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Henry L. Sprague & Jacob H. Guyon.
Clothes-Steam-Boiler.

PATENTED NOV 29 1870

Fig. 1.

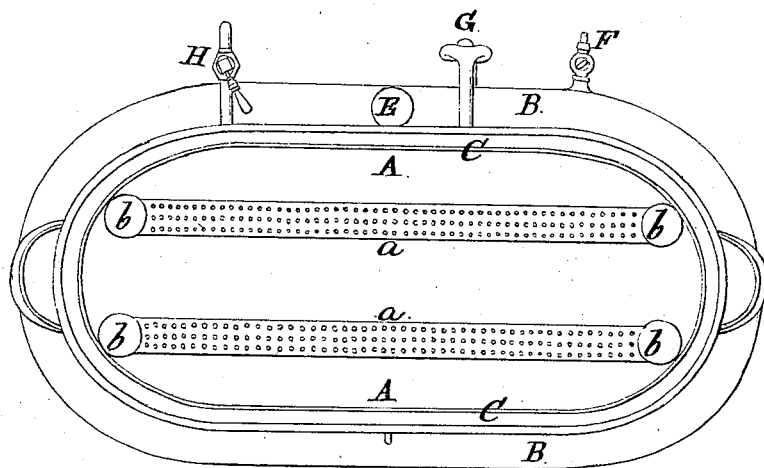
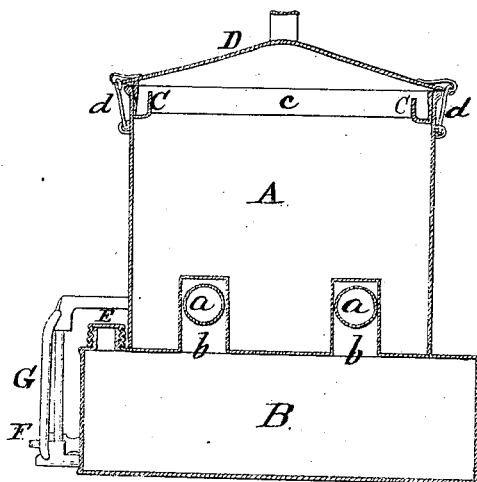


Fig. 2.



Witnesses
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HENRY L. SPRAGUE AND JACOB N. GUYON, OF TOTTENVILLE,
NEW YORK.

Letters Patent No. 109,774, dated November 29, 1870.

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 we, HENRY L. SPRAGUE and JACOB N. GUYON, of Tottenville, in the county of Richmond and State of New York, have invented a new and improved "Clothes Steam-Boiler," and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a part of this specification.

Figure 1 is a plan view, with the top of boiler removed.

Figure 2 is a transverse vertical section.

Like letters in both figures of the drawing indicate like parts.

The nature of our invention consists of a wash-boiler, provided with horizontal perforated tubes, so arranged as to communicate with a water-tank attached to the bottom thereof, or constructed so as to form a part of the boiler, the said tank being larger in diameter than that of the latter, for the purpose of giving a greater heating surface, and when filled with water and heated the steam generated therefrom will pass up into the said perforated tubes, and be discharged from the latter through the clothes placed in the boiler, thereby washing and cleansing them in a thorough manner, the clothes being first moistened and then rubbed over with soap before being put into the boiler; also, in combination therewith, the boiler provided with an inside rim for receiving the flange of the cover, for the purpose of preventing its boiling over, and to induce the steam to ascend through the center, so that it shall not come up too freely around the clothes.

We are aware washing clothes by steam is not new, but the devices by which we accomplish it, and which will be hereinafter fully explained, we think are.

We are also aware there is a wash-boiler that secures a constant circulation or current of water through the clothes, and thus the water may be forced up by the pressure of steam, yet this cleansing is performed by water, and not by steam, and the same water is passed through the clothes, filthy as it is, or soon becoming so. Our method is more cleanly, and entirely obviates this objection.

To enable others skilled in the art to understand and make our invention, we will proceed to describe its construction and operation.

A is the boiler, provided with the perforated tubes *a a*, which are arranged horizontally, at a suitable distance above the bottom, and communicating at their ends with the water-tank B below by the vertical tubes *b b b b*. This water-tank is made larger in

diameter than that of the boiler, to give it greater heating surface.

The top of the tank forms the bottom of the boiler, the boiler being soldered down onto it after the perforated tubes *a a* have been first arranged and properly secured thereto.

The boiler is also provided with the inside rim C, which is made by bending a piece of tin over at right angles, and then soldering it onto the inside of the boiler, having the rim come very near to the top thereof.

This rim is for receiving the flange *c* of the cover D, and is intended to prevent the escape of steam from the sides of the boiler, and to cause it to ascend through the center, so that it shall not come up too freely around the sides of the clothes.

The cover is made secure to the boiler by the hooks *d d* connecting with staples in the center on each side of the boiler.

The operation of this device is as follows:

The lower portion of the boiler or water-tank B is filled with water through the screw-top E. The clothes being moistened, the soap is applied to them, and they are ready for the boiler. The cover is now put on and the boiler placed upon the stove. The steam generated in the lower portion of the boiler now passes up through the vertical tubes *b b b b* on the interior therein into the two horizontal perforated pipes *a a*, whence it issues out and finds its way upward through the clothes.

In about forty minutes the operation is completed, and the boiler removed from the stove, and the water allowed to escape through the lower stop-cock F, to empty the boiler previous to putting it away.

The use of the glass water-gauge G is obvious, though not really essential, as the stop-cock F in question could also serve the purpose of a gauge-cock. It (the cock) may also be used for the purpose of drawing off hot water for making starch, &c.

It will be observed this water in the lower portion of boiler is always clean, and may be used for various purposes; also that this boiler may be used advantageously for steaming vegetables, &c.

The steam, as it forces its way through the clothes, is in part condensed, and settles down on the bottom of the boiler below the horizontal pipes, whence it may be allowed to escape through the upper stop-cock H.

Having thus fully described our invention,

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

1. The water and steam-tank B, provided with per-

forated tubes *a*, in combination with a clothes wash-boiler, constructed upon or with the tank, substantially as and for the purpose set forth.

2. In combination with the above, the inside rim *C*, constructed in the manner and for the purpose as shown and set forth.

As evidence that we claim the foregoing as our in-

vention, we have hereunto set our hands and seals in the presence of two witnesses.

HENRY L. SPRAGUE. [L. S.]

JACOB N. GUYON. [L. S.]

Witnesses:

H. R. YETMAN,

ABEL MARTIN.