

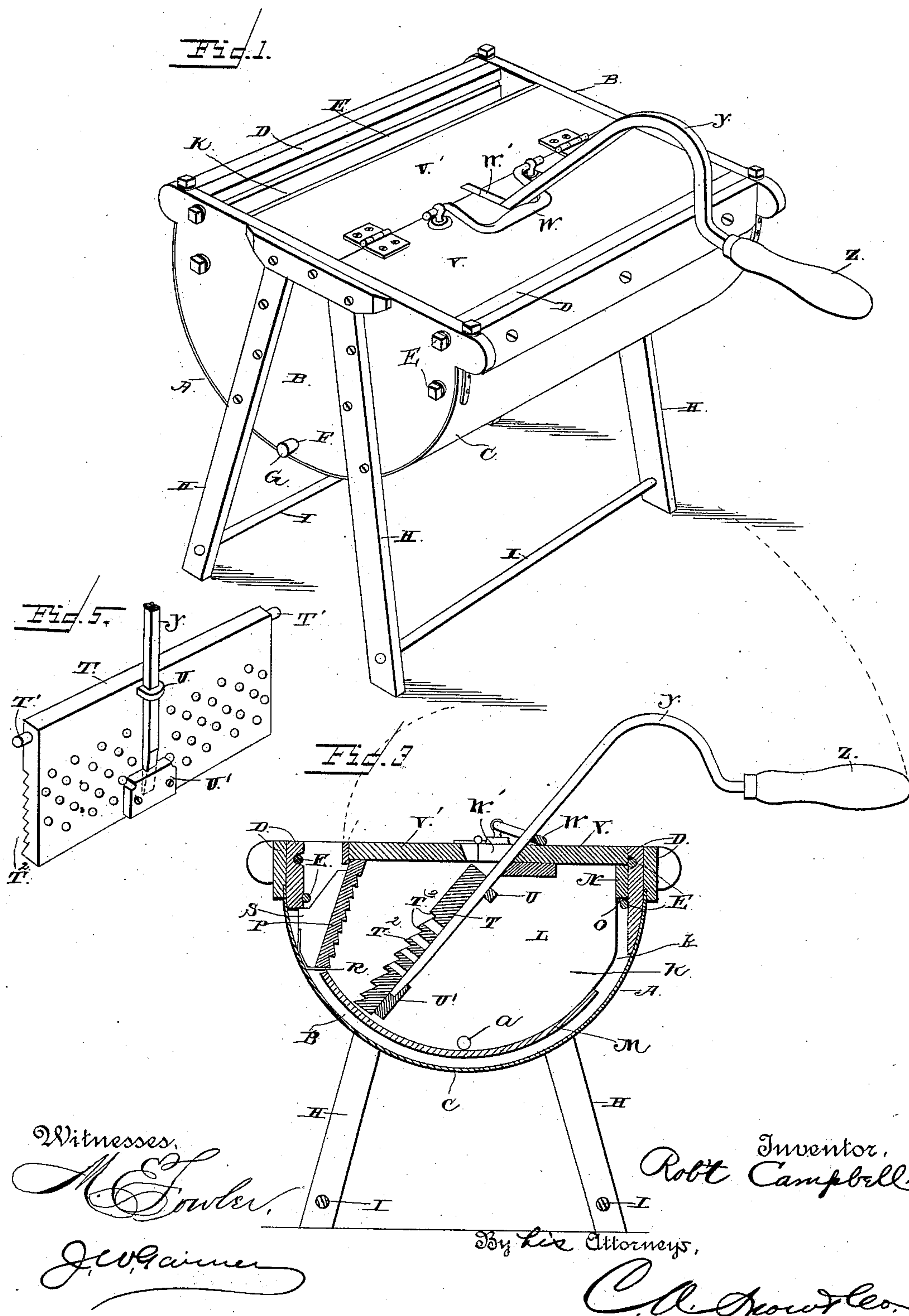
(No Model.)

2 Sheets—Sheet 1.

R. CAMPBELL.  
WASHING MACHINE.

No. 387,576.

Patented Aug. 7, 1888.



