

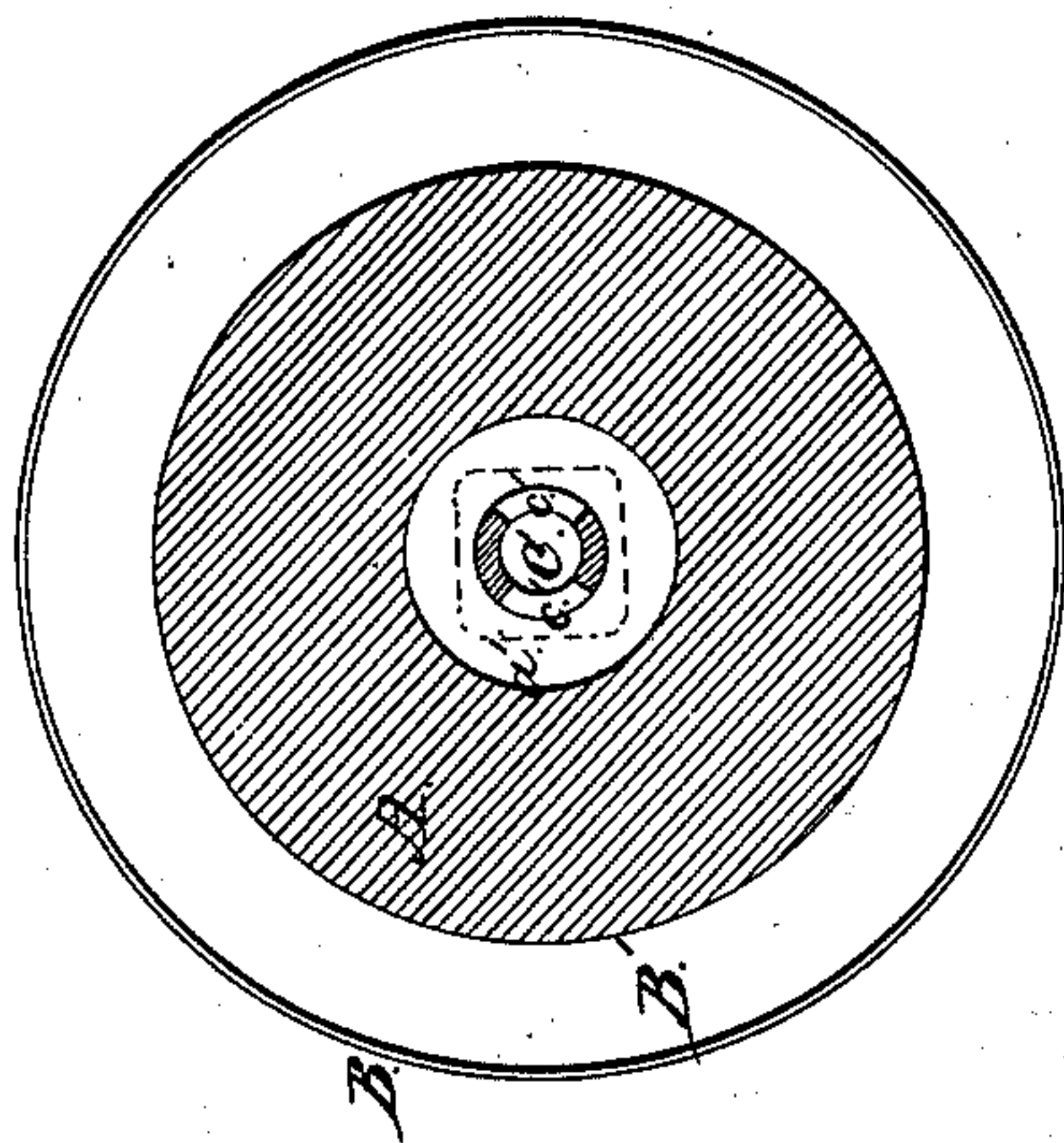
*W. H. Wiley,*

*Filter,*

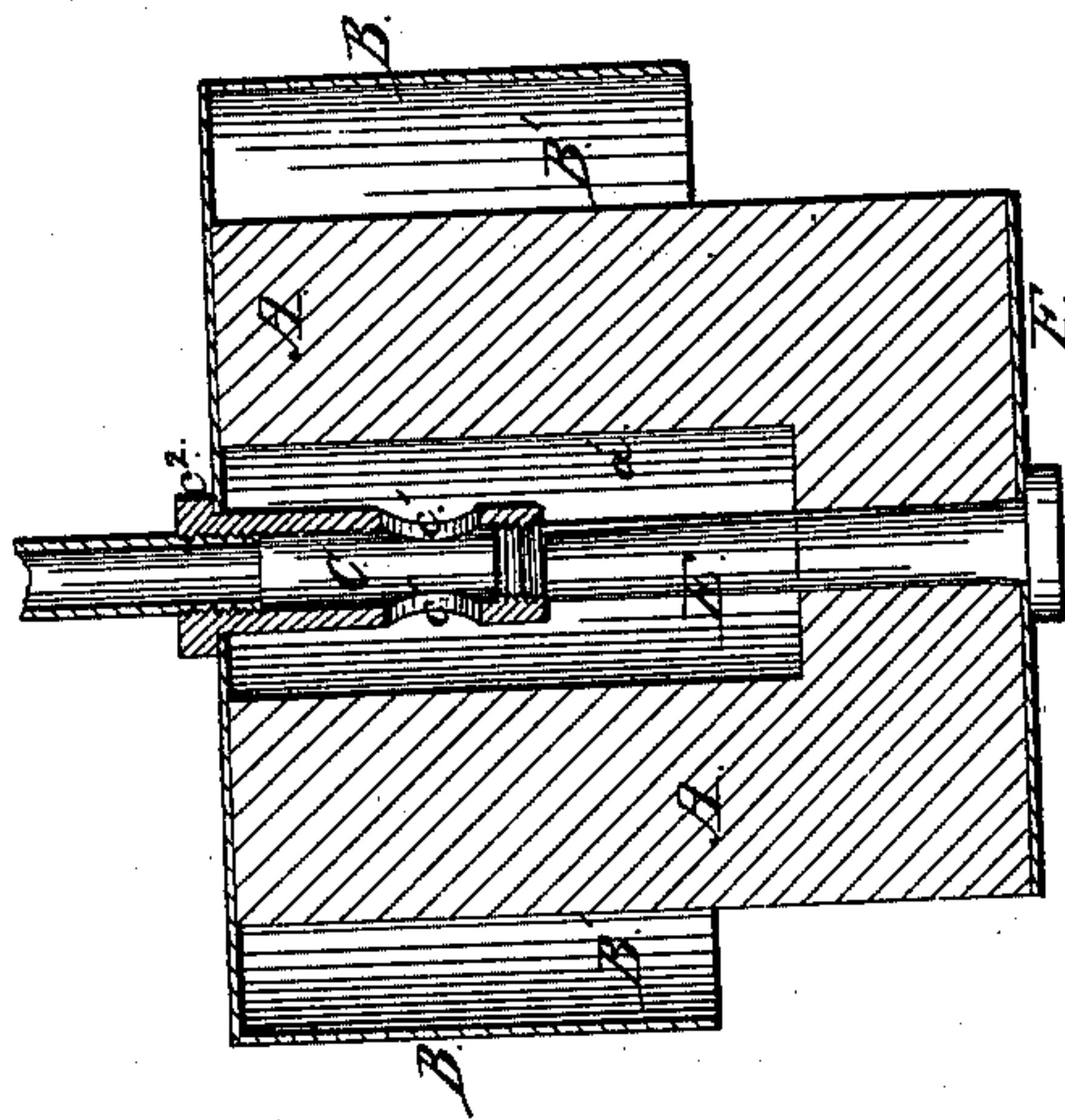
*No 68,675,*

*Patented Sept. 10, 1867.*

*Fig. 2.*



*Fig. 1.*



*Witnesses:*

*Truman C. White,*  
*B. H. Muehley*

*Inventor,*  
*William H. Wiley,*

*By E. B. W. H. Torbush, atty.*

# United States Patent Office.

WILLIAM H. WILEY, OF FREDONIA, NEW YORK.

