No. 745,660. PATENTED DEC. 1, 1903.

J. P. PFEIFFER.

WASHING MACHINE.

APPLICATION FILED APR. 3, 1903.

NO MODEL.

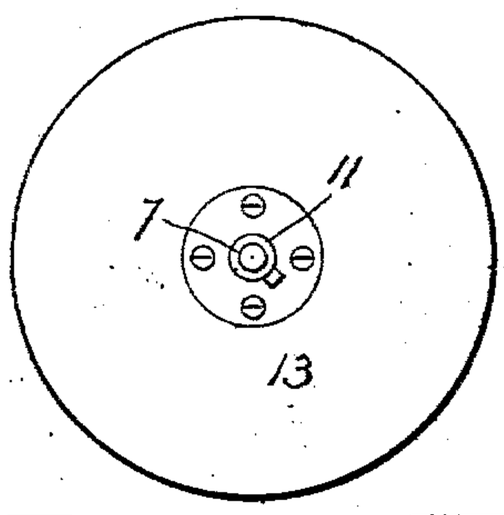


Fig. 3.

Fig. 1.

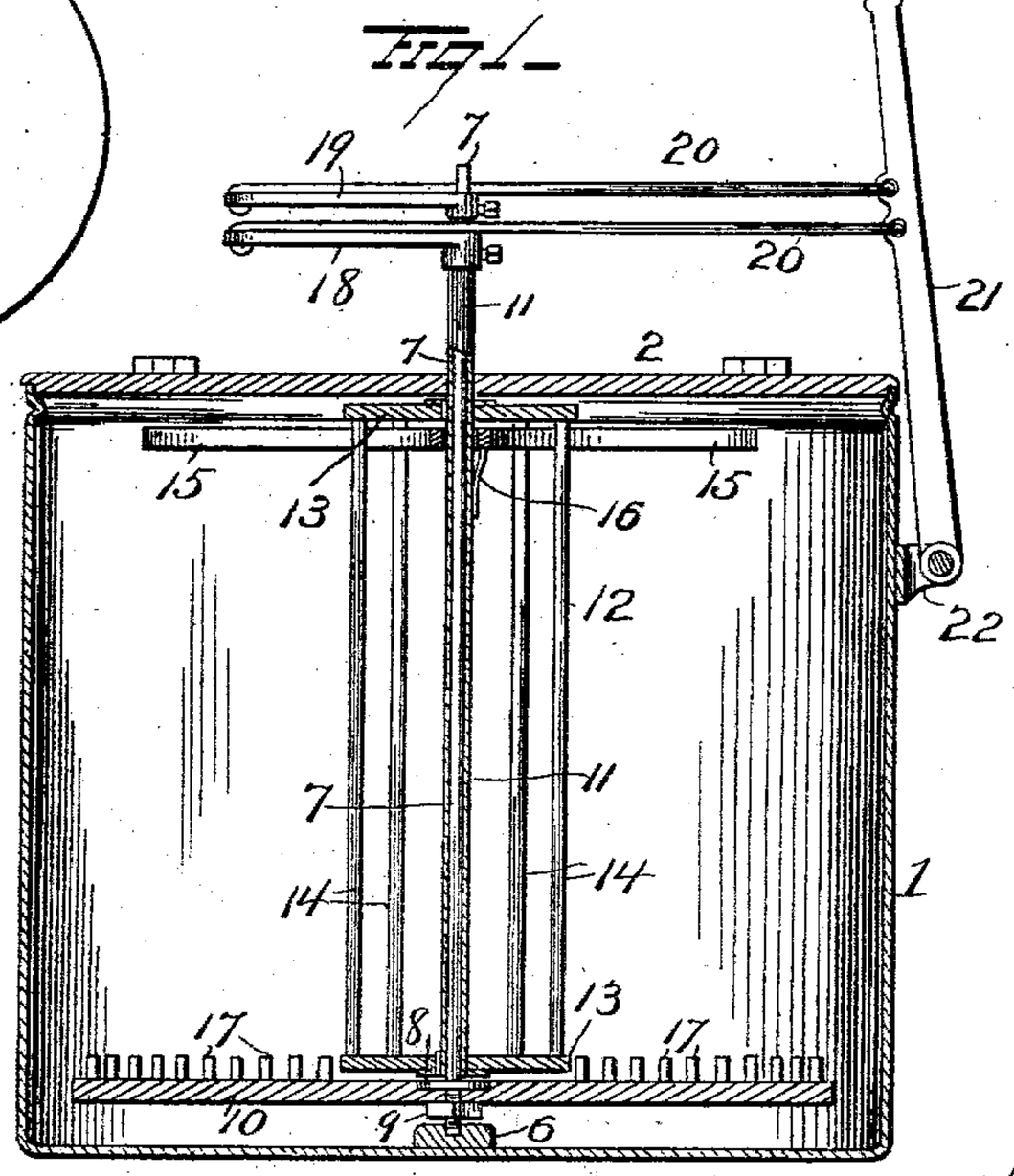


Fig. 5.

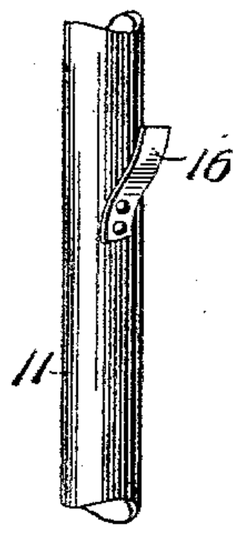


Fig. 4.

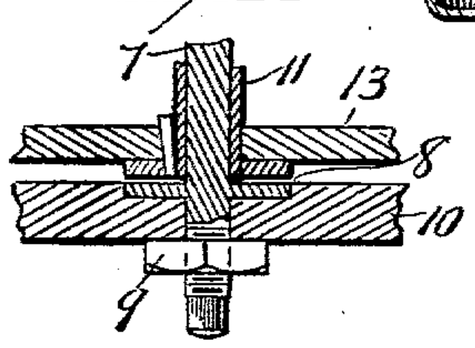


Fig. 2.

