

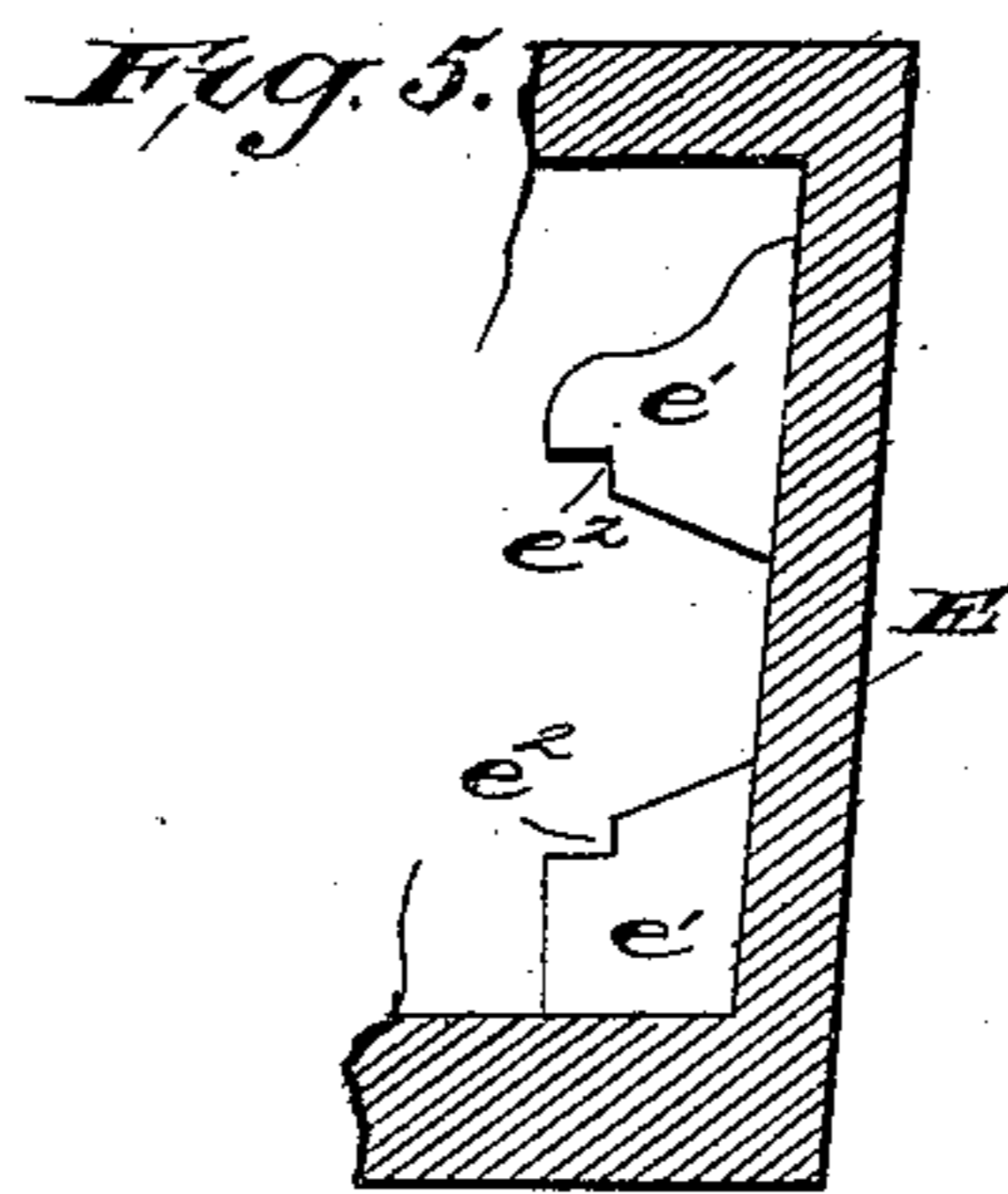
