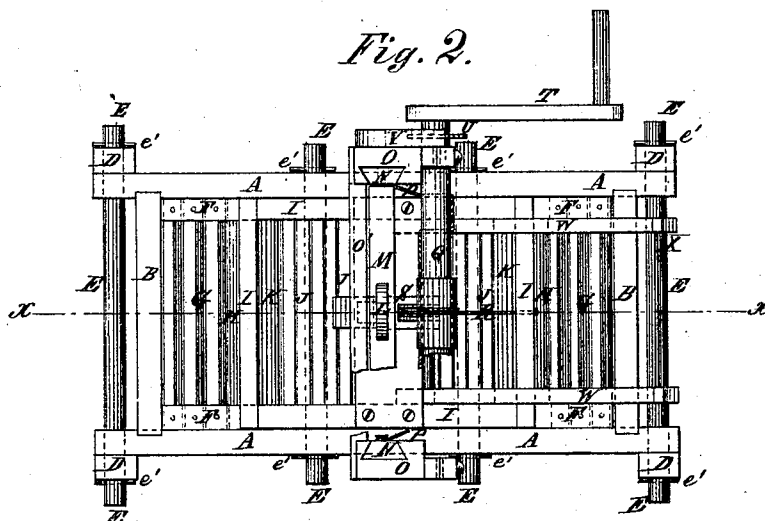
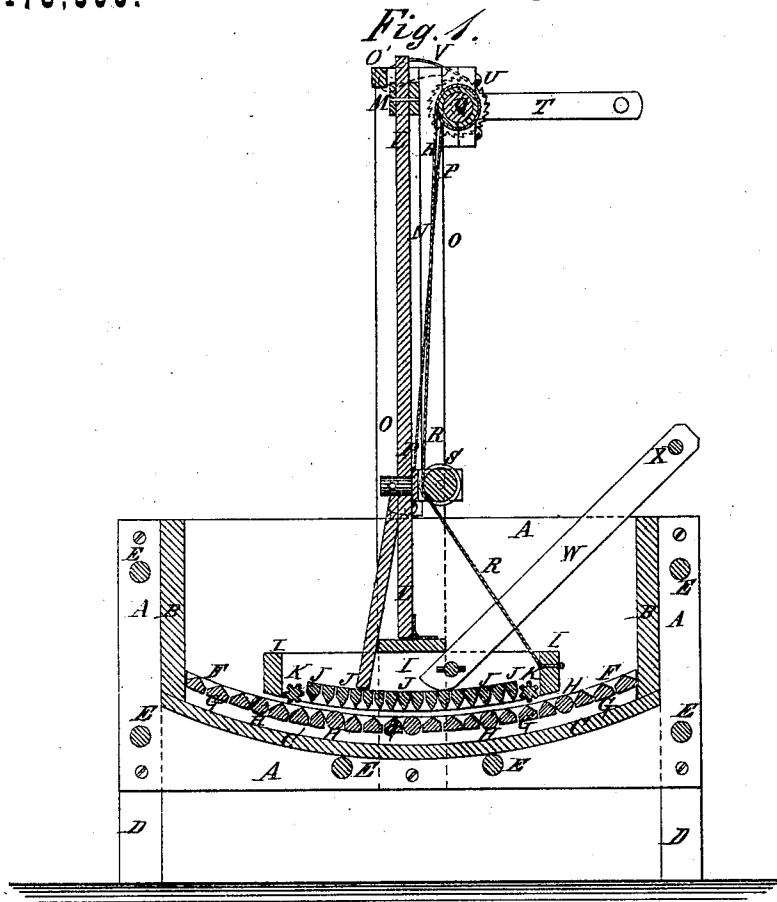


T. McC. WILSON.
 WASHING-MACHINES.

No. 178,696.

Patented June 13, 1876.



WITNESSES:

H. Rydquist.
John Goethals

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BY

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UNITED STATES PATENT OFFICE.

THOMAS McC. WILSON, OF VENICE, PENNSYLVANIA.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **178,696**, dated June 13, 1876; application filed May 9, 1876.

To all whom it may concern:

Be it known that I, THOMAS McC. WILSON, of Venice, Washington county, State of Pennsylvania, have invented a new and Improved Washing-Machine, of which the following is a specification:

In the accompanying drawing, Figure 1 is a vertical section of the machine, taken through the line X X, Fig. 2; and Fig. 2 is a top view of the same, part being broken away to show the construction.

