(No Model.)

H. MILLSTINE.

WATER FILTER.

No. 599,971. Patented Mar. 1, 1898.

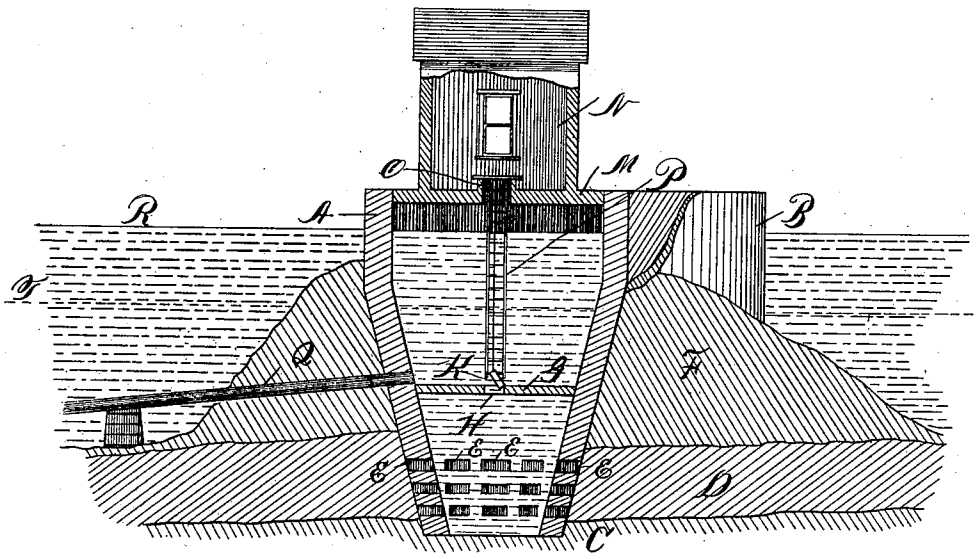


FIG. 1.

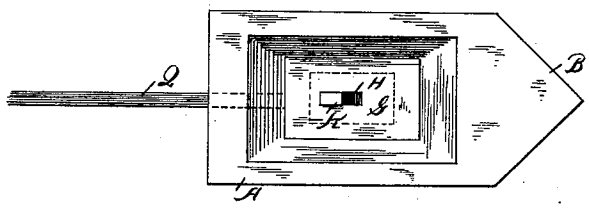


FIG. 2.

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UNITED STATES PATENT OFFICE.

HERMAN MILLSTINE, OF PITTSBURG, PENNSYLVANIA.

WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 599,971, dated March 1, 1898.

Application filed August 16, 1897. Serial No. 648,349. (No model.)

To all whom it may concern:

Be it known that I, HERMAN MILLSTINE, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Water-Filters, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in water-filters, and has for its object to construct a filter at the point of the water-supply, so that the same will be filtered when it enters the water-main leading to the reservoir. This result is sought to be accomplished by means of the crib erected in the water, and to which the water-main is connected, the impure water being filtered by the time it reaches the interior of the crib and the pure water being permitted to pass into the water-main leading to the reservoir.

The invention also aims to provide means within the crib whereby the outlet for the pure water is closed, and thus permitting the cleaning or repairing of the crib when desired.

The invention further consists in the novel construction, combination, and arrangement of parts to be hereinafter more specifically described, and particularly pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout both views, in which—

Figure 1 is a vertical sectional view of the crib constructed in accordance with my invention and showing the water-main connection and the high and low water lines. Fig. 2 is a top plan view of the crib.

The crib A may be composed of any suitable material—such as stone, brick, cement, or the like—and may be of any form desired, though in the drawings I have shown the same as enlarged at the top, and is provided with a prow B, projecting toward the head of the water-supply, which will serve to prevent the floating ice or debris from injuring the crib proper. This crib extends downward, preferably, a short distance into the bed-rock C and is provided at the portion which is within the sand and gravel D with openings E, extending entirely around the same, which admits the water which is filtered through the ordinary top deposit of sand and dirt F to the deposit of sand and gravel D within the crib A. Some distance above the line of the sand-and-gravel deposit the crib is provided with a false bottom G, having a central opening H, which is provided with a trap-door K, controlled by a line L, passing from the top of the crib to the said door, the crib being provided at its top with a cover M, which forms the floor for a suitable house N, a trap-door O being arranged in said floor or cover M and a ladder P extending from said trap-door to the false bottom, which may be employed in cleaning or repairing the crib when the flow of water into the same has been shut off.

The water-main to the reservoir (indicated by the reference-letter Q) is preferably connected to the crib at a point above the false bottom G, and the crib is also preferably constructed so that when the water has risen to the extreme high-water mark (indicated at R) the same will not be above the top of the crib, the low-water mark being indicated at T.

It will be observed that by reason of the water being compelled to enter the crib through the alluvial deposits of the earth the same will be in a comparatively pure state, in which condition it enters the water-main and is carried to the reservoir or pumping-station, as the case may be, and when desired to repair or clean the crib this may be readily accomplished by closing the trap-door K, which will prevent the water from passing above the false bottom G and permit the water contained in the crib above the said bottom at the time of closing the trap-door to flow out of the crib through the water-main, and it will be noted that various changes may be made in the details of construction without departing from the general principle of my invention.

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

1. A water-filter consisting of a crib erected in a water-supply and extending downward to a point at or below the bed-rock line, said crib provided with a series of openings to admit the water filtered through the alluvial

deposits, a false bottom arranged in said crib and provided with an opening, a trap-door closing said opening, and an outlet-main connected to the crib above said false bottom, substantially as shown and described.

2. A water-filter consisting of a crib erected in a water-supply, and extending downward through the alluvial deposits to a point at or below the bed-rock line, said filter provided with perforations to admit the water filtered through the alluvial deposits, a cover for said crib, a false bottom within the crib, said bottom provided with an opening controlled by a trap-door, a protecting-prow arranged at one side of the crib and an exit water-main connected to said crib to carry the filtered water therefrom, substantially as shown and described.

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

HERMAN MILLSTINE.

Witnesses:
JOHN NOLAND,
WILLIAM E. MINOR.