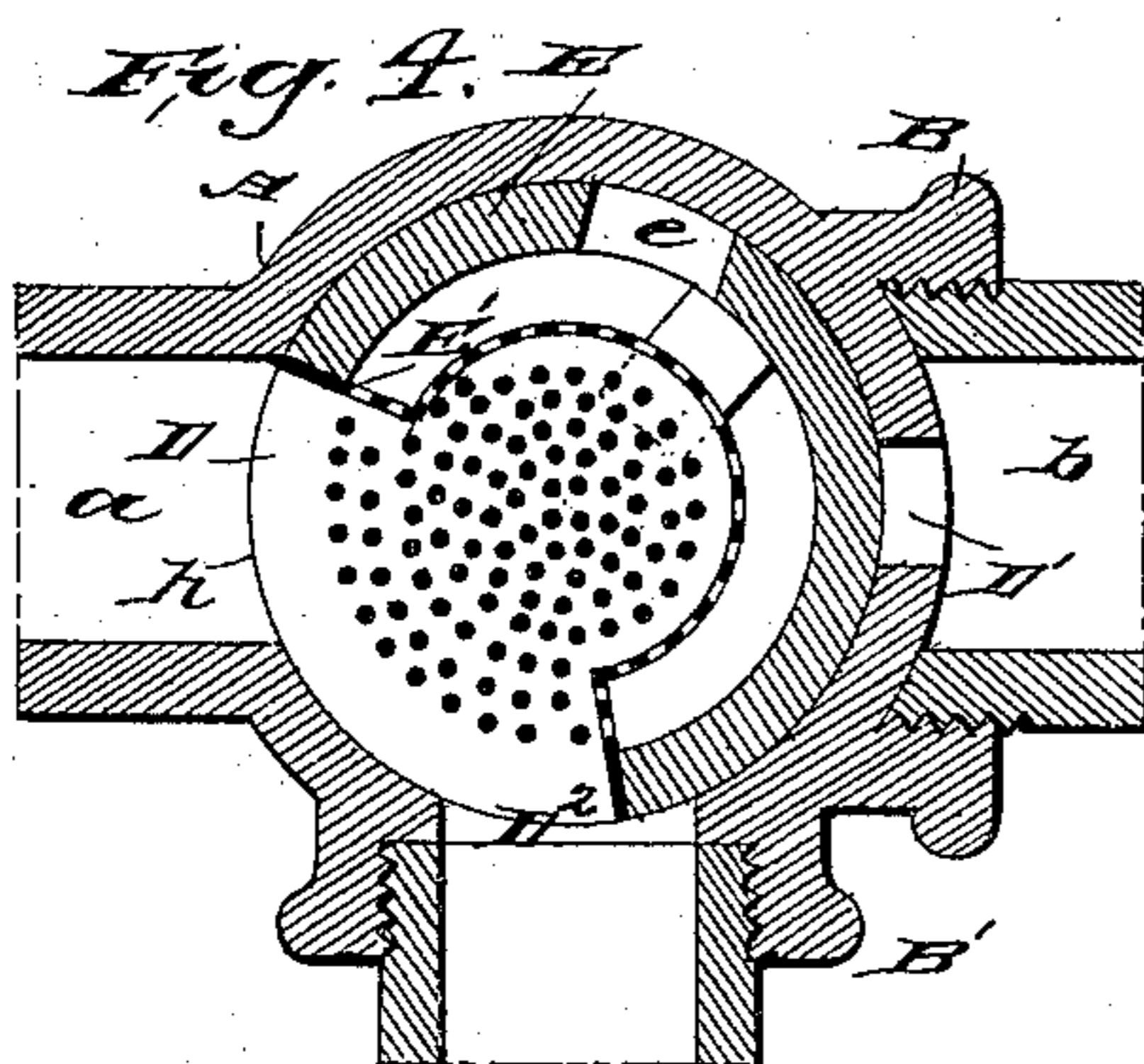
