March 26, 1935. O. J. LEINS 1,995,479

TAP

Filed Jan. 4, 1934

Fig. 1.

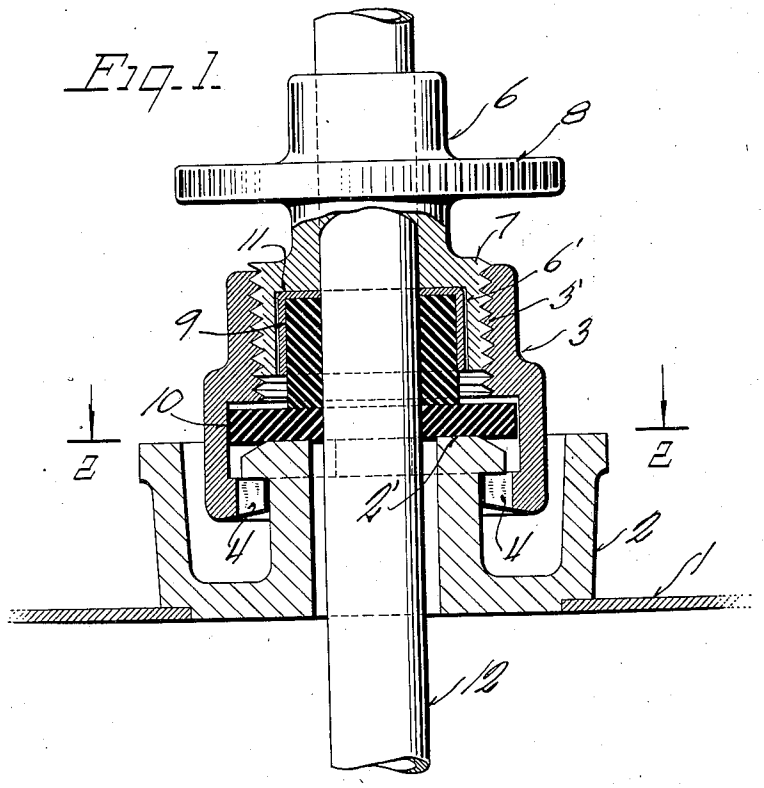
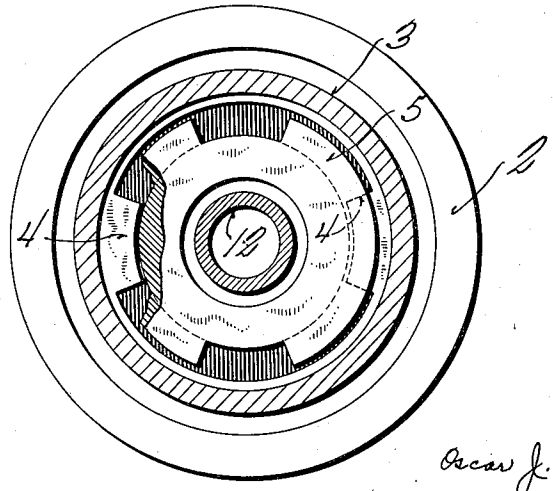


Fig. 2.



INVENTOR.

Oscar J. Leins

BY

Bottum, Hudnall, Locher, McNamara & Michael

ATTORNEYS

Patented Mar. 26, 1935

1,995,479

UNITED STATES PATENT OFFICE

1,995,479

TAP

Oscar J. Leins, Milwaukee, Wis., assignor to Milwaukee Gas Specialty Company, Milwaukee, Wis., a corporation of Wisconsin

Application January 4, 1934, Serial No. 705,197

5 Claims. (Cl. 285—40)

This invention relates to an improvement in beer taps of the type of the so-called "Bock" tap wherein provision is made for the releasable attachment of the tap to a standard keg bung or tap fitting and also for seals or packed joints between the tap and the keg bung and the tap and the tap tube, without, however, incorporating in the structure of the tap any means providing for the introduction of auxiliary gas pressures to aid in delivery of the contents of the keg or container.

Among the objects of the invention are to provide a tap of this character which is so simply and compactly organized as to facilitate the manufacture thereof and reduce to a minimum the cost of manufacture thereby rendering the tap available at a popular price to the consumers of beer. Furthermore, the improved tap of the present invention is so well organized that it may be readily and conveniently applied and removed. The operation of tapping a keg or container of beer requires the manipulation of only a single hand nut or operator and yet the loss of any of the contents of the container is precluded, effective seals being provided during tapping operation and thereafter.

Other objects and advantages reside in certain novel features of the construction, arrangement and combination of parts which will be hereinafter more fully described and particularly pointed out in the appended claims, reference being had to the accompanying drawing, forming a part of this specification, and in which:

Figure 1 is a view partly in diametrical vertical section and partly in side elevation illustrating a tap embodying the present invention and showing the same applied to a standard keg bung or tap fitting; and

Figure 2 is a view in horizontal section taken on line 2—2 of Figure 1, parts being broken away for the sake of illustration.

Referring to the drawing, the numeral 1 designates the head of a keg, barrel or other container which is provided with a standard keg bung or tap fitting designated at 2.

