

[51.]

Joseph W Bates & Mary A Bates' Wash Boiler

No. 119,109.

Patented Sep. 19, 1871.

Fig 1

Fig 4

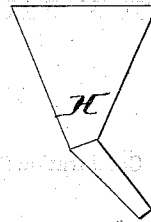
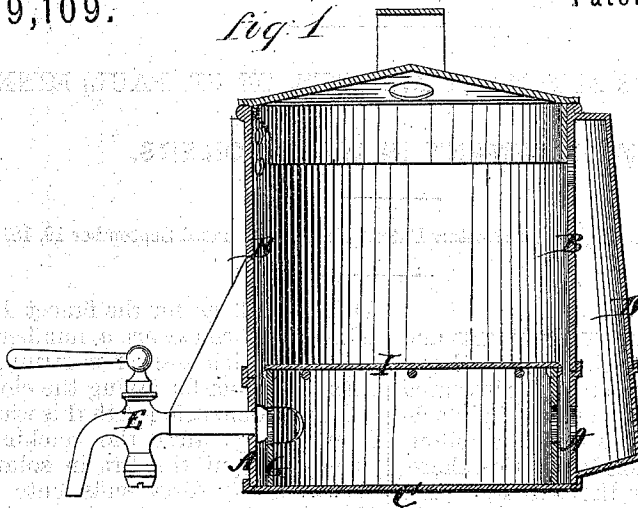


Fig 2

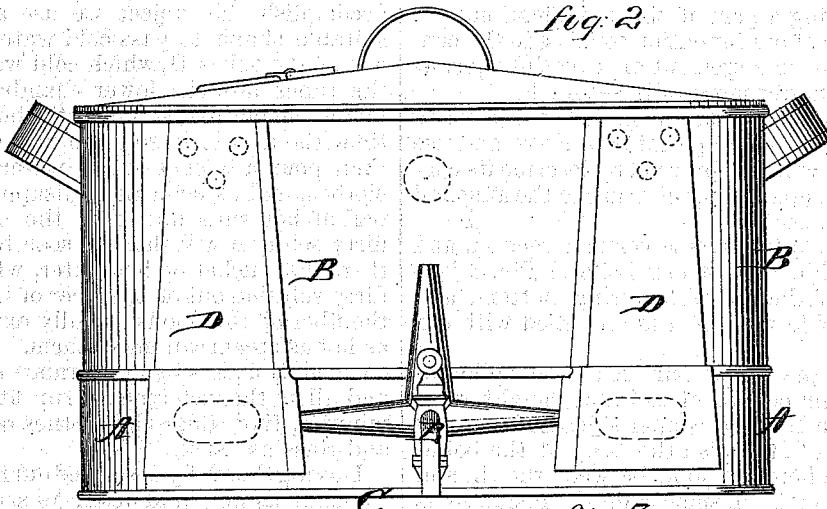
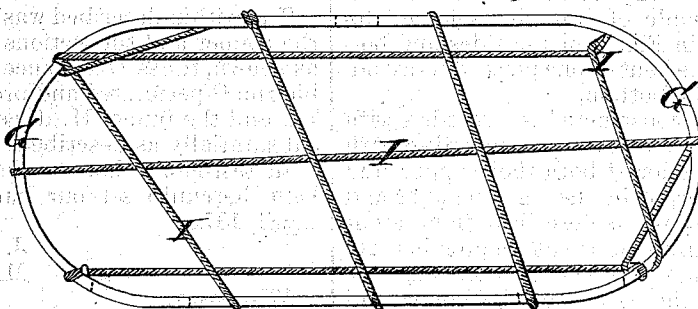


Fig 3



Witnesses.

Inventor.

C. L. Evert
A. D. Catman

Joseph W. Bates,
Mary A. Bates,
per Alexander Mason

at.

UNITED STATES PATENT OFFICE.

JOSEPH W. BATES AND MARY A. BATES, OF ST. PAUL, MINNESOTA.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. 119,109, dated September 19, 1871.

To all whom it may concern:

Be it known that we, JOSEPH W. BATES and MARY A. BATES, of St. Paul, in the county of Ramsey and in the State of Minnesota, have invented certain new and useful Improvements in Wash-Boiler; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of our invention consists in the construction and arrangement of a wash-boiler, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a transverse vertical section, and Fig. 2 is a side view of our boiler. Fig. 3 is a plan view of the movable string bottom, and Fig. 4 is a side view of a funnel used with our boiler.

We build the lower part A of the boiler or vessel of sheet-copper of suitable height, then attach the tin B to the copper sides A, instead of to the bottom C, to finish the body of the boiler or vessel. Where the joint between the tin and copper is we make it smooth on the inside so as to be able to wipe it dry. The sides A and bottom C may be made of two pieces joined together, as shown in Fig. 1, or the sides and bottom may be stamped out of one piece, thus avoiding the seam at the bottom.

The boiler thus constructed is provided with tubes D D on the outside communicating with the inside of the boiler at both their upper and lower ends, to operate in the same manner and for the same purpose as described in a patent for wash-boiler granted to us September 20, 1870. G represents a metal rim of suitable height, to rest on the bottom of the boiler, and provided with suitable apertures, corresponding with the openings in the lower ends of the tubes

D D as well as for the faucet E. In the upper edge of the rim G are a number of small holes, through which a cord or string, I, is passed to form a bottom for laying the clothes upon.

In experimenting with this wash-boiler we find it necessary, after the machine has run long enough to put the dirt in solution, to stop its throwing the dirty suds onto the top of the clothes without cooling the clothes. In order to accomplish this object we use a funnel, H, of suitable shape, to pass cold water through into one of the tubes D, which cold water goes down the tubes into the lower chamber of the boiler under the clothes, stopping the boiling. At this time the dirt is in solution in the clothes. We then pour a bucket of hot water on top of the clothes, and as soon as it disappears pour on a pail of hot suds and turn the faucet E. The dirty solution will then be seen to pass off first, then the bucket of hot water, which rinses the dirty solution out of the fiber of the goods while the fiber of the goods is fully expanded and is as hot as steam can make them. As soon as the clean suds makes its appearance shut the faucet and allow the machine to run fifteen or twenty minutes, then take the clothes out of the suds and rinse as usual.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The within-described wash-boiler, consisting of the copper and tin sections A B joined together, as shown, tubes D D, faucet E, and the removable rim G perforated and provided with the cords I I, and the funnel H, all constructed to operate substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 11th day of April, 1871.

J. W. BATES.
MARY A. BATES.

Witnesses:

N. P. S. THOMAS,
A. B. DUNN.