

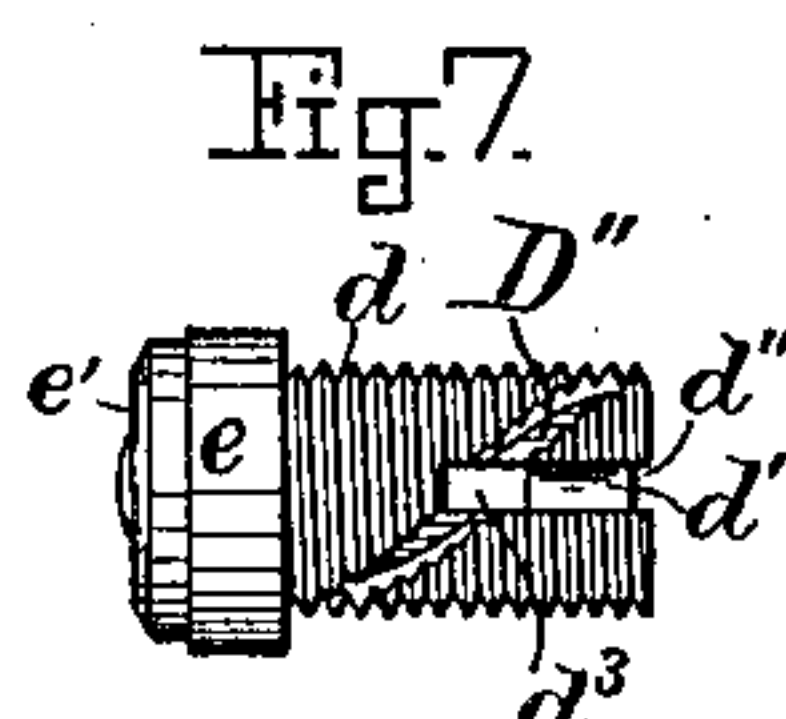
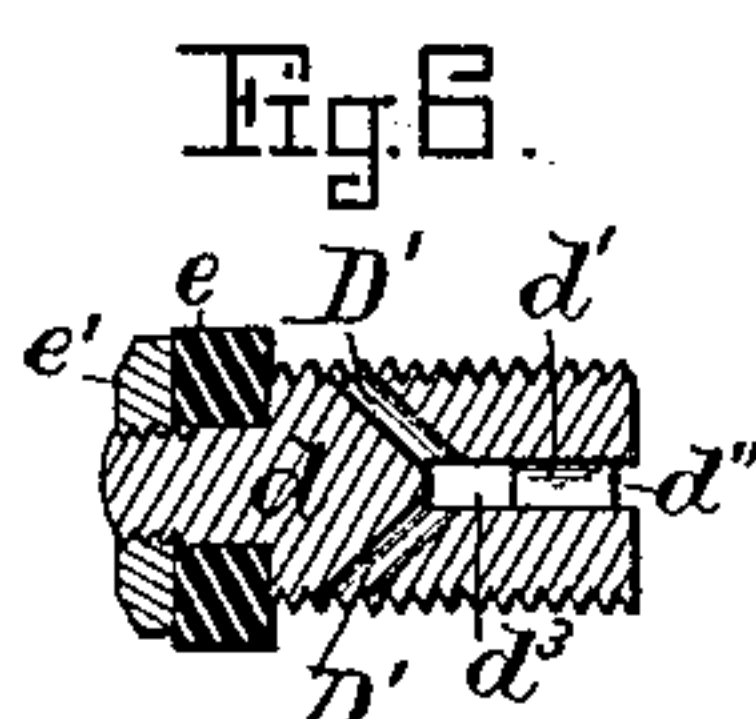