Witnesses,  
*M. E. Fowler,*  
*J. W. Gainer*

Inventor,  
*Robt Campbell.*

By *his* Attorneys,

*C. A. Howdley.*

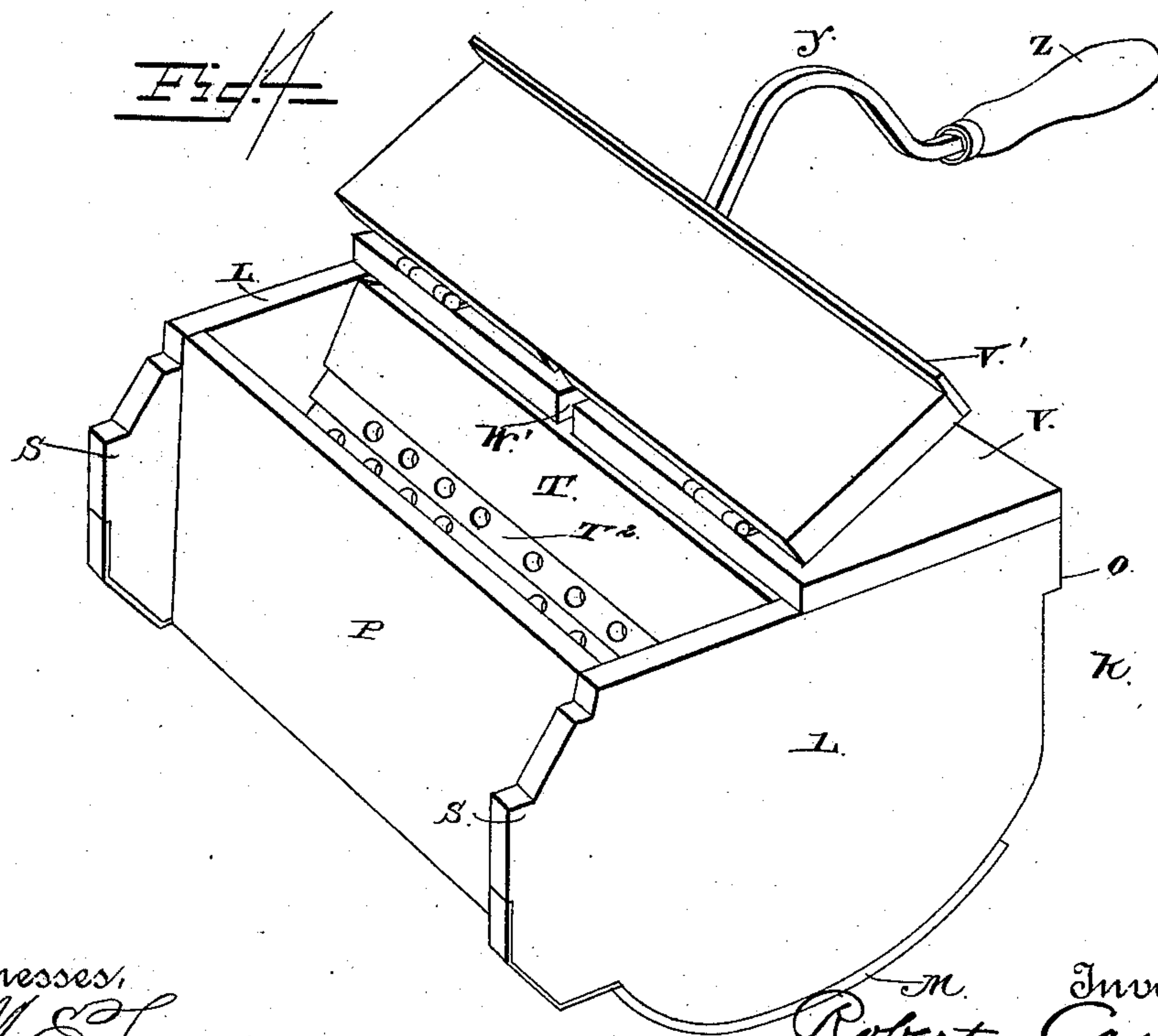
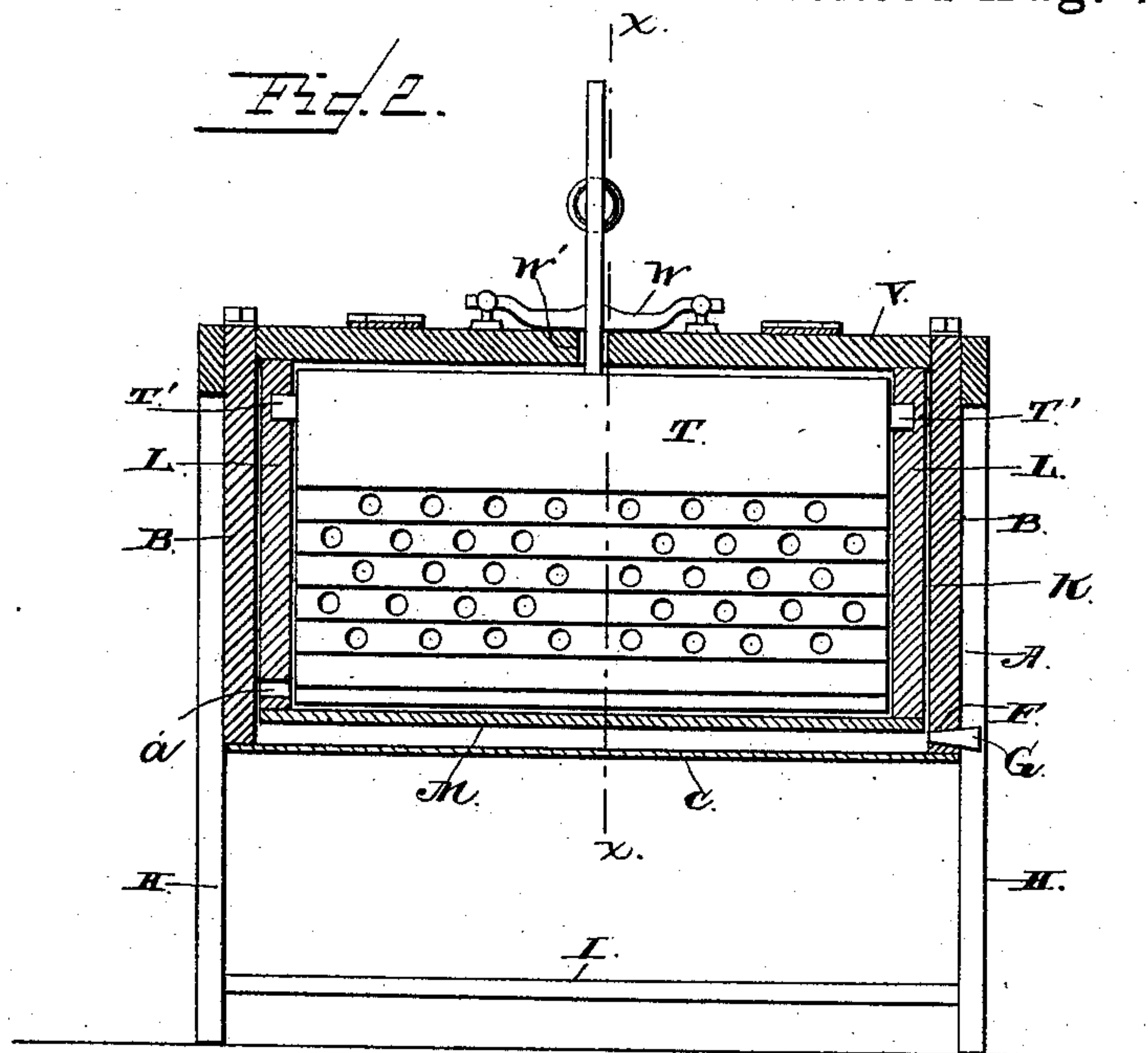
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*Geo. G. Gann*

