A. GOETZ.

BEER TAP.

APPLICATION FILED AUG. 12, 1914.

1,182,675.

Patented May 9, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

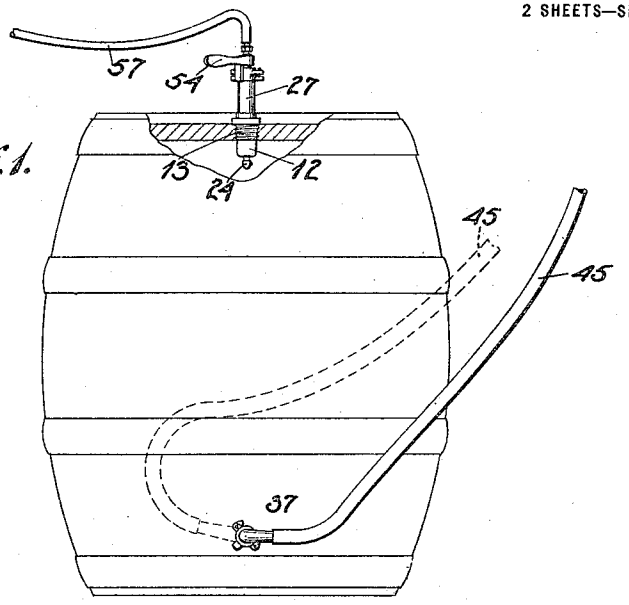


Fig. 2.

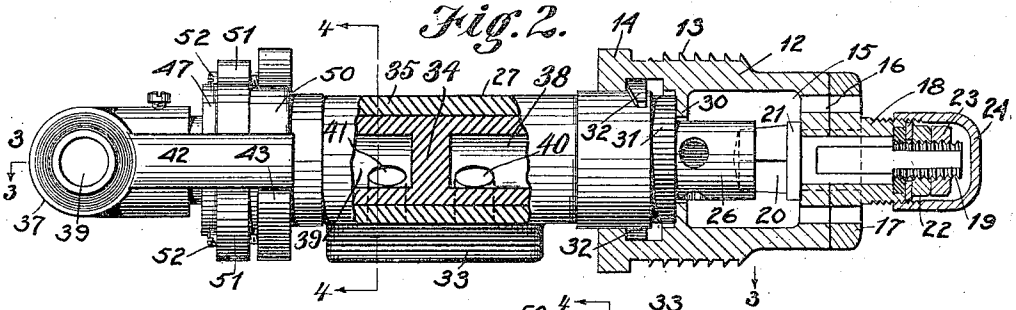


Fig. 3.

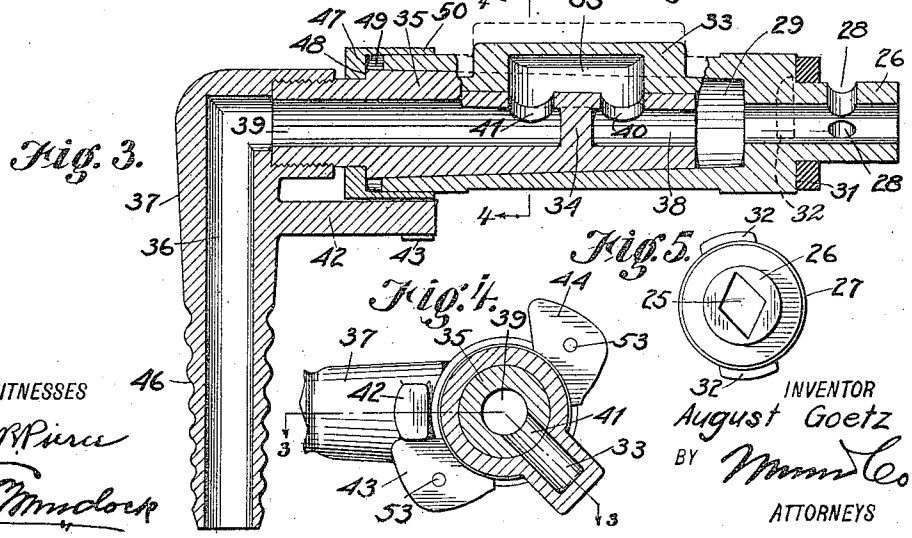


Fig. 5.

Fig. 4.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 6.

