

(No Model.)

J. OSTER, Jr.
FILTER.

No. 568,787.

Patented Oct. 6, 1896.

Fig. 2.

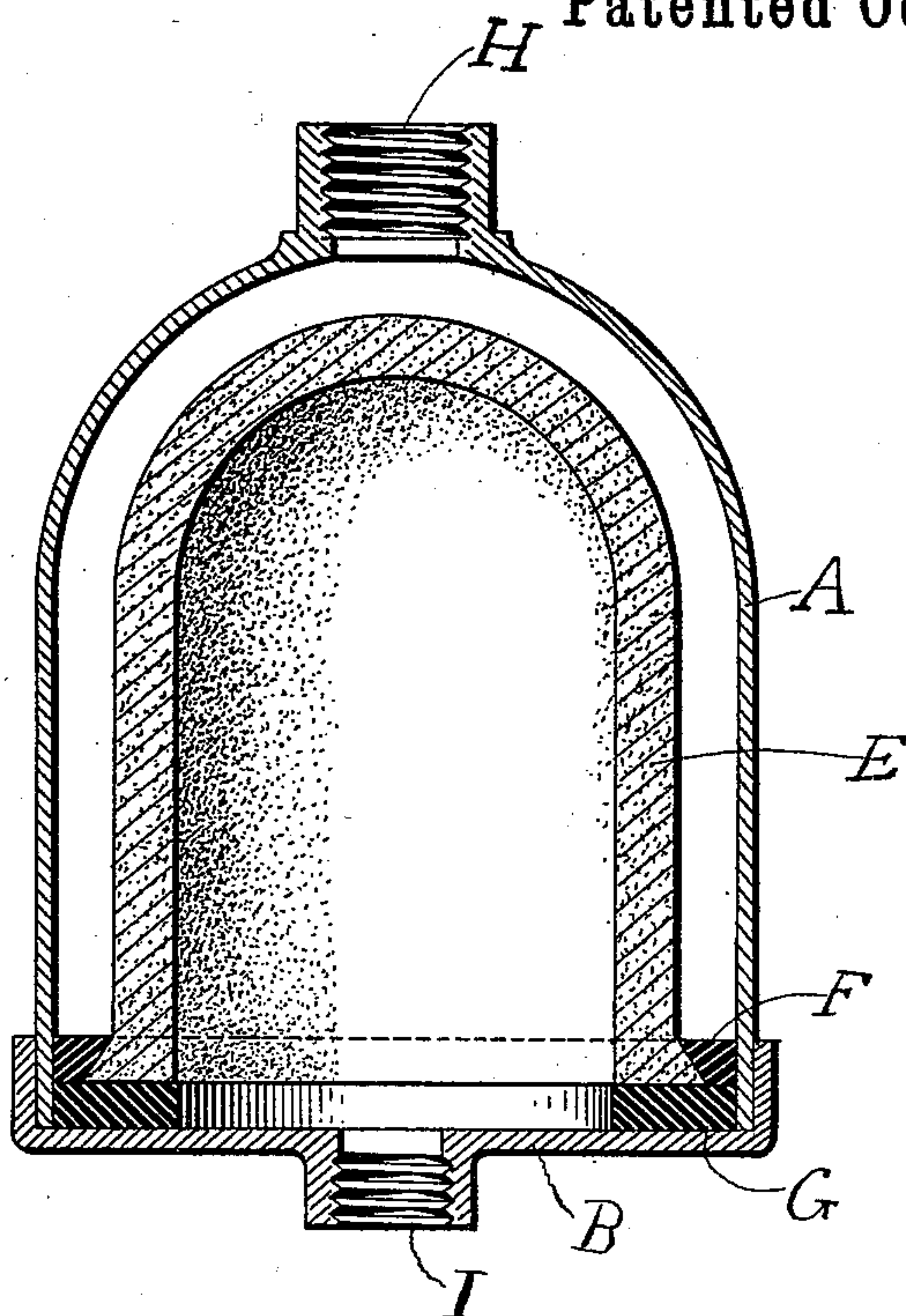
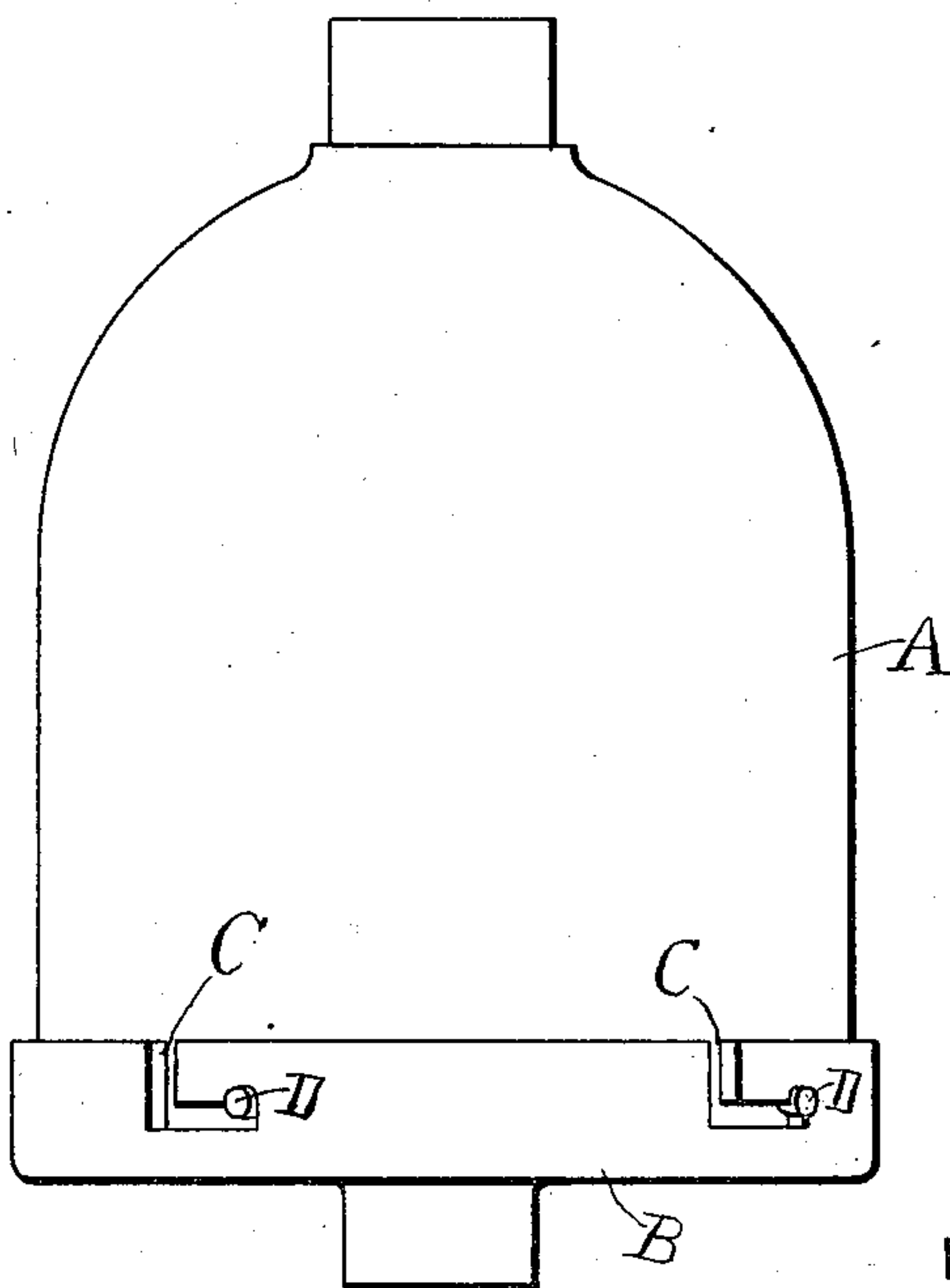


