(No Model.)

W. M. SACK.

Filtering Faucet.

No. 241,427. Patented May 10, 1881.

Fig. 1.

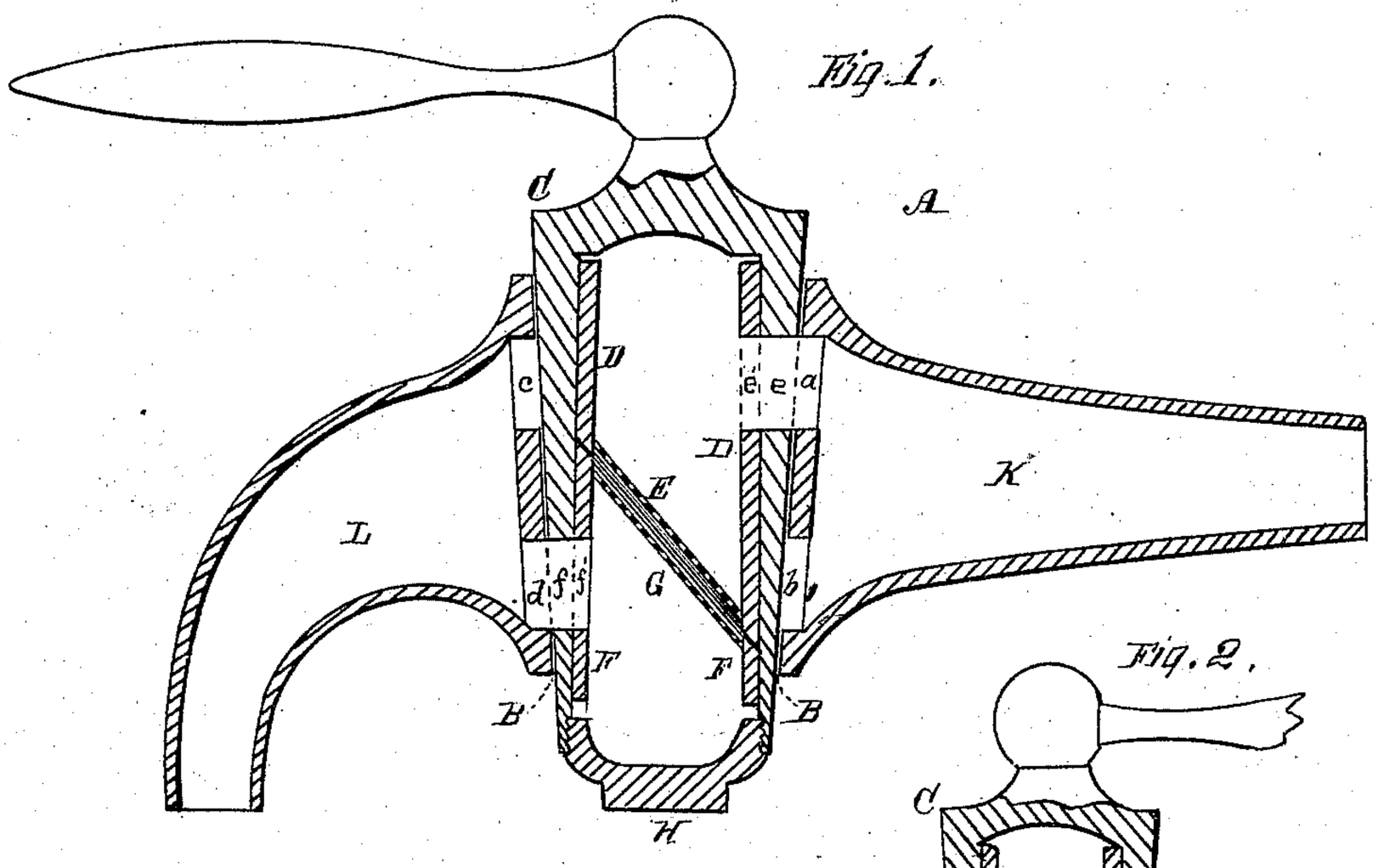


Fig. 2.

