(No Model.) 2 Sheets—Sheet 1.

M. JOSEPHSON.

WASHING MACHINE.

No. 456,310. Patented July 21, 1891.

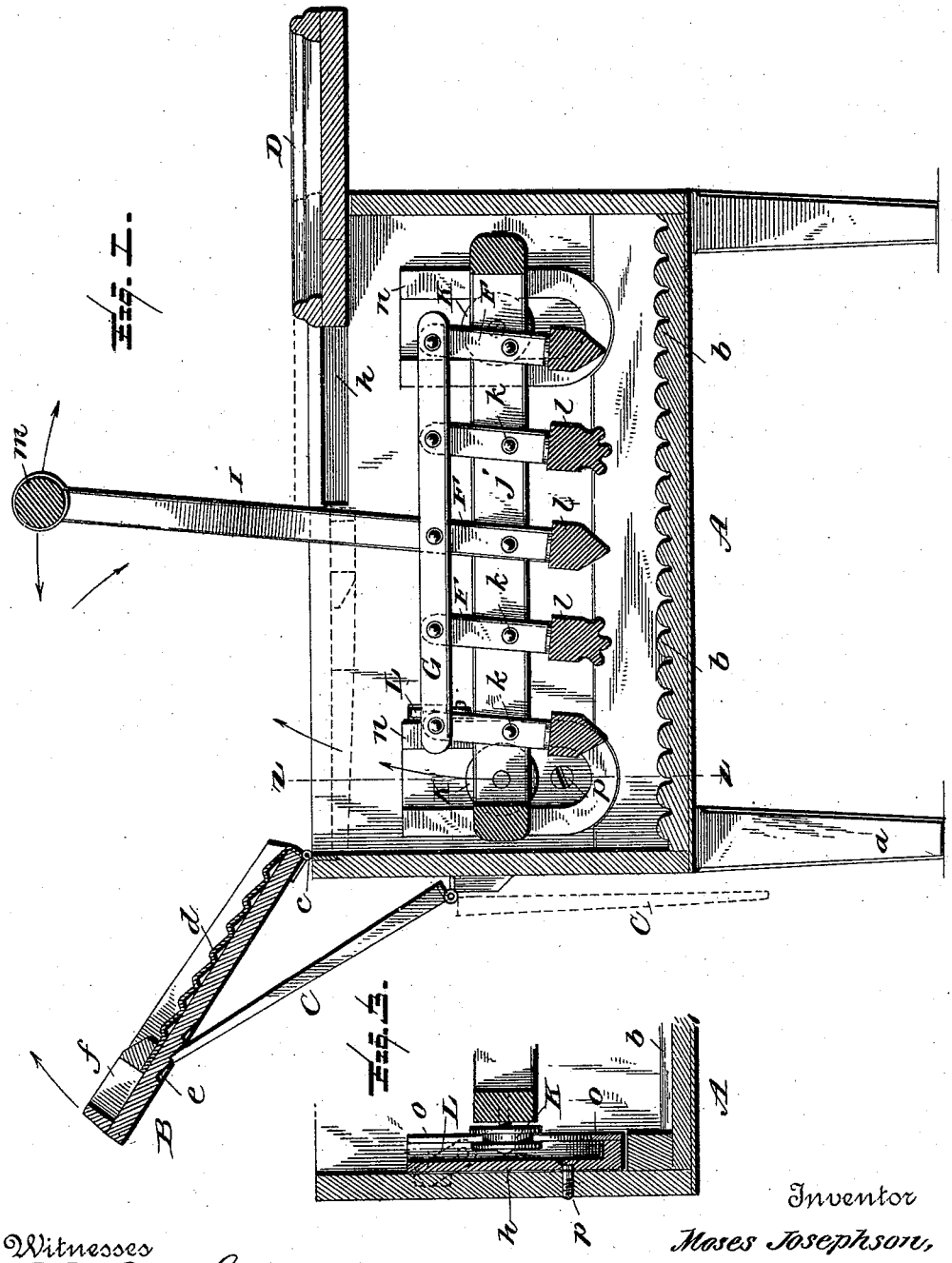

Fig. 1.

Fig. 2.

