No. 669,196. Patented Mar. 5, 1901.

M. J. CHAPLIN & E. FALK.

VALVE.

(Application filed July 17, 1900.)

(No Model.)

Fig. 10.

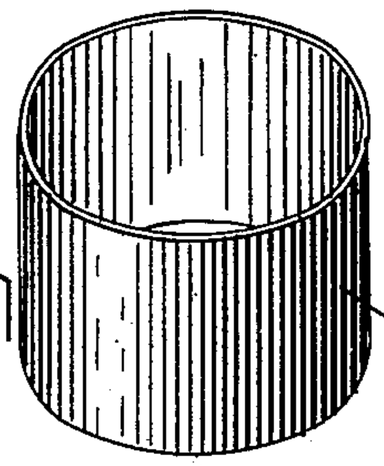


Fig. 11.

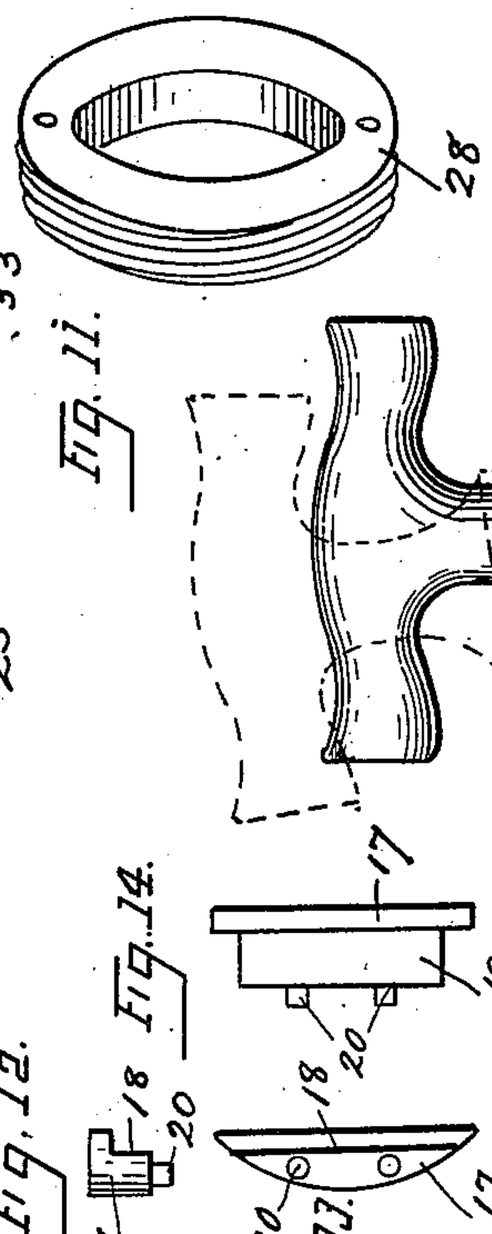


Fig. 9.

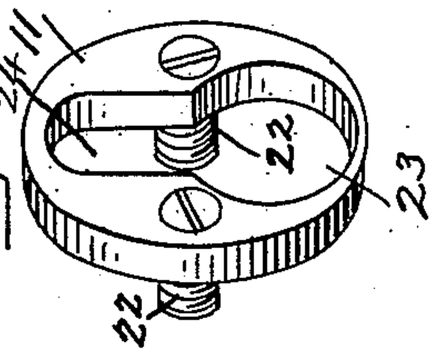


Fig. 8.

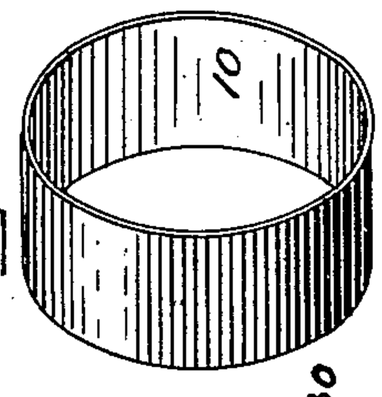


Fig. 12.

Fig. 14.

Fig. 13.

Fig. 1.