Fig. 1.



WITNESSES:

A. Kemp.
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INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN OSTER, JR., OF NEWPORT, KENTUCKY.

FILTER.

SPECIFICATION forming part of Letters Patent No. 568,787, dated October 6, 1896.

Application filed October 8, 1895. Serial No. 565,027. (No model.)

To all whom it may concern:

Be it known that I, JOHN OSTER, Jr., a citizen of the United States, and a resident of Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Filters, of which the following is a specification.

The object of my invention is to produce a cheap, simple, and efficient filter for separating the impurities from water or other fluids. In the ordinary filter it is generally very inconvenient to cleanse the porous material contained therein when the impurities have collected to a detrimental amount. Furthermore, in the construction of all filters of which I have any knowledge the filtering porous material, if composed of one piece, is always mechanically secured to some portion of the casing, thereby rendering the removal of the parts to be cleansed liable to breakage.

In my improved filter I secure freedom of the filtering porous cup inside of the casing by arranging the bottom of the casing so that it may be easily removed by turning it to one side and then pulling it downward, thus exposing the cup, which is inverted and rests loosely upon the said bottom or on an elastic packing-ring arranged on the bottom.

The invention will be more clearly understood by reference to the drawings, in which similar letters indicate corresponding parts.

Figure 1 is a side view of the complete filter. Fig. 2 is a vertical section through the casing, the filtering-cup, the bottom of the casing, and the elastic packing-rings.

The case or casing A may be composed of metal or other suitable material. The bottom B is preferably of metal, and, as herein shown, I have provided slots C C, that engage lugs D D, which are mechanically connected to the case A and project outward, for the purpose of locking the bottom in place outside of the casing.

E is an inverted filtering-cup composed of porous unglazed earthenware. The outer edge of the rim of the cup, as herein shown, is preferably flanged outward, and as the cup is made so as to allow quite a space between it and the case I place a packing-ring F, composed of elastic material, such as soft rubber,

in the space so provided. The said ring is preferably beveled on its inner edge to correspond with the flange on the rim of the cup. The outer edge of the packing-ring preferably corresponds to the inside of the casing, against which the said ring rests. The said ring may be allowed to fit loosely in the space allotted to it and above the flange of the rim.

I preferably place a second packing-ring G under the edge of the cup to prevent the edge of the cup from coming in contact with the bottom of the case. It will be observed that the entire arrangement is such that the inner parts are in a free loose state, but when water or any other fluid enters under pressure at the top H of the filter the parts will at once assume a close relation to each other and the joints will be so tightly packed by the outward expansion of the elastic packing-ring that no fluid will be able to pass through any part of the filter except through the porous cup and out at the opening I.

I do not limit myself to the exact construction herein shown, as it may vary widely without departing from the spirit of my invention.

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

In a filter, the combination of an outer metallic case and its metallic detachable bottom, each part having a part of the locking arrangement connected therewith, an inverted cup of porous material, located entirely within the said case, an outward projecting flange on the rim of the said cup, and an elastic packing-ring arranged between the outer edge of the said cup and the inner edge of the case, the said ring having its inner edge beveled to correspond with and arranged above the flange on the said cup, substantially as set forth.

Signed at Newport, in the county of Campbell and State of Kentucky, this 10th day of August, A. D. 1895.

JOHN OSTER, JR.

Witnesses:

DANIEL P. KLENSCH,
FRANK DERRICK.