

(No Model.)

S. J. SULLIVAN.
FILTER.

No. 539,884.

Patented May 28, 1895.

FIG. 1.

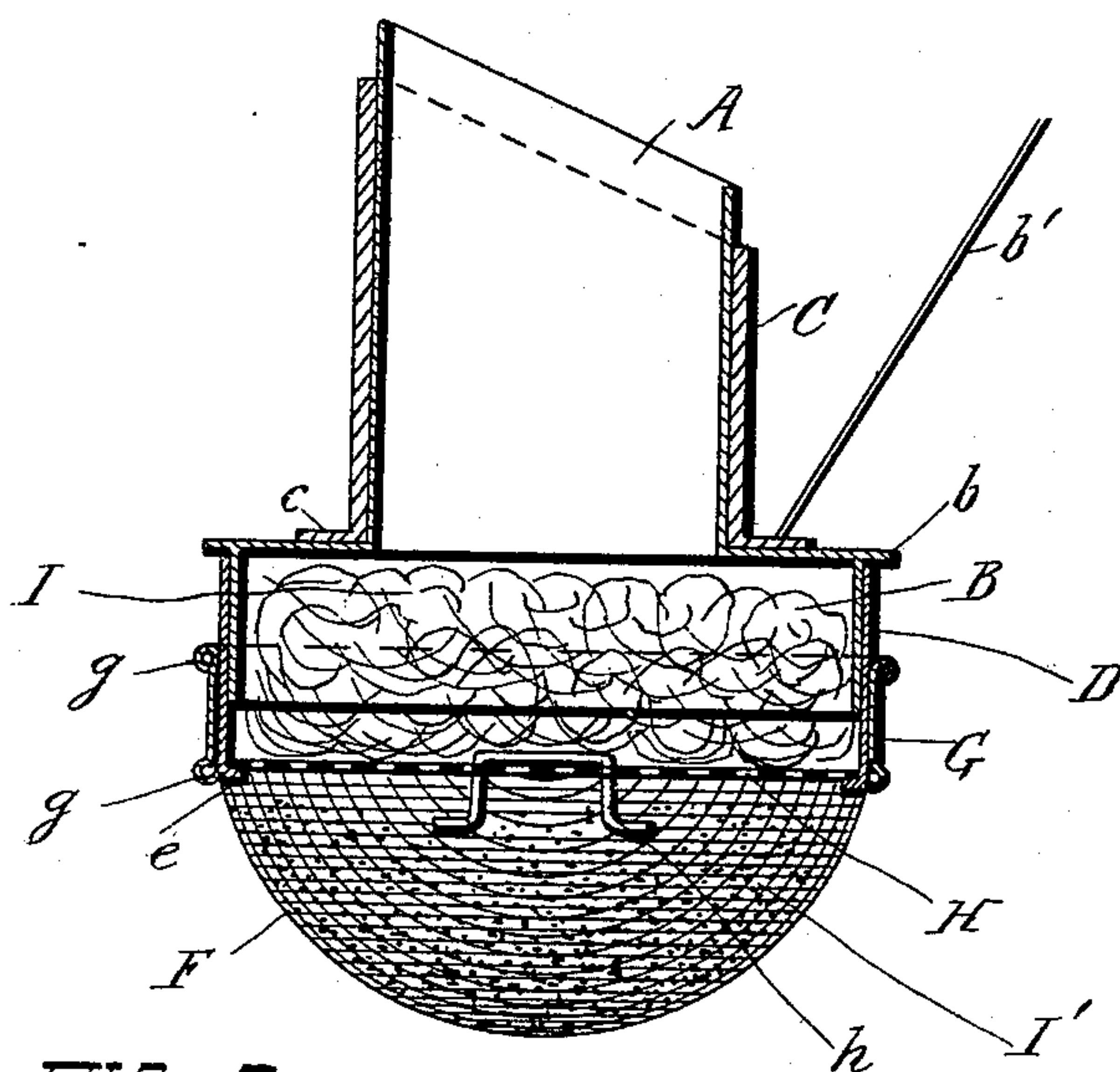


FIG. 2.

