

[117.]

119,063.

Washing Boiler

Patented Sep. 19, 1871.

Joseph C. Tilton

Pittsburgh Pa

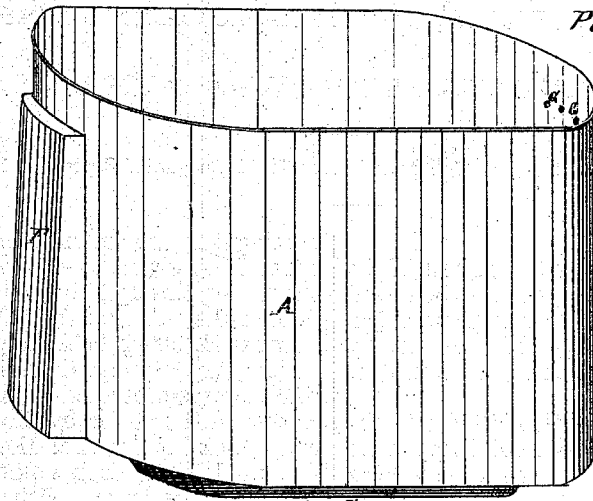


fig. 1

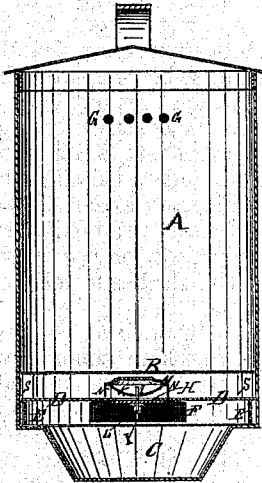


fig. 2

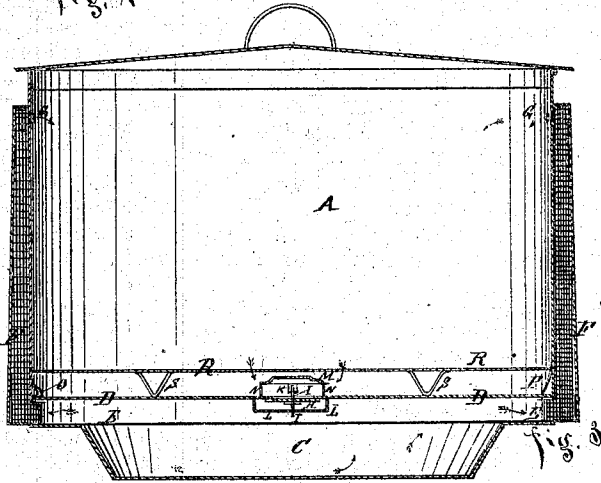


fig. 3

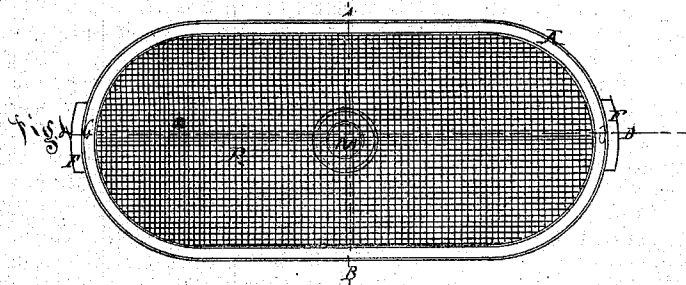
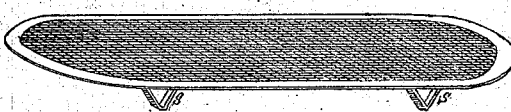


fig. 4



Witnesses { *Charles Butter*
Francis Clark

Inventors

Joseph C. Tilton

UNITED STATES PATENT OFFICE.

JOSEPH C. TILTON, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. 119,063, dated September 19, 1871.

