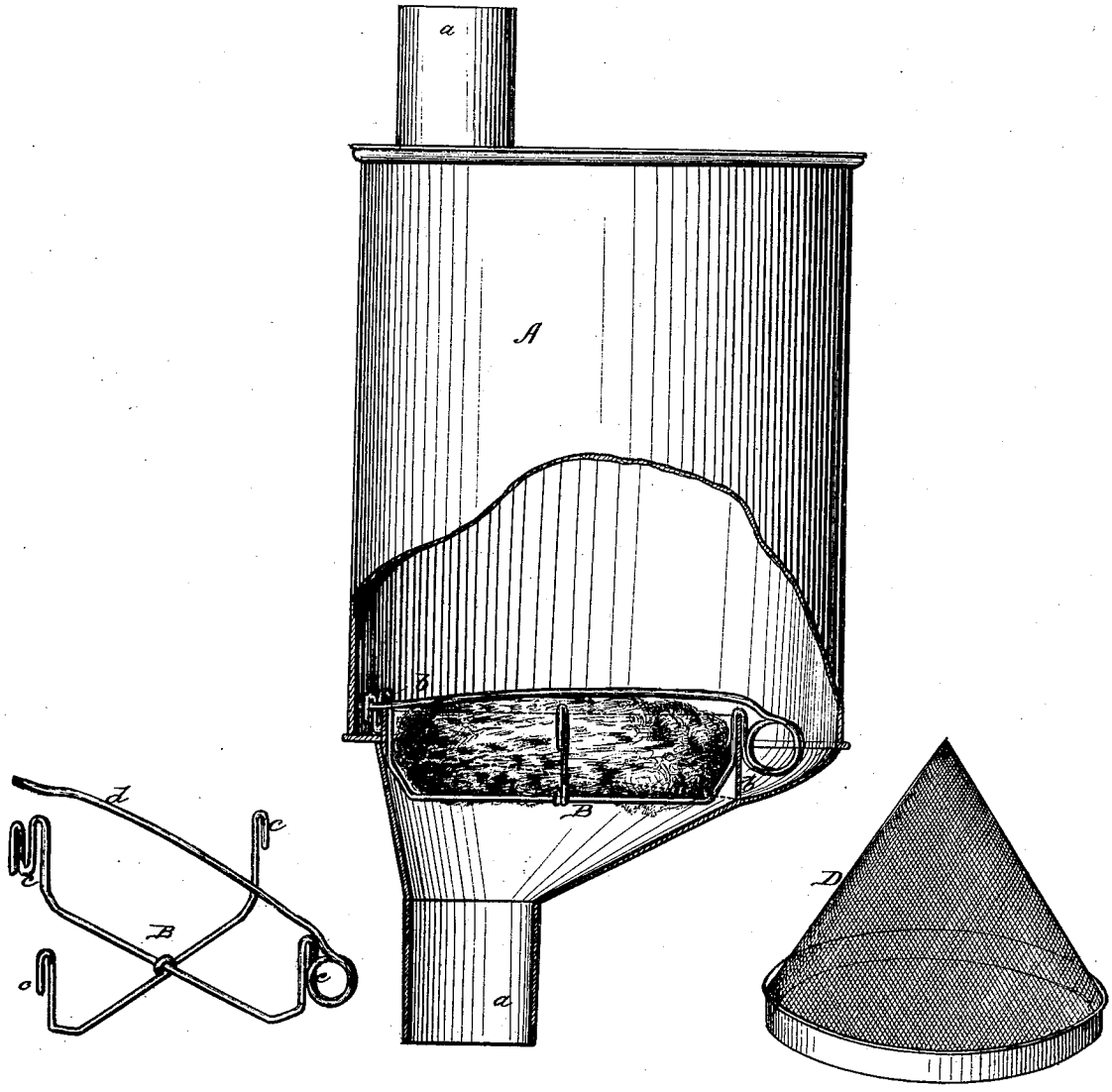
R. W. Thompson,

Cistern Filter.

No. 111,701. Patented Feb. 7, 1871.



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ROBERT W. THOMPSON, OF MANSFIELD, OHIO.

Letters Patent No. 111,701, dated February 7, 1871.

IMPROVEMENT IN FILTERS FOR CISTERNS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROBERT W. THOMPSON, of Mansfield, in the county of Richland and State of Ohio, have invented certain improvements in Water-Filters for Cisterns, &c., of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to an improved filter, to be attached to cistern-feeders for removing all coarse impurities from the water during its passage to the cistern.

The device consists of a metallic vessel or body provided with tubular necks at its ends, to fit the feeder or water-spout, and with a removable filtering medium inside, so that the filter may be applied to any feeder or spout by removing a length or section of the latter, and substituting the filter therefor, and so, also, that the filtering medium may be removed and cleansed at will.

Figure 1 is a side view of my filter with a portion of the side broken away;

Figure 2 is a perspective view of the wire frame for holding the sponge when used as a filtering-material; and

Figure 3 is a perspective view of the wire-gauze cone, which is used either instead of or in addition to the sponge.

A represents the metallic body of the filter, made in a cylindrical form, and provided with a tube or neck, *a*, at each end.

The lower end of the body is made of a funnel-shape, and has its neck *a* formed on the lower and smaller end of this portion, as shown.

Inside of the body, around the upper end of the conical or funnel-shaped part, a flange or rim, *b*, is formed, as shown in fig. 2.

Within this flange is suspended a wire frame or basket, B, filled with sponge, which fills or closes the end of the body, as shown.

This frame or basket B consists of wire arms secured across each other, and provided with hooks *c* at their ends, whereby they are suspended from the rim *b*, as shown.

The frame is also provided with an arm or latch, *d*, which extends across the top to hold the sponge in place, and locks under a hook formed on one of the arms, as shown in figs. 1 and 2.

The filter thus constructed is applied to the pipe or spout at any desired point by removing a joint or section of the pipe, and inserting the filter in its place, and connecting the ends of the pipe to the necks *a*, so that the body forms a continuation of the pipe.

The water, in its passage to the cistern, is thus carried into the body A, and compelled to pass through the sponge, whereby all leaves, sticks, and other coarse impurities brought from the roof are separated from the water, which passes into the cistern in a clear and pure condition.

The top of the body is made removable, so that access may be had to the interior; or, if preferred, the whole or a part of the top may be hinged, so as to turn up, or pivoted, so as to swing around to one side.

When leaves, sediment, sticks, &c., have accumulated in the body, they may be removed through the top, and when the sponge has become foul, its frame may be removed and the sponge taken out and cleaned or renewed.

A wire-gauze cone, D, having a rim around its lower end, is also provided, as shown in fig. 3, and may, if desired, be fitted onto the flange or rim *b*, so as to take the place of the sponge; or the rim of the cone may be made of such size that it will fit over the rim *b* when the sponge is in place, and thus the cone serve to prevent leaves and similar obstructions from covering the sponge and preventing the passage of water through it.

In manufacturing the filters, they will be made of different sizes, with necks corresponding with the various sizes of pipe in the market, so that a purchaser may select a filter that will fit any ordinary pipe, and apply the filter by simply removing a joint or section of the pipe and attaching the filter in its place.

Having thus described my invention,

What I claim is—

1. A cistern-filter, consisting of the vessel A, provided with the necks or tubes *a*, or equivalent means for attaching it to the water-conductor, and having the detachable sponge applied thereto, substantially as described.

2. The sponge-holder B, constructed as described, and arranged within the vessel A, as set forth.

3. The detachable conical screen D, in combination with the vessel A and sponge-filter, arranged to operate as herein described.

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Witnesses:

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