

M. W. Staples,

Wash Boiler;

N^o 62,084.

Patented Feb. 12, 1867.

Fig. 2.

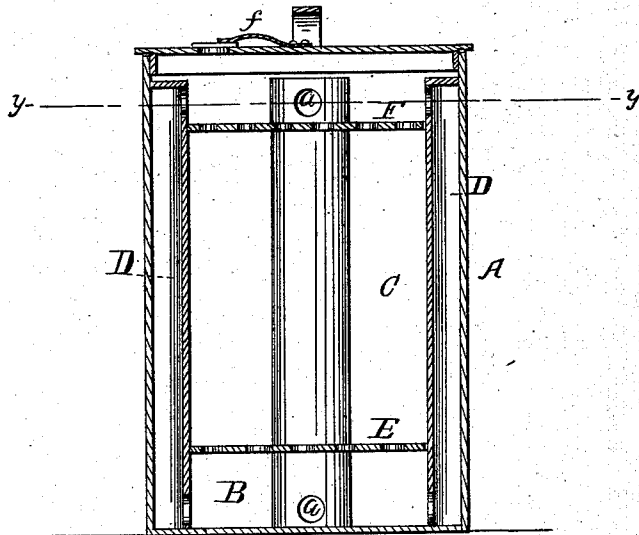
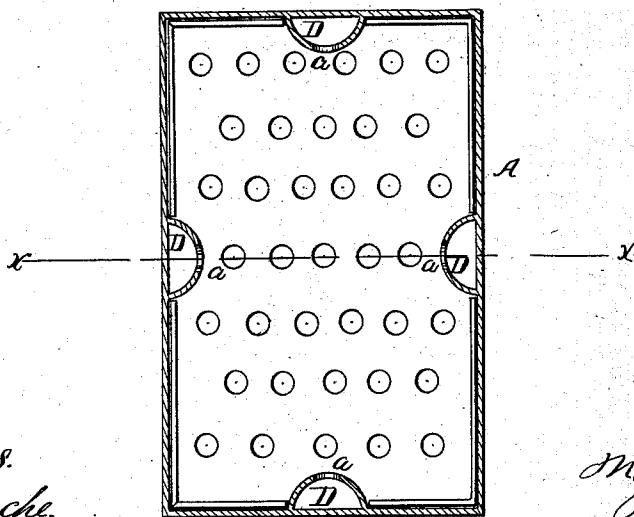


Fig. 1.



Witnesses.
Theo. Fische.
J. A. Service

Inventor.
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Per Munsell
Atty.

UNITED STATES PATENT OFFICE.

M. W. STAPLES, OF CATSKILL, NEW YORK.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. 62,084, dated February 12, 1867.

To all whom it may concern:

Be it known that I, M. W. STAPLES, of Catskill, in the county of Greene and State of New York, have invented a new and Improved Hydraulic Clothes-Boiler; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to the manner in which I produce a circulation of the water through a clothes-boiler in the process of washing clothes; and it consists in dividing the boiler into chambers with perforated partitions, which chambers are connected together by tubes, as will be hereinafter described.

Figure 1 represents a top view or plan of the boiler through the line *y y* of Fig. 2. Fig. 2 is a section of Fig. 1 through the line *x x*.

Similar letters of reference indicate like parts.

A represents the boiler. It may be made of any desired size and of any suitable material. There are two chambers in the boiler. The lower one is for water, and the other one for the clothes. There is also a space above the clothes-chamber.

B represents the water or lower chamber. C is the clothes-chamber. The partition between the two chambers is a perforated plate, made fast in the boiler, if desired; or it may be placed in loose and rest on brackets. Above this chamber there is a perforated partition-plate, resting on brackets, and which is easily removed when the boiler is to be filled.

Upon each of the four sides of the boiler there are tubes D, which communicate with the water-chamber at or near their bottom ends, and extend up to near the top of the boiler. The upper ends may be closed, but there are holes through the sides near their tops. These apertures, which allow of communication between the water-chamber and the space above

the clothes-chamber, are marked *a*. The lower perforated partition is marked E, and the upper loose partition is marked F.

The operation is as follows: The lower chamber being filled with water, or nearly so, and the upper chamber with clothes to be washed, and the boiler being placed over the fire or inside of another boiler or vessel, and the water made to boil, the water will be forced up through the tubes D, and discharged from the upper orifices *a* in the tubes onto the upper perforated partition-plate F, through which it runs onto and through the clothes, and thus finds its way back into the water-chamber, from whence it started. A constant circulation through the boiler is thus kept up while the water is boiling, which thoroughly cleanses the linen, and thus saves the laborious part of washing. There would, of course, be a small pressure of steam in the boiler to produce the circulation described.

To provide for any overpressure of steam, there is a valve on the top of the boiler-cover, which is attached to or regulated by a spring or weight, which rises when there is too much pressure and lets off the steam. This valve is marked *f*.

If preferred, the upper partition F may be dispensed with, and the water discharged directly upon the mass of clothes.

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

The chambers B and C, the perforated partition E, and the circulation-tubes D, with apertures *a*, arranged substantially as shown and described, in combination with a boiler, for the purposes herein set forth.

The above specification of my invention signed by me this 9th day of December, 1866.

M. W. STAPLES.

Witnesses:

H. B. HILL,
WM. H. VAN ORDEN.