N. H. LONG.
Clothes-Washer.

No. 199,455. Patented Jan. 22, 1878.

Fig. 1.

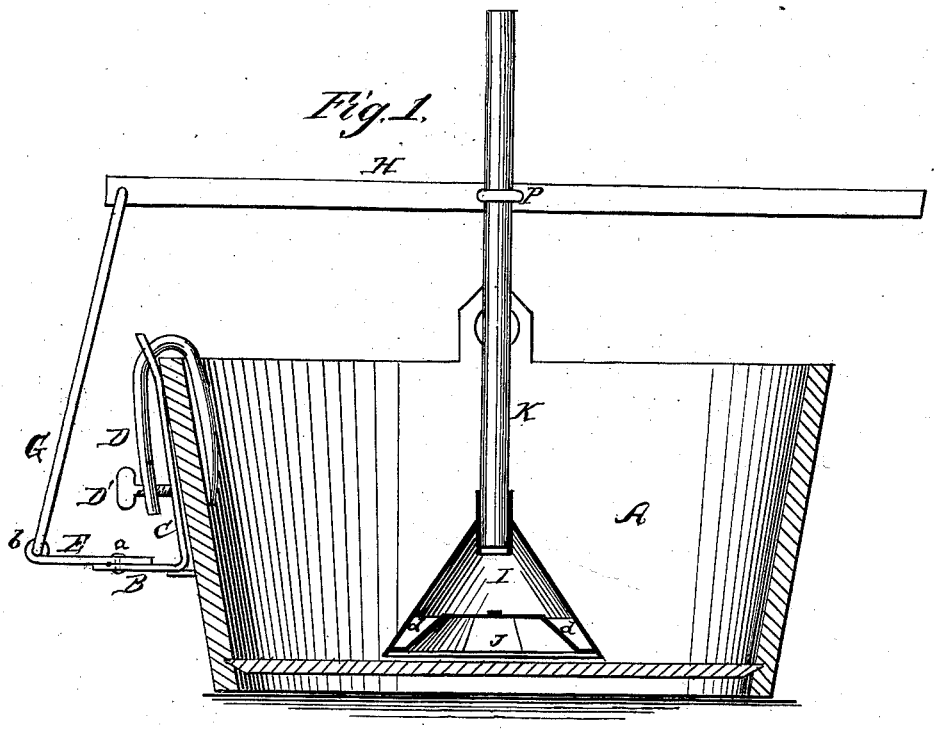


Fig. 2.

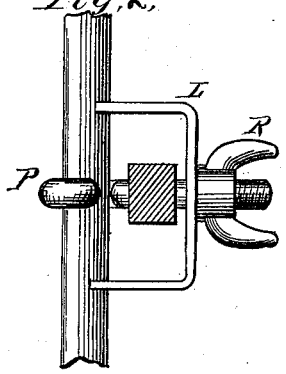
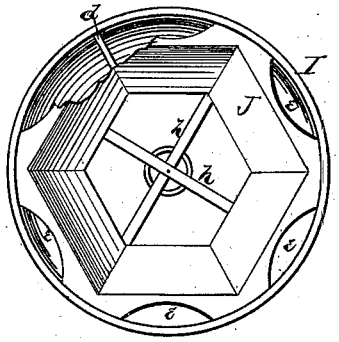


Fig. 3.



Witnesses:
H. C. McArthur,
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UNITED STATES PATENT OFFICE.

NATHAN H. LONG, OF MUNCIE, INDIANA, ASSIGNOR TO HIMSELF, JOHN MARKS, AND PHILIP F. DAVIS, OF SAME PLACE.

IMPROVEMENT IN CLOTHES-WASHERS.

Specification forming part of Letters Patent No. **199,455**, dated January 22, 1878; application filed November 10, 1877.

To all whom it may concern:

Be it known that I, NATHAN H. LONG, of Muncie, in the county of Delaware and State of Indiana, have invented certain new and useful Improvements in Clothes-Washers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of my invention consists in a wash-tub clothes-washer constructed with a pounder in the form of an inverted cone, its inner surface having attached to it a flanged rim having partitions and hot-air outlets on the outer edge of the cone. To one edge, down on the side of the tub, is attached a fastening device, so constructed that it can be attached to and removed from the tub at will. The fastening extends down the side and out from the tub in the form of an elbow. On the arm extending out from the tub is a pivot and a swivel-hinged plate, to which is attached the vibrating fulcrum, to which is pivoted the operating-lever carrying the vertical shaft of the washer, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a central vertical section of a tub, showing a side elevation of my invention, with a central section of the washer. Fig. 2 is a detail view of the device for attaching the stem of the washer to the operating-lever. Fig. 3 is a bottom view of the washer.

A represents an ordinary wash-tub, to which is attached the elbow B C by means of the clamp D. The arm B of the elbow extends out from the tub, while the arm C extends along the side to and above the same. In the upper end of the arm C is a small hole, through which passes the clamp D. One end of the clamp passes down inside the tub, and the other arm on the outside of the part C, and all secured by a thumb-screw, D′.

To the extended or projecting arm B of the elbow, at *a*, is pivoted a plate, E, to the outer end of which is hinged the vibrating fulcrum G, the upper end whereof is jointed to the operating-lever H. By means of the pivoted plate E and the hinge at *b* for the fulcrum, said fulcrum and operating-lever may be vibrated or moved so as to bring the washer to any point in the wash-tub.

The washer I is constructed of sheet metal in the form of a cone. On the inner side of this cone is attached a flanged rim, J, with partitions *d* and hot-air outlets *e*. Across the central open space are braces *h*. The upper portion of the cone, above the flanged rim J, forms a hot-air reservoir.

When the washer is pressed down on the clothes by the operating-lever in the process of washing, the hot air and steam are forced up in the reservoir, and then down and out through the openings *e* between the partitions *d*.

The rim J and braces *h* form, as it were, a shallow chamber inside of the cone, into which the clothes enter when the washer descends, so as to fill the same completely, and thereby force the hot air and steam upward into the hot-air reservoir, and then down through the openings *e*. These openings are simply formed by cutting out portions of the flange of said rim J, as shown in the drawing.

Attached to the washer I is a vertical shaft, K, which is connected to the operating-lever H by means of a clamp, L, hook-bolt P, and thumb-nut R, as shown. This connecting device can be adjusted up and down on the shaft K, and, when fastened at any point, the lever H is pivoted on the bolt P in the clamp or loop L.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The cone washer I, provided with an interior circumferential flanged rim, J, having openings *e e* cut in the flange, and bars or braces *h h* running across the top of the rim, whereby a chamber is formed, which is filled with the clothes as the washer descends, substantially for the purposes herein set forth.

2. The combination of the clamp D with thumb-screw D′, elbow B C, pivoted plate E, hinged fulcrum G, and operating-lever H,

substantially as and for the purposes herein set forth.

3. The loop L, hook-bolt P, and thumb-nut R, in combination with the operating-lever H and washer I, with stem or handle K, substantially as and for the purposes herein set forth.

4. In combination with a wash-tub, the device B C E, clamp D, fulcrum G, operating-lever H, connecting device L P R, and washer I, with stem K, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NATHAN H. LONG.

Witnesses:

JOHN MARKS,

WILL H. M. COOPER.