

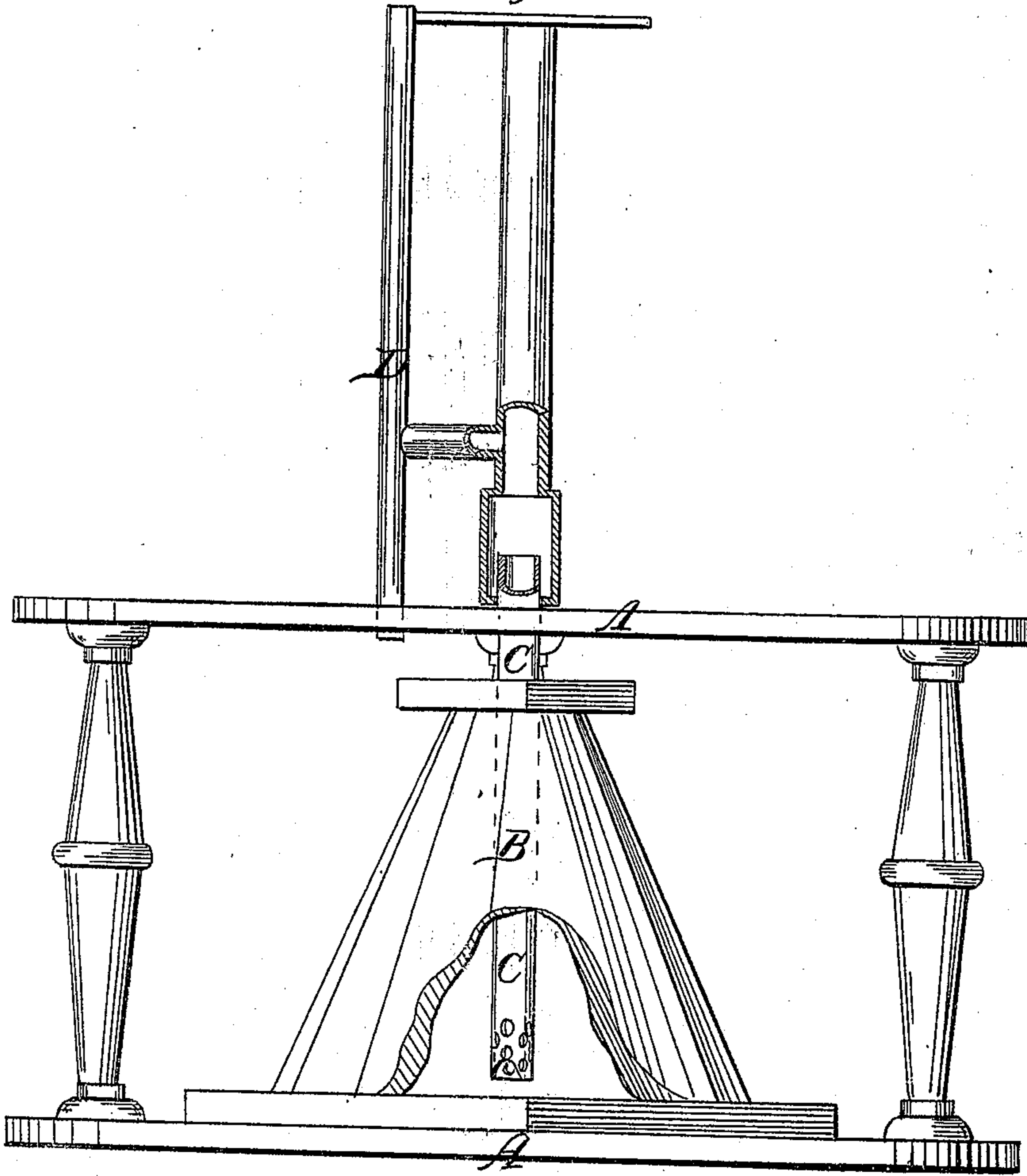
B. B. Redfield,

Filter.

No. 93,121.

Patented July 27, 1869.

Fig. 1



Witnesses.

*Harry King
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Inventor

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United States Patent Office.

BENJAMIN B. REDFIELD, OF PONTIAC, MICHIGAN.

Letters Patent No. 93,121, dated July 27, 1869.

IMPROVEMENT IN FILTERING AND VENTILATING-APPARATUS FOR WELLS AND 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, BENJAMIN B. REDFIELD, of Pontiac, in the county of Oakland, and in the State of Michigan, have invented certain new and useful Improvements in Wells and Cisterns; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The object of my invention is to provide a manner of constructing wells and cisterns, so that the water will always be thoroughly filtered before being used, and so ventilated that it will be kept cool and fresh.

Figure 1 is a side elevation of my invention.

Letter A is the frame, which is intended to represent the body of a cistern, in the centre of which is placed the conical filter B.

When the well is sunk into quicksand, the bottom should be formed of brick or board, but when the earth is solid, this is unnecessary.

The filter is formed of ten bevelled bricks, about two feet long, six inches wide at the bottom, and one and a half at the top, cemented at the edges with water-lime cement.

The top of this well is formed of brick, through which the pipe C is inserted, and extends down near the bottom of the filter. All the water which is used must pass or filter through these bricks, and then through

the perforated end of the pipe, the upper end of which is connected with a pump.

There should be at least a depth of four feet to the water, and to this height the body of the well should be filled with cobble-stones around the filter and pipe.

Passing through the top of the well is a small pipe D, which communicates with the pump, so as to draw off the water, and at the same time to ventilate the well with fresh air. The well must now be filled with earth, and must exclude all surface-water and insects.

The same construction of filters and pumps is to be used in cisterns, with the exception of cementing the sides, the ventilation to be through a conductor, and to be covered to a sufficient depth to keep the water cool.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The arrangement of the filter B, perforated pipe C, and ventilating-pipe D, all constructed as described, and for the purposes set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 24th day of March, 1869.

BENJAMIN B. REDFIELD.

Witnesses:

A. W. BURTT,

J. B. SWEETLAND.