(No Model.)

J. HOWELL.

WASHING MACHINE.

No. 321,299. Patented June 30, 1885.

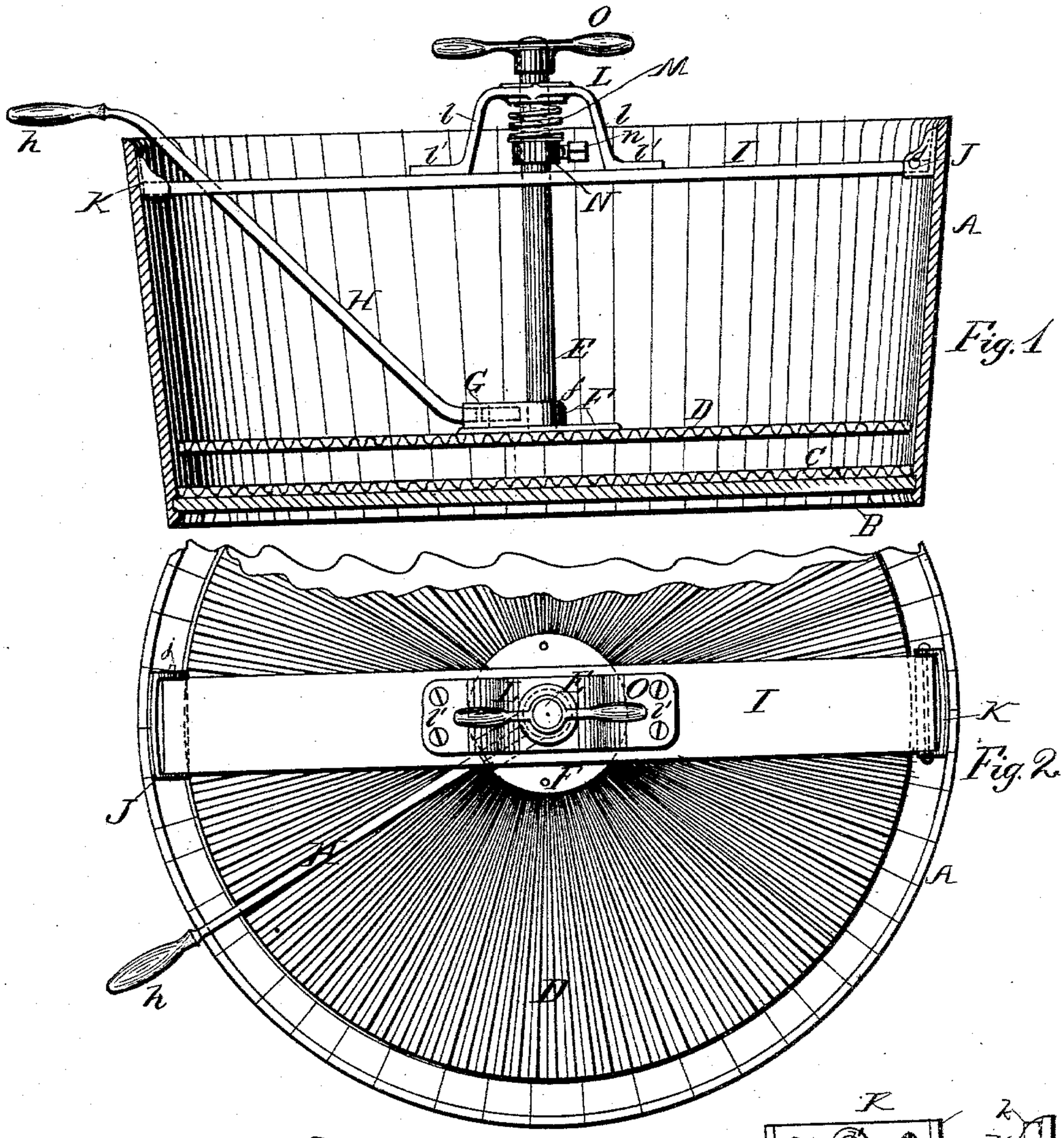

Fig. 1

Fig. 2

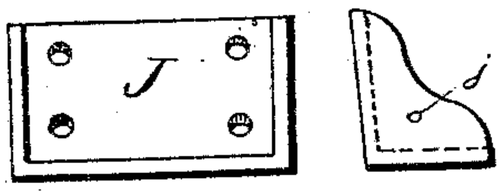

Fig. 3

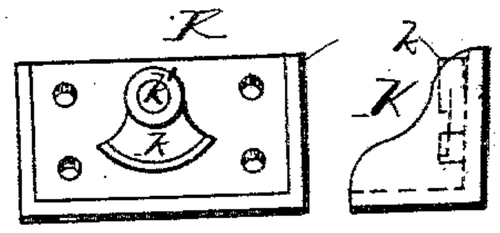

Fig. 4

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSIAH HOWELL, OF McKEESPORT, PENNSYLVANIA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 321,299, dated June 30, 1885.