To all whom it may concern:

Be it known that I, JOSEPH C. TILTON, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania, have made certain Improvements in Wash-Boilers; and I do hereby declare that the following is a full, clear, and exact description of the same.

The first part of my invention relates to the valve in the center of the false bottom placed in the boiler, and to the tubes on the outside, extending from below the false bottom to the top of the boiler. The object of this part of my invention is to allow the cold water free ingress into the lower division of the boiler through the hole in the false bottom, and by closing the said hole with a valve to force the water, when heated, up through the outside tubes into the upper part of the boiler and over the clothes. The second part of my invention relates to the hook and spring for holding the false bottom in place. The object accomplished by this part of my invention is the securing of the false bottom in its place in a very simple and convenient manner. The third part of my invention relates to the sieve which rests on the false bottom. The object of this part of my invention is to keep the clothes from gathering over and around the valve and impeding its operation.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawing forming a part of this specification and to the letters of reference marked thereon.

Figure 1 is a perspective view of my boiler; Fig. 2, a central cross-section through the section-line A B of Fig. 4; Fig. 3, a vertical central section through the section-line C D of Fig. 4; Fig. 4, a top view of the boiler; and Fig. 5, a perspective view of the sieve.

Similar letters of reference in the drawing indicate like parts.

A is a wash-boiler of the usual form, the lower part C being made deep so as to set well into the fire and expose a large area of heating-surface. D is the false bottom, which consists of a sheet of tin having the rim E E, which raises it above the bottom of the boiler, on which the rim E E rests. Two openings are cut through this sup-

porting-rim, communicating with the external tubes F F, which open into the upper part of the boiler through the holes G G. The valve H is in the center of the false bottom and opens downward, being held in place by the stem I, which plays up and down in the supports K L. The valve is protected from the pressure of the clothes in the boiler by the guard M, which is a metal disk supported on the columns N N. O is a metal loop or hook, soldered or riveted onto the side of the boiler. P is a spring, also secured to the side of the boiler. One end of the false bottom is slipped under the hook O; the other end is then pressed down, forcing back the spring until the top of the false bottom drops below the end of the spring, which flies out over the false bottom, holding it down, as shown in Fig. 3. The sieve R is provided with feet S S S S, and rests on the false bottom D, and on this sieve the soiled clothes are laid. This sieve keeps the clothes up from the false bottom and away from around the valve, forming a chamber for the water which percolates through the clothes to collect in while the valve H is closed.

When the boiler is to be used the lower part is filled with water, in which some soap is dissolved. The false bottom is then placed in position, as shown in Fig. 3, where it is held by the spring P. The sieve R is next placed in the false bottom, as shown in the drawing, and on it the soiled clothes are placed in layers. When the water below the false bottom becomes heated it expands, forcing up the valve H and closing the opening which the valve covers. The water is, therefore, forced to find its escape through the tubes F F, in the direction indicated by the arrows in the drawing, Fig. 3, and is poured from them through the holes G G with considerable force, in the condition of mixed steam and water, and falls on the clothes, through which it is drawn and filtered back into the chamber under the sieve. When a portion of the water is forced out from the lower chamber a partial vacuum is formed; the valve H then drops and the cooler water under the sieve runs in, and is, in its turn, heated and forced out through the tubes F F. When the water becomes thoroughly heated a continuous circulation, as above described, is kept up,

which, by reason of the great solvent powers of the combined boiling-water, soap, and steam, soon frees the clothes from all dirt.

I do not claim as new the use of a false bottom, forming a water-space below the clothes; nor the use of tubes for carrying the hot water from the bottom to the top of the boiler.

What I do claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The false bottom D, having the valve H, in

combination with the external tubes F F, when arranged as shown, for the purpose described.

2. The combination of the sieve R, false bottom D, valve H, hook D, spring P, and external tubes F F with the boiler A, when arranged as shown and described.

JOSEPH C. TILTON.

Witnesses:

A. B. HAY,
FRANCIS S. CLARK.

(117.)