

J. FOLEY.  
Water-Filters.

No. 200,608.

Patented Feb. 26, 1878.

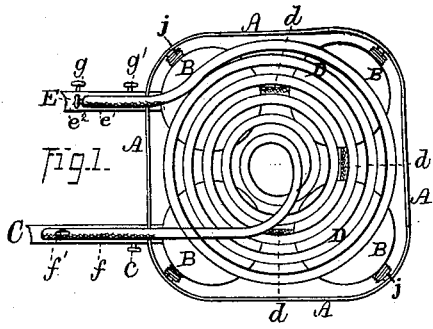


Fig. 1.

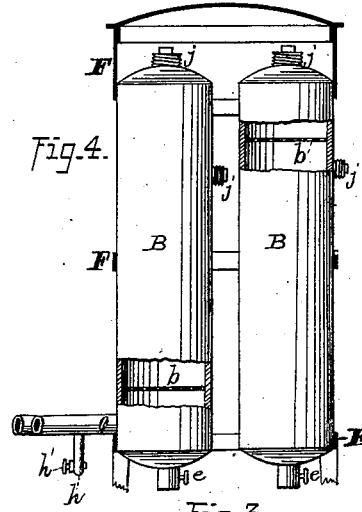


Fig. 4.

Fig. 2.

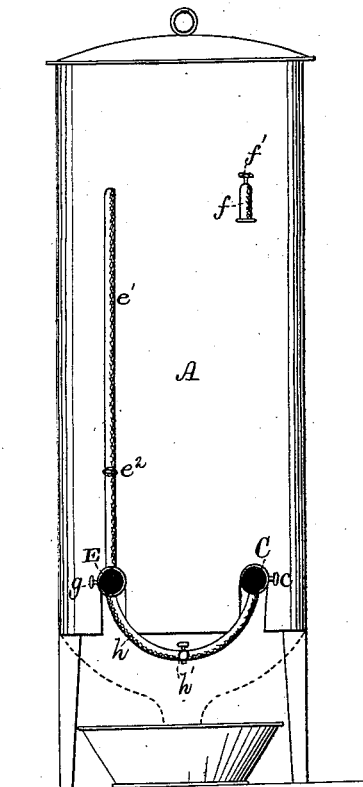
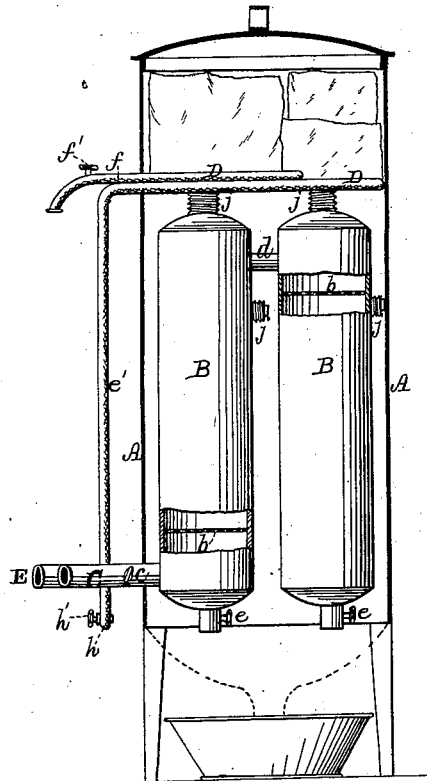


Fig. 3.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JAMES FOLEY, OF MONTREAL, QUEBEC, CANADA.

## IMPROVEMENT IN WATER-FILTERS.

Specification forming part of Letters Patent No. 200,608, dated February 26, 1878; application filed August 2, 1877.

*To all whom it may concern:*

Be it known that I, JAMES FOLEY, of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Water-Filters; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a plan view of my improved water filter and cooler. Fig. 2 is a front elevation thereof. Fig. 3 is a sectional elevation of the same, and Fig. 4 is a view showing a modified form of inclosing the tanks without the coil of pipe.

