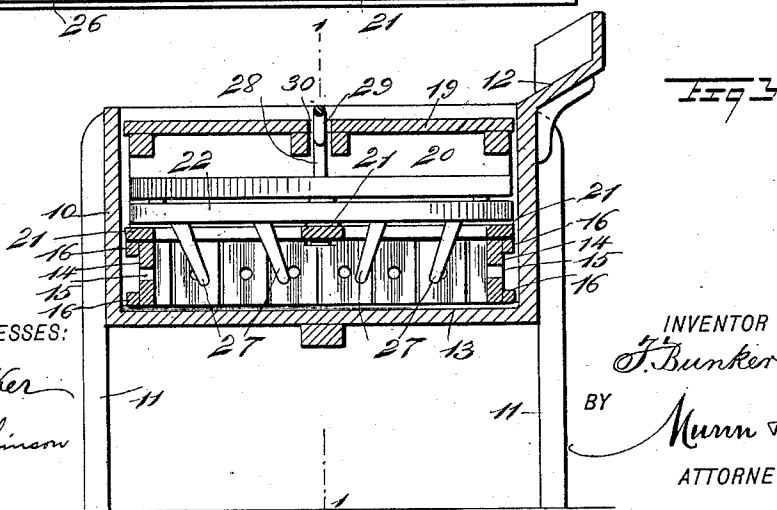
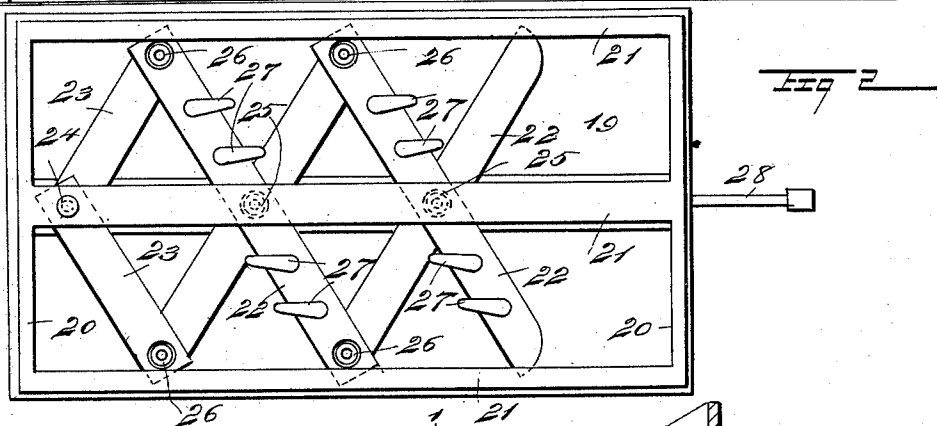
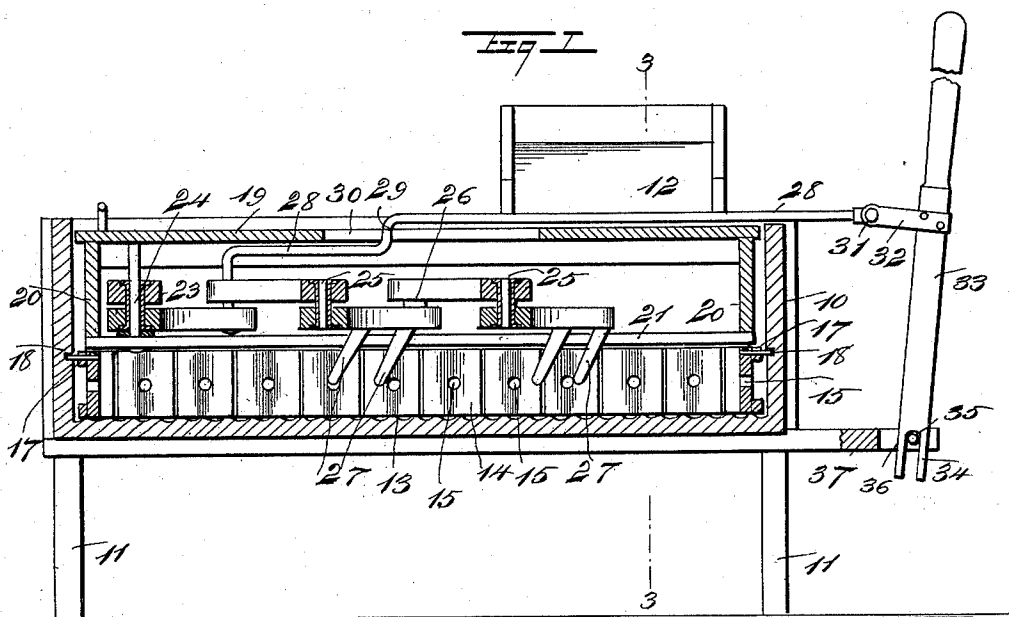


(No Model.)

T. BUNKER.
WASHING MACHINE.

No. 522,877.

