

A. SLUTHOUR.

Wash-Boilers.

No. 135,374.

Patented Jan. 28, 1873.

Fig. 1.

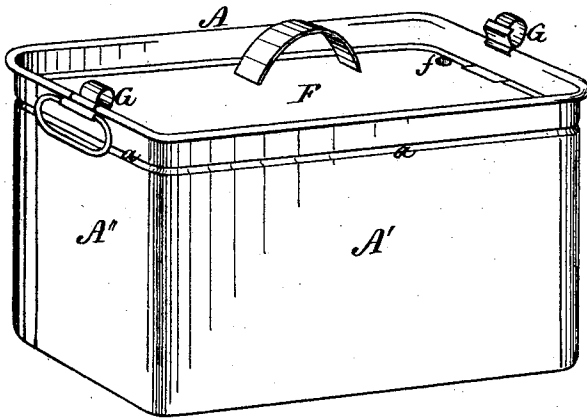


Fig. 3.

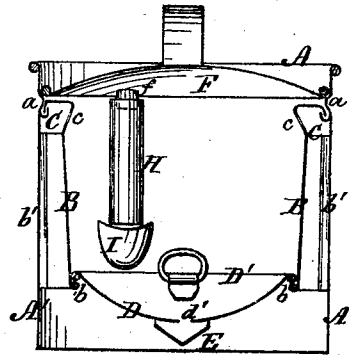


Fig. 2.

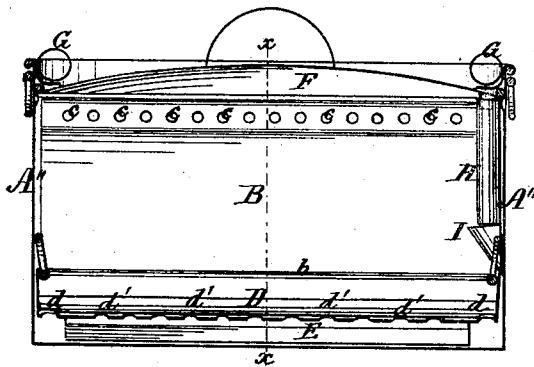


Fig. 4.

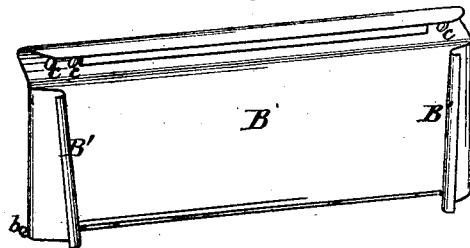


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

ANTHONY SLUTHOUR, OF NEW PHILADELPHIA, OHIO.

IMPROVEMENT IN WASH-BOILERS.

Specification forming part of Letters Patent No. 135,374, dated January 23, 1873.

To all whom it may concern:

Be it known that I, ANTHONY SLUTHOUR, of New Philadelphia, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Wash-Boilers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of my improved device. Fig. 2 is a central longitudinal section of the same upon a vertical line. Fig. 3 is a cross-section upon line *xx* of Fig. 2; and Figs. 4 and 5 are, respectively, perspective views of the detachable sides and false or removable bottom separate from the boiler.

Letters of like name and kind refer to like parts in each of the figures.

My invention has for its object an increase in the efficiency, convenience, and durability of a class of devices used for boiling and cleansing soiled clothing; and it consists, principally, in the arrangement, upon or within the inner side of the boiler, of a tube for receiving the drippings from the cover and conveying the same beneath the false bottom, substantially as and for the purpose hereinafter shown. It consists, further, in the arrangement upon the lid or cover of a drip pipe or opening, through which condensed steam may pass freely into the interior of the boiler, substantially as and for the purpose hereinafter set forth. It consists, further, in the inner walls, which form the overflow pipes or passages, when the same are made detachable, substantially as and for the purpose hereinafter shown and described. It consists, further, in the peculiar shape of the false or removable bottom, substantially as and for the purpose hereinafter specified. It consists, further, in the V-shaped rib secured upon the lower side of the false bottom, the interior of which communicates through suitable openings in the latter with the space above the same, substantially as and for the purpose hereinafter shown. It consists, finally, in the device as a whole, when its several parts are constructed and combined substantially as and for the purpose hereinafter shown and described.

