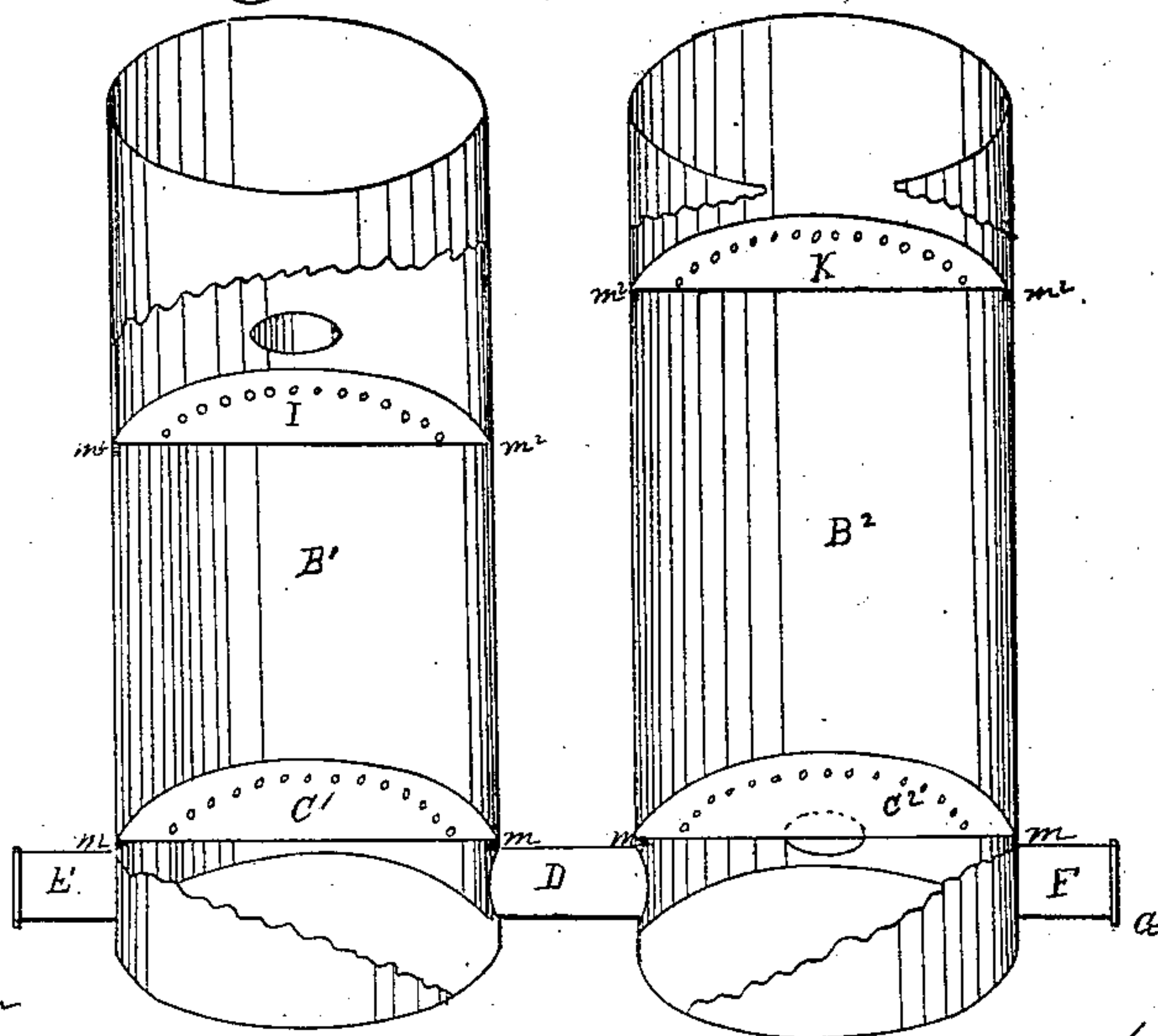
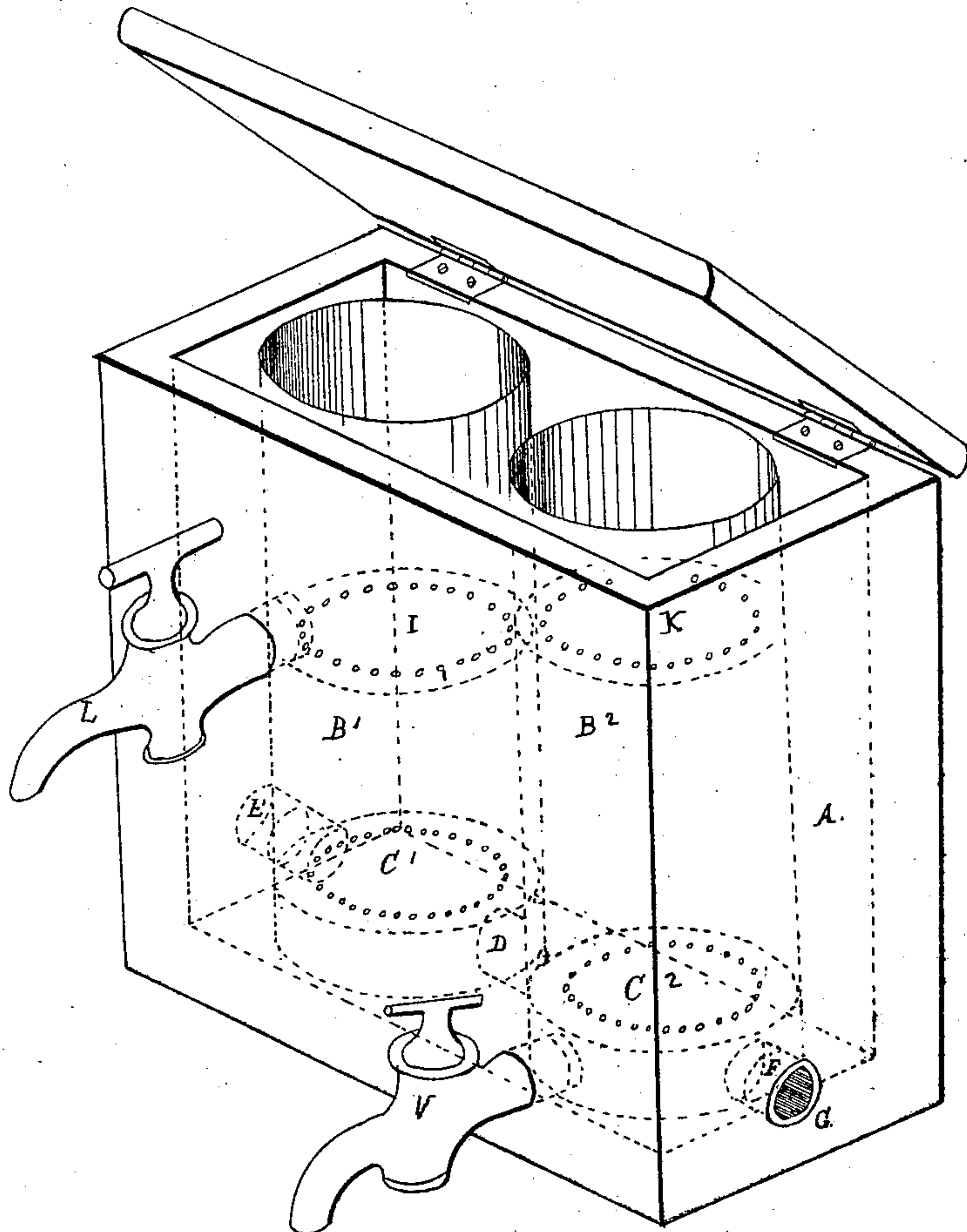


