

1) Family number: 67830707 (US2017355191A)

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Title: INK BOTTLE

Abstract: An ink bottle comprises a container main body configured to contain ink that is to be supplied to an ink tank, an ink outlet forming portion provided on an end of the container main body and configured to include an ink outlet that causes the ink to be flowed out from the container main body, and a valve provided in the ink outlet forming portion and configured to seal the ink outlet in an openable and closable manner. The ink outlet is formed in an end face of the ink outlet forming portion. The end face is arranged to face an opposite side of the ink outlet forming portion that is opposite to a container main body side thereof. A first recess is formed in an outer side portion of the ink outlet on the end face to be recessed toward the container main body side.

Classifications:**International (IPC 8-9):** B41J2/01 B41J2/14 B41J2/175 B65D25/42

B65D41/04 B65D47/20 (Advanced/Invention);

B41J29/02 (Advanced/Non-invention)

International (IPC 1-7): B41J2/175**CPC:** B41J2/1752 B41J2/17513 B41J2/17596 B41J2/17506 B41J2/17509

B41J2/1754 B41J2/17503 B41J2/17553 B41J2/17523 B41J29/12 B41J2/01

B41J2/17536 B41J29/02 B65D2583/005 B41J29/13 B41J2/175

US: 347/20 347/65 347/85**JP F-Term:** 2C056 2C056/EA20 2C056/FA10 2C056/KC01 2C056/KC30

2C056/KC02 2C056/EA16 2C056/EC64 2C056/KC04 2C056/KC09 3E062

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3E062/KB15 3E062/KB17 3E062/KC01 3E062/KC03 3E062/KC07

2C056/EA19 2C056/KD08 2C056/KD10 2C056/EA26 3E084 3E084/AA04

3E084/AA12 3E084/AA25 3E084/AA26 3E084/AB01 3E084/BA03

3E084/CA01 3E084/CB02 3E084/CC04 3E084/CC05 3E084/DA01

3E084/DB12 3E084/DC04 3E084/DC05 3E084/FA09 3E084/FB01

3E084/GA01 3E084/GB01 3E084/HD03 3E084/HD04 3E084/KB02

3E084/LA17 3E084/LB02 3E084/LC01 3E084/LD13 2C056/EA25

2C056/KB08 2C056/KB11 2C056/KB19 2C056/EB20 2C056/EB44

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2C056/KC05

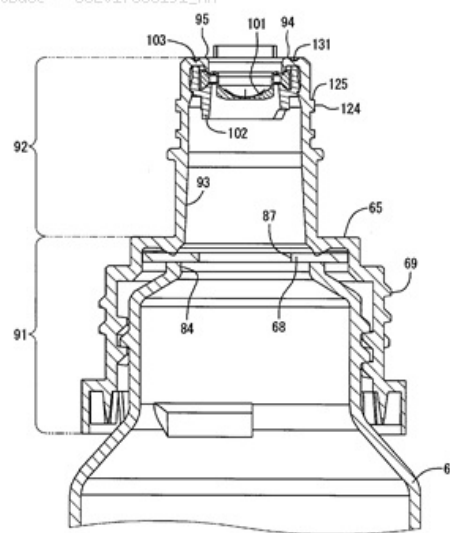
JP F-Index: B41J2/175/131 B41J2/175/169 B41J2/175/133

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B65D47/20/111 B41J2/175/119 B41J2/175/141 B41J2/175/167

B41J2/175/305 B41J2/175/501 B41J2/175/153

PatBase - US2017355191_AA

**Family:**

Publication number	Publication date	Application number	Application date
AU2017279290 AA	20181122	AU20170279290	20170607
BR112018075002 A2	20190312	BR20181175002	20170608
BR112018075256 A2	20190312	BR20181175256	20170607
CN107487082 A	20171219	CN201710407188	20170602
CN107487083 A	20171219	CN201710417527	20170606
CN107487084 A	20171219	CN201710418084	20170606
CN107487085 A	20171219	CN201710423462	20170607
CN107487086 A	20171219	CN201710423595	20170607
CN107487087 A	20171219	CN201710428138	20170608
CN107487088 A	20171219	CN201710429104	20170608
CN206884467 U	20180116	CN201720647675U	20170606
CN207291315 U	20180501	CN201720658021U	20170607
CN207481456 U	20180612	CN201720661830U	20170608
CN208774290 U	20190423	CN201820741282U	20170608
CO20180013218 A2	20181214	CO20180013218	20181206
EP3470229 A1	20190417	EP20170810336	20170607
EP3470230 A1	20190417	EP20170810386	20170608
ID201813243 A	20181231	ID2018P0010797	20170607
IN201817045300 A	20190315	IN201817045300	20181130
IN201817045310 A	20190315	IN201817045310	20181130
JP2017222152 A2	20171221	JP20160208864	20161025
JP2018065251 A2	20180426	JP20160203332	20161017
JP2018069705 A2	20180510	JP20160216150	20161104
JP2018140556 A2	20180913	JP20170036333	20170228
JP2018140613 A2	20180913	JP20170037829	20170301
JP2018144230 A2	20180920	JP20170037832	20170301
JP2018144240 A2	20180920	JP20170038004	20170301
JP2018161743 A2	20181018	JP20170058630	20170324
JP2019051723 A2	20190404	JP20180224678	20181130
JP2019055604 A2	20190411	JP20190008165	20190122
JP6504305 B2	20190424	JP20180224678	20181130
KR20190016018 A	20190215	KR20187033414	20170607
MX2018014781 A1	20190429	MX20180014781	20170607

MX2018014983 A1	20190425	MX20180014983	20170608
PH2018502449 A	20190515	PH20180502449	20181121
RU2019116067 A	20190611	RU20190116067	20170607
RU2690281 C1	20190531	RU20180108235	20170607
TW201801944 A	20180116	TW20170118816	20170607
TW201801945 A	20180116	TW20170118817	20170607
US2017355191 AA	20171214	US20170615525	20170606
US2017355194 AA	20171214	US20170617682	20170608
US2017355195 AA	20171214	US20170617782	20170608
US2017355196 AA	20171214	US20170617834	20170608
US2017355197 AA	20171214	US20170608105	20170530
US10308029 BB	20190604	US20170608105	20170530
US10350901 BB	20190716	US20170615525	20170606
WO17213162 A1	20171214	WO2017JP21057	20170607
WO17213213 A1	20171214	WO2017JP21276	20170608

Priority:

JP20160116155	20160610	JP20160203332	20161017	JP20160208864	20161025
JP20160216150	20161104	JP20170036333	20170228	JP20170037829	20170301
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WO2017JP21057	20170607	CN201720661830U	20170608	WO2017JP21276	20170608
JP20180224678	20181130	JP20190008165	20190122		

