

1) Family number: 20686188 (US6979371B)

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Title: DETERGENT COMPOSITION FOR HARD SURFACES COMPRISING HYDROPHILIC SHEAR-THINNING POLYMER AT VERY LOW LEVEL

Abstract: A detergent composition and/or solution for floors comprising a hydrophilic shear-thinning polymer at very low level for improved cleaning end result. The solution can be used with conventional implements known in the art, including sponges, cloths and/or sponge, string, and/or strip mops and floor cloths such as those sold at retail and speciality stores. In a most preferred embodiment, the solution is used with a cleaning pad comprising an effective amount of a superabsorbent material, said pad preferably being part of cleaning implement comprising a handle and said cleaning pad preferably being removable. The detergent composition preferably contains a limited amount of a detergent surfactant, preferably linear in structure and relatively hydrophilic, the level of solvent in the formula preferably being kept below about 5.0 percent, and the pH preferably being maintained above about 9. The process of using the detergent solution with cleaning implements, including those of the most preferred embodiment, cleaning pad, and the provision of a kit containing both detergent composition and cleaning pad are disclosed.

Classifications:

International (IPC 8-9): A47L13/17 A47L13/20 A47L13/26 B08B7/00 C11D11/00 C11D17/04 C11D3/02 C11D3/22 C11D3/30 C11D3/37 C11D3/382 C11D3/43 (Advanced/Invention); A47L13/20 C11D3/22 (Advanced/Non-invention); A47L13/16 A47L13/20 B08B7/00 C11D11/00 C11D17/04 C11D3/22 C11D3/26 C11D3/37 C11D3/38 C11D3/43 (Core/Invention); A47L C11D (Subclass/Invention)

International (IPC 1-7): A47L A47L13/16 A47L13/17 A47L13/20 B08B7/00 C08F2/46 C11D C11D17/04 C11D3/22 C11D3/30 C11D3/37 C11D3/382 E03D5/10

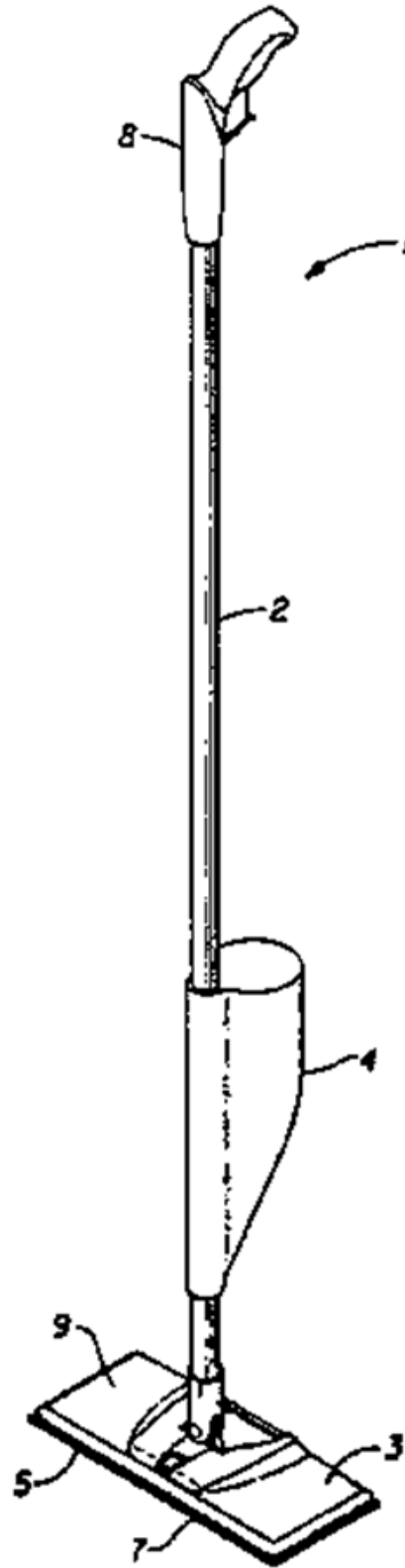
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US: 134/39 134/40 134/42 134/6 15/49.1 15/491 15/50.1 15/50.2 15/50.3 15/501 15/502 15/503 15/51 15/52 15/52.1 15/52.2 15/521 15/522 510/214 510/215 510/216 510/217