Corresponding parts in the several figures are denoted by like letters.

This invention relates to certain improvements in that class of water-filters attached directly to the service-pipe of the house; and it consists, principally, of filtering tanks or receptacles, with which is connected a coil of pipe, preferably disposed thereon, and having means for drawing off the filtered water for drinking purposes, substantially as hereinafter more fully set forth.

In the annexed drawings, A refers to an upright receptacle or inclosure, within which is suitably secured or placed the filtering tanks or receptacles B B, they being provided with perforated horizontal partitions or diaphragms *b b*. One of these tanks is connected to the service-pipe of the house by a pipe, C, having a cock or valve, *c*, the particular function of which will be hereinafter referred to. These tanks are alternately connected together at their upper and lower ends by short pipes or tubes *d d*, to cause the water to pass through all of them and through any suitable filtering material placed therein before reaching the discharging-pipe, in order to thoroughly filter or purify the water. The bottoms of these tanks are provided with cocks *e e*, which will be further alluded to hereinafter.

D is a coil of pipe, preferably disposed upon the tanks B B and within the upper part of the receptacle or inclosure A, to permit of ice

being placed thereon to cool the water passing through the said pipe, and render it (the water) more suitable for drinking. The coil of pipe D is connected to the egress-pipe by the pipe *e'*, having a cock or valve, *e''*, and is provided with a pipe, *f*, having a cock or valve, *f'*, for drawing off the water for drinking.

E is the discharge or egress pipe of the tanks B B, having two cocks or valves, *g g'*. The ingress and egress pipes are connected together by a pipe, *h*, having a valve, *h'*.

It will be seen that by opening the valve *e* the water will pass up through the tanks and be filtered, and can then be conducted up through the pipe *e'* by opening its cock *e''* into the cooling-coil D, and be drawn off by opening the valve or cock *f'* for drinking; or, by opening the cocks *g g'* and closing the cock *e''*, it can be conducted, after filtration, to and be discharged through the pipe E, for washing or other purposes. By closing the valves or cocks *c* and *g* and opening the valves or cocks *g' h'* a reverse flow of water will be produced, to flush or cleanse the filter and its filtering medium and remove sediment, which is discharged by opening the cocks *e e*.

The tanks or receptacles may be encircled and secured in position by bands F F, and provided with trap-screws or ports *j j*, to permit of access to and the withdrawal and replacing of the filtering medium, and access to the chambers in the tanks B B above the perforated diaphragms *b b* in the event of stoppage or clogging.

By connecting the discharge-pipe E with the distributing-pipe in the house the purified or filtered water may be thus distributed throughout the same.

Instead of discharging or drawing the purified water from a downward flow, as in the present instance, it may be drawn or discharged from an upward flow by attaching the ingress and egress pipes at the upper ends of the filtering-tanks.

When desired, the cooling-coil of pipe D with its adjuncts may be omitted.

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

1. In a water-filter, the filtering-tanks B B, connected together by short pipes or tubes *d*.

*d*, in combination with the pipes C and E, having the valves or cocks *c g g'*, substantially as and for the purpose set forth.

2. In a water-filter, the filtering-tanks B B, having the cocks or valves *e e*, in combination with the pipes C and E, having the valves or cocks *c g g'*, and connected together by the pipe *h*, having the valves *h'*, substantially as and for the purpose set forth.

3. The receptacle or inclosure A, having an ice-chamber, in combination with the tanks B B and the coil of pipe D D, disposed upon the said tanks and in the said ice-chamber, substantially as and for the purpose set forth.

4. In a water-filter, the filtering-tanks B B, having the ingress and egress pipes C and E, in combination with the coil of pipe D *e'*, substantially as and for the purpose set forth.

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

JAMES FOLEY.

Witnesses:

JOHN T. DWYER,  
JAMES MCLEAN.