

W. I. PAGE.
Self-Closing Faucet.

No. 220,652.

Patented Oct. 14, 1879.

Fig. 1.

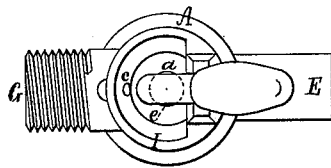


Fig. 2.

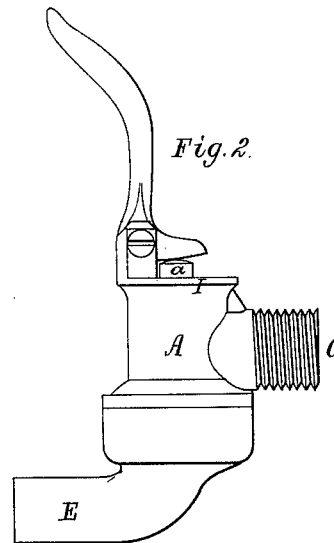


Fig. 3.

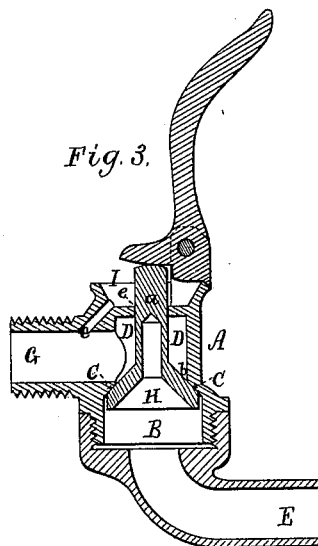
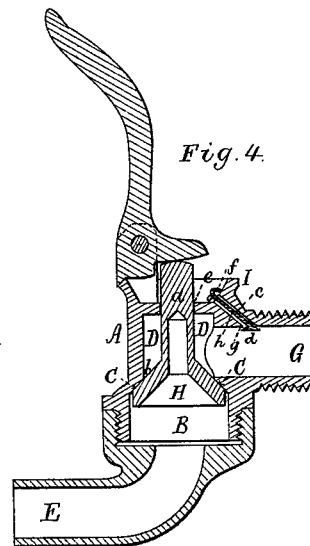


Fig. 4.



Witnesses

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IMPROVEMENT IN SELF-CLOSING FAUCETS.

Specification forming part of Letters Patent No. **220,652**, dated October 14, 1879; application filed April 9, 1879.

To all whom it may concern:

Be it known that I, WILLIAM I. PAGE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Self-Closing Faucets, and do hereby declare the same to be described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, and Fig. 3 a vertical section, of a faucet of my improved kind. Fig. 4 is a section of it as provided with an auxiliary or back-pressure valve to the educt of the cup.

My improvement saves the necessity of a stuffing-box to the valve-stem of the faucet.

In carrying out my invention I provide the valve-case with a cup or cavity and an educt leading therefrom into the educt of the said case, such cup or cavity being at the top of the valve-case and having an opening leading down from it into the case, such opening being to receive the valve-stem, which extends up through it and terminates under the shorter arm of a lever pivoted to the case, and serving to depress the valve off its seat, such valve being closed on its seat by the pressure of the water or fluid when in the induction-chamber below the said seat.

In the drawings, A denotes the valve-case, having an induction-chamber, B, a valve-seat, C, and eduction-chamber D, an induct, E, and an educt, G, all arranged as shown. Within the case is the valve H, which, arranged in the induction-chamber B, has its stem *a* projecting upward through the opening *b*, encompassed by the valve-seat C. The said stem also passes up loosely through the bottom of the cup I, at the top of the case. From this cup an educt, *c*, leads obliquely downward into the educt G.

On the valve being forced down off its seat, when there is water under pressure in the induction-chamber, such water will be driven through the opening of the valve-seat, and will fill the eduction-chamber and pass rapidly out thereof by the educt G. Should any water

leak through the stem-passage *e* at the top of the case, such water, by the induced current of air through the educt *c*, will be drawn into and through the said educt and into the main educt G.

So long as a discharge-pipe coupled to the educt G may not rise above the level of the said educt there will be no necessity of there being to the educt *c* any valve to prevent water from flowing back through it into the cup on the main valve being closed; but in cases where the coupled discharge-pipe does rise above the educt a small valve, *d*, applied to the educt *c* in manner as shown in Fig. 4, may be used, the stem *h* of the valve going through the educt, and being provided in the cup with a suitable head or device, *f*, which, while allowing water from the cup to escape into the educt *c* when the auxiliary valve is off its seat *g*, will prevent the stem from being drawn out of the said educt.

I am aware that in some compression-faucets there is an auxiliary educt to lead from the valve-chamber into the main educt, such being as shown in the United States Patent No. 182,439, all of which differs from my invention, in which the auxiliary educt leads from a cup above the valve-case and the valve-stem passage thereof, whereby packing around the stem is dispensed with.

I claim—

In combination with the valve-case A, having an induct, E, an educt, G, a valve-seat, C, induction and eduction chambers B D, and a valve, H, and stem *a* applied thereto, as set forth, the cup I and the educt *c* thereof, arranged with the case and its educt and valve-stem substantially in manner as explained, and to operate to receive and discharge into the educt any fluid that may leak through the valve-stem passage leading out of the top of the case, as represented.

WILLIAM I. PAGE.

Witnesses;

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