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PORTABLE DISPENSING APPARATUS

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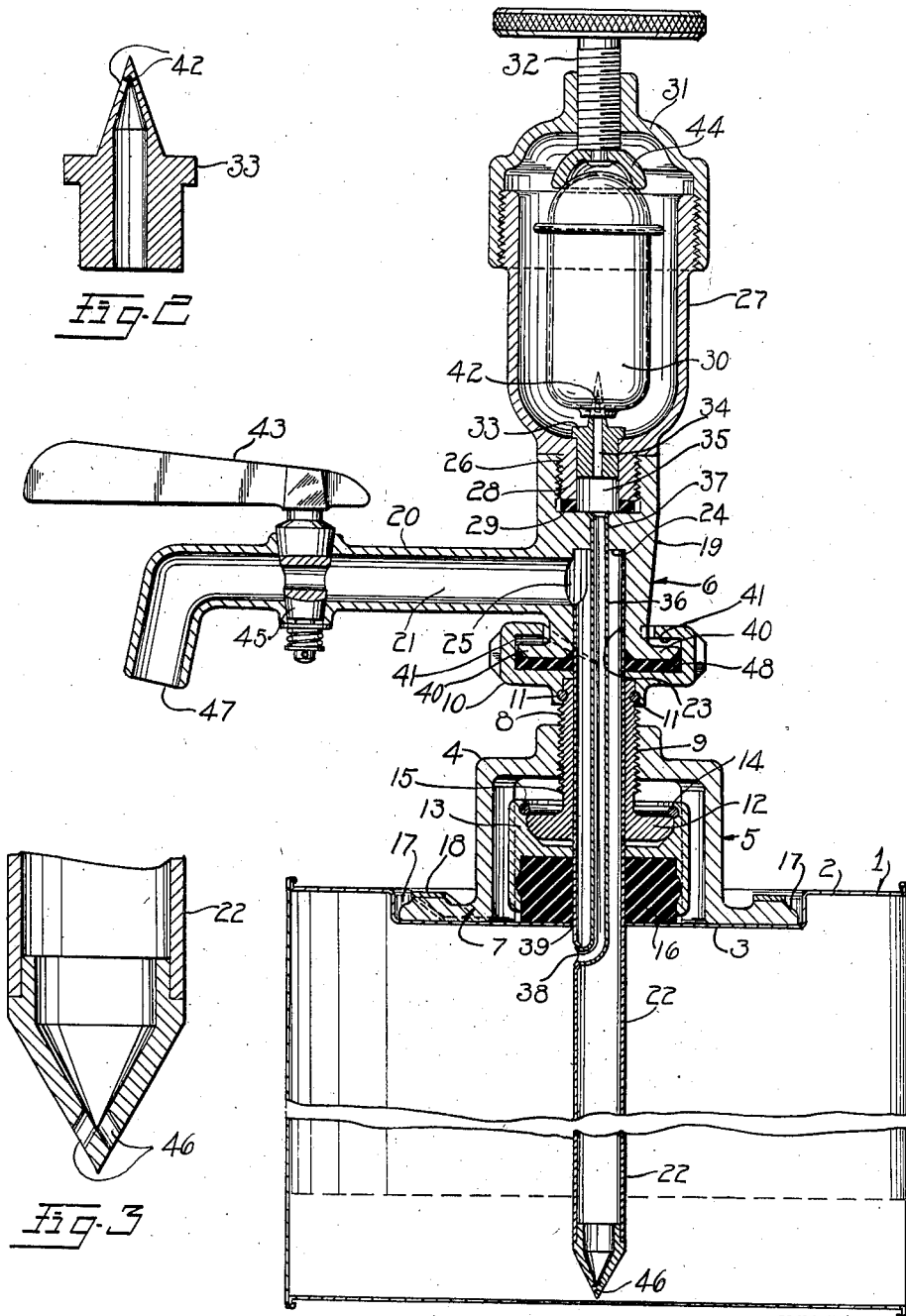


Fig. 1

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PORTABLE DISPENSING APPARATUS

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4 Claims. (Cl. 225-41)

My invention relates to portable dispensing apparatus for dispensing beverages and more particularly for dispensing beer.

One of the principal objects of my invention is to provide an inexpensive simply constructed portable apparatus capable of dispensing beer or other liquids from cans or containers, of the type used by brewers in supplying their family trade.

Another object of the invention is to provide improved means for connecting the apparatus to the container.

With the above and other objects in view which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the hereindisclosed invention may be made as come within the scope of the claims.

The accompanying drawing illustrates one complete example of the physical embodiment of the invention constructed according to the best mode so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a vertical sectional view of a dispensing apparatus in accordance with this invention.

Figure 2 is a detail sectional view of the cartridge puncturing member; and

Figure 3 is a fragmentary sectional view of the lower end of the can piercing element.

Referring now more particularly to the accompanying drawing, the numeral 1 denotes a preferably cylindrical metallic container or can for beer and the like, the upper end of which is tightly closed by means of a top or cover 2. The cover 2 is formed with a centrally depressed portion 3, in which the base or support 4, for the dispensing apparatus 5 is adapted to seat. This apparatus is comprised of two parts or portions 6 and 7 for respectively piercing the container and placing the contents of the latter under pressure and for guiding the piercing element and preventing the escape of liquid when the container is punctured.

