

Nov. 1, 1938.

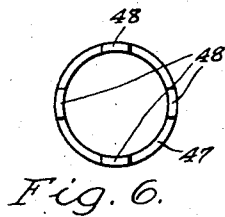
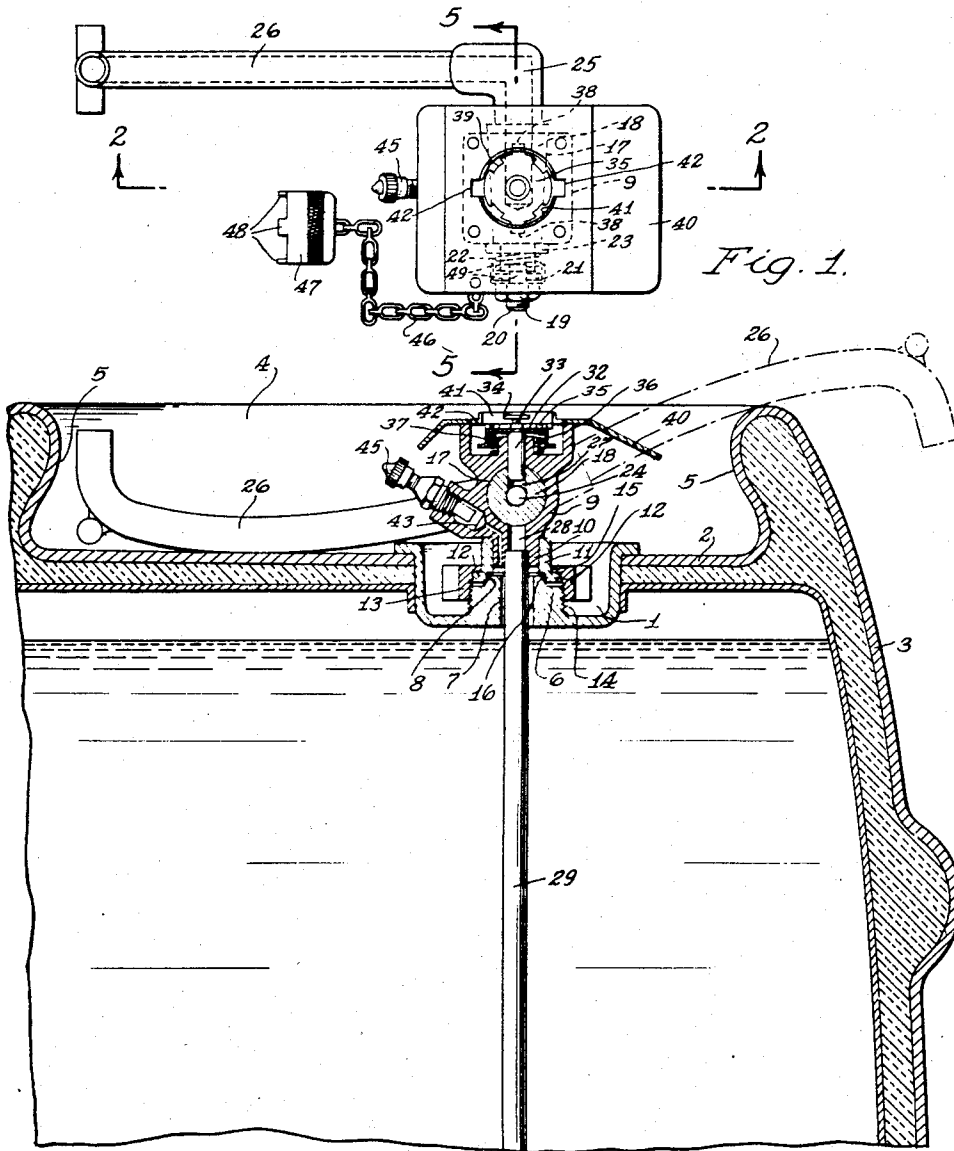
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2,134,852