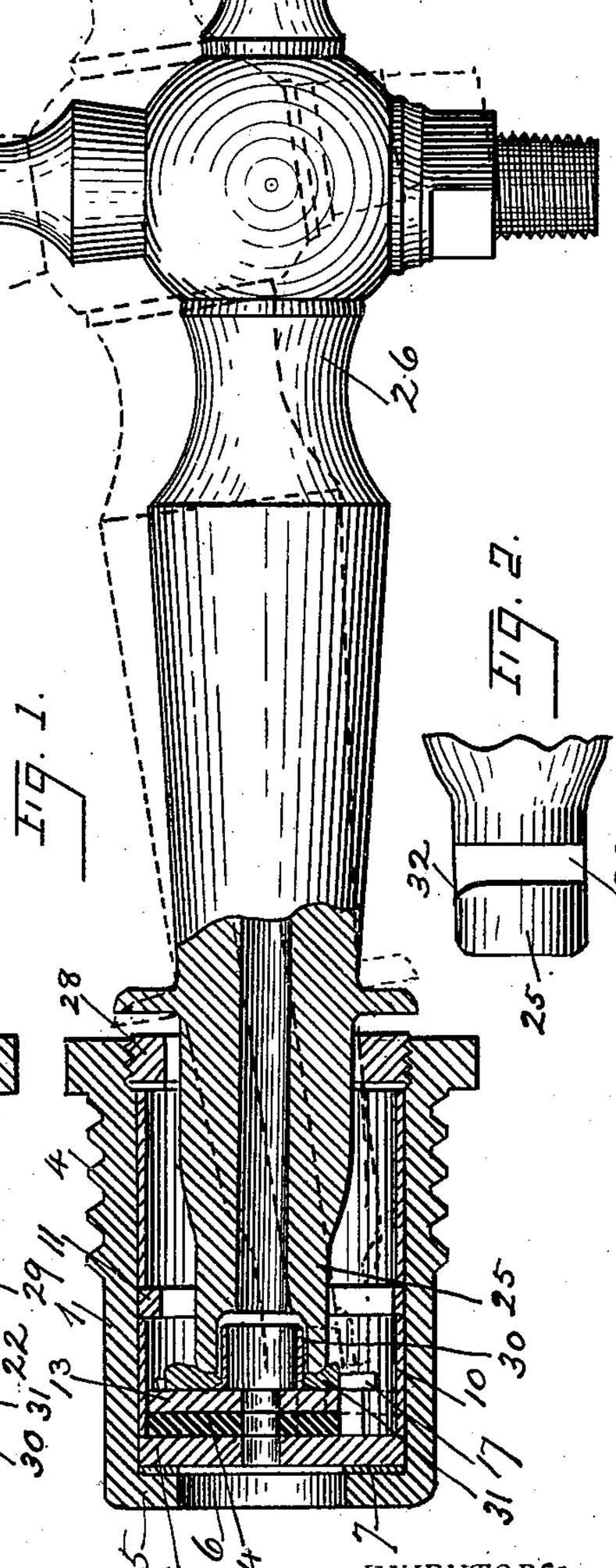


Fig. 2.

Fig. 7.

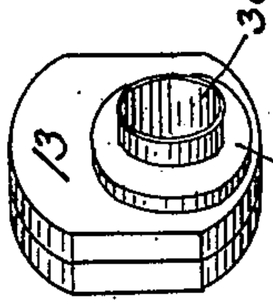


Fig. 6.

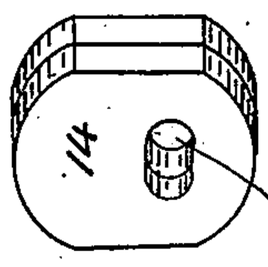


Fig. 5.

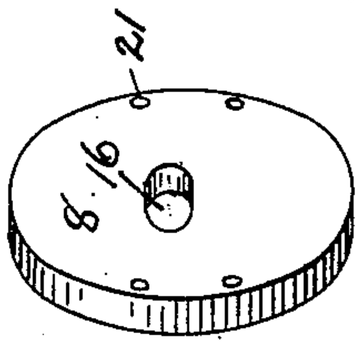


Fig. 3.

