

A. ISRAEL.
Washing-Machines.

No. 146,682.

Patented Jan. 20, 1874.

Fig. 1.

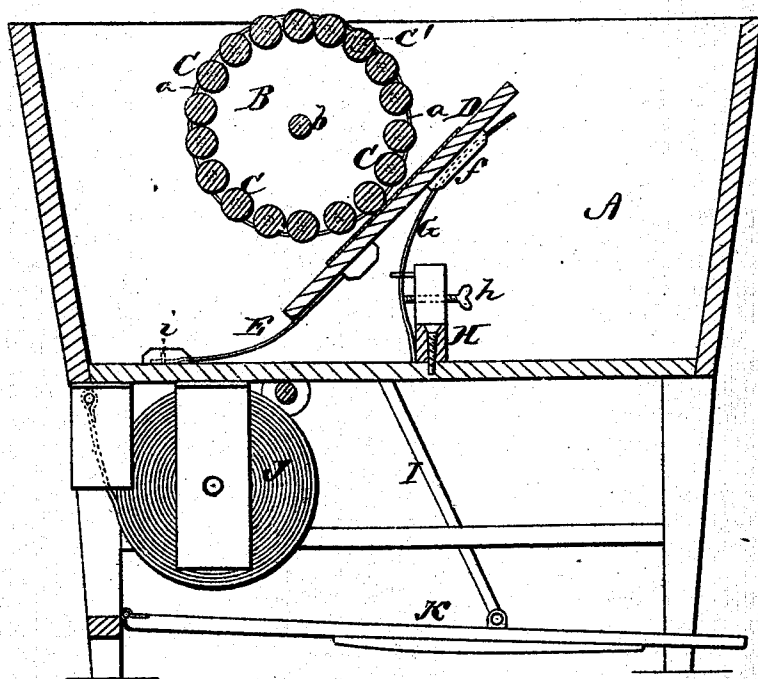
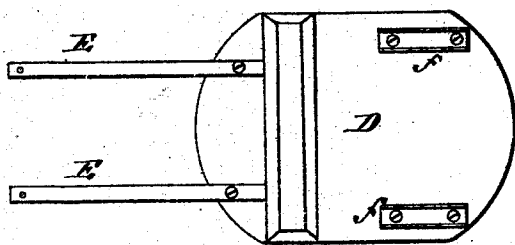


Fig. 2.



WITNESSES.

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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **146,682**, dated January 20, 1874; application filed November 26, 1873.

To all whom it may concern:

Be it known that I, ALEXANDER ISRAEL, of Hopewell, in the county of Washington and in the State of Missouri, have invented certain new and useful Improvements in Washing-Machines; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a washing-machine, as will be hereinafter more 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, referring to the annexed drawing, in which—

Figure 1 is a longitudinal vertical section of my washing-machine. Fig. 2 is a bottom view of the flexible wash-board used in the same.

A represents a box or tub, of any suitable dimensions, within which is a revolving cylinder. This cylinder is composed of two circular heads, B B, provided with a series of rollers, C C, placed upon or in the outer edges of the heads, their journals being held in the same by means of metal bands *a a*. All the rollers C C revolve in their bearings, except one, marked C', which is stationary, and answers the purpose of a feed-roller. Through the center of the cylinder thus constructed passes a shaft, *b*, which rests in vertical slots in the sides of the box A, and said slots then closed by means of slides *d* above the shaft. D represents a wash-board, provided at its lower end with springs or spring-bars E E, which have holes in their ends to be placed on pins *i i* in the bottom of the box. To a cross-bar, H, on the bottom of the box A are secured two other springs or spring-bars, G G, which extend upward, and pass through guides *f f*, attached to the under side of the wash-board D, the springs G G thus holding

the wash-board against the cylinder, and allowing it to yield to the thickness of the clothes. The pressure of the wash-board against the cylinder is regulated by means of set-screws *h h*, passing through the cross-bar H, and operating against the springs G G, thereby increasing or diminishing the friction at pleasure, so as to relieve the clothes from undue friction. On the ends of the shaft *b* are cranks, each of which is, by a pitman, I, connected with a treadle, K. I also use one or more springs, J, with clock-gearing, to assist in operating the machine. The clothes are laid upon the flexible wash-board D, and fed in between it and the rotating cylinder B C. The slides *d* in the sides of the box are made with suitable packing or stuffing boxes, so as to make the journals of the cylinder water-tight.

In operation, as the cylinder revolves, the rollers C C pass or roll over the clothes, and do not move the same up or down on the wash-board; but the stationary roller C', as it strikes the clothes once during each revolution of the cylinder, moves them a certain distance, bringing new parts to be acted on by the revolving rollers C C.

Being aware that a washing-cylinder composed of a series of revolving rollers is not new, I disclaim such as being my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination with the rotating cylinder B C C', inclined wash-board D, and bottom springs E, the back springs G, connected to the cross-bar H, and adjusted by the set-screws *h*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 25th day of October, 1873.

ALEXANDER ISRAEL. [L. S.]

Witnesses:

MICHAEL MOLONY,
A. O. GLOVE.