The tap embodying the present invention comprises a housing 3 provided at its lower open end with a pair of inturned clamping lugs 4 designed to coact with somewhat similar lugs 5 of the keg bung in order to provide the standard bayonet slot engagement or attachment between the tap housing and the keg bung. The upper portion of the housing 3 may be somewhat reduced and is internally threaded as indicated at 3'. A hand nut or follower 6 is provided and has its lower portion externally threaded as at 7 and interengaged or interthreaded with the internal threads 3' of the housing 3. The hand nut 6 is provided with some means to facilitate turning of the same, as, for example, an annular flange 8, the periphery of which may be serrated or knurled to facilitate its manipulation.

Within the housing 3, two rubber washers designated at 9 and 10 are provided. These washers may be constructed of any suitable elastic material and preferably are made of rubber. The lower washer 10 is flat and of a diameter just slightly less than that of the inside diameter of the lower portion of the housing and is designed to engage the surface 2' of the keg bung and effect a seal therewith. The upper washer 9 is of somewhat less diameter but is longer. The portion of the upper washer 9 which is located within the hollowed lower end 6' of the hand nut is disposed within a metal cup or retainer 11 which prevents such portion of the washer 9 from distorting radially in an outward direction and setting up friction not desired in the functioning of the tap. The rubber of which the washers 9 and 10 are constituted preferably is so selected or so constituted that the washer 9 has a greater modulus of compression than the washer 10.

In tapping a keg or container of beer with a tap of the nature described, the tap is set in position on the keg bung and the lugs 4 thereof are interengaged with the lugs 5 of the keg bung 2 in the usual way. The hand nut 6 is then turned to exert a downward pressure on the retainer 11 and its washer 9 which, in turn, will compress the washer 10 against the seat or face 2' of the keg bung and effect a seal therebetween. While the washer 9 will be somewhat compressed by this operation, it will not be so much compressed as the washer 10, due to the differential in the moduli of compression of these washers, and will not be distorted to such extent as to interfere with the insertion of the tap rod 12. The engagement of this washer 9 with the tap rod as the same is pushed therethrough will, however, be sufficient to prevent any loss of the fluid contents of the container as the tap rod is being pushed down and after it has punched the usual plug or cork of the keg bung into the keg. When the tap rod or tube is in its proper position the hand nut 6 is given a further turn to further compress the washers 9 and 10 thereby bringing about full final sealing for the delivery of the contents of the container under pressure.

From the foregoing, it will be understood that the outstanding features of the device are its simplicity and compactness which render its pro-

duction convenient and economical thereby making a tap of this character available at popular prices to the consumer of beer for use at home or at picnics or other outings. Another feature of importance is the convenience and facility with which the tap may be applied and removed and its efficiency in effecting the sealing without loss of any of the contents of the keg or container.

If desired, the washers 9 and 10 may be made integral by vulcanization, but in any event the lower washer is more easily compressible and therefore first to be distorted into sealing engagement with the bung while the upper washer, being less readily compressible, will not, under the condition mentioned, be so distorted as to preclude insertion of the tap tube.

While I have shown and described one construction in which the invention may be embodied, it is to be understood that this construction has been selected merely for the sake of illustration or example and that various changes in the size, shape and arrangement of the parts may be made without departing from the spirit of the invention or the scope of the subjoined claims.

The invention claimed is:

1. A tap for use with tap tubes and container bungs and comprising a housing having means at its lower end for releasably securing it to the bung, washer means within the housing for effecting seals between the tap and the bung and the tap and tap tube, the washer element engaging said tube bearing downwardly on the washer element engaging said bung and a manually operable compressor interconnected with said housing for manual adjustment therealong and engageable with the upper washer element to press downwardly thereon and cause the lower washer element initially to have sealing engagement with the bung and the upper washer element subsequently to have sealing engagement with the tap tube.

2. A tap for use with tap tubes and container bungs and comprising a housing having means at its lower end for releasably securing it to the bung. washer means within the housing for effecting seals between the tap and the bung and the tap and tap tube, the washer element engaging said tube bearing downwardly on the washer element engaging said bung and a manually operable compressor interconnected with said housing for manual adjustment therealong and engageable with the upper washer element to press downwardly thereon and cause the lower washer element initially to have sealing engagement with the bung and the upper washer element subsequently to have sealing engagement with the tap tube, in combination with a metallic retaining element for preventing undesirable distortion of a portion of the upper washer element.

3. A tap for use with tap tubes and container bungs and comprising a housing having means at its lower end for releasably securing it to the bung, washer means within the housing for effecting seals between the tap and the bung and the tap and tap tube, the washer element engaging said tube bearing downwardly on the washer element engaging said bung and a manually operable compressor interconnected with said housing for manual adjustment therealong and engageable with the upper washer element to press downwardly thereon and cause the lower washer element initially to have sealing engagement with the bung and the upper washer element subsequently to have sealing engagement with the tap tube, the upper washer element having a greater modulus of compression than the lower washer element.

4. A tap comprising a housing, upper and lower washers in said housing, one washer directly engaging the other, and a hand nut threadedly interconnected with the housing and pressing down on the upper washer when turned in one direction to compress both of said washers into sealing engagement.

5. A tap for use with tap tubes and container bungs and comprising a housing having means for releasably securing it to the bung, upper and lower washers in said housing, the upper washer bearing directly on the lower washer and having a greater modulus of compression than the lower washer and a hand nut threadedly interconnected with the housing and operable to exert a downward pressure on the upper washer to cause the lower washer first to have sealing engagement with the bung and the upper washer to subsequently have sealing engagement with the tap tube.

OSCAR J. LEINS.