

(No Model.)

2 Sheets—Sheet 1.

A. A. CASLER.  
WASHING MACHINE.

No. 593,833.

Patented Nov. 16, 1897.

Fig. 1.

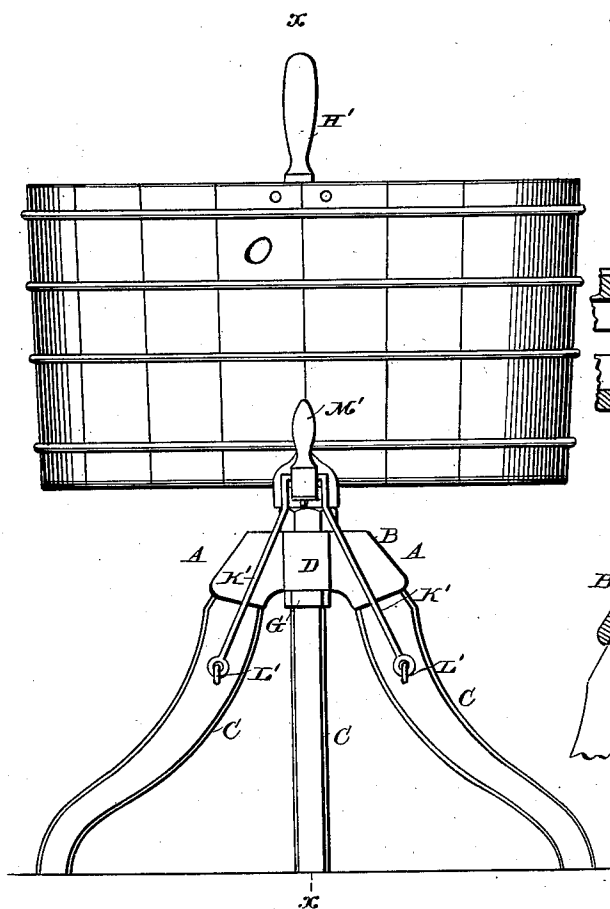


Fig. 5.

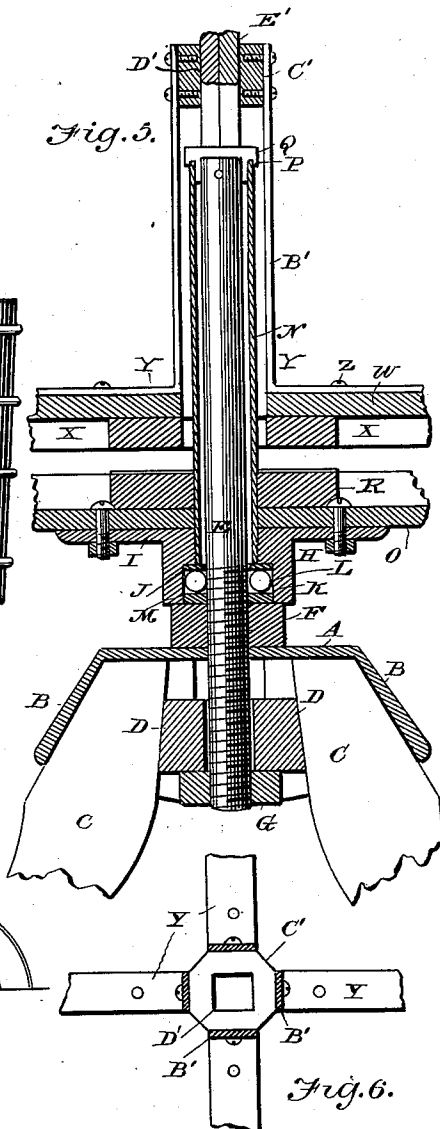


Fig. 6.

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by Thos. E. Barrow,  
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Witnesses:

Wm. B. Dyer  
Jm. A. Moore

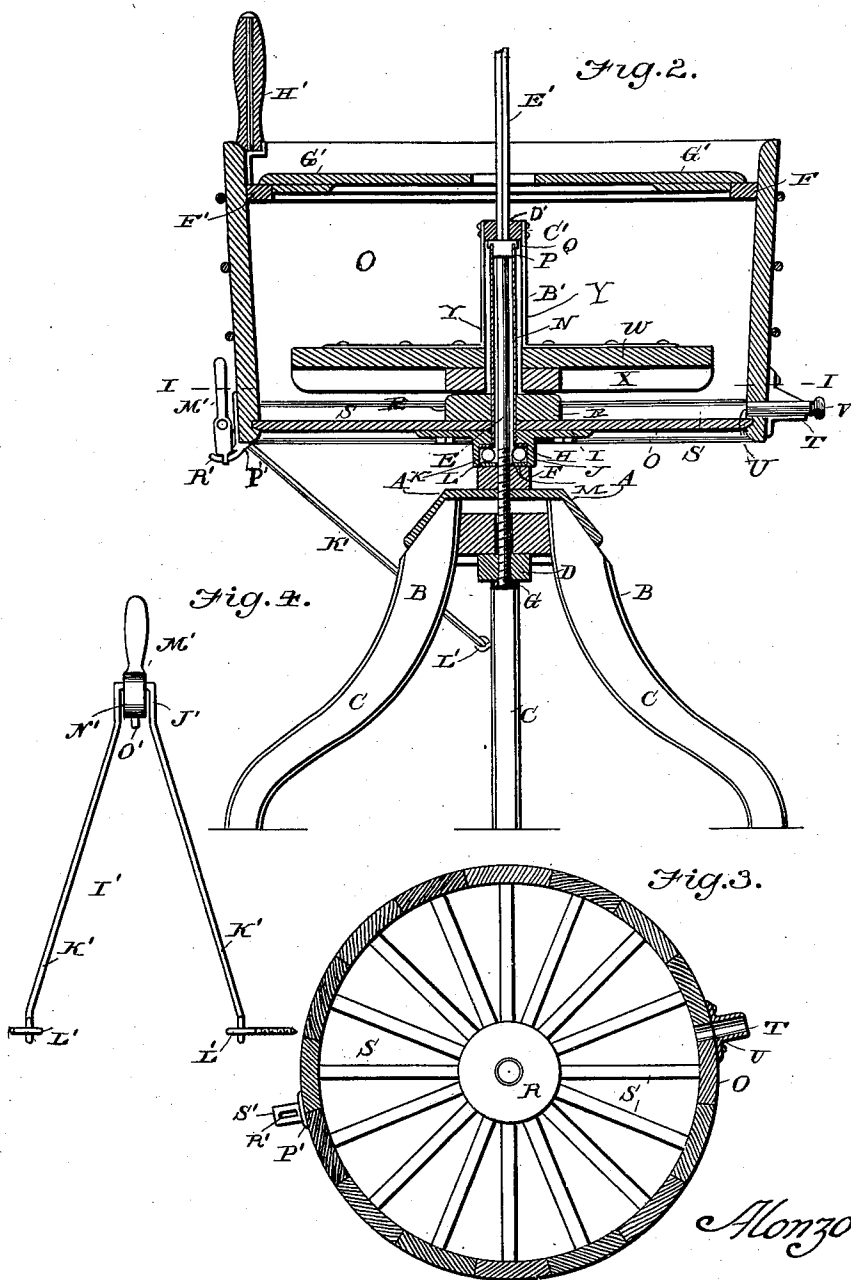
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Witnesses:

*Francis D. Syle*  
*Wm. Vanover*

# UNITED STATES PATENT OFFICE.

ALONZO A. CASLER, OF MANSFIELD, OHIO.

## WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 593,833, dated November 16, 1897.

Application filed January 11, 1897. Serial No. 618,827. (No model.)

*To all whom it may concern:*

Be it known that I, ALONZO A. CASLER, a citizen of the United States, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Washing-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in washing-machines, and has reference to that particular class wherein the tub or suds-box oscillates.

The objects of my invention are, first, to produce a machine of that class which is simple in construction, easy to manipulate, and which is adapted to thoroughly cleanse clothing of any kind without subjecting them to undue wear; second, to produce a gentle rubbing and squeezing manipulation when the clothing is in process of washing; third, to make a cheap, durable, and efficient means for the purpose stated.

Other objects and the novel features of the invention will be particularly pointed out in the specifications and claim.

In the accompanying drawings, Figure 1 is a side elevation of my improved washing-machine, showing the general construction of the suds-tub, stand, and locking device. Fig. 2 is a vertical longitudinal sectional view of my invention, the section taken in line *x x*, Fig. 1. This view embodies the full construction of the invention. Fig. 3 is a transverse sectional view, taken in line 1 1, Fig. 2, showing more fully the construction and arrangement of the rubbing-strips secured in the bottom of the tub. Fig. 4 is a front view of locking device to hold the tub stationary when necessary. Fig. 5 is a vertical longitudinal sectional view, enlarged, showing more fully the construction of the center bearing, mode of securing the legs into the base, and mode of holding the upper slatted rubbing-surface disk. Fig. 6 is a top view showing the mode of retaining the upper rub-

bing-surface disk in position upon the center-post.

Letters of reference indicate the several parts throughout the several views.

The base A, upon which the machine is mounted, is composed of a casting having four square sockets B, and in which are placed the feet C. The said feet are held firmly in the casting by the square washer D, which will be more fully described hereinafter.

