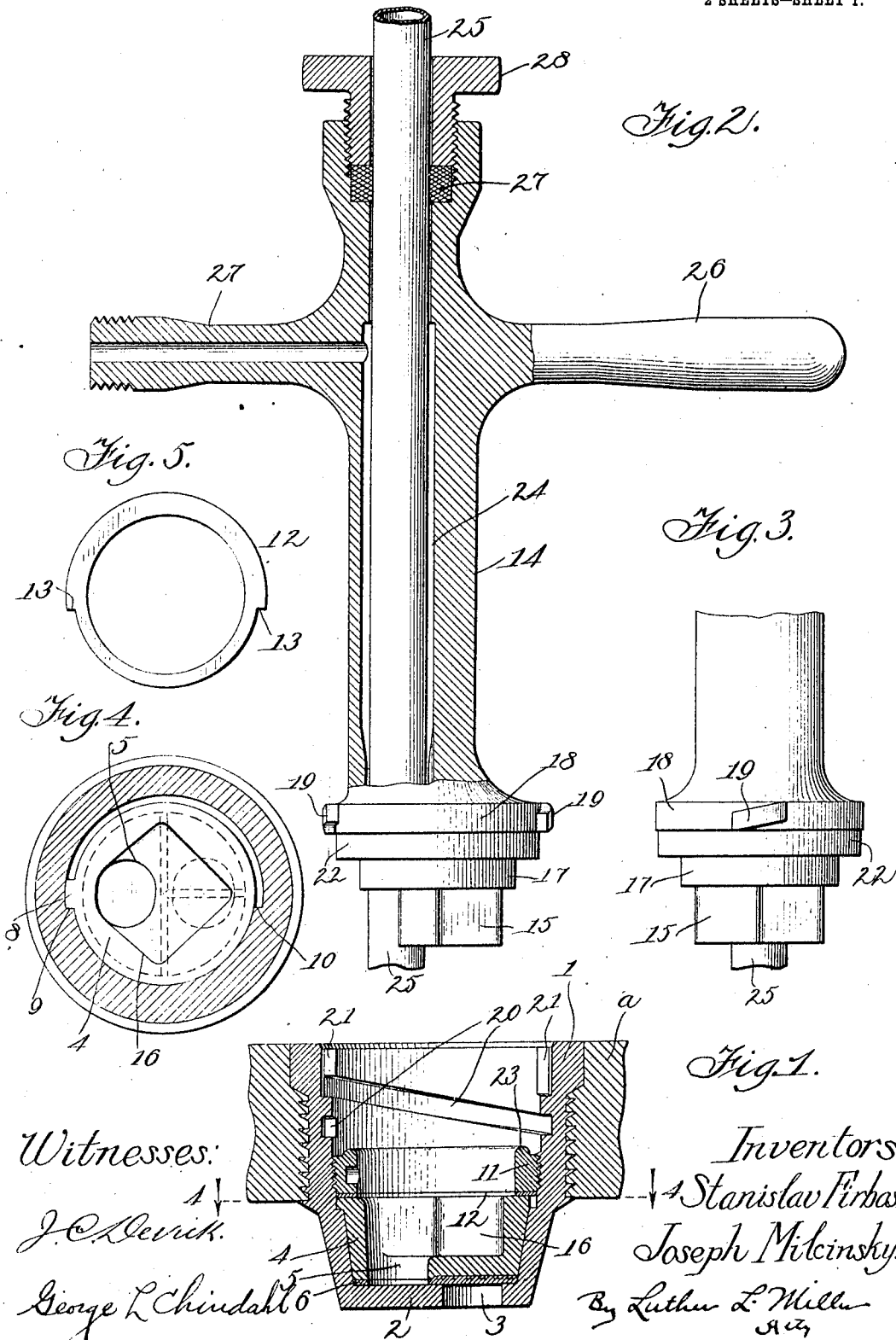


S. FIRBAS & J. MILCINSKY.
 BARREL TAPPING DEVICE.
 APPLICATION FILED SEPT. 20, 1911.

1,039,372.

Patented Sept. 24, 1912.