JP F-Term: 3B074 3B074/AA03 3B074/AA07 3B074/AA08 3B074/AB01 3B074/AB02 3B074/AB04 3B074/CC03 4H003 4H003/AB14 4H003/AC08 4H003/BA12 4H003/BA16 4H003/BA22 4H003/DA04 4H003/DA05 4H003/EB04 4H003/EB06 4H003/EB14 4H003/EB37 4H003/EB41 4H003/EB46 4H003/ED02 4H003/FA19 4H003/FA28 3B074/AA02 3B074/AC03 3B074/BB01 3B074/EE01 3B074/EE02 4H003/DC01 4H003/EB28 4H003/EB30 4H003/EB44 4H003/FA21 4H003/FA24

JP F-Index: A47L13/17 C11D17/04 C11D3/22 C11D3/30 C11D3/37 C11D3/382 A47L13/17/A A47L13/17/B A47L13/20/Z

**Family:**

Publication number	Publication date	Application number	Application date
AR016955 AA	20010801	AR1998P105000	19981007
AT312899 E	20051215	AT19980950791T	19981001
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CO5040140 A1	20010529	CO19980057675	19981005
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Priority:

US19970061296P 19971007 US19980086447P 19980522 JP20000514982 19981001
US19980509603 19981001 WO1998US20513 19981001 US20000509603 20000406

Probable Assignee: PROCTER AND GAMBLE CO

Assignee(s): (std): DZE PROKTER EHND GEHMBL KOMPANI ; POLICICCHIO NICOLA JOHN ; PROCTER AND GAMBLE ; PROCTER AND GAMBLE CO ; SHERRY ALAN EDWARD ; THE PROCTER AND GAMBLE COMPANY

Assignee(s): THE PROCTER AND GAMBLE COMPANY CINCINNATI ; THE PROCTER AND GAMBLE CO CINCINNATI OHIO ; PROCTER AND GAMBLE CO CINCINNATI

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Inventor(s): JOHN POLICICCHIO NICOLA

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Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CY CZ DE DK EE ES FI FR GA GB GE GH GM GN GR GW HR HU ID IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV 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 UA UG US UZ VN YU ZW

2) Family number: 15310668 (US6455114B)

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Title: COMPOSITE ABSORBENT STRUCTURE AND METHOD

Abstract: An absorbent structure and method utilizes pockets or pouches of inorganic or organic granular materials in absorbent structures (such as a structure containing superabsorbents, including polymeric hydrogel forming materials) and fibrous webs, to form a composite heterostructure. The composite absorbent heterostructures are useful, for example, in applications such as diapers, incontinence articles, hygienic supplies and other applications which require good fluid absorbency and retainment properties. The granular material can be made of light plastic materials such as polystyrene or materials such as sand or seeds, and the grains can be hollow, with possible access to their interior volumes.

Classifications:

International (IPC 8-9): A61F13/15 B32B5/22 (Advanced/Invention); A61F13/15 B32B5/22 (Core/Invention)

International (IPC 1-7): A61F13/00 A61F13/15 A61F5/44 A61L15/16 B32B3/00

CPC: Y10T428/1317 Y10T428/1321 Y10T428/1334 Y10T428/1345 Y10T428/1348 Y10T428/234 Y10T428/237 Y10T428/239

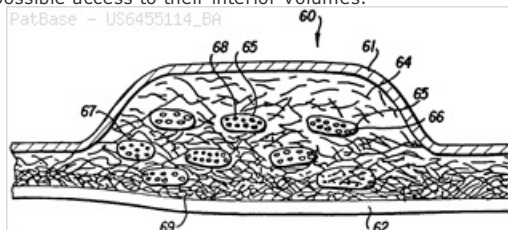
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A61F13/532

European: A61F13/532 A61F13/532B B32B5/22

US: 428/34.6 428/34.7 428/35.2 428/35.5 428/35.6 428/72 428/74 428/76 604/358 604/367 604/368 604/372 604/378 604/385.19



Family:

Publication number	Publication date	Application number	Application date
AU200110792 A1	20010423	AU20010010792	20001012
AU200110792 A5	20010423	AU20010010792D	20001012
US6455114 BA	20020924	US19990418189	19991013
WO0126589 A1	20010419	WO2000US28098	20001012

