

(No Model.)

T. BOYCE.
PERCOLATOR.

No. 404,591.

Patented June 4, 1889.

Fig. 1.

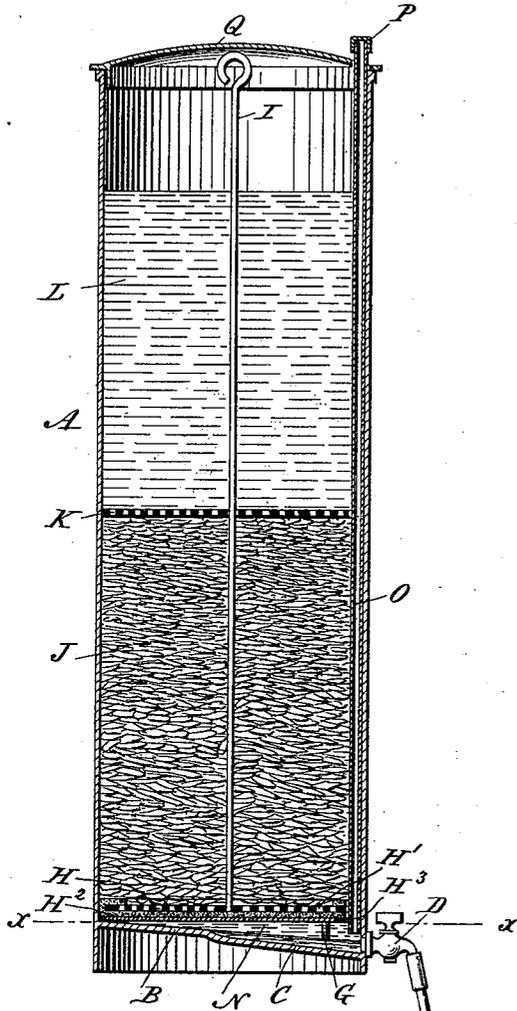
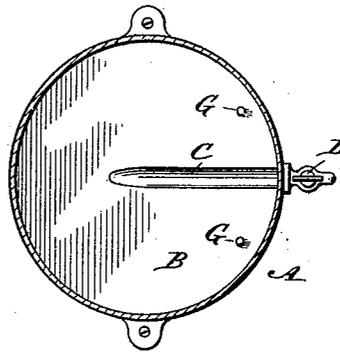
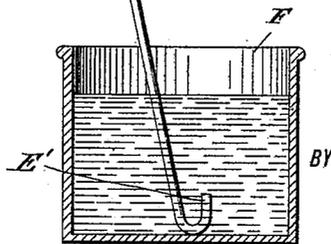


Fig. 2.



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PERCOLATOR.

SPECIFICATION forming part of Letters Patent No. 404,591, dated June 4, 1889.

Application filed May 19, 1888. Serial No. 274,420. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BOYCE, of the city, county, and State of New York, have invented a new and Improved Percolator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved percolator which is simple and durable in construction and very effective in operation.

The invention consists of various parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a sectional plan view of the same on the line *xx* of Fig. 1.

The vessel A, of suitable diameter and height, is provided with a slightly-inclined bottom B, in which is formed a groove C, leading to a faucet D, secured to the outside of the vessel A. The spout of the faucet D is connected with a downwardly-extending pipe E, having at its lower end the bend E', adapted to be submerged in a liquid held in a tank or open vessel F.

On the top and near the lowest point of the inclined bottom B are formed the pins G G, flush at their upper ends with the highest point of the bottom B, so that the strainer or false bottom H is level when resting on the pins G G and the highest point of the bottom B, as plainly shown in Fig. 1.

The strainer H consists, preferably, of a metallic perforated disk H', covered at its bottom by a cloth H² and fastening-paper H³. To the disk H' is secured a rod I, extending upwardly to the top of the vessel A, and serving to conveniently remove the strainer H for cleaning or other purposes.

On top of the strainer H is placed in the vessel A the drug J, and on top of the latter is placed a perforated disk K, held loosely on the rod I. The menstruum L is poured into

the vessel A on top of disk K and drug L, as plainly shown in Fig. 1.

The strainer H forms with bottom B a compartment or chamber N, into which opens the vertical pipe O, extending to the top of the vessel A and adapted to be closed at its outer upper end by a screw-cap P or other suitable means. A cover Q fits loosely on the top of the vessel A. The latter is provided with suitable means for fastening it to a counter or table, if desired.

The operation is as follows: The parts being in the position shown in Fig. 1, and the drug having been moistened and packed in, as shown, it is first necessary to remove cap *p* and apply suction to the top of tube O. The suction must be continued until the liquid in vessel F rises in tube E, fills chamber N, and then passes up into the tube O. The cock D is now closed and the cap *p* applied. After thus closing pipe O, the cock D will be opened and the liquid will fill the tube E and flow therefrom into vessel F. This descending column tends to exhaust the air from the chamber N, and thence the atmospheric pressure on top of the menstruum will rapidly force it through the drug, for no air can enter through the previously-closed pipe O.

The percolator can be used as an ordinary filter by simply disconnecting the pipe E and not using the pipe O, the drug being placed in the strainer H and the menstruum poured onto the drug, as shown in Fig. 1, the menstruum then passing by its own weight through the drug and to strainer H into the chamber N, from which it passes through the faucet D into a receiver held under the open faucet D.

In practice the operator will first allow a sufficient quantity of percolate to flow in the usual manner through the cock D into the vessel F, as shown in Fig. 1, and then draw this percolate up into the chamber N and pipe O, as previously described. The vessel F, when receiving the percolate, will be placed below the bent end of the pipe, so that said end will not be submerged, and said bend will keep the pipe full so long as the percolate flows into the chamber N.

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

5 A percolator comprising the vessel for containing the menstruum and drug, having the chamber in its bottom under the strainers, a suction-tube leading down into the chamber and having a closure at its upper end, a dis-

charge-cock leading from the chamber, and a tube depending from said cock and provided with an upward bend at its lower end, substantially as set forth. 10

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Witnesses:

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