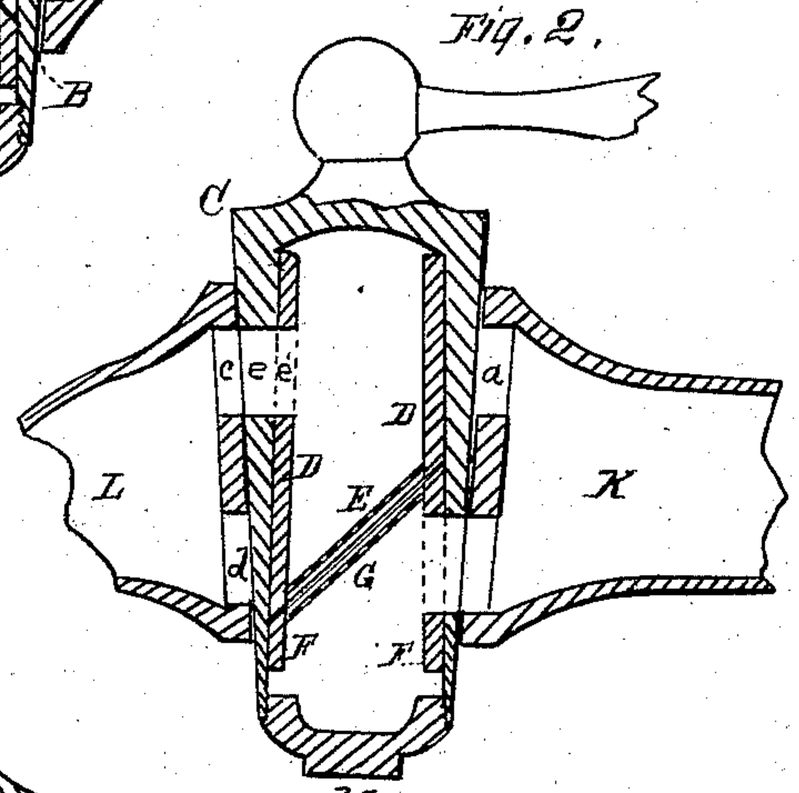
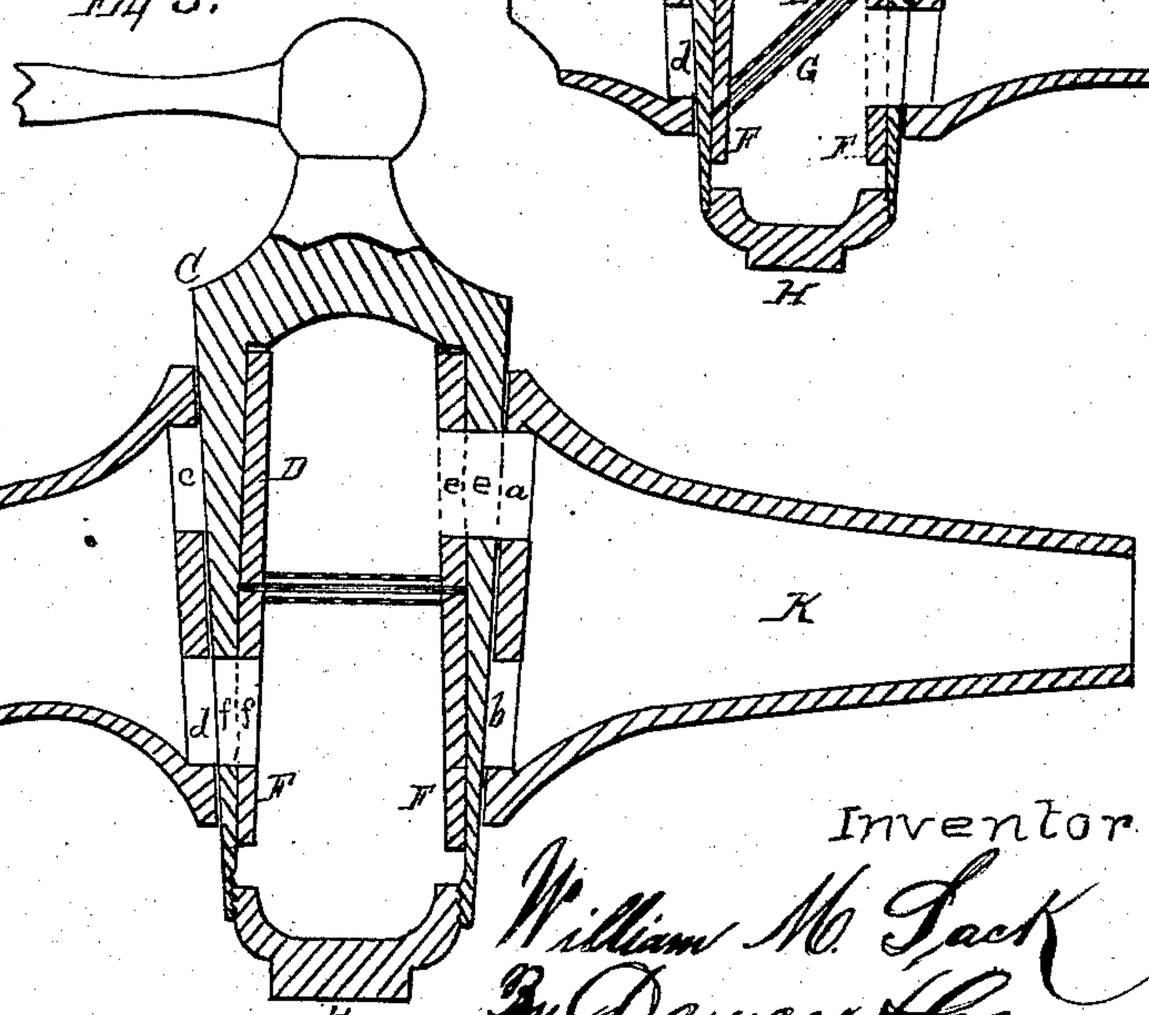


Fig 3.



