C. Clifford.

Steam Condenser for Stills.

No. 84,995. Patented Dec. 15, 1868.

Fig. 1.

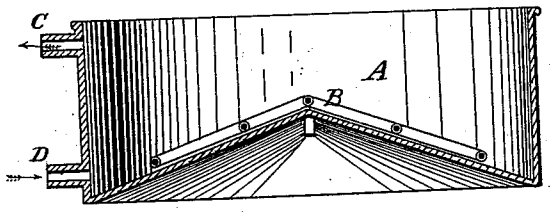
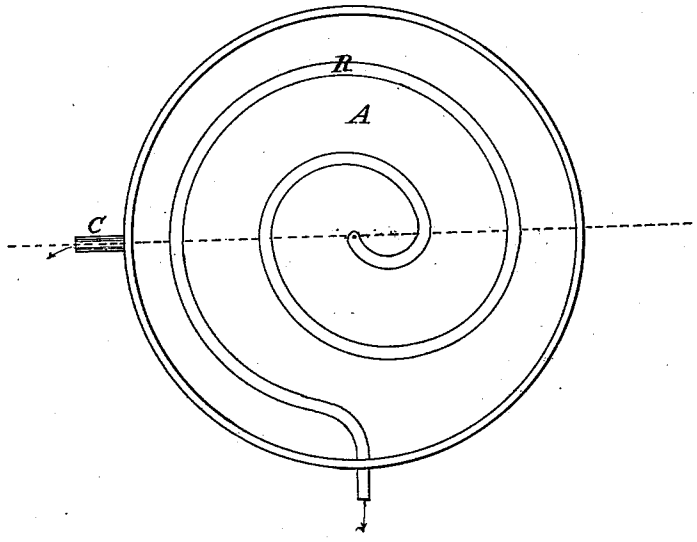


Fig. 2



Witnesses:

Leopold Everts

A. A. Seaman

Inventor:

C. Clifford

per Alexander Gleason

Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

C. CLIFFORD, OF FULTON, NEW YORK.

Letters Patent No. 84,995, *dated December* 15, 1868.

IMPROVED VAPOR AND STEAM-CONDENSER, TO BE APPLIED TO BREWERS' BOILERS AND LIKE APPARATUS.

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, C. CLIFFORD, of Fulton, in the county of Oswego, and in the State of New York, have invented certain new and useful Improvements in Steam-Condenser; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in the construction of a cap or lid, with dome-shaped bottom, to be applied to any boiler, for the purpose of condensing the steam, so that the essence of the article boiling may not be lost, but remain in it.

In order to enable others skilled in the art to which my invention appertains, to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a plan view.

A represents a metallic vessel, made of such size as to suit the boiler in connection with which it is intended to be used, and may serve as a cover or lid for the same.

The bottom of the vessel A is dome-shaped or in the form of an inverted funnel, as seen in fig. 1, and in the centre of said bottom the end of a tortuous pipe, B, is placed. This pipe rests on the bottom, and its other end passes out through the side of the vessel A.

Near the upper edge of the side of the vessel A is an outlet or opening, C, and near the lower edge is another opening, D.

When the condenser, as above described, is to be used, it is placed on top of the boiler, or let into the same by suitable means.

A stream of cold water is allowed to pass in through the opening, D, filling the vessel up to the outlet C, where it passes out.

As soon as the water or other liquid in the boiler boils, and the steam rises, the steam strikes the concave or under side of the dome-shaped bottom, and returns into the boiler again, being thus condensed, until there is too much steam, when the surplus steam passes out through the pipe B, and, in passing through said tortuous pipe, it is cooled by the water in the condenser. The water, in its turn, becomes heated, and rises to the top, when it passes out through the outlet C.

This condenser may be used for any purpose where it is desired to retain as much as possible of the flavor and essence of the article boiling, but it is especially valuable for brewers.

It is well known that entirely too much of the essence of the hops is lost in the usual mode of brewing, but if this condenser is placed on or inside of the boiler, the greatest part, in fact nearly all of it, is retained.

Having thus fully described my invention,

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

A steam-condenser, constructed as described, with a dome-shaped bottom, and having a tortuous pipe leading from the centre of the bottom to the outside, and also with suitable apertures, for the admission of cold water and the exit of the hot water, substantially as herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 19th day of November, 1868.

C. CLIFFORD.

Witnesses:

J. M. STOOPS,

J. M. MASON.