COOPERATIVE PATENT CLASSIFICATION

PERFORMING OPERATIONS; TRANSPORTING

TRANSPORTING

OPENING, CLOSING (OR CLEANING) BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING

DISPENSING, DELIVERING OR TRANSFERRING LIQUIDS, NOT OTHERWISE PROVIDED FOR (cleaning pipes or tubes or systems of pipes or tubes B08B 9/02; emptying or filling of bottles, jars, cans, casks, barrels, or similar containers, not otherwise provided for B67C; water supply E03; pipe systems F17D; domestic hot-water supply systems F24D; measuring volume, volume flow, mass flow or liquid level, metering by volume G01F; coin-freed or like apparatus G07F)

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Apparatus or devices for dispensing beverages on draught (B67D 3/00 takes precedence; apparatus for making beverages A47J 31/00)

[by squeezing collapsible or flexible storage containers (B67D 1/0462 takes precedence)]

[specially adapted to be used in microgravity conditions, e.g. in outer space]

[the beverage being a single liquid (B67D 1/02, B67D 1/04 take precedence; drinking fountains E03B 9/20)]

[the beverage being stored in a container, e.g. bottle, cartridge, bag-in-box, bowl]

[the apparatus comprising means for automatically controlling the amount to be dispensed]

[based on the timed opening of a valve]

[based on volumetric dosing]

[based on weighing]

[the apparatus being stored in an intermediate container connected to a supply]

[the beverage being stored in a container, e.g. bottle, cartridge, bag-in-box, bowl]

[the apparatus comprising means for automatically controlling the amount to be dispensed]

[based on the timed opening of a valve]

[based on volumetric dosing]

[based on weighing]

[based on volumetric dosing]

[based on weighing]

[based on weighing]

[based on weighing]

[based on weighing]

[based on weighing]

[the controls being based on the same metering technics]

[based on the timed opening of valves]

[based on volumetric dosing]

[based on weighing]

[based on weighing]

[based on weighing]

[based on weighing]

[the diluent being supplied from water mains]

[Fully automated cocktail bars, i.e. apparatuses combining the use of packaged beverages, pre-mix and post-mix dispensers]

[Details of specific parts of the dispensers]

[Mixing devices for liquids]

[for mixing inside the dispensing nozzle]

[Venturi arrangements; Aspirators; Eductors]
Apparatus utilising compressed air or other gas acting directly or indirectly on beverages in storage containers

The whole dispensing unit being fixed to the container

Comprising a CO₂ cartridge for dispensing and carbonating the beverage

Comprising an air pump system

Power-operated

Comprising a gas pressure space within the container for the liquid

Comprising a gas generator (apparatus for generating gases in general B01J 7/00)

USing elastic bags and pistons actuated by air or other gas

Siphons, i.e. beverage containers under gas pressure without supply of further pressurised gas during dispensing

Squeezing collapsible or flexible beverage containers, e.g. bag-in-box containers

Comprising means for the recovery of the gas acting on beverages

Type of gas or gas mixture used, other than pure CO₂

Single inert gas, e.g. N₂

Mixture of gases, e.g. N₂ + CO₂

Air

Mountings or arrangements of dispensing apparatus in or on shop or bar counters (shop or bar counters per se A47F 9/00)

Cleaning beverage-dispensing apparatus

Sanitising or sterilising the apparatus

Details

of beverage containers, e.g. casks, kegs

Dip tubes

Shape or materials

Openings for filling

Openings for emptying, e.g. tapped openings

Closing means, e.g. bungholes, barrel bungs

Opening means, e.g. means for assisting the opening

provided with coded information

Bottles, cartridgest or similar containers

(for upside down use)