2 SHEETS—SHEET 1.



Witnesses:

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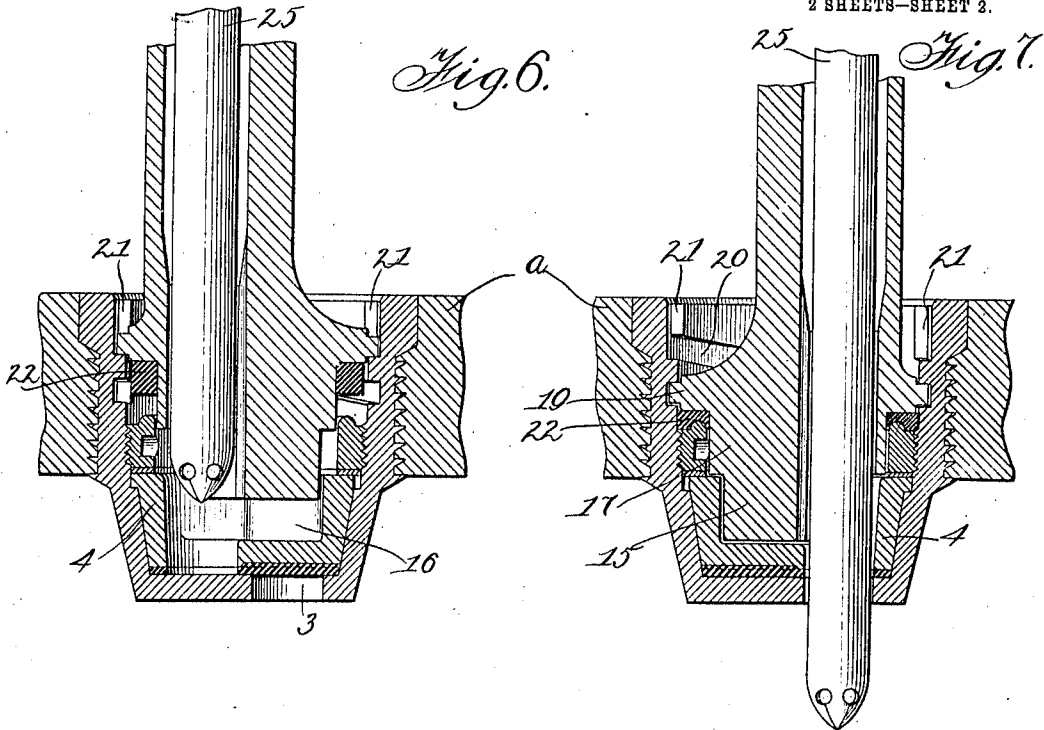


Fig. 6.

Fig. 7.

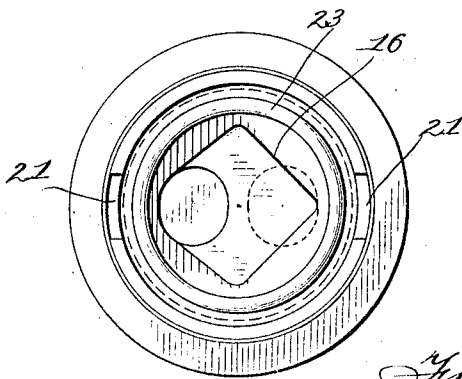


Fig. 8.

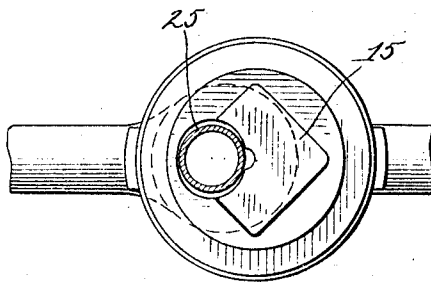
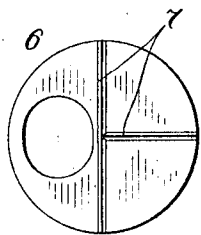


Fig. 9.

Fig. 10.



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UNITED STATES PATENT OFFICE.

STANISLAV FIRBAS AND JOSEPH MILCINSKY, OF CHICAGO, ILLINOIS.

BARREL-TAPPING DEVICE.

1,039,372.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed September 20, 1911. Serial No. 650,451.

