

1) Family number: 32761606 (US2006065264A)

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Title: LIGHTWEIGHT, PORTABLE COOKING STOVE

Abstract: A small, lightweight, portable cooking stove that utilizes alcohol as fuel and is suitable for backpacking, hunting, camping and similar activities. The cooking stove includes a combustion chamber which encloses, contains and regulates the entire combustion process. The stove also includes an efficient fuel vaporizer, which is adapted to perform in unison with the combustion chamber, to effect the metered and efficient mixing of the air and fuel vapor. An integral, simple and convenient means is provided to vary the intensity and pattern of the heat output, thereby controlling the cooking performance of the stove. The stove achieves high heat output and efficiency, low fuel consumption, and superior cooking performance in a small, lightweight, portable, convenient, simple and integrated assembly.

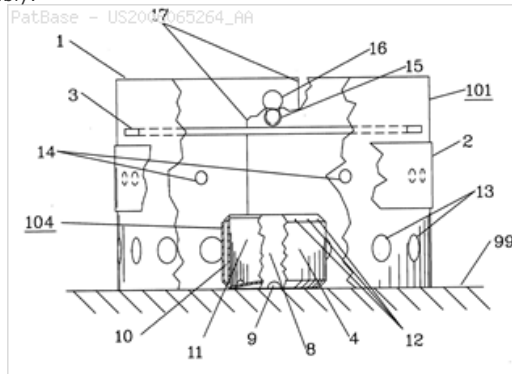
Classifications:

International (IPC 8-9): A47J36/24 A47J36/26 F23D5/04 F23D5/12 F23D5/18 F24C15/08 F24C5/00 F24C5/02 (Advanced/Invention); A47J33/00 F24B3/00 F24C9/00 (Advanced/Non-invention); A47J36/24 F23D5/00 F24C15/08 F24C5/00 (Core/Invention)

CPC: A47J36/26 F24C5/20

European: F24C5/20

US: 125/29 125/39R 125/40 125/41R 125/50 125/9B 125/9R 126/25.00R 126/25.00RP 126/25R 126/29 126/39R 126/40 126/41R 126/43 126/44 126/44P 126/50 126/50S 126/9B 126/9R 211/85.4 99/449

**Family:**

Publication number	Publication date	Application number	Application date
US2006065264 AA	20060330	US20040951128	20040927
US2007227523 AA	20071004	US20070761483	20070612
US2009314273 AA	20091224	US20090553046	20090902
US2009314274 AA	20091224	US20090553053	20090902
US7246614 BB	20070724	US20040951128	20040927
US7600510 BB	20091013	US20070761483	20070612
US8701650 BB	20140422	US20090553046	20090902

Priority:

US20040951128 20040927 US20070761483 20070612 US20090553046 20090902
US20090553053 20090902

Probable Assignee: HUGGINS TIMOTHY GREGG

Assignee(s): (std): HUGGINS TIMOTHY G ; HUGGINS TIMOTHY GREGG

Inventor(s): (std): HUGGINS TIMOTHY G ; HUGGINS TIMOTHY GREGG

Inventor(s): HUGGINS TIMOTHY

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2) Family number: 44866853 (US2010083946A)

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Title: PORTABLE COMBUSTION DEVICE UTILIZING THERMOELECTRICAL GENERATION

Abstract: This invention provides a portable combustion device that provides a cleaner combustion, reduces the kindling period, and provides a more efficient overall combustion through the use of a fan that directs a predetermined volume of airflow over the combustible fuel—typically wood or similar cellulose-based biological solids. The combustion device has a combustion chamber into which the fuel source is placed for combustion. Mounted to the side of the combustion chamber is a housing that encloses the TEG, which generates an electrical output based on a difference in temperature on opposing sides. Mounted onto the TEG housing and protruding into the combustion chamber through a small passageway is a heat-conducting probe and heat-conducting probe base unit. The opposing side of the TEG is also in contact with a heat sink to remove heat from the TEG device through interaction with ambient air that passes over the vanes from a port located along the side of the TEG housing. A motor and fan near the heat sink to draw air away the heat sink and aid in the cooling of the heat sink, and force air onto the combustive fuel through a plurality of peripheral ports that connect with an air space located between the inner and outer walls of the combustion chamber.