Priority:

US19990418189 19991013 WO2000US28098 20001012

Probable Assignee: PRODEO TECHNOLOGIES INC

Assignee(s): (std): GOLDHIRSCH ISAAC ; ORSZAG STEVEN A

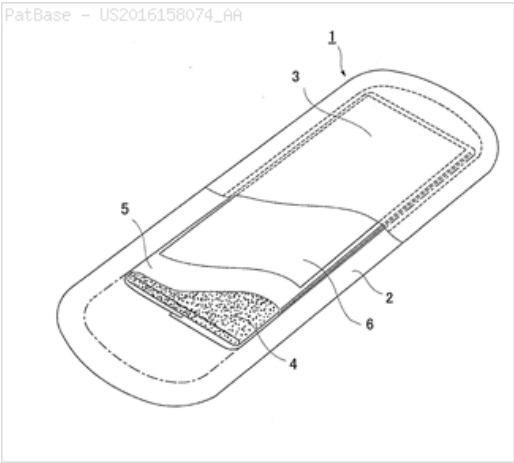
Assignee(s): PRODEO TECHNOLOGIES INC ; STEVEN A ORSZAG ; ISAAC GOLDHIRSCH

Inventor(s): (std): GOLDHIRSCH ISAAC ; ORSZAG STEVEN A
Inventor(s): STEVEN A ORSZAG ; ISAAC GOLDHIRSCH
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 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

3) Family number: 58405416 (US2016158074A) © PatBase
Title: ABSORBENT ARTICLE

Abstract: In an absorbent article a three-dimensional opening hole mesh sheet, having a face which faces skin of a wearer of the absorbent article and a reverse or opposite side face within the absorbent article, is combined with an absorber which includes an air-laid pulp non-woven fabric. The mesh sheet has an array of mechanically embossed concave portions forming protrusions on the skin-facing face of the mesh sheet and recesses on the reverse or opposite face, i.e., the unexposed face inside the absorbent article.

Classifications:
International (IPC 8-9): A61F13/15 A61F13/47 A61F13/472 A61F13/49 A61F13/511 A61F13/512 A61F13/53 A61F13/534 A61L15/22 (Advanced/Invention); A61F13/15 (Core/Invention)
International (IPC 1-7): A61F13/15 A61F13/49 A61F13/511 A61F13/53
CPC: A61F13/472 A61L15/22 A61F2013/530007 A61F2013/530547 A61F2013/530737 A61F13/534 A61F13/5121 A61F2013/53445 A61F2013/530715 A61F2013/8491 A61F13/51104 A61F13/15
US: 604/378
JP F-Term: 3B200 3B200/AA01 3B200/AA03 3B200/BA01 3B200/BB05 3B200/BB17 3B200/DA14 3B200/DB12 3B200/DC05 3B200/DC07
JP F-Index: A41B13/02/D A61F13/47 A61F13/511/100 A61F13/534/110



Family:

Publication number	Publication date	Application number	Application date
BR112016001652 A2	20171128	BR20161101652	20140725
CN105407846 A	20160316	CN201480042234	20140725
EP3025687 A1	20160601	EP20140828864	20140725
EP3025687 A4	20170308	EP20140828864	20140725
EP3025687 B1	20190206	EP20140828864	20140725
ID201706503 A	20170616	ID2016P0001186	20140725
JP2015012399 A1	20170302	JP20150528362T	20140725
JP5945075 B1	20160705	JP20150528362T	20140725
KR20160048778 A	20160504	KR20167004350	20140725
RU2016106375 A	20170829	RU20160106375	20140725
RU2660303 C2	20180705	RU20160106375	20140725
TH170204 A	20171102	TH20161000408	20140725
US2016158074 AA	20160609	US20140906364	20140725
WO15012399 A1	20150129	WO2014JP69743	20140725

Priority:
JP20130155558 20130726 WO2014JP69743 20140725
Probable Assignee: DAIO PAPER CORP
Assignee(s): (std): DAIO SEISHI KK ; DAJO PEJPER KORPOREJSHN
Assignee(s): DAIO PAPER CORP
Inventor(s): (std): NORIMOTO JOSIMI ; NORIMOTO YOSHIMI
Agent(s): SCHOEN CHRISTOPH; INSAN BUDI MAULANA; OOO YURIDICHESKAYA GORODISSKIY I PARTNERY FA; WAIZUMI HISASHI
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