To all whom it may concern:

Be it known that we, STANISLAV FIRBAS, a subject of the Emperor of Austria-Hungary, and JOSEPH MILCINSKY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Barrel-Tapping Devices, of which the following is a specification.

The object of this invention is to simplify the construction of devices for tapping beer kegs and the like.

In the accompanying drawings, Figure 1 is a central sectional view of a bung-hole casing and closure embodying the features of our invention. Fig. 2 is a view partly in section illustrating the implement by means of which the liquid contents of the barrel are placed under pressure and withdrawn, said implement constituting a key for operating the before-mentioned closure. Fig. 3 is a fragmental side elevation of said implement. Fig. 4 is a section on line 4 4 of Fig. 1. Fig. 5 is a detail view of a washer comprised in the construction. Figs. 6 and 7 illustrate successive stages of the operation of inserting the key and the tapping tube. Fig. 8 is a top plan view of the bung-hole casing and closure. Fig. 9 is an under side view of the implement. Fig. 10 is a detail view of a gasket or packing member employed in the device.

In the drawings, *a* indicates a wall of the barrel, and 1 designates a bung-hole casing secured in any suitable manner within an aperture in the wall *a*. The casing 1 is provided with an inner end wall 2 through which is formed a port 3 located at one side of the longitudinal axis of the casing 1. This port is normally closed by means of a valve member 4 rotatably seated in the inner end of the casing 1 and having an eccentric port 5 therethrough, arranged to be brought in the rotation of said valve member into and out of register with the port 3.

6 is a gasket or packing disk interposed between the end wall 2 and the adjacent end of the valve 4, said disk being of hard rubber or other suitable material, and being perforated in alinement with the port 5. The disk 6 is preferably caused to turn with the valve 4, which result may be accomplished by any suitable means, as, for example, the provision of ribs 7 on one of the parts fitting into corresponding grooves in the other part. The rotative movements of

the valve 4 are limited by suitable means, such as a lug 8 on said valve member arranged to contact with the stop shoulders 9 and 10 of the casing 1. Figs. 1, 4 and 6 represent the valve as at one extreme of its turning movement, and Fig. 7 as at the other extreme of its movement.

The valve 4 is held against axial displacement by means of an annular member 11 having a screw-thread engagement with the interior walls of the casing 1. Between the valve member 4 and the annular member 11 is interposed a washer 12 of brass or other suitable material, said washer preferably being held against rotation as by forming upon said washer shoulders 13 to lie against the shoulders 9 and 10 of the casing 1.

The valve member 4 is turned to open and close the port 3 by means of the implement hereinbefore mentioned, said implement comprising a body 14 having upon its lower end a key or projection 15 of non-circular form adapted to enter a correspondingly-shaped socket 16 in the valve member 4. Just above the projection 15 is a cylindrical portion 17 adapted to fit within the annular member 11, as shown in Fig. 7. Above the cylindrical portion 17 is an annular flange 18 adapted to enter the casing 1, and provided upon diametrically opposite sides with lugs or partial screw-threads 19. These lugs are adapted to move within a double screw-thread 20 formed in the interior walls of the casing 1. To permit the lugs 19 to enter the double screw-thread 20 there are provided notches 21 extending from the outer end of the casing 1 to the outer ends of said screw-threads, as shown in Figs. 1 and 8. Directly below the flange 18 is a packing ring or gasket 22 adapted to be compressed between said flange and a rounded annular rib 23 upon the member 11, as will be seen by reference to Fig. 7.

The body 14 is provided with a longitudinal bore 24 to receive the draw-off tube 25, the ports 3 and 5 being of such dimensions as to permit the tube 25 to pass freely there-through and leave an annular space for the passage of a pressure fluid, as will appear hereinafter. On the body 14 is formed a handle 26 and a nipple 27, the latter being adapted for attachment to a flexible tube or other suitable conductor for fluid under pressure such as compressed air. The portion of the bore 24 extending between the lower end of the body 14 and the nipple 27

is of such diameter as to provide an annular space surrounding the tube 25, said space being in communication with the nipple 27. To prevent the leakage of compressed air upwardly along the tube 25 there is provided suitable packing 27 held in place by means of a gland 28. The tube 25 is frictionally held in adjusted position with reference to the implement by means of said packing and gland.

