A. J. HARMON.

Clothes-Pounders.

No. 166,458. Patented Aug. 10, 1875.

Fig. 1

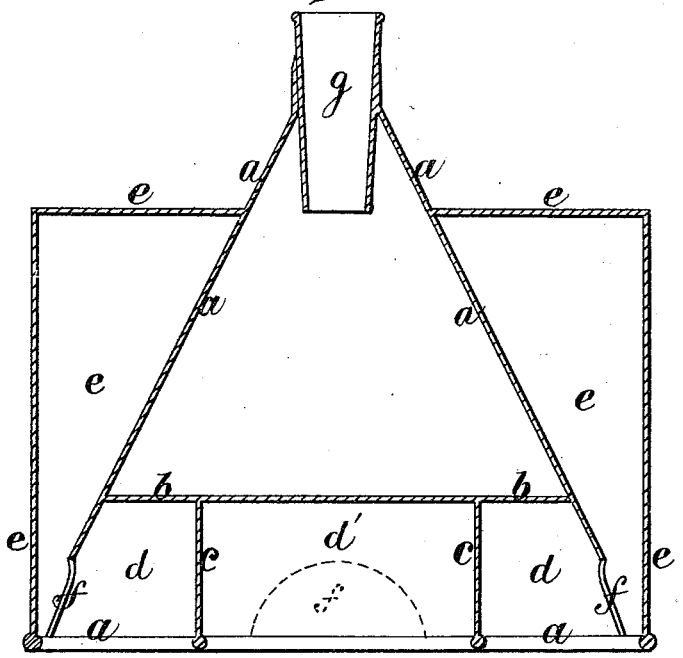
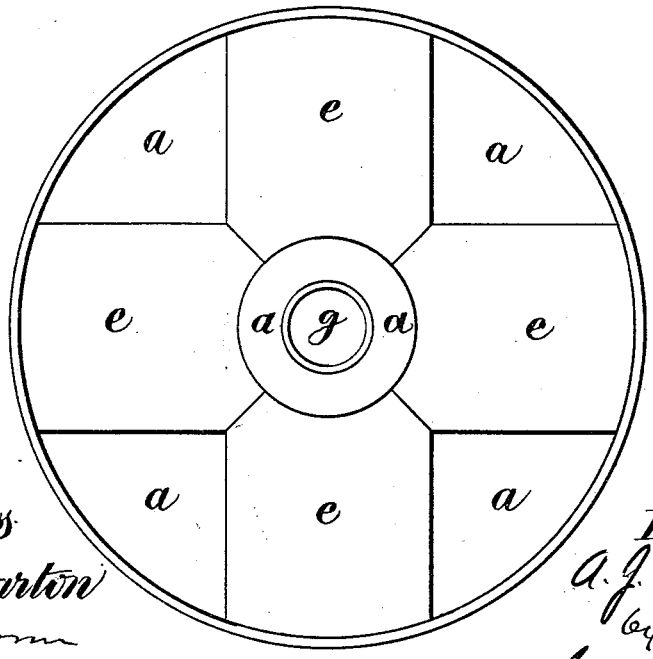


Fig. 2



Witnesses
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UNITED STATES PATENT OFFICE.

AMBROSE J. HARMON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN CLOTHES-POUNDERS.

Specification forming part of Letters Patent No. **166,458**, dated August 10, 1875; application filed November 28, 1874.

To all whom it may concern:

Be it known that I, AMBROSE J. HARMON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain Improvement in Washing-Machines, of which the following is a specification:

Figure 1 of the accompanying drawings is a central vertical section, and Fig. 2 is a top view, of my improved clothes-washer.

The present invention relates to a certain new and useful improvement in that class of clothes-washers arranged to operate vertically in a tub or other receptacle of boiling water containing the articles to be washed, and produce the required pneumatic and hydrostatic action by which the articles are cleansed, as represented more particularly in the United States Patent No. 136,038, granted February 18, 1873, to Heman D. Crooker.

The object of my improvement is mainly to obviate the annoyance, trouble, and loss of time heretofore occasioned in this class of clothes-washers by the necessity of raising out of the water and reinserting therein in a vertical position the washer whenever it was tipped and the effective required action thereby destroyed. To effect this end my improvement consists in a series of air boxes or chambers formed on the outside or inside, and opening at the bottom of a cone-like frustum or other suitably-shaped open-bottom body, having a top socket, or otherwise arranged to receive a handle, all of which I will now proceed to describe, and point out in the claim.

In the drawings, *a* represents a body or washer, of tin or other metal or other suitable material, of a cone-like or frustum shape, open at the bottom, and having, at a proper distance from the bottom, a horizontal partition, *b*, or closed top. Depending from the partition *b*, and reaching to the bottom of the body *a*, is a circular partition or ring, *c*, of such diameter as to leave sufficient spaces, *d d'*, for the action of the articles to be washed, to break up their surfaces to admit of their better agitation. The top of the body *a* is formed with a vertical socket, *g*, or otherwise arranged to receive a proper handle. Extending at right angles with one another, or otherwise projecting outward from or near the top and downward to the bottom of the body, or, if preferred, inwardly from the bottom and upward to or near the top, are air boxes or chambers *e*, closed on all sides except at the bottom of the interior or body periphery or sides, where semicircular or other shaped apertures, *f*, for the admittance of air are formed.

These boxes or chambers *e*, I have found by experience, act as auxiliaries to the main washer or body, and effectually prevent any interruption of the washing operation heretofore occasioned by the tipping of this class of washer as previously constructed.

The operation of my invention is as follows: When the apparatus is first pressed down upon the clothes in a wash-tub containing also water, a portion of the air in all the chambers is forced out and its place taken by water, and when the apparatus is again lifted the water within the chambers is raised above the level of that outside and above the clothes, so that on again depressing the machine the water in the chambers is forced violently through the clothes by the elasticity of the air in the upper portions of the chambers, the water from the air-chambers *eeee* being forced inward through the openings *ffff*. Now, if the machine should be tilted to one side, so that the edge projects above the water in the tub, of course the elevated water in the chamber *e* on that side will drop out; but, as the different air-chambers are entirely separate from each other, such an accident to one chamber does not affect the others, and only slightly interferes with the work of washing.

As my machine is intended for operation by hand, as well as by a lever, it will readily be seen that tilting is quite likely to occur.

Having thus described my improvement, what I claim as my invention, and desire to have secured to me by Letters Patent, is—

The conical body *a*, having partition *b*, ring *c*, and annular chamber *d*, in combination with radial air-chambers *eeee*, closed at their tops, but having openings *ffff* into said annular chamber, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

AMBROSE J. HARMON.

Witnesses:

SAML. M. BARTON,

C. V. BROWN.