

(No Model.)

J. A. CROCKER.
Reversible Filter.

No. 229,384.

Patented June 29, 1880.

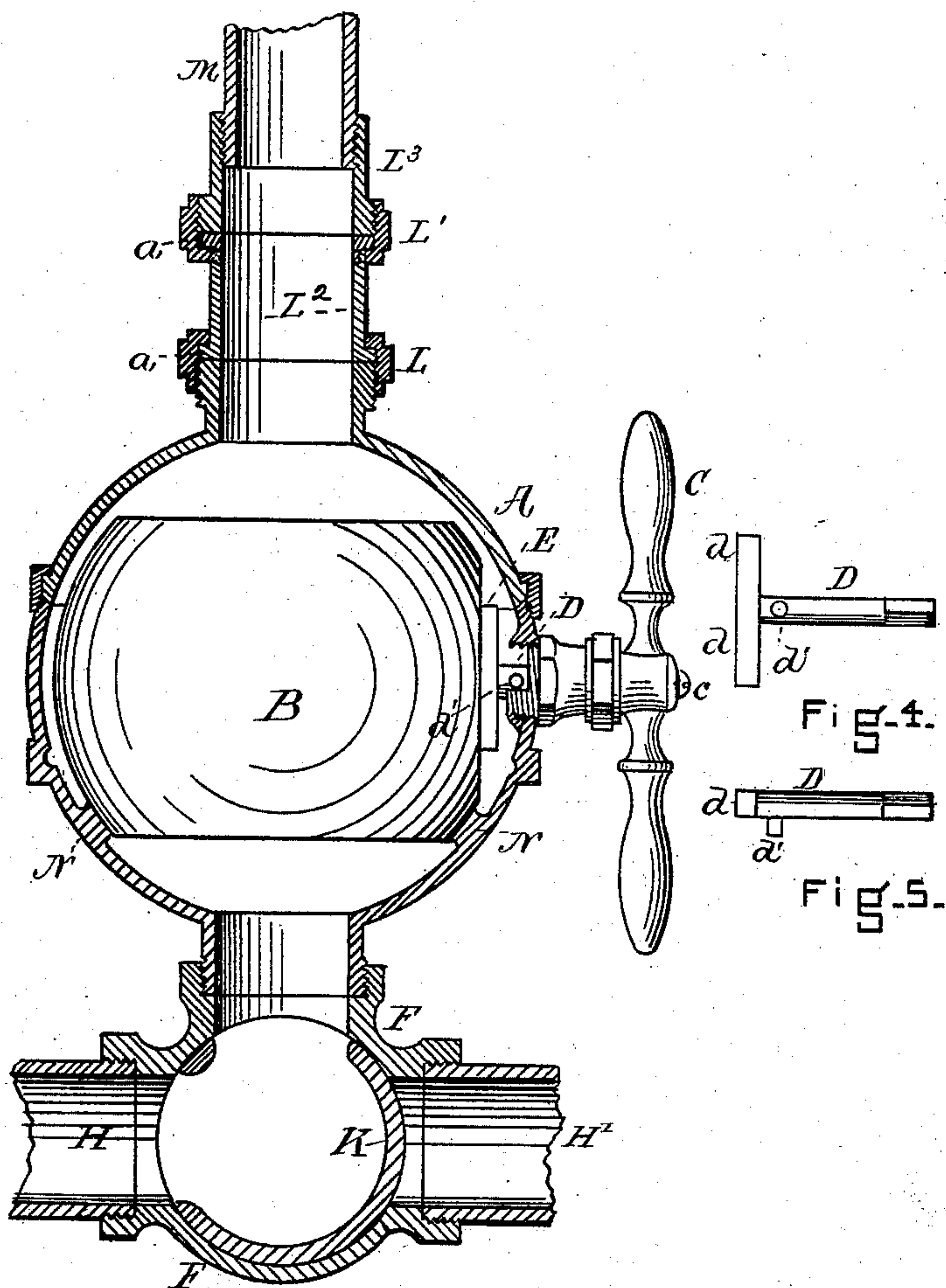


Fig. 1.