Classifications:

International (IPC 8-9): A47J37/07 F23B20/00 F23Q7/12 F24B1/00 F24B1/18 F24B1/182 F24B1/20 F24B13/00 F24B5/02 F24C15/00 F24C15/18 F24C15/22 H01L35/28 H01L35/30 H02N11/00 (Advanced/Invention);

A47J33/00 F24B13/00 (Advanced/Non-invention);

F23Q7/00 F24B1/00 F24B5/00 (Core/Invention);

F24B (Subclass/Invention)

CPC: F24B1/182 A47J37/0754 F24B13/00 F24B1/022 H01L35/28

Y02B40/0163 F23B20/00 F23M2900/13003 F24B1/00 F24B5/026

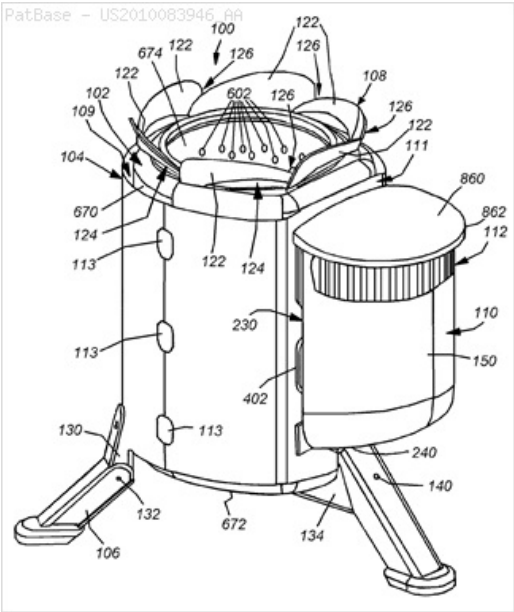
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R23M900/13003 Y02B40/16B

US: 110/188 110/1F 110/267 110/293 126/15A 126/25.00BP

126/25B 126/25R 126/501 126/502 126/9B 126/9R 431/254



Family:

Publication number	Publication date	Application number	Application date
AP201105698 A0	20110630	AP20110005698	20091007
AP3157 A	20150331	AP20110005698	20091007
EP2342500 A1	20110713	EP20090737286	20091007
EP2342500 B1	20161228	EP20090737286	20091007
IN02529DN2011 A	20120413	IN2011DN02529	20110406
US2010083946 AA	20100408	US20090574647	20091006
US2013112187 AA	20130509	US20120662650	20121029
US8297271 BB	20121030	US20090574647	20091006
US8851062 BB	20141007	US20120662650	20121029
WO10042574 A1	20100415	WO2009US59776	20091007
WO14070754 A1	20140508	WO2013US67284	20131029
ZA201103118 A	20120829	ZA20110003118	20110428

Priority:

US20080103335P 20081007 US20090574647 20091006 WO2009US59776 20091007
US20120662650 20121029

Probable Assignee: BIOLITE LLC

Assignee(s): (std): BIOLITE LLC ; BOILITE LLC ; BURNS CLAY ; CEDAR JONATHAN M ; CEDAR JONATHAN N ; DRUMMOND ALEXANDER H ; NOWICKI MATTHEW

Inventor(s): (std): CEDAR JONATHAN M ; DRUMMOND ALEXANDER H ; CEDAR JONATHAN N ; BURNS CLAY ; NOWICKI MATTHEW

Inventor(s): DRUMMOND H ALEXANDER ; CEDAR M JONATHAN

Agent(s): MARTIN PHILIP JOHN; LOGINOV AND ASSOCIATES PLLC; WILLIAM A; LOGINOV WILLIAM A

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

3) Family number: 47096788 (US2010258104A)

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Title: COOK STOVE ASSEMBLY

Abstract: A combustion chamber, having an upper part and a lower part, may include an annular constriction, in combination with the combustion chamber, to aid in directing partially combusted gases such as carbon monoxide away from the periphery of the combustion chamber back toward its center, and into the flame front. The annular constriction may also impede the flow of partially combusted gases located at the periphery, thus increasing the time these gases spend within the combustion chamber and increasing the likelihood that any products of incomplete combustion will undergo combustion. The combustion chamber may further comprise a dual burner cooktop for directing combustion gases and exhaust to multiple cooking vessels. In further embodiments, the combustion chamber may be made of, lined, or clad with a metal alloy comprising iron, chromium, and aluminum.

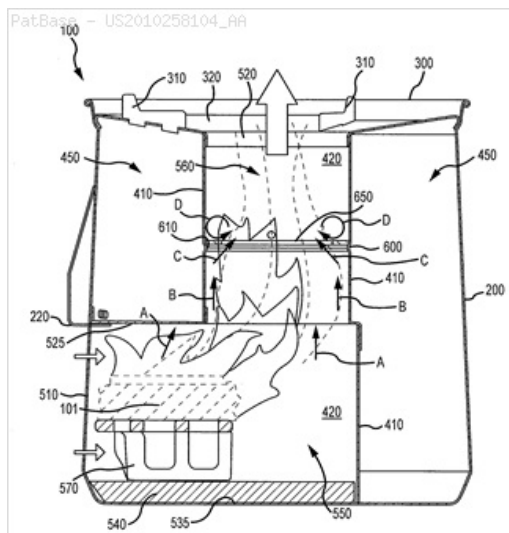
Classifications:

International (IPC 8-9): A47J37/07 F24B1/00 F24B1/02 F24B3/00 F24B5/02 F24C1/16 (Advanced/Invention); A47J (Subclass/Invention)

CPC: F24B1/02 F24B5/02 F24B1/003 F24C1/16

European: F24B1/00B F24C1/16

US: 126/15.00RP 126/15R 126/2 126/25R 126/27 126/29 126/39M 126/77 126/9R 420/79



Family:

Publication number	Publication date	Application number	Application date
AP201105933 A0	20111031	AP20110005933	20100409
AP3229 A	20150430	AP20110005933	20100409
CN203302909 U	20131127	CN201090000937U	20100409
IN07865DN2011 A	20121228	IN2011DN07865	20111012
US2010258104 AA	20101014	US20100756386	20100408
US2015083108 AA	20150326	US20140556989	20141201
US8899222 BB	20141202	US20100756386	20100408
WO10118304 A1	20101014	WO2010US30514	20100409
ZA201107401 A	20130731	ZA20110007401	20111010

Priority:

US20090168538P 20090410 US20100756386 20100408 WO2010US30514 20100409
US20140556989 20141201

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Assignee(s): US DEPARTMENT OF ENERGY ; COLORADO STATE UNIV RESEARCH FOUNDATION ; COLORADO STATE UNIVERSITY RESEARCH FOUNDATION

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Inventor(s): MORGAN W DEFOORT ; NATHAN LORENZ ; BRYAN D WILLSON ; ANTHONY MARCHESE ; MICHAEL P BRADY ; DANIEL D MILLER LIONBERG ; DDMILLER LIONBERG ; MPBRADY ; NLORENZ ; MWDEFOORT ; AMARCHESE ; BDWILLSON

Agent(s): DORSEY AND WHITNEY LLP INTELLECTUAL PROPERTY DEPARTMENT; DORSEY AND WHITNEY LLP; OSMAN LEE R 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 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

4) Family number: 59088802 (US2018031246A)

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Title: COOKING STOVE

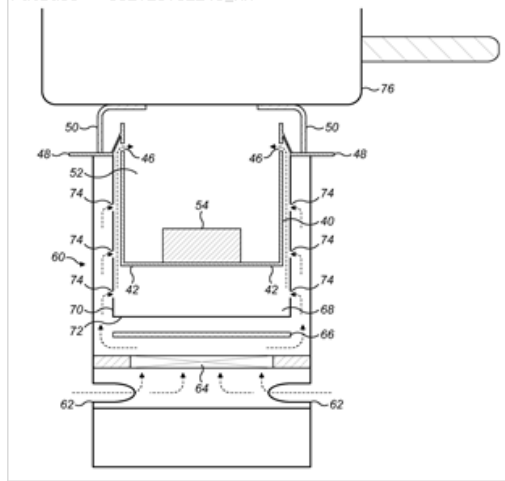
Abstract: The present invention relates to forced air cooking stoves, in particular, to efficient cooking stoves for use by the military, those undertaking general camping or other outdoor leisure pursuits, or by larger groups of people for entertaining or humanitarian purposes. The cooking stoves include a fan to aid combustion, and a collar to focus the exhaust gasses onto the cooking vessel. They are designed to make efficient use of any type of fuel, including biomass such as wood, and solid fuel blocks. They are also designed to minimise the soot deposited on the cooking vessel.

Classifications:

International (IPC 8-9): F24B1/00 F24B1/02 F24B1/182 F24B1/19 F24B1/191 F24B1/195 F24B1/20 F24B1/26

F24B5/06 (Advanced/Invention)

CPC: F24B1/003 Y02B40/163 F24B1/19 F24B1/191 F24B1/1957 F24B1/022 F24B1/182 F24B1/26

**Family:**

Publication number	Publication date	Application number	Application date
CN107532801 A	20180102	CN201680022641	20160208
EP3259532 A1	20171227	EP20160703848	20160208
GB201502824 A0	20150408	GB20150002824	20150219
IN201717033033 A	20171201	IN201717033033	20170918
US2018031246 AA	20180201	US20160551753	20160208
WO16132098 A1	20160825	WO2016GB50287	20160208

Priority:

GB20150002824 20150219 WO2016GB50287 20160208

Probable Assignee: STANDARD BRANDS UK LTD**Assignee(s):** (std): STANDARD BRANDS UK LTD ; STANDARDS BRANDS UK LTD**Inventor(s):** (std): BARFORD ERIC DENNIS**Agent(s):** SWAN ELIZABETH MARY; WITHERS AND ROGERS LLP 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 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

5) Family number: 41021995 (US2009165769A)

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Title: SOLID FUEL STOVE WITH IMPROVED COMBUSTION

Abstract: The invention relates to a solid fuel stove comprising a combustion chamber (12) for containing combustion fuel and a blower assembly (50) configured to provide airflow entering the combustion chamber in operating condition. When guiding means (40) establish airflow entering the combustion chamber substantially in a downwardly direction the combustion process of the stove is very clean and efficient.

