

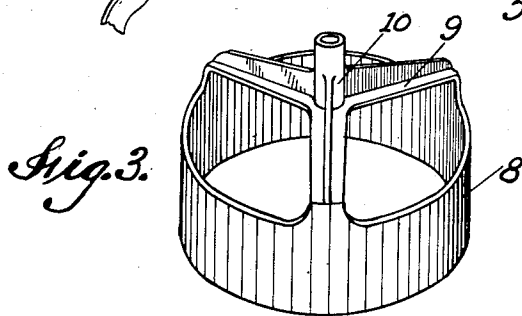
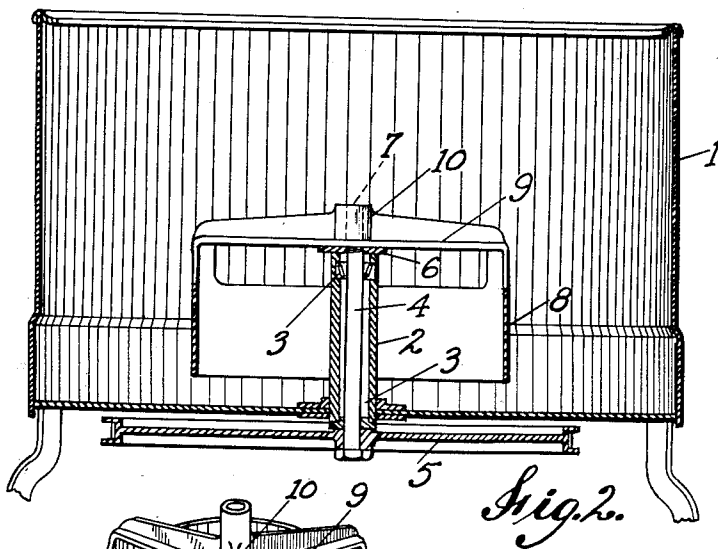
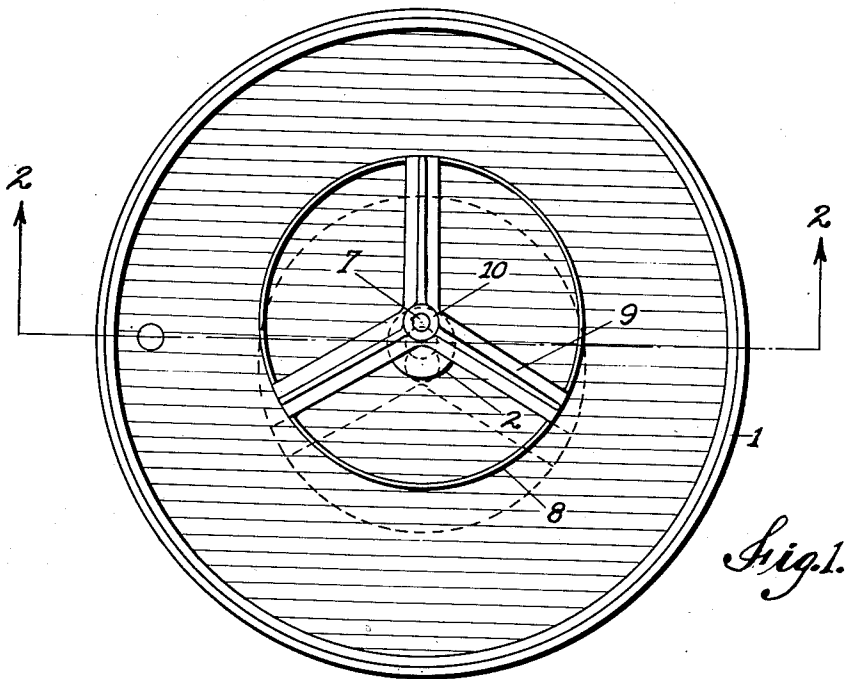
March 25, 1930.

J. H. JOSEPH

1,751,922

WASHING MACHINE

Filed April 8, 1929



INVENTOR.
Joe H. Joseph.
BY *Allen Allen*
ATTORNEYS

UNITED STATES PATENT OFFICE

JOE H. JOSEPH, OF CINCINNATI, OHIO

WASHING MACHINE

Application filed April 8, 1929. Serial No. 353,314.

My invention relates to washing machines, and more particularly to the provision of a device to take the place of the usual dolly, to set up continuous and highly advantageous agitation within the machine.

It is the object of my invention to provide a device which applies a gentle squeezing action to the clothes, including a rubbing movement which closely parallels the operation of hand washing. I also avoid the pounding, whirling, and beating action characteristic of most washers which employ a mechanical agitator or dolly.

Furthermore, the agitation accomplished by my invention is applied continuously on all parts of the clothes during the operations, so that washing is accomplished more rapidly than in a machine where the agitation beating or working is applied locally to parts of the clothes by a device which shifts from one position to another.

I have illustrated a preferred form of my device in the accompanying drawings, and append a detailed description thereof. It is not my intent thus to limit my invention to the specific form shown, and in the appended claims I set forth the invention inherent in the structure described.

In the drawings:—

Figure 1 is a top plan view, partially diagrammatic, showing the motion of my novel agitator or dolly.

Figure 2 is a section taken on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the dolly or agitator.

Referring to the machine shown in the drawings, I have illustrated a vessel or tub 1, having a central rigid sleeve 2, equipped with bearings 3 for the vertical shaft 4. The shaft is driven by any desired means, a pulley 5 being shown on its lower end, to which power is applied by a suitable motor or other source of rotary motion.

On the upper end of the shaft where it protrudes from the sleeve, I have secured a disk 6, on which is an eccentric stud 7. I have omitted any showing of a clothes basket in which the clothes are to be set into the

machine, but it will be understood that a properly shaped basket can be used.

The agitator is formed of a deep cylinder 8 of metal, having a suitable spider 9 to support it. The spider has a central boss 10, the hole in which is set over the eccentric pin on the top of the shaft.

In operation when the shaft is driven the agitator moves about in a circular path (two positions being shown in Figure 1), and it may also revolve on the stud, although the revolution accomplishes no substantial purpose except to prevent binding.

When clothes are inserted in the machine, and water is filled in, same being soapy or clear, depending upon whether rinsing or washing is desired, the agitator is mounted on the eccentric pin and moved down into the clothes. As the movement is set up, the entire wall of the cylinder either is pushing on the clothes, or withdrawing from the clothes, resulting in a movement of the soapy or clear water in and out through the clothes, there being a more or less constant movement of the water and the clothes in all parts of the vessel at all times during the operation.

The essentials of the operation lie in the fact that the walls of the cylinder, or whatever other shape is used are substantially continuous, and of substantial altitude or depth, so that a continuous and universal action will take place as described.

The cylindrical form is preferred because of its uniformity, and because there is no tendency on its part to beat or hammer a localized portion of the clothes.

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

1. In a washing machine, the combination with the vessel thereof, of mechanical means for imparting eccentric movement, and an agitator eccentrically moved thereby, said agitator having substantially continuous walls of substantial depth in the direction of the axis of the vessel.

2. In a washing machine, the combination with the vessel thereof, of an eccentric movable in a horizontal plane mechanical means for moving said eccentric, an agitator mov-

able on said eccentric, said agitator having a substantially continuous curved wall of considerable dimensions in a vertical plane.

3. In a washing machine, the combination
5 with a vessel, a vertical shaft therein having an eccentric pin on its upper end, and an agitator having a mounting element seated over said eccentric pin, and a circular wall of substantial depth to be inserted into the
10 clothes and mechanical means for rotating said shaft.

JOE H. JOSEPH.

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