(No Model.)

A. HALLOWELL.

FILTER.

No. 335,581. Patented Feb. 9, 1886.

Fig. 1.

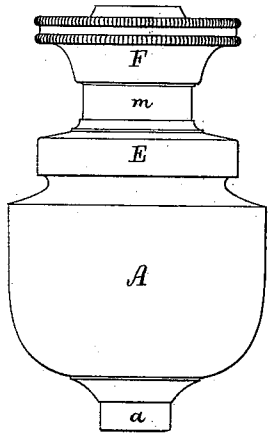


Fig. 2.

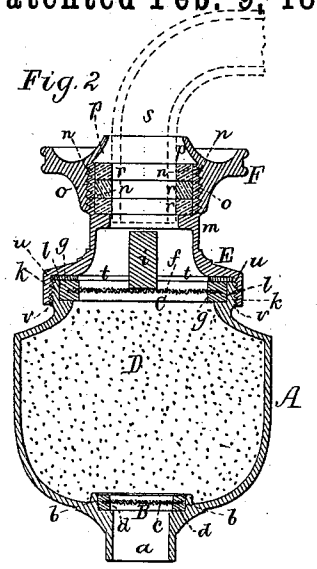


Fig. 3.

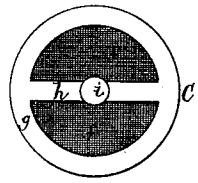


Fig. 5.

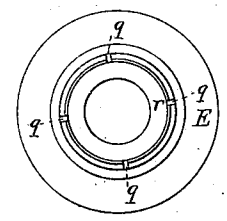


Fig. 4.

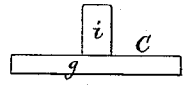


Fig. 6.

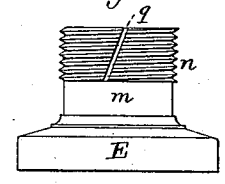
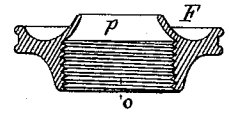


Fig. 7.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT HALLOWELL, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO THE LOWELL FAUCET COMPANY, OF SAME PLACE.

FILTER.

SPECIFICATION forming part of Letters Patent No. 335,581, dated February 9, 1886.

Application filed July 6, 1885. Serial No. 170,697. (No model.)

To all whom it may concern:

Be it known that I, ALBERT HALLOWELL, of Lowell, in the county of Middlesex, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Filters; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side view, and Fig. 2 a vertical section, of a filter provided with my invention, the nature of which is defined in the claims hereinafter presented. Fig. 3 is a top view; Fig. 4, an edge view of the upper woven-wire diaphragm and its sustaining-annulus. Fig. 5 is a top view, and Fig. 6 a side elevation, of the lower part, E, of the "faucet-nose connection," hereinafter described. Fig. 7 is a transverse section of the screw-cap or upper portion, F, of such faucet-nose connection.

The filter, hereinafter described, is intended for application to the straight or tapering nose of a faucet or cock unprovided with a hose attachment, screw-filters as usually constructed having at their upper ends a neck furnished with a female screw for connecting them to what is termed a "hose-bib."

In the drawings, the hollow case or body of the filter is shown at A as provided at its lower end with an educt, *a*, and directly above such with an annular rabbet, *b*, for supporting the lower foraminous or woven, wire diaphragm, B. This diaphragm is composed not only of one or a pack of disks of woven wire, *c*, but a metallic ring, *d*, encompassing it or them concentrically and cast thereon, each of such disks being inserted at its periphery within the ring. The said ring rests upon the annular seat or bottom of the rabbet, and serves to prevent the woven-wire disk or disks from breaking down or becoming more or less unwoven under the pressure of water and the filtering-charge D of sand or charcoal while the filter may be in use.

The upper foraminous diaphragm is shown at C, it being composed of one or a pack of disks, *f*, of woven wire, and a metallic annulus or supporter, *g*, encompassing and cast upon them. Diametrically across the said supporter is a bar, *h*, provided at its middle with a stud or handle, *i*. By means of the handle the supporter and diaphragm can readily be lifted without the necessity of prying them out of the filter-body, which has within its neck *k* an annular rabbet, *l*, for reception of such diaphragm-supporter.

Extending above the neck *k*, and secured thereon, is the faucet-nose connection, which is in two separate parts, E and F, the former of which has in its base a female screw, *u*, to couple with a male screw, *v*, on the neck of the filter. The lower part, E, has a tubular neck, *m*, provided at its upper part with a male screw, *n*, to receive or screw into a female screw, *o*, formed within the cap F, and immediately below a conical mouth, *p*, thereof. The neck *m* is split or sawed obliquely several times, from its top downward, through the screw *n*, the said kerfs being shown at *q*. The said neck is also rabbeted in its upper part to receive and hold an elastic or rubber packing or a pack of rubber rings, *r*, within which the nose of the faucet is to enter, in order to connect the filter to it.

In Fig. 2 the faucet-nose is shown in dotted lines at *s*.

Having inserted the faucet-nose into the connection, the two will be held together by the friction of the rubber tube or rings, such tube or ring also serving to form a water-tight joint around the faucet-nose. To increase the hold of the connection on the faucet-nose the cap F should be revolved or screwed down, so as to force the inner tapering surface of the conical mouth *p* against the upper part of the screw *n* in a manner to cause the neck *m* to be contracted, and as a consequence contract the rubber tube or disk on the faucet-nose.

Within the lower portion, E, of the faucet-connection there is an annular washer, *t*, to rest on the top of the neck of the filter-body and aid in forming a water-tight joint over the connecting-screws of the said body and the said portion E.

I claim—

1. The combination of the filter with the faucet-nose connection, substantially as described, consisting of the part E, with its elastic packing *r*, and slitted connection-screw *n*, and the tubular nut or cap F, having the fe-

male screw *o*, and tapering mouth *p*, directly over such screw, such part E having within its base or lower part a female screw for connecting it with the neck of the filter, and all being essentially as represented.

2. The faucet-nose connection, substantially as described, consisting of the part E, with its elastic packing and slotted connecting-screw, and the tubular nut or cap F, having the female screw and tapering mouth directly over such screw, such part E having within its base or lower part a female screw for connecting it with the neck of the filter, and all being essentially as represented.

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