In the annexed drawing, A represents a boiler constructed of sheet metal, and having,

preferably, a general rectangular form with rounded vertical corners. Secured upon each side A', and extending between the ends A'' of the boiler A, is an inner or false side, B, which extends from a point just below the upper edge, horizontally inward for a short distance, thence downward and outward, and thence downward and slightly inward, as shown in Fig. 3, and finally terminates at a point about three inches above the bottom in an outward and upward curve, which forms a narrow horizontal ledge, *b*. The spaces C left between the inner and outer sides of the boiler, being closed at their upper ends and open at their lower ends, form pipes for the ascending currents of water, which are discharged at the upper end and inner side of each space or pipe through a series of small openings, *c*, that are formed in and through the downward and outward incline of the side B. Resting upon the ledges *b*, and extending between the false sides B and the boiler ends A'', is a false bottom, D, which, transversely, is formed upon a circular line, and, being placed with its concave side uppermost, has its ends inclosed by means of straight vertical strips D'. Communication between the spaces above and below the false bottom is afforded by an opening, *d*, provided in and through said bottom at or near each end, and a series of small openings, *d'*, extending in a row along the transverse center of the same. The small openings *d'* are partially inclosed beneath by means of a V-shaped trough, E, which is placed directly below the same and secured at its ends to or upon the lower side of the false bottom. A narrow space left between the sides of the trough and the false bottom permits water to pass freely into or from the former. The upper side of the device thus constructed is inclosed by means of a cover or lid, F, which consists of a plain sheet of metal, made slightly convex upon its upper side, and protected and strengthened at its upper edges by folding said edge over wire, in the usual manner. The cover F rests upon a ledge or rib, *a*, that is formed upon and extends around the sides and ends of the boiler at a point immediately above the false sides B, so that a considerable space is left between the upper side of said cover and the upper edge of said boiler. A detent, G, having the form shown, is hinged

to or upon the upper edge of each end of the boiler, and when turned downward and inward bears upon and locks the cover in place.

The device is now ready for use in the following manner: A suitable quantity of suds being supplied to the boiler, the soiled clothing is packed closely upon the false bottom, so as to substantially close the water and steam communication between the upper and lower parts of said boiler. Upon causing the water to boil the pressure of steam within the lower part of the boiler will force the water upward through the side spaces, from whence it will pass inward and downward upon the upper side of the clothing, and through the latter downward to its former position, having during such operation removed and carried downward a portion of the dirt that was contained within said clothing.

The peculiar shape of the false bottom causes the water to flow laterally outward and upward with ease and facility, while the addition of the V-shaped rib or trough causes an equal division of said water and a better result to be produced than would otherwise be practicable.

In order to permit the interior of the boiler to be easily and thoroughly cleansed, the false or inner sides are constructed separately, and are attached to or upon the real sides by means of suitable wings B', which extend outward and engage with corresponding flanges b' secured to or upon the side A'.

The condensed steam which gathers upon the upper side of the cover, instead, as heretofore, of dripping downward outside of the boiler, is prevented from escaping outward by means of the upward projecting sides of the latter, while any accumulation of water is avoided by means of an opening, f, which is formed within one end of said cover, and communicates with a short pipe, f'. When the cover is in place the lower end of the pipe f' passes into the upper end of a pipe, H, which is attached to or upon the end of the boiler, and extending downward has its lower end contained within a funnel-shaped cup, I, also

attached to said boiler end, the arrangement of said pipe H and cup being such as to cause the latter, when filled with water, to form a trap, which cuts off steam or air communication between the interior of said boiler and the open air through said pipes f' and H.

The advantage of this arrangement is the facility afforded for the passage of condensed steam from above the cover to the interior of the boiler without permitting the escape of steam.

The device is now complete, and is believed to possess, in a marked degree, efficiency, ease, and thoroughness of operation, combined with such simplicity of parts as to render its cost comparatively small.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the boiler A and cover F, provided with the opening f and tube f', the pipe H and cup I, substantially as and for the purpose shown.

2. The detachable inner sides or walls B, when constructed separate, as shown, and combined with the boiler A by means of the wings B' and flanges b', substantially as and for the purpose set forth.

3. The false or movable bottom D, constructed in the form seen, and combined with the boiler A and false sides B, substantially as and for the purpose shown and described.

4. The combined dividing-rib and steam-trap E, constructed as shown, and combined with the false bottom D, substantially as and for the purpose specified.

5. The hereinbefore-described device as a whole, when its several parts are constructed and combined to operate substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of December, 1872.

ANTHONY SLUTHOUR.

Witnesses:

W. J. BELL,

F. H. SMILEY.