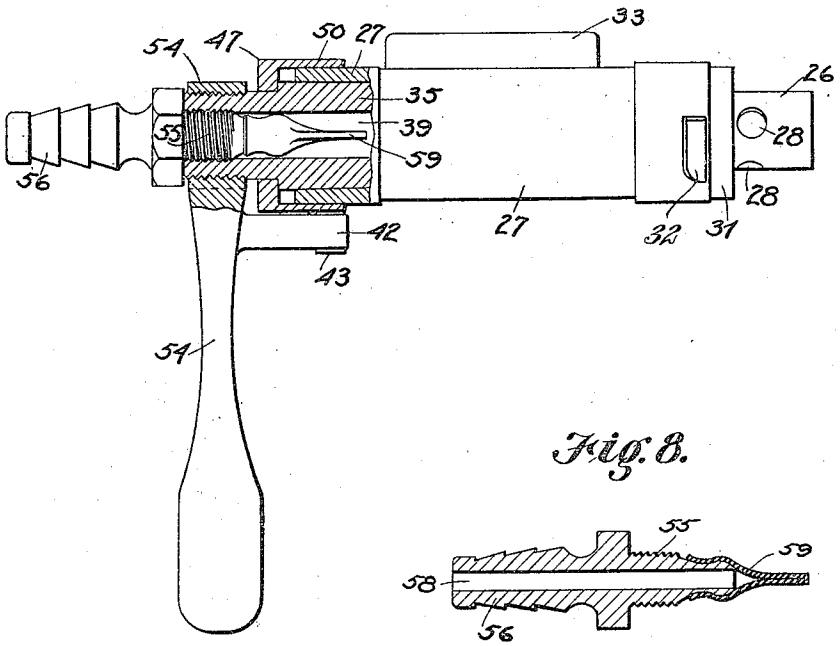
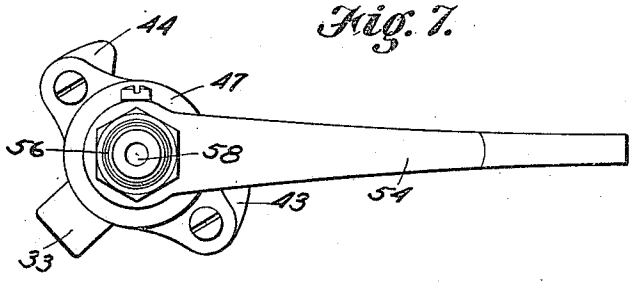


Fig. 8.

Fig. 7.



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BEER-TAP.

1,182,675. Specification of Letters Patent. Patented May 9, 1916.

Application filed August 12, 1914. Serial No. 856,354.

To all whom it may concern:

Be it known that I, AUGUST GOETZ, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Beer-Tap, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a tap of the character mentioned with means for closing the movable member preliminary to separating it from the stationary member of said tap; to provide a draw-off pipe with a closable key valve adapted to open the draw-off valve of a tap, said key valve being arranged for closure as a preliminary to the closing of the draw-off valve; to provide a handle-like pipe-connecting extension for the movable member of said key valve; and to provide a pressure-supply pipe and a liquid-delivering pipe with means for automatically opening and closing the same when connecting to or disconnecting from a liquid supply.

Drawings.—Figure 1 is a side elevation of a barrel equipped with a pressure supply and draw-off connections constructed and arranged in accordance with the present invention; Fig. 2 is a side view, on an enlarged scale, of a connecting key and a valve plug operable in connection therewith, said plug being shown in section; Fig. 3 is a longitudinal section taken on the line 3—3 in Figs. 2 and 4; Fig. 4 is a cross section taken as on the lines 4—4 in Figs. 2 and 3; Fig. 5 is an end view of the key valve, showing the engagement socket thereof; Fig. 6 is a side view, partly cut away, of the key valve employed for connecting the gas or air pressure; Fig. 7 is an end view of the same; Fig. 8 is a longitudinal cross section of a connecting nipple having an air check valve mounted thereon.

Description.—The valve plug 12 is of conventional form and construction, and is provided with a screw-thread section 13. The threads on the section 13 are sharp, the purpose being to sink into bung-holes formed in the side and top of barrels or kegs now employed in the industry to which the taps relate. The plug 12 is inserted in the barrel until a flange 14 rests against the outer surface of the material of which said barrel is constructed. The plug 12 is molded to form an enlarged inner chamber 15, the bottom wall 16 of which is suitably perforated to form ports, which are normally closed by a valve cover 17. The valve cover 17 has a hub-like extension 18, through which the shank of a screw 19 normally extends. The shank of the screw 19 is keyed to the cover 17, to move therewith, and is rotatably mounted in the bottom wall 16 of the plug 12. The rectangular wrench head 20 is provided with a flange 21, which holds the screw 19 at one end against the pressure of a nut 22 at the opposite end. The end of the screw and the nuts 22 and 23 are covered by a cap nut 24.

The head 20 is engaged by a socket 25 in the reduced end 26 of the body 27 of the key valve. The reduced end 26 extends within the chamber 15, as shown best in Fig. 2 of the drawings, and is provided with laterally-opening ports 28, through which the liquid in the chamber 15 flows to a chamber 29, within the body 27, as best seen in Fig. 3 of the drawings. To seal the chamber 15, an internal flange 30 is provided, said flange having a central opening forming a passage for the reduced end 26. The upper surface of the flange 30 is faced to receive a soft gasket 31. To force the gasket 31 against the flange 30, to thereby perfect the seal for the chamber 15, a series of cams 32 are formed on and extended from the side of the body 27, adjacent the end of the enlarged portion thereof.