The object of this invention is to furnish an improved washing-machine, which shall be so constructed that the space between the stationary rubber and the movable rubber may be regulated as desired, and that the movable rubber can be conveniently raised out of the way, when desired, to give convenient access to the interior of the suds-box.

The invention consists in the combination of the hinged upright, the pivoted cross-head; the sliding bars, and the grooved standards with the movable rubber and the suds-box; and in the combination of the shaft, the cords, the crank, and the ratchet-wheel and pawl with the standards, the sliding bars, and the movable rubber, as hereinafter fully described.

In the drawings, A represents the side boards of the suds-box, which are vertical, and are grooved upon their inner sides to receive the edges of the end boards B, and the bottom board C. The ends B are vertical, and the bottom C is curved upon the arc of a circle. D represents the legs, which are secured to the end parts of the side boards A. The side boards A are drawn together, clamping the ends B and bottom C between them by rods E, having wedge-keys *e'* driven through them at the outer sides of the said side boards A. Upon the bottom of the suds-box is placed the stationary rubber, formed of the side bars F, the cross-bars G, and the rollers H. The side bars F are curved upon the arc of a circle, so as to lie firmly upon the bottom of the suds-box, and with them are connected the ends of the cross-bars G and the rollers H. The cross-bars G are made with V-shaped upper sides, and are arranged three cross-bars and a roller, three cross-bars and a roller, and so on. By this construction the cross-bars G rub the

clothes, and the rollers H carry them forward so that they will not collect into a roll.

The upper or movable rubber is formed of the frame I, the cross-bars J, and the fluted rollers K. The frame I is made of such a width as to work freely in the suds-box, and of such a length as to have a sufficient longitudinal swing within said suds-box. The fluted rollers K are placed at the ends of the frame I, and the space between them is occupied by the cross-bars J, which are made V-shaped upon the lower side. To the central cross-bar of the frame I is hinged the lower end of an upright, L, to the upper end of which is attached a cross-bar, M. The ends of the cross-bar M are pivoted to the upper ends of two bars, N, which are made of dovetail form and are placed in dovetail grooves in the inner sides of the standards O. The lower parts of the standards O are attached to the middle parts of the side boards A of the suds-box, and their upper ends are connected and held in their proper relative positions by a cross-bar, *o'*. To the lower ends of the sliding bars N are attached the ends of two cords, P, the upper ends of which are attached to the shaft Q, which revolves in bearings attached to the upper ends of the standards O. The middle part of the shaft Q is made larger than its end parts, and to said larger part is attached the end of a cord, R, which passes down along the upright L, passes around a guide-pulley, S, pivoted to the lower part of said upright, and is attached to the end of the frame I. To the end of the shaft Q is attached a crank, T. To the shaft Q is also attached a ratchet-wheel, U, with the teeth of which engages the pawl V, pivoted to the upper end of the standard O to hold the shaft Q, and with it the rubber I J K, in any position into which they may be adjusted. The rubber I J K is oscillated to wash the clothes by means of two bars, W, the inner ends of which are pivoted to the side bars of the frame I of the movable rubber I J K, and their outer ends are connected by a round, X, that serves as a handle. The rubber I J K is kept from turning back upon the upright L by an arm, *l'*, attached to said upright, and which rests against the cross-

bars of the frame I, to which said upright is hinged. By this construction, by operating the crank T, the movable rubber I J K may be adjusted and worked at any desired height above the stationary rubber F G H, and, by turning the crank T, the said movable rubber may be raised entirely out of the way; and the cord R, winding upon the larger part of the shaft Q, raises the forward end of the rubber faster than the rear end rises, bringing the rubber into a position along the forward side of the upright L, so that free access may be had to the suds-box for inserting, examining, and removing the clothes.

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

1. The combination of the hinged upright L, the pivoted cross-head M, the sliding bars N, and the grooved standards O with the movable rubber I J K and the suds-box A B C, substantially as herein shown and described.

2. The combination of the shaft Q, the cords P R, the crank T, and the ratchet-wheel and pawl U V with the standards O, the sliding bars N, and the movable rubber I J K, substantially as herein shown and described.

THOMAS McCORKLE WILSON.

Witnesses:

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JOSEPH M. KERR.