Sept. 30, 1924. 1,510,087

T. L. JONES ET AL.

WASHING MACHINE

Filed Nov. 12, 1921

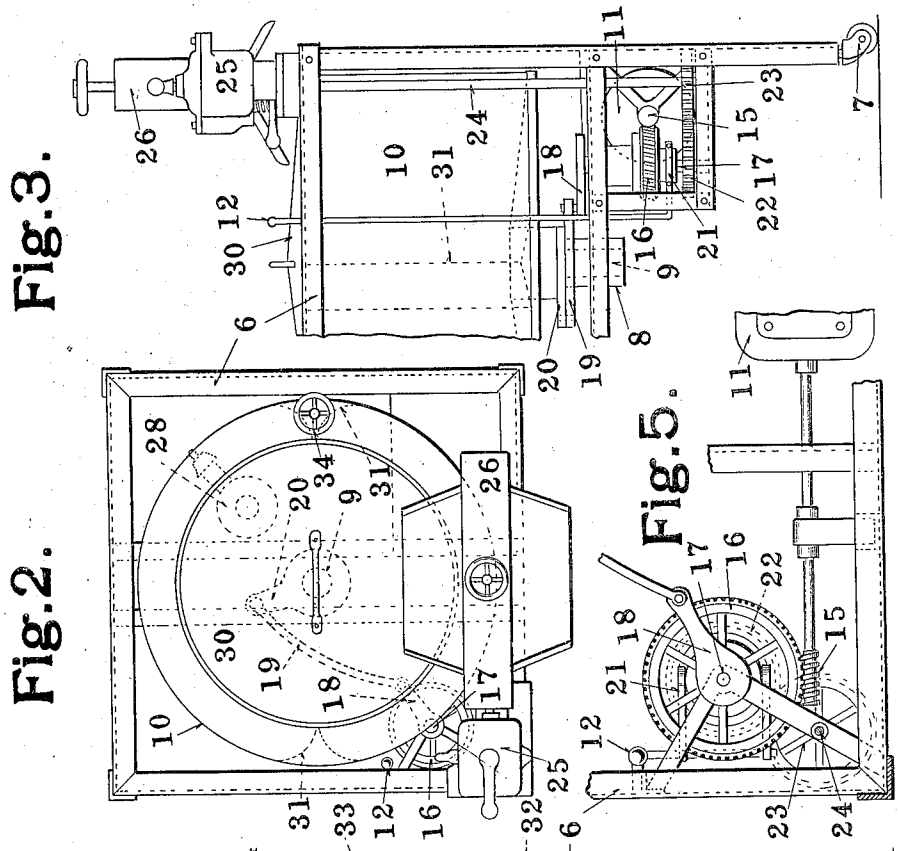


Fig. 3.

Fig. 2.

Fig. 5.

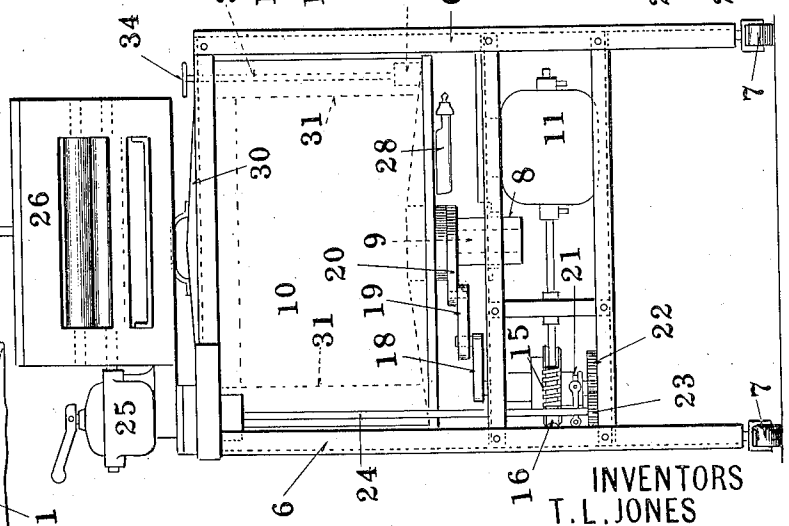


Fig. 1.

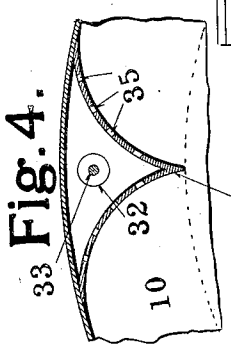


Fig. 4.

INVENTORS
T. L. JONES
H. J. GILLMANN
BY C. C. Hoffman
ATTORNEY

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UNITED STATES PATENT OFFICE.

THOMAS L. JONES AND HENRY J. GILLMANN, OF BELLEVILLE, ILLINOIS.

