No. 621,392. Patented Mar. 21, 1899.

J. B. UPHAM.

STEAM WASHER.

(Application filed Apr. 15, 1898.)

(No Model.)

Fig. 1

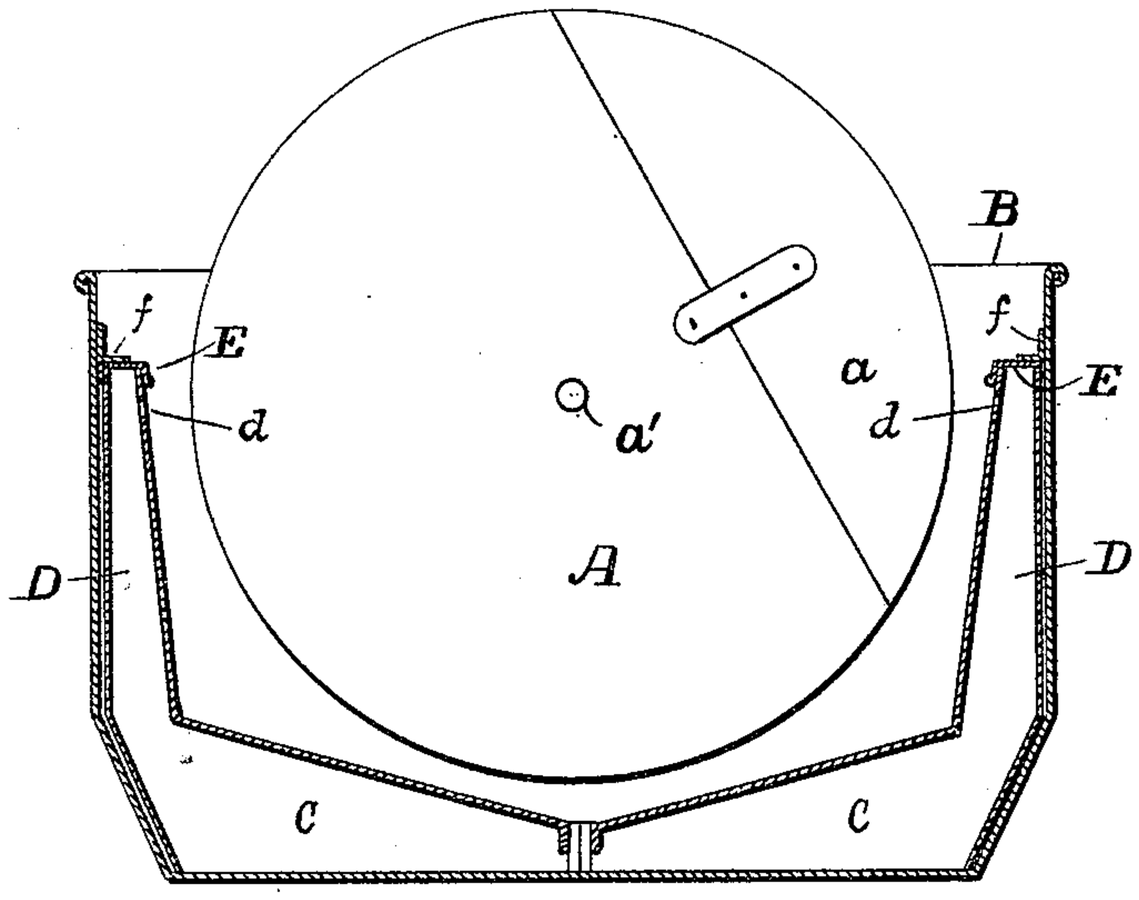
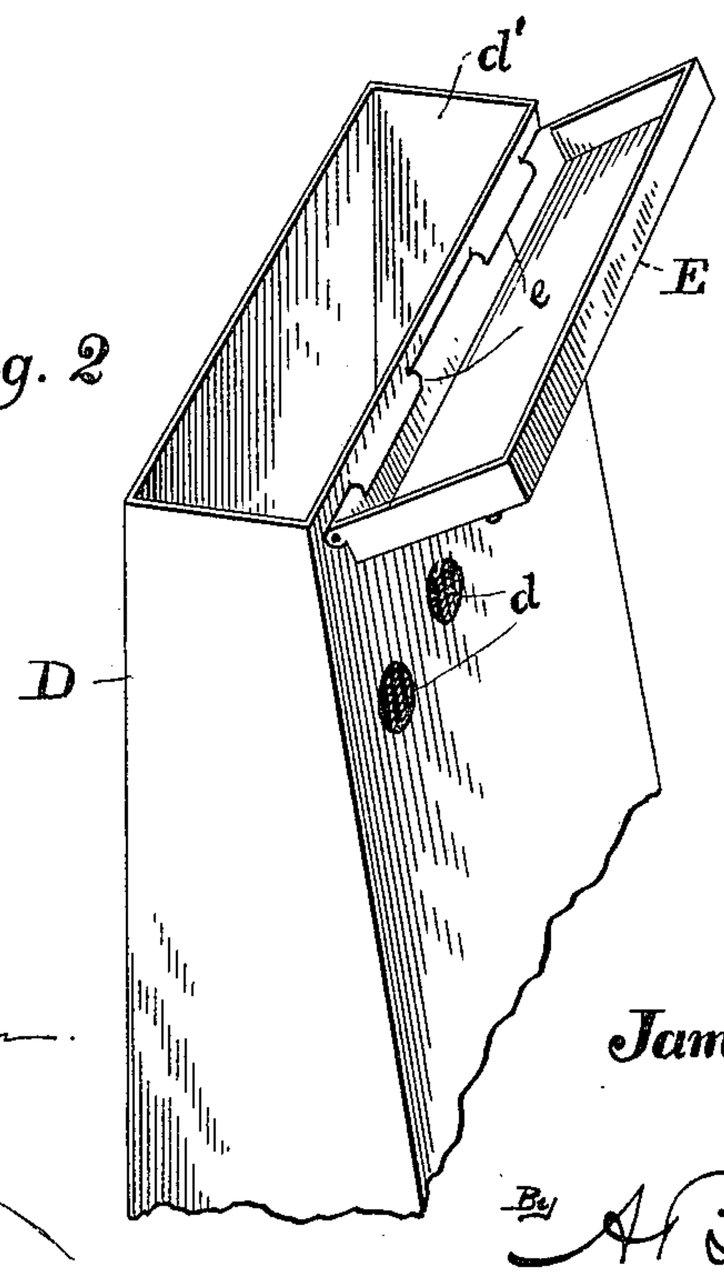


