water drainage record "of" the bottom of the referred to cuba (21), pipelines laid down the framework by hooks, with camara for longitudinal heat retention (24) and (25) duct to travel (2nd) of the rod have mostato 05, said cuba (21), in its front edge, at least a step wave breaker (27), cuba that has Cap (28) articulated later, that opens in Sngulo more than 90 ss.

42) Family number: 46686814 (CN101813333A)

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Title: LIFTING TRANSPARENT FUME ABSORBING COVER RANGE HOOD**Priority:** CN201010168338 20100506

Family:	Publication number	Publication date	Application number	Application date
	<u>CN101813333 A</u>	20100825	CN201010168338	20100506

Probable Assignee: CHAOLIN ZHANG**Assignee(s):^(std):** CHAOLIN ZHANG**Assignee(s):** ZHANG CHAOLIN**Inventor(s):^(std):** CHAOLIN ZHANG**Inventor(s):** ZHANG CHAOLIN

International class F24C15/20 (Advanced/Invention);
 (IPC 8-9): F24C15/20 (Core/Invention)

CPC: F24C15/2085[Classification Explorer](#)**Cited documents:** CN2158980 Y, CN2102461 U, CN2053725 U, CN201368516 Y, CN1014266 B,**Abstract:**

Source: CN101813333A The invention relates to the technical field of lifting range hoods, in particular to a lifting transparent fume absorbing cover range hood, which comprises a fan, an expansion air pipe, a fume absorbing cover and a control device of the fume absorbing cover, and is characterized in that: the top part of the fume absorbing cover is connected with the lifting control device; the body is made of a transparent material; and one side face of the body has a handle hole. The expansion air pipe has a sleeve type structure or is a corrugated hose. The lifting control device is controlled automatically by a motor or manually by a pulley. The range hood has the advantages that: the height of the fume absorbing cover can be adjusted according to the volume of fume, namely the fume absorbing cover is lifted when no fume is generated so as to leave a large cooling space for convenient operation and is lowered when a large amount of fume is generated during frying; the fume absorbing cover is made of a transparent material, so the sight influence is avoided and the operation is safe; burns caused by splashed oil foam are avoided; the fume exhaust and absorption effect is desirable; and the kitchen is sanitary enough for keeping fit.

PatBase - CN101813333_A

CN 101813333 A 说明书附图 1/1页

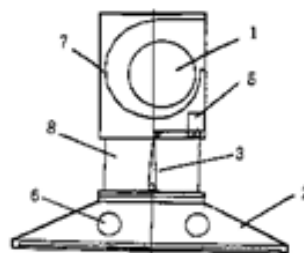


图 1

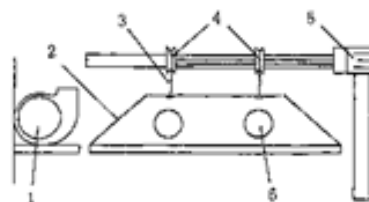


图 2

43) Family number: 60554257 (KR20150115351A)

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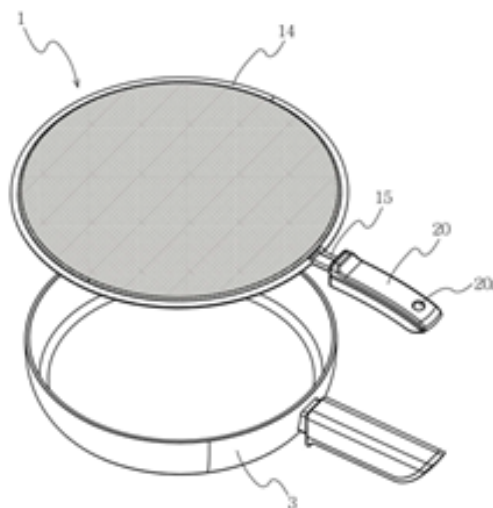
Title: A SPLATTER COVER WITH DEODORIZATION ABILITY**Priority:** KR20140040242 20140404**Family:**

Publication number	Publication date	Application number	Application date
<u>KR20150115351 A</u>	20151014	KR20140040242	20140404

Probable Assignee: YOON IL DO**Assignee(s):^(std):** YOON IL DO**Assignee(s):** EVEN LEAP**Inventor(s):^(std):** YOON IL DO**International class** A47J36/00 A47J36/06 A47J37/10 (Advanced/Invention)
(IPC 8-9):[Classification Explorer](#)**Abstract:**