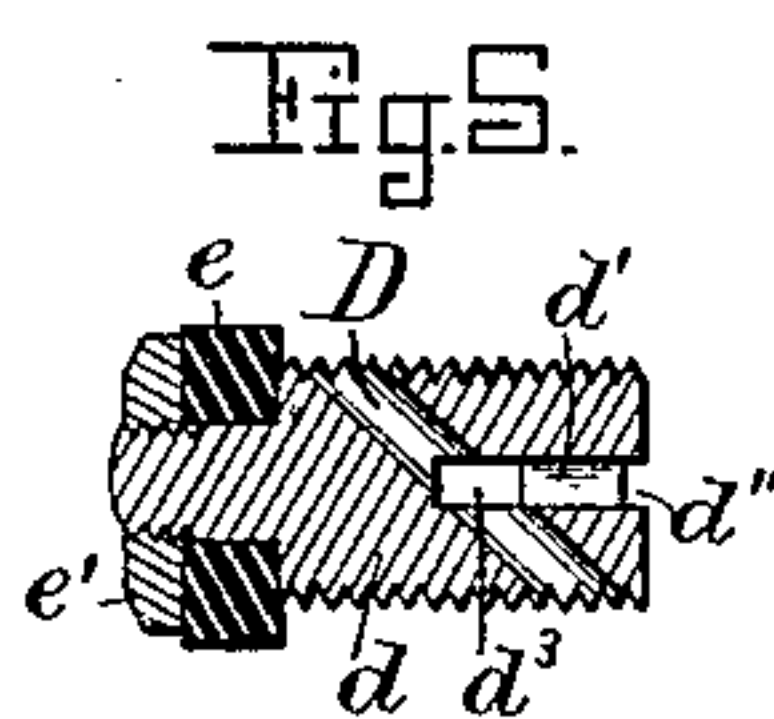
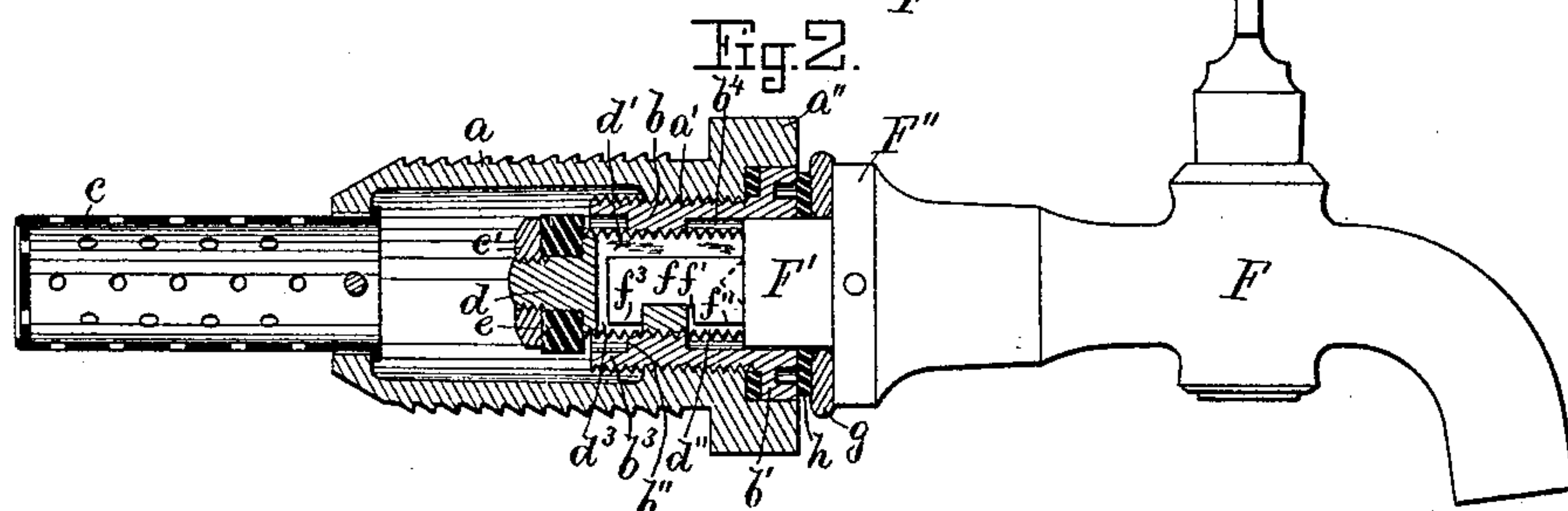