WASHING MACHINE.

Application filed November 12, 1921. Serial No. 514,608.

To all whom it may concern:

Be it known that THOMAS L. JONES and HENRY J. GILLMANN, citizens of the United States of America, residing at Belleville, county of St. Clair, State of Illinois, United States of America, have invented a certain new and useful Washing Machine, of which the following is such a full, clear, and exact description as will enable anyone skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to washing machines and particularly to that type of washing machines in which the articles to be washed are placed in a cylindrical tub or container mounted to oscillate on a vertical axis.

In the accompanying drawings which illustrate one form of washing machine made in accordance with our invention, Figure 1 is a side elevation, Figure 2 is a top plan view, Figure 3 is a partial side elevation taken at right angles to Figure 1, Figure 4 is an enlarged horizontal section showing one of the baffle plates, and Figure 5 is an enlarged plan view showing the gearing.

6 indicates the frame of the machine which is preferably formed of angle iron and mounted on casters 7. Centrally supported by the frame 6 is an elongated bearing 8 adapted to receive a short vertical shaft or stud 9 on which is mounted the tub or receptacle 10 which is cylindrical in form and preferably formed of sheet metal. The bottom of this tub or receptacle 10 is inclined outwardly and downwardly from its central point of support to its periphery so as to assist the centrifugal action to force the contents of the receptacle towards the said periphery.

11 is a motor for driving the receptacle. This motor is provided with a worm 15 engaging with a worm wheel 16 mounted on a short vertical shaft 17. Rigidly secured to the upper end of the shaft 17 is a crank arm 18 connected by means of a pitman 19 with an arm 20 on the shaft 9. The length of the arm 20 is somewhat greater than the crank arm 19 so that the receptacle 10 will not be driven through a complete revolution but will be oscillated on its vertical shaft through an arc of slightly less than 180 degrees.

21 is a clutch by means of which the shaft 17 is adapted to be drawn into or out of operating engagement with a gear wheel 22. The gear wheel 22 meshes with a gear wheel 23 on the lower end of a shaft 24. This shaft 24 extends into the casing 25 of reversing mechanism for the wringer 26 and also acts as a pivot upon which said wringer 26 may be swung to move it into and out of position above the receptacle 10. The clutch 21 is operated by means of a rod 12. 28 indicates a burner which may be suitably supported below the receptacle 10 to heat the contents.

The receptacle 10 is provided with a cover 30 preferably somewhat less in diameter than the receptacle. This cover 10 may be an ordinary slip cover or no special fastening means is necessary to hold it in position. 31 are a pair of duplex baffle plates arranged at diametrically opposite points on the periphery of the receptacle 10. Each of these baffle plates consists of a pair of oppositely disposed curved walls as best shown in Figure 4. Situated in one of the baffle plates 31 is a discharge valve 32 provided with an operating stem 33 which projects upwardly between the walls of the baffle plate and terminates in a hand wheel 34 by means of which the valve is opened and closed. The baffle plate enclosing the valve 32 is provided with perforations 35 to allow the water to pass through the same and out through the valve 32.

In our device, the clothes to be washed are placed in the receptacle 10 and the said receptacle oscillated by means of the motor 11. The action of the curved baffle plates 31 is to throw the clothes towards the center of the machine at the end of each oscillation, while the centrifugal force together with the inclined shape of the bottom cause the contents to be returned towards the periphery after the end of each stroke. By means of the clutch 21 the wringer may be thrown into and out of operation and the direction of the wringer changed by the usual reversing mechanism 25.

Having fully described our invention what we claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the class described, the combination with a receptacle having imperforate vertical walls and mounted on a vertical axis, of means for oscillating said receptacle on its axis, and a duplex baffle plate carried on the periphery of said receptacle, said baffle plate having two oppo-

sitely disposed concave faces, the edges of said plate contacting with the vertical walls of said receptacle.

2. In a device of the class described, the combination with a receptacle having imperforate vertical walls and mounted on a vertical axis, of means for oscillating said receptacle on its axis, and a pair of duplex baffle plates carried at diametrically opposite points on the periphery of said receptacle, each of said baffle plates being provided with two oppositely disposed concave faces, the edges of said plate contacting with the vertical walls of said receptacle.

3. In a device of the class described, the combination with a receptacle mounted on the vertical axis, of means for oscillating said receptacle on its axis, a duplex baffle plate carried on the periphery of said receptacle, a discharge valve enclosed by the walls of said baffle plate, and a controlling stem for said valve extending upwardly between the walls of said baffle plate and receptacle.

In testimony whereof, we have hereunto set our hands and affixed our seals.

HENRY J. GILLMANN. [L. S.]
THOMAS L. JONES. [L. S.]