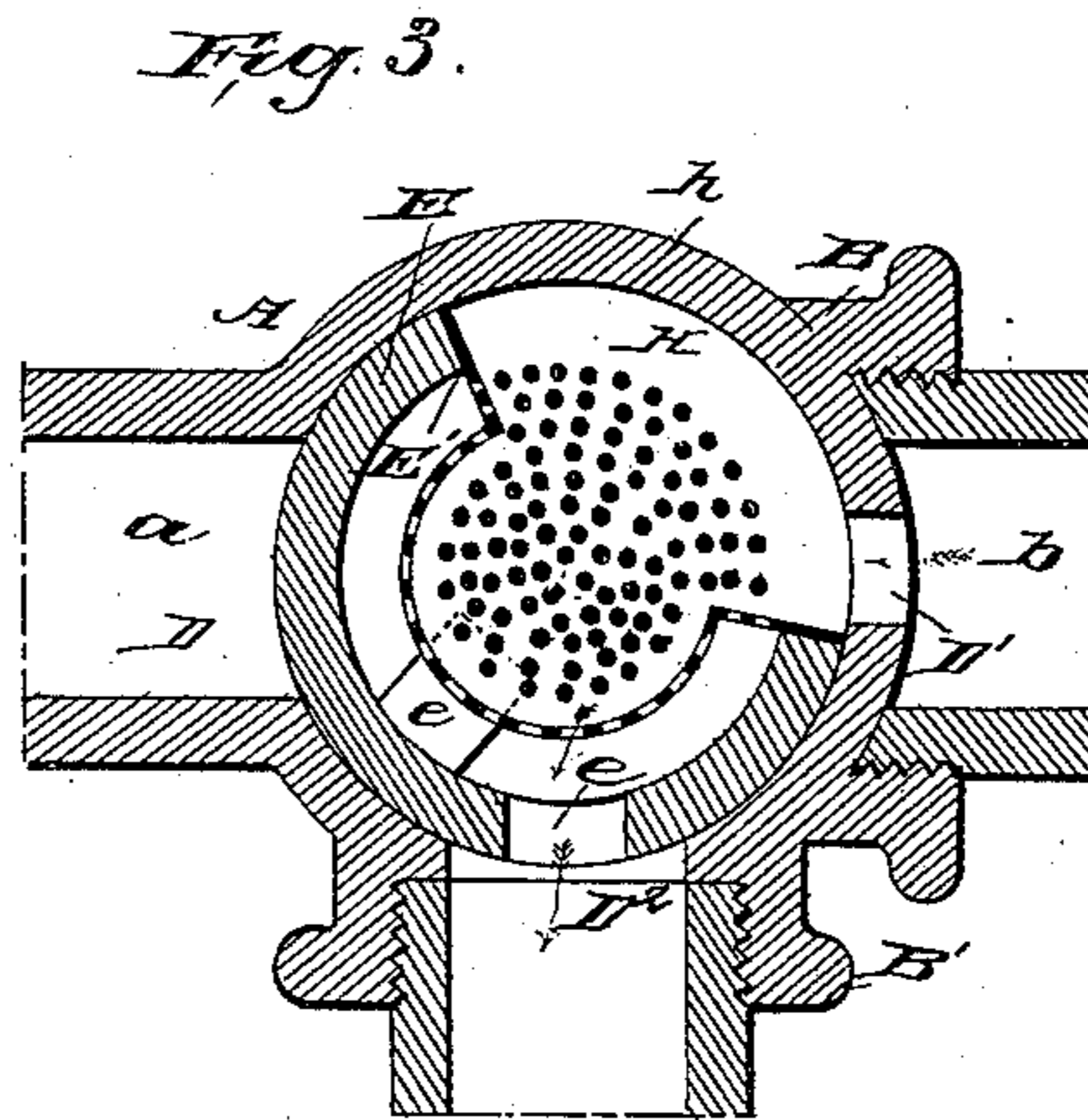