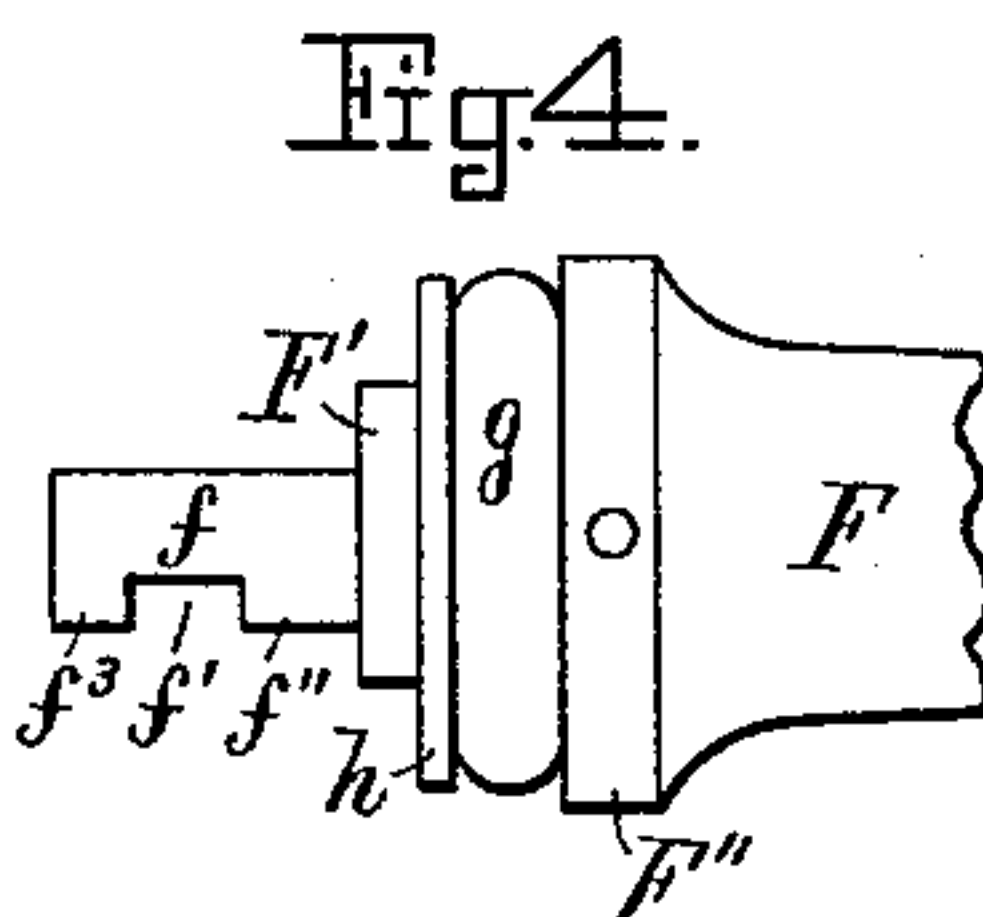