Classifications:

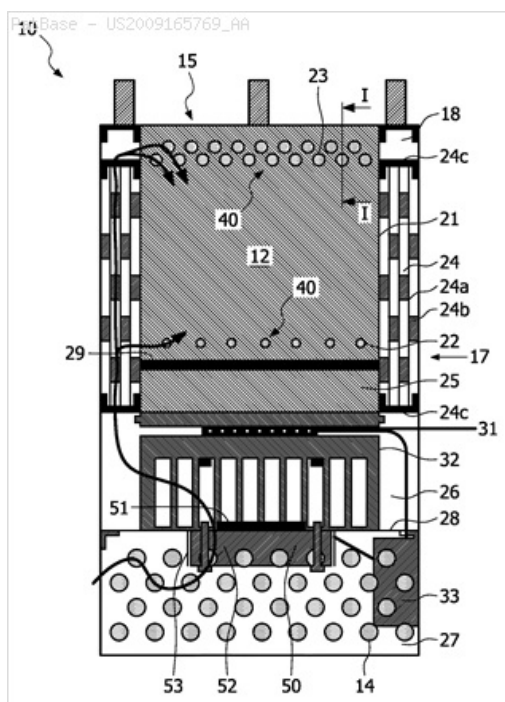
International (IPC 8-9): F23B20/00 F23B60/00 F23B99/00 F23L9/02 F24B1/19 F24B1/20 F24B13/00 F24B5/02 (Advanced/Invention); F23B20/00 F23B99/00 F23L9/00 F24B1/00 F24B13/00 F24B5/00 (Core/Invention); F23B F23L F24B (Subclass/Invention)

International (IPC 1-7): F23B20/00 F23L9/02 F24B1/20 F24B5/02

CPC: F24B5/025 C10J3/00 C10J3/04 C10J3/22 C10J3/26 C10J2300/0956 F23B1/36 F23B60/00 F23L9/06 F24B1/202 Y02P20/129

European: C10J3/00 F23B1/36 F23B60/00 F23L9/06 F24B1/20B F24B5/02B3 Y02E20/18

US: 126/15.00AP 126/15A

**Family:**

Publication number	Publication date	Application number	Application date
AP200904748 A0	20090228	AP20090004748	20070620
AP2535 A	20121219	AP20090004748	20070620
BRPI0713368 A2	20120313	BR2007PI13368	20070620
CA2656187 AA	20081223	CA20072656187	20070620
CN101479533 A	20090708	CN200780023970	20070620
CN101479533 B	20130529	CN200780023970	20070620
EG26627 A	20140413	EG20080122091	20081225
EP2035751 A2	20090318	EP20070789747	20070620
JP2009541710 T2	20091126	JP20090517520T	20070620
JP2015014453 A2	20150122	JP20140189515	20140918
JP5938455 B2	20160622	JP20140189515	20140918
KR101423479 B1	20140728	KR20097001383	20070620
KR20090026194 A	20090311	KR20097001383	20070620
MA30538 B1	20090601	MA20080031525	20081230
MX2008015818 A1	20090112	MX20080015818	20070620
RU2009102232 A	20100810	RU20090102232	20070620
RU2436015 C2	20111210	RU20090102232	20070620
US2009165769 AA	20090702	US20070305446	20070620
WO08001276 A2	20080103	WO2007IB52373	20070620
WO08001276 A3	20080306	WO2007IB52373	20070620
ZA200900557 A	20100331	ZA20090000557	20090123

Priority:

EP20060116050 20060626 EP20070789747 20070620 WO2007IB52373 20070620
JP20090517520 20070620 JP20090517520T 20070620

Probable Assignee: PHILIPS ELECTRONICS KONINKLL NV

Assignee(s): (std): HIGH TECH CAMPUS 44 ; KONINK PHILIPS NV ; KONINKL PHILIPS ELECTRONICS NV ; KONINKL PHILIPS NV ; SLUIS PAUL VAN D ; ROYAL DUTCH PHILIPS ELECTRONICS LTD ; VAN DER SLUIS PAUL

Assignee(s): KONINKLIJKE PHILIPS ELECTRONICS NV ; KONINKLEJKE FILIPS EHLEKTRONIKS NV ; KONINKLIJKE PHILIPS NV ; PHILIPS KONINKLL NV ; KONINKLIJKE PHILIPS ELECTRONICS N V ; PHILIPS ELECTRONICS KONINKLL NV ; KONINKLEJKE FILIPS EHLEKTRONIKS N V ; PHILIPS ELECTRONICS N V KONINKLL ; KONINKL PHILIPS ELECTRONICS N V