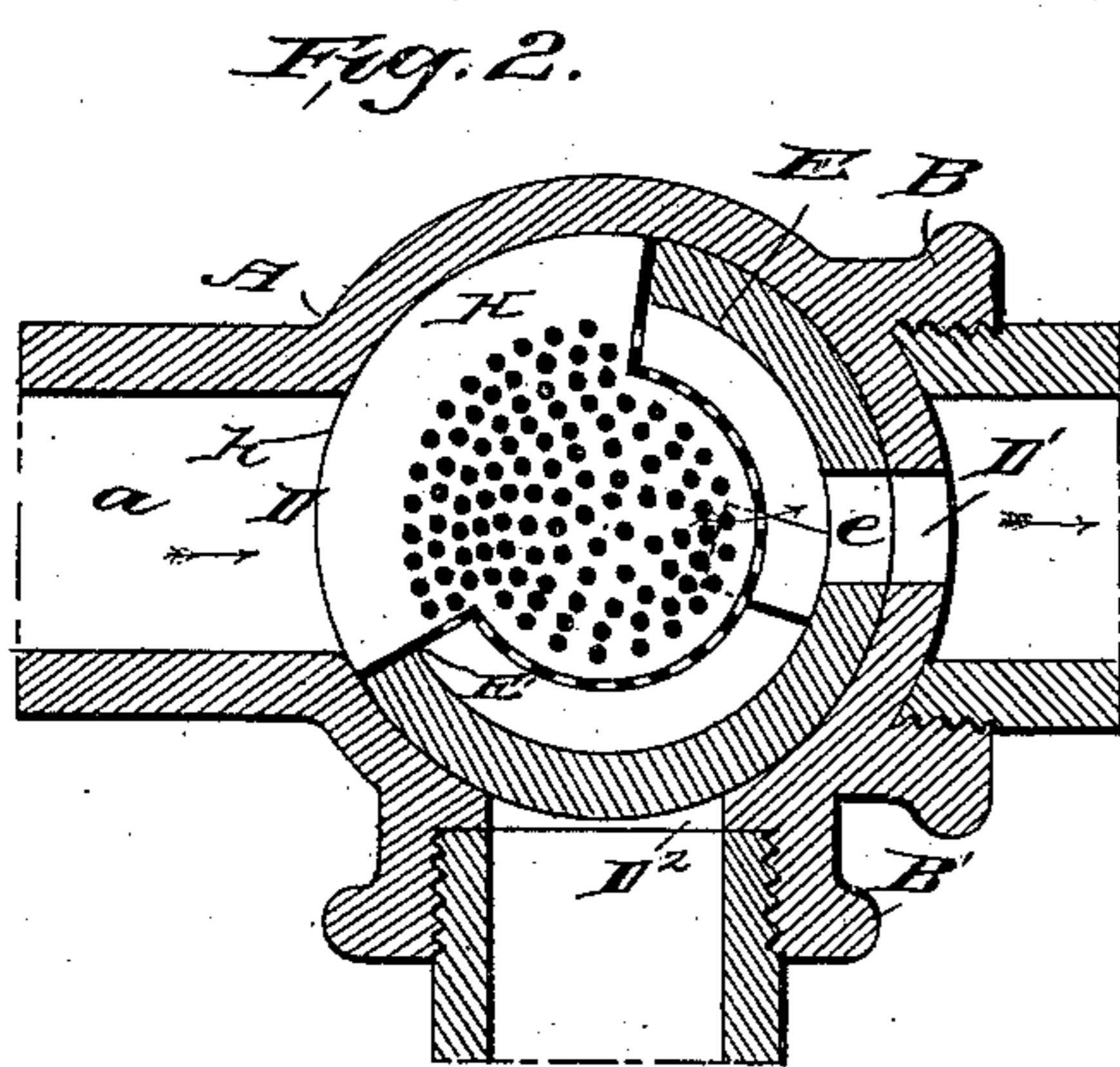
