

No. 667,239.

Patented Feb. 5, 1901.

M. MARX & A. WOLFF.

WATER FILTER.

(Application filed Aug. 23, 1900.)

(No Model.)

FIG. 1.

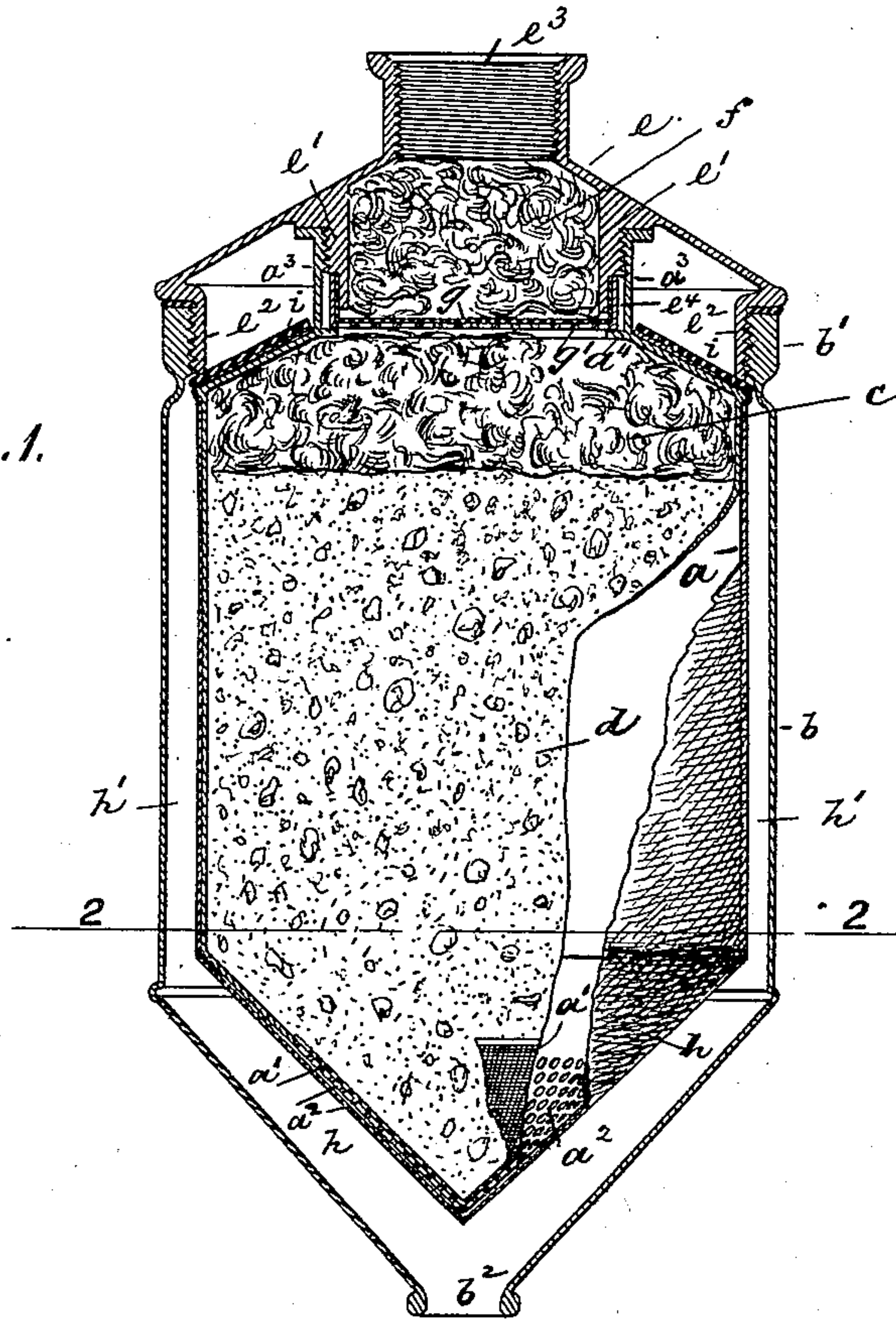
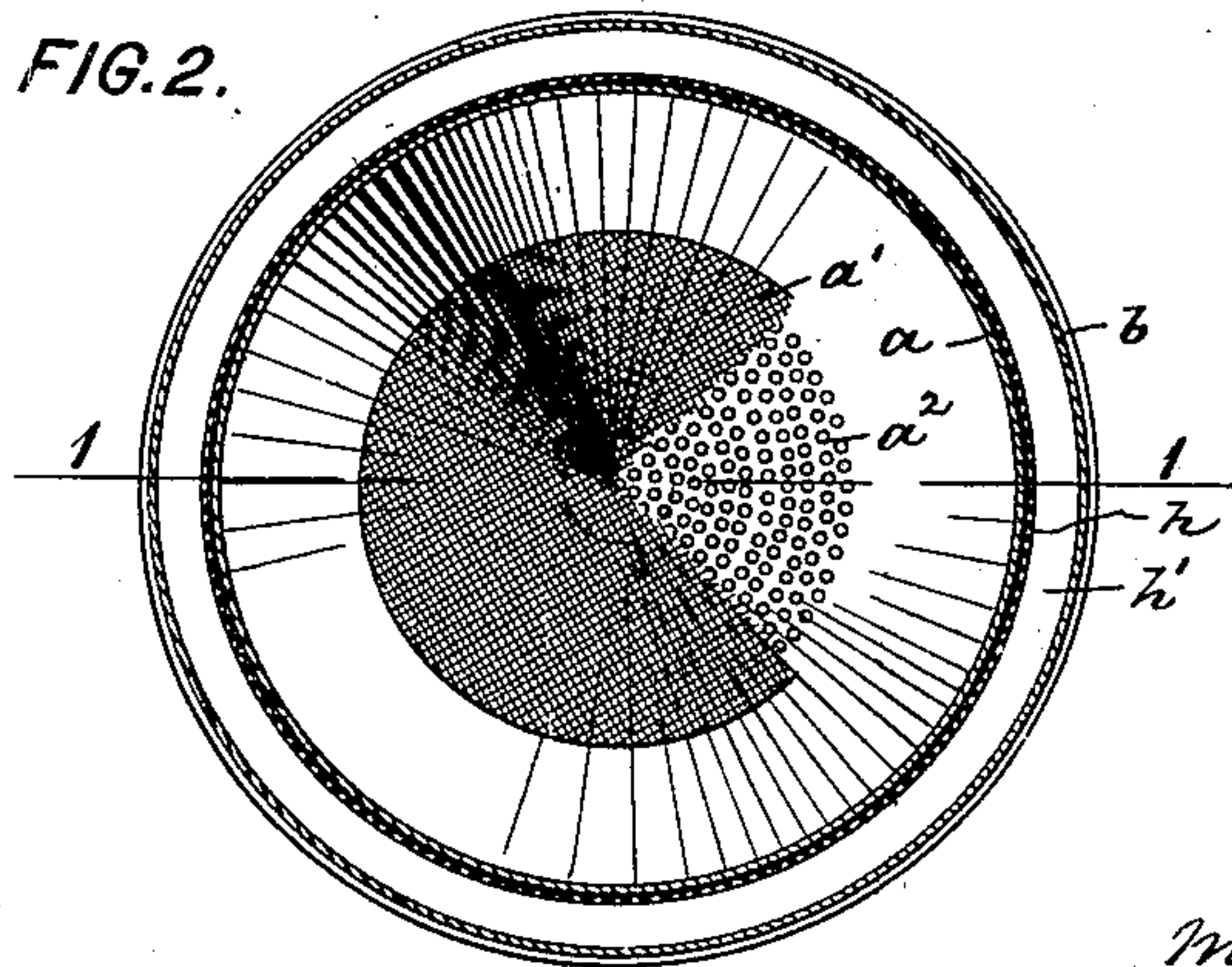


FIG. 2.



