

Minor & Beach,

Washing Machine,

N^o 33207.

Patented Sep. 3, 1861.

Fig. 1

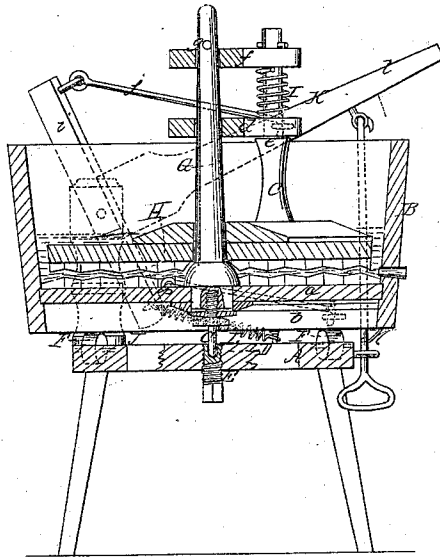
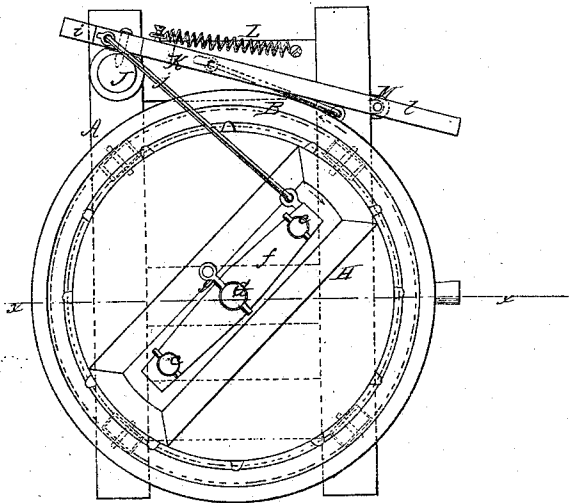


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE MINOR, OF BRIDGEWATER, AND BURROUGHS BEACH, OF WEST
MERIDEN, CONNECTICUT.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **33,207**, dated September 3, 1861.

To all whom it may concern:

Be it known that we, GEORGE MINOR, of Bridgewater, in the county of Litchfield and State of Connecticut, and BURROUGHS BEACH, of West Meriden, in the county of New Haven, in the same State, have invented a new and Improved Clothes-Washing Machine; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of our invention; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement in that class of clothes-washing machines in which a tub and rubber are made to partially rotate or vibrate back and forth, or first in one direction and then in the other, and in opposite directions. In these machines the axis or journal of the tub is subject to considerable wear in consequence of the impossibility of balancing the tub on its axis, the clothes being, as a general thing, quickly thrown into the tub and the washing operation commenced without regard to the equal disposition of the clothes therein as regards weight, and if the attempt were made to evenly distribute or arrange the clothes in the tub it would be found a difficult matter and one consuming too much time to be generally adopted. To obviate this difficulty we have the axis or journal of the tub fitted in an adjustable step, and use in connection with said step friction-rollers for the edge of the tub to work on, the parts being arranged, substantially as hereinafter shown and described, to effect the desired result.

To enable those skilled in the art to fully understand and construct our invention, we will proceed to describe it.

A represents a bench or stand on which a tub B is placed. The bench or stand and tub may be constructed in the usual way, the same as those of other machines of this class. From the center of the bottom *a* of the tub an axis or journal C projects vertically downward. This axis or journal is fitted in a step D, which is formed in the upper end of a screw E, said screw passing through the top

of the stand or bench A, as shown clearly in Fig. 1. In the top of the bench or stand there are also fitted friction-rollers F, (four may be used,) and on these rollers the edge or chine *b* of the tub rests.

In the tub B there is secured a central shaft G, on which the rubber H is fitted and allowed to turn freely. This rubber is of usual construction—to wit, a circular disk with suitable ribs or corrugations on its under or face side and two uprights *c c* attached to its upper side, the upper ends of the uprights being connected by a cross-piece *d*, which rests on shoulders *e* on the uprights and has the lower ends of spiral springs I bearing upon it, said springs being on the upper parts of the uprights and having their upper ends bearing against a cross-piece *f*, which is also fitted on the uprights and shaft G and bears against a pin *g* in shaft G. The springs I press down the rubber H, which bears on the clothes beneath it. The upper surface of the bottom *a* of the tub is ribbed or corrugated, as usual.

To an upright J on the bench or stand A there is secured by a fulcrum-pin *h* a T-shaped lever K. The head *i* of this lever has rods *j k* attached to it, one at each end, the upper rod *j* being connected to one end of the cross-piece *d* of the uprights *c c*, and the rod *k* connected to the lower part of the tub B. To the lower end of the head *i* there is also attached a spiral spring L, which has a tendency to keep the arm *l* of lever K inclined upward from the head *i*. Toward its outer end a pendent rod M is attached, having a loop at its lower end to receive the foot of the operator.

From the above description it will be seen that by operating or vibrating the lever K the tub B and rubber H will be moved simultaneously in opposite directions. The arm *l* may have both the hand and foot of the operator applied to it, if necessary, the rod M being a treadle. The spring L serves to render the movement or vibration of the lever K uniform. By this arrangement it may be operated with the greatest facility.

By adjusting the screw E the step D may be raised and lowered as desired, so that the tub B may rest or bear more or less on the rollers F and all wear of the axis or journal

C provided for. This is very essential, for if the step were not adjustable the axis after wearing a little short would allow the tub to rest entirely on the rollers F, and then considerable power would be required to operate the machine. By having the screw or adjustable step the latter may be raised from time to time as the axis wears short, and the weight of the tub and its contents be borne both by the rollers and the axis, and the latter therefore prevented from lateral wear, which would occur in consequence of a lateral pressure due to an unbalanced tub, for if the tub should be heavier at one side than at another the axis or journal C would be subjected to a lateral or side pressure, which in the absence of rollers F would soon cause the journal to wear uneven and loose and

very much detract from the perfect operation of the device.

We do not claim a tub and rubber arranged so as to operate or vibrate in reverse directions, nor do we claim any of the parts separately; but,

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

The arrangement of the adjustable step D with the pivot C, rollers F, and tub B, in the manner herein shown and described.

GEORGE MINOR.
BURROUGHS BEACH.

Witnesses:

BURR GLOVER,
G. B. HAMLIN.