

Henry R. Robbins.

Automatic Wash Boiler.

106623

PATENTED AUG 23 1870

Fig. 1

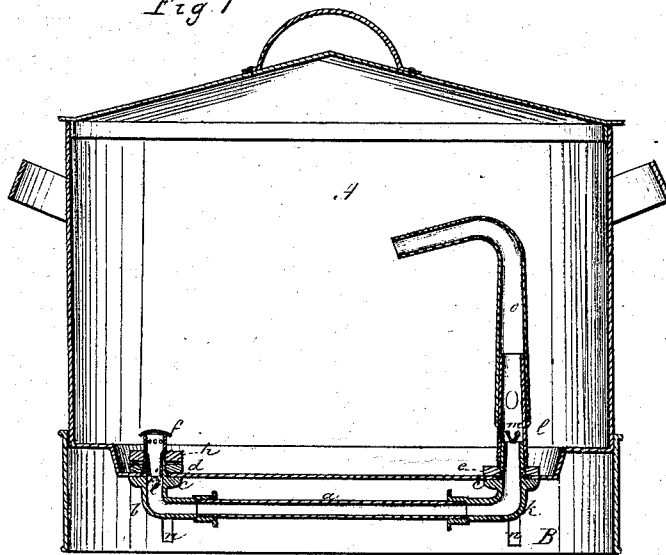
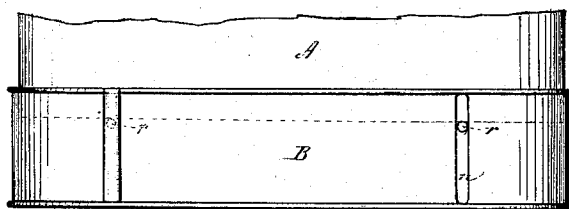


Fig 2.



Witnesses

H J Fritz
Gaston P. Lemon

Henry R. Robbins. Inventor.

his Attorneys.

United States Patent Office.

HENRY R. ROBBINS, OF BALTIMORE, MARYLAND.

Letters Patent No. 106,623, dated August 23, 1870.

IMPROVED WASH-BOILER.

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, HENRY R. ROBBINS, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and useful Improvement in Automatic Wash-Boilers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a partial side elevation.

This invention has for its object to produce a circulation of the water within a wash-boiler in a continuous current by means of a pipe placed underneath the boiler and opening at its ends into the same, and to keep such pipe always in contact with the fuel in the fire-box, whether the quantity of fuel be large or small.

In the drawing—

A is a wash-boiler.

a, a cast metal pipe placed lengthwise beneath the boiler.

b k, elbow-couplings, to which the pipe a is attached at its ends, and which pass upward through the bottom of the boiler.

c are flanges on the couplings which abut against the under side of the boiler.

d e are flanges on the couplings inside the boiler, and soldered to its bottom.

f is a tube closed at its top, having perforations in its sides beneath the top, provided with valves i at its lower end, opening downward and soldered into a ring, h, which has a screw-thread cut in its inner surface, by means of which, when the tube f is introduced within the coupling b, the ring h may be screwed upon the outside of the coupling, and the tube thus secured in place.

m are valves opening upward and attached to the upper end of the coupling k.

l is a pipe which sits on the flange e outside the coupling k.

o is an elbow-pipe, which sits on the outside of the pipe l.

When the pipe a is placed on the burning fuel in the fire-box of a stove, the water in the pipe, being quickly expanded by heat, seeks an outlet through the valves m.

To supply its place, water from the boiler enters the pipe a through the valves i.

In this way a circulation of the water is obtained, which cleanses clothing more thoroughly than simple boiling can do, as is well known to those having an acquaintance with the subject.

The valves i and m, one set opening downward and the other set opening upward, prevent the water from issuing from the pipe in jets, as experiment shows it does in the case of a pipe running through the fire-box and opening at both ends, without valves, into a fixed water-back.

By means of the valves a continuous current is obtained.

It is obvious that the pipe a should be kept always in contact with the burning fuel, as long as the boiler is on the stove, in order to obtain the greatest amount of heat therefrom. It is, therefore, desirable that the pipe should follow the fuel downward as it burns low.

To this end a band, B, of tin, or cast or sheet-iron, is placed around the boiler A, loosely fitting it, so that the boiler may slide therein.

Vertical slots, n, are made in the band, into which protrude pins, r, extending horizontally from the bottom of the boiler.

The slots are covered on the outside, as shown in fig. 2.

The bottom of the band rests on the top of the stove, and the bottom of the boiler rests on the top of the fuel in the fire-box.

The slots allow the boiler to sink as the fuel decreases, and the band prevents cold air from coming in contact with the lower part of the boiler, and also smoke from ascending into the room.

Having thus described my invention,

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

1. The combination of the boiler A, pipe a, with valves i opening downward, and valves m opening upward, substantially as and for the purpose specified.

2. The combination of the boiler A with the band B, as and for the purpose set forth.

HENRY R. ROBBINS.

Witnesses:

GEO. R. MCGEE,
IBO. T. HEYEN.