(No Model.)

# E. HENRY.

## FILTER FOR TANKS OF STREET SPRINKLERS, WATER TANKS, BOILERS, RESERVOIRS, METERS, &c.

No. 526,922. Patented Oct. 2, 1894.

Fig. 1.

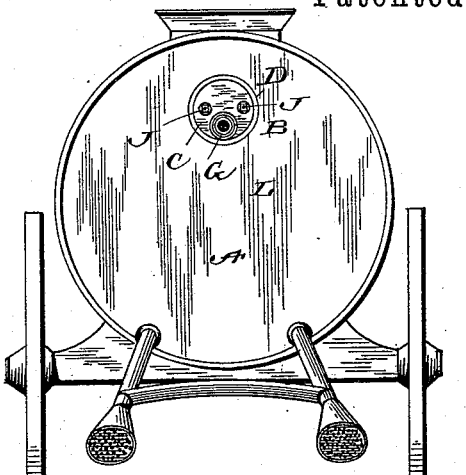



Fig. 2.

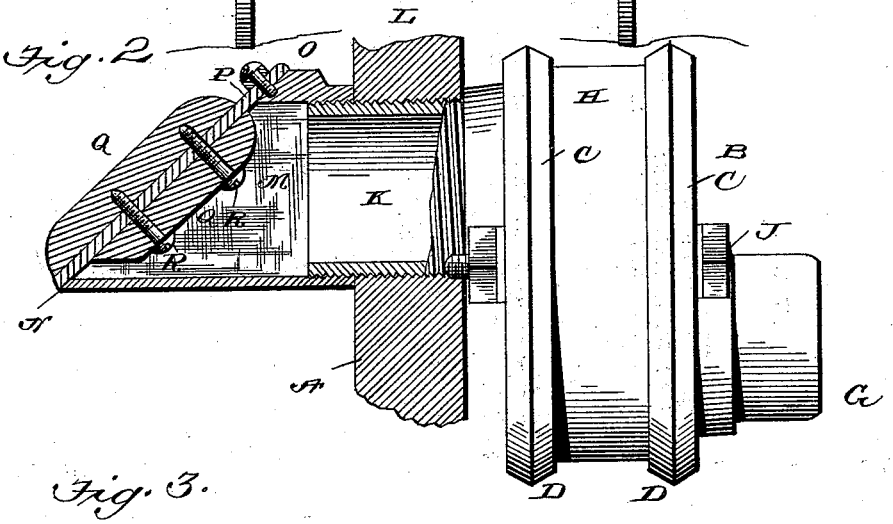
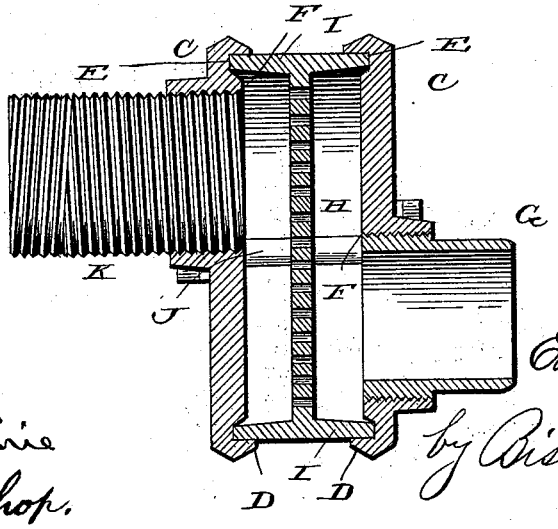



Fig. 3.

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# UNITED STATES PATENT OFFICE.

EDWARD HENRY, OF JACKSONVILLE, ILLINOIS.

## FILTER FOR TANKS OF STREET-SPRINKLERS, WATER-TANKS, BOILERS, RESERVOIRS, METERS, &c.

SPECIFICATION forming part of Letters Patent No. 526,922, dated October 2, 1894.

Application filed April 9, 1894. Serial No. 506,907. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD HENRY, a citizen of the United States, residing at Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Filters for Tanks of Street-Sprinklers, &c.; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My present invention is a strainer or filter for use at the inlets of the tanks of street sprinklers, water tanks, boilers, &c., and has for its object the provision of a simple and efficient device which will prevent the entrance of foreign bodies into the tank and which will automatically cleanse itself.

