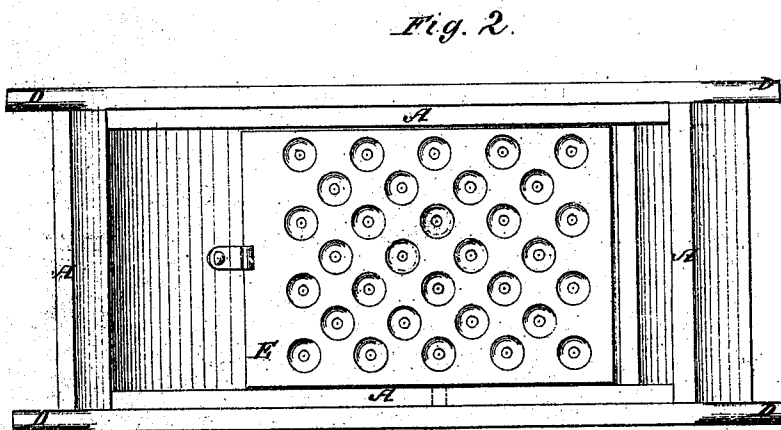
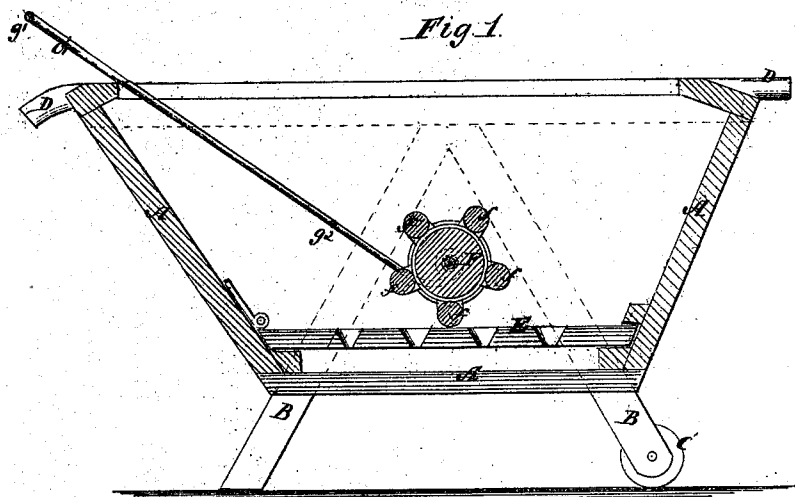


E. S. Harper,

Washing Machine.

No. 107,681.

Patented Sept. 27, 1870.



Witnesses:

S. S. Mabe
David M. Self

Inventor:

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United States Patent Office.

ELIJAH S. HARPER, OF SUTHERLAND SPRINGS, TEXAS.

Letters Patent No. 107,681, dated September 27, 1870.

IMPROVEMENT IN WASHING-MACHINES.

The Schedule referred to, in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, ELIJAH S. HARPER, of Sutherland Springs, in the county of Wilson and State of Texas, 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 thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved washing-machine.

Figure 2 is a top view of the same, the roller being removed.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, which shall be simple in construction, effective in operation, and easily operated, and which will not injure the clothes; and

It consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A is the box of the machine, the sides of which are made vertical, and the ends inclined, as shown in figs. 1 and 2.

The box A is supported upon legs, *b*, of such a length as to raise the machine to a convenient height.

The two rear legs B are provided with rollers, C, so that the machine may be easily moved from place to place.

The ends of the box A are provided with handles, D, for convenience in moving the machine.

E is a false bottom, which is perforated with numerous holes, which I prefer to make conical, as shown in figs. 1 and 2, to allow the particles of dirt washed from the clothes to pass through, and settle upon the bottom of the box beneath the false bottom E, leaving

the water above said false bottom comparatively clean.

The ends of the perforated false bottom E rest upon cleats attached to the ends of the bottom of said box A.

The rear end of the false bottom E is held down by a cleat attached to the inclined rear end of the said box A, and its forward end is held down by a button pivoted to the inclined front end of the box.

F is the washing-roller, which is formed by attaching a number of small rollers or ribs, *f'*, to a central roller or shaft, so as to leave open spaces between said rollers or ribs.

The gudgeons attached to the ends of the roller F work in bearings in the ends of the bars G, which serve as a handle for operating the said roller.

The bars G should be of such a length that, when the roller F is at the rear end of the box A, the said bars may project about three inches beyond the front end of said box.

The outer ends of the bars G are connected and held in their proper relative position by a cross-bar, *g'*, and their inner or lower ends by a cross-bar, *g''*.

The roller F should be from fifteen to twenty pounds in weight, according to the size of the machine.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent

An improved washing-machine, formed by the combination of the open or ribbed roller F *f'* and handles G *g'* *g''*, with the box A B and perforated false bottom E, substantially as herein shown and described, and for the purpose set forth.

Witnesses:

ELIJAH S. HARPER.

A. G. PICKETT,
B. B. GILLET.