4) Family number: 59232642 (US2016278998A) © PatBase
Title: ABSORBER, ABSORBENT ARTICLE AND PROCESSES FOR PRODUCING THEREOF

Abstract: An absorber (1) provided to an absorbent article, wherein the absorber (1) is formed by folding back an absorbent sheet body (2), which comprises a first sheet member (3) and a second sheet member (4) and contains an absorbent polymer (5) but does not contain a pulp fiber between the first sheet member (3) and the second sheet member (4), at both end parts (E) in the width direction, and an absorbent polymer is not disposed between the first sheet member (3) and the second sheet member (4) at the both end parts (E).

Classifications:
International (IPC 8-9): A61F13/15 A61F13/472 A61F13/49 A61F13/53 A61F13/532 A61F13/539 B29C65/00 B29C65/52 B32B37/12 B32B37/18 B32B38/06 B32B5/02

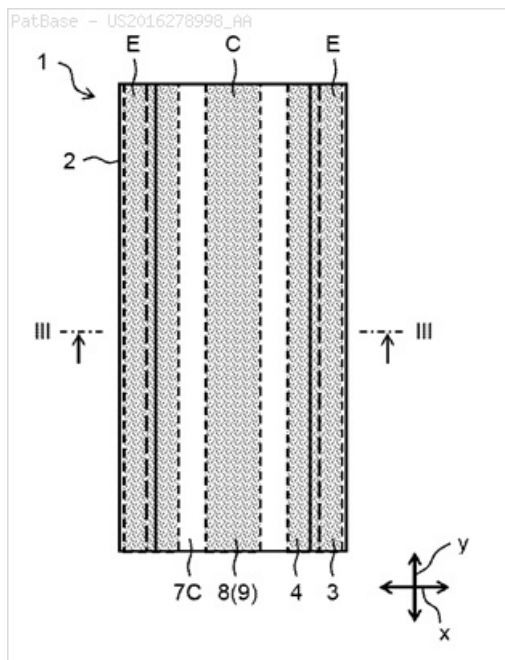
B32B7/14 (Advanced/Invention)

CPC: A61F13/53409 A61F2013/53445 A61F2013/530554
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B32B37/1292 B32B7/14 B29C66/0222 B32B38/06 B32B5/022
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A61F2013/53908 B29K2713/00 B29L2031/753 B32B2262/02
B32B2555/02 A61F13/53

US: 604/385.01

JP F-Term: 3B200 3B200/BB03 3B200/CA11 3B200/CA15
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JP F-Index: A41B13/02/B A41B13/02/D A41B13/02/S
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A61F13/532/210 A61F13/534/110 A61F13/535/100 A61F13/538
A61F13/539



Family:

Publication number	Publication date	Application number	Application date
AU2014345040 AA	20150514	AU20140345040	20141010
AU2014345040 BB	20190117	AU20140345040	20141010
CN205988368 U	20170301	CN201490001130U	20141010
DE112014005077 T5	20160804	DE201411005077T	20141010
JP2015089395 A2	20150511	JP20130229275	20131105
JP6263364 B2	20180117	JP20130229275	20131105
US2016278998 AA	20160929	US20140034043	20141010
WO15068526 A1	20150514	WO2014JP77129	20141010

Priority:

JP20130229275 20131105 WO2014JP77129 20141010

Probable Assignee: LIVEDO CORP

Assignee(s): (std): LIVEDO CORP

Assignee(s): LIVEDO CORPORATION

Inventor(s): (std): IKEUCHI MASATOSHI ; NAKAOKA KENJI ; TAKAHASHI YUKI ; TAKAHASHI YUUKI

Agent(s): PIZZEYS PATENT AND TRADE MARK ATTORNEYS PTY LTD; UEKI KYUICHI 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
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5) Family number: 40997240 (US2007298213A)

