(No Model.) 2 Sheets—Sheet 1.

L. PETERSON.

WASHING MACHINE.

No. 329,853. Patented Nov. 3, 1885.

Fig. 1.

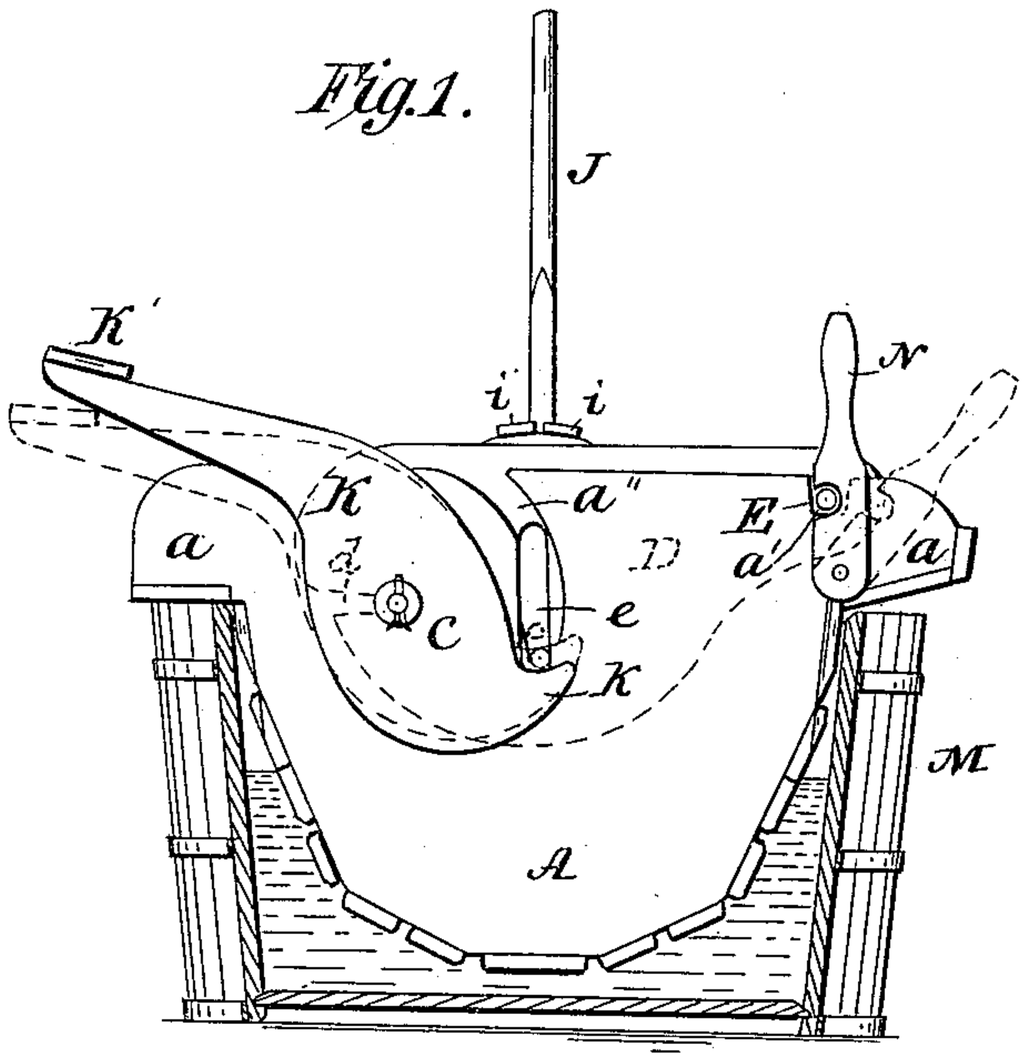


Fig. 2.

