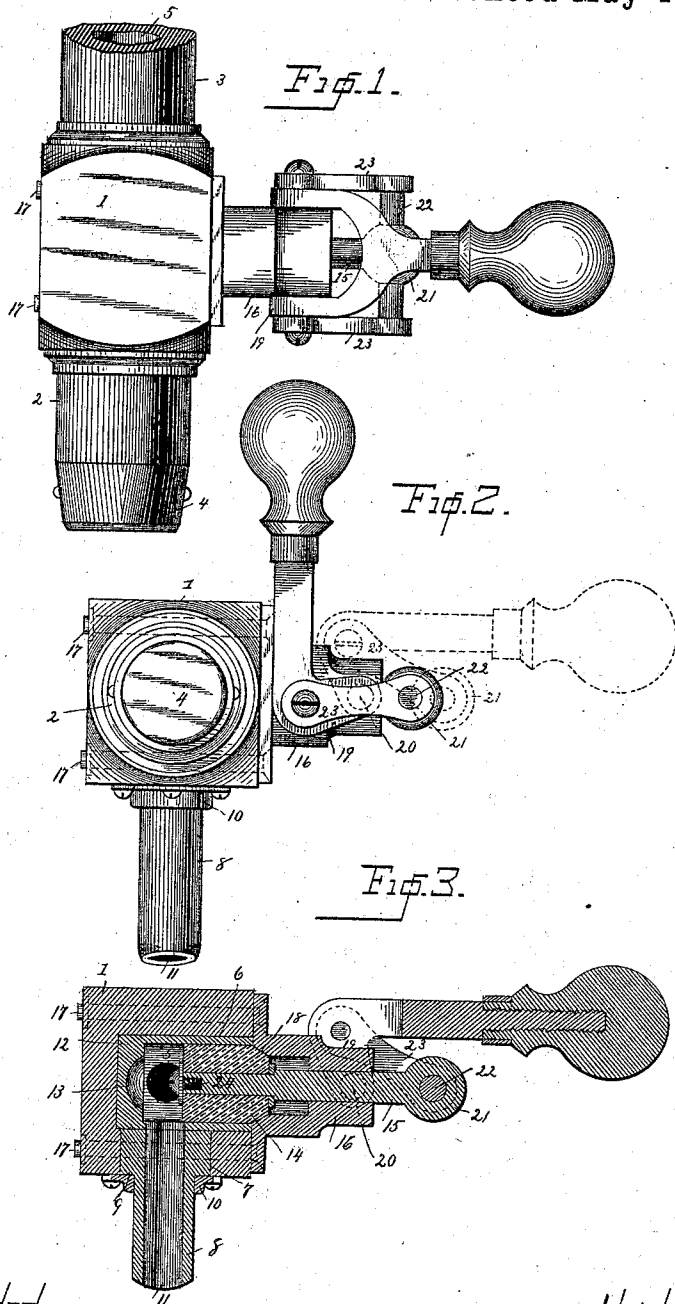


(No Model.)

O. KNIPFER.  
WOODEN FAUCET.

No. 382,166.

Patented May 1, 1888.



WITNESSES.  
W. A. Gaultland.  
B. E. Lee.

INVENTOR.  
Otto Knipper.  
By J. M. Wooster.  
Atty.

# UNITED STATES PATENT OFFICE.

OTTO KNIPFER, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF  
TO CLAPP SPOONER, OF SAME PLACE.

## WOODEN FAUCET.

SPECIFICATION forming part of Letters Patent No. 382,166, dated May 1, 1888.

Application filed December 12, 1887. Serial No. 257,645. (No model.)

### *To all whom it may concern:*

Be it known that I, OTTO KNIPFER, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Wooden Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to so improve the construction of wooden faucets as to adapt them for general use in drawing all kinds of liquors—as, for example, beer, ale, cider, &c.

Wooden faucets possess important advantages over metallic faucets in that they are not acted upon in the slightest by any kind of liquor. They impart no flavor whatever to the liquor, but leave its natural taste unimpaired, and are, moreover, much cheaper to make than the same class of metallic faucets, my improved faucet costing only about one-half as much as a metallic faucet of the same size and capacity. It is of course well understood that in use the liquor is continually in contact with the interior and exterior of the shank of the faucet, and that liquors act very quickly upon metal, producing injurious oxides, which, unless the liquor is drawn very rapidly, impart more or less taste thereto, and are furthermore exceedingly unhealthy under all circumstances. Wooden faucets, as heretofore constructed, have been unable to stand the rough usage to which they were subjected in tapping and in being removed from the kegs and barrels, and owing to inherent defects in construction have failed to operate satisfactorily for any length of time.

By my present invention I produce a wooden faucet which is simple in construction, economical in cost, easy to operate, thoroughly durable, and able to stand rough usage, and which cannot leak under any circumstances.

With these ends in view I have devised the novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a plan view of my improved

faucet complete, the parts being in the open position; Fig. 2, an end view, the parts being in the closed position, the open position being indicated in dotted lines; and Fig. 3 is a transverse section showing the operative parts in the open position.

1 denotes the body of the faucet, 2 the head, and 3 the shank which is adapted to be driven into the keg or barrel in the usual manner. These parts are made from a single piece of wood and the head is provided with a cap, 4. This cap is made heavy, being preferably cast, and serves the double purpose of preventing the head from checking in use and receives the blows of the mallet when the faucet is driven into a keg or barrel. My improved faucet in fact will stand hammering just as well as a metal faucet.

