

(No Model.)

T. A. MYERS.
FILTER.

No. 432,546.

Patented July 22, 1890.

Fig. 1.

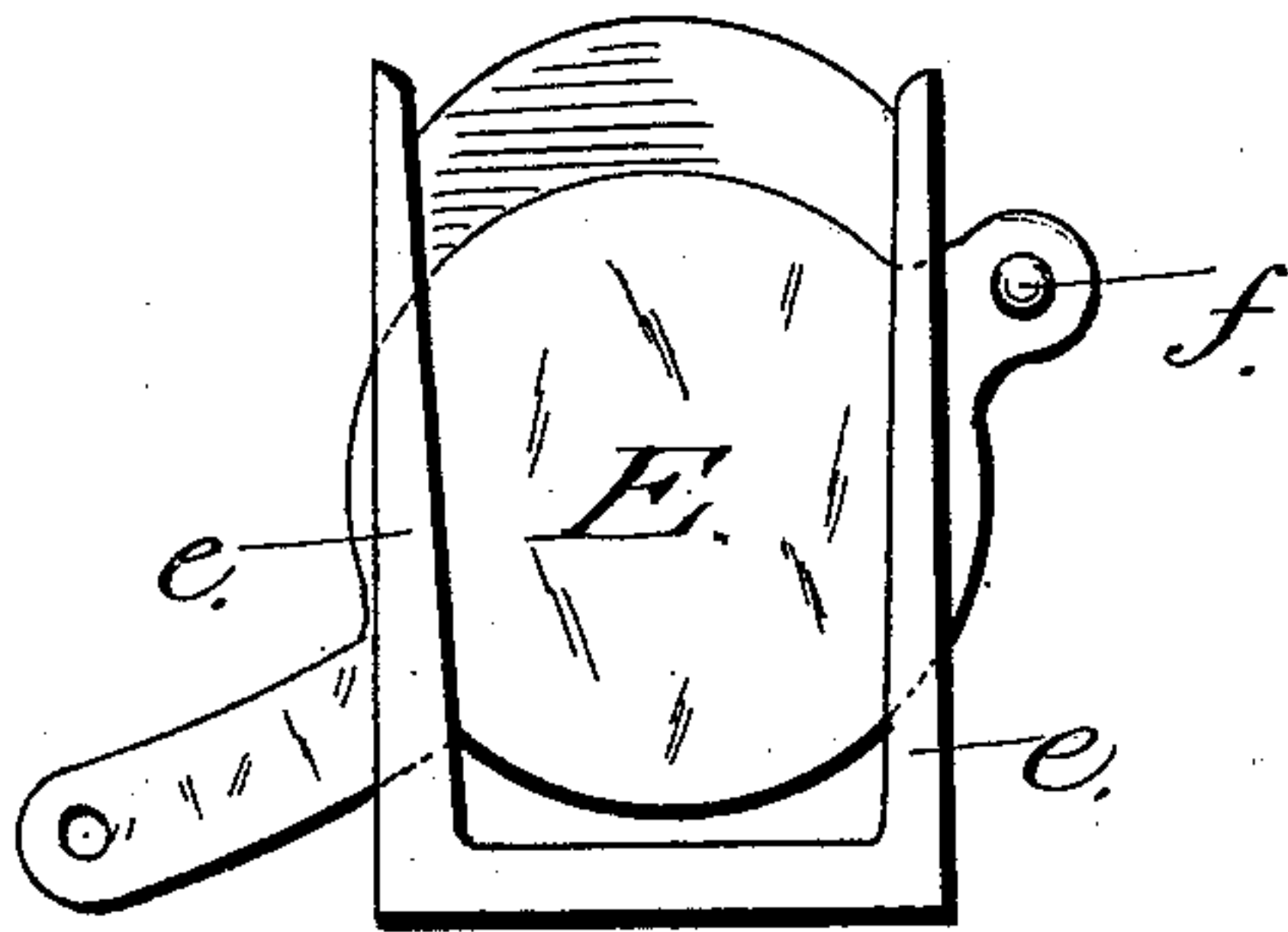
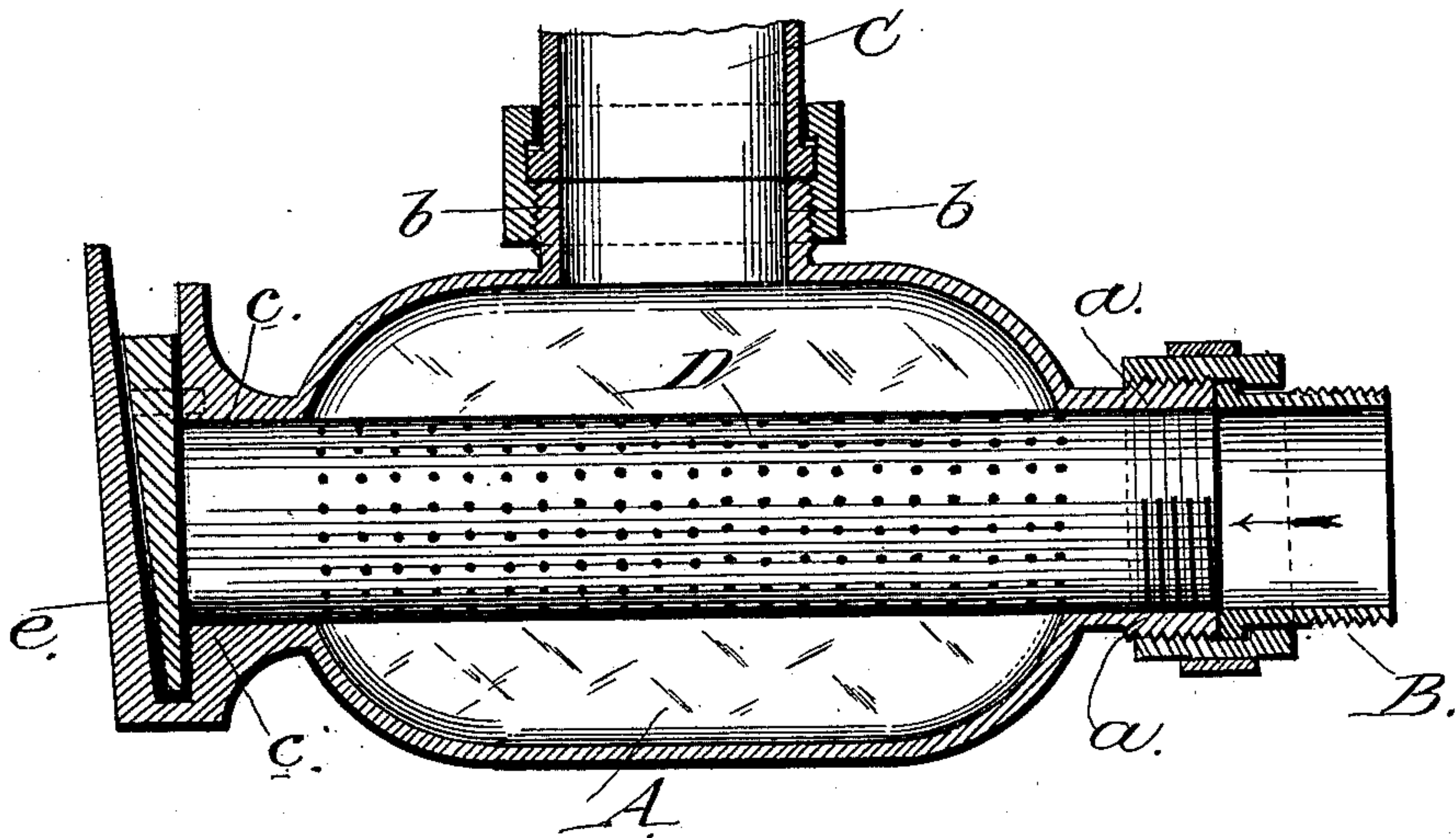


Fig. 2.

