

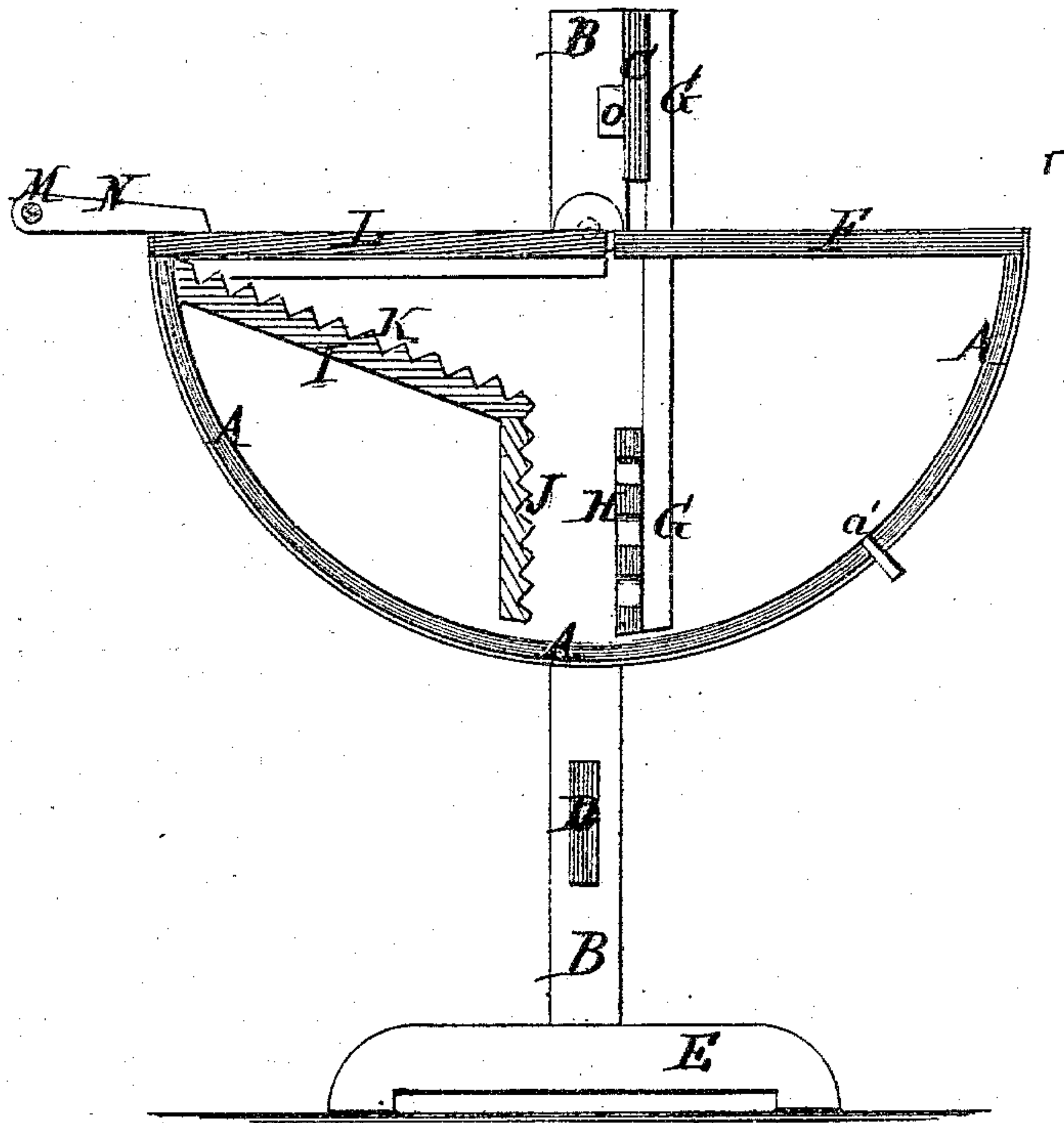
F. M. ELLIS:

## Improvement in Washing Machines.

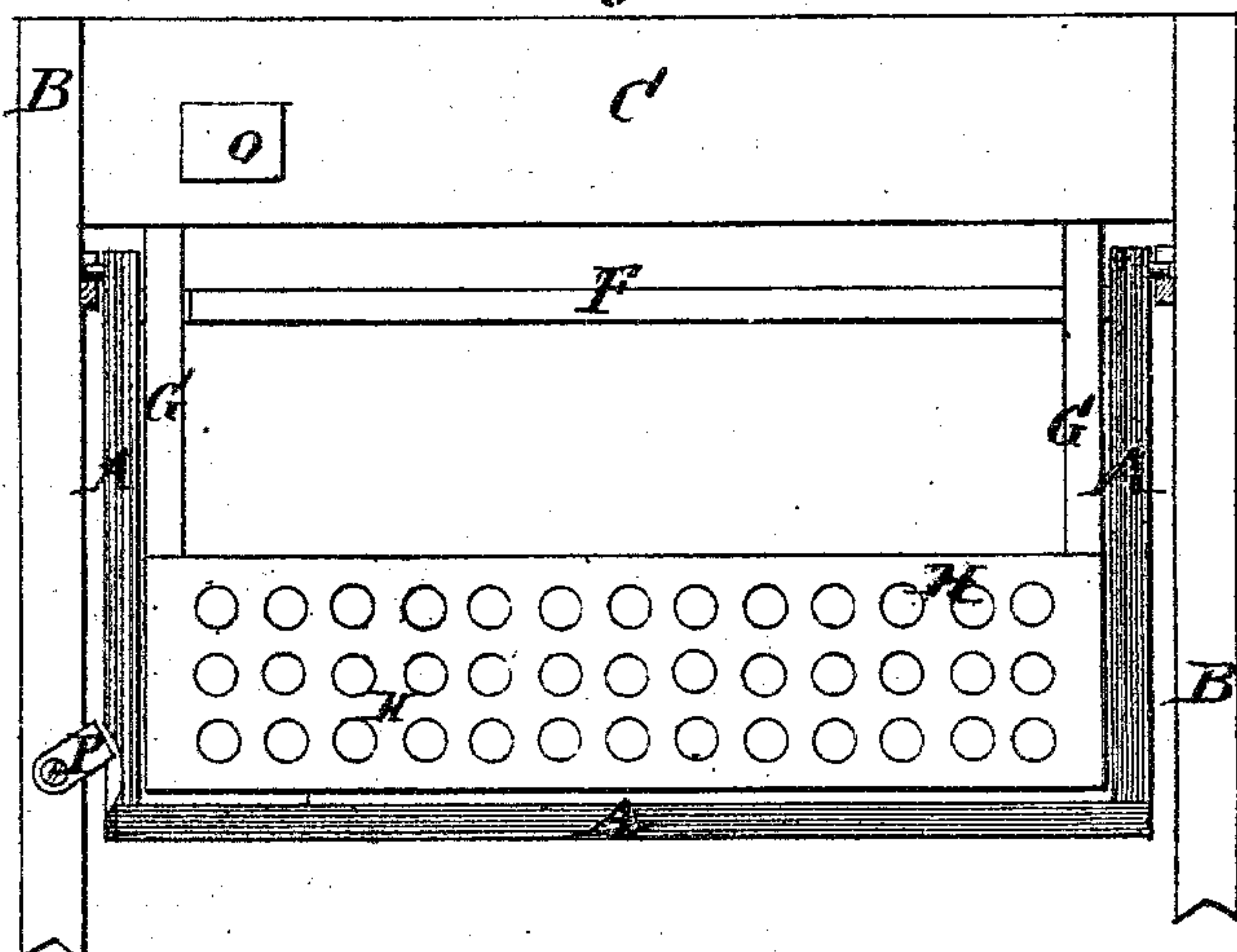
No. 115,835.

Patented June 13, 1871.

*Fig:1.*



*Fig: 2.*



**Witnesses:**

M. V. Leander  
Wm. H. C. Smith.

**Inventor:**

G. M. Ellis

PER

**Attorneys.**



# UNITED STATES PATENT OFFICE.

FRANCIS M. ELLIS, OF GALVA, ILLINOIS.

## IMPROVEMENT IN WASHING-MACHINES.

Specification forming part of Letters Patent No. 115,835, dated June 13, 1871.

*To all whom it may concern:*

Be it known that I, FRANCIS M. ELLIS, of Galva, in the county of Henry and State of Illinois, have invented a new and useful Improvement 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 make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical cross-section of my improved machine. Fig. 2 is a vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved washing-machine, simple in construction, easily and conveniently operated, and effective in operation, washing the clothes quickly, thoroughly, and without injuring them.

A is the tub of the machine, which is made semi-cylindrical in form. The curved part of the tub A is made of zinc or other suitable sheet metal, lined upon its inside with wood. This construction makes the tub perfectly water-tight, and at the same time keeps the clothes from being soiled or stained by the metal. To the ends of the tub A, at or near their upper edges, are attached gudgeons, which work in notches in bearings attached to the inner sides of the posts B. The posts B are connected at their upper ends by a cross-bar, C, and at their lower parts by the cross-bar D. The lower ends of the posts B are attached to foot-pieces E of such a length as to support the machine firmly. The rear half of the tub A is provided with a cover, F, permanently attached to it. The forward edge of the cover F is slotted near its ends to receive the bars G, the upper ends of which are permanently and rigidly attached to the cross-bar C. To the lower ends of the rigid bars or arms G is attached a board, H, which is perforated with numerous holes to allow the water to pass through freely. In the forward part of the tub A is secured an inclined apron, I, to the lower edge of which is secured a corrugated board, J, as shown in Fig. 1, said apron

and board being firmly secured in place. The middle part of the apron I is corrugated to serve as a rubbing-board, or has a rubber-board, K, attached to it for convenience in rubbing any parts of the clothes that may be very much soiled. The forward half of the tub A is provided with a detachable cover, L, the ends of which rest upon cleats attached to the ends of the said tub A. M is a bar or rod that serves as a handle in operating the machine, and which is attached to the outer ends of two short arms, N, the inner ends of which are attached to the ends of the tub A. To the cross-bar C is attached a box, O, to hold the soap. The cross-bar C also serves for the attachment of a wringer when required. The tub A is held stationary, when putting in and taking out the clothes, by a button, P, pivoted to one of the posts B, and which enters a notch in the end of the tub A, as shown in Fig. 2. Other notches may be formed in the end of the tub A, so that the tub may be conveniently secured in proper position for the water to flow out through the discharge-opening *a'*.

In using the machine the clothes are placed in the space between the perforated board H and the corrugated board J, and the tub is oscillated upon its pivots, pressing the clothes between the said boards J H and then allowing them to fall back into the water to be again saturated, and so on.

The tub A may be detached from its supporting frame-work, for storage or transportation, by raising its pivots from their bearings and pushing the tub to the rearward beneath the perforated board.

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

In combination with an ordinary perforated and stationary board, the corrugated and water-tight board J, arranged vertically to force the water through the perforated board H, in the manner described.

FRANCIS M. ELLIS.

Witnesses:

W. H. DWIRE,

LOUIS C. SLONECKER.