## CPC COOPERATIVE PATENT CLASSIFICATION

### B PERFORMING OPERATIONS; TRANSPORTING

*(NOTES omitted)*

#### TRANSPORTING

<table>
<thead>
<tr>
<th>B67</th>
<th>OPENING, CLOSING {OR CLEANING} BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING</th>
</tr>
</thead>
<tbody>
<tr>
<td>B67D</td>
<td>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)</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>1/00</th>
<th>Apparatus or devices for dispensing beverages on draught <em>(B67D 3/00 takes precedence; apparatus for making beverages A47J 31/00)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1/001</td>
<td>[by squeezing collapsible or flexible storage containers <em>(B67D 1/0462 takes precedence)</em>]</td>
</tr>
<tr>
<td>1/002</td>
<td>[specially adapted to be used in microgravity conditions, e.g. in outer space]</td>
</tr>
<tr>
<td>1/003</td>
<td>[the beverage being a single liquid <em>(B67D 1/02, B67D 1/04 take precedence; drinking fountains E03B 9/20)</em>]</td>
</tr>
<tr>
<td>1/004</td>
<td>[the beverage being stored in a container, e.g. bottle, cartridge, bag-in-box, bowl]</td>
</tr>
<tr>
<td>1/005</td>
<td>[the apparatus comprising means for automatically controlling the amount to be dispensed]</td>
</tr>
<tr>
<td>1/006</td>
<td>[based on the timed opening of a valve]</td>
</tr>
<tr>
<td>1/007</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/008</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/009</td>
<td>[the beverage being stored in an intermediate container connected to a supply]</td>
</tr>
<tr>
<td>1/01</td>
<td>[the apparatus comprising means for automatically controlling the amount to be dispensed]</td>
</tr>
<tr>
<td>1/011</td>
<td>[based on the timed opening of a valve]</td>
</tr>
<tr>
<td>1/012</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/013</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/014</td>
<td>[the beverage being supplied from water mains]</td>
</tr>
<tr>
<td>1/015</td>
<td>[the beverage being prepared by mixing at least two liquid components]</td>
</tr>
<tr>
<td>1/016</td>
<td>[the beverage being stored in an intermediate container before dispensing, i.e. pre-mix dispensers]</td>
</tr>
<tr>
<td>1/017</td>
<td>[the apparatus comprising means for automatically controlling the amount to be dispensed]</td>
</tr>
<tr>
<td>1/018</td>
<td>[based on the timed opening of a valve]</td>
</tr>
<tr>
<td>1/019</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/02</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/0021</td>
<td>[the components being mixed at the time of dispensing, i.e. post-mix dispensers]</td>
</tr>
<tr>
<td>1/0022</td>
<td>[the apparatus comprising means for automatically controlling the amount to be dispensed]</td>
</tr>
<tr>
<td>1/0023</td>
<td>[control of the amount of the mixture, i.e. after mixing]</td>
</tr>
<tr>
<td>1/0024</td>
<td>[based on the timed opening of a valve]</td>
</tr>
<tr>
<td>1/0025</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/0026</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/0027</td>
<td>[control of the amount of one component, the amount of the other components(s) being dependent on that control]</td>
</tr>
<tr>
<td>1/0028</td>
<td>[based on the timed opening of a valve]</td>
</tr>
<tr>
<td>1/0029</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/003</td>
<td>[by means of a dosing chamber]</td>
</tr>
<tr>
<td>1/0031</td>
<td>[in the form of a metering pump]</td>
</tr>
<tr>
<td>1/0032</td>
<td>[using flow-rate sensors]</td>
</tr>
<tr>
<td>1/0033</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/0034</td>
<td>[for controlling the amount of each component]</td>
</tr>
<tr>
<td>1/0035</td>
<td>[the controls being based on the same metering technics]</td>
</tr>
<tr>
<td>1/0036</td>
<td>[based on the timed opening of valves]</td>
</tr>
<tr>
<td>1/0037</td>
<td>[based on volumetric dosing]</td>
</tr>
<tr>
<td>1/0038</td>
<td>[based on weighing]</td>
</tr>
<tr>
<td>1/0039</td>
<td>[the controls involving at least two different metering technics]</td>
</tr>
<tr>
<td>1/004</td>
<td>[the diluent being supplied from water mains]</td>
</tr>
<tr>
<td>1/0041</td>
<td>[Fully automated cocktail bars, i.e. apparatuses combining the use of packaged beverages, pre-mix and post-mix dispensers]</td>
</tr>
<tr>
<td>1/0042</td>
<td>[Details of specific parts of the dispensers]</td>
</tr>
<tr>
<td>1/0043</td>
<td>[Mixing devices for liquids]</td>
</tr>
<tr>
<td>1/0044</td>
<td>[for mixing inside the dispensing nozzle]</td>
</tr>
<tr>
<td>1/0045</td>
<td>[Venturi arrangements; Aspirators; Eductors]</td>
</tr>
</tbody>
</table>

