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C. H. DRAPER ET AL

1,924,057

FAUCET CONSTRUCTION

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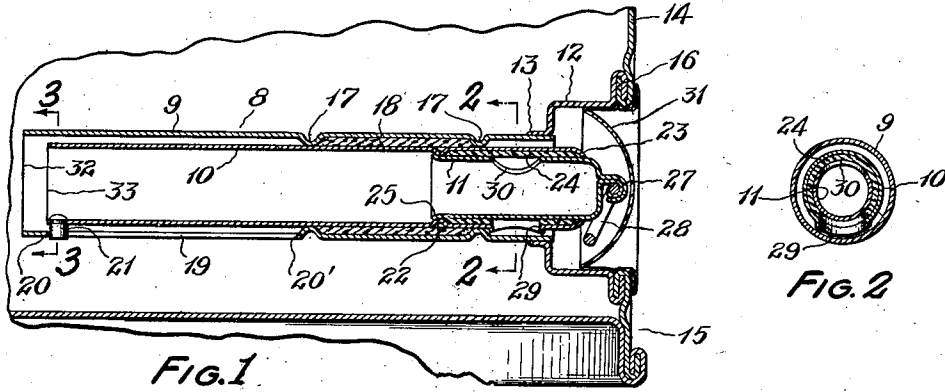