The invention consists in certain novel features of the device illustrated in the accompanying drawings as will be hereinafter described and claimed.

In the drawings, Figure 1 is an end elevation of a street sprinkler equipped with my improved device. Fig. 2 is a view on a larger scale showing the filtering device in side elevation and the wall of the tank in section, and Fig. 3 is a sectional view of the filter.

The tank, A, may be of the usual or any preferred construction and forms no part of my invention. The filtering device, B, is arranged at the inlet port of the tank which may be at any point as will be readily understood. For convenience sake, however, I have illustrated it as arranged at the rear end of the tank.

In constructing my improved filter, I employ the heads C C which are provided with the annular flanges D at their edges and with the annular grooves E in their inner faces adjacent to the said flanges. These heads are further provided with the eccentrically-disposed port openings F, the outer head having its opening F nearer its lowest edge while the inner head has its corresponding opening nearer its top edge. A short supply tube or nipple, G, is secured in the opening F of the outer head and to this tube or nipple is attached the end of the hose leading from the hydrant in the operation of the device. Between the two heads I arrange a perforated disk H having the annular flanges I I at its edge which engage the annular grooves in the inner faces of the heads and form water-tight joints therewith. This disk is held between the heads and all are held together by the clamping bolts J inserted through the heads and disk and secured by nuts in the usual manner, as shown, thereby forming a straining cylinder. A pipe or discharge tube K is secured in the wall, L, of the tank and the port opening of the inner head C, the inner end of said tube projecting into the tank beyond the wall. The device is thus firmly secured to the tank and held in place. Upon the inner end of the pipe K, I secure a tube or casing, M, having a beveled inner end, as shown at N, and provided with a lug or enlarged wall, O, on its upper side at said inner end. A thick leather disk, P, is secured to this lug or wall and rests on the inclined or beveled end of the tube, thus forming a check valve to permit the flow of water into the tank but prevent its flow in the opposite direction. In order to insure the holding of the valve to its seat, I provide the weights Q which are held together and to the valve by set screws R passing through one weight and the valve into the other weight.

The operation of the device will be readily understood. The water flows through the inlet tube into the space between the two heads and through the perforated disk. It then passes through the pipe K into the tank. When the flow of water is stopped and the hose removed from the inlet tube or nozzle, the water then remaining in the filter will flow backward through the perforated disk and escape through the inlet tube thereby washing from the filter the foreign substances which had been arrested by the perforated disk.

The chief difficulty at present found in operating street sprinklers is the clogging of the sprinkler orifices by small fish and other foreign substances which find their way into the water mains and the tanks of the sprinklers. With my device, this difficulty is overcome. The inflowing water is caused to pass through the perforated disk which arrests all foreign substances and prevents them from passing

into the tank. Fish and similar substances will be ground up by the pressure of the water and sticks, stones, &c., will drop to the bottom of the filter whence they will be washed out when the hose is removed as above stated.

The device is extremely simple in its construction and can be readily applied to any street sprinkler, water tank, boiler, reservoir, water meter, &c., now in use.

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

1. In a filter for street-sprinklers, &c., the combination of the cylinder heads having annular grooves in their inner opposing faces near the edges of the same, a perforated disk arranged between the cylinder heads and having an integral double annular flange at its edge projecting beyond its two sides and engaging the annular grooves in the cylinder heads, means for securing said disk and heads together, a supply pipe leading through one of the cylinder heads near the bottom of the same, and a discharge pipe leading from the opposite head at the top of the same.

2. The improved filter herein described and shown consisting of a pair of cylinder heads having annular grooves in their inner faces, a perforated disk having a double annular flange engaging said grooves, means for securing the disk and cylinder heads together, a supply pipe secured in one cylinder head at the bottom of the same, a double-threaded nipple secured in the opposite cylinder head at the top thereof and adapted to pass through and engage the wall of a street-sprinkler or other tank, a discharge tube secured on the end of said nipple, and a check valve hinged to and resting upon the end of said discharge tube.

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

EDWARD HENRY.

Witnesses:

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