E. J. Johnson.

Water Filter.

No. 98,503. Patented Jan. 4, 1870.

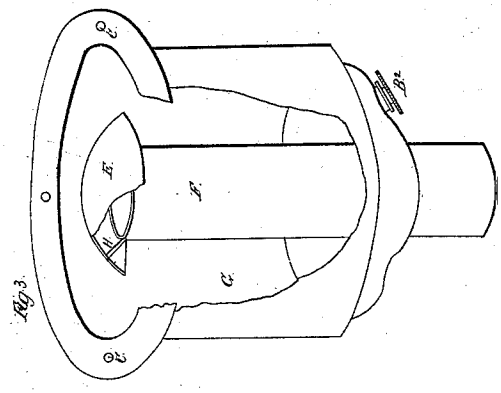
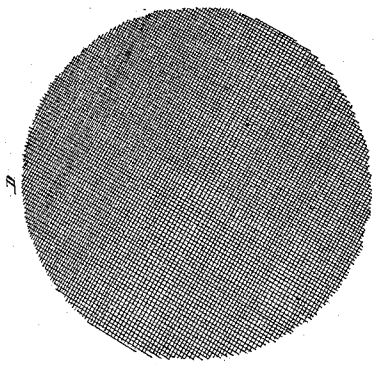


Fig. 3.



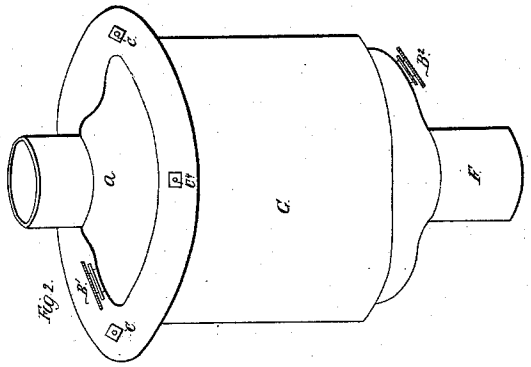


Fig. 2.

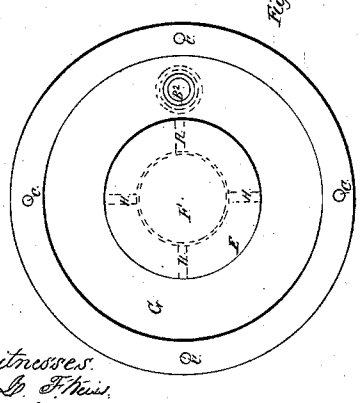


Fig. 4.

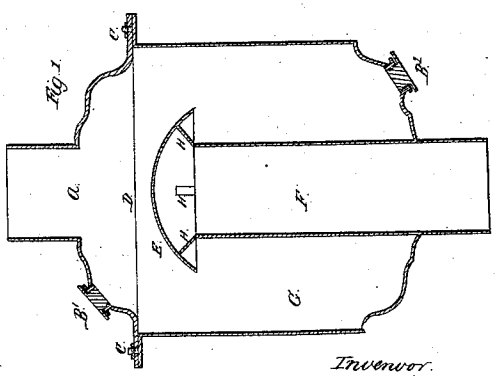


Fig. 1.

Witnesses:
D. F. Hess.
H. C. Barton

Inventor.
Edward C. Johnson

UNITED STATES PATENT OFFICE.

EDWARD C. JOHNSON, OF WILLIAMSPORT, PENNSYLVANIA.

IMPROVEMENT IN SAND-CHAMBERS FOR WELL-PUMPS.

Specification forming part of Letters Patent No. **98,503**, dated January 4, 1870; antedated December 24, 1869.

To all whom it may concern:

Be it known that I, EDWARD C. JOHNSON, of the city of Williamsport, county of Lycoming, and State of Pennsylvania, have invented a new and improved mode of preventing the sand from passing into well-pumps from the tube to which it is attached, and thus clog the pump or hinder its operation; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a sand-chamber and in placing a screen in said chamber, so as to prevent the sand from passing to the pump valve, and also in providing means for the easy removal of the sand when it shall have collected in said chamber.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I first cast the cap *a*, having a plugged opening, B′, and projection or tube, by means of which it can be attached to the pump, and also having the proper holes, through which bolts C C C C are passed, having nuts to fasten and hold said cap to the chamber G, which chamber is cast with a proper tube, F, extending below the chamber G, to serve as an attachment to the pipe coming from the well or cistern. At the upper end of the tube F, I place the cover E, having its supports H H H H, which supports are narrow, and thus leaving the proper openings for the passage of the water when the pump is operated. Over the top of the chamber G, I place the screen D, made of wire-gauze, having the meshes or openings of the proper size. Said chamber G is provided with a plugged opening, B^2, at its lower point, and about in line with plugged opening B′. Now, to the cover *a*, I attach the pump, and it will be seen at a glance, when the pump is operated, that the water will pass through the openings between the supports H H H H, and the sand, being of greater gravity than the water, will fall to the bottom of the chamber G, and the screen D will not allow it to pass to the valve of the pump. So, when the chamber G is filled with sand, I have simply to remove the plugged openings B′ and B^2 and a stream of water will drive the sand from the chamber G when poured into plugged opening B′, while plugged opening B^2 is removed.

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

1. The combination, with the sand-chamber, of the inlet-pipe F, having a cover, E, and the screen D, as and for the purpose set forth.

2. In combination with the above, the plugged openings B′ B^2 for removing the sand from said chamber, as described.

EDWARD C. JOHNSON.

Witnesses:

J. L. WILLIAMS,

WM. S. EPES.