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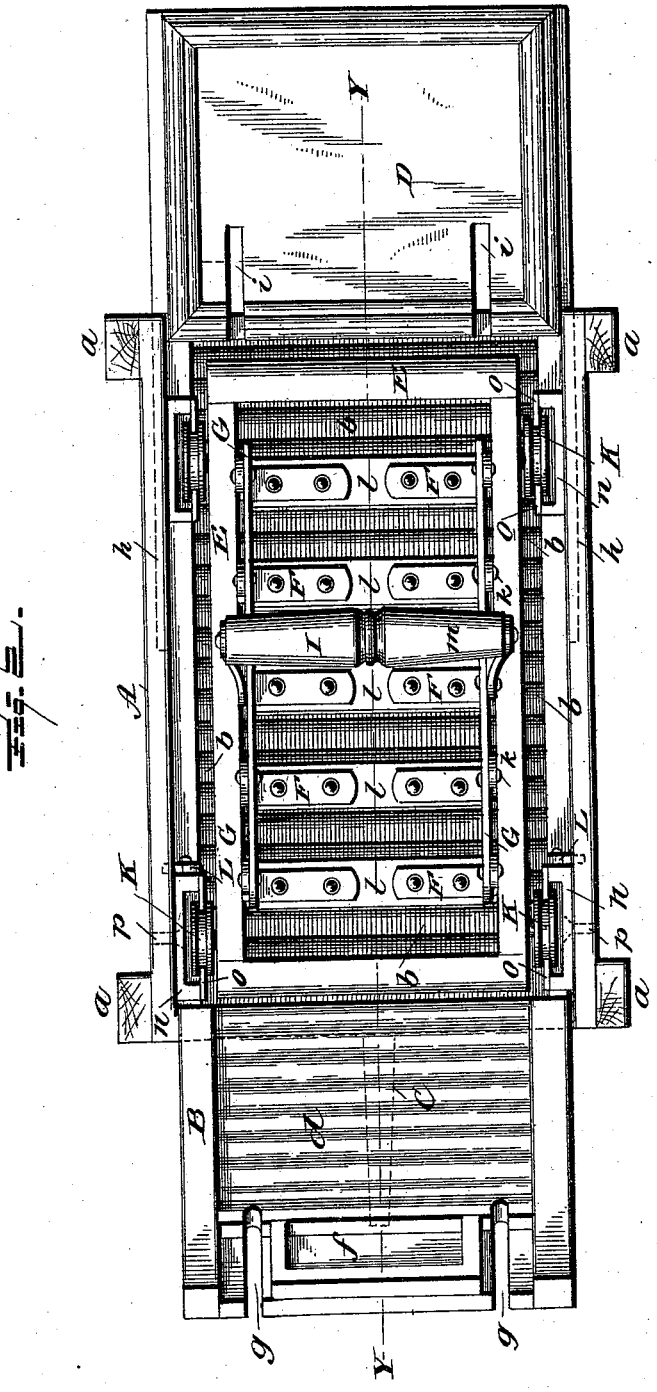

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UNITED STATES PATENT OFFICE.

MOSES JOSEPHSON, OF SPRINGFIELD, ILLINOIS.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 456,310, dated July 21, 1891.

Application filed December 30, 1890. Serial No. 376,212. (No model.)

To all whom it may concern:

Be it known that I, MOSES JOSEPHSON, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in washing-machines; and it has for its objects, among others, to provide an improved device of this character wherein is combined simplicity of construction, ease of manipulation and durability, and better results obtained.