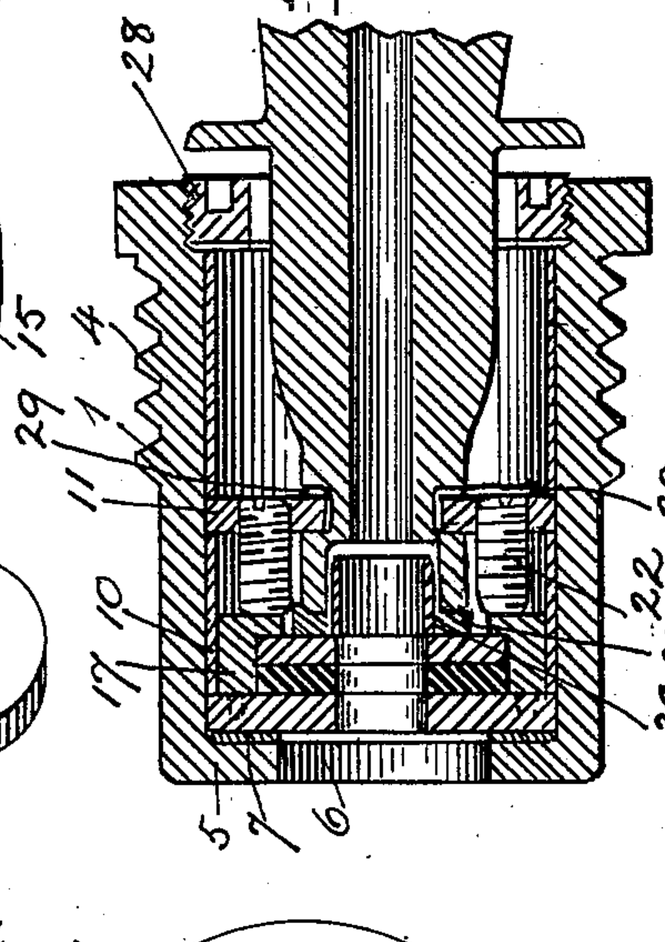
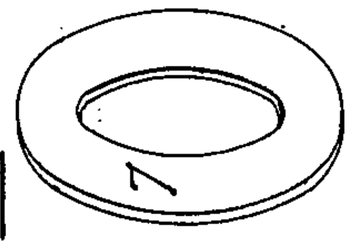


Fig. 4.



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UNITED STATES PATENT OFFICE.

MANLEY J. CHAPLIN AND EMIL FALK, OF SAN FRANCISCO, CALIFORNIA.

VALVE.

SPECIFICATION forming part of Letters Patent No. 669,196, dated March 5, 1901.

Application filed July 17, 1900. Serial No. 23,961. (No model.)

To all whom it may concern:

Be it known that we, MANLEY J. CHAPLIN and EMIL FALK, citizens of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Valves, of which the following is a specification.

Our invention relates to improvements in valves, especially valves that are used for drawing off wine or beer from barrels or vats by means of faucets or hose-piping.

The objects of our invention are to provide a valve of this character which shall be automatically closed when removing the faucet or hose-pipe from the valve and which shall be automatically opened when attaching the same, a valve in which adjustments can be made without removing it from the tank, and one which can be screwed directly into the wood of the barrel or tank without the necessity of a sleeve or bushing into which the valve is fitted, as with the present style of valves, this necessity being avoided by providing a valve which need never be removed after having once been inserted.

Our invention therefore resides in the novel construction, combination, and arrangement of parts for the above ends hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section of the valve and a faucet attached thereto, the dotted lines showing the position of the faucet just before removal therefrom. Fig. 2 is a broken view of the end of a faucet for use with our improved valve. Fig. 3 is a longitudinal section similar to Fig. 1, but on a plane transverse to that of Fig. 1, and showing a portion only of the faucet. Fig. 4 is a detail of the leather gasket. Fig. 5 is a detail of the valve face-plate. Figs. 6 and 7 are details of the valve. Fig. 8 is a detail of the side of the valve-box. Fig. 9 is a detail of the partition-plate. Fig. 10 is a detail of the spacing sleeve or washer. Fig. 11 is a detail of the bearing-plate, and Figs. 12, 13, and 14 are details of one of the guides.

Referring to the drawings, 1 represents the casing of the valve, having a flange 2 in its outer end. Said casing is screw-threaded, as shown at 4, on its outer surface, and the inner end 5 of the casing is partly closed except for a circular central aperture 6. Within the casing, against its inner end, rests a leather gasket 7, having an aperture corresponding to the aperture 6, and upon or against said gasket rests the valve-face 8 of the valve-box. Said box has a cylindrical side 10 fitting snugly within the casing 1, and upon the outer end of said box is a partition-plate 11. The valve-face 8, the side 10, and the plate 11 will be secured together by solder to form a single piece when the valve has been placed in said box.