*J. Fitch,*

*Water Filter,*

*No 29,069,*

*Patented July 10, 1860.*



Witnesses:  
*Benjamin Owen*  
*Robt. C. Owens*

Inventor:  
*John Fitch*

# UNITED STATES PATENT OFFICE.

JOHN FITCH, SENECA FALLS, NEW YORK.

## FILTER.

Specification of Letters Patent No. 29,069, dated July 10, 1860.

*To all whom it may concern:*

Be it known that I, JOHN FITCH, of Seneca Falls, in the county of Seneca and State of New York, have invented a new and useful Improvement in Filters; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 is a perspective view. Fig. 2 is a vertical section of my improved filter, the same letters being used to designate the same parts in each figure referred to.

A is the outside case, or tub, which for the purpose of more conveniently containing the apparatus may be made in the shape of an oblong box of suitable dimensions to contain the packing and cylinders hereinafter described with a movable cover on the top; this case is substantially constructed in the usual manner.

B' and B<sup>2</sup> are cylinders or crocks of stone ware, or other suitable material which should be about two feet in height and about eleven inches in diameter, reaching from the bottom of the case to near the level of the top thereof and resting on the bottom of the case two or three inches apart. There is a space of about two inches between the sides of the cylinders and the case to be filled with packing as hereinafter mentioned. These cylinders are each open at the top and closed at the bottom parts thereof. Each cylinder has a shoulder on the inside about two inches above the bottom on which shoulders the perforated plates (made of stone ware) C' and C<sup>2</sup> respectively rest. These shoulders are designated by the latter M in Fig. 2. The pipe D connects said cylinders entering into each immediately below said perforated plates and is secured or cemented to the cylinders so as to form a water tight joint at the connections and a free communication between the cylinders.

The pipes E and F project from the cylinders B' and B<sup>2</sup> respectively through the outside case being secured each to its cylinder firmly by a water tight joint and are in a line with the pipe D, opening each into its cylinder it affords access to remove sedi-

ment from the spaces below the plates C' and C<sup>2</sup> these pipes are closed when the filter is in action by the water tight caps G, G, or by gates and may be of the same material as the cylinders or any other suitable material. A faucet H is fixed in the cylinder B<sup>2</sup> near the bottom to draw off the sediment.

The perforated plate I rests on a shoulder M<sup>2</sup> on the inside of the cylinder B' at a point about one half the height of said cylinder and the perforated plate K rests on a similar shoulder M<sup>2</sup> in the cylinder B<sup>2</sup> at a point about three fourths of the height of said cylinder. The spaces between said perforated plates in each of said cylinders are filled with charcoal or other suitable filtering material. For some waters and particularly those of the Mississippi and Missouri rivers I generally construct the cylinder B<sup>2</sup> without the filtering material, using it as a reservoir for the subsidence of the greater portion of the sediment contained in those waters and to give greater capacity I sometimes connect with the cylinder B<sup>2</sup> one or more additional cylinders in the same manner as the connection is formed between the cylinders B<sup>2</sup> and B'. Immediately above the perforated plate I in the cylinder B' there is fixed a faucet L.

The water or liquid to be filtered is let on to the top of the cylinder B<sup>2</sup> and passing down said cylinder and through the pipe D into the cylinder B' and up through the filtering material contained therein is drawn from the faucet L in a purified state.

The space between the outside case and the cylinders is packed with cork or other suitable material to serve as a cooler to the liquid filtered, ice being used for that purpose.

What I claim as my invention and desire to secure by Letters Patent is—

The filter when constructed, arranged and operated in the manner and for the purposes set forth.

JOHN FITCH.

Witnesses:

BENSON OWEN,  
ROBT. C. OWEN.