April 12, 1949. S. B. HOLMES 2,466,892

BEER TAP

Filed Feb. 19, 1946

Fig. 1

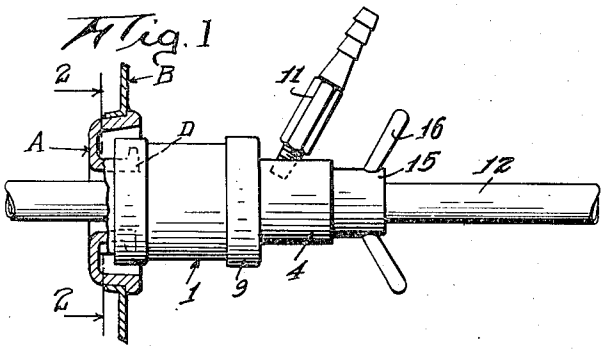


Fig. 2

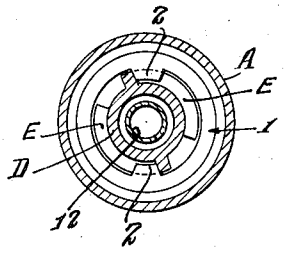
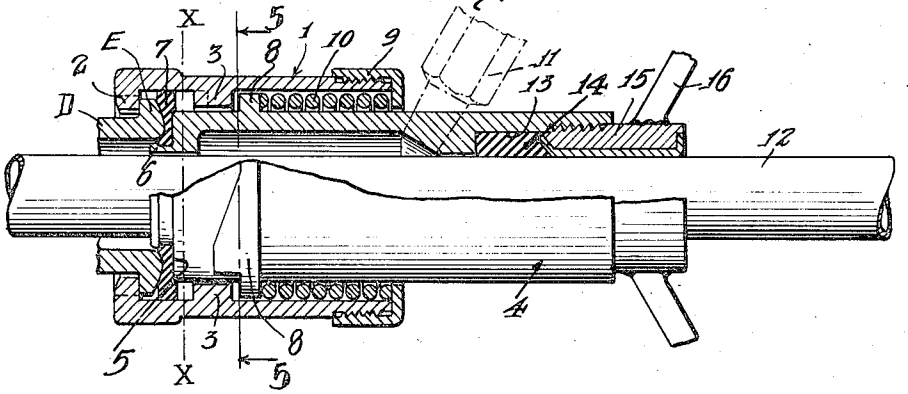


Fig. 3



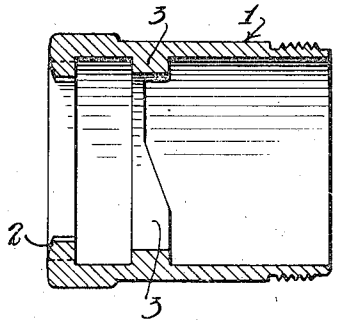


Fig. 4

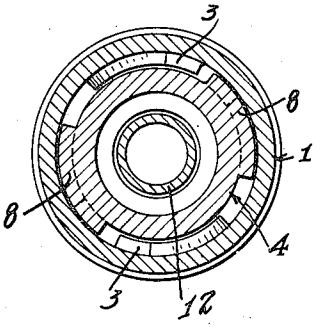


Fig. 5

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BEER TAP

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Application February 19, 1946, Serial No. 648,700

3 Claims. (Cl. 285—40)

1

My invention relates to beer taps, and among the objects of my invention are:

First: To provide a beer tap which is adapted to interlock with the conventional latching means provided on beer kegs in a manner to form a sealing connection between the keg and a delivery tube.

Second: To provide a beer tap which may be readily and quickly connected or disconnected with a minimum of effort without the aid of tools but which, when connected, cannot readily be accidentally loosened.

Third: To provide a beer tap which is particularly simple in its construction and readily cleaned.

Fourth: To provide a beer tap which includes a mounting structure which may be installed or removed without the delivery tube in place, and wherein the delivery tube may be inserted or removed without disturbing the connection between the mounting structure and the beer keg, or, if desired, both may be removed or installed simultaneously, the delivery tube remaining fixed in its position.

With the above and other objects in view as may appear hereinafter, reference is directed to the accompanying drawings, in which:

Figure 1 is an elevational view of my beer tap shown assembled and attached to the conventional fitting provided on a beer keg, the fitting and adjacent portion of the beer keg being shown partially in section.

Figure 2 is a transverse sectional view through 2—2 of Figure 1.

Figure 3 is an enlarged partial longitudinal sectional view, partial elevational view of the assembled beer tap.

Figure 4 is a longitudinal sectional view of the latch sleeve.

Figure 5 is a transverse sectional view through 5—5 of Figure 3.

My beer tap is adapted to be connected to a conveniently adapted fitting A mounted in a conventional beer keg B. The fitting A may take various forms. One conventional type comprises a cup-shaped member having an outer rim welded or otherwise secured in the top end of the beer keg. In the center of the fitting is an axially outwardly directed tubular boss D having radially outwardly directed latching lugs E.