with integral venting tube

with a venting orifice

arranged in series

arranged in parallel

having different compartments for different components

Pressurised rigid containers, e.g. kegs, figals

with dip tubes

details of dip tube

Bags in box

in pressurised housing

Keg connection means

combined with valves

with two valves disposed concentrically
1/0834 . . . . [and having means for admitting a cleaning fluid]
1/0835 . . . . [with one valve]
1/0837 . . . . [and having means for admitting a cleaning fluid]
1/0838 . . . . [comprising means for preventing blow-out on disassembly of the spear valve]
1/0839 . . . . [Automatically operating handles for locking or unlocking a connector to or from a keg]
1/0841 . . . . [Details]
1/0842 . . . . [Multiple connectors, e.g. for simultaneously connecting several containers]
1/0844 . . . . [for containers in crates]
1/0845 . . . . [Security means]
1/0847 . . . . [Tamper-evident devices]
1/0848 . . . . [Locking means]
1/0849 . . . . [provided with means to open the keg valve when gas pressure is applied to it]
1/0851 . . . . [composed of a piston and ram assembly, e.g. tappet]
1/0852 . . . . [composed of a membrane and ram assembly]
1/0854 . . . . [provided with means to open the keg valve when water pressure is applied to it]
1/0855 . . . . [concerning the used flowmeter (flowmeter per se G01F 1/00, G01F 3/00)]
1/0857 . . . . [Cooling arrangements (cooling systems per se F25B)]
1/0858 . . . . [using compression systems]
1/0859 . . . . [the evaporator being in direct heat contact with the beverage, e.g. placed inside a beverage container]
1/0861 . . . . [the evaporator acting through an intermediate heat transfer means]
1/0862 . . . . [in the form of a cold plate or a cooling block]
1/0864 . . . . [in the form of a cooling bath]
1/0865 . . . . [by circulating a cooling fluid along beverage supply lines, e.g. pythons]
1/0867 . . . . [the cooling fluid being a liquid]
1/0868 . . . . [the cooling fluid being a gas]
1/0869 . . . . [using solid state elements, e.g. Peltier cells]
1/0871 . . . . [Level gauges for beverage storage containers (level indicators in general G01F)]
1/0872 . . . . [Aesthetics, advertising]
1/0874 . . . . [Means for illuminating the handle of taps or faucets]
1/0875 . . . . [Means for illuminating the beverage to be dispensed]
1/0877 . . . . [Advertising means (advertising in general G09F)]
1/0878 . . . . [Safety, warning or controlling devices (B67D 1/12 takes precedence)]
1/0879 . . . . [Doors for protecting the vessel to be filled]
1/0881 . . . . [Means for counting the doses of dispersed liquid]
1/0882 . . . . [Devices for controlling the dispensing conditions]
1/0884 . . . . [Means for controlling the parameters of the state of the liquid to be dispensed, e.g. temperature, pressure]
1/0885 . . . . [Means for dispensing under specific atmospheric conditions, e.g. under inert gas]
1/0887 . . . . [Sanitary protection means for dispensing nozzles or taps, e.g. outlet closures]
1/0888 . . . . [Means comprising electronic circuitry (e.g. control panels, switching or controlling means)]
1/0889 . . . . [Supports]
1/0891 . . . . [for the beverage container]
1/0892 . . . . [the beverage container being stored in a rack or shelf]
1/0894 . . . . [for the vessel to be filled]
1/0895 . . . . [Heating arrangements]
1/0897 . . . . [located in nozzles]
1/0898 . . . . [Beer warmers (B67D 1/0897 takes precedence)]
1/10 . . . . . Pump mechanism (in general F04)
1/101 . . . . . [of the piston-cylinder type]
1/102 . . . . . [for one liquid component only]
1/103 . . . . . [the piston being driven by a liquid or a gas]
1/104 . . . . . [by the liquid to be dispensed]
1/105 . . . . . [for two or more components]
1/106 . . . . . [the piston being driven by a liquid or a gas]
1/107 . . . . . [by one of the components to be dispensed]
1/108 . . . . . [of the peristaltic type]
1/12 . . . . . Flow or pressure control devices or systems [. e.g. valves, gas pressure control, level control in storage containers]
1/1202 . . . . [Flow control, e.g. for controlling total amount or mixture ratio of liquids to be dispensed]
1/1204 . . . . [for ratio control purposes]
1/1206 . . . . . [Flow detectors]
1/1209 . . . . . [combined with a timer]
1/1211 . . . . . [Flow rate sensor]
1/1213 . . . . . [combined with a timer]
1/1215 . . . . . [combined with a counter]
1/1218 . . . . . [modulating the opening of a valve]
1/122 . . . . . [modulating a pumping rate]
1/1222 . . . . [Pressure gauges]
1/1225 . . . . . [Weighing]
1/1227 . . . . . [the cup to be filled]
1/1229 . . . . . [the storage container]
1/1231 . . . . . [Metering pumps]
1/1234 . . . . . [to determine the total amount]
1/1236 . . . . . [comprising means for detecting the size of vessels to be filled]
1/1238 . . . . . [comprising means for detecting the liquid level in vessels to be filled, e.g. using ultrasonic waves, optical reflexion, probes]
1/124 . . . . . [the flow being started or stopped by means actuated by the vessel to be filled, e.g. by switches, weighing]
1/1243 . . . . . [comprising flow or pressure sensors, e.g. for controlling pumps]
1/1245 . . . . . [Change-over devices, i.e. connecting a flow line from an empty container to a full one]
1/1247 . . . . . [Means for detecting the presence or absence of liquid]
1/125 . . . . . [Safety means, e.g. over-pressure valves]
1/1252 . . . . . [Gas pressure control means, e.g. for maintaining proper carbonation (for beer engines B67D 1/025)]
Apparatus or devices for controlling flow of liquids under gravity from storage containers for dispensing purposes (separating and dispensing metered quantities of liquids G01F)
B67D

