

M. LOUGHRAN.
Washing-Machine.

No. 165,844.

Patented July 20, 1875.

Fig. 1.

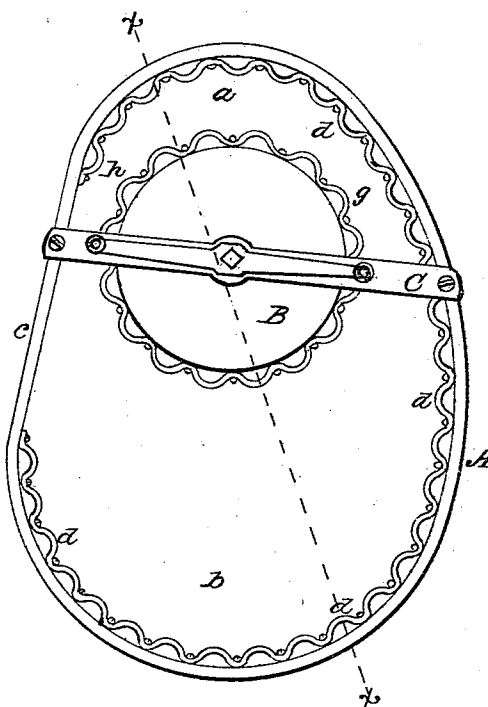
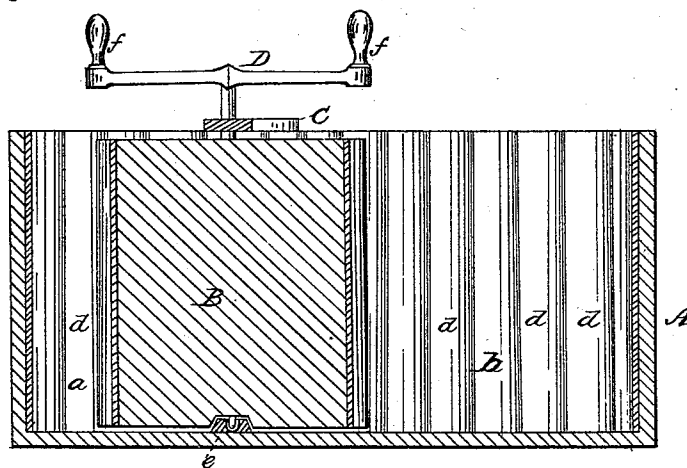


Fig. 2.



WITNESSES:

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IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. **165,844**, dated July 20, 1875; application filed June 19, 1875.

To all whom it may concern:

Be it known that I, MICHAEL LOUGHRAN, of Allegheny, 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 thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in rotary washing-machines; and it consists of a tub constructed in an oval or egg-shaped form, having a corrugated cylinder pivoted in the smaller end thereof, and adapted to operate in connection with the peculiar shape of the tub, as will be hereinafter more fully described and pointed out in the claim.

Referring to the drawings, Figure 1 represents a plan or top view of my improved apparatus. Fig. 2 is a longitudinal vertical section of the same taken on the line *x x* of Fig. 1.

Similar letters of reference occurring on the several figures indicate corresponding parts.

A represents a tub, formed in shape not unlike an egg in longitudinal section, having a rounded small end, *a*, and a larger rounded end, *b*, one side of the tub being flattened or in a straight line, as shown at *c*, said tub being provided upon its inner circumference with a series of corrugations, *d*. The corrugations may be constructed of half-rounded strips of wood, metal, or hard rubber, secured to the tub in any suitable manner, although it is deemed preferable to use a corrugated metallic lining secured to and following the inner circumference of the tub, such as is used upon the ordinary wash-board, although in the present use and adaptation it should be made much heavier. B represents a corrugated cylinder, arranged in the smaller end *a* of the tub, and is pivoted in the bottom of the same, as shown at *e*, the upper part working in the cross-arm C, and being provided with the crank D, having handles *f f*, as shown in Fig. 2.

Having thus premised the principal fea-

tures of my invention, I will now proceed to describe the operation of the same.

The tub A is filled with water to about one-half its capacity, and the clothes to be washed are placed therein at the larger end *b*, directly in front of the cylinder B. The clothes are then allowed to soak for a short time, after which a portion of the same are directed by the hand to the graduating-space *g*, between the cylinder and the side of the tub. The crank D is then rotated by means of the handles *f* until the clothes are drawn into the smallest space *h*, when the motion of the cylinder B is reversed, thereby turning or lapping a portion of the clothes over upon the other and bringing a fresh portion of the clothes to undergo the washing or squeezing process.

It will be observed that by this peculiar construction of parts the clothes are drawn into the smaller space *h*, the cylinder exerting a direct pressure upon the clothes at that point, thereby squeezing the same, when, by a reverse motion of the cylinder, the clothes are opened, or turning the portion so squeezed over upon another part, bringing a fresh portion of the clothes to undergo the same pressure.

In this the object attained is to imitate as closely as possible the ordinary hand process on the common wash-board.

The object in constructing the part *b* of the tub A much larger is to give plenty of room for the introduction and manipulation of the clothes previous to guiding the same through the graduating-space to the cylinder.

I am aware that circular tubs having a corrugated cylinder pivoted to one end of the same have been heretofore known and used; but in the operation of the same the clothes are drawn through and between the said cylinders and the sides of the tub, thereby exerting simply a wringing process, while in the operation and manipulation of my improved apparatus the motion secured is both a squeezing and rubbing process combined with the wringing operation.

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

The hereinbefore described washing-ma-

chine, consisting of the tub A, of an oval or egg-shaped form, having a small end, *a*, and a larger end, *b*, and flattened side *c*, said tub being provided with a corrugated cylinder, B, pivoted in the smaller end *a*, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as

my own invention, I affix my signature in presence of two witnesses,

MICHAEL LOUGHRAN.

Witnesses:

B. A. WOLF,

W. McCULLY.