2, Sheets, Sheet. 1.

C. W. Reeder,

Washing Machine.

No. 108,393. Patented Oct. 18. 1870

Fig. 1.

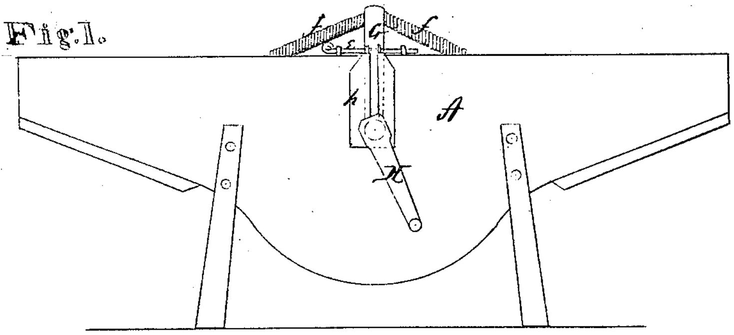


Fig. 2.

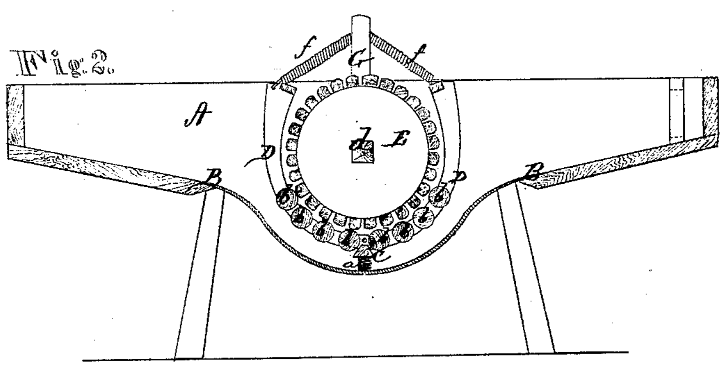
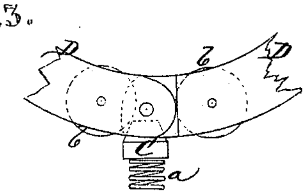


Fig. 3.



Witnesses.
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2. Sheets. Sheet. 2.

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Fig 4.

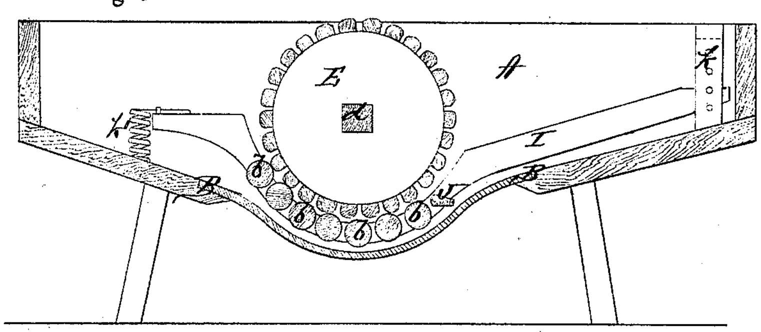
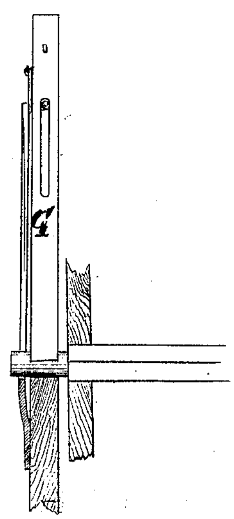


Fig. 1



Witnesses:
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United States Patent Office.

CHARLES W. REEDER, OF TRENTON, MISSOURI.

Letters Patent No. 108,393, dated October 18, 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, CHARLES W. REEDER, of Trenton, in the county of Grundy and State of Missouri, 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 drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of my washing-machine in side elevation.

Figure 2 is a longitudinal vertical section of the same.

Figure 3 is an enlarged section of a frame or end piece, in which a series of rollers have their bearings.

Figure 4 is a longitudinal vertical section of my machine with a different arrangement of rollers.

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

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation.

A represents an oblong box of any suitable dimensions, having its bottom B inclined downward from the ends toward the center, and the central part concave, as shown more fully in fig. 2.

In the center of the concave portion of the bottom B is placed a cross-bar, C, resting upon springs *a a*.

At each end of this bar C are hinged or pivoted two curved bars, D D, in which a series of rollers, *b b*, have their bearings; that is, these rollers run across the box and have their journal-bearings in the pieces D D, on opposite sides of the box.

The center of the side of the box A is slotted vertically for the reception of the shaft D, upon which the cylinder E is placed.

This cylinder consists merely of two heads secured to the shaft, and having a series of slats, convex on their outer surface, secured on their outer peripheries, thus connecting the two heads, the said slats being, however, placed a suitable distance apart to allow the water to pass between them.

Above the shaft *d*, in the slotted sides of the box A, are placed sliding-bars G, which are held down upon said shaft by means of pins *e* passing through the bars under staples in the upper edges of the box.

These sliding-bars G are slotted in the manner shown, and, as they are held in place mainly by the springs *h* and *f* together with pins *e*, it is apparent that they are arranged to slide up and down in their seats with the rise and fall of cylinder E.

The upper ends of the curved bars D D are connected with slides by means of springs *f f*.

On the outside of the box A are placed rubber flaps, *h*, which shut up the slots for the shaft tight, and, being hooked to the slides G, serve at the same time to aid in holding said bars down.

Upon one end of the shaft *d* is placed a crank, H, which is worked not around, but backward and forward, and the clothes are more squeezed than rubbed.

In place of the hinged curved bars D D, for supporting the rollers *b b*, I may use the frame I J, shown in fig. 4.

This frame consists of two arms, I, of the peculiar construction shown in said figure, connected by means of the cross-bar J, and having the rollers *b b* between them.

One end of each arm I is inserted in a loop, *k*, formed or attached near one end of the box A, while the other end rests upon a spring, *k'*.

The machine is operated with this arrangement the same as in the former case.

Having thus fully described my invention,

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

The combination and arrangement of cylinder E, bars D, rollers *b*, springs *h* and *f*, and sliding-bar G, when constructed substantially as and for the purpose specified.

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

CHARLES W. REEDER.

Witnesses:
W. A. TRAVIS,
J. E. MCADAMS.