Inventor(s): (std): SLUIS PAUL VAN D ; VAN DER SLUIS PAUL ; PAUL DER SLUIS VAN ; SLUIS PAUL VAN DER ; SLEJS PAUL VAN D ; VAN DER SLEJS PAUL

Inventor(s): VAN DER SLEJS PAUL' ; PAUL VAN D SLUIS ; PAUL VAN DER SLUIS

Agent(s): SMART AND BIGGAR; UITTENBOGAARD FRANK; OHNUKI SHINSUKE; ITOH TADAHIKO; ITOH TADASHIGE; PHILIPS INTELLECTUAL PROPERTY AND STANDARDS; DAMEN DANIEL M

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

6) Family number: 58177893 (US2015000648A)

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Title: PORTABLE STOVE

Abstract: A portable stove is provided. The stove includes a frame including an upper portion with an opening and a lower portion. A combustion chamber is positioned directly below the opening of the upper portion of the frame. The combustion chamber is defined by an inner wall, and an outer wall spaced apart from the inner wall to define a cavity therebetween. The inner wall includes a plurality of holes spaced about a periphery. A tank for oil is provided. Any oil, such as vegetable oil, can be used. A feed line directs the oil from the tank into the combustion chamber. A fan is connected to the frame and is in communication with the cavity. The fan blows air into the cavity that travels through the holes and into the combustion chamber to provide air for combustion of the oil. An ignition element is provided for igniting the oil.

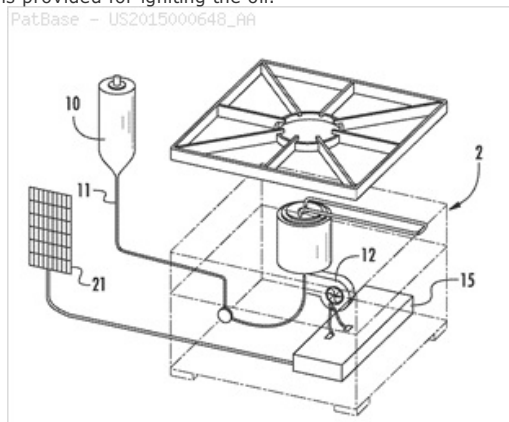
Classifications:

International (IPC 8-9): F23D3/02 F24C5/04

F24C5/18 (Advanced/Invention)

CPC: F24C5/20 F24C5/18 F24C5/04

US: 126/46



Family:

Publication number	Publication date	Application number	Application date
US2015000648 AA	20150101	US20130931000	20130628
WO14210591 A1	20141231	WO2014US44838	20140630

Priority:

US20130931000 20130628

Probable Assignee: CHO EUN J

Assignee(s): (std): CHO EUN J ; JUNG CHINHU ; LEE KYOUNG HEE

Inventor(s): (std): LEE KYOUNG HEE ; JUNG CHINHU ; CHO EUN J
Agent(s): GUSHUE THOMAS P
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

7) Family number: 4493299 (US4471751A)

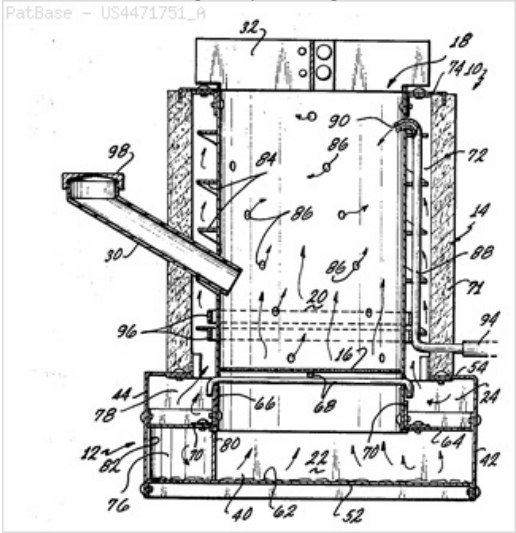
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Title: Compact stove for emergency and other uses

Abstract: A small compact stove capable of burning a variety of carbonaceous fuels has a base and located on the base is a vertically oriented cylindrical wall. The wall is formed of a heat conducting material and has open bottom and top ends. The interior surface of a portion of the wall forms a combustion chamber. A grate is located within the wall at the bottom end of the combustion chamber. The primary air chamber is located at the open bottom end of the wall and primary air is conducted through it and then up through the grate into the combustion chamber. A secondary air chamber surrounds at least a portion of the wall such that the wall forms one of the surfaces of the secondary air chamber. The wall includes a plurality of air passageways between the secondary air chamber and the combustion chamber such that air can flow within the secondary air chamber in contact with the exterior surface of the wall and be heated by heat conducted through the wall from the combustion chamber. The heated air from the secondary air chamber then flows through the passageways into the combustion chamber. The stove is capable of burning solid, liquid and gaseous carbonaceous fuel by appropriately adapting the grate to support either the solid fuel or a container having a suitable surface for burning of liquid and gaseous fuels.

