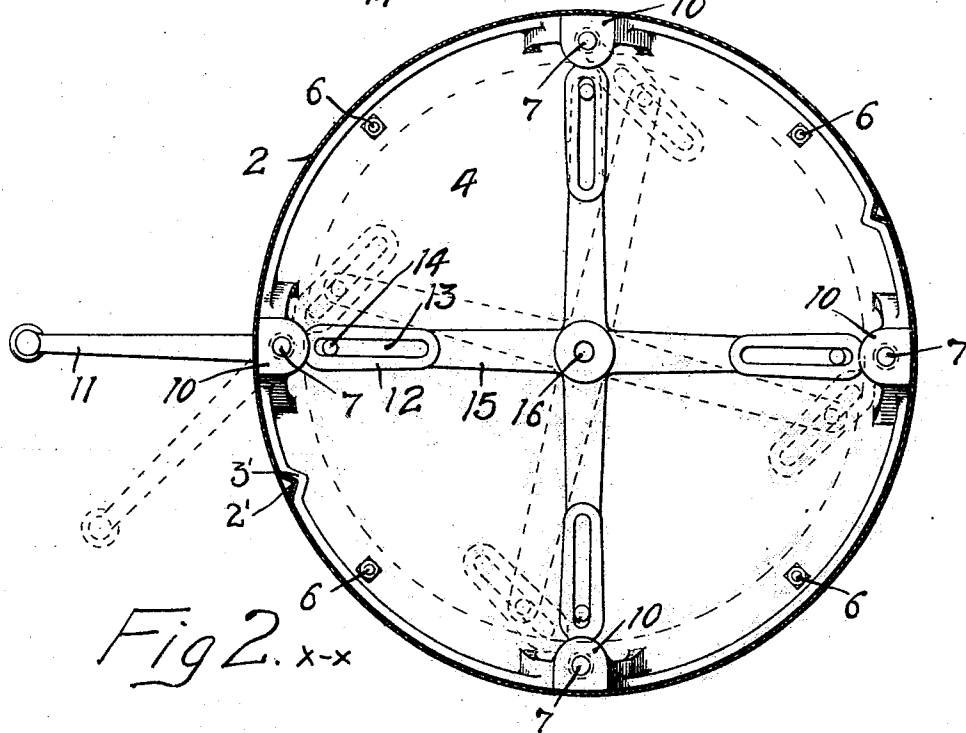
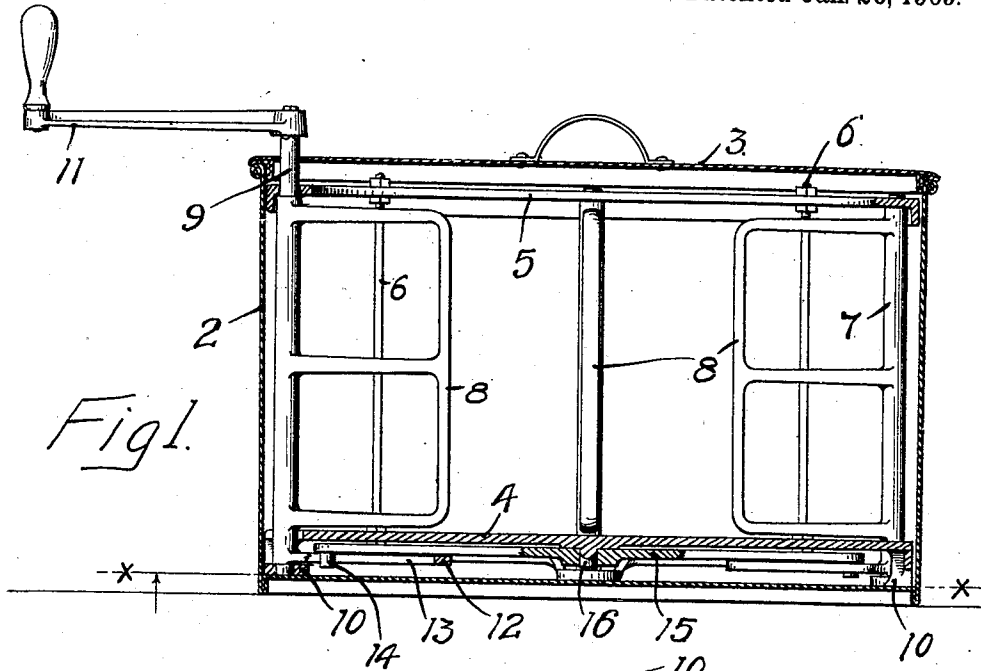


C. A. PETTERSEN.  
 WASHING MACHINE.  
 APPLICATION FILED FEB. 8, 1908.

Patented Jan. 26, 1909.

