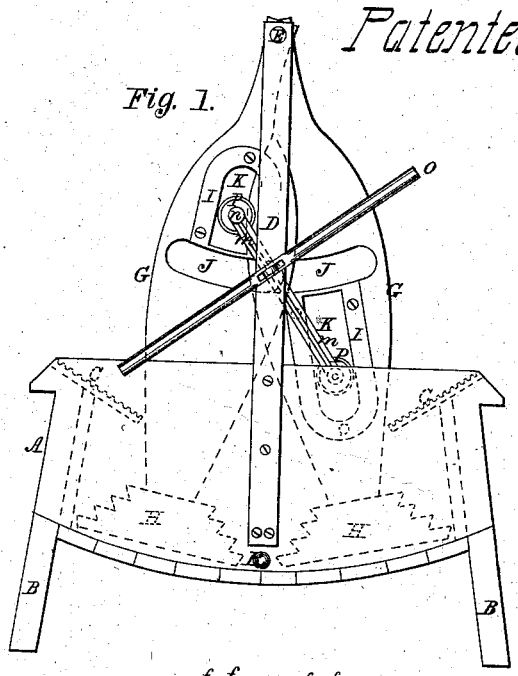
A. Davidson,

Washing Machine,

No. 47,934, Patented May 30, 1865.

Fig. 1.



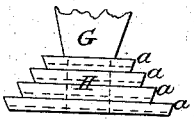


Fig. 3.

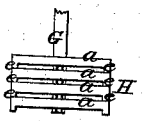


Fig. 4.

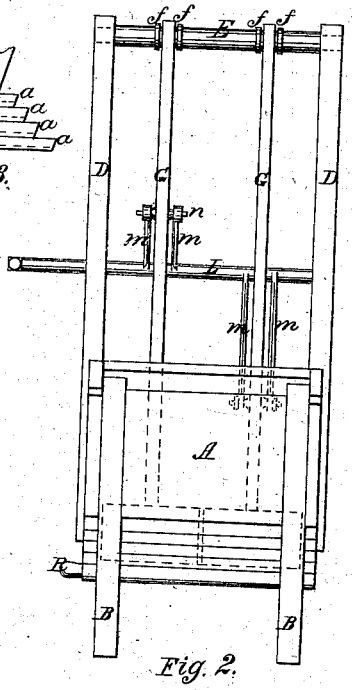


Fig. 2.

Witnesses
N. Ames.
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UNITED STATES PATENT OFFICE.

AMORY DAVIDSON, OF CLINTON, MASSACHUSETTS.

IMPROVED WASHING-MACHINE.

Specification forming part of Letters Patent No. **47,934**, dated May 30, 1865.

To all whom it may concern:

Be it known that I, AMORY DAVIDSON, of Clinton, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side view; Fig. 2, an end view; Fig. 3, a side view of one of the feet or beaters, and Fig. 4 an end view of the same.

Like parts are indicated by the same letters in all the drawings.

My invention relates to what are known as "fulling-mill" washing-machines; and it consists, first, in constructing the feet or beaters H H of separate parallel strips of board or plank united by narrow pieces of wood, *e e*, so as to form longitudinal passages for the free circulation of water or suds, whereby the beaters in passing through the water will meet with comparatively little resistance, and the clothes will be prevented from rising by the action of the water, which would otherwise be heaped up in advance of the moving beaters, and thus constructed the said beaters will also be much lighter and cheaper than the solid blocks commonly used for a similar purpose; second, in making the steps or ends of the beaters inclined or beveled under, so that their action on the clothes shall be to keep them down instead of throwing them up; and, third, in the peculiar combination of devices whereby the reciprocating motion of the beaters is produced.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

A is a box of wood, the general shape and construction of which are clearly shown in Figs. 1 and 2.

B B B B are the legs of the box, and C C are two stationary rubbing-boards, which are so arranged as to prevent the suds from dashing out of the box by the action of the beaters.

D D are two strips of board attached to each side of the box A, as shown in Figs 1 and 2. The upper ends of these uprights D D are united by a round rod, E.

G G are pieces of board, (shaped as shown in Figs. 1 and 2,) the upper ends of which turn freely on the rod E, being prevented from moving laterally by means of the pins *f*.

K K are longitudinal slots in the legs G G, the slot in one leg being above the center and in the other below it, as shown in Fig. 1, I I being metallic frames or linings to said slots, to prevent the wood from splitting and wearing by the action of the rollers P P.

J J are transverse slots in the legs G G, the size, shape, and position of which are clearly shown in Fig. 1, the use of said slots being to receive the shaft L and allow the legs to vibrate freely over it.

H H are the feet or beaters attached to the lower ends of the vibrating legs G G, as represented in Figs. 3 and 4. These beaters are made up of parallel pieces, *a a a a*, of plank or board, connected at the sides and center by means of the narrow strips *e*, as seen in Fig. 4, so as to leave longitudinal passages between them for the free circulation of water, for the purpose specified above. The pieces *a* and the strips *e*, being properly shaped and put together, are readily fastened by means of long bolts or pins passing vertically through them, or in any other obvious manner. Thus constructed, the beaters are much lighter and (requiring less stock) much cheaper than the solid ones in general use. The steps or ends of the pieces *a*, as shown in Figs. 1 and 3, are inclined under, for the purpose specified above.

L is a metallic shaft, which passes through and rocks freely in the uprights D D, O being a lever fast to one end of the said shaft, by means of which one or two persons (as may be required) can operate the machine.

m m m m are arms projecting from opposite sides of the shaft L, as shown in Fig. 2; and P P are friction-wheels which turn on the axles *n n* in the arms *m*, the diameter of said wheels being such as to allow them to just turn freely in the slots K K, bearing first on one side and then on the other, according to the direction in which the legs G G are driven.

R is a plug for the hole, by means of which the water is drained from the box A.

The method of operating my machine, be-

ing similar to that of others of a similar kind in general use, requires no further description.

What I claim as a new and useful improvement in washing-machines, and desire to secure by Letters Patent, is—

The slots J J and K K in the legs G G, in combination with the shaft L and wheels P P, substantially as and for the purpose described.

AMORY DAVIDSON.

Witnesses:
N. AMES,
GEO. R. CLARKE