

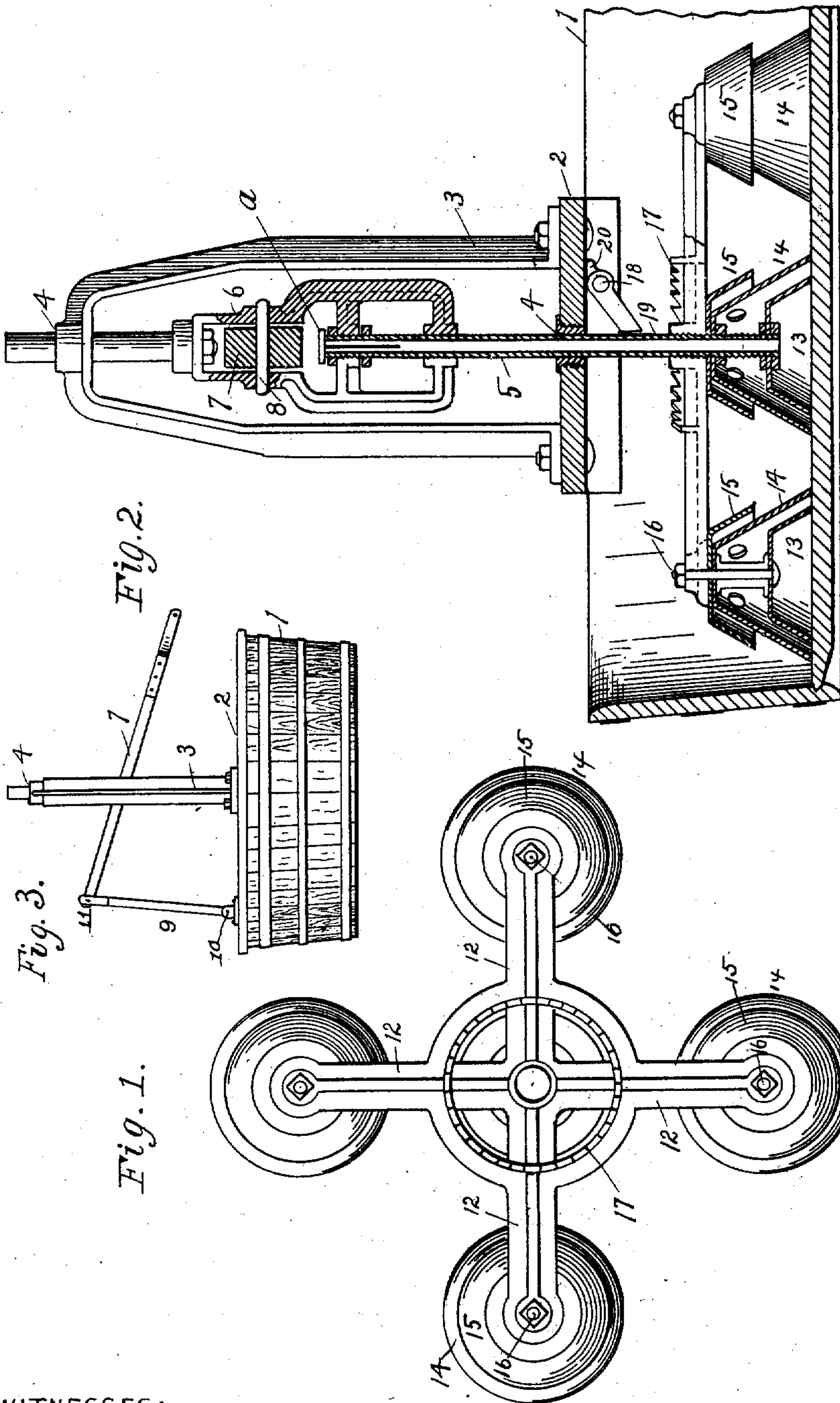
No. 652,552.

Patented June 26, 1900.

I. N. THOMAS.
WASHING MACHINE.

(Application filed June 3, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

ISAAC N. THOMAS, OF LIMA, OHIO.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 652,552, dated June 26, 1900.