Witnesses:

John Becker.

John Hickman.

Inventors:

Michael Marx &
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UNITED STATES PATENT OFFICE.

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WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 667,239, dated February 5, 1901.

Application filed August 23, 1900. Serial No. 27,794. (No model.)

To all whom it may concern:

Be it known that we, MICHAEL MARX, residing at Philadelphia, Pennsylvania, and ABRAHAM WOLFF, residing at New York city, New York, citizens of the United States, have invented an Improved Water-Filter, of which the following is a specification.

This invention relates to a water-filter which effects a thorough cleaning of the water and is so constructed that it may be readily taken apart in order to permit the filtering-bodies to be washed and renewed.

In the accompanying drawings, Figure 1 is a longitudinal central section, partly cut away, of our improved filter on line 1 1, Fig. 2. Fig. 2 is a cross-section, partly cut away, on line 2 2, Fig. 1.

The letter *a* represents an inner vessel, which forms the lower filtering-chamber and which is surrounded by an outer vessel *b*, which forms the shell of the filter. The vessel *a* is provided with a coniform double bottom composed of two strainers, of which the upper strainer *a'* is formed of fine wire-netting, while the lower strainer *a''* is formed of a foraminated metal plate. Within the vessel *a* are contained two filtering-bodies, the upper one, *c*, made of sponge and the lower one, *d*, made of marble chips or dust.

At its upper end the vessel *a* is provided with a threaded neck *a'''*, arranged concentric to a threaded neck *b'* on the upper end of shell *b*. The parts *a''' b'* are adapted to be engaged, respectively, by a pair of threaded concentric flanges *e' e''* of a cap or cover *e*, so that by turning the cover its flanges will simultaneously engage or disengage both of the vessels. The cap *e* is provided, furthermore, with the nipple *e'''*, by which it is secured to the water-supply pipe or faucet, and which communicates with an upper filtering-chamber formed within the flange *e'*. This chamber also contains a filtering-body *f*, composed of sponge, which is confined within the chamber by a pair of strainers *g g'*, that form a removable bottom for the chamber. The strainers *g g'* are supported upon a shoulder *a''''* of vessel *a* and enter with their flanged ends a recess *e''''* of flange *e'*. Thus it will be seen that when

the cap *e* is unscrewed the strainers *g g'* may be removed to clean or replace the filtering-body *f*. On the other hand, if the cap is screwed down the strainers will be firmly seated upon shoulder *a''''* to confine the filtering-body within the upper chamber.

The shell *b* has a conical bottom provided with an orifice *b''*, through which the percolated water is discharged. Between the vessels *a* and *b* a space *h'* is formed that contains a textile covering *h*, slipped over the inner vessel *a* and held thereto by a ring *i*, which is clamped between the top of vessel *a* and the flange *e''* of cap *e*.

As the water passes through the filter it will be first freed from the coarser impurities, which will be retained in the upper filtering-chamber. The water is then subjected to the action of the filtering-bodies contained within the lower chamber and which serve to remove the remaining impurities, while the marble-chips in particular serve to impart a pure color to the water. Thus it will be seen that by our improved filter a perfect purification is obtained and that the filter may be readily taken apart for cleaning purposes or for renewing the filtering-bodies.

What we claim is—

1. A filter composed of an outer perforated shell, an inner vessel having a neck, a cap having a pair of threaded flanges adapted to engage the shell and inner vessel respectively, a filtering-body within the cap, and a filtering-body within the inner vessel, substantially as specified.

2. A filter composed of an outer perforated shell, an inner vessel having an upper neck and a lower straining-bottom, a filtering-body contained within the vessel, a cap having a pair of threaded flanges adapted to engage the shell and inner vessel respectively, a filtering-body within the cap, and a removable strainer between the cap and the inner vessel, substantially as specified.

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Witnesses:

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