J. WILLSEY.
Water-Filter.

No. 219,839. Patented Sept. 23, 1879.

FIG. 1.

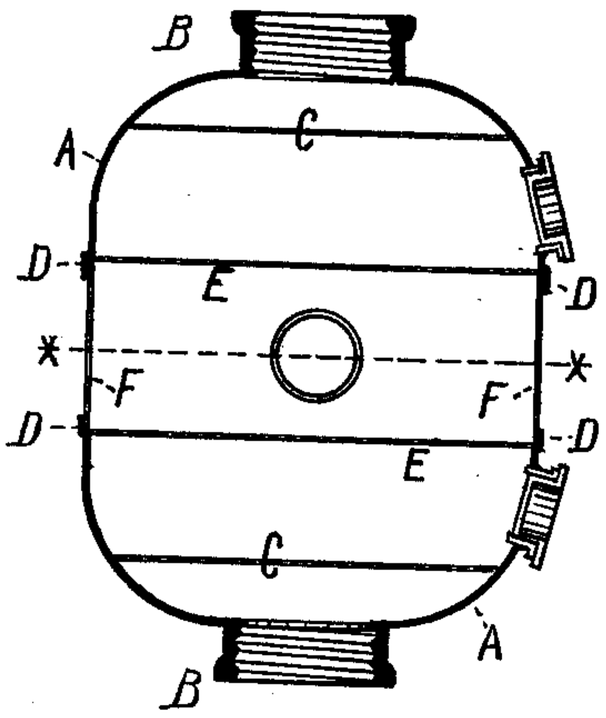


FIG. 2.

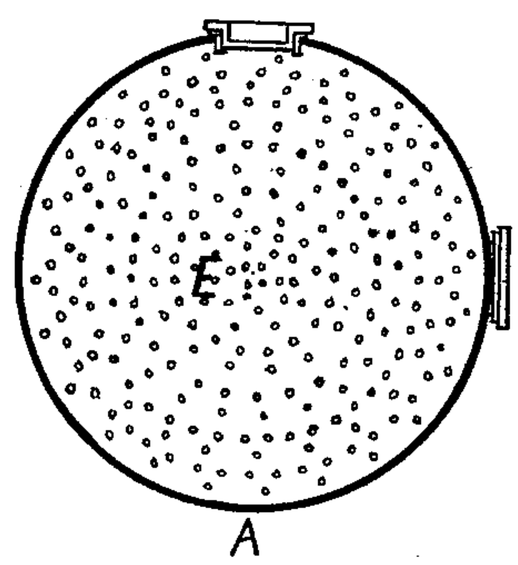
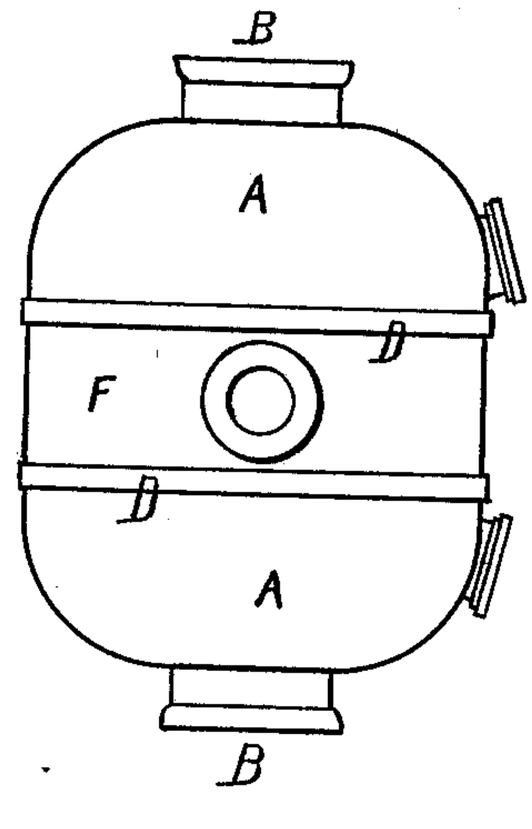


FIG. 3.



WITNESSES.
A. D. Morey ~.
William R. Manlove.

INVENTOR.
Jackson Willsey By
J. L. Chapin
Atty.

UNITED STATES PATENT OFFICE.

JACKSON WILLSEY, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN WATER-FILTERS.

Specification forming part of Letters Patent No. **219,839**, dated September 23, 1879; application filed August 13, 1879.

To all whom it may concern:

Be it known that I, JACKSON WILLSEY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Water-Filters, of which the following is a specification, reference being had to the accompanying drawings illustrating the improvement, in which—

Figure 1 is a sectional elevation of a water-filter embodying my improvement; Fig. 2, a horizontal section taken on line *x x*, Fig. 1. Fig. 3 is an elevation of the filter.

The present invention relates to an improvement in that class of filters to be attached to hydrant-cocks which discharge water under pressure.

The present method of constructing these filters is to spin the sheet-metal shell in two hemispheres, and before uniting these parts solder perforated circular metal plates to their inner parts near the ends, so that a filtering-chamber, to be filled with sand or other material, is formed in the central portion of the globular case or shell.

Filters thus constructed answer the purpose of taking out sediment only from water—as, for instance, as contained in Lake Michigan water; but where in water—as, for instance, Missouri River water—containing a large amount of vegetable and coloring matter, two or more filtering-chambers filled with different filtering material are required.

It is the purpose of this invention to provide a cheap, simple, and effectual means for taking the impurities from water wherever it is discharged under pressure. In attaining this end, two hemispherical shells are spun up from sheet metal, as shown at A A′, and to their poles are attached the ordinary screw-collars B B, to connect with the hydrant-cock and with a discharge pipe or nozzle.

To the polar ends of these hemispheres are secured by solder perforated plates C C, of the same construction as those in filters now in use.

During the process of spinning the parts A, offsets or shoulders D D are formed on their equatorial parts, for the purpose of providing seats for the support of the walls E of the inner filtering-chamber. These perforated walls require no soldering, but are held in place between the seats or shoulders D D and the cylindrical central part, F, which shuts inside of the shells A A, and is pressed firmly against the walls E, and then united to the parts A by solder at the outside of the shells.

Screw-plugs are tapped into the parts A A F, for the convenience of filling the several chambers with filtering material, which should consist of clean sand in the end chambers and finely-pulverized pumice-stone in the central chamber, or pumice-stone and ground charcoal.

After the filter has been used an hour or two, its opposite end must be attached to the hydrant-cock, so that the force of the water will drive the impurities back out of the filter.

Before using the water after reversing the filter, it should first have driven the impurities from the filtering-chambers.

I claim and desire to secure by Letters Patent—

The hemispherical shells A A, formed with offsets D D, which serve as seats for the walls E E of the inner filtering-chamber, in combination with the central cylindrical part, F, shutting inside of the parts A A and against the walls E, and being fastened with solder, so as to form a central filtering-chamber, as set forth.

JACKSON WILLSEY.

Witnesses:

ARTHUR G. MOREY,

G. L. CHAPIN.