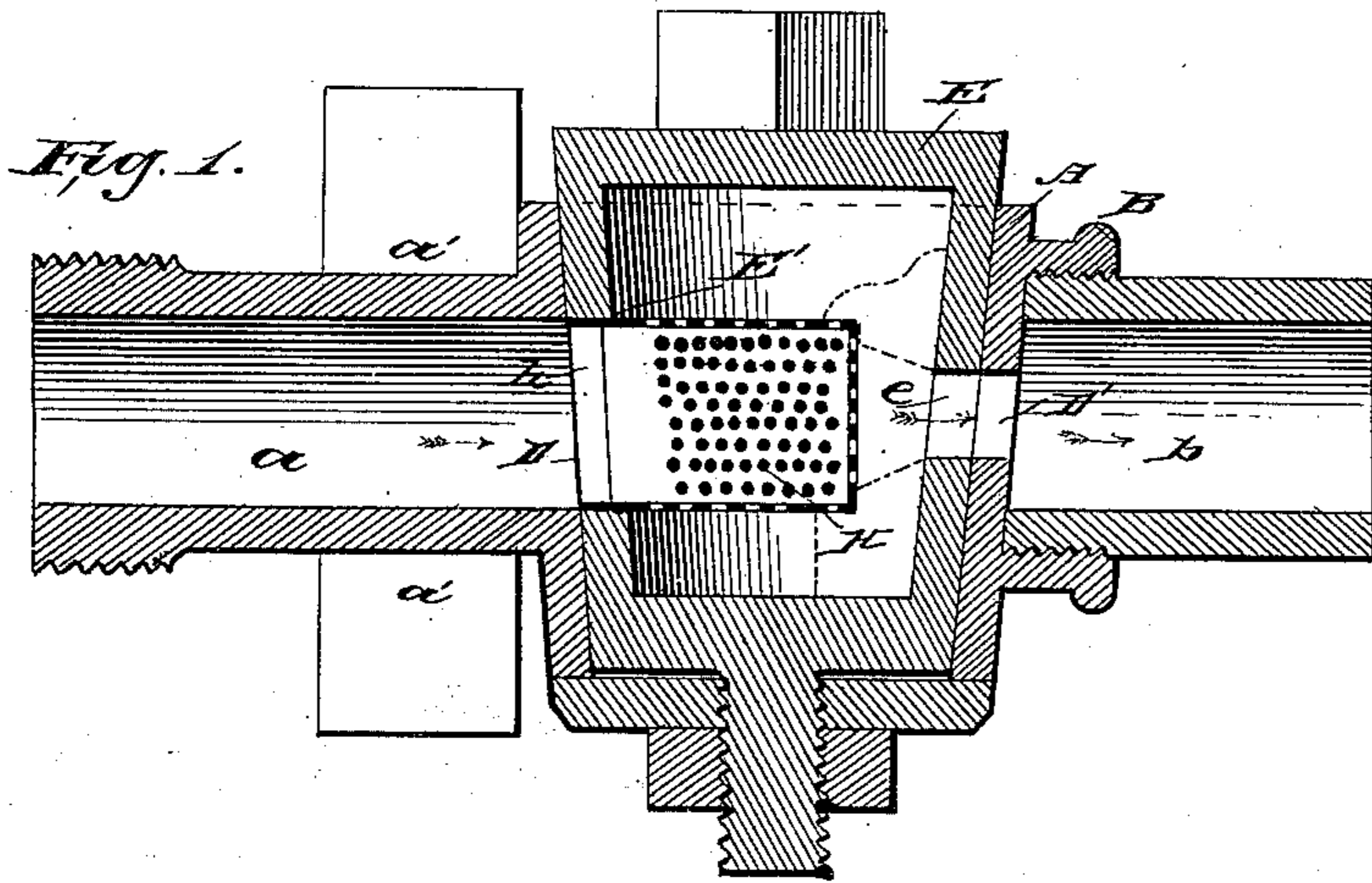
(No Model.)