I construct the cover of the machine in sections, one of which is adapted to slide into place upon one side of the operating-handle and the other hinged to the opposite end of the machine and provided upon its under face with a rubbing-surface, and, if desired, a soap-box, suitable means being provided for holding the said hinged portion at the desired angle. The rubber is arranged to work in suitable guides, being provided with anti-friction rollers, which permit of its readily moving vertically, as may be required, according to the quantity of clothes being washed. The rubber is of peculiar construction, whereby two motions are obtained therefrom. The guides or bearings for one end of the rubber are pivoted, so as to allow of sufficient movement thereof when it is desired to insert or remove the rubber, a suitable stop or catch being provided to hold the same in place when the rubber is in position.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central vertical section through my improved washing-machine with the sections of the cover open, one raised on its hinges and the other partially slid out in its guides. Fig. 2 is a top plan of the machine, with the parts in the position in which they are shown in Fig. 1, showing also the line Y Y, upon which the section Fig. 1 is taken. Fig. 3 is a vertical section through the line Z Z of Fig. 1.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the tub, which is supported in any suitable manner—as, for instance, by legs or uprights *a*, although it may be constructed to rest directly upon a floor or other support. The interior surface of its bottom is preferably corrugated, as shown, the corrugations *b* extending transversely of the tub, as seen in Figs. 1 and 2. The tub is shown as rectangular in form, but of course this may be varied without departing from the spirit of the invention. The top or cover of the tub I form in two sections, the section B being hinged to one end of the tub by suitable hinges, as *c*, and upon its under surface provided with a rubbing-surface *d* of any of the approved forms, the upper or outer surface of the portion B being provided with a plurality of notches *e*, which are designed to be engaged by the free end of the support C, which is hinged at its lower end to the end of the tub and designed when not in use to hang down against the end of the tub, as indicated by dotted lines in Fig. 1. The notches provide for adjustment of the section B at different angles to suit the varying heights of the parties using the machine. A soap-box *f* may also be provided upon the under surface of the section B beyond the rubbing-surface, as shown in Figs. 1 and 2. When the machine is in use, the section B is designed to be closed, as indicated by dotted lines in Fig. 1, being provided with slots *g* for the passage of the handle of the rubber, as seen in Fig. 2. The other section D of the top or cover is constructed to slide endwise in suitable guides *h*, (shown in Fig. 1 and by dotted lines in Fig. 2,) the inner edge of the said section being provided with slots *i* for the passage of the handle or the handle-bars of the rubber. When in use, this section is also closed, as will be readily understood.

E is the rubber. It consists of an open rectangular frame *j*, between the longitudinal bars of which are pivoted, as at *k*, the L-shaped bars F, the upper ends of the bars on each side of the rubber being pivotally connected to a longitudinal bar G, and the horizontal portions of said bars rigidly attached to the cross-slats *l*, as seen best in Fig. 2. The lower surfaces of these cross-slats are cogged or corrugated or of other desired form, as shown in Fig. 1.

I is the handle of the rubber. It is formed, preferably, by extending the central bars F, as seen in Fig. 1, and connecting the upper ends of said extensions by a suitable connecting rod or handle *m*. These extensions of the handle are designed to work in the slots of the two sections of the cover.

The frame of the rubber is provided near each corner with a roller K, preferably grooved, as seen in Fig. 2, and these rollers are designed to be guided vertically by suitable guides *n*, which are secured to the inner faces of the sides of the tub, as seen best in Fig. 1. If the rollers are grooved, the guides are provided with flanges *o*, which work in the grooves of the rollers, as seen in Fig. 2. Two of these guides are rigidly secured in position, but the other two are pivotally secured thereto, as indicated in Fig. 1, *p* being the pivot, so that they may be turned on the said pivots when it is desired to remove the rubber, allowing the latter to move on the arc of a circle, as indicated by the arrows in Fig. 1.

A suitable stop or catch L is provided to hold the pivoted guides in vertical position after the rubber is placed in position and hold them thus until it is desired to remove the rubber, when the said stops are turned to allow the guides to move on their pivots.

The operation will be readily understood, and a detailed description thereof is not deemed necessary.

Various modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What I claim as new is—

1. The combination, with a tub having vertical guides, of a removable rubber having relatively fixed side pieces and rollers carried by relatively fixed journals at the corners to work in said guides, substantially as specified.

2. The combination, with a tub having guides *n* at each end, those at one end being pivoted, of a removable rubber having rollers designed to engage said guides, as set forth.

3. The combination, with a tub having vertical flanged guides, those at one end being fixed and those at the other pivoted, of a removable rubber having grooved rollers, the grooves of which engage the flanges of the guides, substantially as and for the purpose specified.

4. The combination, with the tub having the guides, those at one end being pivoted, of the removable rubber having rollers working in said guides, and a stop for holding the pivoted guides vertical after the rubber is in place, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

MOSES JOSEPHSON.

Witnesses:
LEWIS DIENSTFREI,
SAMUEL COHEN.