DISPENSING APPARATUS

Filed Jan. 2, 1937

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

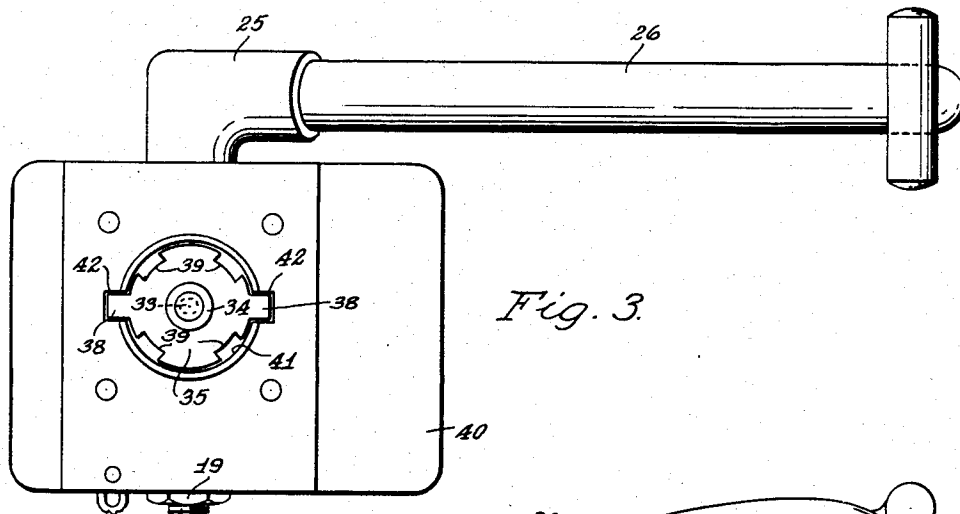


Fig. 3.

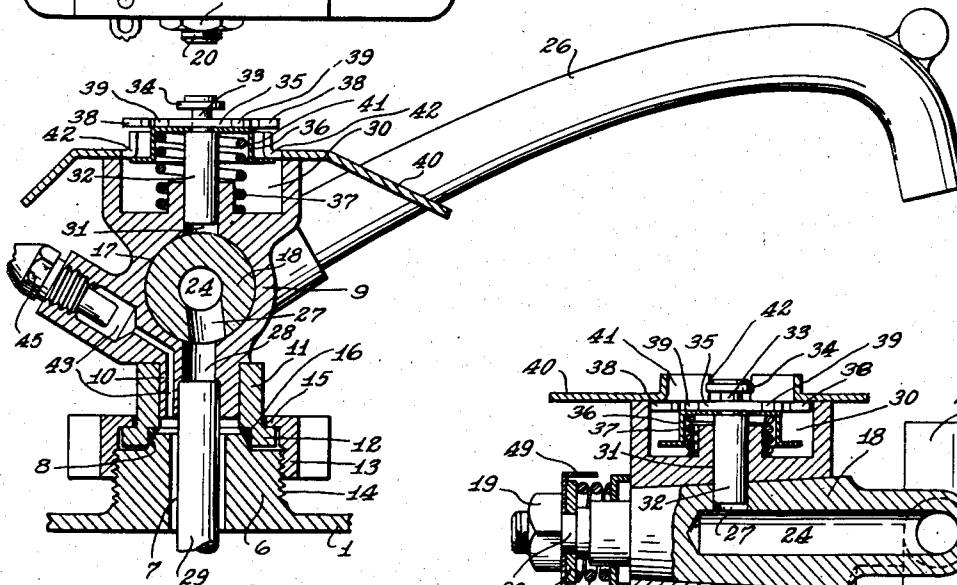


Fig. 4.

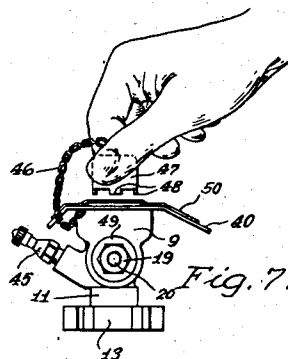


Fig. 7.