Probable Assignee: SEIKO EPSON CORP

Assignee(s): (std): SEIKO EPSON CORP ; SEJKO EPSON KORPOREJSHN

Inventor(s): (std): TOBA KOICHI ; MIZUTANI TADAHIRO ; AKAHANE MANABU ; TANAKA RYOICHI ; FUKASAWA NORIYUKI ; WATANABE TADASHI ; ISHIZAWA TAKU ; SHINADA SATOSHI ; YANAGIDA EIKO ; KIMURA NAOMI ; OKUMURA HIDEKI ; OTSUKA KAZUO ; SHIROTORI MOTOYOSHI ; KUDO SHOMA ; FURUYAMA MASAFUMI ; KOBAYASHI MAKOTO ; TAKAMOTO TETSUYA ; SAKAI HIROAKI ; KOBAYASHI MUTSUMI ; KUDO SHOSHIN ; TANAKA YOSHIKAZU ; FUKAZAWA NORIYUKI ; SHIRATORI MOTOYOSHI ; FURUYAMA MASASHI ; ISHIZAWA TAKASHI ; AKAHANE MANABU ; TADAHIRO MIZUTANI ; TAKU ISHIZAWA ; NORIYUKI FUKASAWA ; NAOMI KIMURA ; SHOMA KUDO ; MANABU AKAHANE ; RYOICHI TANAKA ; MAKOTO KOBAYASHI ; HIDEKI OKUMURA ; TETSUYA TAKAMOTO ; HIROAKI SAKAI ; MIDZUTANI TADAKHIRO ; TANAKA RIOITI ; AKAHANE MANABU ; KOBAYASHI MAKOTO ; OKUMURA HIDEKI ; KUDO SOMA ; SAKAI KHIROAKI

Agent(s): DAVIES COLLISON CAVE PTY LTD; HOFFMANN EITLE; JANUAR FERRY; ONDA MAKOTO; ONDA HIRONORI; TOKKYO GYOMUHOJIN MEISEI INT PATENT FIRM; YURIDICHESKAYA GORODISSKIY I PARTNERY OOO FA; FOLEY AND LARDNER 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 CN CO CR CU CY CZ DE DJ 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 KH KM KN KP KR KW 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

2) Family number: 75198756 (US2019224904A)

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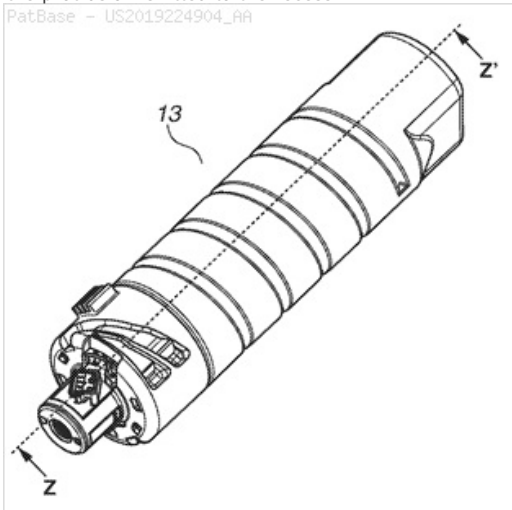
Title: BLOWN BOTTLE, INK CARTRIDGE, AND METHOD FOR MANUFACTURING BLOWN BOTTLE

Abstract: A blown bottle includes at least two layers including an inner layer and an outer layer, wherein the inner layer includes an inner layer flange, the outer layer includes an outer layer flange, and wherein a protrusion is formed on either one of the inner layer flange or the outer layer flange, a recess is formed in the other, and the protrusion is fitted to the recess.

Classifications:

International (IPC 8-9): B29B11/14 B29C49/00 B29C49/06 B29C49/12 B29C49/22 B29C49/42 B41J2/175 (Advanced/Invention); B29B11/08 B29C49/02 B29C49/22 B29L31/00 B29L9/00 B32B7/04 B32B7/06 B41J2/175 B65D83/00 B67D1/04 B67D1/08 (Advanced/Non-invention)

CPC: B29C49/22 B29C49/0005 B29C2049/065 B41J2/17559 B29C49/12 B29B11/08 B29B2911/14053 B29B2911/14066 B29B2911/1408 B29B2911/14093 B29B2911/14113 B29B2911/14337 B29B2911/14343 B29B2911/14473 B29B2911/14573 B29B2911/14626 B29C49/221 B29C2049/021 B29L2009/001 B29L2031/7678 B32B1/02 B32B3/02 B32B7/022 B32B27/08 B32B27/302 B32B27/32 B32B27/36 B32B2307/732 B32B2439/60 B41J2/17513 B41J2/1752 B41J2/17523 B41J2/17553 B41J2002/17516 B65D1/0215 B65D83/0055 B29B11/14 B29C2049/227 B29K2023/0625 B29K2023/12 B29L2031/7158



Family:

Publication number	Publication date	Application number	Application date
CN110065219 A	20190730	CN201910042772	20190117
EP3513936 A1	20190724	EP20180211509	20181211
US2019224904 AA	20190725	US20190253799	20190122

Priority:

Probable Assignee: CANON INC
Assignee(s): (std): CANON KK
Assignee(s): CANON INC
Inventor(s): (std): FUKUSHIMA TAKASHI ; OHASHI TETSUYA ; INOUE RYOJI ; MURAKAMI HIRONORI ; MIYASHITA TAKEHO ; NAGAOKA KYOSUKE ; KOTAKI YASUO ; KANNO KENICHI
Agent(s): TBK
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

3) Family number: 70562261 (US2018207939A) © PatBase

Title: INK BOTTLE AND BOTTLE SET

Abstract: Convenience of an ink bottle and a bottle set is improved. An ink bottle includes: a container portion that contains ink; a guiding portion that is formed in one end portion of the container portion, and includes an outflow port from which the ink in the container portion flow out; and a cover that covers at least an end portion of the container portion on the opposite side of the guiding portion.

Classifications:

International (IPC 8-9): B41J2/175 B65D41/04 B65D47/20

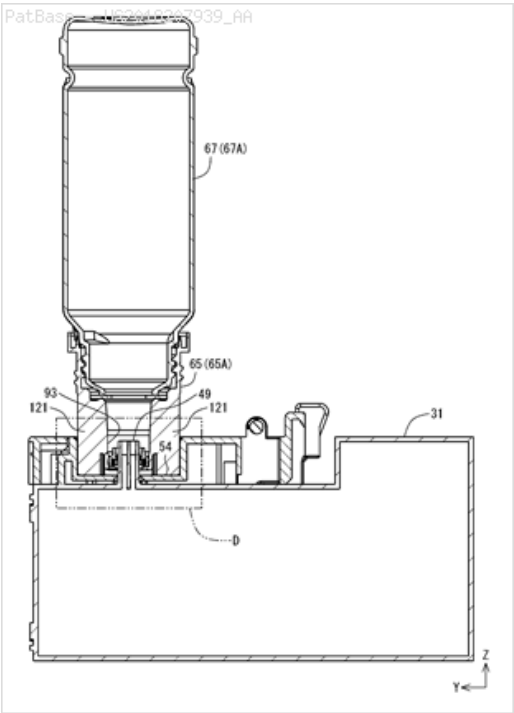
B65D47/32 (Advanced/Invention)

CPC: B41J2/17506 B65D47/2031 B65D41/0407 B65D47/32 B41J2/17509 B41J2/1752 B41J2/17523 B41J2/1755 B41J2/17553 B65D1/06 B65D41/16 B65D47/123

US: 222/211

JP F-Term: 2C056 2C056/EA20 2C056/FA10 2C056/KB08 2C056/KC02 2C056/KD08

JP F-Index: B41J2/175/133



Family:

Publication number	Publication date	Application number	Application date
CN208180536 U	20181204	CN201820026276U	20180108
JP2018118453 A2	20180802	JP20170011876	20170126
US2018207939 AA	20180726	US20180879184	20180124

Priority:

JP20170011876 20170126

Probable Assignee: SEIKO EPSON CORP

Assignee(s): (std): SEIKO EPSON CORP

Inventor(s): (std): ISHIZAWA TAKU ; MIZUTANI TADAHIRO ; TANAKA RYOICHI ; AKAHANE MANABU ; TOBA KOICHI ; NAGASHIMA TAKUMI ; SHIMIZU YOSHIKI ; WATANABE TADASHI ; FUKASAWA NORIYUKI ; FUKAZAWA NORIYUKI

4) Family number: 30577615 (US2007195144A) © PatBase

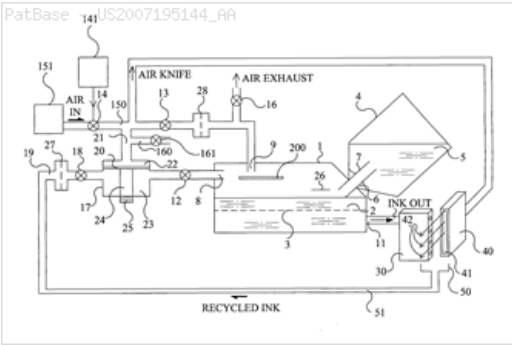
Title: LIQUID SUPPLY SYSTEM

Abstract: A liquid supply system comprising a liquid reservoir and a liquid container for supplying liquid to the reservoir. Connection means connects the reservoir to a position within the container that is immersed in the contained liquid. Means for alternately pressurising and depressurising the reservoir are provided. The arrangement is such that when the reservoir is pressurised gas is forced into the container through the connection means and accumulates above the liquid in the container. When the reservoir is depressurised accumulated gas in the container forces liquid through the connection means to the reservoir.

Classifications:

International (IPC 8-9): B41J2/17 B41J2/175 (Advanced/Invention); B41J2/17 B41J2/175 (Core/Invention)

International (IPC 1-7): B41J2/175
CPC: B41J2/16523 B41J2/16552 B41J2/175
European: B41J2/165C1D B41J2/165C3 B41J2/175
US: 347/85 347/97



Family:

Publication number	Publication date	Application number	Application date
AT495901 E	20110215	AT20050718116T	20050318
DE602005025981 D1	20110303	DE200560025981T	20050318
DE602005034258 D1	20120712	DE200560034258T	20050318
EP1725409 A2	20061129	EP20050718116	20050318
EP1725409 B1	20110119	EP20050718116	20050318
EP2311640 A1	20110420	EP20100014864	20050318
EP2311640 B1	20120516	EP20100014864	20050318
GB200406197 A0	20040421	GB20040006197	20040319
GB2412088 A1	20050921	GB20040006197	20040319
GB2412088 B2	20070919	GB20040006197	20040319
US2007195144 AA	20070823	US20050593551	20050318
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WO05090085 A2	20050929	WO2005GB01138	20050318
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Priority:

GB20040006197 20040319 EP20050718116 20050318 EP20100014864 20050318
WO2005GB01138 20050318

Probable Assignee: ZIPHER LTD

Assignee(s): (std): KABUSHIKIKAISHA ; MCNESTRY MARTIN ; VIDEOJET TECHNOLOGIES NOTTINGHAM LTD ; ZIPHER LTD

Assignee(s): ZIPHER LIMITED ; VIDEOJET TECHNOLOGIES NOTTINGHAM LIMITED

Inventor(s): (std): MCNESTRY MARTIN

Inventor(s): MARTIN MCNESTRY

Agent(s): MARKS AND CLERK LUXEMBOURG LLP; KENRICK MARK LLOYD; WOODARD EMHARDT MORIARTY MCNETT AND HENRY LLP; NIXON AND VANDERHYE 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 SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

5) Family number: 43375380 (DE202009001744U1)

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Title: TINTENKARTUSCHE INK CARTRIDGE (Machine translation)

Abstract: Source: DE202009001744U1 [DE] (Claim 1) 1. Tintenkartusche (1) mit mindestens einer Tintenkammer (2), die im unteren Bereich eine Tintenauslassöffnung (3) aufweist, die bis zu einem Füllpegel (6) mit Tinte befüllbar ist und ueber eine Verbindungsoeffnung (10) mit einer Lufteinlasskammer (9) verbunden ist, die eine Lufteinlassöffnung (7) aufweist und in der ein mit Fluessigkeit getraenktes Kapillarelemt (11) angeordnet ist, gekennzeichnet dadurch, dass sich die Verbindungsoeffnung (10) im oberen Bereich der Tintenkammer (2) oberhalb des Fuellpegels (6) befindet.

Machine translation: (Claim 1) 1. Ink cartouche (1) with at least one ink chamber (2), which exhibits an ink discharge opening (3) within the lower range, which up to a filling level (6) with ink is fillable and is connected by the fact over a connection port (10) with an air intake chamber (9), which exhibits an air intake opening (7) and in the one capillary element (11), soaked with liquid, is arranged, characterized that the connection port (10) is in the upper range of the ink chamber (2) above the filling level (6).

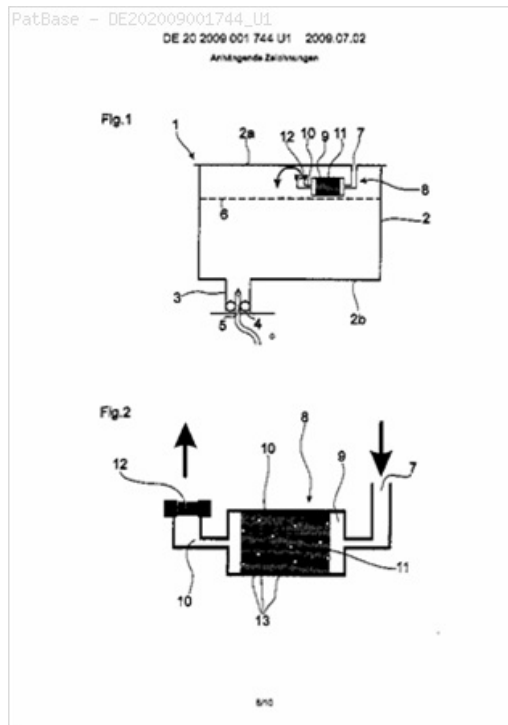
Classifications:

International (IPC 8-9): B41J2/175 (Advanced/Invention);

B41J2/175 (Core/Invention)

CPC: B41J2/17513 B41J2/17556

European: B41J2/175C2 B41J2/175C9



Family:

Publication number	Publication date	Application number	Application date
DE202009001744 U1	20090528	DE200920001744U	20090211

Priority:

DE200920001744U 20090211

Probable Assignee: ARTECH GMBH DESIGN AND PROD

Assignee(s): (std): ARTECH GMBH DESIGN AND PROD ; ARTECH GMBH DESIGN AND PRODUCTIO

Assignee(s): ARTECH GMBH DESIGN AND PRODUCTION IN PLASTIC

6) Family number: 64888335 (US2018154645A)

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Title: PRINTING FLUID CONTAINER

Abstract: A printing fluid container for a printing fluid source for a printer system, wherein the printing fluid container comprises a sealing material layer being arranged in a closure device printing fluid outlet opening, the sealing material layer having a fluid outlet condition, in which the sealing material layer is pierced by engagement of a fluidic interconnect device of the printing fluid source and the closure device printing fluid outlet opening, as well as a printing fluid source, a printer system, a printer system arrangement and a method of filling a printing fluid source.

