

Title (en)

METHOD AND APPARATUS FOR POSITIONING AN ARTICLE HANDLING DEVICE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR POSITIONIERUNG EINES ARTIKELHANDHABUNGSGERÄTES

Title (fr)

PROCEDE ET APPAREIL DE POSITIONNEMENT D'UN DISPOSITIF DE MANIPULATION D'ARTICLES

Publication

EP 1287503 A2 20030305 (EN)

Application

EP 01950253 A 20010523

Priority

- US 0116894 W 20010523
- US 20636300 P 20000523

Abstract (en)

[origin: WO0191071A2] An article handling apparatus embodied, for example, as a vending machine, includes a controllably positioned hose dispenser for retrieving articles from an article storage area. A hose is continuous from a first end located within a hose storage area, where the hose receives article securing energy (e.g., suction), to a second end adapted to secure to and extract a selected article from the storage area. A hose positioning mechanism coupled to the hose controllably positions the second end of the hose so as to be aligned with a given article stored in the storage area, for controllably contacting and extracting the selected article from the storage area, and controllably positioning the second end of the hose so as to transport the article to a dispensing area. The hose positioning mechanism imparts both a storage requirement and a retraction requirement on the hose as a result of the controllable positioning. In accordance with the principles of the present invention a single hose storage area is provided in the vending machine for meeting all of the hose storage and retraction requirements.

IPC 1-7

G07F 11/62

IPC 8 full level

G07F 9/00 (2006.01); **G07F 5/18** (2006.01); **G07F 7/06** (2006.01); **G07F 9/02** (2006.01); **G07F 11/00** (2006.01); **G07F 11/04** (2006.01); **G07F 11/10** (2006.01); **G07F 11/16** (2006.01); **G07F 11/62** (2006.01)

CPC (source: EP KR US)

G07F 5/18 (2013.01 - EP KR); **G07F 7/069** (2013.01 - EP KR); **G07F 9/001** (2020.05 - EP US); **G07F 9/002** (2020.05 - EP KR US); **G07F 9/02** (2013.01 - EP KR); **G07F 11/00** (2013.01 - KR); **G07F 11/04** (2013.01 - EP KR); **G07F 11/10** (2013.01 - EP KR); **G07F 11/16** (2013.01 - EP KR US); **G07F 11/165** (2013.01 - EP KR US); **G07F 11/1657** (2020.05 - EP KR); **G07F 11/62** (2013.01 - EP KR)

Citation (search report)

See references of WO 0195276A2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 0191071 A2 20011129; WO 0191071 A3 20020606; AT E398317 T1 20080715; AT E409931 T1 20081015; AT E412955 T1 20081115; AU 2001264923 B2 20061116; AU 2001271272 B2 20061221; AU 2001275836 B2 20070830; AU 2001276824 B2 20061221; AU 6492301 A 20020313; AU 6808501 A 20020108; AU 7127201 A 20011217; AU 7583601 A 20020114; AU 7682401 A 20011203; CA 2410044 A1 20020110; CA 2410047 A1 20020103; CA 2410049 A1 20020507; CA 2410053 A1 20011129; CA 2410060 A1 20011213; CN 101059888 A 20071024; CN 101079162 A 20071128; CN 1243329 C 20060222; CN 1261913 C 20060628; CN 1282136 C 20061025; CN 1320511 C 20070606; CN 1430771 A 20030716; CN 1441942 A 20030910; CN 1446347 A 20031001; CN 1533556 A 20040929; CN 1841433 A 20061004; CN 1941006 A 20070404; DE 60134424 D1 20080724; DE 60135984 D1 20081113; DE 60136352 D1 20081211; DK 1287502 T3 20090202; DK 1287503 T3 20090302; DK 1360658 T3 20081013; EP 1287502 A2 20030305; EP 1287502 B1 20081001; EP 1287503 A2 20030305; EP 1287503 B1 20081029; EP 1287504 A1 20030305; EP 1313654 A2 20030528; EP 1360658 A2 20031112; EP 1360658 B1 20080611; EP 1986165 A1 20081029; ES 2307621 T3 20081201; ES 2313970 T3 20090316; ES 2316455 T3 20090416; JP 2004524595 A 20040812; KR 100809984 B1 20080307; KR 100809985 B1 20080306; KR 100809986 B1 20080307; KR 100830081 B1 20080520; KR 100874679 B1 20081218; KR 20030007690 A 20030123; KR 20030019396 A 20030306; KR 20030045675 A 20030611; KR 20040014131 A 20040214; KR 20080011712 A 20080205; MX PA02011578 A 20040910; MX PA02011579 A 20040910; MX PA02011582 A 20040910; WO 0195276 A2 20011213; WO 0195276 A3 20020425; WO 0201525 A2 20020103; WO 0201525 A3 20030320; WO 0203340 A1 20020110; WO 0203340 A8 20020620; WO 0203340 A9 20030213; WO 0219285 A2 20020307; WO 0219285 A3 20030912

DOCDB simple family (application)

US 0116846 W 20010523; AT 01939400 T 20010523; AT 01950253 T 20010523; AT 01954588 T 20010523; AU 2001264923 A 20010523; AU 2001271272 A 20010523; AU 2001275836 A 20010523; AU 2001276824 A 20010523; AU 6492301 A 20010523; AU 6808501 A 20010523; AU 7127201 A 20010523; AU 7583601 A 20010523; AU 7682401 A 20010523; CA 2410044 A 20010523; CA 2410047 A 20010523; CA 2410049 A 20010523; CA 2410053 A 20010523; CA 2410060 A 20010523; CN 01810079 A 20010523; CN 01810086 A 20010523; CN 01810087 A 20010523; CN 01810088 A 20010523; CN 200610078149 A 20010523; CN 200610109994 A 20010523; CN 200710090437 A 20010523; CN 200710105836 A 20010523; DE 60134424 T 20010523; DE 60135984 T 20010523; DE 60136352 T 20010523; DK 01939400 T 20010523; DK 01950253 T 20010523; DK 01954588 T 20010523; EP 01939400 A 20010523; EP 01945986 A 20010523; EP 01950253 A 20010523; EP 01953380 A 20010523; EP 01954588 A 20010523; EP 08010434 A 20010523; ES 01939400 T 20010523; ES 01950253 T 20010523; ES 01954588 T 20010523; JP 2002524113 A 20010523; KR 20027015907 A 20021123; KR 20027015908 A 20010523; KR 20027015909 A 20010523; KR 20027015910 A 20010523; KR 20077030568 A 20071227; MX PA02011578 A 20010523; MX PA02011579 A 20010523; MX PA02011581 A 20010523; MX PA02011582 A 20010523; US 0116837 W 20010523; US 0116847 W 20010523; US 0116853 W 20010523; US 0116894 W 20010523