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1/0046 . . . . [Mixing chambers]
1/0047 . . . . {with movable parts, e.g. for stirring}
1/0048 . . . . {with baffles}
1/0049 . . . . {with means for diverging streams}
1/005 . . . . {with means for converging streams}
1/0051 . . . . {for mixing outside the nozzle}
1/0052 . . . . {by means for directing respective streams together}
1/0053 . . . . {by stirring in the cup}
1/0054 . . . . {Recirculation means}
1/0055 . . . . {with fountain effect}
1/0056 . . . . {with illumination}
1/0057 . . . . {Carbonators}
1/0058 . . . . {In-line carbonators}
1/0059 . . . . {in combination with a mixer tap (constructional features of the tap E03C 1/04)}
1/006 . . . . {Conventional carbonators}
1/0061 . . . . {with cooling means}
1/0062 . . . . {inside the carbonator}
1/0063 . . . . {Cooling coil}
1/0064 . . . . {Cold plate}
1/0065 . . . . {Ice bank}
1/0066 . . . . {outside the carbonator}
1/0067 . . . . {Cooling coil}
1/0068 . . . . {Cooling bath}
1/0069 . . . . {Details}
1/007 . . . . {Structure of the carbonating chamber}
1/0071 . . . . {Carbonating by injecting CO₂ in the liquid}
1/0072 . . . . {through a diffuser, a bubbler}
1/0073 . . . . {Carbonating by spraying the liquid}
1/0074 . . . . {Automatic carbonation control}
1/0075 . . . . {by sensing gas pressure}
1/0076 . . . . {by sensing temperature}
1/0077 . . . . {Carbonator being specially adapted for adding a second gas to the CO₂}
1/0078 . . . . {Ingredient cartridges}
1/0079 . . . . {having their own dispensing means}
1/008 . . . . {Gas cartridges or bottles}
1/0081 . . . . {Dispensing valves}
1/0082 . . . . {entirely mechanical}
1/0083 . . . . {with means for separately dispensing a single or a mixture of drinks}
1/0084 . . . . {Hand-held gun type valves}
1/0085 . . . . {electro-mechanical}
1/0086 . . . . {Hand-held gun type valves}
2001/0087 . . . . {being mounted on the dispenser housing}
2001/0088 . . . . {operated by push buttons}
2001/0089 . . . . {operated by lever means}
2001/009 . . . . {operated by cup detection}
2001/0091 . . . . {Component storage means}
2001/0092 . . . . {Containers for gas, for, e.g. CO₂, N₂}
2001/0093 . . . . {Valves}
2001/0094 . . . . {Valve mountings in dispensers}
2001/0095 . . . . {Constructional details}
2001/0096 . . . . {Means for pressurizing liquid}
2001/0097 . . . . {using a pump}
2001/0098 . . . . {using a gas}
1/02 . . . . Beer engines or like manually-operable pumping apparatus
1/025 . . . . {with means for carbonating the beverage, or for maintaining its carbonation}
1/04 . . . . Apparatus utilising compressed air or other gas acting directly or indirectly on beverages in storage containers