FIG. 1

FIG. 2

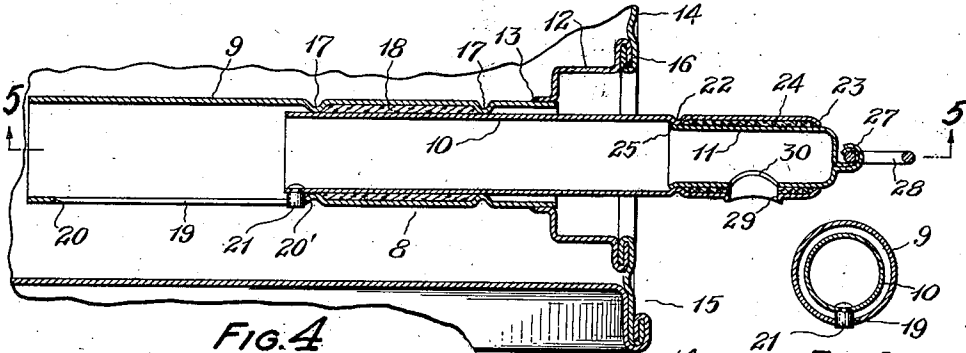


FIG. 4

FIG. 3

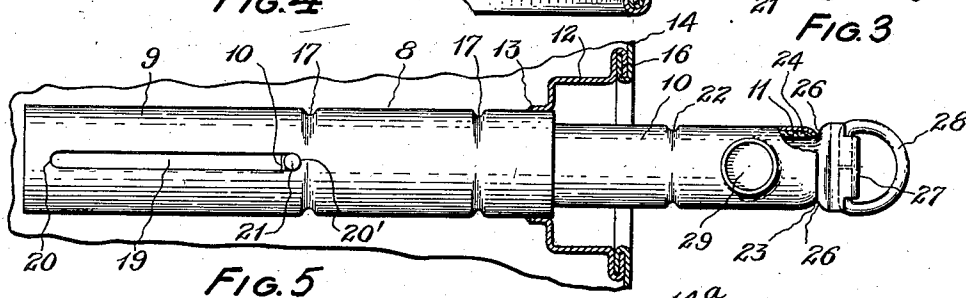


FIG. 5

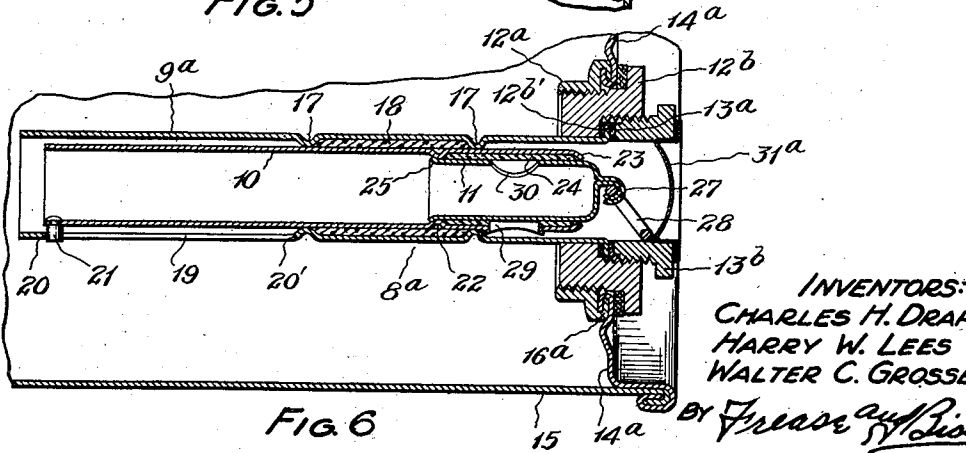


FIG. 6

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FAUCET CONSTRUCTION

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9 Claims. (Cl. 221-21)

The invention relates to containers such as metallic barrels, drums, vessels, packages and the like, utilized for shipping, storing and dispensing materials such as alcohol, oil, liquid foods, beverages, liquid chemicals, disinfectants, medicines and the like; and more particularly to a disappearing faucet construction for such containers.

Containers, excepting those provided with pumps, are frequently provided with faucets in order that the liquid contents of the containers may be readily dispensed or drawn off. When a faucet is utilized, it is preferably attached permanently to the container and is preferably of a disappearing type normally projecting wholly into the interior of the container and adapted for being enclosed by a closure member during shipment and storage; and the faucet is also preferably adapted for being projected outward from the container to a dispensing position and is provided with valve means for controlling the flow of liquid therethrough.

A disappearing faucet construction is shown in the C. T. Draper Patent No. 1,744,216, dated January 21, 1930, and the faucet constructions shown, described and claimed herein are improvements upon the construction shown in said patent.

It is an object of the present invention to provide a disappearing faucet with an outlet opening which may be readily and quickly opened or closed when the faucet is in a dispensing position projecting from a container.

It is a further object of the present invention to provide a disappearing faucet with an outlet opening which may be closed when the faucet is being moved from dispensing to disappearing position, or vice versa, so that leakage of the faucet during such movement is avoided.

It is also an object of the present invention to provide a disappearing faucet composed of telescoping tubular parts movable longitudinally and rotatably with respect to one another, which may be readily and easily assembled during the course of manufacture.

Moreover, it is an object of the present invention to provide a disappearing faucet construction which may be detachably connected to a container, interchangeably with a pump, in a container bung opening adapted for receiving a pump.

And finally, it is an object of the present invention to provide a disappearing faucet construction for a container having all of the above advantageous features, having a simple design, and adapted to be readily and efficiently used for the intended purposes.

These and other objects may be obtained by the parts, elements, devices and combinations constituting the present invention, preferred embodiments of which are shown in the drawing and are hereinafter described in detail and claimed, which may be stated in general terms as including, in faucet construction, a first tubular member connected to a container wall, a second tubular member telescoped within the first tubular member and movable longitudinally thereof to limited retracted and extended positions, guide means preventing rotary movement between said first and second tubular members, stop means limiting the longitudinal movement between said first and second tubular members, packing means interposed between said first and second tubular members, a third tubular member rotatably journaled in said second tubular member and movable with said second tubular member, packing means interposed between said second and third tubular members, there being openings in said second and third tubular members adapted to be brought into register providing valve means for the faucet, and operating means preferably carried by said third tubular member selectively for longitudinally moving said second tubular member to retract or extend the same within the first tubular member, or for rotatably moving the third tubular member within the second tubular member to move said openings into or out of register.

In the drawing,

Fig. 1 is an enlarged elevation section through the improved faucet and a portion of a container wall to which the improved disappearing faucet construction is connected, the faucet being shown in retracted position and the valve thereof closed;

Fig. 2 is a cross section through the telescoped tubular parts of the improved faucet taken on the line 2-2, Fig. 1;

Fig. 3 is a cross section through the improved faucet showing the guide and stop means, taken on the line 3-3, Fig. 1;

Fig. 4 is a view similar to Fig. 1, showing the improved faucet construction in extended position and the valve thereof open;

Fig. 5 is a bottom plan section of the improved faucet construction taken on the line 5-5, Fig. 4; and

Fig. 6 is a view similar to Fig. 1, showing a modified form of improved disappearing faucet construction detachably connected to a wall of a container.

Similar numerals refer to similar parts throughout the various figures of the drawing.