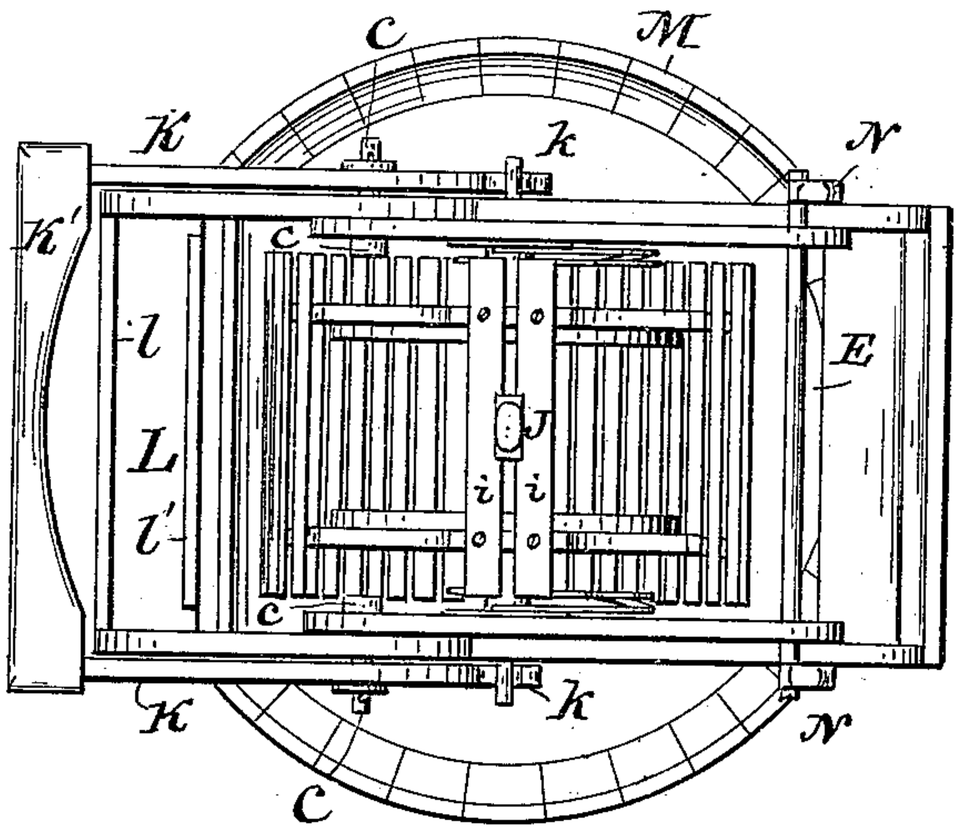
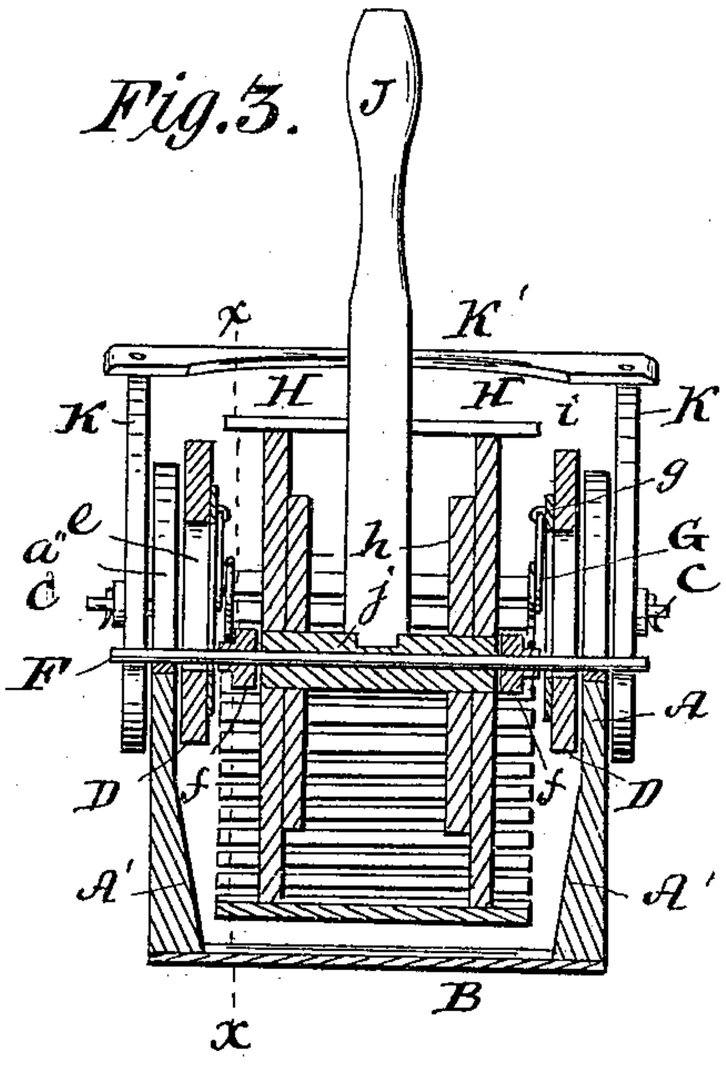