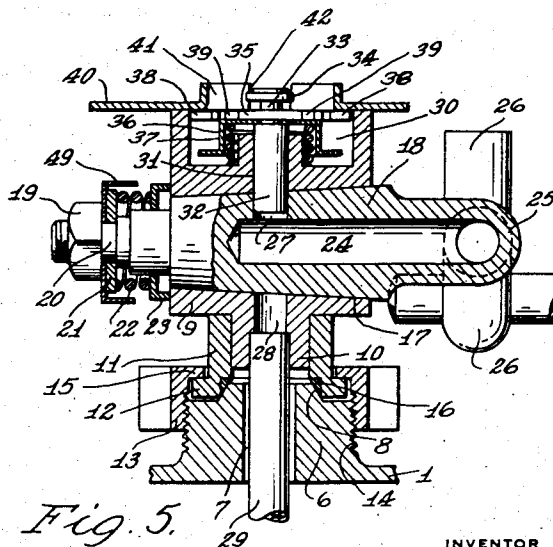


Fig. 5.

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2,134,852

DISPENSING APPARATUS

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Application January 2, 1937, Serial No. 118,711

6 Claims. (Cl. 225-44)

The present invention relates to apparatus for drawing beverages or other liquids from kegs or containers, the apparatus being designed particularly for drawing and dispensing beer.

5 The primary object of the present invention is to provide apparatus for drawing beer from a keg or like container which is so designed that it may be attached to the keg or container at the brewery and delivered therewith whereby the
10 beer may be conveniently dispensed from the keg or container for domestic consumption. In this respect the invention provides for improved sanitary conditions, particularly by avoiding the use of the inconvenient and unsanitary conven-
15 tional wood spigot, and permits the beer to be drawn and dispensed in the same condition which it was in when it left the brewery.

Another object of the present invention is to provide a beer drawing apparatus which may
20 be attached to a keg for delivery therewith, the apparatus being constructed and arranged whereby it nests within the recess ordinarily present in the end of a keg. In this respect the invention disposes the apparatus whereby the
25 keg equipped therewith occupies no greater space than before, this being desirable from the standpoint of shipment and delivery, and further, from the standpoint that the kegs may be stacked one upon another or in close proximity without in-
30 juring the drawing apparatus.

Another object of the present invention is to prevent the unauthorized removal or substitution of the contents of a keg or container equipped with apparatus for drawing the con-
35 tents therefrom. In this respect the invention provides locking means which can only be released by breaking the Federal and State seals, the apparatus having a wrench or tool attached thereto for releasing the lock and causing the
40 seals to be mutilated to such an extent that they cannot be used again.

Still another object of the invention is to provide apparatus of the character referred to above which may be removed from the keg or con-
45 tainer for the purpose of cleaning the same, as well as the keg or container. In this respect the apparatus is so constructed as to require the use of a special wrench or tool in removing the same and in this manner prevents the unauthor-
50 ized removal thereof.

With the above and other objects in view the invention consists in matters hereinafter more particularly pointed out with reference to the accompanying drawings, in which

55 Figure 1 is a top plan view;

Fig. 2 is a section taken on the line 2-2 of Fig. 1; a fragment of a keg being also shown; Fig. 3 is a plan illustrating another stage of operation;

Fig. 4 is a vertical section illustrating another stage of operation;

Fig. 5 is a section taken on the line 5-5 of Fig. 1;

Fig. 6 is an elevation of a detail, and

Fig. 7 is an end elevation.

10 Like characters of reference are employed throughout to designate corresponding parts.

The numeral 1 designates a tap bushing which is welded in the end wall 2 of a metal barrel or keg 3 having a recess 4 in the end thereof, 15 the recess being formed due to the extension of the side walls past the end wall 2 in order to provide finger grips 5 so that the keg may be conveniently carried. It will be understood that a metal barrel is shown by way of example 20 only and that the invention to be described hereinafter is equally applicable to wood kegs, barrels or containers. In the event that the keg is formed of wood the bushing 1 is provided with external screw threads and is threaded into an 25 opening in a wall of the keg. This expedient is deemed obvious to those skilled in the art and therefore is not illustrated here.

