J. J. HALL.
Wash-Boiler.

No. 204,034. Patented May 21, 1878.

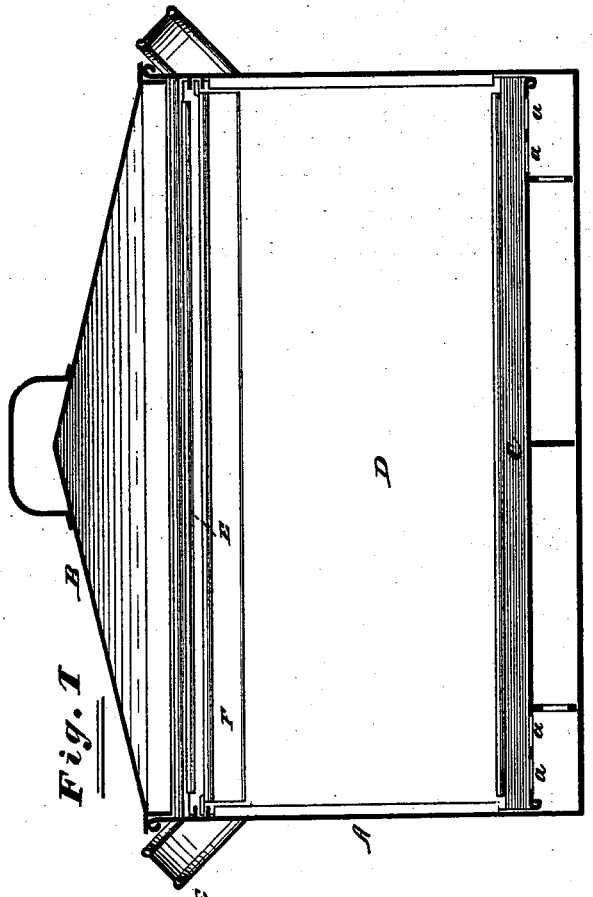

Fig. 1

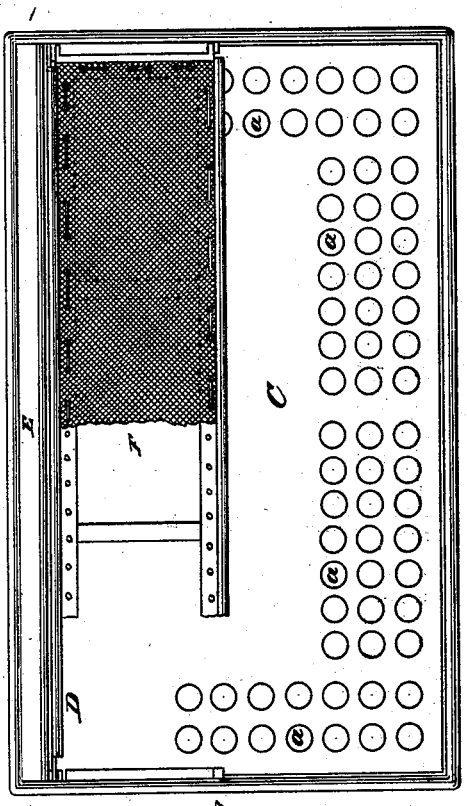

Fig 3

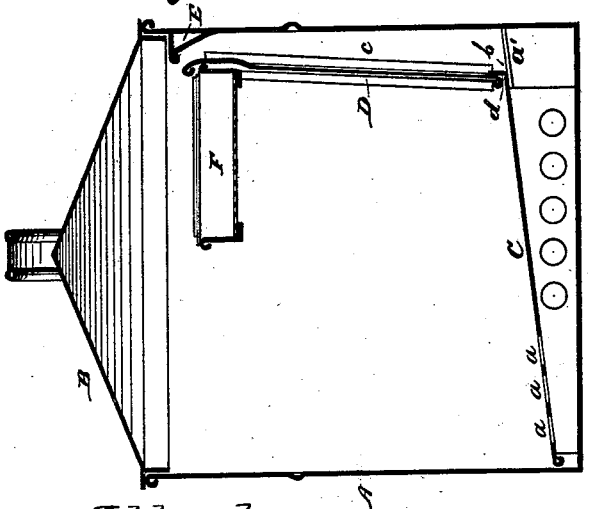

Fig. 2

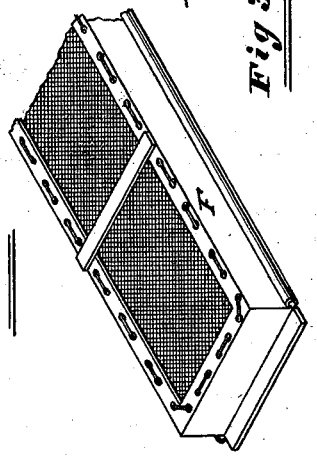

Fig. 4

Attest:

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UNITED STATES PATENT OFFICE.