Assuming the tap-tube 25 to be located with reference to the implement body 14 as shown in Fig. 6, the operation is as follows: When it is desired to draw off the contents of the barrel the implement is inserted into the casing 1, as shown in Fig. 6, the lugs 19 passing through the notches 21 into the double screw-thread 20, with the projection 15 lying partly within the socket 16. The operator then turns the implement, the engagement of the lugs 19 with the screw-thread causing the implement to move farther into the casing 1 and causing the valve member 4 to turn. By the time the lug 8 contacts the stop-shoulder 10 the port 5 has been turned into register with the port 3 and the packing ring 22 has been compressed between the flange 18 and the rib 23 so as to form a fluid-tight joint between the implement and the casing 1. The tap-tube 25 is then pushed into the body of liquid to the desired depth, and compressed air admitted to the space within the barrel above the level of the liquid through the nipple 27 and the annular space surrounding the tube 25. The liquid contents of the barrel are thereby placed under pressure and forced out through the tube 25 to the desired point of delivery. When the barrel is to be again closed, the lower end of the tap-tube 25 is withdrawn into the body 14 and the implement rotated in the reverse direction, thereby turning the valve member into position to blank the port 3.

It will be seen that we have provided an implement for the purpose specified which consists of a minimum number of parts and which, therefore, is not liable to derangement and excessive wear.

We claim as our invention:

1. The combination of a bung-hole casing having a port in its inner end wall; a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port; a lug upon the upper end of said valve member adapted to contact with stop shoulders formed in said casing, said stop shoulders determining the open and closed positions of said valve member; an annular externally screw-threaded member having a screw-thread connection with the inner walls of said casing and serving to hold said valve member against displacement, said casing having an internal screw-thread, the outer

end of which thread is connected with the outer end surface of said casing by means of a notch in said casing; a barrel-tapping implement having a non-circular projection upon its inner end adapted to enter a corresponding socket in the valve member, and having a cylindrical portion directly above said projection, and an annular flange above said cylindrical portion; a lug on said flange constituting a partial screw-thread adapted to engage with the internal screw-thread of said casing; and a packing ring upon said cylindrical portion at the under side of said flange and adapted to bear against said annular member.

2. The combination of a bung-hole casing having a port in its inner end wall, a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port, an annular member having a screw-thread connection with the interior walls of said casing and serving to prevent axial displacement of said valve member, said casing having a screw-thread formed in its internal walls said annular member being located between said valve member and said screw-thread and the outer end of said screw-thread being connected with the end surface of the casing by means of a notch, an implement provided with a lug adapted to pass through said notch and enter and move within said screw-thread, means for forming an operative connection between said implement and said valve member, and a packing member carried by said implement adapted to contact said annular member within the casing to form a fluid-tight joint between said implement and said casing.

3. The combination of a bung-hole casing having a port in its inner end wall, a valve member rotatably mounted within said casing and provided with a port adapted to register with the first mentioned port, a packing disk of hard rubber interposed between the end wall of said casing and the adjacent portion of said valve member and secured against rotation with relation to said valve member, said disk having an opening therethrough in alignment with the second mentioned port, a lug upon the upper end of said valve member adapted to contact with stop-shoulders formed in said casing, said stop shoulders determining the open and closed positions of said valve member, a washer overlying the valve member and provided with stop shoulders adapted to engage the first mentioned stop shoulders to prevent rotation of said washer, an annular externally-screw-threaded member having a screw-thread connection with the interior walls of said casing and overlying said washer and serving to hold said washer and valve member against displacement, said annular member having an annular rib upon

its outer side, said casing having an internal double screw-thread, the outer end of which thread is connected with the outer end surface of said casing by means of notches in
5 said casing, a barrel-tapping implement having a non-circular projection upon its lower end adapted to enter a corresponding socket in the valve member, and having a cylindrical portion directly above said projection, and an annular flange above said cylindrical portion, diametrically opposite lugs

on said flange constituting partial screw-threads, and a packing ring upon said cylindrical portion and contacting the under side of said flange.

In testimony whereof we affix our signatures in presence of two witnesses.

STANISLAV FIRBAS.
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Witnesses:

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