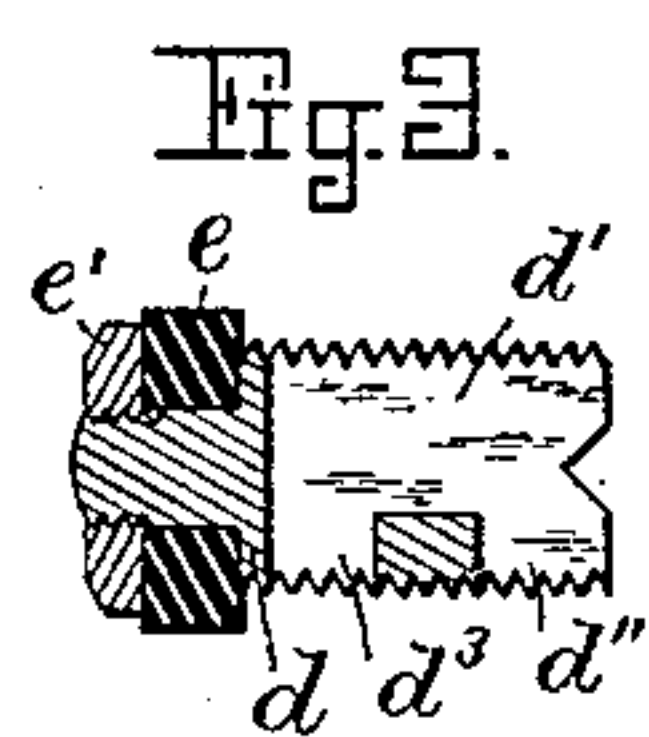
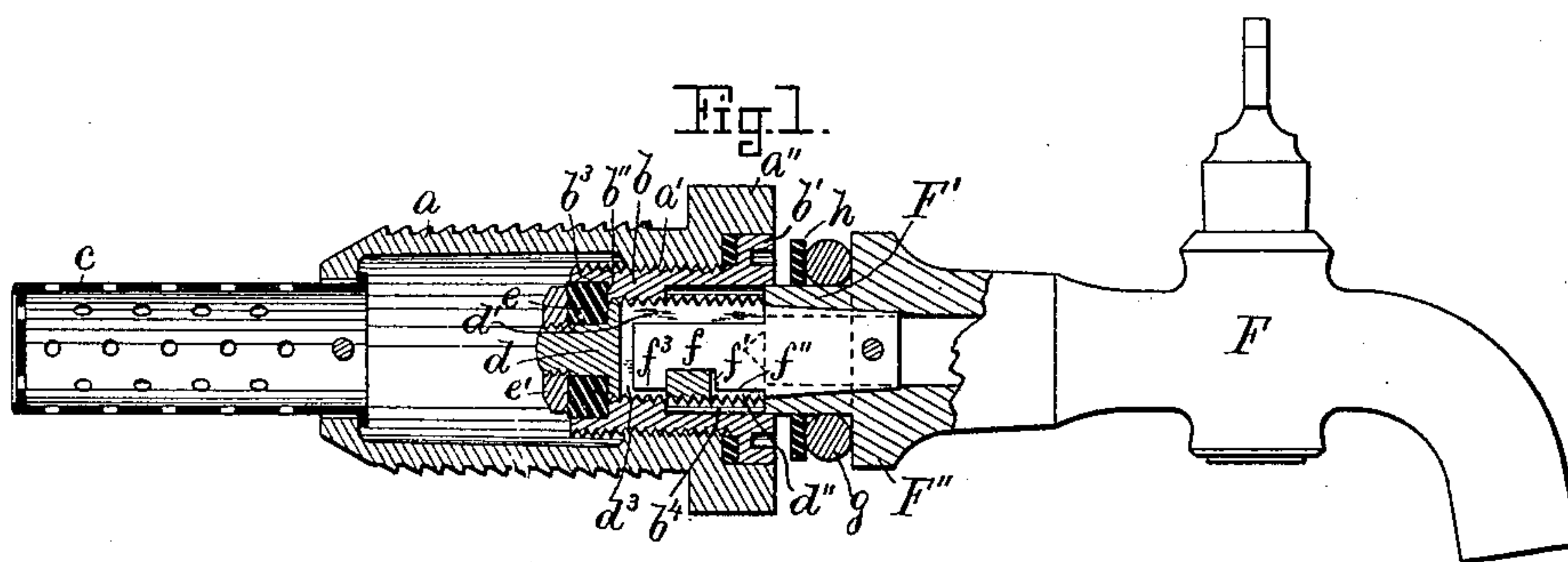
(No Model.)