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Title: NONWOVEN FABRIC

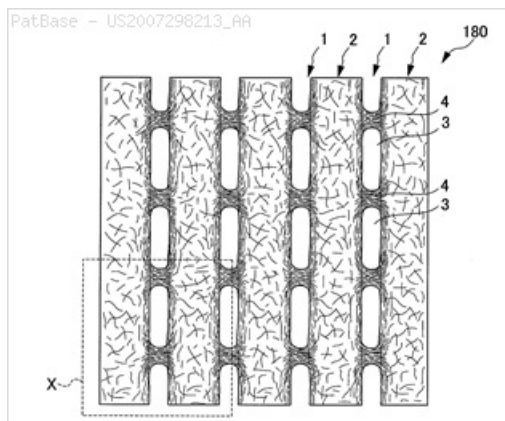
Abstract: A nonwoven fabric that is not easily damaged during use is provided. A fiber web supported by a predetermined supporting member from the lower face side is blown with fluid, mainly composed of gas, from the upper face side of the fiber web to move fibers that constitute the fiber web, thereby forming at least a plurality of open areas. The nonwoven fabric includes a plurality of open areas continuously formed along a predetermined direction with a predetermined interval and a plurality of joining portions, each of which are formed between the open areas adjacent to each other in a predetermined direction.

Classifications:

International (ipc 8-9): D04H1/72 A61F13/15 A61F13/20 A61F13/47
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B32B5/12 B32B5/14 B32B5/24 B32B5/26 B32B7/02 B32B7/08
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D06B5/00 D06C29/00 D21F13/04 (Advanced/Invention);
A61F13/535 D04H13/00 D04H3/02 D04H3/03
D04H5/08 (Advanced/Non-invention);
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International (ipc 1-7): B26D 1/40 D04H 1/74 D04H1/46 D04H1/54
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Family:

Publication number	Publication date	Application number	Application date
CN101443499 A	20090527	CN200780016761	20070523
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CN101443501 A	20090527	CN200780017218	20070523
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CN101448989 A	20090603	CN200780018268	20070608
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CN101448990 A	20090603	CN200780018236	20070523
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CN101448991 A	20090603	CN200780018256	20070523
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CN101542032 A	20090923	CN200780017236	20070523
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CN102337635 A	20120201	CN201110238365	20070606
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DE602007032800 D1	20131107	DE200760032800T	20070606
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DE602007039235 D1	20141224	DE200760039235T	20070523
DE602007039538 D1	20150115	DE200760039538T	20070523
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EP2034067 A1	20090311	EP20070743977	20070523
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EP2039816 A1	20090325	EP20070743980	20070523
EP2039816 A4	20110518	EP20070743980	20070523
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EP2599907 A1	20130605	EP20120194945	20070606
EP2599907 B1	20140910	EP20120194945	20070606
IN04778KN2008 A	20090320	IN2008KN04778	20081126
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IN04932KN2008 A	20090320	IN2008KN04932	20081204
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IN04971KN2008 A	20090320	IN2008KN04971	20081208
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IN05016KN2008 A	20090327	IN2008KN05016	20081210
IN05018KN2008 A	20090327	IN2008KN05018	20081210
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IN284564 B	20170630	IN2008KN04932	20081204
IN284633 B	20170630	IN2008KN05016	20081210
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IN290242 B	20171208	IN2008KN04958	20081208
IN290796 B	20171222	IN2008KN04778	20081126
JP2008023311 A2	20080207	JP20060270112	20060929
JP2008023326 A2	20080207	JP20070164511	20070622
JP2008025078 A2	20080207	JP20060244767	20060908
JP2008025079 A2	20080207	JP20060270105	20060929
JP2008025080 A2	20080207	JP20060270106	20060929
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KR101477303 B1	20141229	KR20087026763	20070523
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KR20090023338 A	20090304	KR20087026763	20081031
KR20090023339 A	20090304	KR20087026765	20070523
KR20090023340 A	20090304	KR20087026767	20070523
KR20090023341 A	20090304	KR20087026768	20081031
KR20090023342 A	20090304	KR20087026831	20070523
KR20090023343 A	20090304	KR20087026832	20081031
KR20090023344 A	20090304	KR20087026833	20081031
MY147444 A	20121214	MY20080005198	20081219
MY147475 A	20121214	MY20080005197	20081219
MY148083 A	20130228	MY20080005194	20070523
MY148236 A	20130329	MY20080005196	20070523
MY148486 A	20130430	MY20080005199	20070523
MY151019 A	20140331	MY20080005193	20070622
MY151023 A	20140331	MY20080005195	20070606
TH108860 A	20110628	TH20071003145	20070622
TH121004 A	20130214	TH20071003137	20070622
TH121005 A	20130214	TH20071003142	20070622
TH58794 B	20171103	TH20071003143	20070622
TH60216 B	20180123	TH20071003144	20070622
TH64740 B	20180907	TH20071003142	20070622
TH64741 B	20180907	TH20071003137	20070622
TH90942 A	20080804	TH20071003171	20070625
TH92897 A	20081230	TH20071003144	20070622
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TW200804641 A	20080116	TW20070120381	20070606
TW200804642 A	20080116	TW20070120382	20070606
TW200806838 A	20080201	TW20070122625	20070622
TW200809033 A	20080216	TW20070120809	20070608
TW200809034 A	20080216	TW20070121596	20070614
TW200809035 A	20080216	TW20070122624	20070622
TW200813279 A	20080316	TW20070121034	20070611
TW200813281 A	20080316	TW20070122760	20070623
TW200817548 A	20080416	TW20070122576	20070622
TWI326319 B	20100621	TW20070121596	20070614