Classifications:

International (ipc 8-9): F24C1/02 F24C1/16 (Advanced/Invention); F24C1/00 (Core/Invention)
International (ipc 1-7): A47J37/07 F24B3/00 F24C1/02 F24C13/00
CPC: F24C1/02 F24C1/16
European: F24C1/02 F24C1/16
US: 126/15R 126/25R 126/77



Family:

Publication number	Publication date	Application number	Application date
IN158026 A	19860816	IN1982CA01415	19821206
US4471751 A	19840918	US19810313480	19811021
ZA8207513 A	19830831	ZA19820007513	19821014
ZW22582 A	19830518	ZW19820000225	19821020

Priority:

US19810313480 19811021

Probable Assignee: HOTTENROTH FRED W III

Assignee(s): (std): HOTTENROTH FRED WILLIAM ; HOTTENROTH FRED WILLIAM III ; HOTTENROTH III FRED W

Assignee(s): HOTTENROTH FRED W ; HOTTENROTH FRED W III

Inventor(s): (std): HOTTENROTH FRED W ; HOTTENROTH FRED W III ; HOTTENROTH FRED WILLIAM ; HOTTENROTH FRED WILLIAM III ; HOTTENROTH III FRED W ; III HOTTENROTH FRED W

8) Family number: 3442336 (US4747781A)

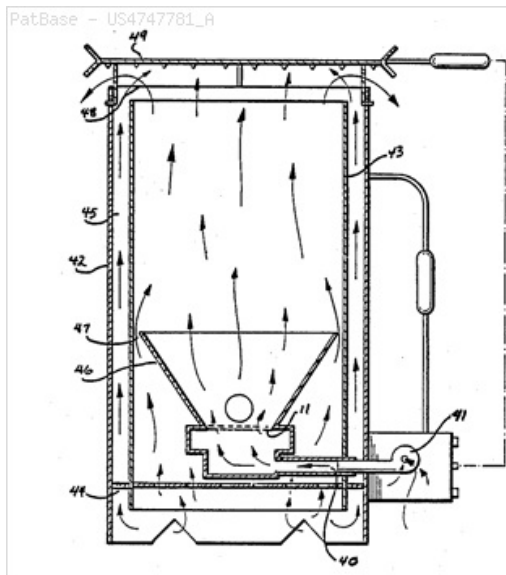
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Title: COMBUSTION SYSTEM

Abstract: The specification describes a system for initiating and promoting combustion of fuels such as wood, coal, oil, etc. Virtually complete combustion is achieved by feeding combustion air under pressure through openings in a diffuser plate with the diameter of the openings having a calculated size and spacing therebetween. By-products of primary combustion are burned by the system. The specification also describes an exemplary wood stove and a cooking unit which utilizes the novel combustion principle.

Classifications:

International (ipc 8-9): A47J37/07 F23L1/02 F23L5/02 F24B5/00 F24B5/02 (Advanced/Invention); A47J37/07 F23L1/00 F23L5/00 F24B5/00 (Core/Invention)
International (ipc 1-7): F23H3/00 F24B5/00 F24C1/14
CPC: Y02A40/928 F23L1/02 A47J37/0754 F23L5/02 F24B5/021
European: A47J37/07F F23L1/02 F23L5/02 F24B5/02B
US: 110/195 110/297 110/300 126/163A 126/163R 126/77 431/326

**Family:**

Publication number	Publication date	Application number	Application date
CA1215282 A1	19861216	CA19850477685	19850327
US4747781 A	19880531	US19860933350	19861119
US4924847 A	19900515	US19880181576	19880414

Priority:

CA19850477685 19850327 US19850757227 19850722 US19860933350 19861119

Probable Assignee:

3288731 CANADA INC

Assignee(s): (std):

PATENAUDE JEAN PIERRE

Assignee(s):

3288731 CANADA INC

Inventor(s): (std):

PATENAUDE JEAN PIERRE

Agent(s):

OGILVY RENAULT LLP SENCRL SRL

9) Family number: 11280016 (US5842463A)

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Title: Portable wood burning camp stove

