J. Goodridge,

Faucet.

No. 16,459. Patented July 29, 1856.

Fig. 1

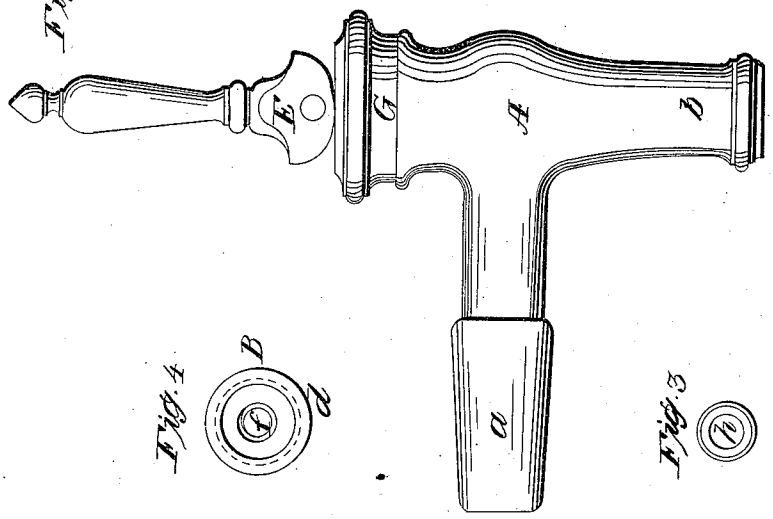
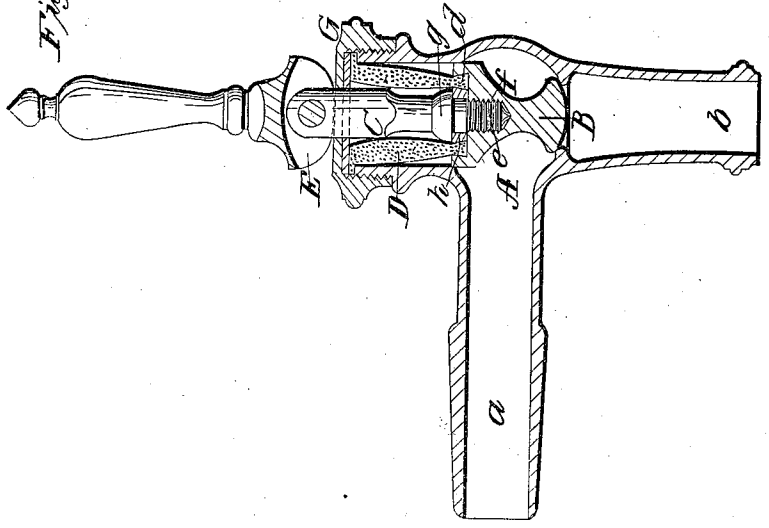


Fig. 4

Fig. 3

Fig. 2



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UNITED STATES PATENT OFFICE.

JOSEPH GOODRIDGE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO BOSTON FAUCET COMPANY.

FAUCET.

Specification of Letters Patent No. 15,459, dated July 29, 1856.

To all whom it may concern:

Be it known that I, JOSEPH GOODRIDGE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Self-Closing Liquor Faucet or Stop-Cock; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, of which,—

Figure 1, is a side elevation of said faucet. Fig. 2, a vertical and central section of it. Fig. 3, an underside view of what is hereinafter termed the "expander." Fig. 4, is a top view of the valve.

My invention is an improvement on the self closing faucet, as patented in the United States on the 9th day of January, A. D. 1855, by David N. B. Coffin Jr. and it relates to a method of constructing the valve and stem of said faucet, in order to securely fasten the spring packing thereof to such valve. The said Coffin's invention consisted in so applying a spring packing to the valve and the body of case of the faucet, that such packing should not only perform the office of pressing the valve down toward its seat but that of packing the valve stem.

In the drawings A, exhibits the body of the faucet; B, the valve; C, the stem of the valve; D, the spring packing; E, the cam lever by which said valve is raised off its seat; *a*, the induction tube and *b*, the eduction tube of said faucet.

G, is the screw, which screws upon the neck *c*, *c*, and serves to confine to it the upper part of the spring packing or to so crowd it down upon said neck as to form a water tight joint around the top of the said neck.

In carrying out my improvement, I construct the valve and its stem in two separate parts, and make in the top of the former a dovetailed chamber or recess *d*, for the reception of the foot or lower part of the tubular spring packing D, and I also connect the valve to its stem by means of a male screw as seen at *e*, formed on the lower part of the stem and made to enter a female screw *f*, constructed in the valve as shown in Fig. 2. Immediately above the screw, the stem has a shoulder, *g*, formed on it. In connection with the above, I make use of a tapering annulus or "expander," *h*, having the shape of a conical frustum and provided with a hole or passage so that it may be placed on the male screw, *e*, in an inverted position as shown in Fig. 2. The object of this expander is to crowd the spring packing laterally while it is in the recess, *d*. After the packing has been inserted in the said recess, the stem, having the expander on it is to be pressed into the bore of the spring packing and turned around so that the screw, *e*, may enter the female screw, *f*, and draw downward and closely into the chamber, *d*, the said "expander," *h*. This having been accomplished, it will be found, that the foot of the spring packing will be so compressed within its chamber or the sides thereof as to form a water tight joint, where by the passage of the water underneath the foot of the packing and upward along the external surface of the stem will be prevented.

In case the spring packing is made of "vulcanized caoutchouc," and the valve is made of copper, or a composition of metals wherein copper is one of the constituents, oxidation of the surfaces in contact with the foot of the packing will soon take place, and in consequence thereof, the packing will closely adhere to such surfaces so as to render the joint impervious to passage of water under any ordinary circumstances.

What I claim as my improvement is—

So combining with the valve and its stem, the dovetailed recess, *d*, the expander, *h*, and a shoulder and screws, or the equivalents thereof, whereby the foot of the spring packing may be fastened into the valve, substantially in manner and for the purpose as specified.

In testimony whereof, I have hereunto set my signature this twenty-eighth day of June, 1856.

JOSEPH GOODRIDGE.

Witnesses:
R. H. EDDY,
F. P. HALE, JR.