J. F. BOGAN.

FAUCET.

No. 344,157.

Patented June 22, 1886.



Witnesses

Henry Chadbourn.  
George Marvin

Inventor

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his atty.



# UNITED STATES PATENT OFFICE.

JAMES F. BOGAN, OF EAST BOSTON, ASSIGNOR TO GEORGE E. MARVIN, OF BOSTON, AND WILLIAM E. CARLETON, OF CHARLESTOWN, MASS.

## FAUCET.

SPECIFICATION forming part of Letters Patent No. 344,157, dated June 22, 1886.

Application filed October 22, 1885. Serial No. 180,563. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. BOGAN, a citizen of the United States, residing at East Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Faucets; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

10 This invention relates to improvements in faucets of the kind adapted to remain permanently in the plugging-hole or tapping-hole of ale or beer barrels, &c.; and it is carried out as follows, reference being had to the accompanying drawings, where—

15 Figure 1 represents a sectional view of the improved faucet, showing the plug as closed. Fig. 2 represents a similar view with the plug shown open. Fig. 3 represents a detail view of the valve-plug. Fig. 4 represents an outside view of the inner end of the detachable cock; and Figs. 5, 6, and 7 represent modifications of the valve-plug.

25 Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

30 *a* is the outer screw-threaded shell, as usual, adapted to be screwed into the tapping-hole of a barrel and permanently retained therein, if so desired, such shell having in its interior at its outer end a short screw-thread, *a'*, for the reception of the externally screw-threaded valve-sleeve, *b*, which latter has in its outer end a flange, *b'*, adapted to fit into the annular recess in the flange *a''*, that forms the outer end of shell *a*, as shown.

35 *c* is a detachable perforated strainer located at the inner end of shell *a*, to prevent floating particles or residue in the barrel from passing out through the faucet.

40 *d* in Fig. 3 represents the externally screw-threaded valve-plug having secured to its inner end the annular rubber ring *e*, that serves as a valve in connection with the recessed valve-seat *b''* in the inner end of valve-sleeve *b*. The valve *e* is preferably secured to the inner end of plug *d* by means of a washer, *e'*, screwed, riveted, or otherwise firmly attached to the reduced end of the valve-plug *d*, as shown in Fig. 3. That portion *b<sup>3</sup>* of the valve-sleeve *b* extending back of the valve-seat *b''* is

bored out cylindrically of a diameter equal to the diameter of the rubber valve *e*, so as to cause the rear end of said valve-sleeve *b* to be closed until the under side of the rubber valve *e* has passed by the rear or inner end of the bored-out portion *b<sup>3</sup>*, as shown in Fig. 2, and this feature is essential in connection with other features hereinafter to be described.

60 The screw-threaded valve-plug *d* is made to fit an internal screw-thread in valve-sleeve *b*, and it is adapted to be connected to and operated by the detachable cock *F*, as follows: The inner end of the cock *F* has a central flat projection, *f*, provided with a locking notch or recess, *f'*, and locking projections *f''* and *f<sup>3</sup>* on the in and out sides of such locking-notch. This locking projection on the end of the detachable cock *F* is adapted to be inserted into the central longitudinal slit, *d'*, in the valve-plug *d* in such a manner that the locking projections *f''* and *f<sup>3</sup>* on the part *f* of the cock *F* shall enter side openings, *d''* and *d<sup>3</sup>*, in the plug *d*, as shown in Figs. 1 and 2. The opening *d<sup>3</sup>* is made somewhat deeper than its locking projection *f<sup>3</sup>*, so as to permit the liquid in the barrel when the plug *d* is open and the cock *F* connected to it, as shown in Fig. 2, to pass through such side opening into the central slit, *d'*, communicating with the rear opening of the cock *F*. The outer interior end, *b<sup>4</sup>*, of valve-sleeve *b* is bored out smoothly, of a somewhat larger diameter than the plug *d*, so as to permit the locking-projection *f* on cock *F* to be readily inserted through the outer end of said valve-sleeve, so as to connect and lock it to the valve-plug *d*, as shown in Figs. 1 and 2.