Source: KR20150115351A The present invention relates to an oil scattering prevention cover, which is formed in a circular shape to cover a cooking container. The cover of the present invention comprises: an upper net (11) and a lower net (12) manufactured in fine nets in order to effectively discharge steam as well as preventing oil from being scattered outside; a frame (14) forming an edge of the nets; a lead body (15) which composes a main body and connects a handle (20); and a filter portion (13) manufactured with an activated charcoal fiber to absorb smell and smoke, and inserted between the upper net (11) and the lower net (12). The upper net (11) and the lower net (12), manufactured in fine nets, prevent a burn risk by keeping the oil from being scattered outside, prevent being dirty due to the scattered oil, perform deodorization and smoke extraction functions as the filter portion (13), manufactured with the activated charcoal fiber, effectively absorbs a volatile particle (smell particle) and the smoke which are produced when cooking, prevent fried food from being soggy as the steam, gathered by being evaporated upward by a heating source, is discharged through fine holes of the upper net (11), lower net (12), and filter portion (13), and can be washed with water after being used.

PatBase - KR20150115351_A



44) Family number: 16119187 (CN2417809Y)

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Title: Enclosed sputtering–proof meat–stewing implement**Priority:** CN20002008890U 20000429

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2417809 Y</u>	20010207	CN20002008890U	20000429

Probable Assignee: LIU YOUSHENG**Assignee(s):^(std):** LIU YOUSHENG**Inventor(s):^(std):** LIU YOUSHENG ; YOUSHENG LIU

International class A47J37/12 (Advanced/Invention) ;
 (IPC 8–9) A47J37/12 (Core/Invention)

International class A47J37/12
 (IPC 1–7)

[Classification Explorer](#)**Abstract:**

Source: CN2417809Y The utility model relates to an enclosed sputtering–proof meat–stewing implement. The implement comprises a metal container, the upper part of the container is provided with a container cover, the container cover through a rotating button is connected with the container, the bottom of the container is provided with a plurality of small holes, and one side of the container is provided with a handle. When frying, a box body for containing meat is put into a hot oil boiler, oil in the boiler through the small holes enters the box body, and fries the meat in the box body. The utility model can completely solve the problem that hot oil splashes when food is fried, is not only safe and reliable in operation, but is also convenient and sanitary, has simple structure, simple manufacture and low cost, and is suitable for refectories, hotels, families, etc.

0) CN2565379Y – POT COVER

45) Family number: 28895245 (CN2565379Y)

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Title: Pot cover

Priority: CN20022073688U 20020610

Family:	Publication number	Publication date	Application number	Application date
	<u>CN2565379 Y</u>	20030813	CN20022073688U	20020610

Probable Assignee: CHENG ZHILIANG

Assignee(s):^(std): CHENG ZHILIANG

Inventor(s):^(std): CHENG ZHILIANG

Inventor(s): ZHILIANG CHENG

International class A47J36/06 (Advanced/Invention);
(IPC 8-9): A47J36/00 (Core/Invention)

International class A47J36/06
(IPC 1-7):

[Classification Explorer](#)

Forward Citations: CN105361644,

Abstract:

Source: CN2565379Y The utility model relates to a cooker cover, which comprises a cover body and a handle. The utility model is characterized in that the cooker cover body is provided with a vent hole and a feed port. The utility model has the advantages of oil splash prevention, safe and convenient operation, etc.

Title: WOK AUXILIARY DEVICE
Priority: CN201520201932U 20150407
Family:

Publication number	Publication date	Application number	Application date
<u>CN204483937 U</u>	20150722	CN201520201932U	20150407

Probable Assignee: ZENG YINFA
Assignee(s):^(std): ZENG YINFA
Assignee(s): ZENG SILVER LAW
Inventor(s):^(std): ZENG YINFA
International class A47J45/02 A47J45/06 (Advanced/Invention)
 (IPC 8-9):

[Classification Explorer](#)

Abstract:

Source: CN204483937U The utility model discloses a wok auxiliary device which comprises a sleeve and a protective cover. The sleeve is composed of an inner barrel and an outer barrel, the upper surface of the outer barrel is provided with a first switch and a second switch, a concave hole is formed in the lower surface of the inner barrel, a first motor is arranged on the back of the inner barrel, and the front end of the outer barrel is provided with a circular truncated cone sleeve; the protective cover is arranged between the circular truncated cone sleeve and the outer barrel and is in an arc shape, a support column is arranged under the outer barrel, a telescopic rod is arranged in the support column, the top end of the inner wall of the support column is provided with a second motor, a rotation shaft of the second motor is provided with a thin iron chain, the other end of the thin iron chain is located at the bottom end of the support column, a storage battery is arranged in the telescopic rod, and a fixing suction cup is arranged under the support column. The wok auxiliary device is used on a handle of a wok; the sleeve can be arranged on the handle in a sleeving mode, the protective cover can prevent hot oil or water from splashing on the hands or the arms, the position of the wok can be lifted by the support column so that lifting frying is more convenient, and the inner barrel can rotate so that a dish in the wok can be poured more easily and conveniently.

