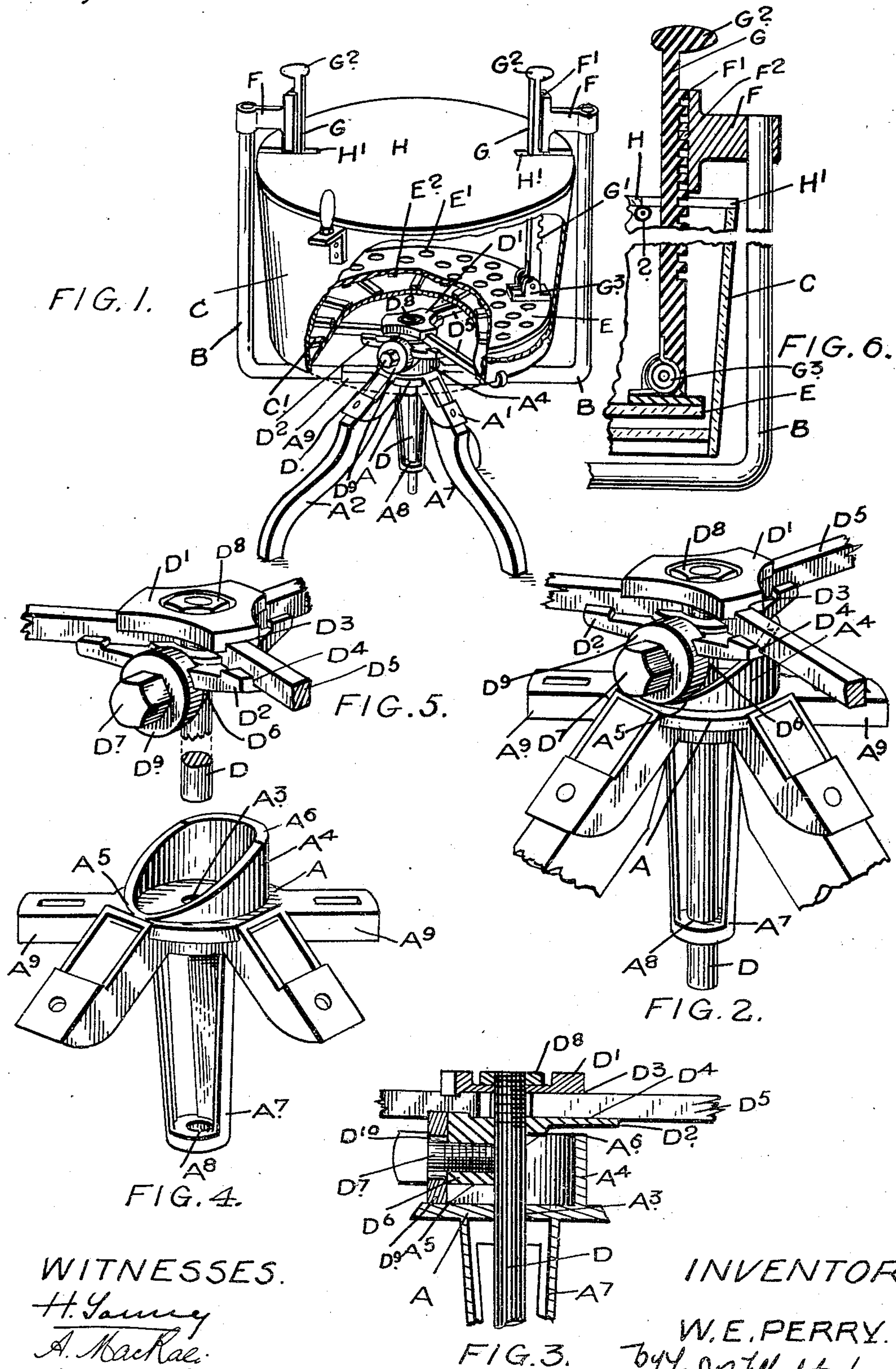


W. E. PERRY.
 ROTARY WASHING MACHINE.
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938,506.

Patented Nov. 2, 1909.