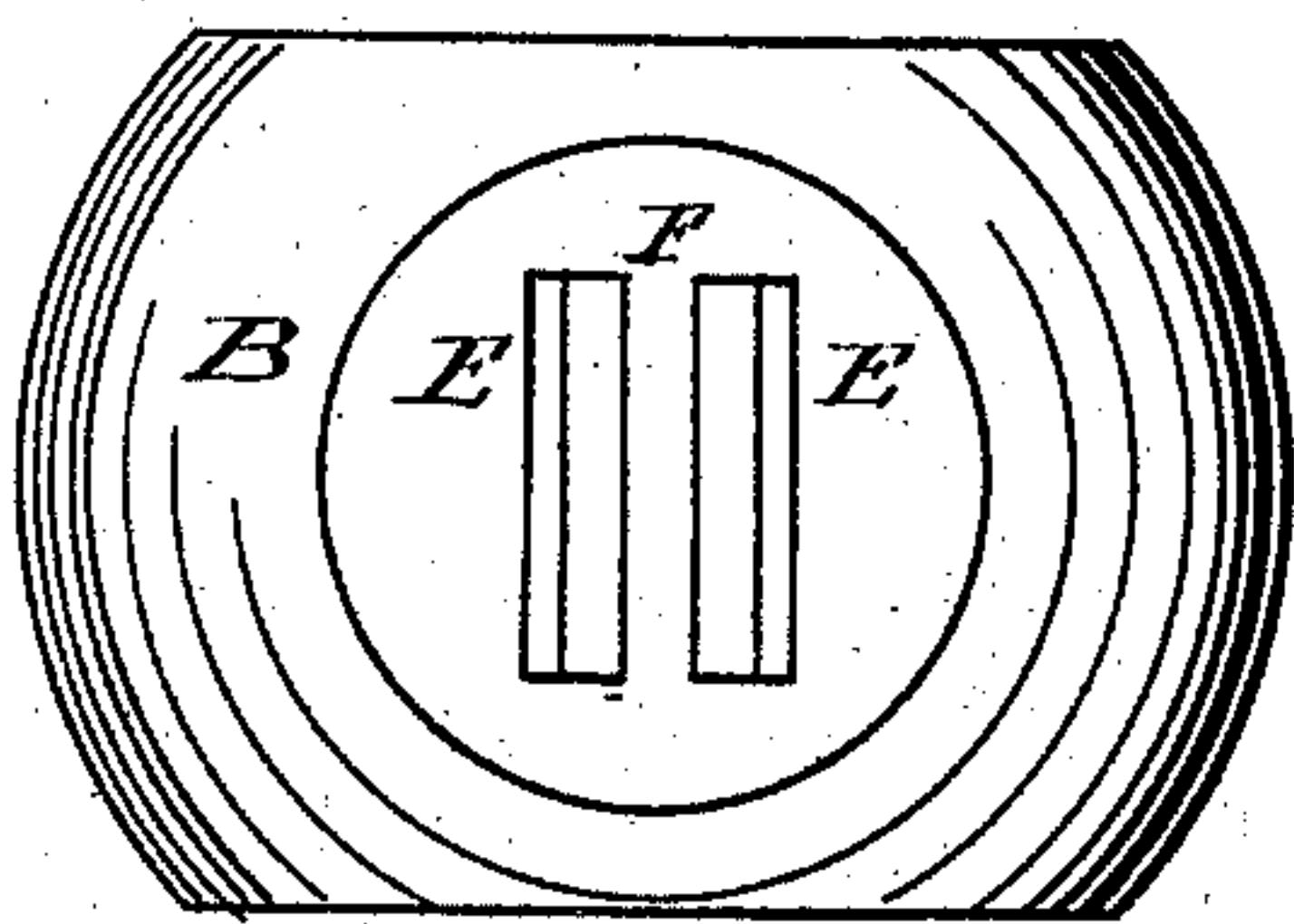


Fig. 2.