The part 7 comprises a hollow follower screw 8 which is threadedly mounted in the threaded bore 9, of base 4, and carries at its upper end a grip nut 10, pins 11 being employed to lock these parts together. The lower end of screw 8 is formed with a head 12 which rotatably supports a swivel washer member 13. A split snap ring 14 seats in a groove 15 in overhanging relation with respect to the head 12, thus holding the member

13 rotatably in place. The lower end of swivel member 13 is open to receive a rubber sealing ring or washer 16, the purpose of which will be presently explained. Base 4 is provided with feet 17 adapted to be inserted beneath lugs 18 suitably fastened to the can top 2 at spaced points within the recess 3. The tops of the lugs are flush with or slightly below the raised or peripheral portion of the cover 2 and therefore are protected from damage during shipment and storage.

The piercing and charging part 6 consists of a sleeve 19, preferably die cast, from one side of which projects a dispensing faucet 20, the bore 21 of the latter communicating with the interior of the sleeve. A piercing element 22 is tightly pressed into the counter bore 23 of the sleeve 19 with its upper extremity seated against the under face of a shoulder 24. The upper end of this piercing element is provided with a slot 25 registering with the bore 21 of the faucet.

Mounted in a threaded counter bore 26, formed in the upper end of sleeve 19, is a cup shaped member or receptacle 27, formed at its lower end with a threaded tubular extension 28 for engagement with the counter bore 26, a washer 29 between the upper face of shoulder 24 and the lower extremity of threaded extension 28, insuring a tight seal at this point. The receptacle 27 is adapted to house a readily puncturable cartridge 30 containing carbonating gas such as carbon dioxide. A threaded cap 31 tightly closing the receptacle 27 carries a clamping screw 32 which bears against the top of the cartridge and forces the latter against a hollow puncturing member 33, when the clamping screw is rotated in an appropriate direction. To facilitate this operation the clamping screw is provided at its lower end with a rotatable washer like member 44, which permits of the cartridge being moved axially but non-rotatably.

The puncturing member 33, has a hollow stem portion 34 snugly seating in the bore 35, of extension 28, and tapering at its upper end to a sharp point, against which the cartridge is pressed. A small tube 36 secured at its upper end in the bore 37 of sleeve 19, leads at its lower end through an opening 38, formed in the piercing element 22 for the purpose of placing the interior of receptacle 27 in communication with the interior of the beer can 1 when the latter is pierced by the member 22.

In practice after the base 4 has been secured to the can 2 by rotating the base to bring the feet 17 beneath the lugs 18, adjusting nut 10 is rotated thus causing the rubber gasket 16 to move down-

wardly against the central portion of the can top. The operator now inserts the piercing element 22, down through the grip nut 10, hollow follower screw 8, and washer 16 and thence through the material of the can top 2, the opening 39 thus produced being automatically sealed against leakage around the piercing member by the washer 16. Simultaneously with the puncturing operation the operator slightly rotates the container 27 to bring oppositely disposed lugs or flanges 40, formed on the sleeve 19, beneath cam faced lugs 41 on the grip nut 10, thus securely anchoring the apparatus to the can 1. Finally the clamping screw 32 is appropriately turned to press the cartridge 30 against the puncturing member 33. The escaping carbon dioxide gas flows through openings 42 in member 33, and thence through tube 36 into the top of can 1 thus placing the contents of the latter under the desired pressure. If the handle 43 of faucet 20 is now turned to open valve 45 the liquid will be forced upwardly through openings 46 in the lower end of piercing element 22 to and through the faucet.

25 A washer 48 in the grip nut 10 forms a tight seal between the upper end of follower screw 8 and the piercing element 22.

Having thus described my invention what I claim is:

30 1. A liquid dispensing apparatus for sheet metal containers having closed tops, a liquid discharge means, liquid compression means carried by said discharge means, a hollow base for supporting the said discharge means and liquid compression
35 means on the top of the container, a packing

member in said base, a follower screw threadedly mounted in said base and rotatably connecting said discharge means to the base and adapted to compress said packing when rotated in one direction.

5 2. A liquid dispensing apparatus for a container having a depression in the closed top thereof, said apparatus including a discharge means, a hollow base formed with feet members, means for securing said feet members in said depression substantially flush with the said top, a sealing member in said base, threaded means
10 for connecting said base to said discharge means and for expanding said sealing member.

15 3. A liquid dispensing apparatus for containers having closed tops, a liquid discharge means, a hollow base member and means for securing said base to the closed top, a hollow screw threadedly connected to said base, a nut fixed to the upper end of said screw and rotatably supporting the said liquid discharge means and a
20 sealing member swiveled on the lower end of said hollow screw.

25 4. A liquid dispensing apparatus for containers having closed tops, a liquid discharge spout formed with a flange, a hollow base member having feet for engagement with the said closed top, a hollow screw threadedly supported in said base, means fixed to the upper end of said screw rotatably receiving said flange for supporting
30 said spout, the lower end of said screw formed with a head, a sleeve member swiveled on said head and a sealing member fixed in said sleeve.

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