

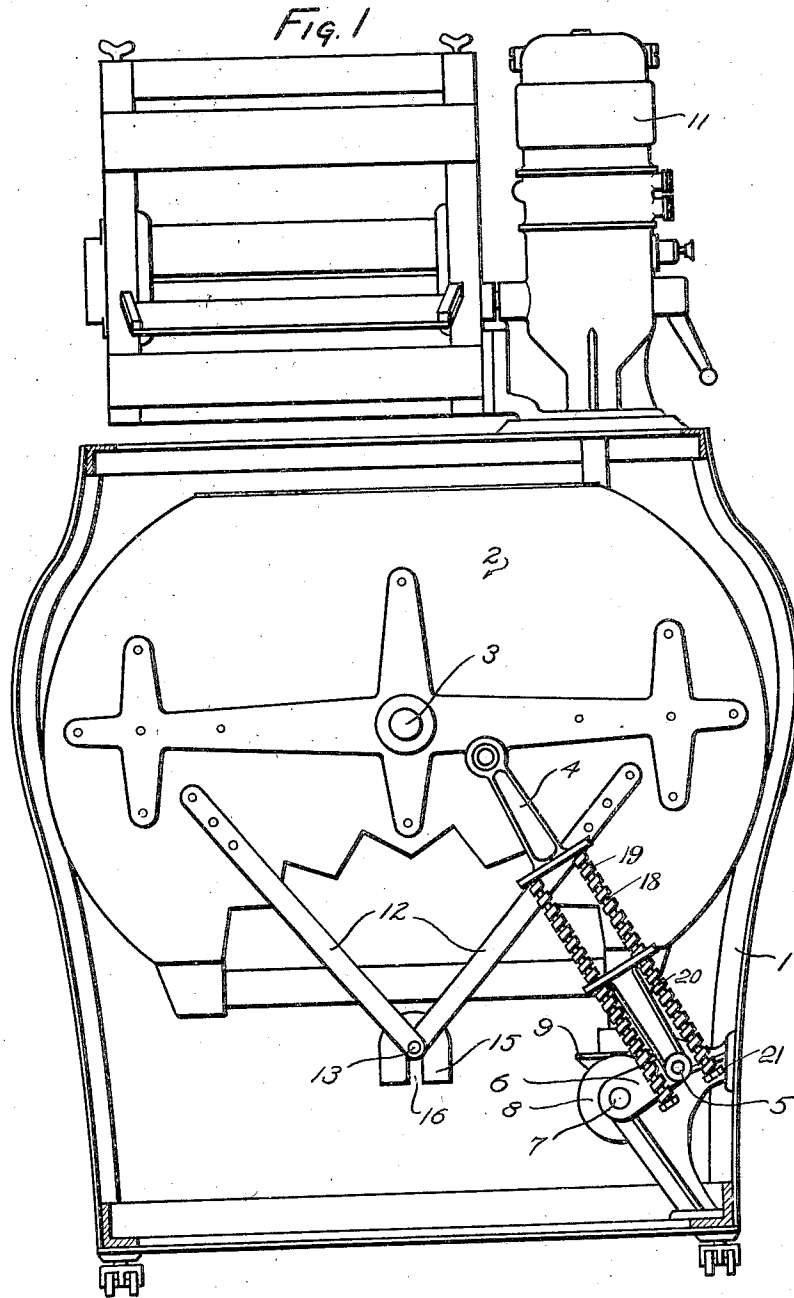
J. S. POWER.
WASHING MACHINE.

APPLICATION FILED MAR. 11, 1921. RENEWED JUNE 26, 1922.

1,436,680.

Patented Nov. 28, 1922.

2 SHEETS—SHEET 1.



INVENTOR

Joseph S. Power

BY

Toulmin & Toulmin

ATTORNEYS

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Fig. 2

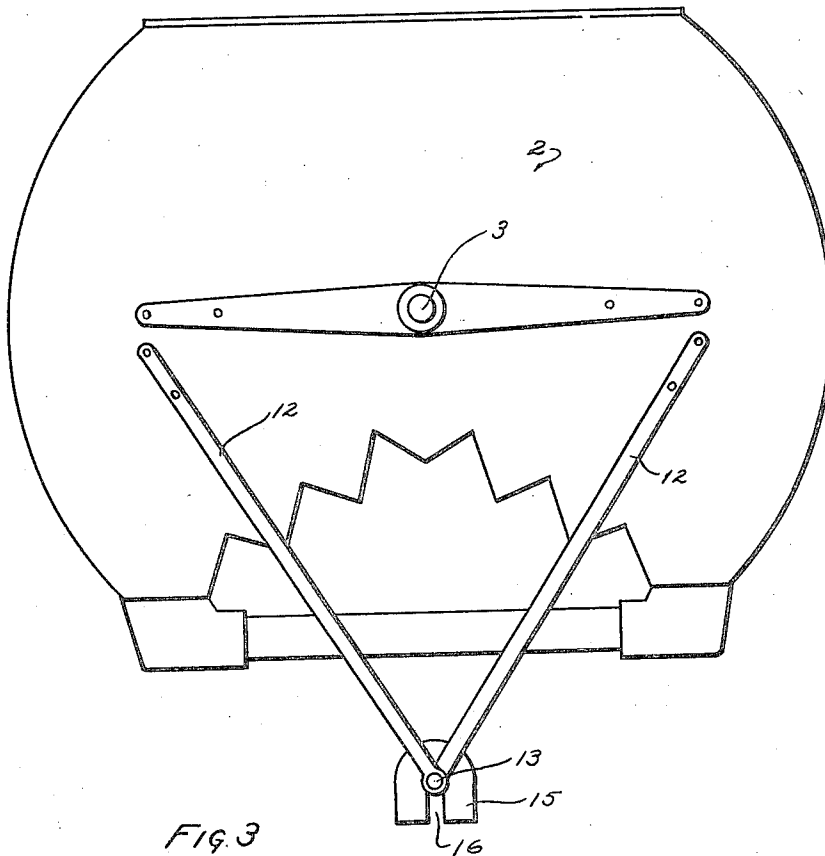
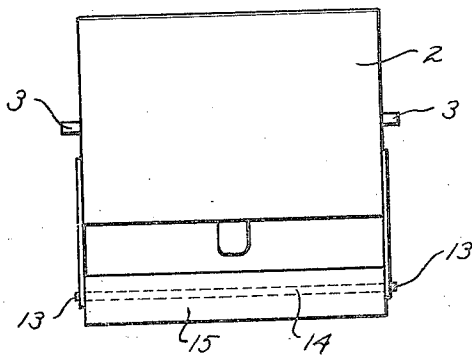


