H. R. Robbins,

Wash Boiler.

No. 112,739. Patented Mar. 14, 1871.

Fig. 1.

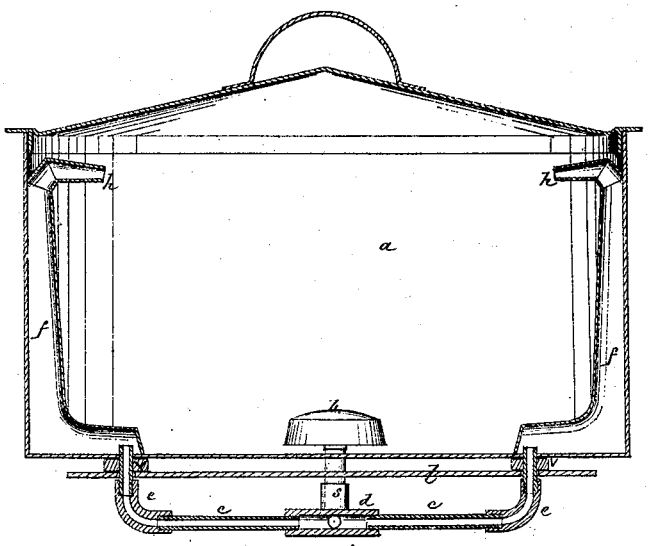


Fig. 2.

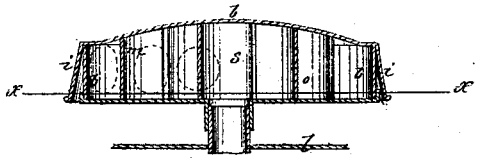
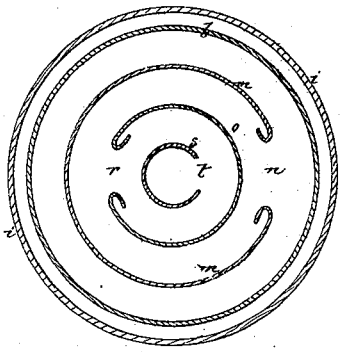


Fig. 3.



Witnesses:

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HENRY R. ROBBINS, OF BALTIMORE, MARYLAND.

Letters Patent No. 112,739, dated March 14, 1871.

IMPROVEMENT IN WASH-BOILERS.

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 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 sectional elevation of the boiler; and

Figure 2 is a sectional elevation of the central trap.

This invention relates to that class of wash-boilers in which the water enters a trap placed at the middle of the bottom of the boiler, and is thereby conducted through the bottom to pipes branching off from the trap, passing upward through the bottom, and opening into the boiler at each end of the latter, at points near its top, by which arrangement the water in the boiler is made to flow in continuous circuits through the trap and pipes.

The invention consists in a cylindrical trap for the aforesaid purpose, provided with holes in its outer shell for the admission of water, and with a series of circular concentric partial partitions, which divides its interior into annular chambers, opening one into another, and, while admitting of a free flow of water into and through the trap, at the same time preventing its return into the boiler in any other way than through the pipes provided for that purpose.

The invention also consists in securing a metal plate to the under side of the boiler by means of nuts, and the shoulders or ends of the elbows of the pipes passing through it, said plate standing off from the boiler-bottom at a suitable distance to prevent the same becoming so heated as to scorch clothes resting thereon.

Referring to the drawing—

a is the boiler.

b, the trap.

c, the pipes, placed beneath the boiler, and attached at one end to a collar, *d*, that is fastened to the lower extremity of the trap, and at their other ends to elbows *e*, that pass upward through the bottom of the boiler.

f are vertical pipes, placed either within the boiler or outside of it, or partly within and partly without the boiler, at the ends thereof, said pipes being connected at their lower extremities with the elbows *e*, and being provided at their upper extremities with elbows *h*, that turn into a horizontal position, and discharge water into the boiler.

The foregoing arrangement presents no novel features.

The trap *b* consists of a cylindrical chamber, to the outside of which is secored a flaring guard, *i*, which prevents the clothes from clogging the holes in the wall of the trap, through which water finds its way to the interior thereof.

Next, within the outer shell of the trap, and at a suitable distance therefrom, is a circular partition, *m*, which extends from the top to the bottom of the trap, and has an opening, *n*, in one side.

There are no holes in the outer shell of the trap, opposite the opening *n*, and, therefore, the water that flows between the said outer shell and the partition *m*, when it reaches the opening *n*, enters the same.

Next, within the partition *m*, and concentric therewith, and at a suitable distance therefrom, is a partition, *o*, the opening *r* of which is diametrically opposite the opening *n*, so that the water which enters at the latter finds no egress till it arrives at the opening *r*.

Within the partition *o* is a central pipe, *s*, having an opening, *t*, diametrically opposite the opening *r*, so that the water that enters the latter has to flow around to the opening *t* before finding egress.

Entering the pipe *s*, the water is thereby conducted downward through the bottom of the boiler to the collar *d*.

It will be seen that this arrangement, while it presents no manner of obstacle to the passage of water from the outside through the trap, effectually prevents it from passing back from inside to outside, except through the proper channels—the pipes *c f*.

A plate, *l*, of cast or wrought metal, is attached to the bottom of the boiler in any suitable manner, and stands far enough off from the same to protect the bottom from the heating action of the fire beneath, and thus prevents scorching of the clothes within.

The plate *l* is provided with orifices, through which the trap *b* and elbows *e* pass when the two latter are made in separate pieces from the plate. They may, however, be cast in one piece with it.

The plate *l* may be applied to any wash-boiler.

Having thus described my invention,

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

1. The trap *b*, provided with the external flaring guard *i*, and with internal partitions of any desired number, and with a central pipe passing down through the bottom of the boiler, said partitions and pipe being provided with openings located with respect to each other, as described.

2. The plate *l*, arranged beneath the boiler, and secured between the nuts *v* and the shoulders or ends of the elbows *e e*, as herein shown and described, for the purpose specified.

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Witnesses:

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