Abstract: Portable camp stove, wherein solid-fuel, especially of dried tree and bush twigs, is burned upon a supporting fuel grate positioned at bottom of a combustion-chamber. Solid-fuel is added directly into the combustion-chamber during operation through aligned stoke holes in a chimney and a vented-fire-ring, and then dropped vertically downward through an exhaust vent. Air for primary combustion is drawn into the combustion-chamber through a ring of intake apertures adjacent to and above the stove's bottom plate. Stove's outer wall is spaced apart from the wall of the combustion-chamber and the two walls are joined together and sealed by a top plate, creating an adjacent confining airspace. Air enters into said airspace through a ring of secondary air intake apertures in stove's outer-wall, where it is heated by thermal communication, as heat emitted from combusting solid-fuel passes through the combustion-chamber wall. As air in confining airspace is heated, it expands and rises, and creates an environment of positive pressure. Thusly, heated air is propelled through a ring of aperture jets cut through the wall of the combustion-chamber, where said heated air mixes in the inner combustion-chamber with gases released and sent ascending with solid fuel combusting on the fuel grate. The stream of heated air, propelled directly into and mixing with ascending gases, induces a dramatic reignition of said gases. The heat and flames released first by combusted fuel and then by the reignited gases, can be focused on heating contents in a cook pot. Two cook pots joined together at rims encase stove for storage and transport.

Classifications:

International (IPC 8-9): A47J33/00 F24B1/20 (Advanced/Invention);

A47J33/00 F24B1/00 (Core/Invention)

International (IPC 1-7): F24C1/16

CPC: A47J33/00 F24B1/202

European: A47J33/00 F24B1/20B

US: 126/15R 126/29 126/913 126/9B 126/9R

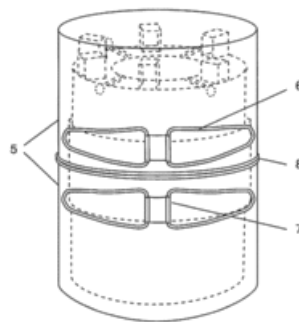


Fig 1

Family:

Publication number	Publication date	Application number	Application date
US5842463 A	19981201	US19960662672	19960614

Priority:

US19960662672 19960614

Probable Assignee:

HALL JOHN BATTAILLE

Assignee(s):

HALL JOHN BATTAILLE

Inventor(s): (std)

HALL JOHN BATTAILLE

10) Family number: 20630912 (GB833812A)

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Title: Improvements in or relating to stoves or fireplaces

Abstract: 833,812. Consuming smoke; solid fuel stoves; open fireplaces. SCHMIDT and CO. A. B., W. Aug. 14, 1957 [Nov. 16, 1956], No. 25657/57. Class 126 A stove or fireplace has a casing 8 forming with the back of a combustion chamber above the grate a secondary combustion space leading from near the grate to a flue outlet, and an air duct at the side of the secondary combustion space leading air from outside and gases rising from the fuel to below the grate, the air duct opening into the secondary combustion space near the grate, and an upwardly and rearwardly directed damper for adjusting the opening between the primary and secondary combustion spaces. In a closed stove, Figs. 1 and 3, gases rising from the fuel on a grate 6 having upwardly sloping extensions at the side and front pass through a channel 14 into air ducts 8 with air inlets 9. Between the air ducts 8 a secondary combustion space 2 leads from an opening 4 at the back of the grate 6 to the flue outlet 3. Openings 19 immediately above the grate allow air to pass from the ducts 8 to the space 2, and openings 10 below the grate lead the combustion products and air to the fire. A pivoted damper 16 forms an extension of the grate 6 and controls the opening 4, recesses 17 preventing the secondary air supply from being entirely shut off. In an open fireplace, Fig. 5, the air for combustion enters the ducts from the front of the fireplace through the passage 14.

Classifications:

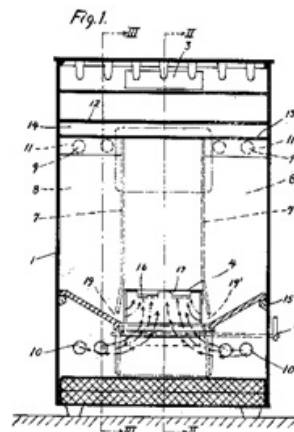
International (IPC 8-9): F24B1/18 F24B5/02 (Advanced/Invention);
F24B1/00 F24B5/00 (Core/Invention)

International (IPC 1-7): F24B5/04

CPC: F24B1/18 F24B5/02 F24B5/028

European: F24B1/18 F24B5/02 F24B5/02D

833,812 COMPLETE SPECIFICATION
4 SHEETS This drawing is a representation of
the original as it received with
SHEET 1



Family:

Publication number	Publication date	Application number	Application date
GB833812 A	19600427	GB19570025657	19570814

Priority:

19561116

Probable Assignee: SCHMIDT AND CO A B W

Assignee(s): (std): SCHMIDT AND CO A B W

Assignee(s): AKTIEBOLAGET W SCHMIDT AND CO

11) Family number: 43503773 (CN201262415Y)

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Title: High-efficiency low-emission biomass combustion furnace

