

A. Lee,
Wash Boiler.

No. 87,502.

Patented Mar. 2, 1869.

Fig. 1.

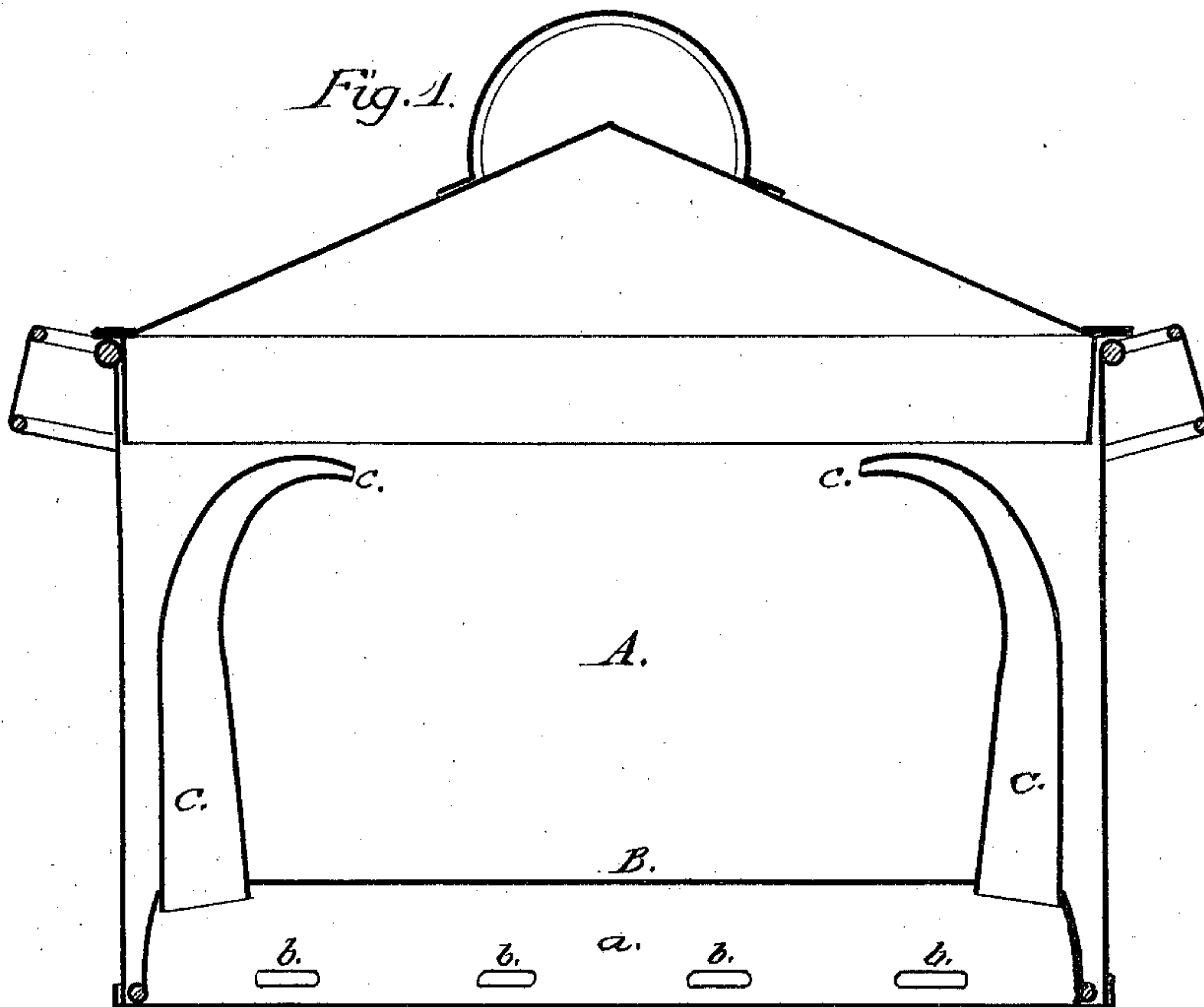
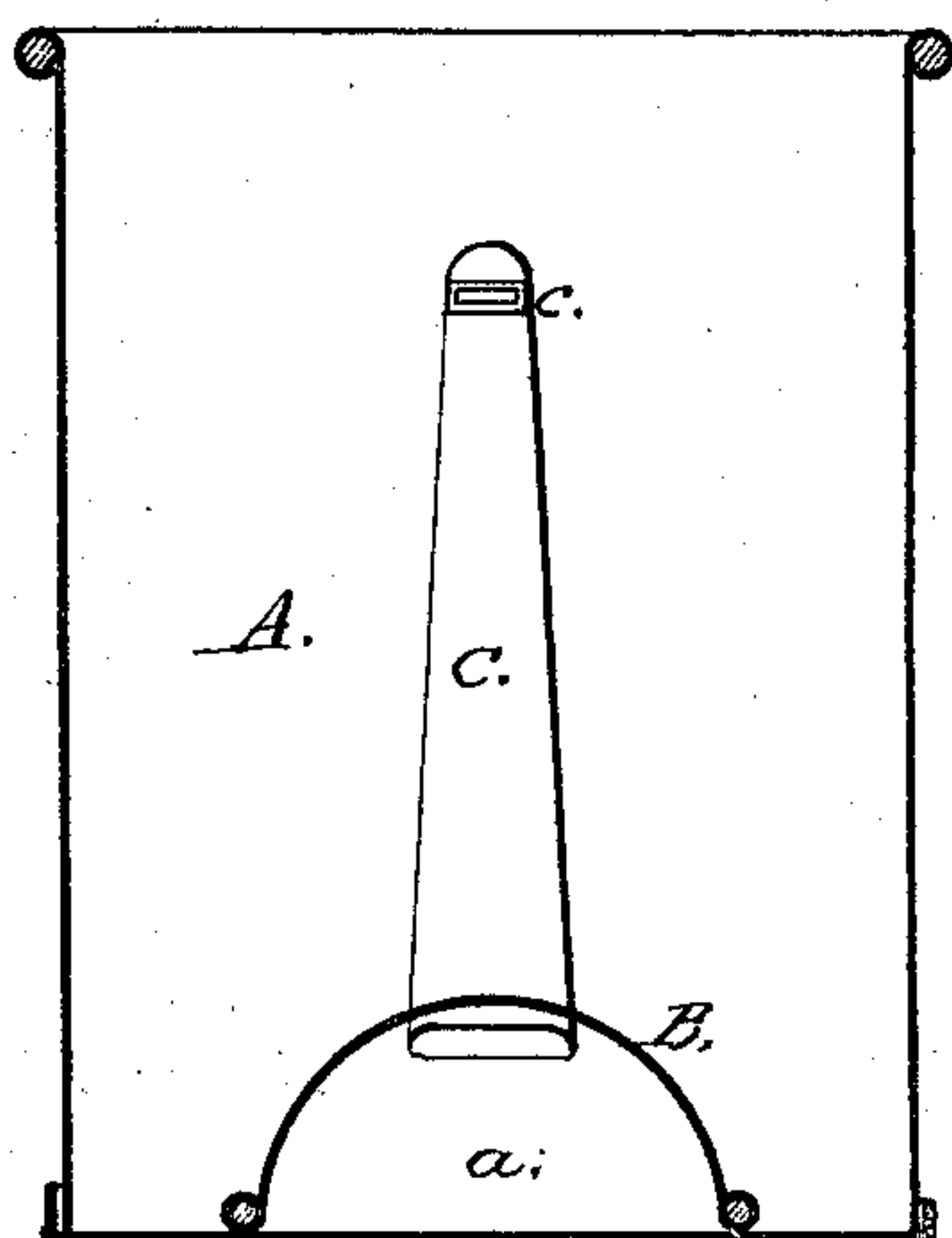