5 denotes a longitudinal opening in the shank, which leads into an opening, 6, in the body; and 7 denotes an opening in the under side of the body to receive the nozzle 8, preferably made of wood. The lower portion of the nozzle is preferably reduced, as shown, so that a shoulder, 9, is formed. This shoulder rests upon a collar, 10, through which the reduced portion of the nozzle is passed, the collar being screwed firmly to the body and the upper portion of the nozzle, wholly filling opening 7. Opening 11 through the nozzle communicates directly with opening 6 in the interior of the body. The opening 6 extends inward from one side past the center, as clearly shown in Fig. 3, and is provided with a bushing, 12, which is of uniform diameter and is preferably made from deoxidized metal. The bushing is in fact a circular cup having an opening in one side corresponding with opening 5 in the shank and another opening corresponding with opening 11 in the nozzle. At the base of the bushing is a socket, 13, for a purpose presently to be explained.

14 denotes a valve wholly filling the bushing transversely and adapted to slide longitudinally therein. This valve may be made of any suitable material—as, for example, a series of disks or a solid block of rubber, as shown in the drawings. It is carried by a stem, 15, adapted to reciprocate in cap 16. This cap wholly covers opening 6 and the

bushing, and is secured in place by screws or bolts 17, which pass entirely through the body, thereby greatly strengthening the latter and counteracting the tendency to check and split.

At the lower edge of the cap, where it joins the bushing, is a seat, 18, which is engaged by the upper end of the valve for a purpose presently to be explained. Any suitable operating mechanism may be used to actuate the valve to open and close the faucet. In the present instance I have shown an operating-lever having two angle-arms, 19, which straddle the cap, the ends of said arms being pivoted to the upper portion of the cap, as at 20. At the outer end of the stem is an enlargement, 21, and through this is passed a cross-piece, 22.

23 denotes links, the opposite ends of which are pivoted to the ends of the cross-piece and to the arms of the operating-lever at points a greater distance from the cross-piece than the pivotal points of said lever to the cap. It will of course be understood that the operating mechanism may be arranged in any position relatively to the body of the faucet. In the present instance I have shown the operating mechanism as upon the right side of the body and so arranged as to open the faucet by moving the operating-lever from the vertical down to the horizontal position. If preferred, the operating mechanism may be placed upon the top of the body or upon the left side, or may be so arranged as to open by moving the lever from the horizontal down to the vertical position. These being mere details of construction within the province of the manufacturer, I have not deemed it necessary to illustrate. The essential principle of operation is that the valve operates transversely to the openings in the shank and the nozzle, passing entirely by them, so that both openings are effectually closed. The valve is secured to the stem in any suitable manner, preferably between two washers, as shown in the drawings, as screw 24, passing through the lower washer and engaging the base of the stem. In the closed position this screw and the lower washer are received by socket 13 in the bushing, so that the base of the valve comes firmly in contact with the base of the bushing. In practice I so construct and arrange the parts that the reciprocation of the stem at each movement is slightly greater than the distance from the base of the bushing to the base of the valve when in the open position. This insures that after the upper portion of the valve has come in contact with seat 18 the continued movement of the stem will slightly compress the valve, expanding it laterally, as well as forcing it tightly against the seat, so that there is not the slightest possibility of leakage around the stem; and, furthermore, when the valve is moved to the closed position, after the base of the valve has engaged the base of the bushing, there will be

a slight forward movement of the stem, which will again compress the valve and expand it laterally, so that there is no possibility of leakage through the nozzle. The important results secured by this special construction are, in addition to strength and durability, the entire prevention of leakage and, most important of all, the protection of the liquor from contamination by contact with metal. It will be seen that when the faucet is in the closed position the only metal with which the liquor comes in contact is the thickness of the bushing at the opening corresponding with opening 5 in the shank, and that in the act of drawing only does the liquor come in contact with any considerable metallic surface. The contact is but instantaneous, and as deoxidized metal is used in this portion of the faucet the possibility of injurious effect of the metal upon the strongest kinds of liquors is wholly avoided.

It will of course be understood that the details of construction may be varied within reasonable limits without departing from the spirit of my invention.

I claim—

1. A faucet consisting of shank, body, and nozzle of wood, the body having a central opening and the shank and nozzle having openings communicating therewith, a bushing within the body, of uniform diameter, and a rubber valve fitting closely within said bushing, which moves transversely to the openings in the shank of the nozzle.

2. The shank, body, and nozzle having openings, as described, and a bushing of uniform diameter within the body arranged transversely to the opening, in combination with a yielding valve fitting close within the bushing, and operating mechanism, substantially as described, whereby the valve is moved transversely to the openings in the shank and nozzle, and in the closed position, after engaging the base of the socket, is expanded by pressure to prevent leakage.

3. The shank, body, and nozzle having openings, as described, and a bushing of uniform diameter within the body, in combination with a valve fitting closely within said bushing, a stem therefor, a cap through which the stem passes, and which is provided with a seat, at its lower end, and operating mechanism, substantially as described, whereby the valve is pressed against the seat and expanded to prevent leakage in the open position and is pressed against the base of the bushing and expanded to prevent leakage in the closed position.

In testimony whereof I affix my signature in presence of two witnesses.

OTTO KNIPFER.

Witnesses:

A. M. WOOSTER,  
B. E. LEE.