

No. 816,454.

PATENTED MAR. 27, 1906.

C. O. FROSTENSON.  
WASHING MACHINE.

APPLICATION FILED DEC. 22, 1904.

2 SHEETS—SHEET 1.

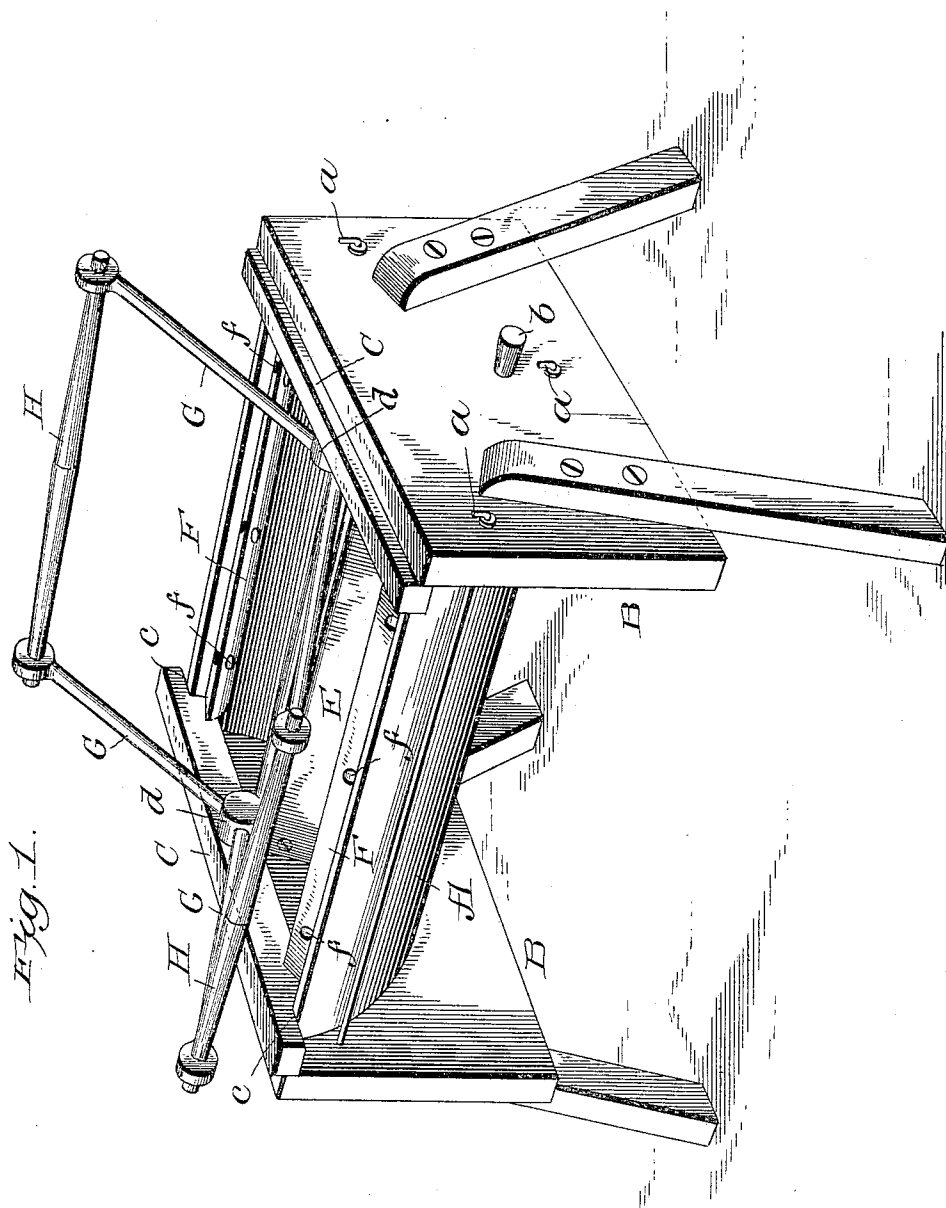


Fig. 1.