My beer tap includes a latching sleeve 1, which is cylindrical and provided at one end with readily inwardly directed latch lugs 2, which are adapted to interlock with the latching lugs E. Spaces are provided between the lugs 2 and E so

2

that the latching sleeve can be slipped over to the tubular boss and rotated a partial turn to bring the lugs into a locking position.

Within the latching sleeve 1 is an annular cam ring 3 having diametrically disposed cam elements in the form of helical segments, each occupying approximately a quarter turn. Between the cam portions, the cam ring is flat, broken, however, by abrupt shoulders.

Fitting within the latching sleeve 1 and adapted to rotate as well as to reciprocate longitudinally is an inner or delivery tube sleeve 4. The axially inner end of the sleeve is provided with a shoulder 5 which confronts the extremity of the boss D. The extremity of the sleeve 4 is provided with an annular lip 6 around which is a sealing ring 7 adapted to seal the connection between the boss D and the inner sleeve 4 when the inner sleeve is forced axially inwardly against the boss D.

The delivery tube sleeve 4 is provided with an annular cam ring 8 having diametrically disposed bosses and recesses adapted to mate with the corresponding bosses and recesses of the cam ring 3 and likewise forming shoulders whereby the two rings may be rotated relatively in only one direction. The inner sleeve 4 protrudes upon the latching sleeve 1 and the end of the latching sleeve remote from the latch lugs 2 is provided with a threaded ring cap forming an internal flange.

A relatively heavy spring 10 is disposed between the cam ring 8 and the cap 9 so that the inner sleeve 4 is urged toward the tubular boss D and the cam rings 3 and 8 are urged into mating relation. When the cam rings are so disposed that the bosses of one ring register with the recesses of the other, the parts are in the position shown in Figure 3; that is, the force of the spring 10 is effective to draw outwardly on the latching sleeve 1 holding the latch lugs E and 2 in engagement and at the same time force the delivery tube sleeve 4 axially inwardly so that a sealed connection is formed with the tubular boss D by means of the sealing ring 7.

When the delivery tube sleeve is rotated relative to the latching sleeve until the bosses of the two cams 3 and 8 are in registry, the spring 10 is compressed and the inner sleeve is drawn away from the boss D until the shoulder 5 approximately coincides with the line X—X of Figure 3, so that substantial clearance is provided for the ready connection or disconnection of the latching sleeve 1 and tubular boss D.

The extended portion of the delivery tube sleeve

4 is provided with a laterally directed gas supply feeding 11 which may serve as a handle to rotate the delivery tube sleeve as well as supply air for gas to the interior of the beer keg.

The delivery tube sleeve 4 receives a delivery tube 12 which extends therethrough and into the beer keg. The outer extremity of the delivery tube sleeve is counterbored as indicated by 13, and the counterbored portion receives a packing ring 14 which is forced into constricting sealing engagement with the delivery tube 12 by means of a threaded packing collar 15 having a suitable handle 16.

It will be observed from the drawings and the foregoing specification that the delivery tube may be removed or installed without removing the other parts of the beer tap; or, the entire assembly may be removed as a unit if desired. Furthermore, it is possible and feasible to install the latching sleeve and delivery tube sleeve on the beer tap fitting A before insertion of a delivery tube.

Still further, it will be observed that only partial rotation of the latching sleeve and delivery tube sleeve is required to move said sleeves axially between their latching and sealing positions or their latch relieving positions. This may be readily accomplished without the aid of tools.

It is to be understood that I do not wish to be limited to the details herein set forth, but my invention is of the full scope of the appended claims.

I claim:

1. In a beer tap adapted to interlock with a tubular tap fitting having latching lugs, wherein the beer tap is provided with a delivery tube and a device for connection to a pressurizing means, the combination of: an outer sleeve including means engageable with the latching lugs of said fitting; an inner sleeve rotatable therein, its inner end adapted to confront the tap fitting; a sealing washer between said inner sleeve and tap fitting; a spring urging said inner sleeve into sealing engagement with said washer; and coacting cam

elements carried by said sleeves to retract said outer sleeve for free disengagement and engagement with said tap fitting; said inner sleeve arranged to carry said delivery tube and device.

2. In a beer tap adapted to secure a delivery tube in a beer tap fitting of the type having latching lugs, the combination of: a delivery tube sleeve; an outer sleeve on said inner sleeve having latching lugs for coaction with the lugs of said beer tap fitting; yieldable means interposed between said sleeves urging the inner sleeve into sealing engagement with said beer tap fitting when said lugs are interlocked; and coacting cam elements carried by said sleeves for drawing said inner sleeve axially away from said fitting against the action of said yieldable means whereby the lugs of said outer sleeve and said fitting may freely engage and disengage.

3. In a beer tap adapted to secure a delivery tube in a beer tap fitting of the type having latching lugs, the combination of: an inner sleeve adapted to abut sealingly said beer tap fitting and receive a delivery tube; an outer sleeve on said inner sleeve having latching lugs for coaction with the lugs of said beer tap fitting; yieldable means interposed between said sleeves urging the inner sleeve into sealing engagement with said beer tap fitting when said lugs are interlocked; and means operative by relative rotation of said inner and outer sleeves to restrain said yieldable means whereby said outer sleeve may be latched and unlatched from said fitting.

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