Witnesses

Geo. H. Strong.

Frank A. Brooks

Inventor

William M. Sack

By Dewey & Co.

Attys

UNITED STATES PATENT OFFICE.

WILLIAM M. SACK, OF OAKLAND, CALIFORNIA.

FILTERING-FAUCET.

SPECIFICATION forming part of Letters Patent No. 241,427, dated May 10, 1881.

Application filed October 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. SACK, of Oakland, county of Alameda, and State of California, have invented a Filtering-Faucet; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a filtering-faucet in which a peculiar construction and arrangement of the faucet and filter render it self-cleaning, as shown hereinafter.

My invention consists in the details of the construction and application of the filter as hereinafter fully described and claimed.

The object of my invention is to provide a self-cleaning filter-faucet to avoid the necessity of taking the filter out.

Referring to the accompanying drawings, Figure 1 is a vertical longitudinal sectional view of my invention. Fig. 2 shows the filter reversed. Fig. 3 is a modification.

Let A represent my faucet, with its pipe K and nozzle L. In its cylinder or spigot opening B, in which the spigot fits, are the two openings *a b*, the former being uppermost. Both open into the receiving portion and conduct the liquid from the tank or other receptacle. Directly opposite to them, in corresponding positions, are the two apertures *c d*, the former above the latter, and both opening into the nozzle or spout for conducting the liquid away. In order to have ample space for these four apertures I construct the pipe K and nozzle L so as to have large bases where they enter the cylinder B.

Let C represent the spigot, having two oppositely-placed apertures, *e f*. The former is so situated as to correspond with the upper apertures, *a* and *c*, in the cylinder B, the lower aperture, *f*, corresponding in like manner to the lower apertures, *b* and *d*, in the cylinder B.

Within the spigot C is the upper holding-tube, D, made to fit the spigot closely. It is put up into the top of the spigot, and extends down to the space between the apertures *e* and *f*, so as not to interfere with them, and is provided with an aperture, *e'*, corresponding with the aperture *e* in the spigot, thus affording a clear passage. To the lower end of this tube D, which in Fig. 1 is beveled, so as to have a larger surface, is soldered the upper layer, E, of wire-gauze. The lower holding-tube, F, is beveled correspondingly, and has soldered to its upper end the lower wire-gauze, G, which fits up against the gauze E, the felt or other filtering substance being between the two. The tube F has an aperture, *f'*, corresponding to the aperture *f* in the spigot. It is held in place by the tube or holding-cap H, which screws up within the spigot, as shown. This formation renders the filter easily removable from the spigot when, for any cause, it needs repair or the felt has to be changed. It being set across the spigot at an angle presents a greater surface than if it were set at right angles, and therefore I prefer it; but I can also have the filter set directly across simply by cutting the ends of the holding-pipes transversely instead of having them beveled. This I show in Fig. 3.

To show how this construction and arrangement of the faucet and filter will be self-cleaning I will follow the course of the water or other liquid. When the spigot C is turned quarter-way around none of the apertures correspond, and no flow occurs. When it is turned toward the front the upper aperture, *e*, in the spigot corresponds with the upper aperture, *a*, in the cylinder B opening out of the receiving-pipe, and the lower aperture, *f*, in the spigot corresponds with the lower one, *d*, in the cylinder opening into the nozzle or discharge-pipe. The filter being between these openings, the water must flow through it, and will leave its sediment and other impurities upon its top side. When the filter is to be cleaned turn the spigot backward half-way, so that it will be in the reverse position to that just shown. Now the lower aperture, *f*, in the spigot will correspond with the lower one, *b*, in the cylinder B opening from the receiving-pipe, and the upper aperture, *e*, in the spigot will correspond to the upper one, *c*, in the cylinder opening into the nozzle. The water will be forced up through the filter from below and carry off the sediment and impurities through *e* and *c*, thus cleansing the filter.

I am aware that filters have been placed in faucets before; but as far as I know they cannot be cleaned except by removing them.

I do not claim, broadly, a faucet with a filter within it; but,

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

The filter consisting of the layers of wire-gauze E and G, holding between them any filtering substance, and soldered, respectively, to the beveled or straight ends of the holding-tubes D and F, having the apertures *e'* and *f'*, made to fit the spigot, said tubes being held in place by the cap H, screwed up against the lower tube, F, substantially as described.

In witness whereof I have hereunto set my hand.

WM. M. SACK.

Witnesses:

FRANK A. BROOKS,

S. H. NOURSE.