

Title (en)
Reverse vending machine

Title (de)
Pfandrückgabegerät

Title (fr)
Appareil de déconsignation

Publication
EP 1235191 A1 20020828 (FR)

Application
EP 02290394 A 20020219

Priority
FR 0102220 A 20010219

Abstract (en)
The equipment includes a vertical guide tube (1) with an inlet (G) for the insertion of cups, and a waste bin in which they are received. The cup passes detection bars (IR1-3) to monitor its passage through the chute, which is used for collection of cups after vending of drinks. The collection equipment comprises a guide tube (1) which is mounted vertically, or nearly vertical with an inlet (G) for the insertion of cups, and a waste bin in which they are received. The tube is of a diameter to ensure that the cup is guided down in the upright position, falling into the waste bin at the bottom. The cup includes an invisible marking, formed with an ink which is not seen under normal white light, but may be detected under IR light. The cup passes a first detection bar (IR1) near to the inlet (G), and then passes a light transmitting source (LL) and a light detector (LD) so that its passage can be read. the cup finally reaches two further detectors (IR2 and IR3) near to the bottom of the chute. A pivoting finger (D) controls the access to the tube just beneath the inlet (G).

Abstract (fr)
L'appareil de déconsignation pour contenant rigide ou non de produit liquide ou solide par identification de paramètres déterminés comporte : une goulotte d'introduction du contenant, un réceptacle des contenants, un sas formant un tube de guidage communiquant en amont avec la goulotte d'introduction et en aval avec le réceptacle, et comportant un premier site IR1 de détection du passage du contenant, un dispositif de restitution de contre-valeur, un organe de commande déclenchant le dispositif de restitution de contre-valeur lorsque le contenant est conforme. Il est caractérisé par le fait que le sas comprend un moyen de détection à la volée d'un marquage « invisible » présent sur le contenant. <IMAGE>

IPC 1-7
G07F 7/06

IPC 8 full level
G07F 1/04 (2006.01); **G07F 7/06** (2006.01)

CPC (source: EP)
G07F 1/043 (2013.01); **G07F 1/044** (2013.01); **G07F 7/0609** (2013.01)

Citation (search report)
• [DXY] FR 2785702 A3 20000512 - DISTRIBUTOOR [FR]
• [DY] EP 0895202 A1 19990203 - DISTRIBUTOOR S A [FR]
• [A] GB 2152208 A 19850731 - SIGMA ENTERPRISES INC
• [A] US 5355987 A 19941018 - DEWOOLFSON BRUCE H [US], et al
• [A] EP 0895201 A1 19990203 - SANDEN CORP [JP]
• [A] US 4316533 A 19820223 - HUGHES ROBERT D, et al

Cited by
EP1398738A1; CN110574081A; CN107978067A; WO2004025579A1; DE102017108641A1; US11402329B2; EP3616171B1

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