Abstract: The utility model relates to an efficient low-emission biomass burning furnace. A furnace platform and a furnace core are supported on a bracket; the upper end of the furnace platform is provided with a main furnace mouth, an auxiliary furnace mouth and a smoke vent; a furnace grate support is fixed at the lower part of a furnace shell on the bracket; the furnace core is arranged on the furnace grate support; a clearance is reserved between the furnace core and the furnace shell; a feed pipe connected on a feed inlet of the furnace core penetrates out of the furnace shell; the lower end surface of a furnace end, on which the upper end of the furnace core is arranged, is provided with a plurality of channels which are communicated with the clearance between the furnace core and the furnace shell; the lower part the furnace shell is provided with an air inlet; a ventilation opening on furnace grate support is communicated with the space in the furnace shell under the furnace grate support, the inner cavity of the furnace core, and the clearance between the furnace core and the furnace shell; the bottom of the furnace grate support is fixed with a pair of supporting brackets; and a moving furnace grate is inserted between the supporting brackets and the furnace grate support. Biomass fuel can be sufficiently burnt in the burning furnace. The burning furnace has simple and reasonable structure, overall lightness, convenient maintenance and reasonable manufacturing cost, thus being a comparatively ideal biomass burning furnace with promotional value.

Classifications:

International (IPC 8-9): F24B1/18 F24B1/191 F24B1/193

F24B1/197 (Advanced/Invention);

F24B1/00 (Core/Invention)

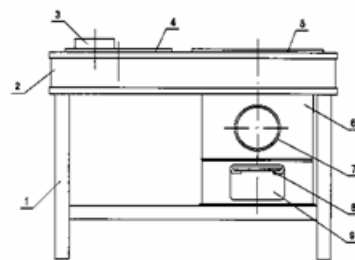


图 1

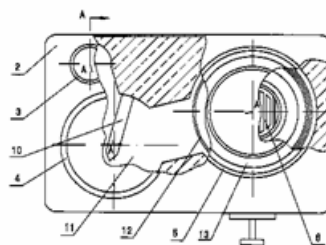


图 2

6

Family:

Publication number	Publication date	Application number	Application date
■ CN201262415 Y	20090624	CN200820026714U	20080729

Priority:

CN200820026714U 20080729

Probable Assignee:

LINSSEN YE

Assignee(s): (std):

LINSSEN YE

Assignee(s):

YE LINSSEN

Inventor(s): (std):

LINSSEN YE

Inventor(s):

YE LINSSEN

12) Family number: 43913226 (CN201327064Y)

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Title: Renewable biomass gasification combustion furnace

Abstract: The utility model discloses a renewable biomass gasification combustion furnace which comprises a furnace body, a furnace header, a smoke discharge channel, an internal furnace, a fire retainer ring, a fire grate and an ash collecting groove. The renewable biomass gasification combustion furnace is characterized in that the internal furnace comprises a furnace flange, an upper internal furnace and a lower internal furnace; the cross sections of the furnace flange, the upper internal furnace and the lower internal furnace increase gradually layer by layer from top to bottom; the upper internal furnace and the furnace flange are connected through a tapered bevel, and the lower internal furnace and the upper internal furnace are connected through a tapered bevel; the lower end of the lower internal furnace is connected with an ash outlet with a shrinking section through an inverted tapered bevel; a plurality air intake holes are arranged on the furnace flange, the upper internal furnace and the tapered bevel among the upper internal furnace and the lower internal furnace. The combustion furnace realizes the continuous process from the schizolysis of the biomass after being heated to produce combustible gases to the sufficient combustion of the gases, and has the remarkable characteristics of high heat valve and little pollution. The renewable biomass gasification combustion furnace is easy to ignite and simple to operate and requires no blower and can burn for a long time after being charged for one time, and the whole furnace is applicable in industrial production. Therefore, the renewable biomass gasification combustion furnace is easy to popularize and is applicable in mountainous areas and remote rural areas.

Classifications:**International (IPC 8-9):** F24B1/18 F24B1/192 F24B1/193

F24B1/197 (Advanced/Invention);

F24B1/00 (Core/Invention)

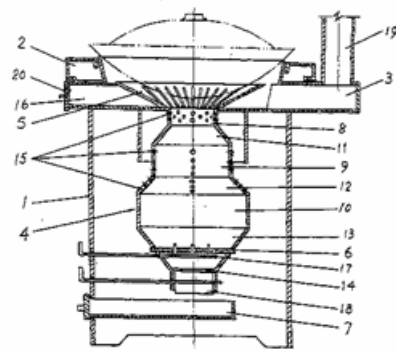


图 1

6

Family:

Publication number	Publication date	Application number	Application date
 CN201327064 Y	20091014	CN200820206185U	20081226

Priority:

CN200820206185U 20081226

Probable Assignee:

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Assignee(s): (std):

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Assignee(s):

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Inventor(s): (std):

JUHONG ZENG ; ZHILAO ZENG

Inventor(s):

ZENG JUHONG ; ZENG ZHILAO