The bushing 1 has a centrally disposed boss 6 provided with an axial bore 7, extending there- 30 through, and with a tapered or conical end 8. A valve body 9 has an extension 10 upon which is permanently secured a sleeve 11, the sleeve being formed with an outwardly directed end flange 12. An internally threaded collar 13, hav- 35 ing recesses for the reception of a tool or wrench, is threaded onto the screwthreaded portion 14 of the boss 6, the collar having a shoulder 15 which engages the flange 12 to draw a packing element 16, carried by the sleeve 11, into firm 40 contact with the conical end of the boss 6. The valve body 9 is thus secured to the bushing 1 and through the latter to the keg.

The valve body 9 has a tapered bore 17 in which is rotatably mounted a tapered valve plug 45 18, there being a nut 19 on a reduced end 20 of the plug supporting a washer 21 to maintain a spring 22 in compression between the washer and a hollow annular element 23 which engages the valve body wall. The spring 22 tends to 50 draw the tapered plug into the bore and thus maintains sealing contact between the valve plug and the bore wall. The valve plug 18 has a pas- sage 24 opening into an elbow extension 25 at its other end, a bent tube 26 being supported 55

in the elbow extension in communication with the passage 25. As will hereinafter be described the tube 26 serves both as a liquid outlet and a valve operating handle.

5 The valve plug 18 has a radial port 27, one end of which opens through the side thereof, and the other end of which communicates with the passage 24. In line with the port 27 the valve body 9 has a port 28 and a conventional
10 tap tube 29 is secured in the extension 10 in communication with the port 29 so that it extends downwardly into the keg 3.

At its top the valve body 9 is formed with an annular recess 30 and a bore 31, centrally disposed with respect to the recess and extending through the body to the tapered bore 17, in line with the port 27 in the valve plug. In the bore 31 is slidably mounted a bolt 32 having a reduced upper end 33 with a retainer 34 thereon. Loosely
15 received on the reduced end of the bolt 32 is a disk 35 and a spring cup 36, and a coiled spring 37 is mounted between the bottom of the recess and the spring cup 36. As shown more clearly in Figs. 1 and 3, the disk 35 has two diametrically
20 opposed arms 38 and two sets of diametrically opposed notches 39.

Rigidly mounted on top of the valve body 9 is a plate 40 having an aperture 41 therein of a diameter slightly larger than the disk 36 and smaller
30 than the diameter of the two arms 38. Two diametrically opposed notches 42 are formed in the wall of the aperture 41 of a diameter greater than the diameter of the arms 38.

In the valve body 9 is formed a passage 43 which extends through the extension 10 and communicates with the interior of the keg through the bore 7 in the tap bushing 1. In the end of the passage 43 is provided a valve fitting 45 to which a conventional air pump, such as is used
40 for automobile tires, may be connected for the purpose of placing the liquid in the keg under air pressure.

Secured to the plate 40 by means of a chain 46 is a tool for rotating the disk 35. This tool comprises a cylindrical body 47 having an external diameter slightly smaller than the diameter of the aperture 41 and having prongs 48 adapted to fit into the notches 39 in the disk 35. When not in use, the tool 47 is adapted to be supported upon a resilient device 49 which is secured upon the reduced portion 20 of the valve plug by the nut 19.
50

With the apparatus in the position shown in Figs. 1, 2, and 5, the valve plug is locked against rotation, and it is obvious that the only position in which the locking means is effective is when the valve is closed. As will be seen upon reference to these figures, the disk 35 is in a position where its arms 38 engage the underside of the plate 40 to hold the spring 37 compressed and the bolt 32 in a position projecting through the end of the bore 31 and into the radial port 27 in the valve plug. The bolt thus prevents rotation of the valve plug. With the valve plug in a position receiving the bolt 32 the tubular element 26 is in a position substantially as shown in Fig. 2, that is, it is nested within the recess 4 so that no parts thereof project outwardly of the end of the barrel. It will also be observed upon reference to Fig. 2 that the plate 40 is also disposed within the recess 4. The position of the parts described above illustrates the condition of the apparatus at the time it leaves the brewery with the one exception that the Federal and State revenue seals 50 are adhered to the top surface of the
75 plate 40. The seals ordinarily comprise paper

stickers or stamps and are glued to the top surface of the plate 40 in a position covering the aperture 41 and the disk 35.