The valve 12 comprises a metallic plate 13, having secured thereon a plate 14, of hard rubber or similar material, which makes a smooth fit against the valve-face 8. Said plates 13 14 have therethrough an elongated aperture 15, which when the valve is opened alines with a similar aperture 16 in the valve-face. The plate 14 slides upon the plate 8 so as to bring the apertures 15 16 into or out of alinement with each other, and in order to guide the movement of said plate upon said face there are provided guides 17, against the plane inner faces 18 of which slide the plane edges 19 of the valve. Said guides 17 are retained in position by means of pins 20, extending from said guides and fitting into holes 21 at the sides of the face-plate, and in order to adjust said guides for wear of the surfaces which slide upon each other there are provided on each side of the plate 11 adjusting-screws 22, the ends of which bear upon the guides 17, so that by screwing said screws in or out a greater or less pressure may be made upon the plate 13.

The plate 11 has an aperture 23, which in form is circular, except for an oblong extension 24 from the upper side thereof. The circular portion of said aperture 23 is adapted to receive the cylindrical end 25 of a faucet 26. The inner end of the faucet 26 has formed thereon at each side a vertical groove 29, and the cylindrical open end of said faucet fits around a cylindrical neck 30, extending outward from the plate 13 around the oblong aperture 15, said faucet end also being pressed firmly against a rubber gasket 31 around said neck.

When the valve is down, so that the apertures 15 16 are out of alinement with each

other, and when the faucet 26 is inserted so that the cylindrical open end 25 thereof is depressed as low as possible, said open end will fit around the neck 30, and then when downward pressure is applied to the outstanding end of the faucet 26 said faucet may be used as a lever having for its fulcrum a bearing-plate 28, screwed into the mouth of the casing 1. The inner end of said faucet is then raised, raising with it the valve 12, so as to bring the apertures 15 16 into alinement with each other. At the same time the edges of the extension 24 will enter the grooves 29 and so hold said faucet in place. For the purpose of producing a tight compression of the end of the faucet upon the gasket 31 as the inner end of the faucet is so raised the grooves 29 are flared slightly at their upper ends, as shown at 32. The result of this is that when the faucet is depressed at its outer end the inner end is more firmly pressed against the gasket 31.

Between the partition-plate 11 and the bearing-plate 28 is interposed a spacing sleeve or washer 33, the object of which is to transmit pressure from the threaded bearing-plate 28 to said partition-plate and thence to the gasket 7.

It will readily be seen that access is had to the screws 22 for the purpose of adjusting the pressure of the guides 17 through the open end of the casing 1 without removing said casing from the barrel or vat.

An important feature of our invention is that the valve-seat is wholly within the casing. In prior devices within our knowledge said valve-seat is on the outer surface of the inner end of the casing. The effect of this is that when the barrel is pitched said valve-seat becomes coated with pitch, interfering with the operation of the valve.

We claim—

1. The combination, with a casing, apertured at its inner end, of a gasket in said inner end, a valve face-plate against said gasket having an aperture, a valve slidable transversely against said plate, guides for said valve, a conduit for drawing off the liquid, and a bearing-plate in said casing through which said conduit is inserted, the valve being constructed to register with and engage the open inner end of said conduit when the latter is inserted in place, whereby the rocking of said conduit on said bearing-plate then slides said valve transversely upon the valve face-plate, substantially as described.

2. The combination, with a casing, apertured at its inner end, of a valve face-plate in said inner end having an aperture a valve slidable transversely against said plate, a guide for said valve, a partition-plate in the casing, an adjustment-screw in said partition-plate bearing upon the guide, a conduit for drawing off the liquid, and a bearing-plate in said casing through which said conduit is inserted, the valve being constructed to register with and engage the open inner end of said conduit when the latter is inserted, whereby the rocking of said conduit on said bearing-plate then slides said valve transversely upon the valve face-plate, substantially as described.

3. The combination, with a casing, apertured in its inner end, of a gasket in said inner end, a valve face-plate against said gasket having an aperture, a valve slidable transversely against said plate, a guide for said valve, a partition-plate in the casing, a conduit for drawing off the liquid, a bearing-plate in said casing through which said conduit is inserted, the valve being constructed to register with and engage the open inner end of said conduit when the latter is inserted, whereby the rocking of said conduit on said bearing-plate slides said valve transversely upon the valve face-plate, said bearing-plate being screwed into the casing and a spacing sleeve or washer interposed between the bearing-plate and partition-plate to transmit pressure to the latter from the former, substantially as described.

In witness whereof we have hereunto set our hands in the presence of two subscribing witnesses.

MANLEY J. CHAPLIN.
EMIL FALK.

Witnesses:
F. M. WRIGHT,
M. R. DANIELS.