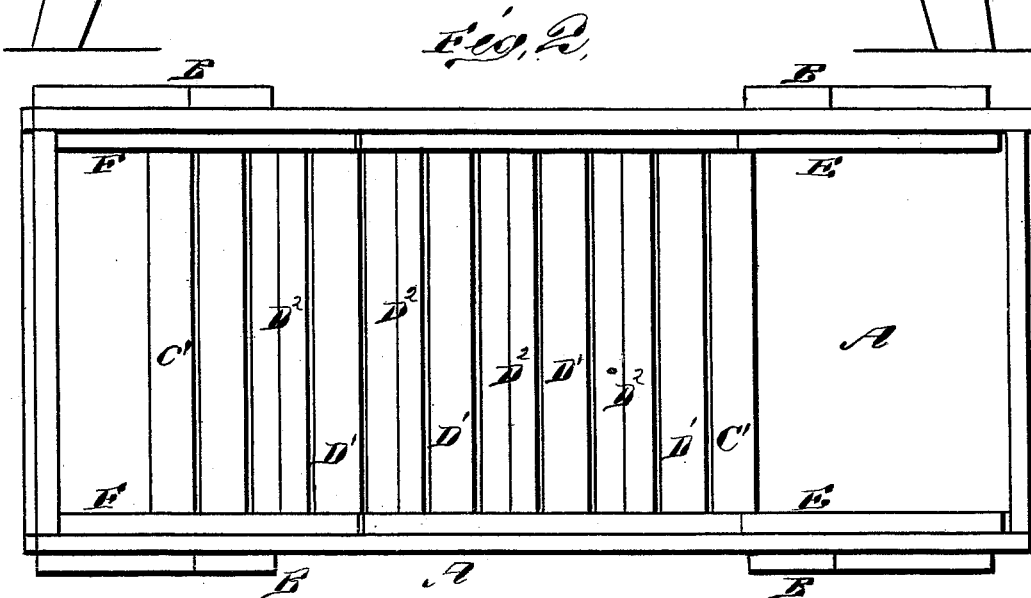
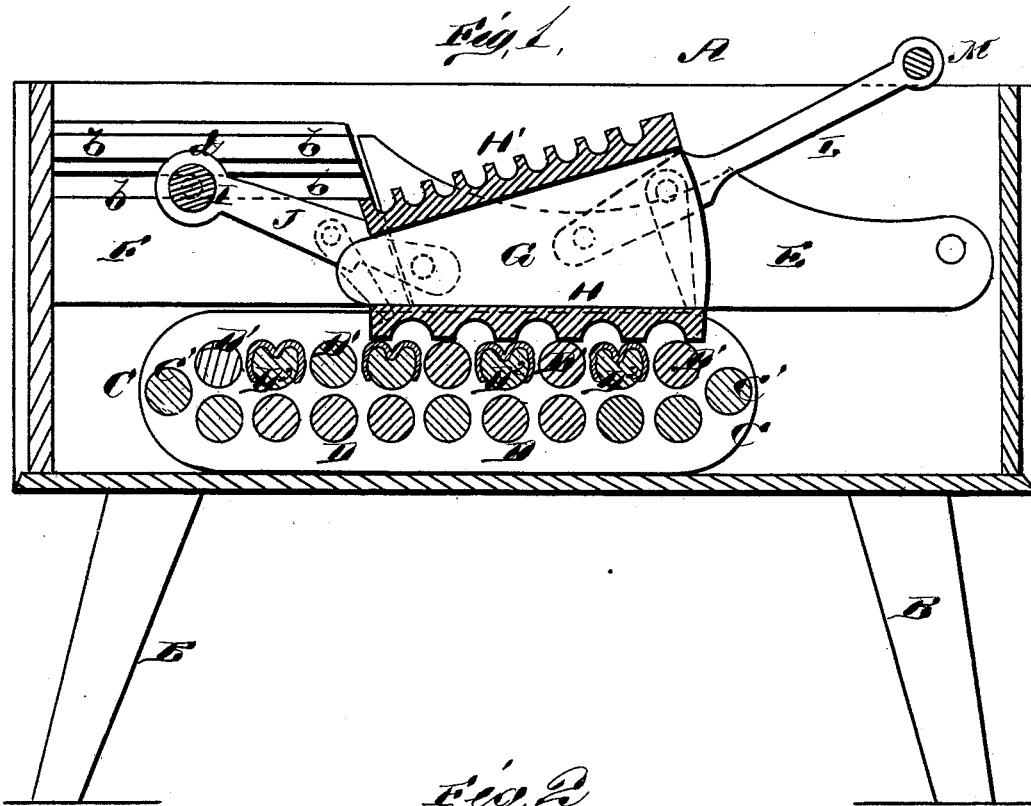


