

S. A. Goodwin,
Wash Boiler,
N^o 83,277, Patented Oct. 20, 1868.

Fig. 1

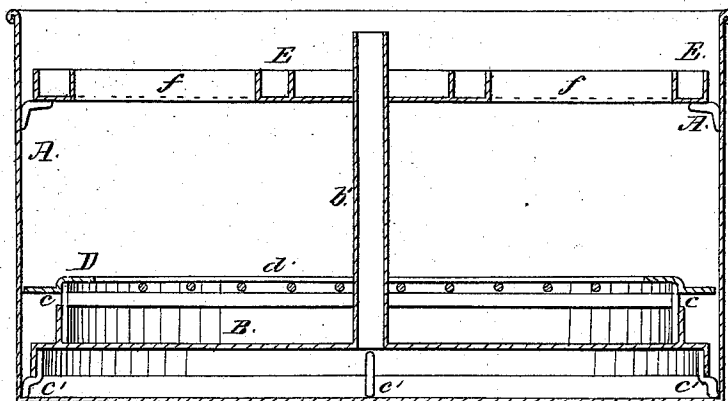


Fig. 2.

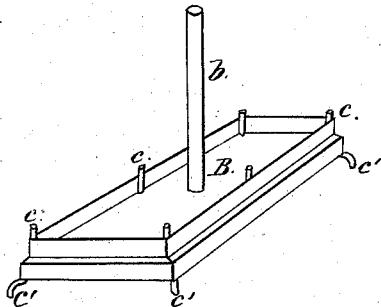
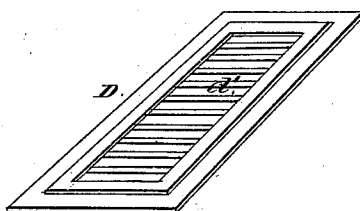


Fig. 3.



Witnesses:

Geo. D. Emerson
Fred. W. Scott
Geo. Volz

Inventor:

S. A. Goodwin

United States Patent Office.

S. A. GOODWIN, OF BUFFALO, NEW YORK.

Letters Patent No. 83,277, dated October 20, 1868.

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 I, S. A. GOODWIN, of the city of Buffalo, State of New York, have invented certain Improvements in the Construction of Wash-Boilers; and I do declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference thereon, the same letters referring to like parts.

My invention relates to the class of wash-boilers, in which the washing-solution is forced up, by the action of steam, through tubes or conduits from the bottom of the boiler to the top, on to the clothes or other articles washed, and allowed to percolate through or among them to the bottom again, to be forced up in the same manner in a continuous circulation.

The object of my invention is to separate the heavy parts of the dirt, discharged from the clothes, from the washing-solution, so as to keep it comparatively clean.

I accomplish this by means of the deposition or subsidence of these parts in a pan, or pans, or their equivalents, placed at some point or points on the line of the circulation.

I take advantage of the circulation of the washing-solution by the action of steam, as aforesaid, to cause it to flow into a pan, or pans, in which the heavy dirt subsides or settles to the bottom, and the solution flows over the edges of the same, falling into the current of the circulation, to be again carried along with it, that the operation may be constantly repeated.

I will now proceed to describe a mode of construction by which this result is accomplished, not confining myself, however, to any particular mode or manner of construction, in which the same object is reached on the same principle.

Figure I is a vertical longitudinal section of my invention.

Figure II represents a perspective view of the lower settling-pan, with tube for conveying the solution to the top of the boiler.

Figure III represents a perspective view of the rack on which the clothes rest.

A is the boiler.

D, a rack or its equivalent, on which the clothes rest.

B, a plate or diaphragm, forming, in connection with its rim and the bottom of the boiler, a chamber for the generation of steam, and also with its upper rim the lower settling-pan.

b', a tube to conduct the washing-solution, mixed with steam from the steam-chamber, to the top of the boiler.

E, the upper settling-pan, in which *f* represents a mortise near each end (surrounded with a rim) for the more even distribution of the water over the clothes.

c, pins or legs for the support of D.

c', pins or legs for the support of B.

The operation is as follows: The washing-solution is put into the boiler, and then the clothes are laid or spread upon the rack D. Steam is then generated in the chamber under B, causing the washing-solution to flow up through the tube *b'*, because that is the most open and easiest way for it to flow.

When it reaches the top of this tube, it flows into the settling-pan E, the heavy dirt settling to the bottom, and the solution flowing over its rim, falling upon the clothes, percolating through them, and falling, through the rack D, on to the lower pan, the heavy dirt settles in the same, and the solution flows over its rim and under the plate B, when it is again forced up through the tube, in a constantly-repeated circulation, until the clothes are washed.

If found advantageous, I propose to cover the bottom of these pans with sponge or other porous substance, for the purpose of destroying the effects of currents, caused by the flowing of the water into the pan, or I may find it advantageous to place near the top of the pan a finely-perforated plate for the same purpose, or to divide the pan into smaller pans by vertical division-plates.

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

1. In a wash-boiler, the separation and collection from the washing-solution of the dirt discharged from the articles washed, automatically, by subsidence or deposition, by means of an elevated pan or pans E, or their equivalents, placed at some point or points on the line of circulation, as set forth.

2. The plate B, with its two rims and the settling-pan E combined, substantially as and for the purposes described.

S. A. GOODWIN.

Witnesses:

GEO. D. EMERSON,
GEO. VELZY.