Inventor,  
*Robert Campbell*

By his Attorneys

*C. A. Howdell*



# UNITED STATES PATENT OFFICE.

ROBERT CAMPBELL, OF SOUTH HAVEN, ASSIGNOR OF ONE-HALF TO M. R. SPEALMAN, OF MENDON, MICHIGAN.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 387,576, dated August 7, 1888.

Application filed September 27, 1886. Serial No. 214,645. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT CAMPBELL, a citizen of the United States, residing at South Haven, in the county of Van Buren and State of Michigan, have invented a new and useful Improvement in Washing-Machines, of which the following is a specification.

My invention relates to an improvement in washing-machines; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

This invention is an improvement upon the washing-machine upon which Letters Patent of the United States, No. 222,623, were granted to me December 16, 1879.

In the drawings, Figure 1 is a perspective view of a washing-machine embodying my improvements. Fig. 2 is a vertical longitudinal central sectional view of the same. Fig. 3 is a vertical transverse sectional view of the same taken on the line *xx* of Fig. 2. Fig. 4 is a perspective view of box K. Fig. 5 is a detached view of the rubber.

A represents a semi-cylindrical suds-box, which is composed of the semicircular wooden heads or ends B, a sheet-metal plate, C, which forms the curved bottom and sides of the suds-box, and the connecting longitudinal bars D, which are arranged between the heads B at the upper edges thereof.