Fig. 3.



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Inventor
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By R. S. & A. P. Lacey
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

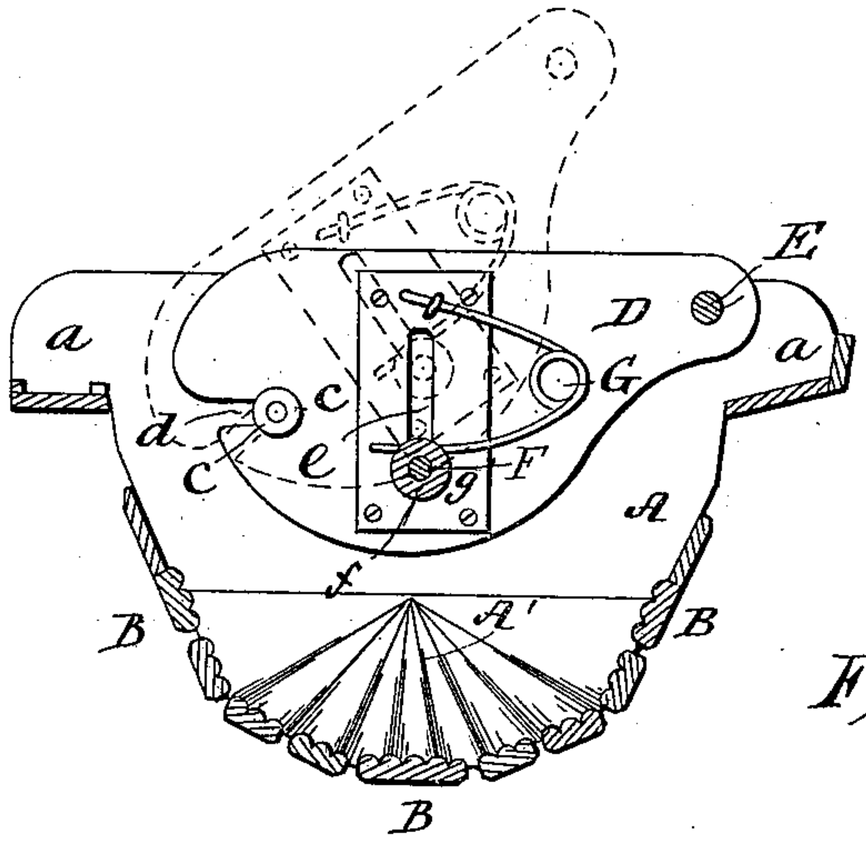


Fig. 5.