WITNESSES.
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WALTER EARNEST PERRY, OF TORONTO, ONTARIO, CANADA.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WALTER EARNEST PERRY, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Rotary Washing-Machines, of which the following is the specification.

My invention relates to improvements in rotary washing machines, and the object of the invention is to devise a simple device applicable to this class of washer which will produce both an oscillating and vertical movement to both rub and squeeze the clothes simultaneously.

A further object is to provide a simple secure means not liable to get out of order which will hold the perforated agitator board firmly in position during the oscillating and squeezing movement.

A yet further object is to so form the device for producing an oscillating and vertical movement that it may be taken apart for moving.

A still further object is to so construct the device that three legs may be readily used and thus obviate the difficulty of finding an even flooring.

The invention includes the novel features of construction and arrangement and combination of parts hereinafter described and particularly set forth in the appended claims.

The invention is illustrated in the accompanying drawings in which:—

Figure 1, represents a general perspective view of my washer partially broken away and in section. Fig. 2, is an enlarged perspective detail view of the mechanism for imparting a vertical and rotary motion to the top of the washer. Fig. 3, is a sectional elevation taken through the upper portion of Fig. 2. Fig. 4, is an enlarged perspective detail of the base castings. Fig. 5, is an enlarged perspective detail of the member co-acting with the base castings to impart vertical movement to the tub. Fig. 6, is an enlarged sectional detail showing the means for adjustably supporting the agitator board.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is the base casting provided with radially downwardly inclined sockets A' in 55 which are suitably secured the supporting legs A² preferably three in number so as to enable the washer to stand evenly on any floor. The base casting A is also provided with a central orifice A³ around which extends concentrically a crown cam A⁴ provided with a depressed portion A⁵ and an elevated portion A⁶. From beneath the casting depends the vertical bearing A⁷ formed with the central orifice A⁸. 60 65

A⁹ are supplemental sockets extending from the base casting in a horizontal direction diametrically opposite each other.

B are L-shaped arms secured within the sockets A⁹ and extending upwardly to each side of the tub C. The bottom of the tub C is provided with suitable slat paddles C' usual to washers of this class. 70

D is a vertical spindle journaled within the orifices A³ and A⁸ in the base casting. The spindle D is suitably threaded at its upper end. 75

D' and D² are clamping castings provided with radial socket portions D³ and D⁴.

D⁵ are radial arms extending into the socket portions D³ and D⁴ between which they are designed to be clamped. 80

D⁶ is a depending bearing lug forming part of the plate D².

D⁷ is a set screw extending through the bearing boss D⁶ against the central spindle D so as to securely connect the plate D² to such spindle. 85

The upper plate D' is clamped down upon the arms D⁵ interposed between the plates D' and D² by means of a nut D⁸ threaded on to the threaded upper end of the spindle D. 90

D⁹ is a roller journaled on the set screw D⁷ between the head thereof and the bearing boss D⁶. 95

D¹⁰ are roller bearings interposed between the roller D⁹ and the stem of the set screw D⁷ thereby allowing the roller D⁹ to turn freely thereon. 100

E is the agitator board provided with the usual perforation E' and the slat paddles E².

F are castings secured to the upper ends of the L-shaped arms B. Such castings extend inwardly and are provided at their upper front ends with vertical U-ways F'. 105

F^2 are toothed projections extending across the U-ways F' intermediate of the height thereof.

G are bars provided with toothed racks G' on the outer side thereof and at the upper end with suitable handle portions G^2 . The lower ends of the bars G are connected to the agitator board by spring hinges G^3 , such hinges being designed to force the upper ends of the bar H outwardly so as to bring the tooth rack thereof into engagement with the tooth projections F^2 of the casting F thereby holding the agitator board in the desired position.