Classifications:

International (IPC 8-9): B41F31/02 B41J2/175 B65D75/62
B65D77/20 (Advanced/Invention)

International (IPC 1-7): B41J2/175

CPC: B41F31/02 B41J2/17536 B41J2/17506 B41J2/17523 B41J2/17553

JP F-Term: 2C056 2C056/EA26 2C056/EC64 2C056/KC00 2C056/KD08

3E067 3E067/AA03 3E067/AB96 3E067/AC01 3E067/BA03 3E067/BB14

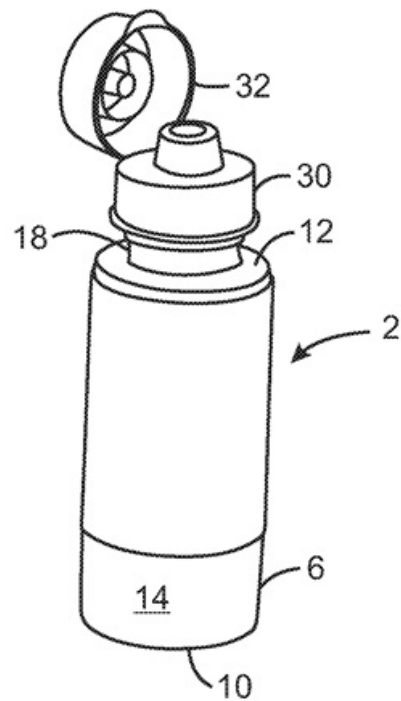
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3E067/FA01 3E067/FC01 3E067/GD06

JP F-Index: B41J2/175/111 B41J2/175/131 B41J2/175/133

B65D75/62/A B65D77/20/J

**Family:**

Publication number	Publication date	Application number	Application date
BR112017023278 A2	20180925	BR20171123278	20150731
CN107531055 A	20180102	CN201580079387	20150731
EP3268227 A1	20180117	EP20150747981	20150731
IN201717036761 A	20171215	IN201717036761	20171016
JP2018517585 T2	20180705	JP20170556693T	20150731
KR20170132256 A	20171201	KR20177031006	20150731
MX2017013806 A1	20180315	MX20170013806	20150731
TW201711866 A	20170401	TW20160122011	20160713
US2018154645 AA	20180607	US20150570523	20150731
US10369800 BB	20190806	US20150570523	20150731
WO17020915 A1	20170209	WO2015EP01580	20150731

Priority:

WO2015EP01580 20150731

Probable Assignee: HEWLETT PACKARD DEVELOPMENT CO LP**Assignee(s):** (std): HEWLETT PACKARD DEV CO L P ; HEWLETT PACKARD DEVELOPMENT CO ; MURPHY BRYAN ; ROONEY GARRY ; HEWLETT PACKARD DEVELOPMENT CO L P ; WOODS FRANK**Assignee(s):** HEWLETT PACKARD DEVELOPMENT CO LP**Inventor(s):** (std): MURPHY BRYAN ; ROONEY GARRY ; WOODS FRANK ; BRYAN MURPHY ; GARRY ROONEY ; FRANK WOODS ; MURPHYBRYAN**Agent(s):** FRANKHUIZEN JAN; FURUYA SATOSHI; ONISHI AKIHIRO; HP INC PATENT DEPARTMENT; SAMSON AND PARTNER PATENTANWAELE MB**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**7) Family number: 65565492 (US2017120606A)**

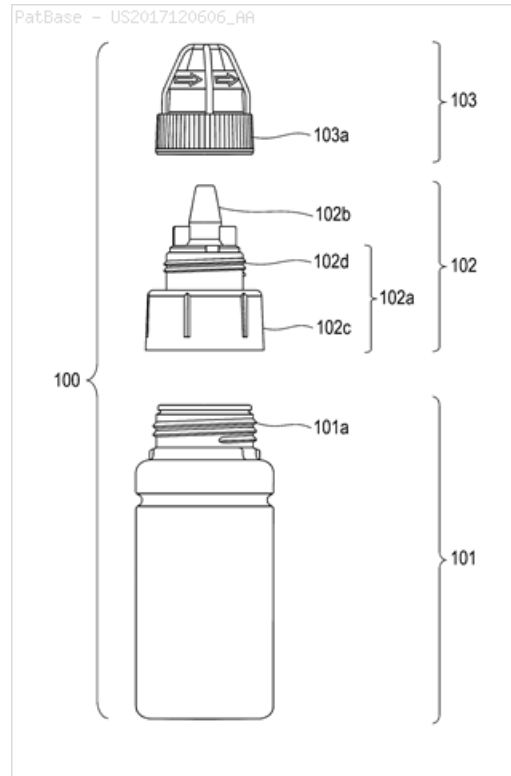
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Title: LIQUID STORAGE BOTTLE, LIQUID STORAGE BOTTLE PACKAGE, AND METHOD OF MANUFACTURING LIQUID STORAGE BOTTLE PACKAGE

Abstract: Provided is a liquid storage bottle capable of suppressing a decrease in degree of internal pressure reduction with a simple configuration. The liquid storage bottle includes: a main body portion configured to store a liquid; a nozzle portion configured to discharge the liquid stored in the main body portion; a cap mounted on the nozzle portion; a space portion formed between the nozzle portion and the cap; and a communicating portion configured to allow the space portion to communicate with outside of the liquid storage bottle. The nozzle portion includes a contact portion which comes into contact with the cap in a state in which the cap is mounted on the nozzle portion, and the communicating portion is a groove portion formed by cutting out a part of the contact portion.

Classifications:

International (IPC 8-9): B41J2/175 B41J29/02
B41J29/13 (Advanced/Invention);
B65D51/16 (Advanced/Non-invention)
CPC: B41J2/17503 B41J2/17559 B41J2/17553 B41J2/17533 B41J2/17506
B41J2/17509 B41J2/17536 B41J29/02 B41J29/13 B65D51/1611
JP F-Term: 2C056 2C056/EA16 2C056/KC07 2C056/KC16 2C056/KC30
2C056/KD08
JP F-Index: B41J2/175/101 B41J2/175/131 B41J2/175/163
B41J2/175/165 B41J2/175/171 B41J2/175/173



Family:

Publication number	Publication date	Application number	Application date
CN106626787 A	20170510	CN201610939842	20161025
CN106626787 B	20190405	CN201610939842	20161025
JP2017081087 A2	20170518	JP20150214403	20151030
KR20170051278 A	20170511	KR20160137598	20161021
US2017120606 AA	20170504	US20160274806	20160923
US9908338 BB	20180306	US20160274806	20160923

Priority:

JP20150214403 20151030 KR20160137598 20161021

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KK

Assignee(s): CANON KABUSHIKI KAISHA

Inventor(s): (std): TAKAHASHI WATARU ; NABESHIMA NAUZUMI ; KOTAKI YASUO ; KUBO KOICHI ; UDAGAWA KENTA ; KOSHIKAWA HIROSHI ; KANNO KENICHI ; YOSHII KAZUYA ; KONDO SOJI ; SUGANO KENICHI

Agent(s): FITZPATRICK CELLA HARPER AND SCINTO

8) Family number: 63740307 (US2016347516A)

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Title: FLOW CONTROL DEVICE AND PROCESS

Abstract: A flow control device (20) and process are provided for controlling the flow of a pressurized fluid substance from a supply system (22). The device (20) includes a housing (30/40) that defines an orifice (84) for communicating between the supply system (22) that has an outlet end defining a discharge opening (57). The device 20 further includes a valve (140) having a flexible, resilient valve head (160) that has confronting, openable portions (186) movable from a closed configuration to an open configuration when the valve head (160) is subjected to a pressure differential acting across the valve head (160). The valve (140) is located across the housing outlet end discharge opening (57) so that the valve (140) and the housing (30/40) together define an expansion chamber (198) between the orifice (84) and the valve (140).

