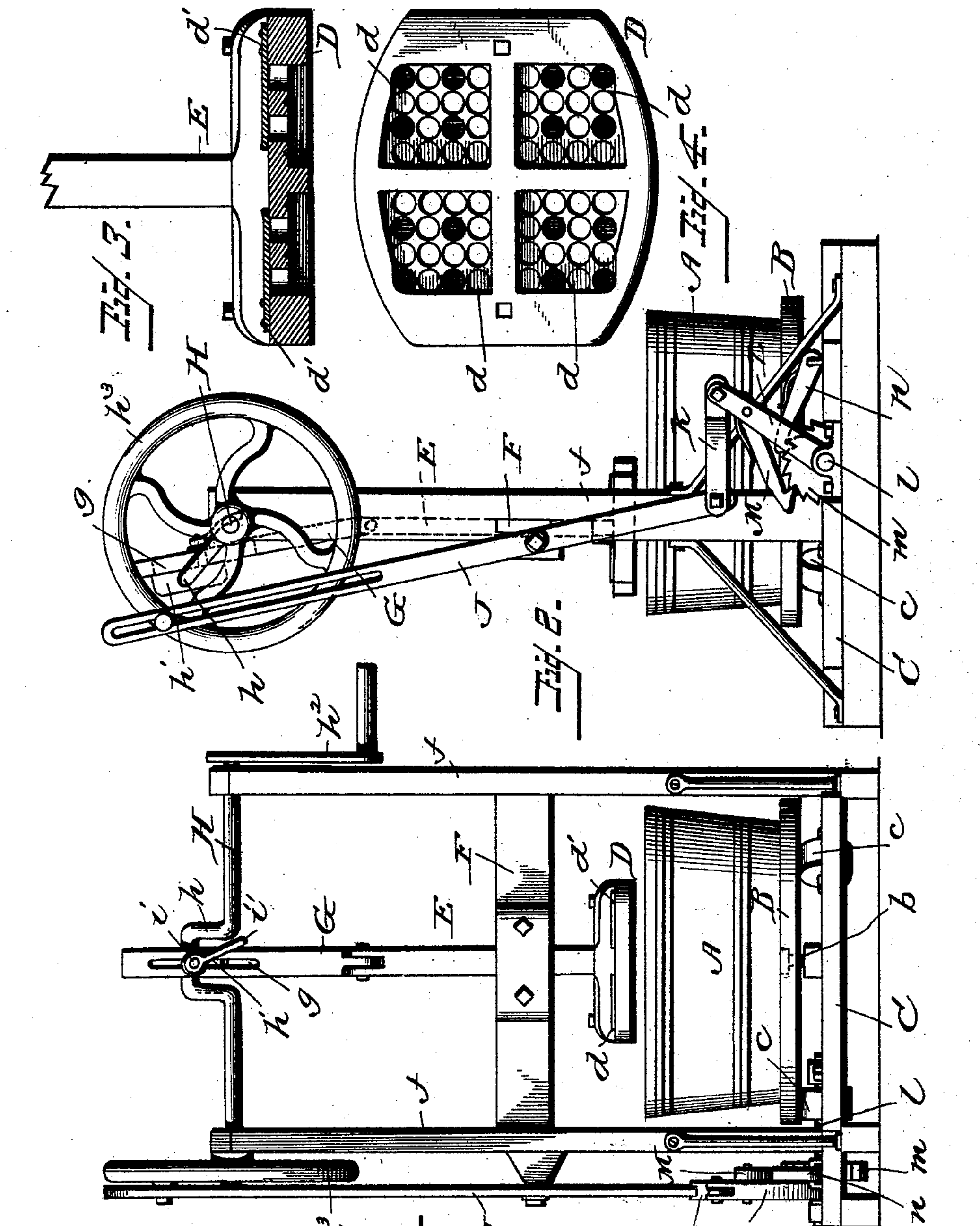
(No Model.)

R. H. WILSON.

WASHING MACHINE.

No. 496,763. Patented May 2, 1893.



Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT H. WILSON, OF BAGGS, WYOMING.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 496,763, dated May 2, 1893.

Application filed January 6, 1893. Serial No. 457,434. (No model.)

To all whom it may concern:

Be it known that I, ROBERT H. WILSON, a citizen of the United States, residing at Baggs, in the county of Carbon and State of Wyoming, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to machines for washing clothes and aims to provide a washer that shall be simple in structure, easy of operation, and while being thoroughly efficient and expeditious in use, not damaging to the clothes.

To these ends and to such others as the invention may pertain, the same consists in the washing-machine having the construction and combination of parts hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my machine. Fig. 2, is an elevation, from a point at right angles to the point of view in Fig. 1, and Figs. 3 and 4, are detail views, which will be more particularly hereinafter referred to, the former a vertical section, and the latter a bottom plan of the pounder.