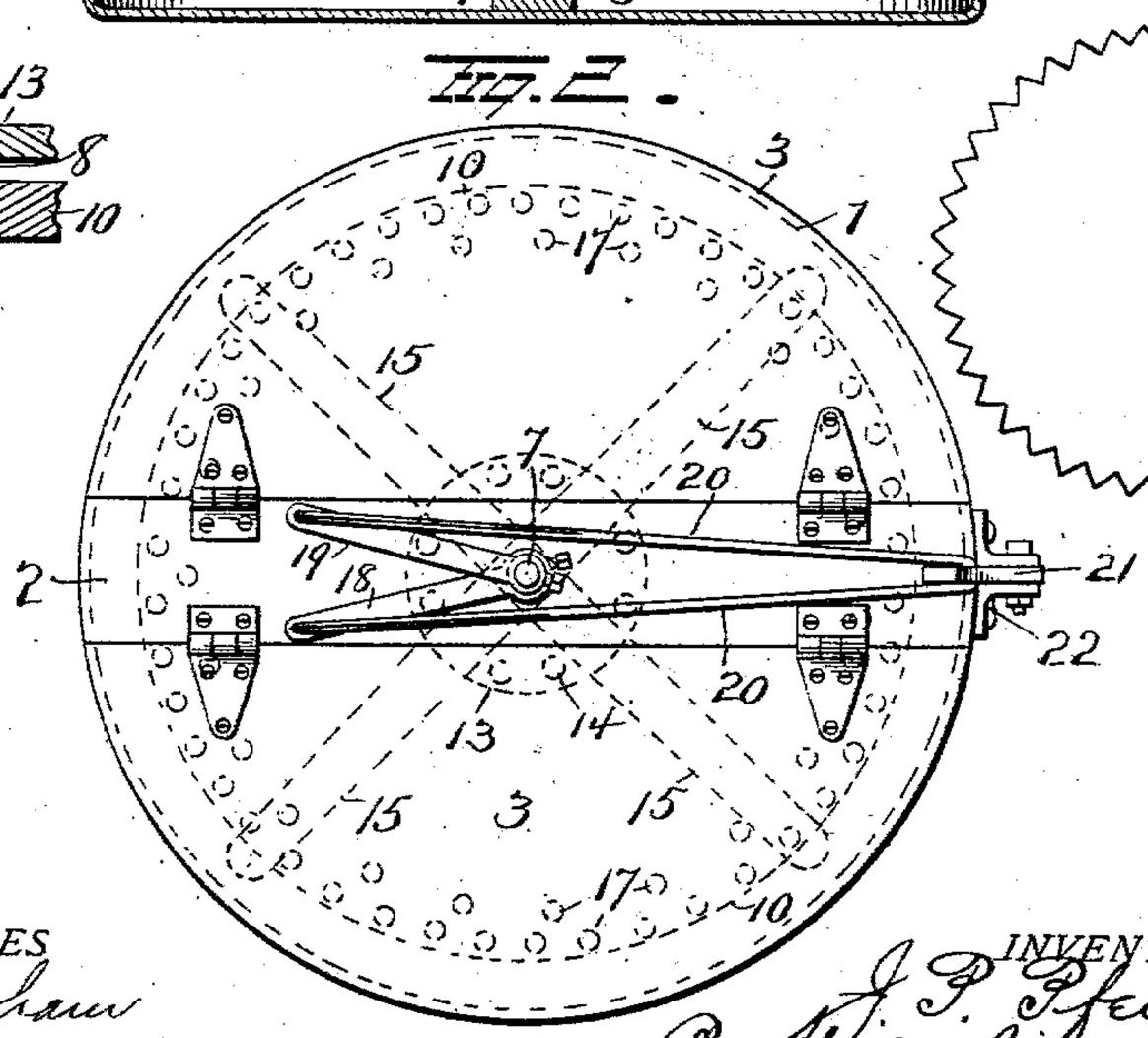
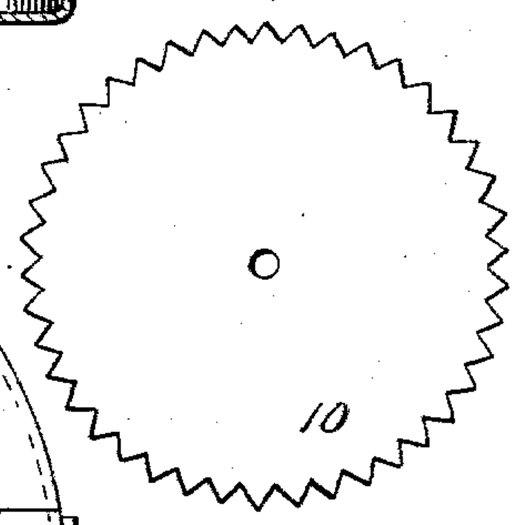


Fig. 6.



WITNESSES

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No. 745,660. Patented December 1, 1903.

UNITED STATES PATENT OFFICE.

JOHN P. PFEIFFER, OF MARSH, IOWA, ASSIGNOR OF ONE-HALF TO GEORGE WILLIS, OF HENRY COUNTY, IOWA.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 745,660, dated December 1, 1903.

Application filed April 3, 1903. Serial No. 150,991. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. PFEIFFER, a resident of Marsh, in the county of Louisa and State of Iowa, have invented certain new and useful Improvements in Washing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in washing-machines, the object of the invention being to provide improved agitating mechanism and improved devices for driving them, and, further, to provide improvements of this character in which the capacity of the machine is only limited by the size of the body or barrel and which will be simple in construction, cheap to manufacture, easy to operate, and will perfectly cleanse the clothes or other articles washed therein.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in vertical section illustrating my improvements. Fig. 2 is a top plan view, and Figs. 3, 4, 5, and 6 are views illustrating various details of construction.

1 represents the body or barrel of the washer, having a cross-bar 2 at its top, to which semicircular covers 3 are hinged and provided with suitable fastening devices at their edge to secure them in a closed position on the body, but permit their ready opening for the insertion or withdrawal of articles.

On the bottom of body 1 at its center a block 6 is secured and made with a central pocket to form a thrust-bearing for the lower end of an upright shaft 7, which extends up through an opening in cross-bar 2. This shaft 7 near its lower end has a washer or annular shoulder 8, between which and a nut 9, screwed onto the shaft, a circular platform 10 is rigidly secured, the latter having a central recess or depression to countersink the washer or annular shoulder 8 and make a neat flush joint.