Classifications:

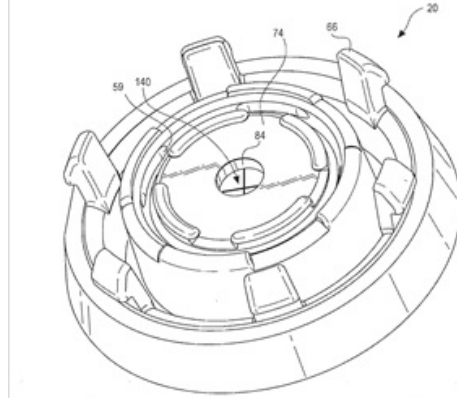
International (IPC 8-9): B65D35/50 B65D35/52 B65D39/00 B65D47/20

B65D47/22 B65D47/44 F16K21/04 (Advanced/Invention);

B65D47/44 (Advanced/Non-invention)

CPC: B65D47/2031 B65D47/2025 B65D47/2037 B65D47/44

US: 222/1

**Family:**

Publication number	Publication date	Application number	Application date
AR103120 AA	20170419	AR2015P102877	20150909
EP3280652 A1	20180214	EP20150888659	20150408
EP3280652 A4	20181205	EP20150888659	20150408
US2016347516 AA	20161201	US20150766050	20150408
US2017240324 AA	20170824	US20170590154	20170509
US9682804 BB	20170620	US20150766050	20150408
US10150598 BB	20181211	US20170590154	20170509
WO16164007 A1	20161013	WO2015US24861	20150408

Priority:

US20150766050 20150408 WO2015US24861 20150408 US20160766050 20160729
 US20170590154 20170509

Probable Assignee: APTARGROUP INC

Assignee(s): (std): APTARGROUP INC ; BRUNNER ANDREW ; HATTON JASON ; SMITH ANDREW

Inventor(s): (std): SMITH ANDREW ; HATTON JASON ; BRUNNER ANDREW ; JASON HATTON ; ANDREW BRUNNER ; ANDREW SMITH

Agent(s): APPELT CHRISTIAN W; WOOD PHILLIPS KATZ CLARK AND MORTIMER; ODELL PAUL M 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

9) Family number: 68076335 (US2018001650A)

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Title: LIQUID SUPPLYING MECHANISM, AND LIQUID EJECTION APPARATUS

Abstract: A liquid supplying mechanism includes: a tank including a liquid storage section configured to store a liquid, and a liquid injection port configured to inject the liquid into the liquid storage section; and a bottle configured to replenish the liquid into the tank. The bottle includes: a bottle section configured to store the liquid; and a protruding section, which protrudes from the bottle section, and is insertable into the liquid injection port so as to inject, into the liquid storage section, the liquid stored in the bottle section. The liquid injection port includes: a protruding section insertion portion into which the protruding section of the bottle is insertable; and a protruding section fixing portion, which is engageable with the protruding section of the bottle, to thereby be capable of fixing the bottle to the tank.

Classifications:

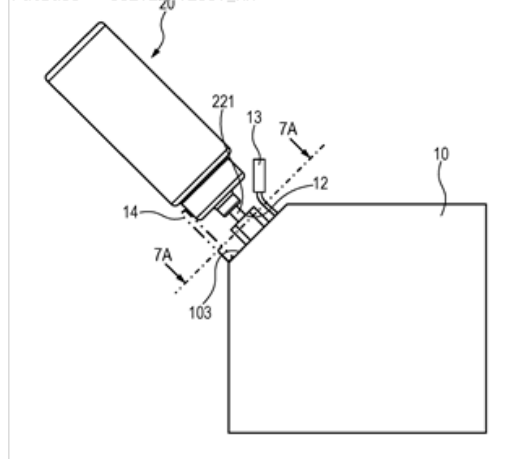
International (IPC 8-9): B41J2/175 (Advanced/Invention)

CPC: B41J2/17523 B41J2/165 B41J2/17506 B41J2/17553

US: 347/85

JP F-Term: 2C056 2C056/EA16 2C056/EA20 2C056/EA22 2C056/KC02 2C056/KC05 2C056/KC30

JP F-Index: B41J2/175/133 B41J2/175/141 B41J2/175/153 B41J2/175/169

**Family:**

Publication number	Publication date	Application number	Application date
JP2018008510 A2	20180118	JP20170065461	20170329
US2018001650 AA	20180104	US20170625960	20170616

Priority:

JP20160128728 20160629 JP20170065461 20170329

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KK

Inventor(s): (std): FURUYA MISATO ; ARAI ATSUSHI ; MIYASHITA TAKEHO ; IKEBE NORIHIRO ; SHIMAMURA RYO ; OHIRA MASATOSHI ; ORIHARA TATSUAKI ; MATSUSHITA KAZUMASA ; SHIBA AKIRA ; YAMAMURO TOMOKI ; YOSHII KAZUYA ; OKUHARA HIROFUMI ; SHIMAMURA AKIRA ; IKEBE YOSHIHIRO ; YAMAMURO TOMOO ; ORIHARA TATSUMASA

10) Family number: 59415933 (US2016200110A)

© PatBase

Title: REPLENISHMENT CONTAINER AND INKJET RECORDING DEVICE COMPRISING SAME

Abstract: The purpose of the present invention is to provide a replenishment container and an inkjet recording device that are capable of reducing staining by ink or a solvent during ink or solvent replenishing. The replenishment container comprises a storage member having an opening formed therein and having a storage chamber that stores ink or solvent, a stopper member that seals the opening of the storage member, and a lid member that covers the stopper member. The replenishment container is characterized by: comprising a seal member that has a throughhole between the stopper member and the lid member; the lid member having a throughhole that is opened concentrically with the throughhole of the seal member; and the inner diameter of part or all of the throughhole in the seal member being smaller than the inner diameter of the throughhole in the lid member.

Classifications:

International (IPC 8-9): B41J2/175 B41J2/18 B41J2/185

B65D51/20 (Advanced/Invention);

B41J2/185 (Advanced/Non-invention)

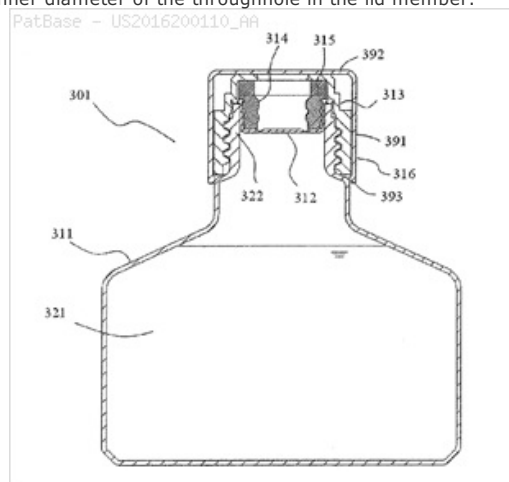
CPC: B41J2/18 B41J2002/1853 B41J2/17506 B41J2/175 B65D51/20

US: 1/1 347/85

JP F-Term: 2C056 2C056/EA16 2C056/KB05 2C056/KC05 2C056/KD08

JP F-Index: B41J2/175/131 B41J2/175/133 B41J2/175/153

B41J2/175/501



Family:

Publication number	Publication date	Application number	Application date
CN105793050 A	20160720	CN201380078159	20131129
CN105793050 B	20180605	CN201380078159	20131129
EP3075540 A1	20161005	EP20130898323	20131129
EP3075540 A4	20170621	EP20130898323	20131129
JP2015079547 A1	20170316	JP20150550279T	20131129
JP6158346 B1	20170705	JP20150550279T	20131129
US2016200110 AA	20160714	US20130914805	20131129
US2017313089 AA	20171102	US20170650161	20170714
US9738079 BB	20170822	US20130914805	20131129
US10189263 BB	20190129	US20170650161	20170714
WO15079547 A1	20150604	WO2013JP82120	20131129

Priority:

WO2013JP82120 20131129 US20160914805 20160226 US20170650161 20170714

Probable Assignee: HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO LTD

Assignee(s): (std): HITACHI IND EQUIPMENT SYS ; HITACHI IND EQUIPMENT SYSTEMS CO LTD

Assignee(s): HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO ; HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO LTD

Inventor(s): (std): MATSUSHITA TAKEHIKO ; YOSHIDA NAOMICHI ; MIYAO AKIRA ; HARADA NOBUHIRO

Agent(s): ADDISS JOHN WILLIAM; CROWELL AND MORING LLP; INOUE MANABU 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

Title: LIQUID STORAGE CARTRIDGE USED IN LIQUID DISCHARGE DEVICE, LIQUID DISCHARGE DEVICE, AND INCORRECT INSERTION PREVENTION STRUCTURE OF LIQUID STORAGE CARTRIDGE

Abstract: PROBLEM TO BE SOLVED: To provide a structure which makes a cap unlikely to be lost and prevents enlargement of a cartridge. SOLUTION: A cartridge 3 may be stored in an ink jet recorder 1 having an ink introduction port 22 and a cartridge storage part 6. The cartridge 3 includes: a storage chamber 33 for storing an ink; a first surface 31 facing in a first direction; and a second surface 32 facing in a direction different from the first surface. The cartridge 3 includes: a cartridge body 30 which may be stored in the cartridge storage part 6 in a first posture in which the first surface 31 faces the ink introduction port 22 and in a second posture in which the second surface 32 faces the ink introduction port 22; an ink supply part 4 which is provided on the first surface 31 and may be connected with the ink introduction port 22 in the first posture so that a liquid in the storage chamber 33 is introduced to the ink introduction port 22; and a leakage prevention member 5 which is provided on the second surface 32 and may be connected with the ink introduction port 22 in the second posture so as to receive the ink flowing out from the ink introduction port 22.

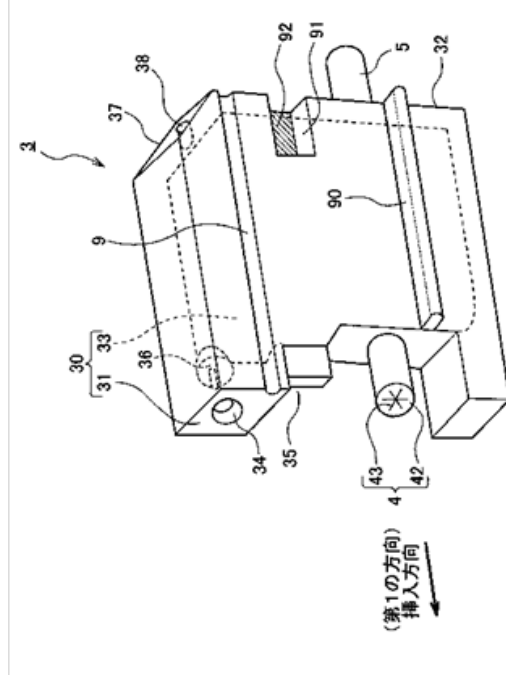
Classifications:

International (IPC 8-9): B41J2/175 (Advanced/Invention)

JP F-Term: 2C056 2C056/EA16 2C056/EA18 2C056/EA22 2C056/EA26 2C056/EA29 2C056/EB20 2C056/EB50 2C056/KB05 2C056/KB08 2C056/KB19 2C056/KC02 2C056/KC04 2C056/KC05 2C056/KC06 2C056/KC16 2C056/KC17

JP F-Index: B41J2/01/451 B41J2/175/115 B41J2/175/119 B41J2/175/151 B41J2/175/153 B41J2/175/167 B41J2/175/169 B41J2/175/171 B41J2/175/301 B41J2/175/305 B41J2/175/501 B41J2/175/503

PatBase - JP2015193157_A2



Family:

Publication number	Publication date	Application number	Application date
JP2015193157 A2	20151105	JP20140072618	20140331

Priority:

JP20140072618 20140331

Probable Assignee: BROTHER IND LTD
Assignee(s): (std): BROTHER IND LTD
Assignee(s): BROTHER KOGYO KK
Inventor(s): (std): KAMIYA MASATAKA
Agent(s): PATENT CORPORATE BODY ARCO PATENT OFFICE

Title: Adapter and mating bottle cap for coupling bottles to ink supplies

Abstract: An ink supply system comprises an adapter, mounted upon the ink supply reservoir, and a mating bottle cap, secured to the ink supply container, for coupling the ink supply container to the ink supply reservoir adapter, wherein both the ink supply reservoir adapter and the ink supply container cap have unique mating or corresponding polarizing structure fixedly or integrally mounted thereon such that the ink supply reservoir will only accept such uniquely predeterminedly configured or structured ink supply containers. In this manner, non-compatible or inferior quality ink materials are not introduced into the ink supply reservoir.

Classifications:

International (IPC 8-9): B41J2/175 (Advanced/Invention); B41J2/175 (Core/Invention)

International (IPC 1-7): B41J2/175 B65D47/00 B65D47/20 B67D5/00

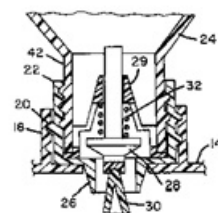
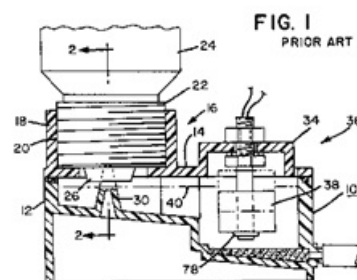
CPC: B41J2/17503 B41J2/17506

European: B41J2/175C B41J2/175C1

US: 347/85

JP F-Term: 2C056 2C056/KB20 2C056/KC02 2C056/KC06

JP F-Index: B41J2/175 B41J2/175/119 B41J2/175/151 B41J2/175/169 B41J2/175/503 B41J3/04/102/Z

FIG. 2
PRIOR ART**Family:**

Publication number	Publication date	Application number	Application date
AT270618 E	20040715	AT20000120712T	20000922
AU200069609 A1	20010510	AU20000069609	20001027
AU200069609 A5	20010510	AU20000069609	20001027
AU735639 B2	20010712	AU20000069609	20001027
CA2321239 AA	20010509	CA20002321239	20000927
CA2321239 C	20050412	CA20002321239	20000927
DE60011983 D1	20040812	DE20006011983	20000922
DE60011983 D1	20040812	DE20006011983T	20000922
DE60011983 T2	20041111	DE20006011983T	20000922
EP1099558 A2	20010516	EP20000120712	20000922
EP1099558 A3	20020102	EP20000120712	20000922
EP1099558 B1	20040707	EP20000120712	20000922
JP2001146021 A2	20010529	JP20000338702	20001107
US6164768 A	20001226	US19990437906	19991109