JOSEPH J. HALL, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES H. MURRAY, OF SAME PLACE.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. **204,034**, dated May 21, 1878; application filed March 4, 1878.

To all whom it may concern:

Be it known that I, JOSEPH J. HALL, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Wash-Boilers, of which improvements the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the said improvements, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a side elevation of a wash-boiler embodying my improvements, the front being removed to show the interior of the boiler; Fig. 2, an end view, the end piece being removed; Fig. 3, a top or plan view, showing the interior; and Fig. 4, a perspective of the filter.

Like letters of reference indicate like parts.

My invention relates to that class of wash-boilers wherein a current of water is passed through the clothes.

My object is to improve the construction and operation of boilers of this class, and this I accomplish substantially in the manner hereinafter described and set forth.

In the drawing, A represents the outer parts or walls of the boiler, and B the lid or cover. These parts may be made in any well-known or suitable manner.

C is an interior or false bottom, supported considerably above the bottom proper, the rear or unperforated part being, by preference, somewhat the highest, as is clearly represented in Fig. 2. The forward part of the bottom C has therein the openings *a a*, the rear part being preferably not perforated. Between the back of the boiler and the rear edge or part of the bottom C is the space *a'*. The bottom C may be kept from contact with the back by means of the arms *b b*. A space thus exists between the false bottom and the bottom proper and between the back and the false back D, hereinafter described. To facilitate cleaning the boiler, and to avoid unnecessary labor and expense in construction, the false bottom should be removable, and, with the exceptions already stated, it should be as nicely fitted into the boiler as it may well be without preventing easy placement and removal.

D is a supplemental or false back, preferably removable, and placed to leave a space, *c*, between it and the back proper. The bottom of the back D meets the bottom C just in front of the space or opening *a'*; and, to make a comparatively tight joint at the place of meeting, the back D is provided with a flange, *d*. The part D does not reach the lid.

E is a lip or projection on the back proper, and arranged a little above the back D. This lip inclines forward and upward, as shown, but should not extend over the back D sufficiently to prevent the latter from being raised for removal when it is adapted for removal in that manner.

F is a filter, arranged below the space between the lip E and the top of the back D. This filter, as shown, extends from the front face of the back D. It may also be removable.

The operation is as follows: The boiler should be filled with water about three-fifths full when it is intended to use the boiler to its full capacity. Soap enough should also be used to produce sufficient suds. The clothes or articles to be washed should then be arranged in the boiler, being supported by the bottom C, and covering the holes *a a*. When the boiler is set upon the stove, and the water sufficiently heated to boil, ebullition will take place below the bottom C. The boiling water quickly produces suds or foam, and this rises between the backs, together with a considerable volume of water, forced up by the steam generated. As the clothes form a packing over the holes *a a*, the seething mass has no place of escape except over the top of the back D, and it pours over the back D in a continuous sheet and falls upon the filter F, which collects the scum and dirt, the water passing through the filter and upon the clothes. The water thus impinged upon the clothes settles through them and enters the space between the bottoms, when it is again forced up between the backs, as described. A constant circulation of the water through the clothes is thus produced, and a considerable volume of water is kept falling on

them in a sheet extending the whole length of the boiler. The clothes are thus quickly and thoroughly washed and cleaned without being either rubbed or pounded. The lip E gives forward direction to the water.

The boiler is simple in its construction and operation, and may be easily cleaned.

I am aware that wash-boilers have heretofore been so constructed as to produce a circulation of the water therein, and I do not, therefore, here intend to claim such, broadly; but,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a wash-boiler wherein the water is automatically impinged upon the clothes, a filter arranged below the place from which the water is so discharged upon the clothes, for the purposes set forth.

2. The combination, in a wash-boiler, of the removable elevated and perforated bottom C, the removable false back D, and the filter F, all arranged, substantially as shown and described, with relation to each other and the walls of the boiler, for the purposes set forth.

3. The combination, in a wash-boiler, of the false bottom C, false back D, removable filter F, and deflector E, all constructed and arranged substantially as and for the purposes specified.

JOSEPH J. HALL.

Witnesses:
F. F. WARNER,
JAMES H. COYNE.