Fig. 2.



Witnesses:

Wm. Bailey
Wm. H. McCabe
in

Inventor:

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United States Patent Office.

ALEXANDER LEE, OF SCRANTON, PENNSYLVANIA.

Letters Patent No. 87,502, dated March 2, 1869.

WASH-BOILER.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern :

Be it known that I, ALEXANDER LEE, of Scranton, in the county of Luzerne, and State of Pennsylvania, have invented certain new and useful Improvements in Wash-Boilers; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of a wash-boiler, made in accordance with my invention, and

Figure 2 is a transverse vertical section of the same.

My invention has reference to wash-boilers, in which a continuous circulation of the heated water is maintained by means of a false bottom, and pipes leading from the lower to the upper part of the boiler, and my object is to produce a simple and cheap device for effecting this result.

To this end I place, within the boiler A, a semi-cylindrical or semi-oval metal shell, B, the edges of which rest on the bottom of the boiler, so as to form a small chamber, or separate compartment, *a*, for the reception of the heated water.

The shell, as will be seen by reference to the drawing, covers but a small portion of the bottom, which, between the edges of the shell and the sides of the boiler, is entirely uncovered and exposed.

The device, however, is quite sufficient for the purposes for which it is intended, as, in order to create the necessary circulation, it is required to keep but a small space, such as is represented at *a*, free from the clothes or other articles in the boiler.

Communication between the boiler and the interior of the shell is maintained through oblong openings *b*, near the bottom of the shell, and the heated water passing through these openings, is forced up through the pipes C, at each end of the shell, and discharged from their upper ends upon the clothes in the boiler.

The back, or upper part of the shell, upon which the clothes rest, is made without any apertures, so that the water can only enter through the lower openings *b*.

This arrangement has many advantages to recommend it, for the circulation of the boiling water is

much more active, and the current is stronger, inasmuch as there can be no escape from the top of the shell, except through the tube, B; while, on the contrary, if the perforations were made in the top, not only would the clothes partially close them, but the heated water and steam would also have a tendency to pass up through them, thus driving back and hindering the passage of the water through the clothes.

The nozzles *c* of the tubes are flattened, as shown in the drawings, so as to cause the water to be ejected in a thin sheet, and thus spread over a greater surface.

The device described can be employed with any boiler, of ordinary or suitable construction, and may be removed therefrom when not in use, or when the boiler is required for another purpose.

I am aware that Letters Patent have been granted M. W. Staples, for a wash-boiler, in which the circulation of the boiling water is maintained by means of a diaphragm, dividing the vessel into two compartments, in combination with pipes for leading the water and steam from the lower into the upper compartment, but I make no broad claim to a boiler embodying this principle, the object I have in view being, as above stated, to leave as much room as possible in the vessel for the clothes, to simplify the construction of the boiler, and to insure, as far as possible, the free circulation of the water and steam. These results I believe to be secured by the employment of the device herein described.

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

The metallic shell or case B, constructed and arranged within the wash-boiler, in the manner described, and provided with water and steam-discharge pipes, substantially as and for the purposes set forth.

In testimony whereof, I have signed my name to this specification, before two subscribing witnesses.

ALEXANDER LEE.

Witnesses:

JAMES BLAKE,
M. H. HOLGATE.