Priority:

US19990437906 19991109 CA20002321239 20000927

Probable Assignee: ILLINOIS TOOL WORKS INC**Assignee(s):** (std): ILLINOIS TOOL WORKS**Assignee(s):** ILLINOIS TOOL WORKS INC ; ILLINOIS TOOL WORKS INC GLENVIEW ; ILLINOIS TOOL WORKS INC ITW ; MURPHY STEPHEN W ; CAHILL CLIFFORD J**Inventor(s):** (std): MURPHY STEPHEN W ; CAHILL CLIFFORD J**Inventor(s):** STEPHEN W MURPHY ; CLIFFORD J CAHILL**Agent(s):** PHILLIPS ORMONDE FITZPATRICK; FINLAYSON AND SINGLEHURST; TSURUTA JUNICHI; NISHIYAMA MASAYA; HIGUCHI SOTOJI; ISHIDA TAKASHI**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE**13) Family number: 33254739** (US2006187280A)

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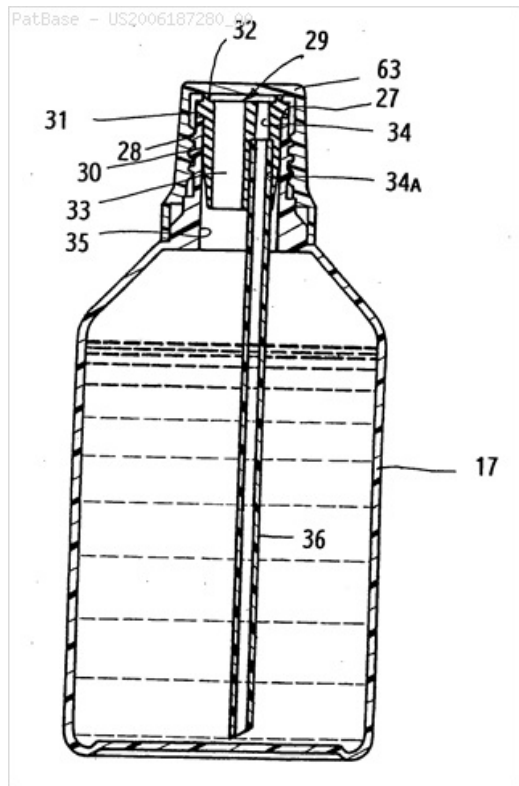
Title: TINY AIR-PRESSURE BALANCE DEVICE BETWEEN AN INK CARTRIDGE AND AN INK BOTTLE

Abstract: A tiny air-pressure balance device between an ink cartridge and an ink bottle, in which the ink cartridge is connected with an ink tube extended to one side of the printer; every ink tube is connected with the outlet of the ink bottle; the upper part of the ink bottle is mounted with a balance device, in which a tiny air-pressure check valve is mounted so as to have a tiny air enter for balancing the pressure in the ink bottle upon the printer printing words or drawings, and to prevent the water in the ink bottle from volatilizing away.

Classifications:**International (IPC 8-9):** B41J2/17 B41J2/175 (Advanced/Invention);

B41J2/17 B41J2/175 (Core/Invention)

International (IPC 1-7): B41J2/175**CPC:** B41J2/17506 B41J2/17513 B41J2/17523 B41J2/17553**European:** B41J2/175C1 B41J2/175C2 B41J2/175C3A B41J2/175C8**US:** 347/85 347/86



Family:

Publication number	Publication date	Application number	Application date
TWM271716 Y	20050801	TW20050202844U	20050223
US2006187280 AA	20060824	US20050256071	20051024
US7364281 BB	20080429	US20050256071	20051024

Priority:

TW20050202844U 20050223

Probable Assignee:

YAN YI TZUNG

Assignee(s): (std):

YAN YI TSUNG ; YAN YI TZUNG

Inventor(s): (std):

YAN YI TSUNG ; YAN YI TZUNG

Agent(s):

TROXELL LAW OFFICE PLLC

14) Family number: 32082928 (US2005151810A)

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Title: INK CONTAINER INSTALLATION AND ALIGNMENT FEATURE

Abstract: An ink container for an ink delivery system in an inkjet printer, the ink container comprising a bottle for holding a supply of ink, a cap attached to the bottle to form a hermetic seal therebetween, the cap including an air inlet channel and an ink exit channel, and a color indicator ring having a key projecting therefrom. The color indicator ring resides between the ink bottle and the cap and is capable of being fixed in a plurality of predetermined orientations, with each orientation corresponding to a predetermined angle between the key and a line defined by the air inlet channel and the ink exit channel. The inkjet printer includes a plurality of receptacles, each adapted to receive a corresponding ink container containing an ink of a different or predetermined color. Each receptacle has an ink reservoir attached at the base thereof and includes a vertically oriented groove located at a predetermined position on the sidewall of the base. Installation of the correct ink container into the correct receptacle is ensured by matching the key to the groove, and by mating the air inlet channel and the ink exit channels to the corresponding fluid connection features on the ink reservoir.

Classifications:

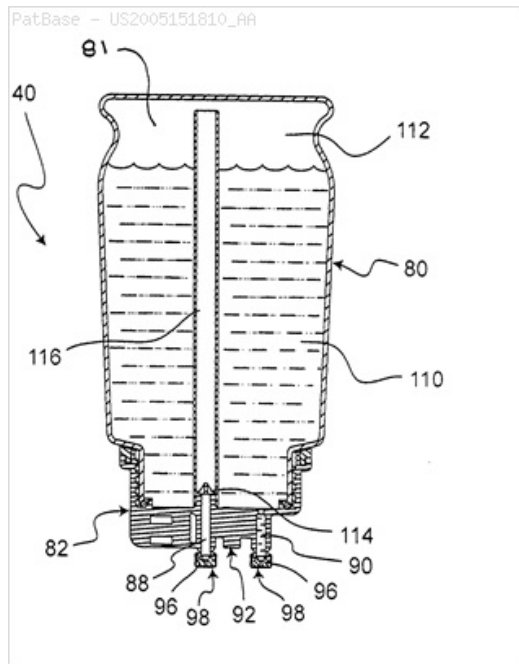
International (IPC 8-9): B41J2/17 B41J2/175 (Advanced/Invention); B41J2/17 B41J2/175 (Core/Invention)

International (IPC 1-7): B41J2/17

CPC: B41J2/17523 B41J2/1755 B41J2/17556

European: B41J2/175C3A B41J2/175C7M B41J2/175C9

US: 347/84 347/86



Family:

Publication number	Publication date	Application number	Application date
US2005151810 AA	20050714	US20040935600	20040907
US7165833 BB	20070123	US20040935600	20040907

Priority:

US20040534878P 20040108 US20040935600 20040907

Probable Assignee: EASTMAN KODAK CO

Assignee(s): (std): EASTMAN KODAK CO

Assignee(s): EASTMAN KODAK COMPANY ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AS ; PAKON INC ; FAR EAST DEVELOPMENT LTD ; FPC INC ; KODAK AMERICAS LTD ; KODAK AVIATION LEASING LLC ; KODAK IMAGING NETWORK INC ; KODAK NEAR EAST INC ; KODAK PHILIPPINES LTD ; KODAK PORTUGUESA LTD ; KODAK REALTY INC ; LASER PACIFIC MEDIA CORP ; NPEC INC ; QUALEX INC ; WILMINGTON TRUST NATIONAL ASSOCIATION AGENT AS ; BANK OF AMERICA NA AGENT AS ; BARCLAYS BANK PLC ADMINISTRATIVE AGENT AS ; CITICORP NORTH AMERICA INC AGENT AS ; CREO MFG AMERICA LLC