W. HARRIS.
Washing-Machine.

No. 204,666.

Patented June 11, 1878.



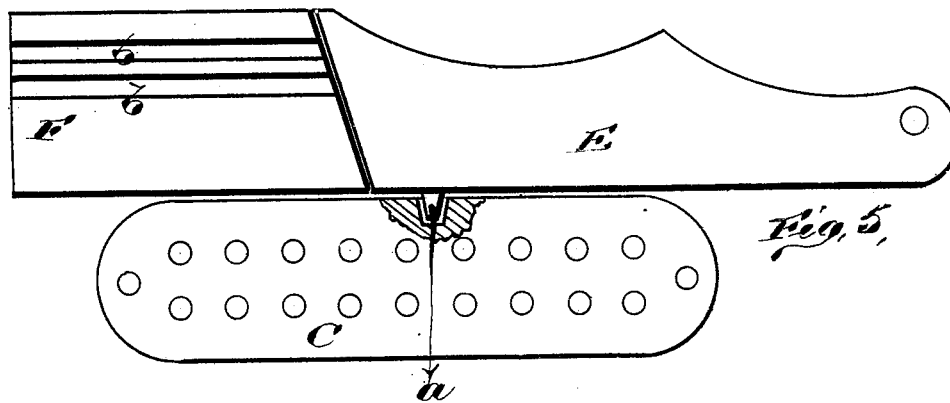
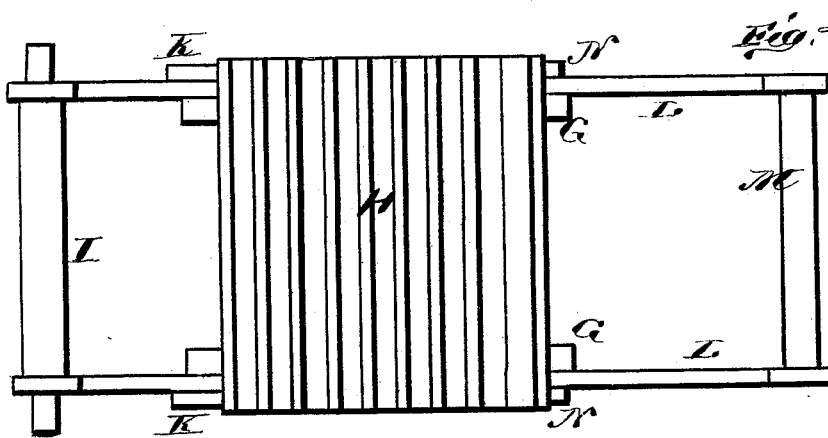
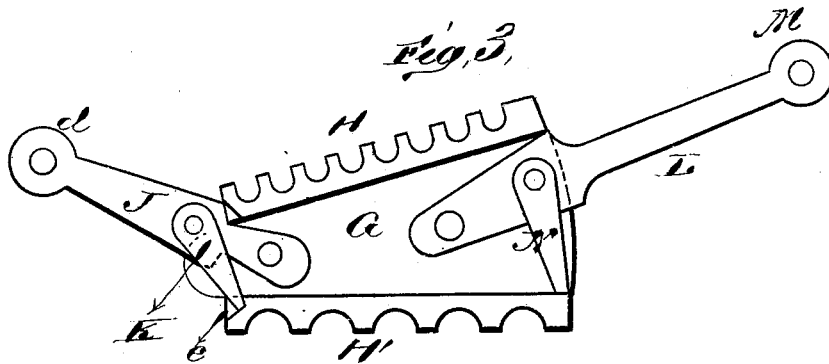
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WESLEY HARRIS, OF TOPEKA, KANSAS.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **204,666**, dated June 11, 1878; application filed March 23, 1878.