7/00 Apparatus or devices for transferring liquids from bulk storage containers or reservoirs into vehicles or into portable containers, e.g. for retail sale purposes (general disposition of plant in stations for supplying fuel to vehicles B60S 5/02; for filling or emptying locomotive water tanks, e.g. water columns, B61K 11/00; for refuelling aircraft during flight B64D 39/00; liquid-handling ground installations specially adapted for fuelling stationary aircraft B64F 1/28)

7/002 . . . . . . (using articulated pipes)
7/005 . . . . . . (Spouts)
7/007 . . . . . . (using siphoning arrangements)
7/02 for transferring liquids other than fuel or lubricants
7/0205 . . . . . . (by manually operable pumping apparatus (hand-held apparatus with pumps for dispensing or spraying liquids or fluent materials B05B 11/00))
7/0211 . . . . . . (with pump locking means)
7/0216 . . . . . . (by squeezing collapsible or flexible storage containers (B67D 7/0255 takes precedence; for dispensing beverages on draught B67D 1/0001))
7/0222 . . . . . . (the dispensed quantity of liquid being replaced by air sucked through the dispensing opening)
7/0227 . . . . . . (by an ejection plunger (B67D 7/0238 takes precedence))
7/0233 . . . . . . (the plunger being gas driven)
7/0238 . . . . . . (utilising compressed air or other gas acting directly or indirectly on liquids in storage containers (for dispensing beverages on draught B67D 1/04))
7/0244 . . . . . . (by using elastic expandable bags)
7/025 . . . . . . (specially adapted for transferring liquids of high purity)
7/0255 . . . . . . (squeezing collapsible or flexible storage containers (for dispensing beverages on draught B67D 1/0462))
7/0261 . . . . . . (specially adapted for transferring liquids of high purity)
7/0266 . . . . . . (by gas acting directly on the liquid)
7/0272 . . . . . . (specially adapted for transferring liquids of high purity)
7/0277 . . . . . . (using negative pressure)
7/0283 . . . . . . (specially adapted for transferring liquids of high purity)
7/0288 . . . . . . (Container connection means (for dispensing beverages on draught B67D 1/0829))
7/0294 . . . . . . (Combined with valves)
7/04 . . . . . . (for transferring fuels, lubricants or mixed fuels and lubricants)
7/0401 . . . . . . (arrangements for automatically fuelling vehicles, i.e. without human intervention)