On shaft 7 and extending up through the opening in cross-bar 2 is a tube or pipe 11, snugly fitting the shaft, but adapted to turn thereon. This tube or pipe 11 carries a frame 12, which extends from platform 10 up to the cross-bar 2 and comprises circular disks or plates 13 at each end connected at their periphery by rods or slats 14.

A frame 15, comprising bars secured at right angles across each other, is made with a central opening to receive tube or pipe 11 and move vertically thereon. These bars project between the vertical rods or slats 14 of frame 12 and are adapted to hold the clothes or other articles on platform 10 when the machine is in operation, and a spring 16 is secured on tube 11 and adapted to engage frame 15 when raised and hold it in such position while filling or emptying the machine.

The platform 10 is provided on its upper face with one, two, or more rows of upwardly-projecting pins 17, or the pins may be irregularly disposed instead of being in rows, as shown, and the periphery of the platform 10 may be toothed or serrated, as shown in Fig 6. This construction of the platform enables the latter to hold the clothes and swing them around and around in the water to cleanse them.

An arm 18 is secured by a set-screw to tube 11 above the top of the machine, and an arm 19 is secured to the upwardly-protruding end of shaft 7. These arms 18 and 19 project at an angle to each other and are connected by rods or links 20 with a lever 21 between the ends of the latter. The lever 21 is fulcrumed at its lower end to a bracket 22, secured to the outside of body or barrel 1, and is adapted when moved back and forth to oscillate the platform and frames 12 and 15 in opposite directions.

The operation of my improvements is as follows: Clothes or other articles are placed in the body or barrel 1 and rest on platform 10, a suitable quantity of warm soapy water being first or afterward placed in the machine. The frame 15 is then released from the spring 16 and permitted to fall on top of the clothes, holding them in engagement with the pins 17, so that when lever 21 is operated the shaft 7, carrying platform 10, is turned in one direction, while the tube 11, carrying frames 12

and 15, is turned in the opposite direction to thoroughly agitate the clothes to perfectly wash them. In other words, the movement is an alternating rotary motion, the platform always moving in a direction opposite to the movement of frames 12 and 15.

While I construct the body, cover, platform, and frames preferably of wood, they may be constructed of various other materials or compositions, and I do not confine myself to any particular material.

A great many changes might be made in the general form and arrangement of the parts described without departing from my invention, and hence I do not confine myself to the precise construction set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a washing-machine, the combination with a receptacle, of a vertical shaft mounted therein, a horizontal toothed platform secured to said shaft, an open frame, means for mounting the open frame on said shaft, means for turning said platform and frame simultaneously in reverse directions, and a vertically-movable frame to hold clothes on the platform.

2. In a washing-machine, the combination with a receptacle, of a vertical shaft mounted therein, a horizontal toothed platform secured to said shaft, a vertically-movable frame for holding clothes on the platform and a spring device for holding said frame in an elevated position.

3. In a washing-machine, the combination with a receptacle and a vertical shaft mounted therein, a tube encircling the shaft, a toothed platform secured to the shaft, a vertical open frame secured to said tube, means for turning said shaft and tube simultaneously in opposite directions, and a frame for holding clothes on the platform and comprising arms mounted on said tube and extending between bars of the vertical frame.

4. In a washing-machine, the combination with a receptacle of a shaft mounted therein, a toothed platform secured to said shaft, a tube encircling the shaft, an open frame secured to said tube, arms projecting from said shaft and tube at different angles, rods attached to the free ends of said arms, and a pivoted lever to which the other ends of said rods are pivoted.

5. In a washing-machine, the combination with a body or barrel, of a vertical shaft supported centrally in the body and projecting through the top thereof, a horizontal platform secured centrally on the shaft near the bottom, a tube or pipe on the shaft projecting through the top of the body, a frame secured on the tube between the body top and platform and comprising horizontal disks or plates connected by vertical rods or slats, cross-bars supported centrally on the tube and movable vertically thereon, a spring to hold the cross-bars elevated, arms on the upper ends of the shaft and tube extending in opposite directions, a lever fulcrumed at one end to the outside of the body or barrel, and links or rods connecting the arms with said lever.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHN P. PFEIFFER.

Witnesses:
GEORGE WILLIS, Jr.,
MARY FAWCETT.