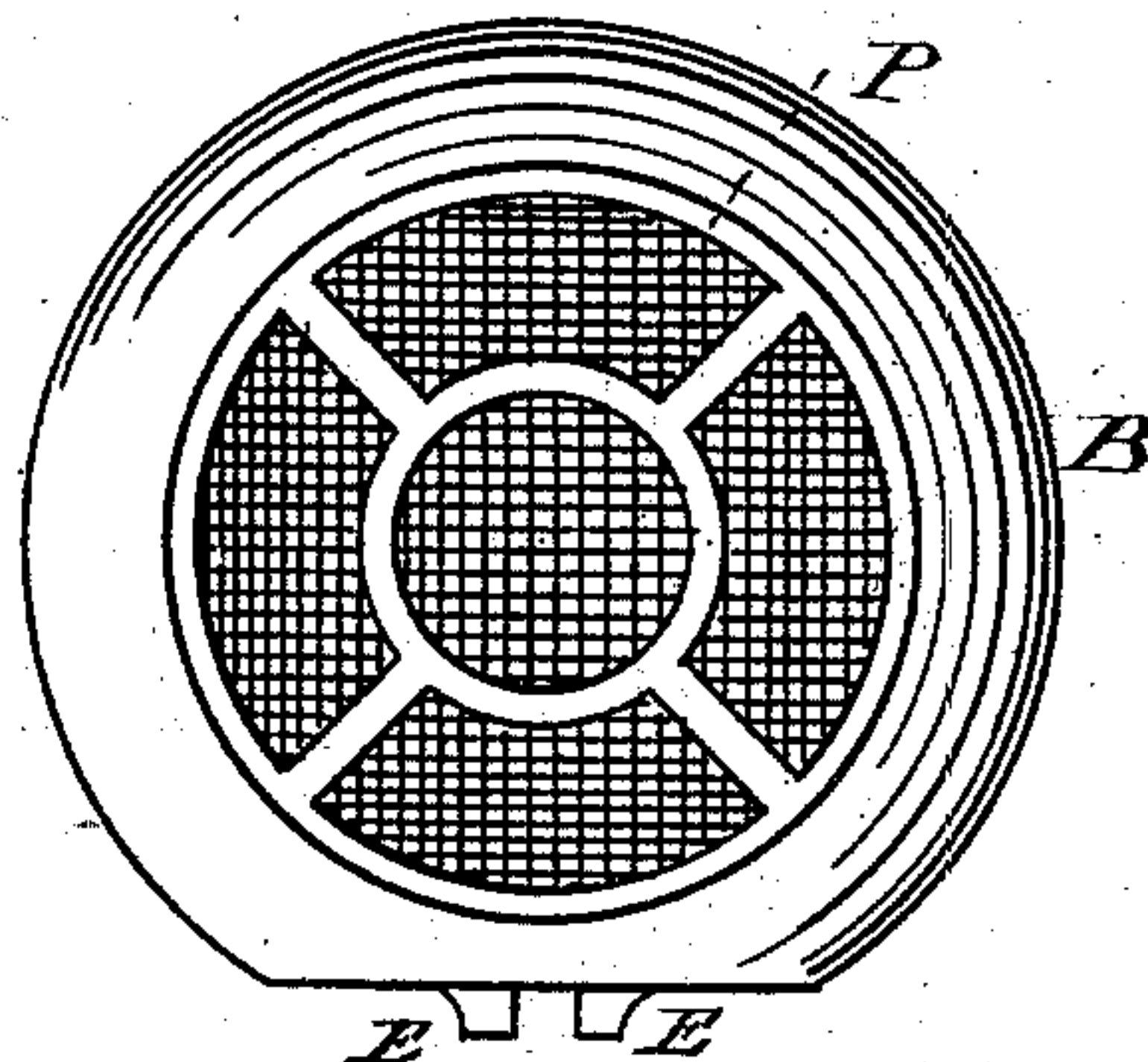


Fig. 3.