2007/0403 . . . . . . (Fuelling robots)
2007/0405 . . . . . . (Opening devices)
2007/0407 . . . . . . (for fuel tank flaps)
2007/0409 . . . . . . (using vacuum cups)
2007/0411 . . . . . . (using grippers)
2007/0413 . . . . . . (using air blast)
2007/0415 . . . . . . (for filler caps)
2007/0417 . . . . . . (Manipulator arms)
2007/0419 . . . . . . (Fuelling nozzles)
2007/0421 . . . . . . (with locking devices)
2007/0423 . . . . . . (Fuelling hoses)
2007/0425 . . . . . . (comprising a single hose for several fuels)
2007/0426 . . . . . . (comprising several hoses for several fuels)
2007/0428 . . . . . . (having devices to avoid a mix up of different fuels)
2007/043 . . . . . . (Moveable)
2007/0432 . . . . . . (according to a planar coordinate system)
2007/0434 . . . . . . (with the ability to compensate movements of the car during filling)
2007/0436 . . . . . . (according to a spatial coordinate system)
2007/0438 . . . . . . (with the ability to compensate movements of the car during filling)
2007/044 . . . . . . (Customer interfaces)
2007/0442 . . . . . . (interface for orders and payments)
2007/0444 . . . . . . (Sensors)
2007/0446 . . . . . . (measuring physical properties of the fluid to be dispensed)
2007/045 . . . . . . (Density)
2007/0449 . . . . . . (Viscosity)
2007/0451 . . . . . . (Temperature)
2007/0453 . . . . . . (recognising the fuel to be dispensed)
2007/0455 . . . . . . (recognising the position)
2007/0457 . . . . . . (of the car)
2007/0459 . . . . . . (by interrogating a transponder)
2007/0461 . . . . . . (by calculating from a reference position, e.g. the car's silhouette, reference marks)
2007/0463 . . . . . . (optically)
2007/0465 . . . . . . (by GPS)
2007/0467 . . . . . . (of the fuel tank flap and/or fuel tank opening)
2007/0469 . . . . . . (by interrogating a transponder)
2007/0471 . . . . . . (by calculating from a reference position, e.g. the car's silhouette, reference marks)
2007/0473 . . . . . . (optically)
2007/0474 . . . . . . (of the filling nozzle relative to the fuel tank opening, e.g. engagement between nozzle and tank opening)
2007/0476 . . . . . . (Vapour recovery systems)
2007/0478 . . . . . . (constructional features or components (vapour recovery nozzles B67D 7/54))
2007/048 . . . . . . (Vapour flow control means, e.g. valves, pumps)
2007/0482 . . . . . . (using pumps driven at different flow rates)
2007/0484 . . . . . . (Liquid jet pumps, e.g. venturis)
2007/0486 . . . . . . (Pumps driven in response to electric signals indicative of pressure, temperature or liquid flow)
2007/0488 . . . . . . (Means for preventing the formation of condensation on, or for removing condensation from, vapour recovery lines)
2007/049 . . . . . . (Vapour recovery methods, e.g. condensing the vapour)
2007/0492 . . . . . . (Vapour storing means, e.g. dedicated ullage spaces, separate tanks)
Details or accessories

devices for metering liquids G07F 15/00

for dispensing fluids G07F 13/00

calculating, counting G06

or pressure-control valves B67D 7/36

price of liquid transferred (arrangement of flow- or pressure-control valves B67D 7/36; computing, calculating, counting G06; coin-free apparatus for dispensing fluids G07F 13/00; prepayment devices for metering liquids G07F 15/00)

[Testing or calibrating apparatus therefore (testing or calibrating apparatus for measuring volume flow in general G01F 25/00)]

operated by keys, push-buttons or cash registers

[operated by keys]

[operated by push-buttons]

operated by movement of delivery hose or nozzle or by devices associated therewith

responsive to input of recorded programmed information, e.g. on punched cards

[by wireless communication means, e.g. RF, transponders or the like]

Arrangements of liquid meters

of fixed measuring chamber type

[comprising at least two chambers]

of piston type

of rotary type

Arrangements of indicators or registers

(indicating or recording in fluid meters G01F 15/06)

[using electrical or electro-mechanical means (B67D 7/224 takes precedence)]

[involving digital counting]

[involving price indicators]

[combined with variants]

(using electrical or electro-mechanical means)

[using digital counting]

with means for producing or issuing a receipt or record of sale

[using electrical or electro-mechanical means]

[involving digital counting]

with resetting or zeroing means

(using electrical or electro-mechanical means)

[involving digital counting]

with automatic means for reducing or intermittently interrupting flow before completion of delivery, e.g. to produce dribble feed

with means for predetermined quantity of liquid to be transferred (B67D 7/10, B67D 7/14 take precedence)