To all whom it may concern:

Be it known that I, WESLEY HARRIS, of Topeka, in the county of Shawnee and State of Kansas, have invented a new and valuable 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my washing-machine. Fig. 2 is a plan view. Fig. 3 is a detail view. Fig. 4 is a detail plan view. Fig. 5 is a part sectional side view thereof.

The nature of my invention consists in the construction and arrangement of a washing-machine, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents a rectangular box of any suitable dimensions supported upon legs B.

On the bottom of the box A is placed a double reversible wash-board, constructed in the following manner: C C are two parallel side pieces, connected at their ends by stationary rollers or rounds C' C'. One side of the wash-board is formed by a series of rollers, D D, while the other side is composed of alternate rollers D¹ and stationary bars D², covered with corrugated sheet metal. All the rollers D D¹ are journaled in the side pieces C C, and the bars D² are secured in said side pieces.

The wash-board thus constructed is placed in the center on the bottom of the box, and is held in place by means of two side bars, E E, which are pivoted at one end to the sides of the box and close down upon the side pieces C C.

In the under sides of the bars E are pins *a*, which enter corresponding holes made in the side pieces C to hold the wash-board and prevent any end movement of the same.

The pivoted bars E E close against guide-pieces F F secured to the sides of the box at the opposite end, and so arranged that the

end of the wash-board will pass under the same.

The guide-pieces F F are provided each with two or more horizontal grooves, *b b*, in which the journals of the rubber work back and forth, the object of two or more sets of grooves being to adjust the rubber according to the thickness of the clothes.

The rubber is also double and reversible, and is constructed in the following manner: G G are two nearly V-shaped side pieces, to which the two rub-boards H H' are permanently secured. The board H has deep and wide grooves across its face, and is to be used with that side of the wash-board which has the alternate rollers D¹ and bars D² for washing heavy and coarse articles that need considerable rubbing.

The board H' has shallow and narrow grooves across its face, and is to be used with that side of the wash-board which has the rollers D for washing finer articles that do not require too much rubbing.

On the outer side, at the smaller end of each side piece G, is pivoted an arm, J, the outer end of which forms an eye for the passage of the journals *d d* of a roller, I, said roller connecting the two arms and the journals extending beyond the same into the grooves *b* of the guides F.

Each arm J is provided with a pivoted button, K, which may be turned to either side, so as to have its end bear against or in a notch, *e*, made in the lower corner of either board H or H'.

Other arms, L L, are also pivoted to the sides G, and extend in the opposite direction, and their ends are connected by a handle, M, as shown. These arms are also provided with pivoted buttons N N.

The buttons K and N are for the purpose of holding the arms J and L rigidly to the rubber in the proper position according to which board is being used.

The wash-board and rubber can easily be taken out and reversed by simply raising the pivoted bars E E.

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

1. The combination of the double reversible wash-board, as described, the box A, and the pivoted bars E E, provided with pins *a*, fitting in holes in the frame of the wash-board, as set forth.

2. The combination of the double reversible rubber, as described, the pivoted arms L L, with pivoted buttons N N and handle M, and the pivoted arms J J, with pivoted buttons

K K and roller I, all substantially as and for the purposes set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WESLEY HARRIS.

Witnesses:

ELIAS SHULL,

ALFRED ENNIS.