Fig. 3



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UNITED STATES PATENT OFFICE.

JOSEPH S. POWER, OF DAYTON, OHIO, ASSIGNOR TO THE DAVIS SEWING MACHINE COMPANY, OF DAYTON, OHIO, A CORPORATION OF DELAWARE.

WASHING MACHINE.

Application filed March 11, 1921, Serial No. 451,435. Renewed June 26, 1922. Serial No. 570,933.

To all whom it may concern:

Be it known that I, JOSEPH S. POWER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Washing Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to washing machines and in particular to washing machines having a moving tub of the domestic power type.

The object of my invention is to reduce the consumption of current necessary for the reciprocation of a washing machine tub. It is a further object of my invention to provide a means of saving this consumption of current which may be detachable for shipping, so that if necessary it may go under a separate freight classification and reduce the expense of shipments of washing machines. It is a further object of my invention to provide a durable, simple and easily accessible device for the saving of the power necessary to reciprocate the washing machine tub.

Referring to the drawings:

Fig. 1, is a side elevation of a complete washing machine showing the power saving device installed;

Fig. 2, is a side elevation of a tub with my power saving device installed; and,

Fig. 3, is an end elevation of the bottom of the tub with the device installed.

Referring to the drawings, 1 is a frame of the machine casing in which is mounted a tub 2 that reciprocates about the center 3 and is actuated in its reciprocation by the flexible connecting rod 4 which is connected at 5 to a suitable crank 6 mounted on a cross shaft 7 that is driven through the gears 8 and 9 from the shaft 10. This shaft 10 is driven by an electric motor 11.

A flexible connecting rod connects the source of power from the crank 6 to the tub 2. This is effected by the connecting rod parts 4 and 5 which are joined together by the rods 18 passing from the part 4 through eyes in the part 5. Helical springs 19 are embraced between the parts 4 and 5 and adapted to be compressed between those parts. The springs 19 are guided and mounted upon the rod 18. The springs 20 are mounted upon the rod 18 adjacent the part 5. They are retained on these rods by the nuts 21. This connecting rod serves to

pick up the torsional, longitudinal and lateral strains, any inequality in delivering the power from the crank 6 to the tub 2, and also serves to take up the shock at the end of each stroke which may be caused by converting the direction of movement of the tub and the weight 15 from one direction to another. Any shock that might be imparted to the driving mechanism by reason of a sudden change in direction is suitably absorbed by this flexible connecting rod.

Mounted upon the sides of the tub are suspension members 12—12 that are joined at 13 on a rod 14. A U-shaped weight 15 cut away at 16 is placed over such rod so that it is adapted to swing about this rod 14. Similar suspension members are placed at either side of the tub.

When the electric motor starts to reciprocate through its mechanism in the tub, it is found that, due to the pendulum weight 15, the initial inertia having been once overcome, the tub is reciprocated back and forth with great ease so that nearly one half of the ordinary current consumption is saved. It takes a very considerable amount of electric current to furnish power for moving the weight of the tub and water, together with the clothes in the tub back and forth so that the clothes will be dragged over the stepped bottom of the tub and the water moved through the clothes to wash them. This weight also gives a steady powerful movement to the tub which cannot be secured by other means. The momentum of the weight carries the tub through each stroke with the minimum of strain and stress upon the parts of the mechanism due to its steady, rhythmic, action.

While I have shown and described certain features as constituting my invention, it will be understood that parts have been shown for purposes of illustration only, and that I do not desire to be limited to such details, as obvious modifications will occur to a person skilled in the art.

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

1. In a washing machine, the combination, a frame, a tub, means of pivoting said tub on said frame, means of reciprocating said tub, a pair of diagonally disposed rods on either side of said tub joined at their lower end, a connecting rod extending between the

joined ends of said rods on either side, and a detachable U-shaped weight mounted over said connecting rod and adapted to loosely swing thereon in the arc of a circle.

- 5 2. In a washing machine the combination, a frame, a tub with a stepped bottom, means of pivoting said tub on said frame, a pitman connected to said tub eccentric of said center, means of actuating said pitman to re-
10 ciprocate it and reciprocate said tub, a pair of diagonally disposed rods on either side of

said tub joined at their lower end, a connecting rod extending between the joined ends of said rods on either side, and a detachable U-shaped weight mounted over said connecting rod and adapted to loosely swing thereon in the arc of a circle, whereby said tub is reciprocated with great ease and the amount of power necessary to drive the machine is thereby reduced.

In testimony whereof, I affix my signature.
JOSEPH S. POWER.