Patented July 10, 1894.



WITNESSES:

H. Walker
W. P. Hutchinson

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UNITED STATES PATENT OFFICE.

THOMAS BUNKER, OF WEEPING WATER, NEBRASKA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 522,877, dated July 10, 1894.

Application filed April 4, 1894. Serial No. 506,310. (No model.)

To all whom it may concern:

Be it known that I, THOMAS BUNKER, of Weeping Water, in the county of Cass and State of Nebraska, have invented a new and Improved Washing-Machine, of which the following is a full, clear, and exact description.

My invention relates to improvements in washing machines; and the object of my invention is to produce a very cheap and simple machine, which is provided with a corrugated bottom and removable corrugated sides, which has a simple collapsible and expansible rack, actuated easily by a handle lever and arranged with pins which are placed in such a way that they cause the clothes in the tub of the machine to be revolved around and around and to be thoroughly rubbed against the corrugated portions of the machine, so that they are quickly and thoroughly washed without being in any wise injured.

To these ends my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical longitudinal section on the line 1—1 of Fig. 3, of the machine embodying my invention. Fig. 2 is an inverted plan view of the top portion of the machine; and Fig. 3 is a cross section on the line 3—3 of Fig. 1.

The machine is provided with a tub 10 which is preferably of rectangular shape and is mounted on legs 11. The tub has at the top and on one side an inclined guard board and wringer rack 12 adapted to catch the drippings when clothes are lifted out; and the tub has a corrugated bottom 13 on which the clothes are rubbed, as hereinafter described. If desired the board 12 may be corrugated so that if necessary some small portion of the clothes may be touched up by hand. The tub has within it a frame made up of corrugated sections 14, and the frame is shaped to correspond with the tub and extends around within it near the bottom, the corrugated sections serving to assist in rubbing the clothes. These sections are perforated, as shown at 15,

to provide for a free circulation of water, and they are fastened to rails 16 which hold them in the correct relative positions.

The frame is fastened down by means of latches 17 at its end, which are adapted to enter recesses 18 in the end walls of the tub, as shown in Fig. 1. The tub has a removable top 19 which has, at the end, depending flanges 20, forming supports for the longitudinal guide rails 21 on which moves the expansible and collapsible rack, this being formed of the cross bars 22 and 23, the bars 23 being shorter than the bars 22 and being pivoted to the center rail 21, as shown at 24 in Figs. 1 and 2, while the outer ends of the bars 23 are pivoted to the outer ends of the adjacent pair of bars 22, and these bars 22 are arranged in pairs, as shown clearly in the drawings, the bars crossing at the center at which points they are pivoted together, as shown at 25, and the adjacent pairs are pivoted together at their outer ends, as shown at 26. The bars 22 and 23 form the expansible and collapsible rack and the bars are provided with depending pins 27 which are arranged on opposite sides of the center of the tub, the pins on one side being inclined forward and on the other backward, so that the opening and shutting of the rack cause the pins to engage the clothes and to move them so as to thoroughly rinse them and also rub them well against the corrugated bottom 13 and the corrugated side frame. The rack is provided with a connecting rod 28, which is preferably bent so as to form the pivot of two of the bars 22, as shown in Fig. 1, and this rod is bent upward, as shown at 29, through a slot 30 in the top 19 and is pivoted, as shown at 31, to a clip 32 on the handle lever 33, which is split at its lower end, as shown at 34, and rides on a pin 35 in the split end 36 of the bar 37 which projects outward from one end of the tub 10, but the lever may be pivoted in any other convenient way.

The machine is used by placing the clothes and sufficient water in the tub, then placing the top 19 in position and moving the handle 33 forward and backward. This causes the rack to be alternately closed and opened, and the pins 27, engaging the clothes, move them around within the tub thus thoroughly rubbing and washing them.

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

1. In a washing machine, the combination
5 with a tub, of an expansible and collapsible horizontal rack composed of bars pivoted together and having depending pins, and means for operating said rack, whereby its several bars are shifted, as specified.
- 10 2. A washing machine, comprising a tub having a corrugated bottom, a removable top having an expansible and collapsible rack therein, depending pins on the rack, a handle
15 lever at one end of the tub, and a connecting rod extending from the lever to the rack, substantially as described.
3. A washing machine, comprising a tub having a corrugated bottom, a top having

guide rails suspended from it, a rack held to slide on the guide rails and provided with 20 depending pins, and a lever mechanism for moving the rack, substantially as described.

4. A washing machine, comprising a tub having a corrugated bottom, a top having
25 guideways suspended from it, an expansible and collapsible rack movable on the guide rails, depending pins on opposite sides of the rack, the pins on the two sides being of opposite pitch, a handle lever on one end of the
30 tub, and a connecting rod extending from the lever to the rack, substantially as described.

THOMAS BUNKER.

Witnesses:

THOS. M. HOWORD,
W. H. GATES.