

D. C. STILLSON.

Faucets.

No. 166,482.

Patented Aug. 10, 1875.

Fig. 1.

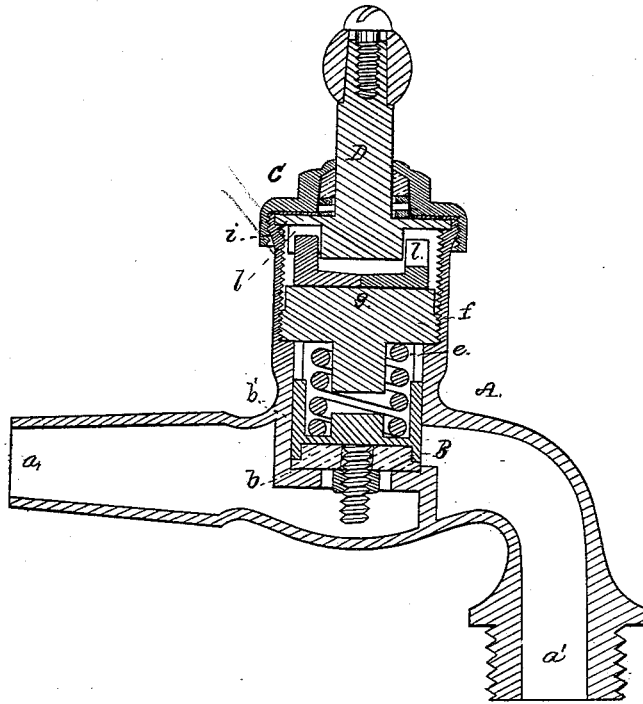


Fig. 2.

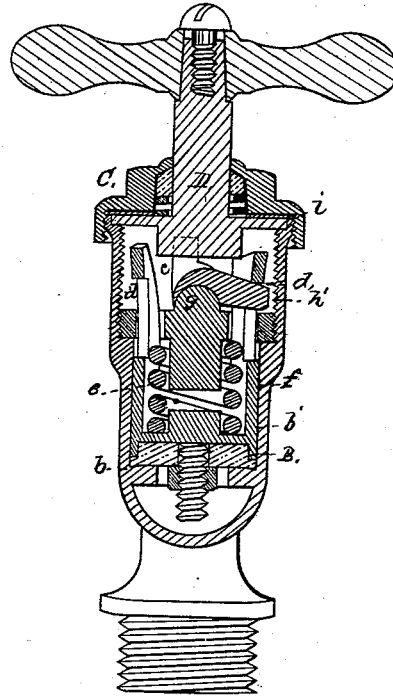


Fig. 4.

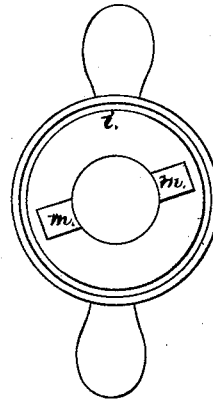


Fig. 3.

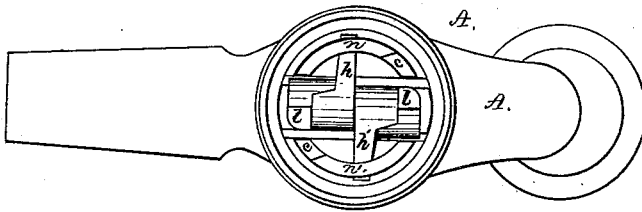
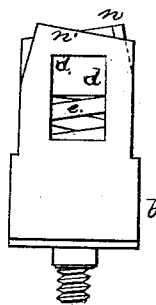


Fig. 5.



Witnesses.

Geo Gray

E. C. Hale

Daniel C. Stillson.

by his attorney

A. P. Hale

# UNITED STATES PATENT OFFICE.

DANIEL C. STILLSON, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN FAUCETS.

Specification forming part of Letters Patent No. 166,482, dated August 10, 1875; application filed July 3, 1875.

### CASE A.

*To all whom it may concern:*

Be it known that I, DANIEL C. STILLSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Combined Self-Closing and Compression Faucets; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a combined self-closing and compression faucet; and consists in the peculiar construction, combination, and arrangement of the parts, whereby not only is the valve rendered self-closing, but, in case of leakage through want of sufficient tension or diminished force of the spring, the valve may be readily closed upon its seat with any desired degree of power, independent of the action of the spring, the same being as hereinafter described and claimed.

In the said drawing, Figure 1 is a vertical and longitudinal section; Fig. 2, a vertical and transverse section of a faucet constructed in accordance with my invention. Fig. 3 is a top view, with the cap and operating-key removed. Fig. 4 is a bottom view of the cap and operating-key. Fig. 5 is a side elevation of the valve and its actuating-spring.

In the drawing, A denotes the body or case of the faucet, provided with induction and eduction passages *a* and *a'*. *b* is the valve-seat; *b'*, the valve-chamber, and B the valve disposed within the said chamber. The valve consists of a hollow cylinder or barrel, closed at its lower end, and having a packing-chamber formed on its under face to receive a rubber or other suitable packing, which is confined therein by means of a screw and nut. The upper end of this barrel is formed with two wide slots, *c c*, extending longitudinally of the same. It also has two rectangular slots, *d d*, formed in the walls of the barrel at right angles to the former slots. Within the

barrel is disposed a coiled spring, *e*, its lower end resting on the bottom thereof. *f* is an annular sleeve or ring, which embraces the upper part of the barrel, and has a bar, *g*, extending diametrically thereof, and into the slots *c c* of the barrel. This ring is formed with a male screw on its periphery, which works in a female screw formed on the interior of the valve-chamber *b'*. By screwing down the ring the bar *g* will be caused to impinge against the upper end of the spring *e*, and the latter, by the rotation of the ring, may be compressed so as to force and maintain the valve upon its seat with any desired degree of impact. The upper face of the bar *g* is made of a semicircular form. On this is fulcrumed two rocker-levers, *h h'*, whose outer ends extend into the slots *d d*, and work against the upper walls thereof. Each of these levers is provided with a vertical arm or projection, *l*. C is the cap, which screws upon the neck of the valve-chamber. D is the key, whose shank extends down through the cap, and has on its lower end a disk, *i*, that rests against the under surface of the cap, the shank or stem of the key being packed by a spring packing, as shown in Figs. 1 and 2. Affixed to the under face of the disk *i*, and extending transversely through the lower part of the key-shank, is a bar, *m*, whose two ends, when the key is rotated in one direction, impinge against the sides of the arms *l l* of the rocker-levers, and, moving the former horizontally, cause the levers to be moved vertically, and, by their impingement against the upper walls of their slots, raise the valve perpendicularly off its seat. In order to insure a perfect protection against leakage of the valve I form on the upper end of the valve-barrel two inclines, *n n'*, on whose lowest points the ends of the bar *m* rest, when, by rotating the key in a direction opposite to that it is to be rotated to open the valve, the action of the bar upon the inclines will force the barrel downward and the valve upon its seat with any required degree of force.

From the above it will be seen that the stem

of the key has no vertical movement, but a simple horizontal one, thus rendering the working of the valve simple and easy.

Having described my invention, what I claim is—

The combination, with the valve-chamber *b* and valve B, of the screw-ring *f*, provided with a bar, *g*, the rocker-levers *h h'*, spring *e*, and the key D, provided with the actuating-

bar *m*, the whole being arranged and operating together, substantially as set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

DANIEL C. STILLSON.

Witnesses:

F. P. HALE,

F. C. HALE.