TWI327181 B	20100711	TW20070122624	20070622
TWI336359 B	20110121	TW20070122576	20070622
TWI336739 B	20110201	TW20070121034	20070611
TWI343429 B	20110611	TW20070120381	20070606
TWI343430 B	20110611	TW20070120382	20070606
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US2007298213 AA	20071227	US20070755376	20070530
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US2007299416 AA	20071227	US20070762349	20070613
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US2008085399 AA	20080410	US20070762421	20070613
US2009282660 AA	20091119	US20090511115	20090729
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US9156229 BB	20151013	US20070762421	20070613
WO07148497 A1	20071227	WO2007JP60543	20070523
WO07148498 A1	20071227	WO2007JP60544	20070523
WO07148499 A1	20071227	WO2007JP60545	20070523
WO07148500 A1	20071227	WO2007JP60546	20070523
WO07148501 A1	20071227	WO2007JP60547	20070523
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WO07148534 A1	20071227	WO2007JP61445	20070606
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Priority:

JP20060174505	20060623	JP20060244767	20060908	JP20060270105	20060929
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Probable Assignee: UNI CHARM CORP

Assignee(s): (std): ISHIKAWA HIDEYUKI ; KIMURA AKIHIRO ; KURODA KENICHIRO ; MIZUTANI SATOSHI ; NISHIKAWA KUMIKO ; NODA YUKI ; UNI CHARM CORP ; TANI KOICHIRO ; UNI CHARM LTD ; UNICHARM CORP

Assignee(s): UNI CHARM SHIKOKUCHUO SHI CORP ; UNI CHARM SHIKOKUCHUO CORP ; UNI CHARM CORP SHIKOKUCHUO ; UNI CHARM CORP SHIKOKUCHUO SHI ; UNI CHARM CO LTD ; UNI CHARM CORPORATIONJP

Inventor(s): (std): ISHIKAWA HIDEYUKI ; KENICHIRO KURODA ; KIMURA AKIHIRO ; KUMIKO NISHIKAWA ; KURODA KENICHIRO ; MIZUTANI SATOSHI ; NISHIKAWA KUMIKO ; NODA YUKI ; TANI KOICHIRO ; YUKI NODA ; TANI KOICHIROU ; SATOSHI MIZUTANI ; HIDEYUKI ISHIKAWA ; AKIHIRO KIMURA ; MIZUTANI SATORU ; KOICHIRO TANI

Inventor(s): TANI KOICHIRO KANONJI SHI ; NODA YUKI KANONJI SHI ; MIZUTANI SATOSHI KANONJI SHI ; KIMURA AKIHIRO KANONJI SHI ; ISHIKAWA HIDEYUKI KANONJI SHI

