

L. GAIL.

Improvement in Washing Machines.

No. 124,675.

Patented March 19, 1872.

Fig. 1

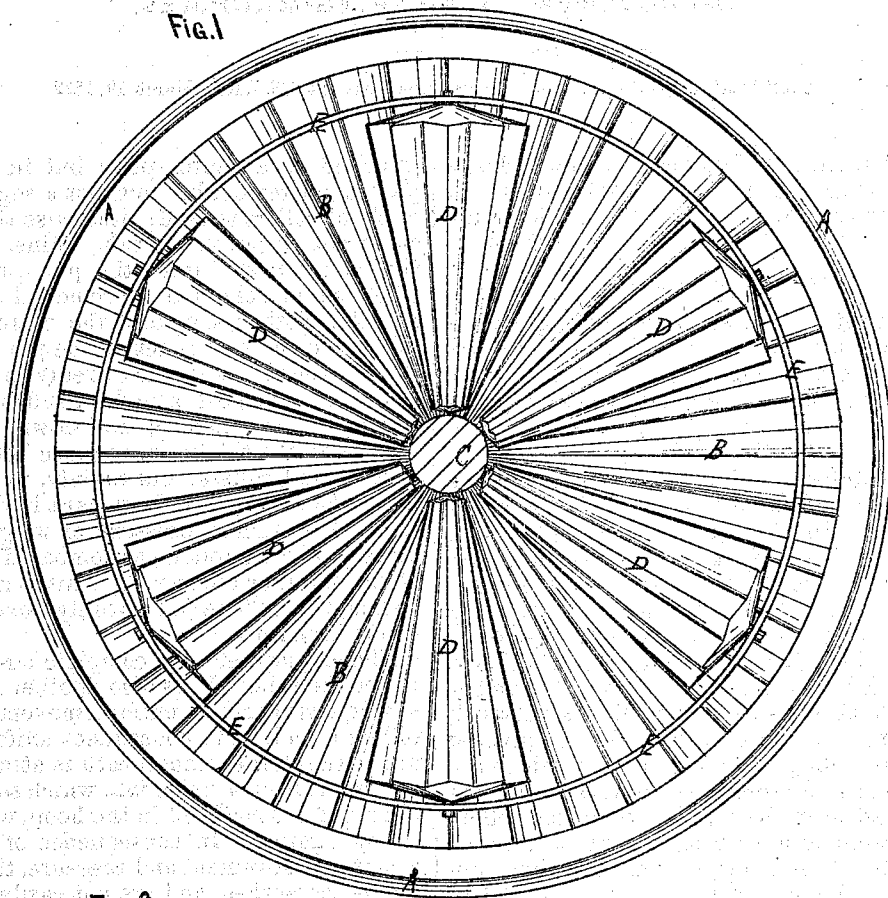
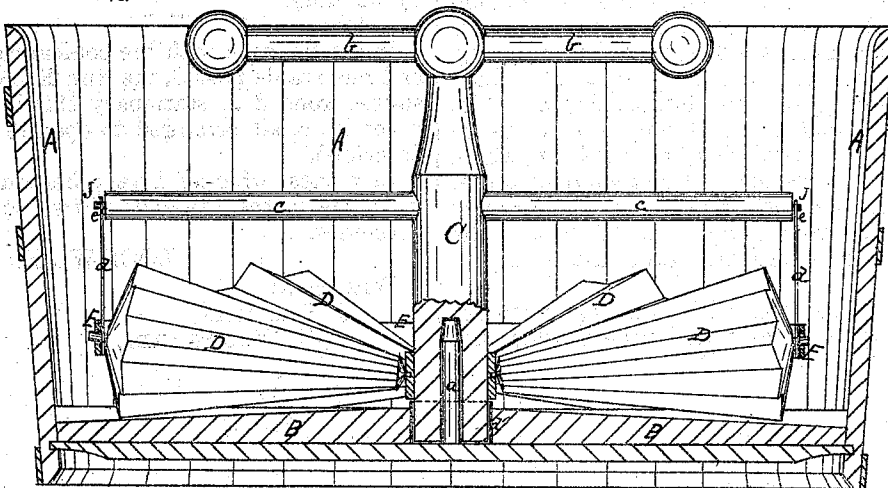


Fig. 2



WITNESSES

J. R. Drake
C. N. Woodward

Lockwood, Gail, INVENTOR, BY
Burke, Fraser & Legood, Attys

UNITED STATES PATENT OFFICE.

LOCKWOOD GAIL, OF BUFFALO, NEW YORK.

IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 124,675, dated March 19, 1872.

Specification describing certain new and useful Improvements in "Washing-Machines," invented by LOCKWOOD GAIL, of Buffalo, in the county of Erie and State of New York.

Nature of the Invention.

My invention consists in combining, with a complete set of conical rollers and a removable post, an arrangement of parts for facilitating the action, as hereinafter described.

General Description.

In the drawing, Figure 1 is a plan. Fig. 2 is a vertical cross-section through the center of the tub; Fig. 3, part of the connecting-rod.

A is the tub, having an auxiliary fluted or corrugated disk, B, attached to the bottom. In the center is a short vertical pin, *a*, setting into the upright standard or operating-post C, and on which the post revolves. This post has pivoted to it, near the bottom, a number of conical fluted rollers, D, widening outward, as shown, and whose outer ends are pivoted in a surrounding hoop or rim, E, in which the rollers work. *b* represents the lever, attached to the post near the top, by which the rollers are operated; and *c c* represent radial arms or guides, to whose outer ends are attached connecting-rods *d d*, which are also attached to the hoop. These are to aid in moving the rollers, and to prevent too high a movement to them; but to allow a sufficient play in going over the clothes by means of a slot, *e*, and a headed pin, *j*, working in said slot, as shown in Fig. 3. Surrounding the post C and attached to the bottom B is a metal ring or thimble, *d'*, which extends up above the bottom a short distance, to prevent the cloth from clogging the rollers or winding around the post. This, and the slotted rods *d d*, are important parts of my invention.

I am acquainted with washing-machines having two or three fluted rollers, which are

attached to a center-post; but in these the post is not removable, and but a segment of a circle of rollers is used; otherwise the clothes could not be put in the tub. Mine, by lifting the center-post C from the pin *a*, allows the whole set of rollers to be removed at once to put the clothes, &c., into the bottom of the tub; then the post is set on the pin *a*, and by turning the rollers, will act evenly on the cloth. The hole in the post is made of sufficient depth to allow a movement up and down, to accommodate to the thickness or space between the bottom and rollers; but mainly, to overcome by the hand-pressure downward in the center, the overbalancing pressure or weight of the large end of the rollers, as compared with that of the small or inner end. This is an important, and, I believe, an entirely novel feature of my invention.

The employment of a complete circle or rim, E, for the rollers D, is also another feature of novelty, as thereby a uniform movement of the rollers is had, and a consequent uniform pressure on the clothes underneath is attained, preventing ridges or holes into which some of the rollers, if not confined in the hoop, would sink or run against. In consequence of this uniformity of movement and pressure, the clothes are better washed, and are not easily worn out by washing.

I claim—

In combination with the conical rollers D D and removable post C, the ring E, cross-arm *c*, slotted rods *d d*, stationary thimble *d'*, and pivot-pin *a*, all arranged to operate as herein described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

LOCKWOOD GAIL.

Witnesses:

J. R. DRAKE,
C. N. WOODWARD.