Application filed April 25, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOSIAH HOWELL, of McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification

My invention has relation to washing-machines of that class wherein a corrugated or ribbed disk is mounted upon a vertical shaft which is journaled in a cross-bar upon a tub, the disk being reciprocated around its central axis by means of a suitable handle.

My invention has for its object the provision of means whereby the movable disk may be kept at a uniform pressure upon the clothes while washing the same, and has for its further object the provision of means whereby the disk and its connections may be swung up out of the way when placing the clothes in the tub or removing them from the same.

My invention consists, first, in the provision of a novel device for regulating and maintaining a constant pressure of the disk upon the clothes, and, secondly, in the provision of a novel means of securing the disk and its connected parts in position upon the tub so that it may be elevated and swung around out of the way when it is desired to remove the clothes or replace the same.

Referring to the accompanying drawings, wherein Figure 1 is a vertical section of a wash-tub with my improvements attached, Fig. 2 a top view of the same, and Figs. 3 and 4 detail views of some of the parts, A is the tub, and B the bottom thereof.

C is a corrugated or ribbed metallic disk secured to bottom B and entirely covering said bottom.

D is a similar disk of somewhat smaller size, secured to the bottom of a hub, F, which receives the end of a vertical shaft, E. The shaft E screws into a boss, *f*, cast integral with the hub, and the latter has a box, G, at one side, which receives the squared end of a lever, H. Said lever projects upwardly at an angle and its end is bent out over the edge of the tub A, and is provided with a handle, *h*, by means of which the disk is reciprocated around its central axis.

I represents a cross-bar of wood or other material, which is pivoted to the edge of the tub in a box, J, by a pivot, *j*, its other end resting in a similar box, K, at the other edge of the tub, and being secured when in position by a pivoted latch, *k*, pivoted at *k'* to the back of box K. At the center of cross-bar I a hole is made for the passage of the vertical shaft E. Said shaft also passes through a plate, L, secured to the cross-bar I by depending legs *l l*, having lateral feet *l' l'*, the whole forming a bridge above the central opening in cross-bar I, and serving as an additional bearing for shaft E, and serving also to retain in position and form a bearing for one end of a spiral spring, M, which surrounds the shaft E between said plate and cross-bar, its lower end resting upon a sleeve, N, adjustably fixed on shaft E by a set-screw, *n*.

A handle, O, is secured upon the end of shaft E, and serves as a grasp for the hand when it is desired to swing the shaft and cross-bar over the side of the tub.

Operation: The parts being in position, as described, when it is desired to insert the clothes in the tub the latch *k* is swung around out of engagement with the cross-bar, and the latter is lifted or turned over on its pivot, carrying with it the shaft E and disk D. The clothes are then placed in the tub, and the cross-bar brought back to its original position, the set-screw *n* being first loosened. The disk D is then pressed down firmly upon the clothes, and the screw *n* tightened up. The disk is now held down by the pressure of the spiral spring, and presses firmly upon the clothes at all times, but is allowed to rise up through the elasticity of said spring if the clothes should pile up at one point. The handle *h* being now worked from side to side, the disk rubs upon the clothes, and, agitating the water, causes it to circulate around and through the clothes until they are thoroughly cleaned.

Having fully described my invention, I claim—

The combination of tub A, cross-bar I, hinged thereto at one end and having fastening-catch

J at the other end, vertical shaft E, adjustable spring M, surrounding said shaft above the cross-bar, plate L, secured to said cross-bar and forming a bearing for said spring, movable collar N, disk D, and lever H, connected to said disk and extending upward and over the edge of the tub, all constructed and arranged substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOSIAH HOWELL.

Witnesses:
B. Y. FIFE,
JOHN CARTWRIGHT.