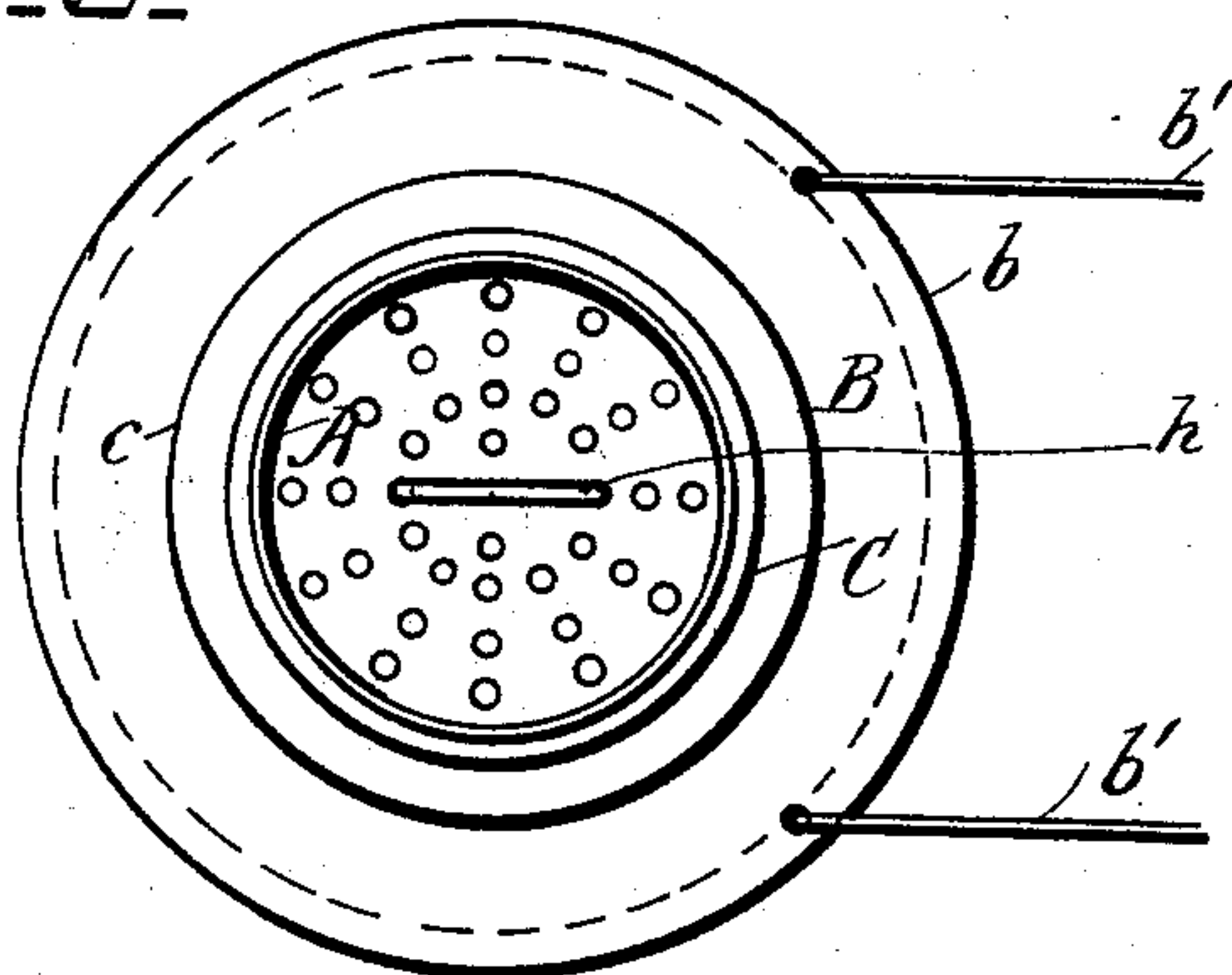
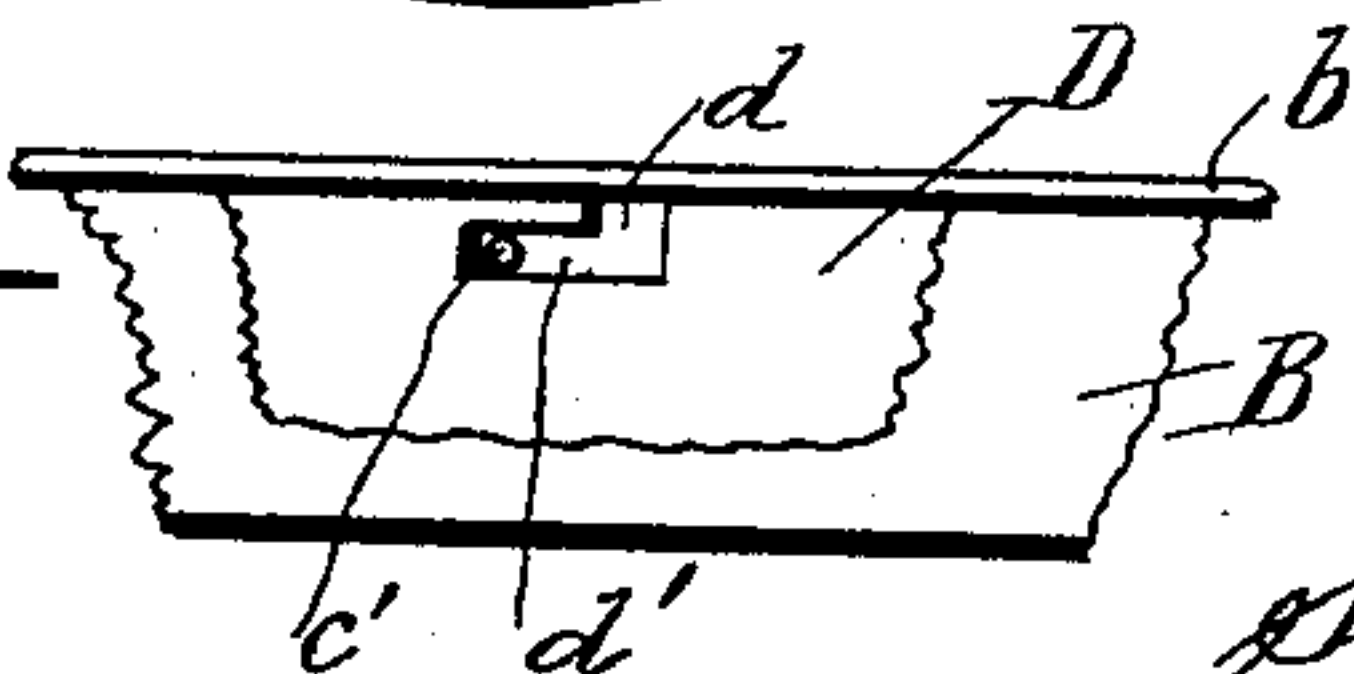


