W. M., E. P. & E. Doty

Washing Machine,

No. 56,910, Patented Aug. 7, 1866.

Fig: 1.

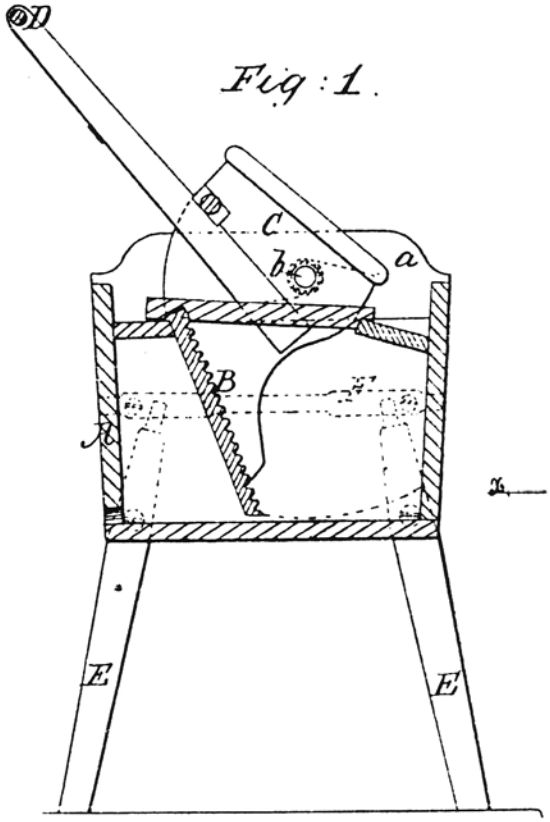
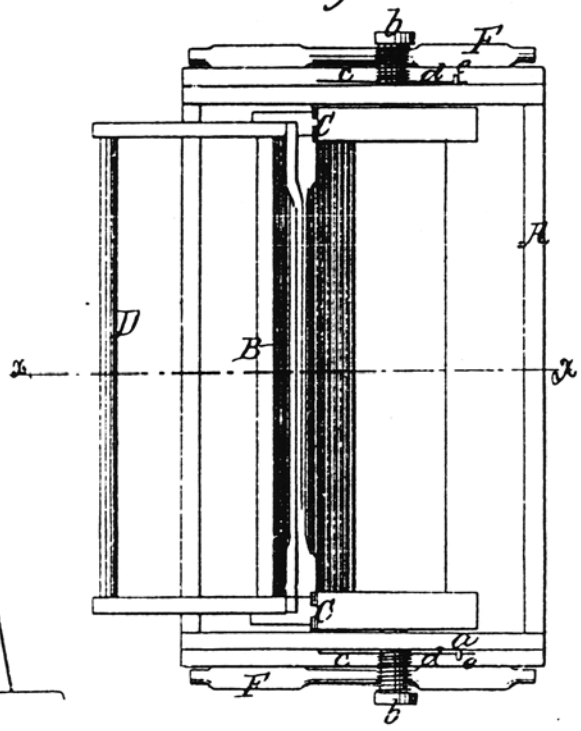


Fig: 2.



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UNITED STATES PATENT OFFICE.

WM. M. DOTY, E. P. DOTY, AND ELLIS DOTY, OF JANESVILLE, WISCONSIN.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **56,910**, dated August 7, 1866.

To all whom it may concern:

Be it known that we, WILLIAM M. DOTY, E. P. DOTY, and ELLIS DOTY, of Janesville, in the county of Rock and State of Wisconsin, have invented a new and Improved Washing-Machine; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a transverse vertical section of this invention, the line *x x*, Fig. 2, indicating the plane of section. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate like parts.

This invention relates to certain improvements in that class of washing-machines on which Letters Patent have been granted to us January 30, 1866.

Our present improvements consist, first, in the use of a spring on each of the fulcrum-pins of the oscillating wash-board, with its ends extending from said fulcrum-pins in opposite directions, one to bear on the edge of the tub and the other under a pin projecting from the bracket which forms the bearing for the appropriate fulcrum-pins, in such a manner that in depressing the handle each spring is wound up and the pressure on each fulcrum-pin is balanced, one end of the spring pressing up and the other down, and said pins are prevented from wearing out.

It consists, further, in combining with the wash-board flanged segmental cheek-pieces, which are grooved to receive the handle, and so formed that they prevent the water from splashing out over the ends of the tub.

It consists, finally, in the arrangement of cleats on the ends of the tub, in combination with the upper ends of the legs, which are secured to the tub, each by screws or bolts, in such a manner that the end pieces of the tub are free to expand and to contract without being liable to crack, and at the same time the legs are firmly held in position.

A represents a tub, made square or oblong, or in any other suitable form or shape, and provided with brackets *a*, which rise from its ends and form the bearings for the fulcrum-pins *b* of the oscillating wash-board B. These fulcrum-pins are firmly secured to the cheek-pieces C, which support the wash-board, and they extend through the brackets *a*, so as to afford room for a spiral spring, *c d*, on each pin. The spring on each pin is wound so that its ends extend from the pin in opposite directions, one end, *c*, being made to bear on the edge of the tub, and the other, *d*, to catch under a stop, *e*, which projects from the bracket *a*. By this arrangement the springs are wound up simultaneously from both ends, and the full power thereof is brought into use when the handle is set in motion, and at the same time the lateral strain exerted on the fulcrum-pin by one end of the spring is counteracted by that exerted by the other end, and the pins are prevented from wearing out. By making the stops *e* adjustable the strain of the springs can be increased or decreased at pleasure.

The cheek-pieces C are made wide and caused to project a sufficient distance above the wash-board, and their ends are chamfered off, so that the water is prevented from splashing when the wash-board is set in motion. These cheek-pieces are grooved to receive the handle D, and this handle D is so arranged that it can be readily taken out and that the whole machine can be packed up in a comparatively small compass.

The tub is supported by four legs, E, which are fastened to its ends by screws or bolts, and the upper ends of said legs catch in suitable sockets in cleats F, which are secured to the ends of the tub, as shown. By this arrangement the legs are enabled to accommodate themselves to the expansion and contraction of the end pieces, and they are firmly held in position without causing said end pieces to crack, which they are liable to do if the legs are fastened to both their lower and upper edges.

We disclaim everything included in our former patent of January 30, 1866.

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the spiral springs *c d*

fulcrum-pins *b*, and oscillating wash-board B, constructed as described, and operating substantially as and for the purpose specified.

2. In combination with the above, the projecting cheek-pieces C, with chamfered edges, constructed and operating substantially as and for the purpose described.

3. The cleats F, fastened to the ends of the tub, and provided with sockets to receive the upper ends of the legs E, which are fastened to the lower edges of the ends of the tub with screws or bolts, substantially as and for the purpose set forth.

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