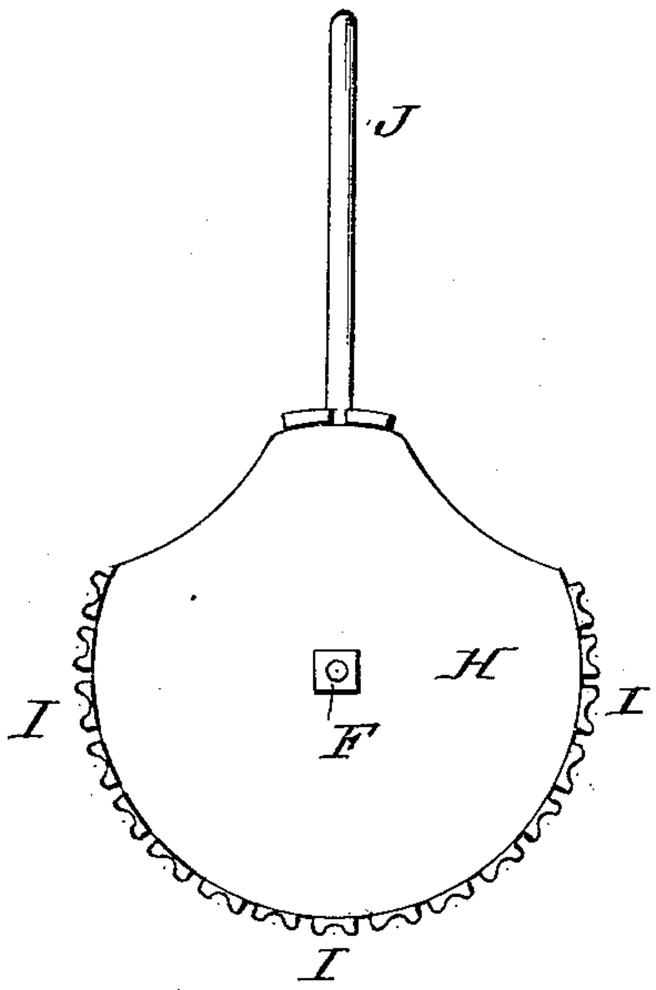
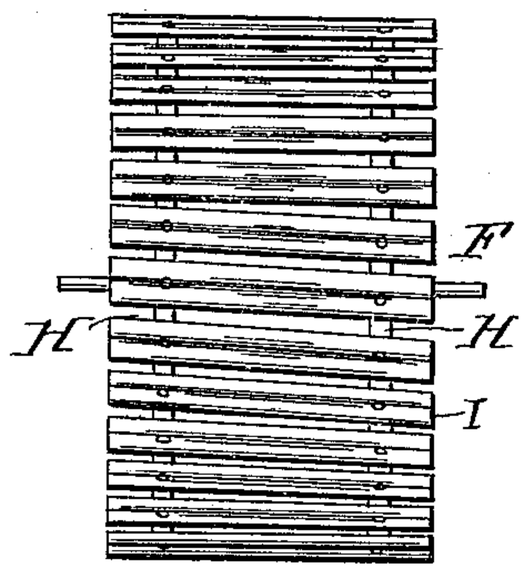


Fig. 6.



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UNITED STATES PATENT OFFICE.

LARS PETERSON, OF INDEPENDENCE, MISSOURI.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 329,853, dated November 3, 1885.

Application filed June 18, 1885. Serial No. 169,120. (No model.)

To all whom it may concern:

Be it known that I, LARS PETERSON, a citizen of the United States, residing at Independence, in the county of Jackson and State of Missouri, 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in washing-machines, and has for its object to produce such a machine as may be readily used in connection with any ordinary vessel or tub commonly used in laundering clothes, thus dispensing with the expense of a specially-constructed vessel for the machine; and to this end the invention consists in certain novel details of construction and combinations of parts, as more fully hereinafter set forth and specifically claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 represents a side elevation of the machine in position for use, the side of the vessel to which it is applied being broken away. Fig. 2 is a plan view of the same. Fig. 3 is a part view of the machine, partly in section, showing the internal arrangements of parts. Fig. 4 is a section on line X X, Fig. 3, with the rubber removed. Figs. 5 and 6 are detail views of the rubber.

The sides A of the machine terminate at their upper portions in arms *a*, while their lower portions are nearly semi-cylindrical, but preferably many-sided, as it gives the clothes a chance to gather in the angles and less room on the sides, which would not be the case if the said lower portion or edge were formed on a true circle, in which instance it has been found that the clothes will roll together in the bottom. Slats B, corrugated or beaded on their inner face, unite these sides and form the breast of the machine.