Fig. 2



Attest:

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UNITED STATES PATENT OFFICE.

JAMES B. UPHAM, OF MALDEN, MASSACHUSETTS.

STEAM-WASHER.

SPECIFICATION forming part of Letters Patent No. 621,392, dated March 21, 1899.

Application filed April 15, 1898. Serial No. 677,662. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. UPHAM, a citizen of the United States, residing at Malden, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Steam-Washers, of which the following is a full, clear, and exact description.

This invention is in the line of washing-machines wherein the garments to be cleansed are placed in a skeletonized cylinder adapted to be revolved in the path of a jet of boiling water and steam. In the best forms of such washers the cylinder is mounted in a receptacle substantially similar to an ordinary washboiler and the cleansing-jets are obtained by means of removable false bottoms provided with upwardly-reaching spouts whose discharge-openings are directed toward the laundry-containing cylinder. One great difficulty with washers of this kind has been in efficiently cleaning the working parts of the machine itself after the washing has been completed. To remedy this defect, some inventors have made the false bottoms removable in order to better remove therefrom the tenacious layers of greasy dirt adhering to the surfaces. Others have still further improved upon this by making the upper ends of the spouts separate from the spout-bodies, and hence capable of being withdrawn to give a straight clear passage through the spouts for insertion of a stick or brush whereby to thoroughly clean the same. The removal of these spout ends has, however, proved to be an exceedingly difficult thing for the laundress to ordinarily accomplish. The spouts being usually slightly apering in form, the ends become so wedged thereon that it is almost impossible to get them off. Added to this difficulty inherent in such construction is the further adhesive effect caused by the tenacious layers practically welding together the surfaces of the spouts and their ends. As instances of steam-washers possessing such applied spout end I would refer to patents issued November 10, 1885, No. 330,292, and September 7, 1886, No. 348,543. It is to the obviation of such difficulties as above enumerated that I have invented the construction of steam-washer herein set forth.