75 *F'* is the cylindrical shank of cock *F*, such shank being plain without any screw-thread, and surrounding it are two washers, as follows: one, *g*, made of rubber, cylindrical in cross-section, and located on cock-shank *F'*, adjacent to the enlarged flange *F''* thereon, as shown in Figs. 2 and 4, and another washer, *h*, made of leather, located on shank *F'*, outside of the elastic rubber washer *g*, as shown in Figs. 1, 2, and 4, the object of which is to effect a water-tight connection between the cock *F* and valve-sleeve *b* after the lock projection *f* has been inserted in the slit in the valve-plug *d*, and the latter has been screwed inward sufficiently to compress the washer *g* to



obtain such desired water-tight connection between the detachable cock F and valve-sleeve b. Such water-tight connection between the parts above mentioned is obtained before the rubber valve e on plug d has passed by the rear portion, b<sup>3</sup>, of the valve-sleeve b, and consequently I obtain a close connection between the cock F and valve-sleeve b before the liquid in the barrel is permitted to enter the rear end of valve-sleeve b, and in this manner no leakage whatever will occur in connecting the cock F with the valve-sleeve b and movable plug d. After the cock and valve-sleeve are thus water-tight connected by turning the plug d farther inward by means of the cock F, the valve e will be moved beyond the inner end of valve-sleeve b, thus permitting the liquid in the barrel to pass into plug-opening d<sup>3</sup> and through slit d' to the cock F, and by opening the latter the liquid may be drawn.

Should it be desired to remove the cock F before all the liquid is drawn from the barrel, all that is necessary to do is to turn the cock to the left, when the plug d will be screwed outward in valve-sleeve, b, causing the valve e to enter the rear end, b<sup>3</sup>, of sleeve b, and thus effect a water-tight connection at this place before the water-tight connection ceases between the cock and valve-sleeve, after which the cock is further turned so as to bring the valve e onto its valve-seat b'', when the cock may be entirely removed from the slit and locking-recess in plug d. This advantage of being able to open and close the valve e and to connect and disconnect the cock F from the faucet without leakage is accomplished by means of the two washers g h on the cock, and the valve e, fitting water-tight within the bored-out portion b<sup>3</sup> in the inner end of valve-sleeve b, as described. The rubber washer g, being made circular in section, is capable of great lateral compression, as will be seen by reference to Fig. 1. The outer washer, h, being made of leather, serves to protect the rubber washer g and to prevent

the latter from being twisted when the cock F is connected and locked to plug d and screwed up tight against the outer end of the valve-sleeve b. With this my construction it will be seen that I effect a positive lock between the cock F and plug d without depending on screw-threads on the cock, as is commonly done.

Modifications of the plug d are shown in Figs. 5, 6, and 7. In the former I make a diagonal perforation, D, through the plug for the liquid to pass through when the valve e is open. In Fig. 6 are shown inclined channels D' D', for the same purpose, connecting with the central slit, d', and in Fig. 7 a helical external groove, D'', is shown.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a faucet, the adjustable valve-plug d, having longitudinal slit d' and lateral openings d'' d<sup>3</sup>, leading from it, in combination with the detachable cock F and its notched locking-piece f f' f'' f<sup>3</sup>, as and for the purpose set forth.

2. In a faucet, the detachable cock F, with its two packing-rings and locking device, as described, the stationary valve-sleeve b and movable screw-threaded valve-plug d, having valve e, and slit and locking-recesses, substantially as set forth.

3. In a faucet, the non-screw-threaded cock F, having end piece, f, with locking-notch f' and projections f'' f<sup>3</sup>, in combination with the adjustable valve-plug d, having valve e, central slit, d', and side openings, d'' d<sup>3</sup>, leading from it, substantially as and for the purpose set forth.

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

JAMES F. BOGAN.

Witnesses:

ALBAN ANDRÉN,  
GEORGE E. MARVIN.