1/0406 . . . . {with means for carbonating the beverage, or for maintaining its carbonation (B67D 1/0418 takes precedence)}
1/0412 . . . . {the whole dispensing unit being fixed to the container}
1/0418 . . . . {comprising a CO₂ cartridge for dispensing and carbonating the beverage}
1/0425 . . . . {comprising an air pump system}
1/0431 . . . . {power-operated}
1/0437 . . . . {comprising a gas pressure space within the container for the liquid}
1/0443 . . . . {comprising a gas generator (apparatus for generating gases in general B01J 7/001)}
1/045 . . . . {using elastic bags and pistons actuated by air or other gas}
1/0456 . . . . {Siphons, i.e. beverage containers under gas pressure without supply of further pressurised gas during dispensing}
1/0462 . . . . {Squeezing collapsible or flexible beverage containers, e.g. bag-in-box containers}
1/0468 . . . . {comprising means for the recovery of the gas acting on beverages}
2001/0475 . . . . {Type of gas or gas mixture used, other than pure CO₂}
2001/0481 . . . . {Single inert gas, e.g. N₂}
2001/0487 . . . . {Mixture of gases, e.g. N₂ + CO₂}
2001/0493 . . . . {Air}
1/06 . . . . Mountings or arrangements of dispensing apparatus in or on shop or bar counters (shop or bar counters per se A47F 9/00)
1/07 . . . . Cleaning beverage-dispensing apparatus (B67D 1/0834, B67D 1/0837 take precedence)
2001/075 . . . . {Sanitising or sterilising the apparatus}
1/08 . . . . Details
1/0801 . . . . {of beverage containers, e.g. casks, kegs}
1/0802 . . . . {Dip tubes}
1/0804 . . . . {Shape or materials}
1/0805 . . . . {Openings for filling}
1/0807 . . . . {Openings for emptying, e.g. taped openings}
1/0808 . . . . {Closing means, e.g. bungholes, barrel bungs}
1/0809 . . . . {Opening means, e.g. means for assisting the opening}
2001/0811 . . . . {provided with coded information}
2001/0812 . . . . {Bottles, cartridges or similar containers}
2001/0814 . . . . {for upside down use}
2001/0815 . . . . {with integral venting tube}
2001/0817 . . . . {with a venting orifice}
2001/0818 . . . . {arranged in series}
2001/082 . . . . {arranged in parallel}
2001/0821 . . . . {having different compartments for different components}
2001/0822 . . . . {Pressurised rigid containers, e.g. kegs, figals}
2001/0824 . . . . {with dip tubes}
2001/0825 . . . . {details of dip tube}
2001/0827 . . . . {Bags in box}
2001/0828 . . . . {in pressurised housing}
1/0829 . . . . {Keg connection means}
1/0831 . . . . {combined with valves}
1/0832 . . . . {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 dispensed 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 1/087 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 reflection, 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)]
B67D