Witnesses

Stephen Gustaf.  
Geo. H. Byrne.

Inventor

C. O. Frostenson  
By Wilkinson & Fisher  
his Attorneys

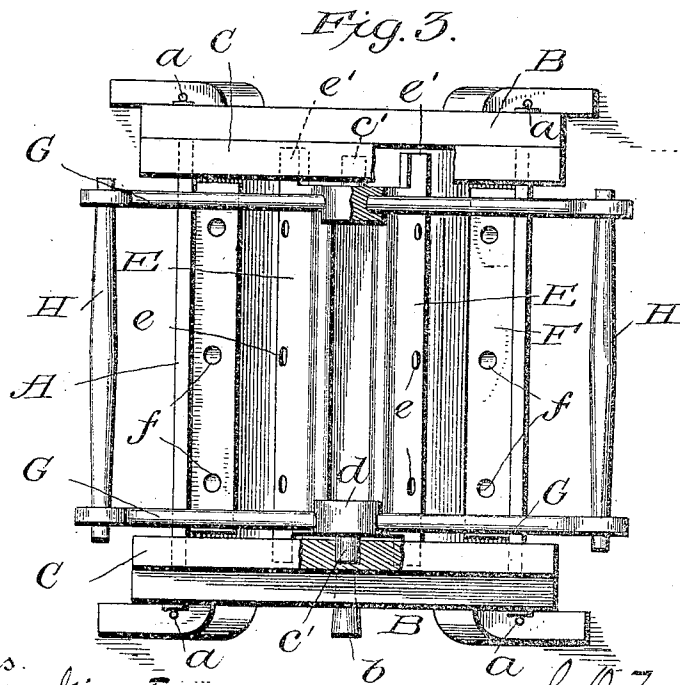
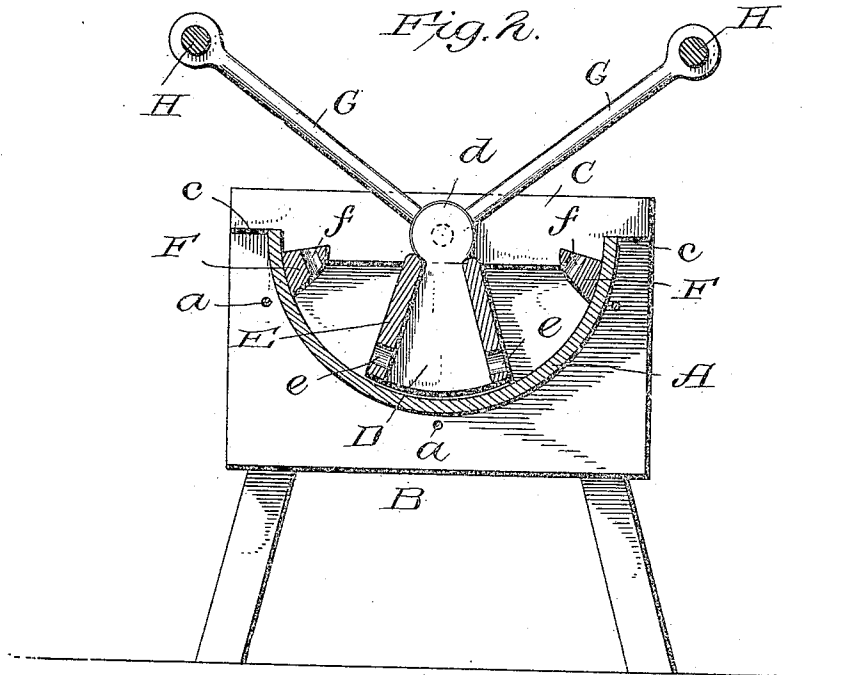
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2 SHEETS—SHEET 2.



Witnesses.  
*Stephen Kimball*  
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Inventor  
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# UNITED STATES PATENT OFFICE.

CHARLES O. FROSTENSON, OF ASHLAND, WISCONSIN.