Referring to the drawings forming part of this specification, Figure 1 is a longitudinal vertical section of a steam-washer embodying my improvements. Fig. 2 is a perspective view, upon nearly a full-size scale, of the part including my improvement.

As illustrated in Fig. 1, A is the cylinder, having the segmental cover *a* for the insertion and removal of the washing, and whose periphery is supposed to be skeletonized in the usual manner. Said cylinder is revoluble upon a shaft *a'*, having its bearings in the sides of the washboiler B, said shaft being provided with the usual means for its rotation.

The false bottoms C C, made easily removable for cleansing, as above stated, are formed with the vertical spouts D D extending upward adjacent to the boiler ends. In the faces of these spouts, at the sides toward the cylinder A, are the perforations *d*, through which the jets of boiling water and steam are impelled against the garments moving past them in the cylinder. In previous constructions said discharge-openings have been formed in the sides of the removable caps or ends; but I make them in the sides of the spouts themselves, as shown more clearly in Fig. 2.

At the open end of each spout D, I hinge a shallow cap E, adapted to fit tightly about said end and close the same water-tight. By having the hinge *e* at the side of each spout facing the cylinder A, I am enabled to retain said cap securely in place without any special fastening. I accomplish this in the following manner:

To keep the false bottoms in position, small brackets *f* are riveted or otherwise made fast to the ends of the boiler B, as shown in Fig. 1. There is sufficient flexibility in the said false bottoms and their spouts to permit them to yield slightly in order to permit the ends of the spouts to be pressed in under said brackets. By having the cap-hinges *e* at the one edge of each and the brackets *f* at the other edges said caps are retained tightly closed without other fastening.

As will be evident upon inspection of Fig. 1, there is nothing to interfere after the caps have been thrown back with the insertion of a cloth-covered stick or a brush entirely through the spouts, and their inner surfaces being thereby thoroughly cleaned. Further, the

caps E being very shallow their inner surfaces are equally convenient of access and can be most readily rubbed clean.

In the construction of caps illustrated in the patents above referred to their depth and inconvenience of access were such as to make their cleansing exceedingly difficult, so that the shallow form of cap which I have devised remedies another bad defect.

A further improvement is seen in the fact that the caps E, being hinged to the spouts D, are thereby rendered incapable of being displaced and lost during the intervals of non-use. This is another marked point of improvement over the removable ends of earlier machines.

What I claim as my invention, and desire to secure by Letters Patent, is as follows, to wit:

In a steam-washer of the kind set forth, the combination of the boiler having the brackets fixed within the ends thereof, the false bottoms fitting in the lower part of said boiler and provided with the upwardly-rising spouts having the lateral discharge-openings, and the shallow caps hinged upon the open ends of said spouts, said parts being so arranged that said false bottoms are held in place and said shallow caps kept tightly closed by being pressed beneath said brackets, while the shallowness of said caps enables them to be easily opened and thoroughly cleansed after being released from the control of said brackets and the said false bottoms removed, as set forth.

In testimony that I claim the foregoing invention I have hereunto set my hand this 12th day of April, A. D. 1898.

JAMES B. UPHAM.

Witnesses:
MARY U. UPHAM,
A. B. UPHAM.