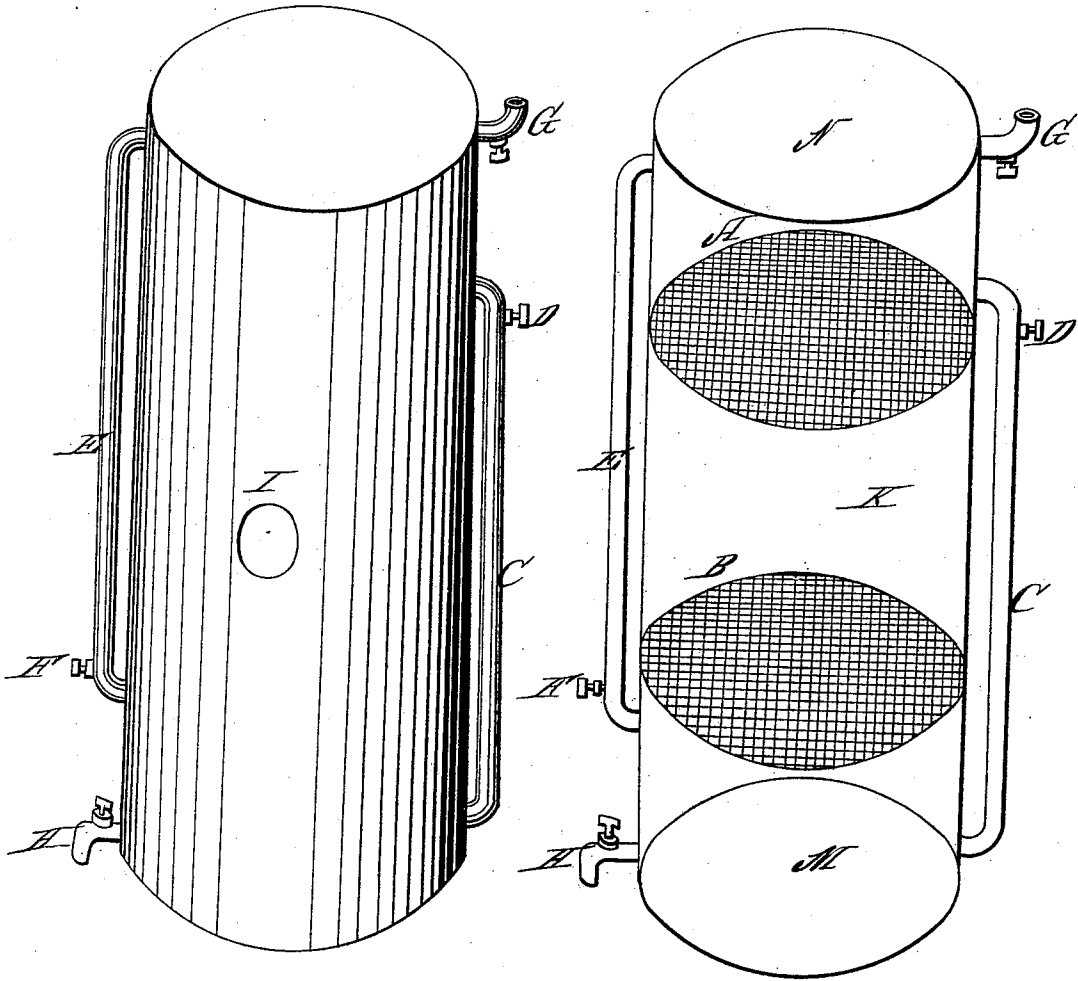


*Woolston & Corfield.*

*Reversible Percolator.*

*N<sup>o</sup> 100,232.*

*Patented Feb. 22, 1870.*



*Witnesses:*  
*Geo. Hartley*  
*Walter S. Hartley*

*Inventors:*  
*Samuel Woolston*  
*William Corfield*

# UNITED STATES PATENT OFFICE.

SAMUEL WOOLSTON, OF VINCENTTOWN, NEW JERSEY, AND WILLIAM CORFIELD, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN REVERSIBLE PERCOLATORS.

Specification forming part of Letters Patent No. **100,232**, dated February 22, 1870.

*To all whom it may concern:*

Be it known that we, SAMUEL WOOLSTON, of Vincenttown, in the county of Burlington and State of New Jersey, and WILLIAM CORFIELD, of the city of Philadelphia and State of Pennsylvania, have invented an Improvement in Percolators, of which the following is a specification.

Our invention consists in forming a percolator of three chambers, the upper to contain the liquid to be percolated, the lower to receive it as percolated, and the central chamber to contain the material through which the said liquid is to be percolated, the said upper and lower chamber to be capable of assuming each the relative position of the other by the reversal of the percolator.

Figure 1 represents an external view of the machine embodying our invention. Fig. 2 is a skeleton view of the same.

A and B each represent a partition in the interior of the machine, constructed of wire-gauze or any perforated material that will allow the transmission of the liquid from one chamber to the other.

N is the upper chamber of the percolator; K the middle, and M the lower, chamber of the same.

E is an air-pipe from the upper portion of chamber M to the upper portion of chamber N.

F is a valve by which said pipe may be opened or closed at pleasure.

C is a like pipe, which upon the reversal of the percolator connects the upper portion of chamber N with upper portion of chamber M.

D is a valve by which said pipe may be opened or closed.

G is a cock through which the liquid can be introduced into chamber N when said chamber is uppermost, or drawn therefrom upon the reversal of the percolator.

H is a like cock, bearing the same relation toward chamber M.

I is an opening into chamber K for the introduction of the material through which the liquid is to be percolated.

The mode of operation is as follows: The material through which the liquid is to be percolated having been introduced into chamber K through the opening I, said opening is to be closed until the percolating process is finished. The percolator is then placed in position with the chamber N uppermost, as shown in the annexed drawings. Valve D is then closed to prevent the liquid running down pipe C and valve F opened to allow the air displaced by the percolated liquid to ascend through pipe E into chamber N. Cock H in chamber M being closed, the liquid to be percolated is then introduced into chamber N through cock G, which is then also closed. When the liquid introduced as above has passed through chamber K and been received into chamber M, valve F is closed and valve D opened. The percolator may then be reversed, so as to place chamber M uppermost, when the liquid will be re-percolated through chamber K, the reversing process to be repeated as often as may be required, or until K chamber is exhausted of such portions of its contents as the percolating liquid will dissolve or displace, effecting the object desired more rapidly and thoroughly and with less loss by evaporation than any other method in use.

What we claim as our invention is—

The reversible percolator with the partitions A and B and the air-pipes E and C, substantially as and for the purpose hereinbefore set forth.

SAMUEL WOOLSTON.  
WILLIAM CORFIELD.

Witnesses:

FRANK B. LEWIS,  
JOHN L. N. BRATTON.