H is the lid of the tub provided with inwardly extending notches H' to enable the board G to extend downwardly into the tub.

2 are rollers journaled on the inside of the tub and designed to bear against the lower face of the lid during the rotary movement of the tub around the stationary agitator board H .

I is the usual handle connected to the tub for imparting an oscillating movement to the tub. It will of course, be understood that the lid H remains stationary during such oscillating movement of the tub.

Having described the principal parts involved in my invention I will briefly describe the operation of the same.

The agitator board is removed by forcing the bars G toward each other so as to release the toothed racks from the projections F^2 and raising the board vertically out of the tub. The clothes are then inserted in the tub and the tub provided with the required amount of water. The agitator board is then replaced upon the top of the clothes. The operator then reciprocates the handle I so as to oscillate the tub backwardly and forwardly. It will be seen from this movement that the spindle D which is connected to the tub by the arms D^5 receives a like movement thereby carrying the roller D^9 around circumferentially upon the cam A^4 and from the lowermost point A^5 thereby imparting a vertical movement to the tub. During this movement the agitator board E is held stationary by means of the bars G and the U-ways F' .

It will be seen by the above operation that the clothes located between the bottom of the tub C and the bottom of the agitator board E are rubbed between the slat paddles C' and E^2 by a rotary movement of the tub and simultaneously the clothes are squeezed by means of the vertical movement imparted to the tub, thereby squeezing the clothes between the bottom of the tub and the bottom of the agitator.

The agitator board may be adjusted to any desired position within the tub according to the amount of clothes contained in the tub. By forcing the top of the bars G in an

inwardly direction against the spring hinges G^3 thereby releasing the tooth racks G' from the tooth projections F^2 the agitator board may then be raised vertically to any desired position and the bar G again released so as to allow the springs of the spring hinges G^3 to force the tooth racks G' again into engagement with the tooth projections F^2 . When it is desired to remove the tub all it is necessary to do is to force the bars G inwardly as before described so as to release the racks G' from the teeth F^2 and then raise the tub vertically off the arms D^5 and then remove the tub laterally from between the castings F and the base castings A .

From this description it will be seen that I have devised a very simple mechanism whereby a vertical and oscillating movement may be imparted to the tub to simultaneously rub and squeeze the clothes between the bottom of the tub and the agitator board, also whereby the agitator board is firmly secured in position during such vertical and rotary movement of the tub and also whereby when desired the tub may be easily removed from the machine.

What I claim as my invention is:

1. In a device of the class described, a base or supporting member, a tub movably mounted above the same with means for operating it, arms supported from the base and extending upward on each side thereof, brackets carried by the upper ends of the arms and extending over the upper edges of the tub and having inwardly opening guide ways, an agitator board located within the top, vertical bars hinged to the follower board and resting in the guides of the brackets, springs acting against the vertical bars for holding them in the guides, and locking means interposed between the vertical bars and guides to prevent relative vertical movement.

2. In a device of the class described, the combination with a central base member having L-shaped arms extending upwardly to each side thereof and an agitator board, of a member extending inwardly from each of the L-shaped arms and provided at its inner end with a U-shaped vertical way having a toothed projection extending across the way intermediate of its height, bars provided with toothed racks designed to engage with the projection of the castings and a spring hinge connection between the bottom of the bars and the agitator board as and for the purpose specified.

3. In a machine of the class described, the combination with a base member and an oscillating tub, of means interposed between the base member and the tub for imparting a vertical movement to the tub, an agitator board supported within the tub, a plurality of bars extending upwardly from the agi-

tator board having vertical racks formed therein, a spring hinge connection between the bottom of each bar and the agitator board, L-shaped bars extending upwardly from the base member, brackets extending inwardly from the L-shaped bars each provided with a toothed projection designed to engage with one of the teeth of the tooth rack as and for the purpose specified.

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Witnesses:

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