Generally stated, my invention comprises a receptacle or support therefor adapted to be rotated by a succession of movements, and a vertically reciprocating pounder, together with means for imparting to the latter its motions and to the receptacle its motions, in proper relation to each other. The receptacle may be an ordinary wash tub A, and when such is used, which is preferable, it is placed upon a horizontally rotatable circular turn-table B, pivoted at its center upon a vertical bolt or pin *b* that projects from a platform C. The turn-table B does not rest directly upon the latter, but upon rollers *c*, *c* journaled in openings in said platform. One of the rollers *c* is connected with means to be described, to give the turn-table B, its rotary movement. The pounder D is located at one side of the center of the turn-table B, and consists of a flat body having two round and two straight edges, and in whose lower face are several shallow rectangular cavities *d*, *d*, whose lower faces in turn are roughened by means of a number of shallow recesses. Through each part in which a rectangular cavity is formed, are several perforations extending through to the upper side of the pounder, over which are placed flap valves *d'*. The object of this formation of the pounder, is to cause the clothes to be engaged and lifted thereby on its upward stroke, and thus have their position in the tub changed after each impact of the pounder. The roughening of the bottom of the pounder, it will be seen, is quite important in this connection, as it facilitates the suction necessary for the adhesion of the clothes to the pounder. The valves *d'* close with the upward and open with the downward movement of the pounder. The pounder is attached to the lower end of a vertical shaft or bar E that is held and guided in bearings on a cross-bar F whose opposite ends are securely fastened at about the middle height of two vertical standards *f*, *f*, that rise from the platform C. The upper end of the shaft F is connected by a link G with a crank *h* on a shaft H journaled in boxes on the upper ends of the standards *f*, *f*.

To enable the pounder to be adjusted up and down, the link is adjustably connected with the crank *h* by having on the latter a box or block *h'* to which the link is connected by means of a screw *i*, and hand-nut *i'*, said screw being passed through a vertical slot *g* provided in the link.

On one end of the shaft H is a crank-handle h^2, by means of which the shaft may be rotated, and upon the other end is a fly-wheel h^3.

Pivoted to one of the standards *f* is an arm or bar J, whose upper end is slotted and in engagement with a crank pin on the wheel h^3 and whose lower end is connected by a link *k* with a radial arm L pivoted on a horizontal shaft *l* journaled in bearings on the platform C. On the inner end of the shaft *l* is fixed one of the rollers *c*, and also fixed on said shaft adjacent to the arm L, is a ratchet wheel *m* by which the same is rotated. The rotation of the ratchet-wheel is effected by a pawl M pivoted to and carried by the arm L. As the arm L is loosely pivoted on the shaft, it will be seen that the vibration of the bar J by

the wheel h^3 will rock the arm and cause the pawl carried by it to rotate the ratchet-wheel step by step, and through the latter and the roller c (which frictionally engages the turn-table B), impart a like movement to the turn-table. Backward movement of the turn-table is prevented by a pawl n engaging the ratchet-wheel.

The use of the machine is as follows: The clothes being placed in the tub, and the latter upon the turn-table, the shaft H is turned to place the pounder at its lowest limit of motion. If it does not then rest upon the clothes, it is made to do so by the adjustable connection between the link G and the crank p. The shaft H is then revolved to cause the pounder to reciprocate, and through the mechanism described, to cause the tub to rotate step by step. It is of course understood that the rotation of the tub is effected while the pounder is lifted, and preferably while it is moving upward.

In practice my machine has been found to run very easily, and to be very effective and expeditious in its work and not to subject the clothes to undue wear or injury. If desired, of course the tub A can be replaced by a vessel fixed to the turn-table.

Having thus described my invention, what I claim is—

1. In a washing-machine, the combination of a vertically reciprocable pounder, the horizontal tub-holding turn table, the crank-shaft having an adjustable connection with the pounder, and the mechanism driven from said shaft to rotate the turn-table consisting of the pivoted bar J, having elongated slot receiving a stud on the fly-wheel the pivoted arm L, the pawl carried by the latter, the ratchet-wheel to be moved by said pawl, and the roller connected with the ratchet-wheel and frictionally engaging the turn-table, substantially as described.

2. The combination with the tub, the turn-table mounted on a central shaft, the platform on which the same is supported, and the rollers beneath the turn-table, of a horizontal shaft journaled in bearings on the said platform, said shaft carrying at its inner end one of said rollers, the ratchet-wheel fixed on said shaft, the radial arm L pivoted on said shaft, the link k connected with said radial arm, and the pivoted arm J connected with said link, all substantially as shown and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT H. WILSON.

Witnesses:
CHARLES A. RESCHKE,
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