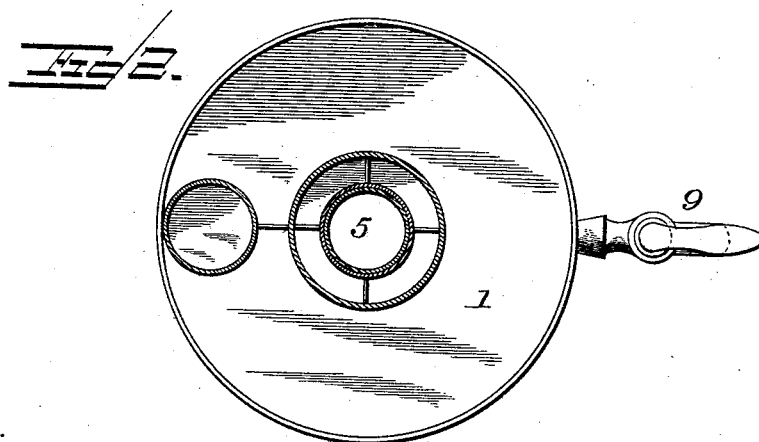
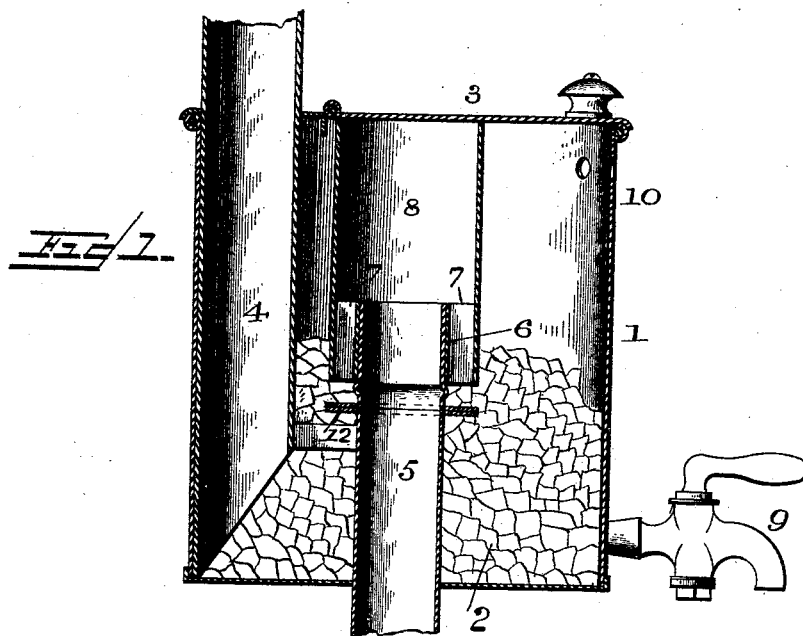


(No Model.)

J. E. WELLING.  
WATER FILTER.

No. 489,354.

Patented Jan. 3, 1893.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JOHN EDWARD WELLING, OF CYNTHIANA, KENTUCKY.

## WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 489,354, dated January 3, 1893.

Application filed July 15, 1892. Serial No. 440,118. (No model.)

### *To all whom it may concern:*

Be it known that I, JOHN EDWARD WELLING, a citizen of the United States, and a resident of Cynthiana, in the county of Harrison and State of Kentucky, have invented certain new and useful Improvements in Water-Filters; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in filters and is designed more particularly to be used in connection with a cistern or other receptacle whereby the water is filtered before entering the receptacle. The device however may be employed with equally good results without the employment of a cistern, the water being drawn directly from the filter for use.

The object of the invention is to provide improved means whereby the scum and other impurities which generally settle upon the top of the filtering material are prevented from entering the exit or outlet pipe and passing to the cistern.

The invention consists in the novel features of construction and new combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a central longitudinal section of a filter constructed in accordance with my invention; Fig. 2 is a horizontal section of the same.

In the said drawings, the reference numeral 1 designates a cylindrical or other suitably shaped vessel, and of any suitable material. This vessel is adapted to receive a filling 2, of broken stone, charcoal or other filtering material, and is provided with a hinged cover 3, whereby access may be had to the interior.

The numeral 4 denotes the supply pipe leading from a source of supply to near the bottom of the vessel, and 5 the outlet pipe passing through the bottom of the vessel and leading to a cistern or other receptacle. Mounted upon the upper end of this pipe 5 is a removable and vertically adjustable collar 6, which is capable of sliding up and down thereon. This collar fits snugly on the said pipe so that when properly adjusted thereon, it will be held in such position by frictional contact. Connected with the collar by means of radial arms 7, is a pipe 8, larger in diameter than

the pipe 5, and extending below the top thereof. It also extends upwardly to the top of the vessel 1.

The numeral 9 designates a drawing off cock, and near the upper end the vessel is formed with a series of holes or apertures 10, for the escape of dirty water.

The operation is as follows: The vessel 1 is filled with a filtering material to the proper height as seen in Fig. 1, and the pipe 8 adjusted by means of the collar 6 connected therewith so that its lower end will be below the upper end of pipe 5, so that the water before entering said outlet pipe will have to pass between the same and pipe 8, thus preventing any scum or other impurities rising to the top of the water from entering the cistern. The pipe 8 and its collar are removable for the purpose of cleaning, and are vertically adjustable so as to be set at any height desired. The overflow openings 10 allow the scum and dirty water to escape.

It will be noted that the supply and outlet pipes are located inside the vessel so as to keep them from freezing. The pipe 5 is also provided with an annular flange 12, a short distance below the collar, so as to prevent any dirt which might be forced up the sides of said pipe from entering pipe 8.

Having thus described my invention, what I claim is:

1. In a filter the combination with the vessel adapted to contain a filtering material and provided with a supply pipe, of the upwardly extending outlet pipe, the removable and vertically adjustable collar mounted thereon, the radial arms and the pipe connected with said collar by the radial arms, and the annular flange, substantially as described.

2. In a filter the combination with the vessel 1 having a hinged cover and a series of overflow openings near its top and a supply pipe leading to near the bottom thereof, of the upwardly extending outlet pipe and the vertically adjustable and removable pipe connected therewith, and the annular flange, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN EDWARD WELLING.

Witnesses:

JAS. R. WALLINGFORD,  
THOS. A. REED.