*Letters Patent No. 68,675, dated September 10, 1867.*

## IMPROVEMENT IN FILTERS.

*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, WILLIAM H. WILEY, of Fredonia, in the county of Chautauqua, and State of New York, have invented a new and improved Water-Filter; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure I is a vertical section, and

Figure II is a horizontal section in plan.

The nature of this invention consists in making a hollow cylinder, of pottery or other porous material, in combination with an inverted metallic cup, of larger diameter than the porous cylinder, and forming a water-chamber around the porous cylinder from which the external air is excluded.

This improvement is designed more particularly to be used in wells and cisterns from which water is to be elevated by means of a pump, but it is applicable for common use in the house as a filter for drawn water.

In the accompanying drawings letters of like name and kind refer to like parts in each of the figures.

A represents a cylinder, of pottery or porous unglazed earthenware, having an internal water-chamber, *a'*. B represents an unporous metallic cup, of larger diameter than the porous cylinder, which is inverted and placed on the upper end of the porous cylinder, forming a water-chamber, B', around the upper part of the porous cylinder, from which chamber the external air is excluded. Connected with this cup, and permanently attached thereto, is a short perforated tube, C. This tube projects downwardly from the centre of the cup into the water-chamber, *a'*. Its perforations or side holes are shown at *c'*. The upper end of this tube has a head or shoulder, *c''*, which rests upon the disk of the cup or on the top of the porous cylinder. An inner screw-thread is cut in each end of this tube for the purpose of forming a screw connection with the eduction tube D and with the supporting bolt E. The supporting bolt E passes through the lower end of the porous cylinder and screws into the lower end of the tube C, as shown in the drawings, and serves to hold the porous cylinder firmly in place and in connection with the inverted cup B and eduction tube D. A bottom metallic plate is shown at F, which fits closely on to the lower end of the porous cylinder, and is for the purpose of protecting it and for preventing the water from percolating through the end of the cylinder. This plate may be dispensed with and that end of the cylinder glazed if preferred; or when made thick, as shown in the drawing, the plate and the glazing may both be dispensed with, and the water allowed to filter through the end as well as the sides into the chamber *a'*; but I prefer to use the plate or to glaze the end of the cylinder.

When this device is used in wells or cisterns it is connected with the eduction tube, and by that tube lowered into the well or cistern, and then, by means of a pump which is connected to the eduction tube C at the surface, the water is pumped clear and pure from the chamber *a'*, the water being strained or filtered in passing through the porous body of the cylinder A. It will pass in sufficiently to supply the pump. The inverted cup B forms an air-tight chamber around the upper part of the cylinder, which prevents air from drawing into the eduction tube, and insures a complete and perfect action of the pump. If need be, this filter can be raised from the well or cistern at any time, by means of the eduction tube, for cleaning or repairs, and easily replaced by the same means. The eduction tube will hold it in place in the well or cistern, or additional stays may be applied if necessary. This device may also be used in small vessels in the house for filtering water for ordinary use after it has been drawn from the cistern, reservoir, or well. It is simple, cheap, durable, and effective as a filter.

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

A water-filter having a hollow, porous cylinder, A, in arrangement with the inverted cup B, for the purpose and substantially as described.

Witnesses:

E. B. FORBUSH,

B. H. MUEHLE.

WILLIAM H. WILEY.