

R. LAWYER.
Wash-Boilers.

No. 135,349.

Patented Jan. 28, 1873.

Fig. 1.

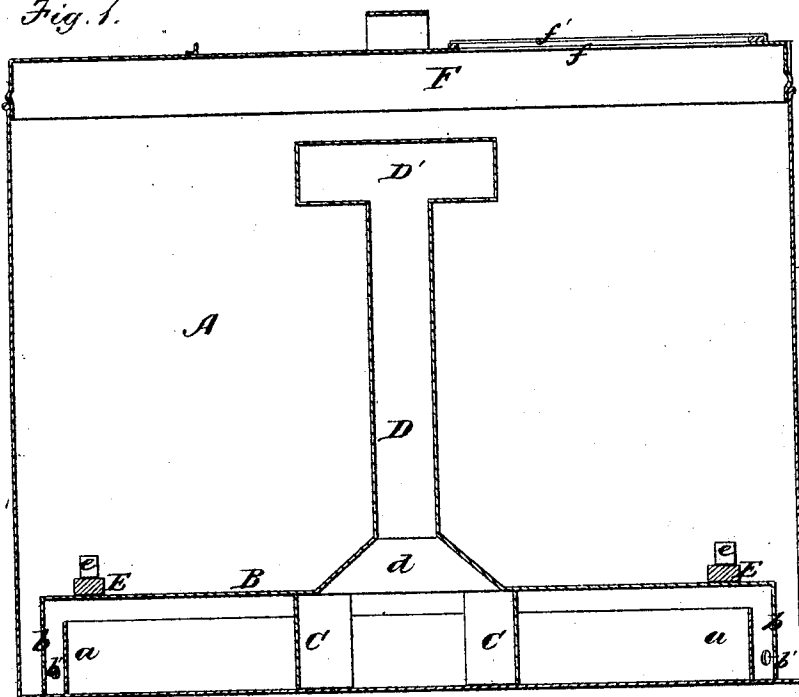
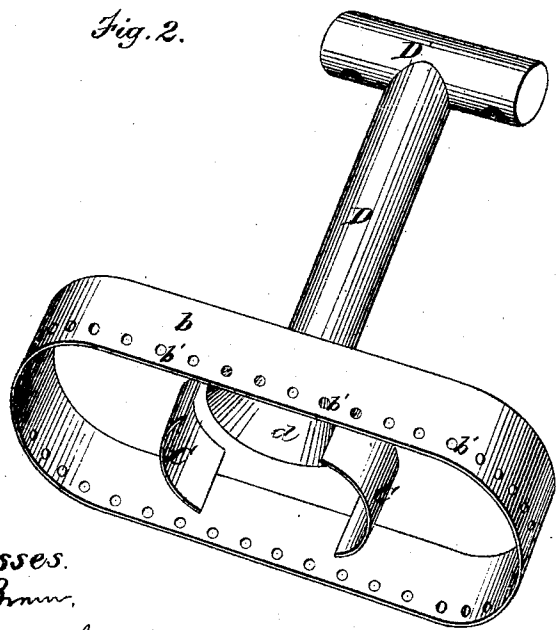


Fig. 2.



Witnesses.
C. F. T. Brown,
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Inventor.
R. Lawyer,
by his Attys.
Heu & Ellsworth

UNITED STATES PATENT OFFICE.

RALPH LAWYER, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. 135,349, dated January 28, 1873.

To all whom it may concern:

Be it known that I, RALPH LAWYER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Wash-Boiler; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is sectional elevation, and Fig. 2 a perspective view of the false bottom.

Similar letters of reference in the accompanying drawing denote the same parts.

This invention belongs to that class of wash-boilers in which, when water is supplied and heat applied, the water and steam are made to rise in a pipe located centrally of the boiler, and from out of the top of the pipe the water falling on and passing through the fabrics placed in the boiler, and cleansing them thoroughly from dirt.

The invention consists in the combination, with the boiler, of a mechanism for preventing a flow of the water backward from the central pipe, and in providing the cover of this boiler with a window, all of which I will now proceed to describe.

In the drawing, A is the boiler, which is of ordinary construction, except in respect of a rim, *a*, attached to its bottom and forming a water-tight chamber within the boiler. B is a false bottom, having a flange, *b*, at its outer edge, which rests on the bottom of the boiler between the sides thereof and the rim *a*, said flange having perforations *b'*, or their equivalents, to admit water, the area of the false bottom being such as to leave sufficient room for the passage of water both between it and the walls of the boiler, and between it and the rim *a*, and the flange *b* being high enough to let water pass between the false bottom and the top of the rim *a*. C are ribs attached to the under side of the false bottom B to help it sustain the load of clothes. D is a pipe extending nearly to the top of the boiler, with a conical-shaped bottom, *d*, attached to the center of the upper side of the false bottom B, which has a hole continuous with the inside of *d*. On the top of D is a cross-pipe, D', stopped at its ends, and having holes in its under side near each end. Shoulders *e* attached to the inside of the boiler, all at the same height from its bottom, serve as stops

for cross-bars E, with beveled ends, when placed beneath said shoulders, and, upon the false bottom B, secure the latter firmly in place. In the cover F of the boiler is an opening, *f*, with a hinged cover, *f'*, of mica or other suitable transparent material.

The boiler should be filled with soap-suds to a point about an inch high on the pipe D, and the clothes, previously soaked, placed on the false bottom B. On the application of heat to the boiler the consequent expansion of the water compels that part of it inside the rim *a* and false bottom B to find vent. The rim *a* and false bottom B, as well as the greater weight of water outside of the false bottom, and the pressure of steam thereon, all co-operate to cause the water inside the rim *a* to pass up the pipe D, which is the only unobstructed passage; consequently, a continuous stream of water pours up the pipe D and out of the ends of the cross-pipe D', and, falling and passing through the clothes, cleanses them, and also constantly renews the supply inside the rim *a*.

When an excess of steam has been generated it raises the hinged cover and a part of the steam escapes, after which the cover falls of its own weight. Hence the hinged cover operates as a safety-valve.

The transparency of the cover allows the condition of the contents of the boiler to be at any time ascertained without removing the cover.

What I claim as new is—

1. A wash-boiler constructed with a rim, *a*, on its bottom, as and for the purpose described.
2. The combination of the false bottom B, perforated flange *b*, and ribs C, as described.
3. The combination of the boiler A, rim *a*, false bottom B, flange *b*, and pipe D, as described.
4. In combination with the hinged-lid safety-valve of a wash-boiler cover a window placed in the lid, substantially as and for the purpose described.

To the above specification of my invention I have set my hand this 4th day of November, 1872.

RALPH LAWYER.

Witnesses:

HAMILTON MERRIMAN,
J. DONALDSON.