Pins C, passing through the sides of the machine, are provided with an enlargement or shoulder, *c*, leaving a space between it and the inner side of the machine equal to the thickness of the sides of the supporting-frame, which is pivotally mounted on said pins. These sides D have slots *d* formed therein, which extend to their edge, thereby permitting their easy removal and adjustment. The sides D are united by a cross-bar, E, which extends beyond the sides of the supporting-frame and beyond the sides of the machine and normally rests in notches *a'*, formed in the upper edge of the sides A of the machine. Vertical slots *e*, formed in the sides D, receive the journals of the rubber-supporting shaft F, which passes therethrough and through a curved slot, *a''*, formed in the sides A. A plate, *g*, surrounds and strengthens the slot *e* and forms a support for one end of the spring G, the other end of which latter rests and bears upon collars *f* on the shaft F, which latter supports the rubber, consisting of the segment sides H, strengthened and braced by disks or plates *h*. The sides H are joined by cross-slats I, corrugated lengthwise on their outer face, said slats being set oblique or slanting, this having been found in practice to give the best results. A handle, J, projects from a center or hub, *j*, uniting and bracing the sides of the rubber, which latter is held in a fixed position on the shaft F by the frictional contact between it and the shaft. Said handle J is braced by cross-bars *i*, and serves as a means to vibrate the rubber. Levers K are pivotally mounted on the outer ends of the pins C, their inner ends terminating in hooks *k*, which are adapted to engage the outer ends of the rubber-shaft F. The outer ends of said levers are united by a cross-bar, K'. One pair of arms *a* are united by a bottom board, L, and side boards, *l l'*, to form a soap-receptacle, the latter side being cut away at each end to permit the egress of water. The other pair of arms are similarly united, with the exception of the side *l'*.

The sides A of the machine are enlarged near their lower edges, said enlargement being radially grooved on its inner face, as indicated at A', thus forming a side rubbing-surface.

In practice the machine is supported on the upper edge of the ordinary vessel or tub, M, commonly used for laundering. The arms *a*, projecting beyond the edges of said vessels,

serve to support the machine The rubber-frame is thrown back in the position indicated in dotted lines, Fig. 4, when the clothing or articles to be washed are deposited in the main receptacle of the machine. The rubber-frame is then adjusted in position shown in Fig. 1, and is held in such position by hooks N, passing over the projecting ends of the cross-rod E.

The machine being in readiness for operation, the washing is done by simply vibrating the rubber by means of the handle J. The rubber is pressed upon the clothing by the springs G, which permit the same to yield and accommodate itself to the bulk of clothing. Should the clothing gather or become rolled into a bundle, the rubber may be raised by depressing the outer ends of the levers K.

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

1. A washing-machine comprising the following elements in combination: sides A, having arms *a*, corrugated slats B, joining said sides, a tilting rubber-supporting frame, a vibrating rubber supported in vertical slots in said frame, springs bearing upon the journals of said rubber, and levers for regulating the vertical adjustment of said rubber against the tension of the springs, as and for the purposes described.

2. In a washing-machine, the combination of segment sides having their lower portions enlarged and radially corrugated, the perimeter of said sides being composed of a number of straight edges, and corrugated slats joining said edges, with a rubber moving about a central axis, and composed of sides united by cross-slats, corrugated, substantially as shown and described.

3. In combination with the sides A, united by cross-slats B, and provided with the curved slot *a''*, the tilting rubber-frame D E, slotted at *d*, and mounted upon pins passing through the sides A, and the rubber H I, mounted on a shaft passing through vertical slots in the rubber-frame and through the curved slots in the sides A, substantially as described.

4. A washing-machine consisting of the following elements in combination: sides A, provided with arms *a*, a pair of which is united by cross-boards to form a soap-receptacle, corrugated slats B, connecting side pins, C, passing through the sides A, the latter of which is provided with a curved slot, *a''*, a rubber-supporting frame slotted to fit over the pins, a vibratory rubber working in vertical slots in said frame, and mounted on a shaft passing through the said curved and vertical slots, springs G, levers K, fulcrumed on the pins C, their inner ends being hooked and engaging the projecting ends of the rubber-supporting shaft, and hooks N, to hold the rubber-frame in a working position, the parts being arranged substantially as shown and described.

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

LARS PETERSON.

Witnesses:
J. G. PAXTON,
E. PETERSON.