Inventor(s): (std): GRAHAM GARY ; PEARSONS ROBERT L

Inventor(s): PEARSONS ROBERT

Agent(s): MARK G BOCCHETTI PATENT LEGAL STAFF; MARK G

15) Family number: 11292451 (US6079823A)

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Title: Ink bottle with puncturable diaphragm closure

Abstract: This invention relates to a replaceable ink container or bottle (1) for an ink jet printing apparatus in which the mouth of the bottled is closed by a puncturable diaphragm (19). A puncturing member (35) carried by the ink reservoir (21) of the ink jet printing apparatus pierces through the diaphragm upon the container being installed in the ink jet printing apparatus. Upon the puncturing member (35) puncturing through the diaphragm (19), the diaphragm sealingly engages the sides of the puncturing tube so as to substantially prevent the ink from leaking therepast, and the puncturing tube opens communication between the ink within the container and the ink reservoir thereby permitting ink to flow from the bottle into the ink reservoir via the puncturing member. An air path (37) is provided which is in communication with the atmosphere and with the reservoir so that ink from within the container and atmospheric air may be exchanged via the puncturing member so that ink is free to flow from the container into the reservoir, and so that the pressure within the container is maintained substantially at atmospheric pressure. A method of supplying ink to such an ink jet printing apparatus also is disclosed.

Classifications:

International (IPC 8-9): B41J2/175 (Advanced/Invention);
B41J2/175 (Advanced/Non-invention);
B41J2/175 (Core/Invention)

International (IPC 1-7): B41J2/175 B41J3/175

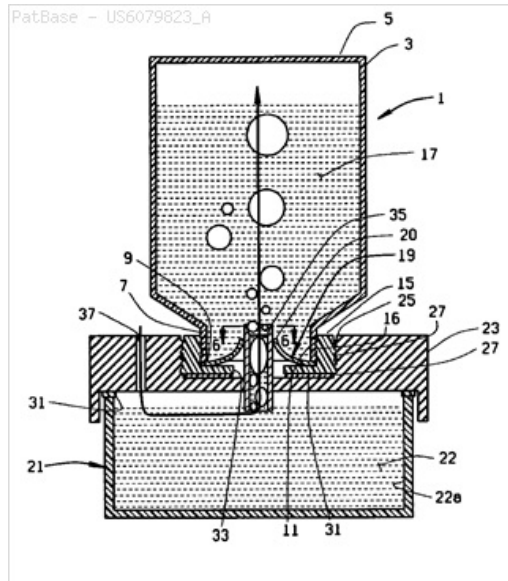
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European: B41J2/175C B41J2/175C1A B41J2/175C2 B41J2/175C3A

US: 347/85

JP F-Term: 2C056 2C056/EA16 2C056/EA24 2C056/KC05 2C056/KC16

JP F-Index: B41J2/175 B41J2/175/153 B41J2/175/171 B41J3/04/102/Z

**Family:**

Publication number	Publication date	Application number	Application date
AT228936 E	20021215	AT19980935205T	19980723
AU199884554 A1	19990216	AU19980084554	19980723
AU746516 B2	20020502	AU19980084554	19980723
AU746516 C	20040205	AU19980084554	19980723
BRPI9815560 A	20040413	BR1998PI15560	19980723
CA2297238 AA	20000121	CA19982297238	19980723
CN1103691 C	20030326	CN19988009009	19980723
CN1269749 A	20001011	CN19988009009	19980723
DE69809918 D1	20030116	DE19986009918	19980723
DE69809918 D1	20030116	DE19986009918T	19980723
DE69809918 T2	20030710	DE19986009918T	19980723
EP0998393 A1	20000510	EP19980935205	19980723
EP0998393 B1	20021204	EP19980935205	19980723
JP2001510752 T2	20010807	JP20000504004T	19980723
KR20010022157 A	20010315	KR20007000729	19980723
RU2000104278 A	20020627	RU20000104278	19980723
US6079823 A	20000627	US19970898802	19970723
WO9904979 A1	19990204	WO1998GB02206	19980723

Priority:

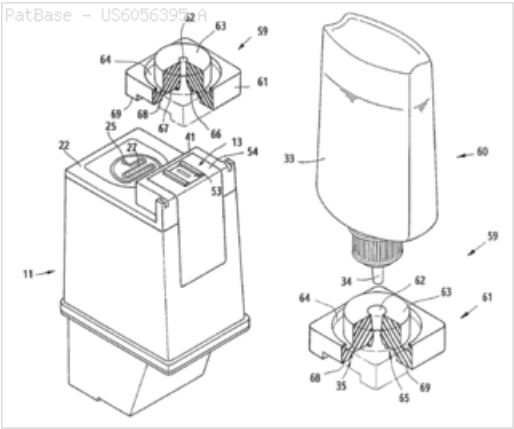
US19970898802 19970723 WO1998GB02206 19980723

Probable Assignee: MARCONI DATA SYSTEM INC**Assignee(s):** (std): MARCONI DATA SYSTEMS INC ; MARSH ELECTRIC CO ; MARSH CO ; GEN ELECTRIC CO PLC**Assignee(s):** GENERAL ELECTRIC CO PLC ; MARCONI DATA SYSTEM INC ; DROEGE CURTIS R ; VIDEOJET SYSTEMS INT ; THE MARSH ELECTRIC CO ; THE GENERAL ELECTRIC COMPANY PLC ; MARSH COMPANY ; MARCONI DATA SYSTEMS INC WOOD DALE ; VIDEOJET SYSTEMS INT INC ; VIDEOJET TECHNOLOGIES INC**Inventor(s):** (std): DROEGE CURTIS R ; DROEGE R ; DROGE C R**Inventor(s):** CURTIS R DROEGE ; CR DROGE ; C R DROGE**Agent(s):** GRIFFITH HACK; SMART AND BIGGAR**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 UZ VN YU ZW**16) Family number: 12223760 (US6056395A)**

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Title: Device to prevent from ink interruption in a printing head of an ink cartridge in a printer**Abstract:** A device for preventing from ink interruption in a printing head of an ink cartridge in a printer; the prime feature thereof is to suck out air in a second chamber of a printing head after the ink of an ink cartridge of a jet printer is used up, and the prime chamber of the ink cartridge will be refilled with ink; a suck assembly has a hermetic assembly to be in close contact with an outer flat surface of the printing head of the ink cartridge; then, a compression unit can provide a vacuum-pumping effect to suck out air in the second chamber completely so as to prevent the spraying unit of the printing head from having ink interruption.**Classifications:****International (IPC 8-9):** B41J2/175 B41J2/19 (Advanced/Invention); B41J2/17 B41J2/175 (Core/Invention)**International (IPC 1-7):** B41J2/19**CPC:** B41J2/17506 B41J2/17513 B41J2/17523 B41J2/17553 B41J2/17556 B41J2/19

European: B41J2/175C B41J2/175C1 B41J2/175C2 B41J2/175C3A
B41J2/175C8 B41J2/175C9 B41J2/19
US: 347/92



Family:

Publication number	Publication date	Application number	Application date
US6056395 A	20000502	US19980218047	19981222

Priority:

US19980218047 19981222

Probable Assignee:

LIU WIN YIN

Assignee(s):

LIU WIN YIN

Inventor(s): (std):

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