As shown best in Figs. 2 and 3 of the drawings, the body 27 has integrally formed thereon a short, laterally-extended by-pass channel 33. The by-pass channel 33 is designed to straddle a partition 34, with which the tapered valve plug 35 is provided. The plug 35 is open at both ends, one end being in communication with the chamber 29, and the other with the bore 36 of a handle connector 37, with the latter of which said plug is rigidly secured, being screwed therein, as seen best in Fig. 3 of the drawings. The plug 35 is bored from each end to the partition 34, forming in this manner two channels 38 and 39. The channels 38 and 39 have port openings 40 and 41, respectively. The port openings 40 and 41 are alined, and open into the by-pass channel 33 when the plug 35 is rotated so as to expose said openings to said channel.

To register the port openings 40 and 41 with the channel 33, the handle connector 37 is furnished with a finger 42, which ex-

tends into the path of an abutment 43 laterally projecting from the body 27. The closed position of said port openings is regulated by an abutment 44, against which the finger 42 rests when the handle connector 37 is moved in the opposite direction. In both instances, the finger 42 is relied upon to rotate the body 27 to turn the cover 17 so that the ports therein register with or move away from the port in the wall 16 of the plug 12. In this manner, it will be seen that before the key valve may be moved to turn the cover 17 to either open or close the same, the plug 35 is preliminarily rotated to clear or close the passage formed by the channels 38, 39 and 33. If it is desired to remove the valve plug 12, the handle connector 37 is rotated from the position shown in Figs. 1, 3 and 4, until the finger 42 engages the abutment 44. When the finger 42 thus engages the abutment 44, it will be noted that the passage through the key valve is closed. When, now, the handle connector 37 is further moved to rotate the key valve and the cover 17 until said cover closes the ports in the wall 16, which action places the cams 32 opposite cut-away portions of the inner extension of the flange 14, the key valve may be removed from the head 20 of the screw 19. It will now be noted that by the same action the valve plug 12 and the key valve at the end of the delivery pipe have both been closed, so that after the separation thereof, the pressure in the pipe 45 does not work back through the system, to be discharged from the key valve. To hold the pipe 45, there is provided a fluted, tapered end 46.

To hold the plug 35 seated in the body 27, I provide a slip-cap 47. The slip-cap 47 is centrally bored to provide a shoulder 48, which registers with a bearing shoulder on the plug 35, as best seen in Fig. 3 of the drawings. The cap 47 is provided with apron-like guide extensions 50, and with ears 51, in which perforations are formed to receive screws 52. The screws 52 engage tapped perforations 53 in the abutments 43 and 44. By manipulating the screws 52, the plug 35 may be forced within the body 27, to thereby take up any wear which may from time to time occur. The space 49 allows for taking up wear in the plug 35 by means of the screw 52.

In the modified form of the invention as shown in Figs. 6, 7 and 8 of the drawings, a valve handle 54 is substituted for the connector 37. The handle 54 has a finger 42, which engages the abutments 43 and 44 on the body 27, as in the previously-described construction. A further modification resides in the construction of the plug 35, the end whereof is tapped to engage the screw-threaded section 55 of a fluted nipple 56, to which an air or gas supply pipe 57 is attached. As shown in Fig. 8 of the drawings, the nipple 56 has a central passage 58, the inner end whereof is fitted with a split rubber check-valve 59 of conventional form and construction.

The operation of the modified form of the key valve and valve plug is similar to that above described.

Claims:

1. A beer tap, comprising a valve plug having an interior chamber provided with inlet and outlet ports; a rotary cover adapted to close said inlet ports; a key member operatively connected with said cover and extending within said chamber; a key valve having a hollow body portion open at both ends, one end being adapted for location within the chamber of said plug to engage therein said key member; a rotary plug disposed in said body, said plug having a bisected channel therethrough, said channel having laterally-opening ports; a by-pass having openings adapted to register with said ports laterally opening; means for operating said rotary plug; means connecting said rotary plug and said body portion, for limiting the independent movement thereof; and means for connecting the channel in said rotary plug with a distribution system.

2. A beer tap, comprising a valve plug having an interior chamber provided with inlet and outlet ports; a rotary cover adapted to close said inlet ports; a key member operatively connected with said cover and extending within said chamber; a key valve having a hollow body portion open at both ends, one end being adapted for location within the chamber of said plug to engage therein said key member; a rotary plug disposed in said body portion, said plug having a bisected channel therethrough, said channel having laterally-opening ports; a by-pass having openings adapted to register with said ports laterally opening; means for operating said rotary plug; means connecting said rotary plug and said body portion, for limiting the independent movement thereof; and a handle connector rigidly connected with said rotary plug in perpendicular relation thereto, said connector being adapted to be united to a distributing pipe.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AUGUST GOETZ.

Witnesses:
C. E. HOLSKE,
PHILIP D. ROLLHAUS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."