

HENRY A. GASTON.

Improvement in Washing-Machines.

No. 114,126.

Patented April 25, 1871.

Fig 1.

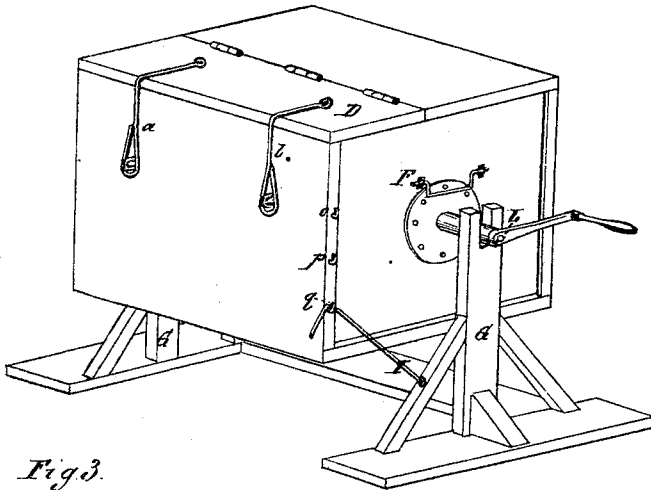


Fig 3.

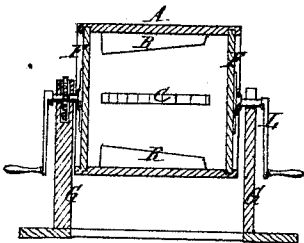


Fig 2.

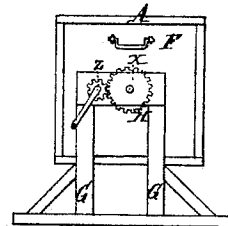


Fig 4.

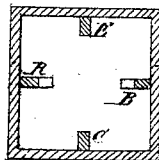


Fig 5.

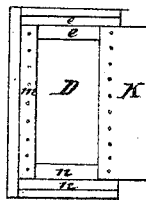


Fig 6'

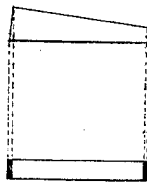


Fig 6''

Fig 7.



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UNITED STATES PATENT OFFICE.

HENRY A. GASTON, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **114,126**, dated April 25, 1871.

To all whom it may concern:

Be it known that I, HENRY A. GASTON, of the city and county of San Francisco, in the State of California, have invented a new and Improved Machine for Washing Clothing, and for other useful purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which is made a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view of one end and side of my machine as sometimes prepared. Fig. 2 is its opposite end view as sometimes made. Fig. 3 is a vertical, central, and longitudinal view of the same, showing a simple crank at one end and a crank with gearing attached at its opposite end. Fig. 4 is a transverse central vertical view. Fig. 5 represents the inner side of its cover or lid. Figs. 6¹ and 6² represent obstructions, shelves, or rubbers attached to different sides within the machine, and Fig. 7 the front fastenings of the cover to its position on the box or machine when it is closed.

The same letters refer to like parts of the machine in all the figures, in which—

A represents a cubical, cylindrical, or oblong water-tight rotating box, suspended upon a frame, G G G z z, from the centers of its respective ends by the gudgeons H and L. B, C, E, and R represent buckets, shelves, pegs, or equivalent obstructions placed within and firmly attached to the internal surface of the rotating box or cylinder A. D represents a movable portion of one of the sides of the box A, and is attached to such box at its central edge by means of common hinges or their equivalent, and at its opposite or outer edge by means of the long hinges a b, terminating in loops which fit over staples prepared to receive them on the front side of the box. The under or inner surface of this cover D is cased with the pieces of wood k l m n, the part k passing immediately beneath the remaining portion of its side of the box A, so that when the lid is closed the edges of the box being packed with cloth or other suitable material, the box at that point is made water-tight by this novel contrivance.

X and Z, Fig. 2, represent spur-gearing, of

different sizes, which I use upon the larger machines, by which contrivance a small child is enabled to work the machine with ease.

To enable others skilled in the art to make and use my invention, I will proceed more fully to describe its construction and operation.

I construct a cubical, cylindrical, or oblong water-tight box, as above stated, making a part of one side of the same consist of the cover D, the inner side of which lid is seen at Fig. 5, the lid being attached to its place in the box, as above stated. At any desired places upon the inner rotating surfaces of the box I fix the immovable shelves, buckets, pegs, or equivalent obstructions E B C R, one or more on each side. (Seen in Figs. 3 and 4, 6¹ and 6².) These obstructions I attach to the box in such a manner as to leave a free passage of water between one or both of their ends and the ends of the box, by which contrivance, when the machine is in operation or being rotated, the water readily escapes, while the clothing is lifted above the water to a certain point, when it is again thrown into it and beaten, &c. I also sometimes provide the box with the handles F F for the convenient carrying and lifting of the machine. I also provide the hook I, which I attach at one end to the frame or to some other stationary object, and hook the other end into the loops or staples o, p, and q, by which contrivance I hold the front of the box at any desired angle when it is desirable to get at the interior of the box.

The box, with its attachments, I suspend upon a frame by gudgeons attached to it, as seen at H and L, Figs. 2 and 3; and one of these gudgeons, and sometimes both, I provide with a crank or cranks for rotating the box, as seen at L; and when I desire to make the work of rotating the box with its contents very easy, I add the spur-gearing seen at the end of the box in Fig. 2.

Now, suppose the space within the box A to be a cube of two feet square, and that the buckets B E R C be placed ten inches from the preceding contiguous sides of the box, that they be one and one-half inch thick and from three to six inches in height; and, further, suppose that box, being one-fourth filled with water, clothing, and the necessary soaps,

it be turned by its crank in the ordinary direction, the clothing or other material will, as the box is turned, be carried up by *c* to or above the point where *R* now is, when gravity will force it down fourteen inches, just in front of *B*, which will strike it with great force and carry it up again to where *R* now is, while the latter bucket will have advanced to the positions, respectively, of *E* and *B*, each bucket successively performing the same striking and rubbing office. At the same time, there being free egress for the water between one or both ends of the buckets and the ends of the box, the water is not carried up on the buckets, but remains in the lower part of the box, and into it the clothing or other material is being precipitated, pounded, rubbed, and forcibly taken from it four times (or less, if desired) at each revolution of the box.

When I desire to use the machine for a churn

I perforate the obstructions *R E B C* with orifices of any desired size.

I sometimes suspend the box *A*, with its several attachments, from its opposite extreme corners, but prefer suspending it from its ends, as shown in Figs. 1, 2, and 3.

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

The box *A*, buckets *B C E R*, so placed as to leave intervals between their extremities and the ends of the box, and the strips *l m n K*, the latter being located so as to overlap the joint of the cover *D*, when all these parts are constructed and arranged to operate as described.

HENRY A. GASTON.

Witnesses:

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