Devices for collecting spilled beverages and re-injecting them in the dispensing line

Reducing valves or control taps

Froth control (B67D 1/1411 takes precedence)

Flow control valves

[Means for changing the ratio by acting on structural parts]

[Means for changing the ratio by acting on commands]

[Ratio defined by setting flow controllers]

[Ratio defined by setting of timers]

[Means for controlling the build-up of foam in the container to be filled]

[Means for controlling foam inducing means]

[Means for controlling foam avoiding means]

[by rotating the container to be filled]

[by delivering the beverage using a helical movement]

[comprising means for making a mixture of gases]

[Anti-dripping devices (drip trays B67D 1/16)]

[Fluid level control devices]

[the level being detected mechanically]

[the level being detected electrically]

[Pressure switches]

[Capacitors]

[Froth control (B67D 1/1411 takes precedence)]

[preventing froth]

[promoting froth]

[Flow control valves]

[regulating the flow]

[responsive to pressure]

[Ratio control]

(by mechanical construction)

(Multi-chamber piston pumps (construction of pumps: B67D 1/10))

[Means for changing the ratio by acting on structural parts]

[Means for changing the ratio by acting on commands]

[Ratio defined by setting flow controllers]

[Ratio defined by setting of timers]

[Reducing valves or control taps]

[Control taps]

[Means for controlling the build-up of foam in the container to be filled]

[comprising foam inducing means]

[comprising foam avoiding means]

[by rotating the container to be filled]

[by delivering the beverage using a helical movement]

[comprising a valve shutter movable in a direction parallel to the valve seat, e.g. sliding or rotating]

[the valve shutter being rotated]

[comprising a valve shutter movable in a direction perpendicular to the valve seat]

[the valve shutter being opened in the same direction as the liquid flow]

[the valve shutter being integral with a compensator]

[the valve shutter being opened in a direction opposite to the liquid flow]

[the valve shutter being integral with a compensator]

[Devices for assisting tap handling, e.g. levers]

[electrical or electro-mechanically operated]

[pneumatically operated]

[Taps with means for adjusting the position of a compensator from outside]

Devices for collecting spilled beverages

and re-injecting them in the dispensing line

Apparatus or devices for controlling flow of liquids under gravity from storage containers for dispensing purposes (separating and dispensing metered quantities of liquids G01F)

(provided with automatic fluid control means)

[responsive to coded information provided on the neck or spout of the storage container, e.g. bar-code, magnets or transponder]

[provided with cooling arrangements (cooling perse F25)]

[provided with mixing devices]

[Mixing valves or taps]

[using ingredient cartridges]

[provided with heating arrangements]

[provided with dispensing valves actuated by the receptacle to be filled (B67D 3/02 takes precedence)]

[provided with holders for bottles or similar containers]

[the bottle or container being held upside down and provided with a closure, e.g. a cap, adapted to cooperate with a feed tube]

[the bottle or container being held upside down and not provided with a closure, e.g. a bottle screwed onto a base of a dispenser]

[the liquid being stored in an intermediate container prior to dispensing]

[with provisions for metering the liquid to be dispensed]

[by filling a predetermined volume before dispensing]

[using siphoning arrangements]

[dispensing by tilting]

[Mounting or arrangements of dispensing apparatus in shops or bar counters]

[Details]

[of liquid containers, e.g. filling, emptying, closing or opening means]

[Dip tubes]

[relating to shape or materials, e.g. bag-in-box packages [BIB], pouches]

[containers with adjustable volume]

[Safety or warning devices]

[Electronic circuitry]

[Supports]

[for the liquid container]

[the beverage container being stored in a rack or shelf]

[for the vessel to be filled]

[Level indicators]

[Aesthetics, advertising]

Liquid-dispensing valves having operating members arranged to be pressed upwards, e.g. by the rams of receptacles held below the delivery orifice

Liquid-dispensing taps or cocks adapted to seal and open tapping holes of casks, e.g. for beer { (closures with filling and discharging devices for containers B65D 47/00) }

[operated by pinching action on flexible tubes]

[operated by deforming a membrane-like closing element]

[with a closing element having a linear movement, in a direction perpendicular to the seat]

[and venting means operated automatically with the tap]

[with a closing element having a linear movement, in a direction parallel to the seat]
B67D

3/046 . . . . [and venting means operated automatically with the tap]
3/047 . . . . [with a closing element having a rotational movement]
3/048 . . . . [and venting means operated automatically with the tap]

