

W. HULL & W. MILLER.
Washing-Machines.

No. 220,620.

Patented Oct. 14, 1879.

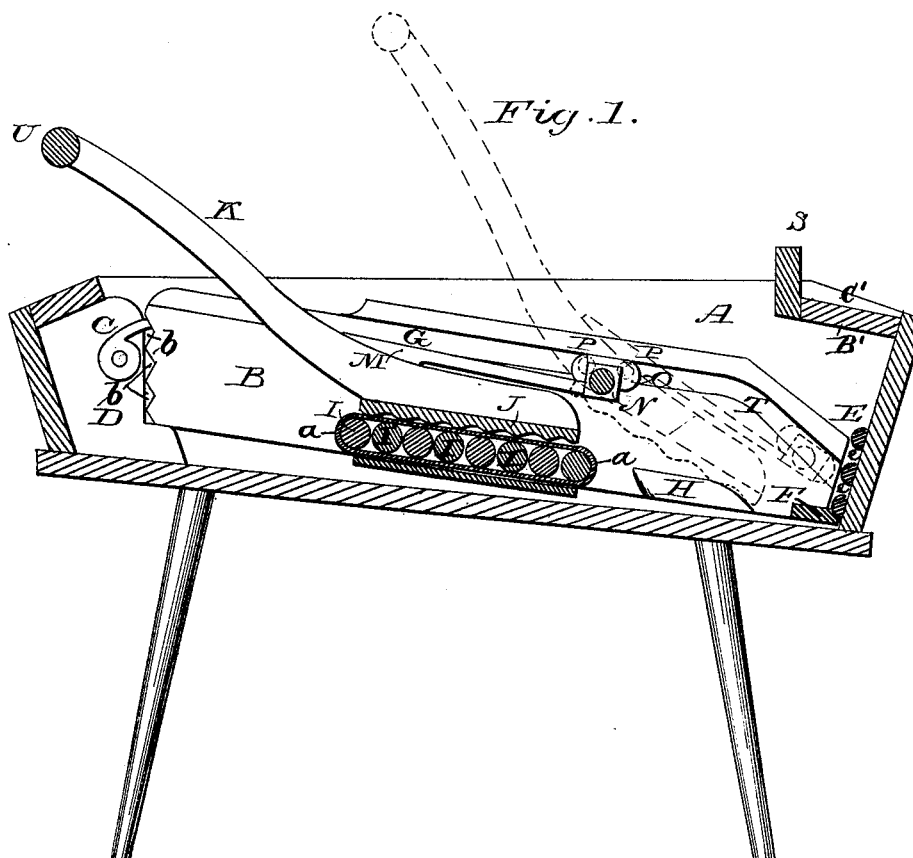
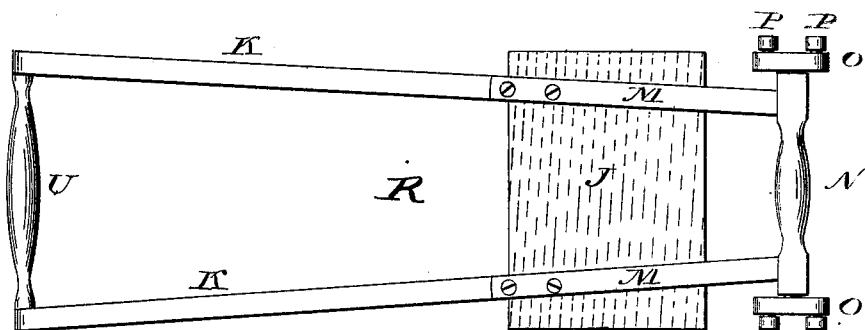


Fig. 2.



Witnesses:

James R. Pleck.
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UNITED STATES PATENT OFFICE.

WESLEY HULL AND WILLIAM MILLER, OF FORT WAYNE, INDIANA; SAID HULL ASSIGNOR TO SAID MILLER.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **220,620**, dated October 14, 1879; application filed August 21, 1878.