One form of the improved disappearing faucet is shown in Figs. 1 to 5, wherein the faucet 8 may include tubular members 9, 10 and 11. The tubular member 9 is preferably provided with an extension cup 12 which may be integral therewith, but which is preferably connected thereto at 13, and the cup 12 is preferably connected to a wall 14 of a container 15 by a seam 16.

The tubular member 9 is provided with spaced internal annular ribs 17, which retain an annular ring 18 of packing material, such as cork and the like, within the tubular member 9, for packing the joint between the tubular member 9 and the tubular member 10 longitudinally slidable therein.

The tubular member 9 is also preferably provided with an elongated slot 19, having end portions 20 and 20', into which a pin 21 carried by the tubular member 10 extends. The engagement of the pin 21 with the side edges of the slot 19 prevents rotary movement between the tubular members 9 and 10; and the end portions 20 and 20' of the slot 19, cooperating with the pin 21, provide stop means limiting longitudinal movement between the tubular members 9 and 10.

Thus, the pin 21 engages the end portion 20 of the slot 19 when the tubular member 10 is at the limit of its movement to disappearing or retracted position within the tubular member 9, as shown in Fig. 1; and the pin 21 engages the end portion 20' of the slot 19 when the tubular member 10 is at the limit of its movement to extended position projecting from the tubular member 9, as shown in Fig. 4.

The tubular member 10 is provided with an internal annular rib 22, which cooperates with the intumed end portion 23 of the member 10, to retain an annular ring 24 of packing material, such as cork and the like within the tubular member 10, for packing the joint between the tubular member 10 and the tubular member 11 rotatably journaled therein.

The inner end of the tubular member 11 is preferably flared at 25 for cooperating with the annular rib 22 to prevent the tubular member 11 from being withdrawn axially from the tubular member 10. Likewise, the outer end of the tubular member 11 is closed by bringing the wall thereof together, and the closed wall is formed with stop portions 26, and a hinge portion 27. An operating ring 28 is mounted in the hinge portion 27, by means of which the tubular member 11 may be rotated within the tubular member 10, and by means of which the tubular member 10, carrying the tubular member 11, may be moved longitudinally to extended or retracted positions within the tubular member 9. The stop portions 26 on the tubular member 11 engage the intumed end 23 of the tubular member 10 to prevent the tubular member 11 from being pushed axially into the tubular member 10.

The tubular members 10 and 11 are provided in their tubular walls with openings 29 and 30, respectively, which may be brought into register upon rotation of the tubular member 11 within the tubular member 10 to the position shown in Figs. 4 and 5, the packing ring 24 being fixedly mounted in the tubular member 10 and being formed with an opening which registers with the opening 29; or which may be moved out of register when the tubular member 11 is rotated within the tubular member 10 to the position shown in Figs. 1 and 2, so that the tubular mem-

bers 10 and 11 and the openings 29 and 30 therein constitute valve means for the faucet.

The parts of the faucet 8 assume the retracted disappearing position within the container 15 shown in Fig. 1, during periods of shipping and storage; and during such periods a closure member indicated at 31 in Fig. 1 may preferably cover the outer end of the extension cup 12, to protectively enclose the forward end of the faucet, whereby the faucet is guarded against damage, tampering or accidental leakage, preferably as shown in the C. T. Draper Patent No. 1,744,216.

When it is desired to withdraw portions of the liquid contents of the container therefrom, the closure member 31, if used, is removed, whereupon the operator grasps the operating ring 28 and pulls the tubular member 10 longitudinally through the tubular member 9, until the pin 21 engages the end portion 20' of the elongated slot 19 (Fig. 4). The outer end of the tubular member 10 in which the tubular member 11 is journaled, is then located beyond the wall 14 of the container 15, so that the valve openings 29 and 30 are readily accessible for discharging the liquid contents of the container into a receiving vessel and the like, upon rotation of the tubular member 11 to bring the opening 30 into register with the opening 29 in the tubular member 10.

The inner ends 32 and 33 respectively, of the tubular members 9 and 10 are both preferably open to permit a free flow of the liquid contents of the container through the faucet 8 therefor.

Referring to Fig. 4, the tubular member 11 may be readily, quickly and easily rotated to open or shut valve positions for withdrawing or dispensing limited or measured amounts of the liquid contents of the container.

At times it may be desired to move a container in which its faucet is in extended position; and in such event the faucet is moved to telescoped or retracted position by pushing the tubular member 10 longitudinally into the tubular member 9. Such movement may be accomplished without leakage of the faucet or without loss of any liquid through the faucet outlet opening 29, because the same may be first closed by rotation of the tubular member 11 to bring the opening 30 out of register therewith.