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]
2007/0448 . . . . [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
price of liquid transferred (arrangement of flow-
Arrangements of devices for controlling,
coin-freed apparatus
Drive-off preventing means, e.g. in case of non-
level of a storage container
Means for transferring liquids from a chosen
Arrangements specially adapted for transferring
biofuels, e.g. ethanol-gasoline mixture)
(on the vehicle)
using communication means]
Arrangements of devices for controlling,
indicating, metering or registering quantity or
price of liquid transferred (arrangement of flow-
or pressure-control valves B67D 7/36; computing,
calculating, counting G06; coin-freed 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)]
[involve digital counting]
[involving price indicators]
[combined with variators]
[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]
[involve digital counting]
with resetting or zeroing means
[using electrical or electro-mechanical
means]
[involve digital counting]
with automatic means for reducing or
intermittently interrupting flow before
completion of delivery, e.g. to produce dribble feed
with means for predetermining quantity of
liquid to be transferred (B67D 7/10, B67D 7/14
take precedence)
[using mechanical means (B67D 7/306 takes
precedence)]
[using electrical or electro-mechanical
means (B67D 7/307 takes precedence)]
[involve digital counting]
[in function of money to be spent therefor]
[using mechanical means]
[using electrical or electro-mechanical
means]
[involve digital counting]
Arrangements of safety or warning devices;
Means for preventing unauthorised delivery of
liquid (relating to spillage or leakage, e.g. spill
containments, leak detection (leak detectors
for underground fuel dispensing systems
G01M 3/289/2))
[relating to emergency shut-off means]
[relating to venting of a container during
loading or unloading]
[relating to electrostatic charges]
[relating 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 78/34)
the hose carrier comprising a sliding unit
the hose carrier comprising a pivoting unit
Filling nozzles
Arrangements of devices for purifying liquids to be transferred, e.g. of filters, of air or water separators

[7/76] . . . [of air separators]
[7/76] . . . [of water separators]

Arrangements of storage tanks, reservoirs or pipelines

[7/80] . . . Arrangements of heating or cooling devices for liquids to be transferred

[7/82] . . . Heating only

[7/84] . . . Casings, cabinets or frameworks; Trolleys or like movable supports

[7/845] . . . [Trolleys or like movable supports]

Illuminating arrangements

[7/86] . . .

Apparatus or devices for transferring liquids when loading or unloading ships (ship-based equipment

[7/902] . . . using articulated pipes

Subject matter not provided for in other groups of this subclass

[9/900] 

Indexing scheme relating to aspects and details of apparatus or devices for dispensing beverages on draught or for controlling flow of liquids under gravity from storage containers for dispensing purposes

[2210/00] 

Purifying means

[2210/00002] 

Filters

[2210/00005] 

for gas

[2210/00007] 

for liquid

[2210/00013] 

Sterilising means

[2210/00015] 

UV radiation

[2210/00018] 

Membranes

[2210/0002] 

Distillators

[2210/00023] 

Oxygenators

[2210/00026] 

Heaters

[2210/00028] 

Constructional details

[2210/00031] 

Housing

[2210/00034] 

Modules

[2210/00036] 

for use with or in refrigerators

[2210/00039] 

Panels

[2210/00041] 

Doors

[2210/00044] 

Insulation

[2210/00047] 

Piping

[2210/00049] 

Pipes

[2210/00052] 

with flow tranquilisers

[2210/00055] 

with turbulent flow generators, e.g. vortices

[2210/00057] 

adapted for being easily cleaned

[2210/0006] 

Manifolds

[2210/00062] 

Pipe joints

[2210/00065] 

related to the use of drinking cups or glasses

[2210/00068] 

Means for filling simultaneously a plurality of cups

[2210/0007] 

For use with partially pre-filled cups

[2210/00073] 

Cup cleaning devices

[2210/00076] 

Cup conveyors

[2210/00078] 

Cup dispensers

[2210/00081] 

related to bartenders

[2210/00083] 

Access code recognition means

[2210/00086] 

Selector circuits

[2210/00089] 

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. by 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