

(No Model.)

W. H. CUMMINGS.

WATER FILTER.

No. 363,120

Patented May 17, 1887.

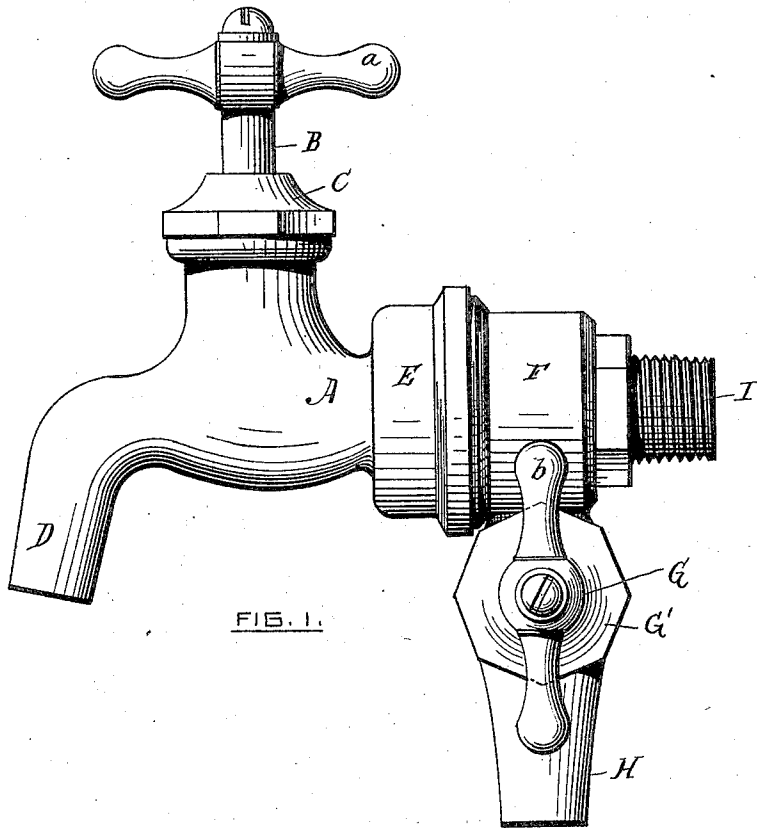


FIG. 1.

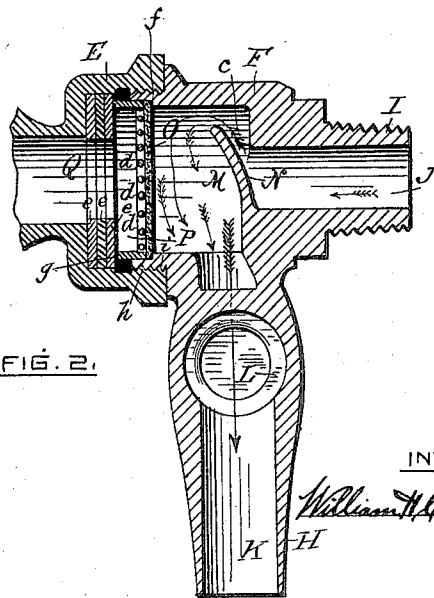


FIG. 2.

WITNESSES:

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WILLIAM H. CUMMINGS, OF CHARLTON DEPOT, MASSACHUSETTS.

WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 363,120, dated May 17, 1887.

Application filed January 26, 1887. Serial No. 225,518. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CUMMINGS, of Charlton Depot, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Water-Filters; and I do hereby declare that the following is a full and clear description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a side view of my improved filter, and Fig. 2 represents a vertical central section of a part of the device shown in Fig. 1, as will be hereinafter fully described.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe the device more in detail.

In the drawings, the part marked A represents the front part of an ordinary water-faucet; B, the valve stem; C, the screw-cap; D, the nose or outlet, and *a* the handle or hand-piece, by which the faucet is operated in the usual manner. The rear part, E, is enlarged and hollow, and is furthermore provided with a hub part having on its inner surface a female screw or thread, *h*, to fit the male screw or thread *i* on the rear part, F, which in turn is provided with a hollow screw-stem, I, by which the device is to be attached to the ordinary water-pipe coupling.

From the bottom of the part F extends a second water-faucet, H, having a valve-stem, G, screw-cap G', and operating-handle *b*, L being the seat of the valve.

For ordinary use in washing and like purposes, by unscrewing valve-stem G, thereby removing the valve from its seat L, water can be drawn through the opening J in stem I, when it passes up over the tongue N, thence down against the filtering cloth or material O, through chamber M, and out through the opening in valve-seat L, and down and out through the opening K, while if water is wanted for drinking and other purposes requiring the water to be filtered valve-stem G is turned in until its valve is seated on the seat L, thereby preventing water from passing out of the faucet H. Then valve-stem B is unscrewed, when water will be discharged

through the nozzle D, and as this passes through the filtering cloth or material O before it can pass out through the hole Q in the faucet A, the water is pure and free from dirt.

The filtering cloth or material O is held securely in place by the metal ring P, the inner end of which is provided with a series of cross-bars, *d*; or a perforated plate may be used for the bars *d*, the plate being securely fastened to the end of ring P. When the part E is screwed up into place, as shown in Fig. 2, the inner edge of ring P forces the outer edge of the filtering cloth or material against a shoulder on part F and makes a tight joint. At the same time the outer edge, *g*, of ring P comes in contact with the inner packing-ring, *e*. Consequently the water must all pass through the filter-cloth.

Tongue N may be made in any desired form, and, if preferred, it may be made separate from the part F and fastened in position in any suitable manner, so as to send or guide the water up to the upper part of the chamber M, from whence it descends when water is drawn through faucet H, cleaning the inner face of the filter-cloth O in a very perfect manner.

From the foregoing description it will be seen that my present invention greatly reduces the cost of filters, since it is combined with an ordinary faucet in such manner that the cost is but little more than the common faucet in use, and that the arrangement is such, too, that the filter-cloth is always kept clean and ready for use.

The arrows in Fig. 2 represent the direction of the water when drawn through faucet H, the action of the water, as before stated, cleaning the inner surface of the filtering part O of all dirt and impurities.

If preferred, faucet H may be small and specially used for cleaning filter-cloth O.

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

The combination, with the inlet water-passage J, outlet filtered-water passage Q, arranged on a line with inlet-passage J, and outlet unfiltered-water passage K, arranged below and at right angles to the water-passages J

and Q, of water-chamber M, arranged above outlet unfiltered-water passage K and between the water-passages J and Q, tongue N, extending up from the bottom of the inlet-passage J in a forwardly-inclined position into the upper part of water-chamber M, as shown in Fig. 2, and filter-cloth O, cross bars d, ring P, and packing e, all substantially as and for the purposes set forth.

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Witnesses:

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