H. D. MEDRICK.

WATER COCK.

No. 376,253.

Patented Jan. 10, 1888.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HENRY D. MEDRICK, OF PORT JERVIS, NEW YORK.

## WATER-COCK.

SPECIFICATION forming part of Letters Patent No. 376,253, dated January 10, 1888.

Application filed June 15, 1887. Serial No. 241,364. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY D. MEDRICK, of Port Jervis, in the county of Orange and State of New York, have invented a new and Improved Water-Cock, of which the following is a full, clear, and exact description.

My invention relates to an improvement in water-cocks especially adapted for attachment to the water-supply pipe of a locomotive, and has for its object to provide a cock with means of filtering the water before it passes to the injector, and also to provide means for preventing the cock from freezing up in cold weather and means for quickly and conveniently cleaning the same.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a central vertical section through the device; and Figs. 2, 3, and 4 are horizontal sections illustrating the plug in various positions. Fig. 5 is a partial vertical section through the plug, illustrating the supports for the filter.

In carrying out the invention the casing A is provided upon one side with a horizontal tubular arm, *a*, adapted for connection with the hose leading from the locomotive-tank, the said arm being provided with two or more lugs, *a'*, for attachment to the bracket usually employed to support the cock.

Upon the opposite side of the body of the casing an annular interiorly-threaded flange, B, is formed, adapted to receive a short section of pipe, *b*, connecting with the injector, and a second interiorly-threaded flange, B', is formed upon the body between the flange B and the tubular arm *a*.

At the connection of the arm *a* with the body an aperture, D, is made in the latter, of a diameter equal to the interior diameter of the said arm, and immediately opposite the opening D, in horizontal alignment with the axis of the arm *a*, a small aperture, D', is cut in the body, opening out in the center of the flange B, as shown in Fig. 3. Between the apertures

D and D' a third aperture, D<sup>2</sup>, is cut in the body, opening out into the flange B', which opening D<sup>2</sup> is preferably of a diameter equal to the diameter of the aperture D. The plug E of the cock, which is secured in the body in the usual manner, is preferably made hollow and provided upon one side with a large rectangular recess, E', and at one side of said recess E' with an aperture, *e*, equal in size to the aperture D' in the body, with which it is adapted to register when a throughway is desired.

At one side the aperture *e*, and centrally and vertically aligning the recess E', brackets *e'* are attached, one above the other, to the inner wall of the plug E, the opposing faces of which brackets, at their outer ends, being cut away to form the angular recesses *e''*, which recesses are adapted to receive the inner semicircular end of a filter, H, the outer end of said filter, which is open and made flaring; being supported by the walls of the recess E', against which it rests, as shown in the drawings.

The filter H is constructed of any suitable metal and provided with a series of perforations at top and bottom and upon three sides, the fourth side, *h*, forming the mouth, being left entirely open. The filter is made of a height equal to the height of the recess E' and of a contour adapted for ready insertion in the plug E and to be supported by the brackets *e'*.

In operation, when the mouth of the filter is brought in registry with the aperture D, the apertures D' and *e* also register, as shown in Figs. 1 and 2, and the water passing in volume through the aperture D into the filter is cleansed thereby and allowed to pass out into the pipe *b* to the injector.

After using the cock for some time, an amount of dirt will naturally accumulate in the filter. To clean the said filter is a very simple operation, and is accomplished by turning the plug so that the mouth of the filter, which is more than double the size of any opening in the cock, will register both with the apertures D and D<sup>2</sup>, as shown in Fig. 4. The opening D' is thereby closed and the volume of water entering at D will circulate through the filter, cleansing the same, the dirt and water escaping through opening D<sup>2</sup>.

To prevent the water freezing in the pipes

in cold weather, the plug may be turned as shown in Fig. 3, the mouth of the filter registering with the opening  $D'$  and the opening  $e$  registering with the aperture  $D^2$ . Thus the supply of water is shut off and the water in the injector and pipe leading thereto allowed to run off through the opening  $D^2$ .

It is obvious that the device may be used for many purposes other than that set forth.

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

1. The combination, with a casing provided with the inlet  $D$ , smaller outlet,  $D'$ , and auxiliary outlet  $D^2$ , of a tubular plug,  $E$ , provided with the large recess  $E'$ , small aperture  $e$ , and the filter  $H$ , having a flaring open mouth,  $h$ , engaging the walls of said recess, the body of the filter being horizontally supported in the plug, 20 substantially as shown and described, whereby

when the recess in said plug is made, to register with the inlet  $D$  and auxiliary outlet  $D^2$  the filter will be automatically cleaned, as herein set forth.

2. The combination, with a casing provided with the inlet  $D$ , smaller outlet,  $D'$ , and auxiliary outlet  $D^2$ , of a tubular plug,  $E$ , provided with a large rectangular inlet-recess,  $E'$ , a small rectangular outlet,  $e$ , at one side of said recess, brackets  $e'$ , attached to the inner wall of the plug in central alignment with the recess  $E'$ , and a semicircular filter,  $H$ , having a flaring open mouth supported in said recess, the body of the filter being supported within the plug by said brackets, substantially as shown and described. 35

HENRY D. MEDRICK.

Witnesses:

J. F. ACKER, Jr.,

J. H. GORDON.