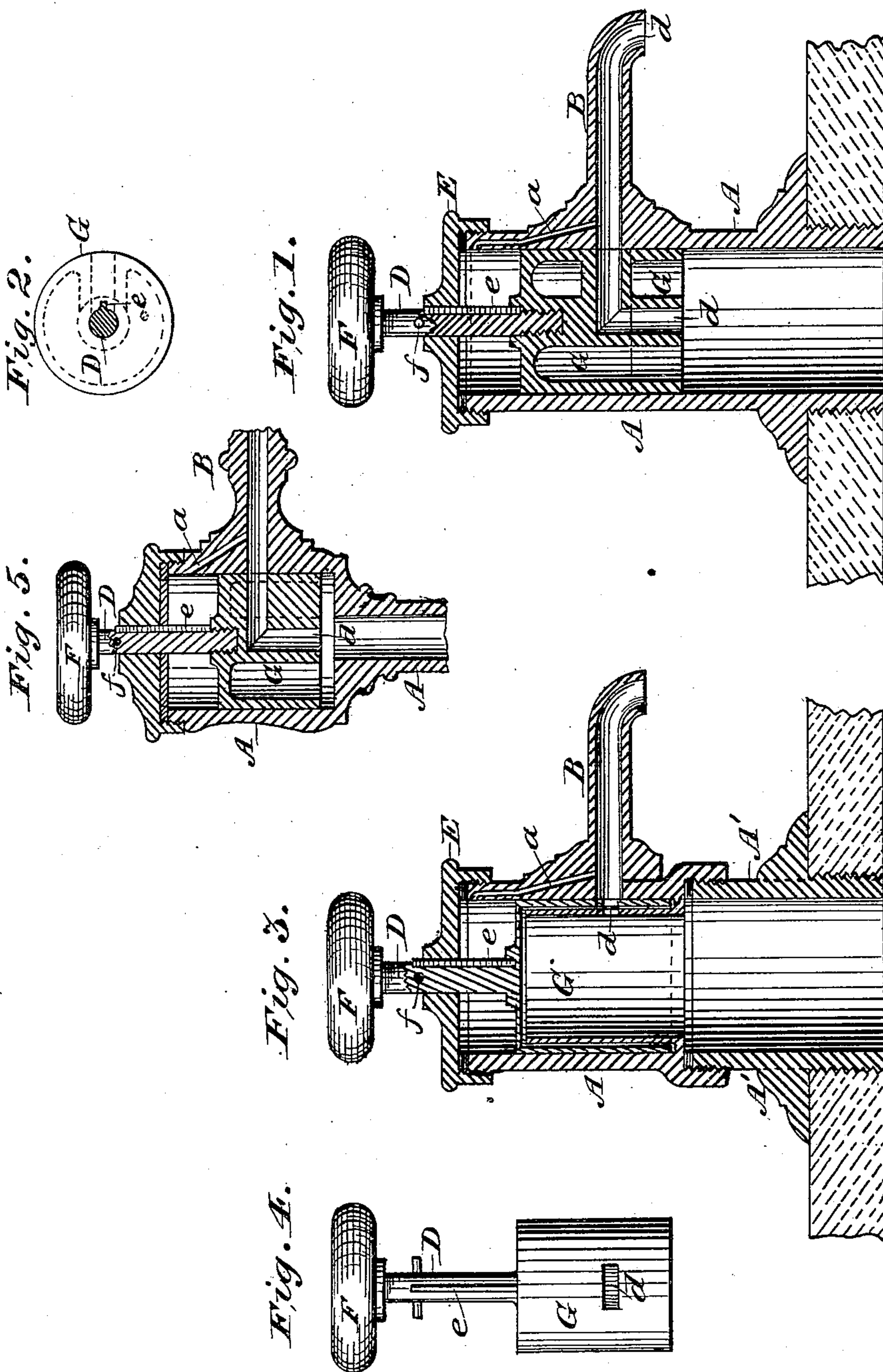


(No Model.)

W. G. STEINMETZ.
FAUCET.

No. 267,612.

Patented Nov. 14, 1882.