910,570.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

CARL A. PETTERSEN, OF KENYON, MINNESOTA.

## WASHING-MACHINE.

No. 910,570.

Specification of Letters Patent.

Patented Jan. 26, 1909.

Application filed February 6, 1908. Serial No. 414,474.

*To all whom it may concern:*

Be it known that I, CARL A. PETTERSEN, of Kenyon, Goodhue county, Minnesota, have invented certain new and useful Improvements in Washing-Machines, of which the following is a specification.

The object of my invention is to provide a washing machine of simple, economical construction and one which will be easy of operation and very effective for washing clothes.

A further object is to provide a washing machine which can be easily and quickly cleaned.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional view of a washing machine embodying my invention. Fig. 2 is a transverse sectional view on the line  $x-x$  of Fig. 1.

In the drawing, 2 represents the tub in which the mechanism of the washing machine is placed. This tub is preferably made of sheet metal, as indicated, and has a suitable cover 3. Instead of using sheet metal any other material may be employed if preferred. Within the tub a removable casing is arranged capable of being taken out of the tub whenever desired for the purpose of cleaning the tub or the paddles. This casing comprises a bottom plate 4 and a top ring 5 held together by bolts 6. Within this casing a series of shafts 7 are mounted carrying paddle blades or frames 8 made of any suitable material. I have indicated four of these paddles but a greater or less number may be employed if preferred. The shafts have bearings at their lower ends in steps 10 provided on the bottom of the tub. One of the shafts has an extension 9 projecting up through the ring 5 and the cover of the tub, and is provided with an operating crank 11. Each paddle is provided with an arm 12 extending in toward the center of the tub beneath the plate 4, said arms having slots 13 therein adapted to receive pins 14 carried by a spider 15 that is journaled on a stud 16 in the center of the plate 4.

A rib 2' is formed on the wall of the tub adapted to enter a recess 3' provided in the bottom plate 4, thus locking the casing and its attachments against rotary movement in the tub. The cover 3 is adapted to close the top of the tub but when removed the clothes

may be inserted into the casing between the paddles and in position to be agitated thereby.

To operate the machine the crank 11 is moved back and forth causing the paddle connected with its shaft to be oscillated and all the other paddles to be operated also through their connection with the spider 15. The movement of the paddles will tend to work the clothes from the sides of the tub toward the center, resulting in a thorough agitation of the garments and the complete mixture of them with the soapy water. The sediment will collect in the bottom of the tub under the plate 4 where sufficient space is provided to receive it, and when the washing operation is completed the casing may be removed bodily from the tub and the whole interior of the tub thoroughly cleaned.

I claim as my invention:

1. A washing machine comprising a tub, a casing fitting therein, a series of paddles journaled near the periphery of said casing, the middle portion of said casing between said paddles being unobstructed and said paddles having a limited oscillating movement in the same direction, and their engagement with the clothes tending to work the clothes toward the unobstructed center of the casing, and means for operating said paddles, substantially as described.

2. A washing machine comprising a tub, a removable casing fitting therein and consisting of a ring and a plate and means connecting them, oscillating paddles having bearings in said ring and plate, means located beneath the plate and operatively connecting said paddles with one another, and an operating crank connected with one of said paddles.

3. A washing machine comprising a tub, a casing fitting therein and consisting of a ring and a plate and means connecting them, paddles journaled in said ring and plate and arranged to oscillate back and forth between them, arms mounted on the axes of said paddles and projecting inwardly therefrom and having longitudinal slots, a wheel centrally pivoted below said casing and having sliding connections with said arms in said slots and means for oscillating said wheel and paddles.

4. A washing machine comprising a tub, a casing removably fitting therein and comprising a ring and a lower plate and means connecting them and vertically arranged

oscillating paddles journaled in said ring and plate and means for operating said paddles, the lower plate of said casing being raised above the bottom of the tub forming a sediment settling chamber.

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10 5. A washing machine comprising a tub, a casing removably fitting therein and comprising a ring and a plate and vertically arranged paddles journaled in said ring and plate, said paddles extending toward the

center of said casing and the oscillation of said paddles tending to work the clothes toward the center of the tub, and means for operating said paddles.

In witness whereof, I have hereunto set my hand this 29th day of January 1908.

CARL A. PETTERSEN.

Witnesses:

ANDREW FINSTINER,  
JNO. V. FORTHIM.