E indicates the vertical center-post, which is threaded upon its lower end and provided with the bearing-nut F and clamping-nut G. The nut F rests upon the base A and answers two purposes—first, to form an adjustment for the ball-bearing H; second, to form a collar for the base A to bear against, and clamped firmly upon the base by the nut G, forcing the square washer D between the legs C, clamping them firmly within the sockets B.

The pivot or ball-bearing H is composed of the casting I, having a downwardly-projecting hub J. The said hub is provided with an annular groove K, and in which is placed a series of balls L. A tempered-steel washer M is placed above and below the balls to form ball-tracks and obviate all wear. A circular opening is made through the center of the casting I and provided with threads to receive the vertical tubular post or sleeve N. The object of the said sleeve is to prevent all leakage in the bottom of the tub O and to steady the tub in vertical position by the upper end of the sleeve passing into the annular groove P, formed in the under side of the cap Q, and also prevents any water from passing within the sleeve N.

The bottom of the tub O is provided with a raised disk R to thicken the bottom and hold the sleeve N more firmly in position. A series of wood strips S are also secured to the bottom and inside of the tub. The said strips diverge from the center-block R to the inner wall of the tub. The strips are rounded upon the upper edge to prevent wearing of the clothes, as shown in Fig. 3.

T indicates the discharge-spout, which is made of metal and secured over the opening U made through the side of the tub, and on a line with the inside of the bottom the said opening is provided with a suitable stopper V.

W indicates a wood disk, the under surface arranged with wood strips X and arranged the same as the bottom of the tub. (See Fig. 3.)

Y indicates L-shaped iron braces, which are 5 four in number. The horizontal arms are secured upon the upper face of the disk W by screws Z. The vertical-arms B' are secured at their upper ends to the sleeve C'. The said sleeve is provided in its center with a 10 square hole D' to fit the square part E', secured upon the upper end of the center-post E and forming part of the same.

The object and operation of the disk will be fully described in the operation of the ma- 15 chine.

Secured within the tub O and near its upper edge is a wood flange F', and is for the purpose of forming a suitable support for the lid G'. A suitable handle H' is secured upon 20 the inside of the tub and projecting above the upper edge of the same. This description is shown in Fig. 2.

Fig. 4 shows the locking device detached, and is composed of a wire I' bent upon itself 25 to form a parallel opening J', the ends K' formed into an eye and provided with screw-eyes L', which are secured in the side of the legs C.

M' indicates the lever, which is pivoted 30 upon the wire I' and is composed of a handle and wedge-shaped bottom N', the lower face rounded and provided in its center with a pin O'.

A casting P' is secured upon the lower edge 35 of the tub. The said casting is formed with a flange to screw to the side of the tub, the said casting having a curved flange R' projecting outward. The said flange is provided with slot S' to receive the pin O'. It will be 40 readily seen by those skilled in the art that when the eccentric lever M' is placed upon the curved flange R' the pin O' will pass into the slot S' by raising upward upon the lever M' until the pivot passes the line of center, the 45 pin O' preventing the lever from sliding off the curved flange, preventing the tub from rotating upon the ball-bearing. This device is only used when the tub is required to be at rest.

To operate the machine, the lid G is first 50 removed, then the disk W. Water is then placed within the tub, and the clothes to be cleansed. The disk W is then placed in position having a bearing upon the clothes and the lid G' then adjusted. The locking device 55 is then released. The operator takes hold of the handle H', giving an oscillating or vibrating movement to the tub. The clothes between the bottom and disk W have a rolling, squeezing, and rubbing motion, caused by the 60 tub moving, and the disk only having a vertical movement. The ball-bearing supporting the whole weight of the tub and its contents rotates very easily upon the same, obviating a great deal of manual labor. 65

I do not wish to limit myself to the exact shape or construction. Some slight changes might be made without departing from the essence of the invention.

Having fully described my invention, what 70 I claim as new, and desire to own by Letters Patent, is—

In a washing-machine, the combination of the tub or receptacle having a central opening, the casting secured to the bottom of the 75 tub and formed with an annular groove, a tube having its lower end connected to the casting and extending upward, the post passing upward through the tube having a squared upper portion and its lower end extended 80 downward below the bottom of the tub and formed with screw-threads, the supporting-legs connected with the said post, the base and nuts on the threaded portion of the post, the washers and balls arranged in the annu- 85 lar groove of the casting, and the rubbing-disk provided with braces having connected at their upper ends a sleeve capable of a vertical movement on the squared end of the post to accommodate the clothes and permit 90 removal of the rubbing-disk.

In testimony whereof I affix my signature in presence of two witnesses.

ALONZO A. CASLER.

Witnesses:

T. Y. MCCRAY,  
LOUIS MCCRAY.