WITNESSES

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THEODORE A. MYERS, OF WHEELING, WEST VIRGINIA, ASSIGNOR OF ONE-HALF TO ANDREW T. SWEENEY, OF SAME PLACE.

FILTER.

SPECIFICATION forming part of Letters Patent No. 432,546, dated July 22, 1890.

Application filed May 1, 1889. Serial No. 309,227. (No model.)

To all whom it may concern:

Be it known that I, THEODORE A. MYERS, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented certain new and useful Improvements in Filters, of which the following is a full and clear description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional view showing my filter in position. Fig. 2 is an end view showing the end valve or gate.

My invention relates to certain improvements in filters; and it consists in the constructions and combinations of devices which I shall hereinafter fully describe and claim.

The object of my invention is to construct a filtering device which may be used in connection with any water-pipe, pump, water-motor, or like device, where the dangers of heavy sediment and foreign matter injuring the valves or seats are avoided, the invention being especially useful when connected with the pipes supplying water to the boilers of engines.

My invention consists of a casing, a perforated cylinder open at both ends, one end being in direct communication with the supply-pipe and the opposite end leading to a discharge and controlled by a gate or valve which closes said end, but which, when opened, enables the perforated cylinder to be flushed and thoroughly cleaned by the direct force of the water flowing through it, as I shall hereinafter fully describe and claim.

To enable others skilled in the art to make and use my invention, I will now describe its construction and indicate the manner in which the same is carried out.

In the accompanying drawings, A represents a casing having, preferably, three branches *a*, *b*, and *c*, the former being externally threaded and provided with a coupling which unites it with the water-supply pipe B, whose diameter approximates the diameter of the filtering-cylinder. The branch *b* is likewise threaded and coupled to a pipe C, which is the discharge-pipe, and may extend to any desired point, as to a pump, boiler, water-mo-

tor, or other device not herein necessary to show.

The filtering-cylinder D is formed of perforated material, and has one end threaded and screwed into the end *a* of the casing, while the opposite end is fitted into the opposite end *c* of said casing, whereby the cylinder may be removed from the casing when desired.

The end *c* of the casing is provided with upwardly-extending arms *e*, arranged slightly in advance of the end and having their inner faces beveled or wedge-shaped, and to the casing is pivoted at *f* a valve or gate E, having one face straight and adapted to be fitted tightly against the adjacent end of the cylinder, thereby closing said end, the opposite face of the valve or gate being beveled or wedge-shaped and fitting against the inclined faces of the arms *e*, whereby when the valve is pressed downward by applying power to its lever or handle G the valve is forced tightly against the end of the cylinder D to make a tight joint.

The diameter of the casing is considerably greater than the diameter of the filtering-cylinder, thereby insuring the constant flow of water and preventing the sediment from clogging the perforations in the cylinder.

When the filter is in use, the valve or gate E is closed; but if the perforated cylinder should become choked by sediment, fish, or other foreign matter, and it is desired to flush and clear said cylinder, it may be readily done by opening the gate or valve and utilizing the full head of water through pipe B to wash this foreign material out through the end *c* of the cylinder. By this means I am enabled to keep the cylinder clean and thoroughly filter the water as it passes from the service-pipe to the pipe which conveys the filtered water to the house, engine, motor, &c.

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

1. The combination, with the casing having the branches *a*, *b*, and *c*, and the supply and discharge pipes, of a perforated sifting-cylinder in direct connection with the supply-pipe and of equal diameter therewith, and a valve of equal width closing the opposite end of the

cylinder, whereby the cylinder may be flushed and cleaned, uninterrupted by dead-water in the cylinder, substantially as described.

2. The combination, with the casing having
5 the branches *a*, *b*, and *c*, and the supply and discharge pipes, of the perforated cylinders fitted in the branches *a* and *c*, the arms *e*, having inclined inner faces, and a pivoted

gate or valve *E*, having an inclined or beveled face fitting against the inclined faces of the arms and tightly closing the discharge end of the cylinder, substantially as described.

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Witnesses:

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