WITNESSES
Lloyd F. Keeler.
P. F. Webb, Jr.

INVENTOR
Wm. G. Steinmetz.
By *T. C. Drecht.*
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM G. STEINMETZ, OF BROOKLYN, NEW YORK.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 267,612, dated November 14, 1882.

Application filed February 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. STEINMETZ, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in 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 relates to improvements in self-closing faucets; and the object is to construct a faucet that will prevent any waste of water or other fluid, and that will be closed by the pressure of the water itself, instead of springs, cams, levers, or similar devices.

The invention consists in the construction and arrangement of parts, as will be more fully described hereinafter, reference being had to the accompanying drawings and the letters of reference marked thereon.

Like letters refer to like parts in the drawings, in which—

Figure 1 represents a vertical cross-section of my improved valve open and closed, in dotted lines. Fig. 2 is a top view of the valve, showing the spline on stem to prevent turning of said valve. Fig. 3 is a vertical cross-section of a modified form of valve. Fig. 4 is a side view of the valve and stem. Fig. 5 is a modification.

In the drawings, A is the shell of the valve, having a spout, B, which, as well as the valve, can be ornamented as desired, and may be made of proper size to suit the requirements of the case. In the shell is arranged the piston C, of cylindrical shape and properly ground in the shell to form a tight joint, so as to dispense with packing, required in all ordinary valves. The valve is cored out, so as to lighten it as well as to save metal, and is provided with an angular opening, *d*, which corresponds with the opening in the spout B when the valve is open. To the upper end of the valve is secured in any suitable manner, either cast or screwed into it, a stem, D, which has a feather or key, *e*, on one side, moving in a spline in the top or cap E, and prevents the valve from turning in its place. A small pin, *f*, in the stem prevents the valve going down

too far in the shell. The cap is shown as screwed onto the shell; but it may be attached by bolts, or in any other suitable manner, and between it and the shell I place a washer or packing to make the joint tight. A proper handle, F, is secured to the stem by which to operate the valve. A small hole, *a*, in the shell permits any water that might leak through between the valve to run into the spout B.

In the modification shown in Fig. 3 the valve C is made cup-shaped, and passes over an annular seat or diaphragm, G, which is cast on the shell; or it may be made separate and secured to it. The shell, in this instance, is made in two pieces, the upper part, A, being screwed onto the lower part, A', and suitable packing is placed between the joints. The spout and stem or handle are the same in this case as in Fig. 1; but the opening in the valve and diaphragm are made rectangular, as shown in Fig. 4. If desired, a small tank or measure may be attached to the shell, so that stated quantities of water—say a quart, pint, &c.—can be withdrawn at a time. It is also self-cleaning, as there is no place upon which sediment can collect, and by simply raising the valve the entire inside of the shell will be thoroughly rinsed by the water rushing through it.

A plug-valve or cock may be arranged in the body of the faucet below the piston-valve D, so as to shut off the valve in case of needed repairs, and the upper part can then be made removable, as shown in Fig. 3.

In the modification shown in Fig. 5 the parts are the same as in Fig. 1, excepting the lower part, A', is reduced to the usual size now in use.

The operation is as follows: The valve is always kept closed by the pressure of the water against the lower side of the valve, and when it is desired to draw water the valve is forced down by pressing upon the knob or handle F with the hand, and the hole *d* in the valve then matches or corresponds with the opening in the spout. As soon as the valve is released from pressure the water will again force it up in the shell and close the openings. Any water that may have leaked past the valve and shell will run out through the small opening *a* in the shell and into the spout B.

In cases where the pressure of water is very light, the outlet should be made of goose-neck shape or curved so as to prevent any leakage of water, and to raise the valve above the opening and thereby close it.

5 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

10 A faucet consisting of a shell, A, having spout B and cap E, in combination with a

piston-valve, C, having openings *d*, and stem D, provided with a spline or feather, *e*, to prevent the valve from turning, all arranged substantially as shown and set forth.

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

WILLIAM G. STEINMETZ.

Witnesses:

LLOYD F. KELEHER,
GEO. M. LOCKWOOD.