

W. H. RUSSELL.
Wash-Boilers.

No. 157,638.

Patented Dec. 8, 1874.

Fig. 1.

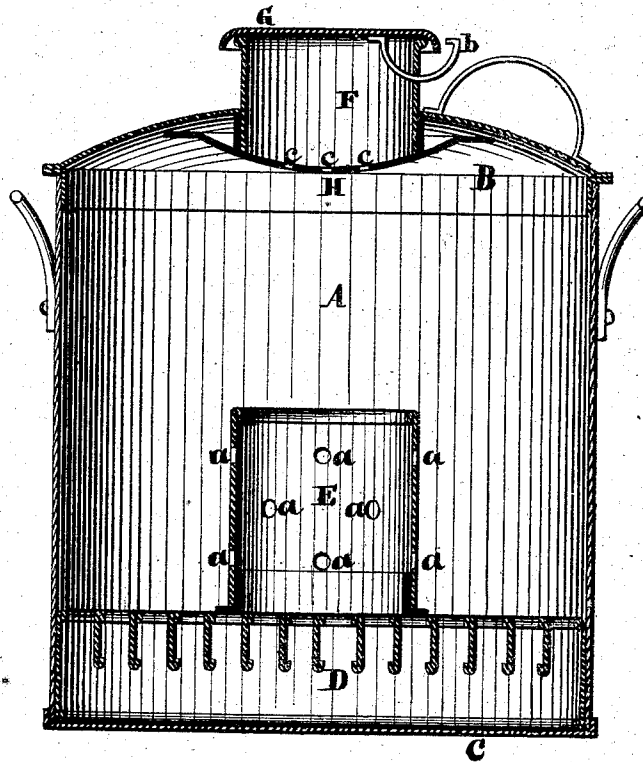
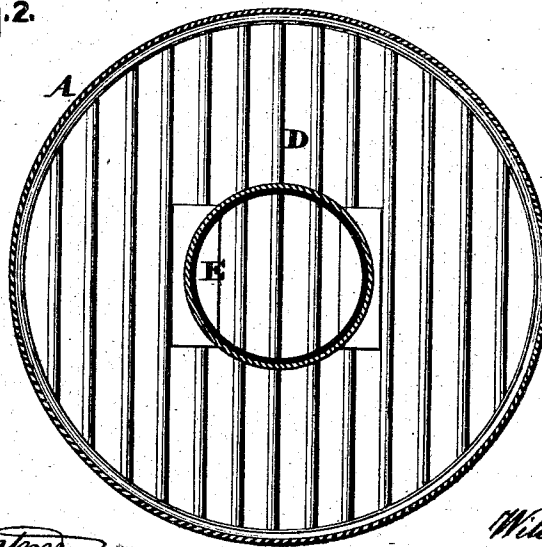


Fig. 2.



Witnesses.

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per
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UNITED STATES PATENT OFFICE.

WILLIAM H. RUSSELL, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **157,638**, dated December 8, 1874; application filed October 7, 1874.

To all whom it may concern:

Be it known that I, WILLIAM H. RUSSELL, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Wash-Boilers, of which the following is a specification:

This invention relates to a wash-boiler of the class described in my Patent No. 154,914, granted September 8, 1874, the clothes being acted upon by steam instead of water, as in boilers of the old class.

My present improvement consists in an open-work frame, which is fitted to the side and bottom of the boiler in such a manner as to form a false bottom and screen for supporting the clothes, with which frame is combined a vertical tube provided with perforations, through which and the open-work frame the steam forming in the lower part of the boiler issues and penetrates the clothes; also, in combining with the lid of the boiler a valve and valve-chamber having a detachable bottom, which is perforated for the admission of steam, and serves to break the force of the steam in its action on the valve.

The invention is illustrated in the accompanying drawing, in which Figure 1 is a vertical central section. Fig. 2 is a horizontal section.

Similar letters indicate corresponding parts.

The letter A designates a wash-boiler, on which is fitted a lid, B, in the usual manner. The boiler is made with the ordinary bottom C, and upon the latter is placed a false bottom, D, consisting, in this example, of parallel bars, secured across a hoop, which fits the inner side of the boiler, and whereby is formed an open-work frame or grating. From the center of the frame or bottom D projects a vertical tube, E, which is provided with perforations *a*, and is secured in place by being slid on a section of tube, soldered or otherwise secured to the frame D, so that the tube E is detachable.

When water is put in the boiler below the false bottom, and subjected to heat so as to generate steam, the steam issues from the tube E, its perforations *a*, and from the open-work frame D, so as to thoroughly commingle with every piece of clothes in the boiler.

The clothes are supported in the boiler by the frame or false bottom, which serves to

prevent them from falling into the water, and thus constitutes a screen.

In the top of the lid B is a chamber, F, on which is placed loosely a valve, G, the valve being guided by a curved wire, *b*, running through the side of the valve-chamber. The end of the wire *b* is bent, so as to form a stop, which serves to limit the motion of the valve. The side of the valve-chamber projects somewhat on the inner side of the lid, and to the projection is attached the bottom H of the valve-chamber, the latter being provided with a side piece, which fits the projection, and is slid thereon in such a manner that the bottom is detachable. By this means access can be had to the valve-chamber, for the purpose of scouring or cleaning, &c.

The bottom H is provided with perforations *c*, through which the steam gains admission to the valve-chamber, and when the pressure of the steam rises beyond a certain point the valve G is raised, and the surplus steam escapes. The bottom H serves to break the force of the steam in entering the valve-chamber, and averts a sudden blowing off of the valve.

By my present invention the time required for the generation and commingling of the steam with the clothes is much less than in the old boiler, and the clothes are more rapidly cleaned, and in a far better manner.

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

1. The false bottom D, constructed of the parallel bars, secured at their ends to the hoop fitting the inside of the boiler, and carrying the detachable perforated vertical tube, the whole being constructed, arranged, and combined as and for the purpose described.

2. The combination of the chamber F, carrying on its upper edge the valve G, with the perforated bottom H, arranged on the lower end of said chamber, for retarding the entrance of steam to the chamber, as and for the object specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 18th day of September, 1874.

WM. H. RUSSELL. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.