## WASHING-MACHINE.

No. 816,454.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed December 22, 1904. Serial No. 237,994.

*To all whom it may concern:*

Be it known that I, CHARLES O. FROSTENSON, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Wisconsin, have invented certain new and useful Improvements in Washing-Machines; and I do hereby 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.

This invention relates to improvements in washing-machines, especially of that type having oscillating pounders or washers.

The objects and advantages of the machine will be apparent from the following description and the drawings illustrating the invention, and the particular features of novelty will be more succinctly pointed out in the claim.

To more fully understand the invention, reference is had to the accompanying drawings, forming part of this application, in which the same letters designate the same parts in the several views, and in which—

Figure 1 is a perspective view of the machine. Fig. 2 is a central transverse section thereof; and Fig. 3 a plan view, partly in section.

A designates the tub, which is of a concave or substantially semicircular construction supported on a suitable stand B and further braced by the longitudinally-disposed stay-rods *a*. One of the end walls of the lower end of the tub is apertured to correspond with an aperture in the support B, which apertures are intended to drain the interior of the tub, as customary, they being normally closed by a plug *b*.

C designates a pair of cross-beams preferably detachably supported at each end of the tub and provided with the notched ends *c* for forming a snug fit therewith. Centrally of each of these cross-beams is pivotally suspended within the tub by a pintle *c'* a weighted web, preferably of some heavy more or less non-corrosive metal, although common iron may be used. These webs are preferably formed, as shown, with the headed portion *d* and the enlarged base portion D of segmental conformation, and secured to the diverging side edges of the segmental portions D are a pair of presser-boards E, having a plurality of perforations *e* therein, which presser-boards extend longitudinally of the tub and are held spaced

apart, forming a hollow beater or pounder. The ends of these presser-boards E are cut away, forming tongues *e'*, projecting and operating within the tub beneath the cross-beams C to permit the beater or plunger to freely oscillate and at the same time prevent any of the materials being washed from working their way between the outer face of the suspended webs and the ends of the tub.

On opposite sides of the upper portion of the interior of the tub are arranged the longitudinally-disposed abutments F, which are preferably provided with the perforations *f*.

Suitable means may be provided for oscillating the beater or pounder, and in the drawings I have illustrated the preferred form, in which G designates pairs of arms preferably of weighted material, such as iron, secured to the headed portion *d* of the webs and radially diverging therefrom to the opposite sides of the tub, one pair of arms being provided for each pivotally-suspended web. H represents handles connecting the opposed arms G of each pair.

In operation the fabrics to be washed are placed within the tub between the presser-boards of the beater and the longitudinal-extending abutments F, so that as the beater is oscillated the articles of apparel being washed are compressed by the beater against one of the abutment-strips, depending upon the direction of oscillation, and the suds will be forced through the articles, as will be obvious, while the articles on the opposite side of the beater will be released from compression and will fall or turn over in the compartment on that side of the machine.

It will be seen from the foregoing that a simple, cheap, and efficient washing-machine is produced which, owing to its construction and the particular mounting of the weighted webs D, will reduce the labor of operation and a machine which in operation will in no way grind against or tear the fabrics being washed, but will force the suds through same by the operation of the beater or pounder without injury to the most delicate of fabrics.

Although having thus described the invention and the preferred embodiment of the same, it will be obvious that I do not wish to limit myself to the exact details of construction as illustrated and described; but

What I claim is—

In a washing-machine, the combination of a concave tub and a support therefor, notched beams adapted to fit within the upper edges

of said tub, pintles mounted in said beams  
and carrying a beater, said beater being com-  
posed of headed portions to which said pintles  
are secured, and perforated presser-boards  
5 arranged at an angle to each other supported  
by said heads, said presser-boards being pro-  
vided with tongues at each end projecting  
beneath said beams, perforated abutments  
extending longitudinally of said tub, and

means for oscillating said beater, substan- 10  
tially as described.

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

CHARLES O. FROSTENSON.

Witnesses:

F. J. COLIGNON,  
M. E. DILLON.