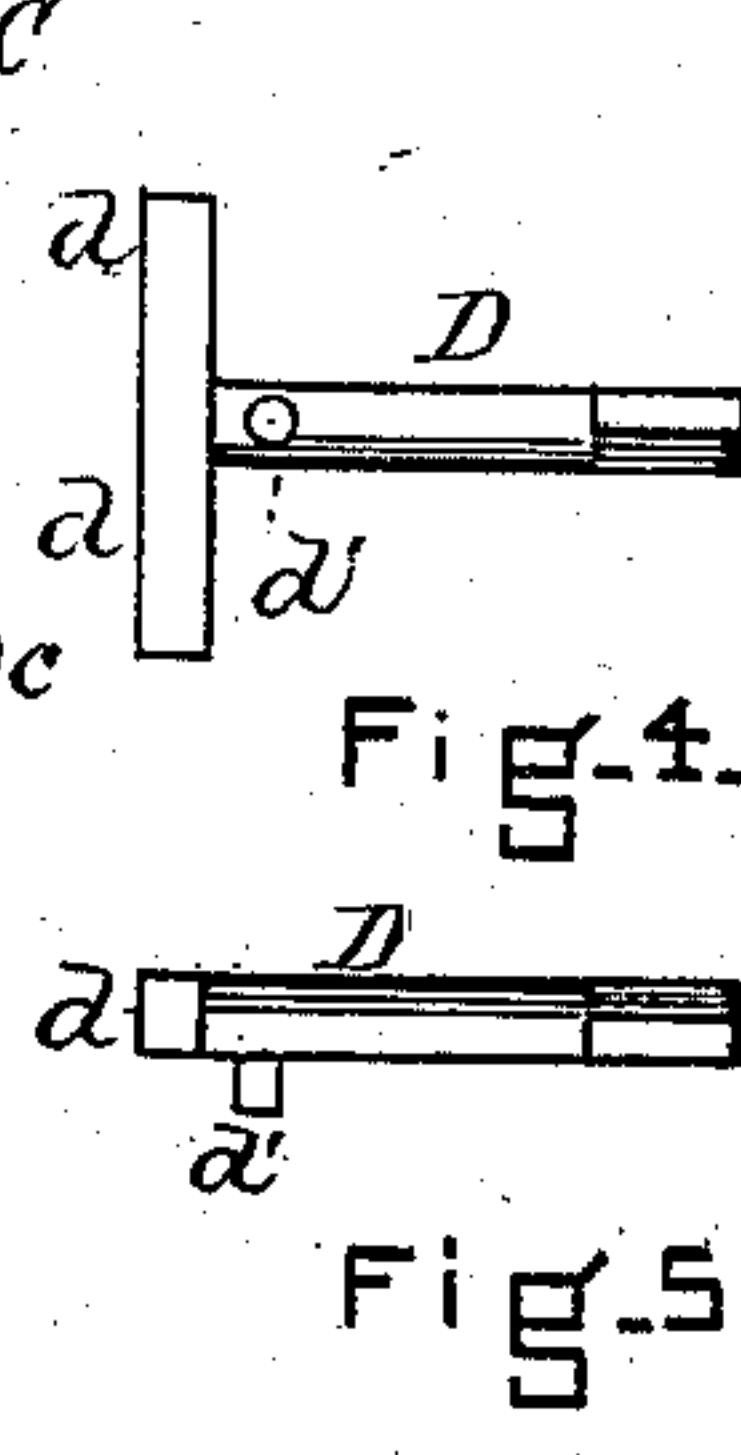


Fig. 4.

Fig. 5.

WITNESSES

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REVERSIBLE FILTER.

SPECIFICATION forming part of Letters Patent No. 229,384, dated June 29, 1880.

Application filed April 16, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. CROCKER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Reversible Filters, of which the following is a specification.

The nature of my invention consists in attaching the handle to the filter proper by means of a loose joint, so that the filter—that is, the part that holds the filtering material—is free to adjust itself to its seat.

In the drawings, Figure 1 is a vertical section of my invention. Fig. 2 is an elevation of the case for holding the filter. Fig. 3 is a plan of the same. Figs. 4 and 5 represent the spindle, which serves to connect the handle with the case for holding the filtering material.

A is a spherical case which incloses the case B, which holds the filtering material. This case B is made spherical, having three of its sides flattened, as shown in Figs. 1, 2, and 3, and is intended to rest on an annular seat, N, Fig. 1, the seat being ground concave and provided with an elastic packing, if desired. This case B is filled with filtering material, which is held in place by two foraminous diaphragms, one of which is shown at P. This case B has no axle to turn upon, but is intended to revolve on the seat N N.

Upon the end of this case B (see Fig. 2) are formed two parallel ridges, E E, with the channel F between them. This channel F receives the arms *d d* of the shank D. This shank D passes through the case A, and is fastened to the handle C by screws *c*.

The arms *d d* fit loosely in the channel F, so that the case B may be free to adjust itself to the seat N, their only function being to assist in reversing the filtering-casing B.

In Fig. 1 I show a two-way cock, F F, in combination with a filter.

The valve K is formed as shown, so that by turning it it may send the water to the pipe H for general distribution, or after the filter has been reversed it may be turned so as to throw the filth into the waste-pipe H'.

A detachable coupling consisting of a short pipe, L², having a flange, *a*, at each end and a union screw-nut, L L', is employed for connecting the supply-pipe with the filter, by which construction the short pipe L² may be readily removed when the filter is to be re-filled without disturbing the line of piping.

The shank D, to which the handle C is attached, has a short projection, *d'*, which serves to prevent the case B from being revolved past the vertical line. Thus the case B may be turned exactly a half-turn and then reversed, so as to present the opposite side of the current of water.

I claim—

In a reversible filter, the case A, with its seat N, and the shank D, with its arms *d d*, in combination with the case B, having a suitable guide for said arms, constructed to operate as and for the purpose described.

JAMES A. CROCKER.

Witnesses:

FRANK G. PARKER,
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