To all whom it may concern:

Be it known that we, WESLEY HULL and WILLIAM MILLER, both of Fort Wayne, in the county of Allen and State of Indiana, have invented a certain new and useful Improvement in Washing-Machines; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which like letters represent like parts in different figures, and which form a part of this specification.

Figure 1 is a longitudinal sectional view, and Fig. 2 is a plan view, of the rubber.

This invention relates to that class of washing-machines which are known as "reciprocating rubbers;" and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings, A represents the tub or box, which rests upon suitable legs or supports. At one end of the box, which is preferably rectangular in shape, is arranged a series of horizontal slats, E, between which recesses *e* are formed. At the other end dogs or pawls C are pivoted upon the inside of the sides of the box.

B represents the roller-bed, which consists of a frame having rollers I journaled in its sides. The set or series of rollers is inclosed in an endless apron, *a*, of canvas or other suitable material, the object of which is to prevent the clothes from getting between the rollers in washing. The end of the frame is provided with a projecting strip, F, adapted to fit in any one of the recesses *e* in the tub, and the rear ends of its side pieces are provided with notches or ratchets *b* engaging the dogs or pawls C.

Upon the inner sides of the side pieces of the roller-frame are formed grooves G G, inclined downwardly at the rear end of the frame, as shown at T, and below said inclines are secured beveled blocks H, forming rests for the rubber-frame when not in action, as will be hereinafter described.

R is the rubber-frame, which consists of side pieces K K connected by the handle U, and

by the corrugated rubber or washboard J, which is secured upon the under side of frame R.

On top of the side pieces K are secured flat springs M M projecting beyond the rear ends of said side pieces and supporting a cross-piece, N, to the ends of which are pivoted blocks O O carrying the rollers or casters P P, (two on each block,) which travel in the grooves G in the sides of the roller-bed. There being two casters or rollers at each side, the rubber-frame is not liable to slip out or become displaced while in operation, and the said casters being journaled upon the pivoted-blocks O O, they do not prevent the rubber-frame from being raised or lifted off the roller-bed at any point, if it should be desirable to do so.

Across the rear end of the tub or box A, near its top, is secured a board, B', in front of which is arranged an upright board, S, extending above the sides of the box, and forming, with board B' and the sides and rear end of the box, a reservoir, C'. Upon the board S a wringing-machine may be secured, and reservoir C' is adapted to receive the wastewater, which would otherwise drip upon the floor.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation of our invention will be readily understood. The roller-bed may be readily adjusted vertically to any desired elevation. The apron *a* protects the clothes while being washed by preventing them from being caught between the rollers I and thus torn, and any desired degree of pressure may be exercised upon the rubber without causing rigidity of motion, owing to the springs M carrying the casters. While the clothes are being inserted or removed the rubber-frame may be pushed back until the casters pass down the inclined portion of grooves G, and it is when in this position supported upon the rests H in the position shown in dotted lines in Fig. 1.

The said rests being beveled to correspond with the inclines T, the rubber-frame may be pushed back to or withdrawn from this position without the inconvenience caused by lifting the frame and holding it, or throwing it

back against the rear end of the tub or box, as is commonly practiced.

It will be observed that the roller-frame is vertically adjustable both at its front and rear ends, and that it may therefore be adjusted horizontally, or at an inclination at any desired distance from the bottom of the tub or box; also, that after washing it may be entirely removed for the purpose of rinsing or cleaning the tub or box.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States:

The combination, with the roller-bed B, having beveled blocks or rests H and grooves G

T, downwardly inclined at their rear ends, to correspond with the beveled rests, of the rubber R, constructed as described, working in the grooves G T, and capable of being supported in a raised position upon the rests H, as set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

WESLEY HULL.
WILLIAM MILLER.

Attest:

WM. R. PLEAK,
ISAAC D'IRAY.