Agent(s): PATENTANWAELTE STREHL SCHUEBEL HOPF AND PARTNER; FITCHETT STUART PAUL; EKE PHILIPPA DIANNE; VAUGHAN JENNIFER ANN; SHOBAYASHI MASAYUKI; FUJITA KAZUKO; LOWE HAUPTMAN HAM AND BERNER LLP; LOWE HAUPTMAN HAM AND BERNER; LOWE HAUPTMAN AND HAM 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 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 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: 46417737 (US2013198945A)

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Title: FLUID DISPLACEMENT DEVICE

Abstract: A fluid displacement device (2) comprises a flexible plastics container (4). The container (4) is formed from a single sheet of PET/PE which is folded over to create a pocket, and heat sealed along the seams 8a,b,c formed by the edge of the sheet. The container (4) is substantially rectangular in shape, and measures approximately 130 mm by 200 mm. The container is placed in a toilet cistern and suspended above a bottom part thereof. Water flows into the flexible container (4) from the cistern (20) through the holes (6) and comes into contact with the water-swellaable polymer. The water-swellaable polymer absorbs the water and swells to approximately (400) times its original weight to displace approximately 500 ml

water from the cistern (20).

Classifications:

International (IPC 8-9): E03D E03D1/14

F16M13/02 (Advanced/Invention);

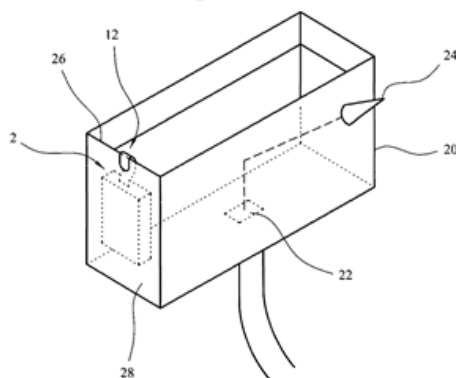
E03D (Subclass/Invention)

CPC: E03D1/14 F16M13/02 Y10T29/49826

European: E03D1/14

US: 248/213.2 29/428 4/415

PatBase - US2013198945_AA



Family:

Publication number	Publication date	Application number	Application date
EP2572051 A1	20130327	EP20110725185	20110523
GB201008482 A0	20100707	GB20100008482	20100521
US2013198945 AA	20130808	US20110699432	20110523
WO11144945 A1	20111124	WO2011GB50961	20110523
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Priority:

GB20100008482 20100521 WO2011GB50961 20110523

Probable Assignee: DRY PLANET LTD

Assignee(s): (std): DRY PLANET LTD ; MCGOWAN NIGEL

Assignee(s): DRY PLANET LIMITED

Inventor(s): (std): MCGOWAN NIGEL

Agent(s): WADDINGTON RICHARD; APPELYARD LEES

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

7) Family number: 30085299 (US6243886B)

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Title: Water displacement device

Abstract: A water displacement device for water storage vessels such as toilet tanks, the device comprising a perforated plastics bag including a super-absorbent polymer in granular form which, when wetted, expands to up to two hundred times its pre-absorption volume. The bag may be weighted and may be placed in a toilet tank where it expands to displace between two and five litres of water within a toilet tank otherwise containing at least nine litres of water, thereby reducing wasteful water consumption.

Classifications:

International (IPC 8-9): B29C45/14 E03D1/14 E03D3/12 E03D9/00

H04R31/00 (Advanced/Invention);

E03D1/02 (Core/Invention)

International (IPC 1-7): B29C45/14 B29C45/22 E03D1/00 E03D3/12

E03D9/00 H04R31/00 H04R7/18 H04R7/20

CPC: E03D1/14 B29C45/14336 B29C45/14467 B29L2031/3418

H04R7/12 H04R31/003 H04R31/006 H04R2231/001 H04R2231/003

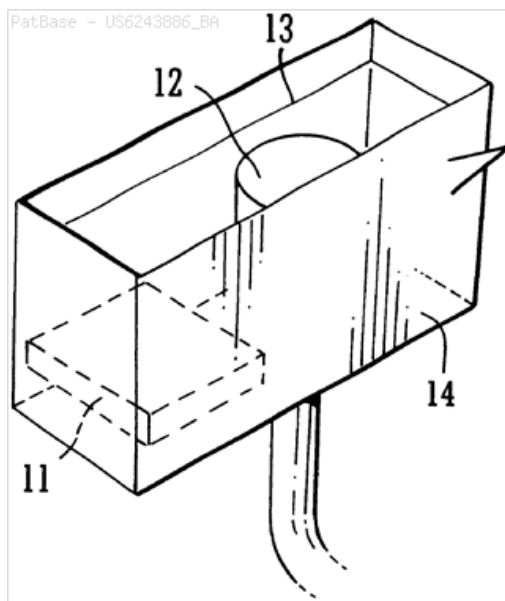
European: B29C45/14F B29C45/14G E03D1/14 H04R31/00B