[using mechanical means (B67D 7/306 takes precedence)]

[involving digital counting]

[in function of money to be spent therefor]

[using mechanical means]

[involving digital counting]

Arrangements of safety or warning devices; Means for preventing unauthorised delivery of liquid

[relating to spillage or leakage, e.g. spill containment, leak detection (leak detectors for underground fuel dispensing systems G01M 3/2892)]

[related to emergency shut-off means]

[related to venting of a container during loading or unloading]

[related to electrostatic charges]

[related to the transfer method]

[using a pressurised liquid acting directly or indirectly on the bulk of the liquid to be transferred]

[using a pressurised gas acting directly or indirectly on the bulk of the liquid to be transferred (use of compressed air or gas for transferring liquids B67D 7/0238, B67D 7/72)]

[using pumps]

[Details]

Means for preventing unauthorised delivery of liquid

[by discriminating the kind of liquid by analysis or by physical properties, e.g. vapour-pressure]

[by checking a correct coupling or coded information]

[by reading a code]

[by interrogating an information transmitter, e.g. a transponder (B67D 7/145 takes precedence)]

Arrangements of flow- or pressure-control valves (associated with nozzles B67D 7/42)

[combined with over-fill preventing means (indicating or measuring liquid level G01F 23/00; level control G05D 9/00)]

[using floats]

[the float acting pneumatically on a shut-off valve]

Arrangements of hoses, e.g. operative connection with pump motor (hoses in general F16L 11/00)

SUSpending, reeling or storing devices (supports for storing lengths of hoses, in general B65H 75/34)

[the hose carrier comprising a sliding unit]

[the hose carrier comprising a pivoting unit]

Filling nozzles
liquids to be transferred (coin-freed apparatus
Devices for mixing two or more different
forcing liquid to delivery point
Devices for applying air or other gas pressure for
Arrangements of pumps
or recording presence, absence or direction of
Arrangements of flow-indicators, e.g. transparent
mechanically operated
Piping
2210/00
B67D

Arrangements of devices for purifying liquids
to be transferred, e.g. of filters, of air or water
separators

[of air separators]

[of water separators]

Arrangements of storage tanks, reservoirs or pipe-
lines

Arrangements of heating or cooling devices for
liquids to be transferred

Heating only

Casings, cabinets or frameworks; Trolleys or like
movable supports

{Trolleys or like movable supports}

Illuminating arrangements

Apparatus or devices for transferring liquids when
loading or unloading ships (ship-based equipment
B63B 7/00)

using articulated pipes

Subject matter not provided for in other groups of
this subclass

Purifying means

Filters

for gas

for liquid

Sterilising means

UV radiation

Membranes

Distillators

Oxygenators

Heaters

Constructional details

Housing

Modules

for use with or in refrigerators

Panels

Doors

Insulation

Piping

Pipes

with flow tranquilisers

with turbulent flow generators, e.g. vortices

adapted for being easily cleaned

Manifolds

Pipe joints

related to the use of drinking cups or glasses

Means for filling simultaneously a plurality of
cups

For use with partially pre-filled cups

Cup cleaning devices

Cup conveyors

Cup dispensers

related to bartenders

Access code recognition means

Selector circuits

Remote control means, e.g. by electromagnetic
signals
Bar management means
- Ergonomics
- Handling of storage containers
- Temperature control
- Heating only
- Cooling only

by spraying fluids on the inner or outer surfaces of the receptacles to be filled

- The sprayed fluid being a liquid
- The sprayed fluid being a gas
- The sprayed fluid being a cryogen

- Heating and cooling

- related to concentrate handling

- Preparing a mix of concentrates

- Treating or conditioning the concentrate, e.g. heating, freezing

- relating to outdoor use; movable; portable

- wearable by a person, e.g. as a backpack or helmet

- wheeled

- vehicle carried

- Trolleys

- Other parts

- Magnets, e.g. used in valves or for stirring

- Component storage means

- Fixed containers to be filled in situ

- Automatically

- Level detected by a float

- Level detected electrically by contact with sensors

- Adapted for dispensing high viscosity products

- Agitators

- Heated tubes