Application filed June 3, 1899. Serial No. 719,192. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. THOMAS, a citizen of the United States, residing at Lima, Allen county, Ohio, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to and its object is to provide a cheap and efficient washing apparatus which may be applied to the common washtub in general use. This object is attained by means of the devices and arrangement of parts hereinafter described, and shown and illustrated in the accompanying drawings, made part hereof, in which—

Figure 1 is a top plan view of the pounders, hereinafter referred to, detached; Fig. 2, a central vertical elevation of my device, partly in section; and Fig. 3, a side elevation of my machine seen at a right angle to the point of view in Fig. 2.

Like numerals of reference indicate like parts throughout the drawings.

In the drawings, 1 is a washtub.

2 is a stout board or plank of sufficient length to rest with its ends upon the upper margin of the tub. Across the middle of the plank is an upright housing 3. Through the housing and through the plank, in vertical alinement, are holes 4, in which slides vertically a staff 5, the holes 4 serving as guides for the staff. Included in and serving as part of the staff is a stirrup 6, having an opening therethrough in the direction of the length of the plank 2. Through the stirrup 6 passes a lever 7, which by means of pin 8 is pivoted to the stirrup. At one end of the plank is a vertical bar 9, pivoted at bottom, as at 10, to the plank and pivotally connected at top, as at 11, to the lever 7.

Near to the bottom of the staff 5 are secured two bars, which cross each other at right angles. Beneath the outer extremity of each of these cross-bars and at the point where they cross each other is a pounder. Each of these five pounders consists of three sheet-metal funnel-shaped concentric shells, the inner one 13, the middle one 14, and the outer one 15, all being rigidly secured in place to the cross-arms by means of bolts 16 or equivalent means. The inner shells 13 are closed, except at bottom. The intermediate shells 14 are also open

at bottom and have openings therethrough near their top. The outer vessels 15 are open only at bottom, as indicated in section in Fig. 2. Resting upon and secured to the four cross-arms is a circular rack or ratchet, having for its center the staff 5. Pivotally secured to the under side of the plank 2, as at 18, is a pawl 19, having a stop 20. The pawl hangs normally directly above the ratchet 17. It is obvious that the arrangement of the pawl and ratchet may be varied without departing from my invention provided their action is at the end of the upstroke of the staff and its load.

It is designed that the cross-bars 12 and the pounders secured thereto shall be revoluble horizontally. This may be accomplished either by mounting the cross-bars loose horizontally upon the staff or by securing the cross-arms rigidly to the staff and suspending the lower part of the staff 5 from the stirrup 6, as at 6^a.

The operation of my device is as follows: Assuming that the plank 2 is in place, with its ends upon the top of the tub, and that there are in the tub water and the clothes to be washed, the operator lifts the lever 7, which carries with it the five pounders. At the upper end of the stroke the circular ratchet comes in contact with the pawl, and as the lever is raised still farther the pawl pushing upon the rack causes the cross-bars carrying the pounders to swing horizontally. Thus at each upward stroke the series of pounders are caused to describe a small part of a revolution, so that the pounders will at each downstroke fall in a new spot, thus insuring the distribution of the action of the pounders over the entire surface of the clothing. As the pounders press upon the wet fabric the air is forced into and through the same by the funnel-shaped shells 13 14 15, the water furnishing a seal for the bottoms thereof. When the series of pounders is lifted, the moment the shell 15 rises above the surface of the water the seal and vacuum in the vessels 14 and 15 are broken, and now the pounders may be lifted with but little resistance.

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

In a washing-machine, a board which ex-

tends across the top of the tub, and a pawl
pivoted to a cross-piece on the under side of
the board and provided with a stop 20, which
stop bears against the under side of the board
5 so as to hold the pawl in an operative position,
combined with a vertically-moving staff, cross-
arms secured to the staff, pounders secured
to the cross-arms, and a circular ratchet placed
upon the tops of the cross-arms, and which

ratchet, as the staff is raised, is brought into 10
operation with the pawl toward the end of the
upstroke of the staff; and a mechanism for
operating the staff, substantially as specified.

ISAAC N. THOMAS.

In presence of—

WILBER A. OWEN,
L. E. BROWN.