E represents clamping-bolts, which extend longitudinally through the suds-box, bear against the inner sides of the bars D, and clamp the heads or ends of the suds-box against the ends of the said bars. At the bottom of the suds-box, at one end thereof, is a discharge-opening, F, which is provided with a suitable plug, G. The suds-box is supported by diverging feet H, which are attached to the heads or ends B by means of screws or bolts, and the lower ends of the feet are connected together in pairs by means of rungs I.

K represents a semi-cylindrical box, the length of which is equal to the distance between the opposing inner sides of the ends of the suds-box, and the width of the box K is less than the width of the suds-box, so as to permit a space to be left between the curved lower side of the box K and the curved lower side of the suds-box. The said box K com-

prises the heads or ends L, the curved bottom M, the longitudinal connecting-bar N, the ends of which are attached to shoulders O, that project from one side of the box at its upper edge, and an inclined wash-board, P, the inner side of which is corrugated, and which connects the end boards, L, on the side opposite the bar N. This wash-board is of sufficient width to extend from the top of the box nearly to one side of the curved bottom-board M, thus leaving an opening, R, between the wash-board and the bottom board.

S represents shoulders which project from the end boards, L, and beyond the outer side of the wash-board, and the said shoulders are adapted to engage the under edge of one of the bars D of the suds-box, while the shoulders O and the bar N of the box K bear against the bar D on the opposite side of the suds-box, and thus support the box K therein.

T represents a dash-board, which is perforated, and is provided at its ends on its upper side with projecting trunnions T', that bear in recesses which are made in the ends of the box K, and thus pivot the dash-board longitudinally in the center of the said box. That side of the dash-board which is opposite the corrugated side of the wash-board P is corrugated, as shown at T<sup>2</sup>, the said corrugations T<sup>2</sup> extending downwardly and outwardly and forming shoulders T<sup>3</sup> on their lower sides. On the rear side of the pivoted dash-board, at the center thereof and near its upper and lower edges, are secured guiding-keepers U.

V represents a cover, which is secured on the upper side of the box K, and is provided with a hinged section, V', over that portion of the box K between the dash-board and the wash-board and forms a lid therefor. On the upper side of the cover is attached a handle, W, and in the center of the cover is a transverse-slot, W'.

Y represents a bent lever, the lower portion of which is adapted to extend through the slot W' and enter the keeper U and block U', and to the upper end of the said lever is attached a handle, Z. A discharge-opening, *a*, is made in one end of the box K at the bottom thereof.

The operation of my invention is as follows: A suitable quantity of suds is placed in the suds-box and the box K is inserted therein, as



before described, and the articles to be washed are placed in that portion of the box K between the pivoted dash-board and the wash-board. The lid V' is closed and the lever Y is attached to the dash-board, in the manner described, and the operator grasps the handle Z and oscillates the dash-board, causing it to alternately approach and recede from the wash-board, and thus compress the clothes between the dash-board and the wash-board and force the suds through the fibers thereof, thus thoroughly cleansing them. The openings a and R permit the escape of the suds which are squeezed from the clothes into the suds-box, and the dirt settles in the bottom of the suds-box between it and the curved bottom board of the interior box, K, thus preventing the clothes from being soiled or stained thereby. A space, k, is left open on one side of the box K, between the curved bottom thereof and the bar N, through which space the water in the outer case can flow into the box K.

The peculiar shape to the lever Y with the bend, as shown, enables the operator to make a clean sweep or movement to the handle without danger of coming in contact with the machine, which would result if a straight handle were employed.

It will be observed that the box K is supported within the suds-box by the shoulders S bearing against the sides of the suds-box, and the shoulders O resting on the bar E.

The door V' communicates with the clothes, which are placed between the pivoted rubber

T and the board P, and the front edge of the door is flanged to catch over the upper edge of said board P.

Having thus described my invention, I claim—

1. In a washing-machine, the suds-box semi-circular in form, combined with the removable box K, similar in form and fitted within the suds-box, and provided with shoulders S O, to bear against the sides of the suds-box and support the box K, the said box containing the clothes to be washed and comprising the end pieces, L, the bottom board M, the inclined wash-board P at one side, and the hinged cover for the suds-box, the dash-board pivoted within the box K on one side of the wash-board, and the operating-lever for the dash-board extending up through a slot of the cover, as set forth.

2. In a washing-machine, the combination of the suds-box, the hollow removable box K, containing the clothes and located in the suds-box, and having the end pieces, L, the bottom board M, and the inclined wash-board P at one side, and the dash-board pivoted within the box K on one side of wash-board P, substantially as set forth.

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

ROBERT CAMPBELL.

Witnesses:

E. B. MOON,  
H. HODGES.