A slightly modified form of the improved disappearing faucet is shown in Fig. 6, wherein the various faucet parts are the same as in the construction shown in Figs. 1 to 5, inclusive, excepting those pertaining to the connection of the faucet 8a to a wall of the container.

Sometimes it is desirable to place a disappearing faucet in the bung opening of a container, which is usually a threaded bung opening provided in a head 14a of a container 15 by seaming a threaded bung ring 12a to the head 14a as at 16a. In such event, a threaded plug 12b is threaded into the bung ring 12a, and the plug 12b is provided with a shoulder 12b' against which a flange 13a, provided on the tubular member 9a of the faucet 8a, may be seated by a closure plug 13b having a removable closure member 31a carried therein.

In this manner, the faucet 8a may be utilized for dispensing the contents of the container; or the plug 12b carrying the faucet 8a may be removed, and a pump may be connected to the container 15 within the threaded bung ring 12a.

Accordingly, the present invention provides an improved disappearing faucet construction for containers, incorporating the advantageous features hereinabove described, and adapted for

being readily and efficiently used for dispensing liquids from containers.

Various modifications in the detailed construction of the elements, parts and combinations constituting the present invention will be apparent to those skilled in the art, and the claims appended hereto are intended to cover such modifications.

We claim:—

1. In a container, a disappearing faucet including a first tubular member connected to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between said first and second tubular members, packing means interposed between said second and third tubular members, and there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into or out of register with each other upon relative rotation between said second and third tubular members.

2. In a container, a disappearing faucet including three telescoping tubular members, one of said members being connected to a wall of the container, another of said members being mounted for longitudinal movement with respect to one of said members, the third member being rotatably mounted with respect to one of said members, and there being openings provided in the tubular walls of said last two mentioned members adapted to be moved into or out of register with each other upon relative rotary movement therebetween.

3. A disappearing faucet including a plurality of telescoping tubular members, two of said members being mounted for longitudinal movement with respect to a third member, two of said members being rotatably mounted with respect to a third member, there being openings provided in the tubular walls of two of said members adapted to be moved into or out of register with each other upon relative movement therebetween, and packing means interposed between relatively movable members.

4. In a container, a disappearing faucet comprising three telescoping tubular members, one of said members being connected to a wall of the container, two of said members being mounted for longitudinal movement with respect to a third member, two of said members being rotatably mounted with respect to a third member, there being openings provided in the tubular walls of two of said members adapted to be moved into or out of register with each other upon relative movement therebetween, and packing means interposed between relatively movable members.

5. In a container, a disappearing faucet including a first tubular member connected to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between said first and second tubular members, packing means interposed between said second and third tubular members, guide means preventing rotary movement between said first and second tubular members, stop means limiting longitudinal movement between said first and second tubular members, and there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into and out of regis-

ter with each other upon relative movement therebetween.

6. In a container, a disappearing faucet including a first tubular member connected to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between said first and second tubular members, packing means interposed between said second and third tubular members, there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into and out of register with each other upon relative movement therebetween, and operating means carried by the third tubular member selectively for longitudinally moving said second tubular member within the first tubular member, or for rotatably moving the third tubular member within the second tubular member.

7. In a container, a disappearing faucet including a first tubular member connected to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between said first and second tubular members, packing means interposed between said second and third tubular members, guide means preventing rotary movement between said first and second tubular members, stop means limiting longitudinal movement between said first and second tubular members, there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into and out of register with each other upon relative movement therebetween, and operating means carried by the third tubular member selectively for moving said second tubular member within the first tubular member or for rotatably moving the third tubular member within the second tubular member.

8. In a container, a disappearing faucet including a first tubular member connected to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between the relatively movable members, there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into or out of register with each other upon relative movement therebetween, there being a slot provided in a portion of said first tubular member, and there being a pin carried by said second tubular member extending into said slot.

9. In a container, a disappearing faucet including a first tubular member provided with a flange, means for detachably connecting said flange to a wall of the container, a second tubular member telescopically mounted in the first tubular member, a third tubular member rotatably mounted with respect to the second tubular member, packing means interposed between the relatively movable members, and there being openings provided in the tubular walls of said second and third tubular members adapted to be moved into or out of register with each other upon relative movement therebetween.

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