FIG. 3.



Witnesses

W. E. Killen
H. H. Ronsaville

Inventor

Samuel J. Sullivan.

By his Attorney

Herbert W. Jenner.

UNITED STATES PATENT OFFICE.

SAMUEL J. SULLIVAN, OF GIRARD, KANSAS.

FILTER.

SPECIFICATION forming part of Letters Patent No. 539,884, dated May 28, 1895.

Application filed January 17, 1895. Serial No. 535,192. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. SULLIVAN, a citizen of the United States, residing at Girard, in the county of Crawford and State of Kansas, have invented certain new and useful Improvements in Filters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to filters adapted to be attached to faucets or hydrants; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a vertical section through the filter. Fig. 2 is a plan view of the filter. Fig. 3 is a detail front view of the fastening-catch.

A is a nozzle adapted to be thrust into the end of a faucet or hydrant, and B is a short cylinder on the end of the nozzle. The cylinder is considerably larger in diameter than the nozzle and has a projecting flange *b* around its upper edge for strengthening it.

B' are holes in the flange for the attachment of wires *b'* or cords for securing the nozzle to the faucet.

C is a tube of india rubber slipped over the nozzle A and provided with a flange *c* at its lower end for making a water-tight joint between the cylinder and the faucet.

D is a short cylinder adapted to be slipped over the lower end of the cylinder B. A vertical slot *d* having a lateral notch *d'* is cut in the cylinder D, and is arranged to engage with a projecting pin *c'* on the cylinder B as shown in Fig. 3.

The bottom of the cylinder D has an inwardly projecting flange *e* formed by bending over the edge of the cylinder.

A substantially hemispherical strainer of wire gauze F has its upper edge slipped over the lower end of the cylinder D, and G is a band which encircles the edge of the strainer and the lower part of the cylinder D. Both the strainer and the band are secured to the cylinder D, by solder or in any other approved manner, and *g* are beads formed around the upper and lower edges of the band for the purpose of strengthening it.

H is a perforated disk which rests on the flange *e* at the bottom of the cylinder D, and

h is a wire handle for raising the disk when required. The space above the disk H forms a chamber which is filled with sponge I or other similar material, and the strainer below the disk H contains charcoal I' or other similar purifying material.

The solid impurities of the water are removed by the sponge, and the water is purified as it passes through the charcoal under the disk and sponge.

The device can be quickly removed for the purpose of cleaning it, as often as desired, without removing the nozzle from the faucet.

What I claim is—

1. In a filter, the combination, with a cylinder provided with a lateral projection, and nozzle for engaging with a spout or faucet; of a cylinder slidable on the aforesaid cylinder and provided with an inwardly projecting flange at its bottom, and a notched slot for engaging with the said projection; a perforated disk resting on the said flange, and a wire strainer secured to the last said cylinder under the said disk, substantially as and for the purpose set forth.

2. In a filter, the combination, with a cylinder provided with a nozzle and a projecting flange, of a flanged tube of india rubber surrounding the nozzle and adapted to be thrust within a spout or faucet, fastening devices attached to the said flange and operating to secure the said cylinder in position, a removable cylinder attached to the lower part of the aforesaid cylinder, and a perforated disk and a strainer carried by the last said cylinder, substantially as and for the purpose set forth.

3. In a filter, the combination, with the cylinder B provided with a nozzle, of the removable cylinder D sliding over the cylinder B and provided with an inwardly projecting flange at its bottom, a removable disk of perforated material resting on the said flange, a hemispherical wire strainer, and a band encircling the edges of the said strainer and the cylinder D, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL J. SULLIVAN.

Witnesses:

HENRY J. WELLS,
HELEN E. GARDNER.