H04R7/12 L29L31/34D T04R231/001 T04R231/003 T04R31/00F

US: 4/415

Locarno class: 44/15

PatBase - US6243886_BA



Family:

Publication number	Publication date	Application number	Application date
CA2272724 AA	20001125	CA19992272724	19990525
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GB2319788 A1	19980603	GB19970021848	19971016
GB2319788 B2	20010411	GB19970021848	19971016

GB2327902 A1	19990210	GB19980025782	19971014
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GB2328177 A1	19990217	GB19970021644	19971014
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Priority:

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Probable Assignee: DRY PLANET LTD

Assignee(s): (std): AHMED HABIB ; AHMED HABIE ; CARMODY MICHAEL ; HULMES PETER A ; KERWIN COLIN J ; KERWIN COLIN JOHN ; KMA ; KMA U K LTD ; KURT MUELLER ; KURT MUELLER UK LIMITED

Assignee(s): KURT MUELLER UK LTD ; KMA U K LIMITED ; KMA UK LTD ; KMA LTD ; COLIN JOHN KERWIN ; DRY PLANET LTD ; HABIB AHMED

Inventor(s): (std): CAMERON JOHN ; KERWIN COLIN JOHN

Inventor(s): COLIN JOHN KERWIN ; JOHN CAMERON

Agent(s): BORDEN LADNER GERVAIS LLP

8) Family number: 50962993 (WO12053920A1)

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Title: COMBINATION OF CLEANSING PRODUCT AND WATER DISPLACEMENT DEVICE FOR TOILET CISTERN

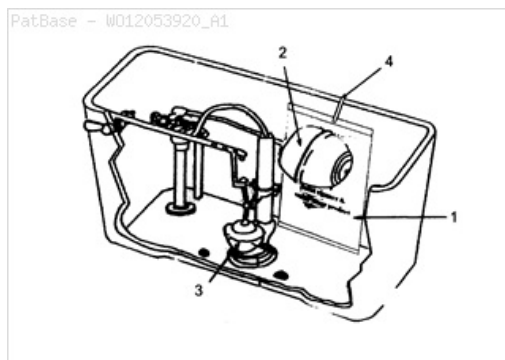
Abstract: The present invention is characterized by a lavatory cleansing product, an absorbent material contained within a flexible container (1) and a mounting hook (4); when the flexible container is submerged in the water tank of the toilet, the absorbent material begins to absorb the water that passes through the perforations of the flexible container and once the lavatory cleansing product that has a controlled ionic concentration is diluted it forms a cleaning solution that does not affect the absorption capacity of the absorbent material contained within the flexible container, and each time the toilet tank is emptied a small amount of cleaning solution is released and also saves a volume of water due to the volume of water displaced by the flexible container.

Classifications:

International (IPC 8-9): E03D9/02 E03D9/03 (Advanced/Invention)

CPC: E03D9/038 E03D2009/026

European: E03D9/03D6 P03D9/02N



Family:

Publication number	Publication date	Application number	Application date
PT105343 A	20120418	PT20100105343	20101018
WO12053920 A1	20120426	WO2011PT00034	20111011

Priority:

PT20100105343 20101018

Probable Assignee: SILVA MARIA FILOMENA FIGUEIRA DA

Assignee(s): (std): FIGUEIRA DA SILVA MARIA FILOMENA ; SILVA MARIA FILOMENA FIGUEIRA DA

Assignee(s): MARIA FILOMENA FIGUEIRA DA SILVA

Inventor(s): (std): FIGUEIRA DA SILVA MARIA FILOMENA ; SILVA MARIA FILOMENA FIGUEIRA DA

Inventor(s): MARIA FILOMENA FIGUEIRA DA SILVA

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