At the place of consumption air under pressure is forced into the keg by means of a suitable pump attached to the valve fitting 45, an automobile tire pump being an example of such pumping means. The tool 47 is then manually forced from the position shown in Fig. 7 through the seals upon the plate 40 so that its prongs 48 enter the notches in the disk 35 and the latter is then rotated to the position, shown in Figs. 3 and 4, wherein the arms 38 are in line with the recesses 42, at which time the spring 37 presses the disk 35 and bolt 32 outwardly. The end of the bolt having the retainer 34 and the disk 35 is forced through the seals, thus mutilating the same, and the bolt is withdrawn from the radial port 27 in the valve plug. The valve plug is then free for rotation and may be moved by applying manual pressure upon the tubular element 26, to move the latter from the position shown in Fig. 2 to that shown in Fig. 4, thus rotating the valve plug so that the port 27 therein registers with the port 28. The liquid in the keg is then forced by the compressed air therein upwardly through the tap tube 29, through the ports 28 and 27, through the passage 24 and through the tubular element 26. As may be seen by the broken line position of the tubular element shown in Fig. 2, when the tubular element is in a position opening the valve as above described, the outlet end thereof projects outwardly from the side of the barrel so that a glass or other receptacle may be held under the same.
35

After the emptied keg has been returned to the brewery the apparatus above described may be removed and sterilized by inserting a wrench within the notches in the collar 13 and unscrewing the same from the bushing boss 6. It is contemplated that the collar 13 will be so formed as to require the use of a special wrench for removal of the same so as to avoid unauthorized removal thereof.
40

Although a specific embodiment of the invention has been illustrated and described it will be understood that various changes may be made within the scope of the appended claims without departing from the spirit of the invention, and such changes are contemplated.
45

What I claim is:—

1. In apparatus of the character described, a valve body adapted for attachment to a keg, a plate on said body adapted for the reception of a seal, said plate having an opening therein, a valve in said body, and means for engaging and locking said valve against movement, said means upon release movement thereof being adapted to project through the opening in said plate to mutilate a seal thereon.
50

2. In apparatus of the character described, a valve body adapted for attachment to a keg, a plate on said body adapted for the reception of a seal, said plate having an opening therein, a valve plug in said body, means for engaging and locking said valve plug against movement, means for unlocking said valve plug, and automatic means rendered operative by unlocking of said plug and adapted to extend through said opening for mutilating a seal upon said plate.
60

3. In apparatus of the character described, a valve body, a tap tube connected to said body, means attaching said body to a keg with the tap tube extending therinto, a valve plug in said body, a bolt adapted to engage said plug to hold
75

the same against movement, resilient means normally urging said bolt from engagement with said plug, and releasable means for holding said bolt in engagement with said plug.

5 4. In apparatus of the character described, a valve body, a tap tube connected to said body, means attaching said body to a keg with the tap
10 tube extending thereinto, a valve plug in said body, a bolt adapted to engage said plug to hold the same against movement, resilient means normally urging said bolt from engagement with said
15 plug, releasable means for holding said bolt in engagement with said plug, and a plate adapted to support a seal, said resilient means upon release of said holding means being adapted to project an end of said bolt through a seal carried
20 by said plate.

5. In apparatus of the character described, a valve body, a rotatable valve plug in said body, said valve plug having a radial port adapted to

register with a port in said body, a bolt slidable in said body, manual means for moving said bolt to a position projecting into said radial port, resilient means for retracting said bolt, and releasable means for holding said bolt in its projected position. 5

6. In apparatus of the character described, a valve body, a rotatable valve plug in said body, said valve plug having a radial port adapted to register with a port in said body, a bolt slidable
10 in said body, manual means for moving said bolt to a position projecting into said radial port, resilient means for retracting said bolt, releasable means for holding said bolt in its projected position, and means adjacent the outer end of said
15 bolt adapted to support a seal whereby upon release of said bolt said resilient means projects the same through said means to mutilate a seal carried thereby.

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