

Title (en)

Apparatus for spraying liquids, and disposable containers and liners suitable for use therewith

Title (de)

Vorrichtung zum Sprühen von Flüssigkeiten und Einwegbehälter und "Liner" dafür

Title (fr)

Appareil de pulvérisation de liquides et récipients et garnitures jetables utilisables avec celui-ci.

Publication

EP 2090372 A3 20111102 (EN)

Application

EP 09006816 A 19980114

Priority

- EP 04002190 A 19980114
- EP 98901823 A 19980114
- GB 9701447 A 19970124
- GB 9712784 A 19970618

Abstract (en)

[origin: WO9832539A1] A spray gun (1) has a fluid reservoir (11) which contains a removable liner (13). The liner (13), which may be thermo/vacuum-formed from a plastics material, is a close fit within the interior of the reservoir and collapses as fluid is withdrawn from within the liner during operation of the gun. Preferably, the liner has a comparatively-rigid base and is capable of standing, unsupported, outside the reservoir. The side walls of the liner are preferably thin in comparison to the base and can be collapsed for disposal of the liner. The reservoir (11) has a removable lid (15) and is capable of standing, inverted, on its own so that it can be filled with fluid. The lid (15) also functions to secure the liner (13) in the reservoir and, at the end of a spraying operation, the lid (15) and the liner (13) are removed together from the reservoir (11) and discarded, thereby simplifying the cleaning of the spray gun.

IPC 8 full level

B05B 7/24 (2006.01); **B05B 15/06** (2006.01); **B05B 15/40** (2018.01); **B05B 15/62** (2018.01); **F28D 7/10** (2006.01); **H01S 3/036** (2006.01)

CPC (source: EP US)

B05B 7/24 (2013.01 - EP); **B05B 7/2408** (2013.01 - EP); **B05B 7/2478** (2013.01 - EP); **B05B 7/2481** (2013.01 - EP); **B05B 15/40** (2018.01 - EP); **B05B 15/62** (2018.01 - US); **F28D 7/106** (2013.01 - EP); **B05B 15/63** (2018.01 - EP US)

Citation (search report)

- [A] US 3432104 A 19690311 - KALTENBACH THEODORE L
- [A] US 4951875 A 19900828 - DEVEY DANIEL A [US]
- [A] US 3401842 A 19680917 - MORRISON LESTER G

Cited by

US10035156B2; WO2012154624A3; US10882064B2; US11040360B2; US11548018B1; US11679399B2; US12064783B2

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

WO 9832539 A1 19980730; CA 2277096 A1 19980730; CA 2277096 C 20070403; CA 2569369 A1 19980730; CA 2569369 C 20090519; CN 1142830 C 20040324; CN 1244141 A 20000209; DE 03020831 T1 20050113; DE 04002190 T1 20050504; DE 29825015 U1 20040311; DE 29825119 U1 20050127; DE 29825120 U1 20050203; DE 69831653 D1 20051027; DE 69831653 T2 20060907; DE 69831653 T3 20090730; DE 69836570 D1 20070111; DE 69836570 T2 20070927; DE 98901823 T1 20050331; EP 0954381 A1 19991110; EP 0954381 B1 20050921; EP 0954381 B2 20090121; EP 0954381 B8 20051123; EP 1961488 A2 20080827; EP 1961488 A3 20111102; EP 1961488 B1 20140618; EP 1961488 B2 20210224; EP 2090372 A2 20090819; EP 2090372 A3 20111102; EP 2090372 B1 20140618; ES 2226604 T1 20050401; ES 2226604 T3 20100323; ES 2226604 T5 20130708; ES 2226611 T1 20050401; ES 2226611 T3 20060416; ES 2226611 T5 20090608; ES 2278100 T3 20070801; HK 1023529 A1 20000915; JP 2001508698 A 20010703; JP 4301577 B2 20090722; PL 190184 B1 20051130; PL 334754 A1 20000313

DOCDB simple family (application)

US 9800796 W 19980114; CA 2277096 A 19980114; CA 2569369 A 19980114; CN 98802016 A 19980114; DE 03020831 T 19980114; DE 04002190 T 19980114; DE 29825015 U 19980114; DE 29825119 U 19980114; DE 29825120 U 19980114; DE 69831653 T 19980114; DE 69836570 T 19980114; DE 98901823 T 19980114; EP 08103274 A 19980114; EP 09006816 A 19980114; EP 98901823 A 19980114; ES 03020831 T 19980114; ES 04002190 T 19980114; ES 98901823 T 19980114; HK 00102611 A 20000428; JP 53203798 A 19980114; PL 33475498 A 19980114