S. FLOWERS.

WASHING MACHINE.

APPLICATION FILED FEB. 16, 1910.

964,227.

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Fig. 1.

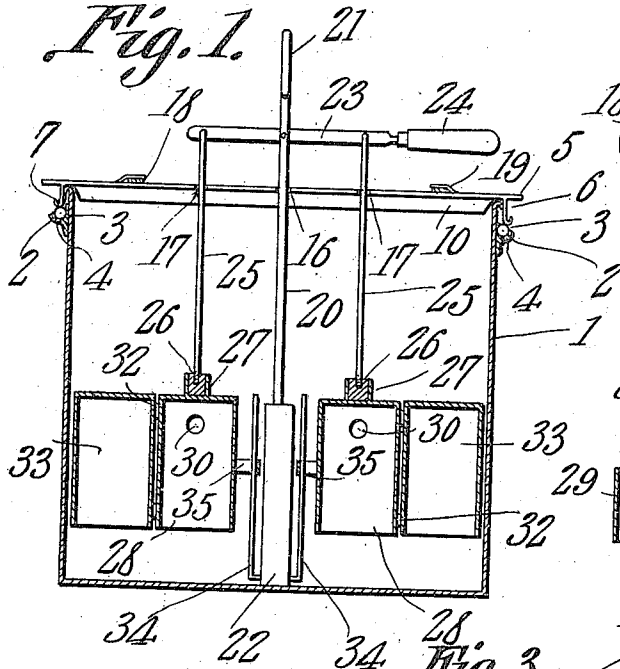


Fig. 6.

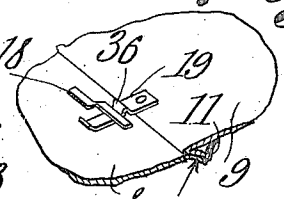


Fig. 4.

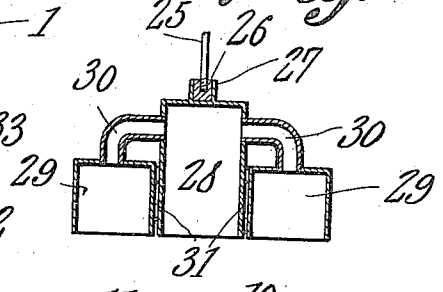


Fig. 3.

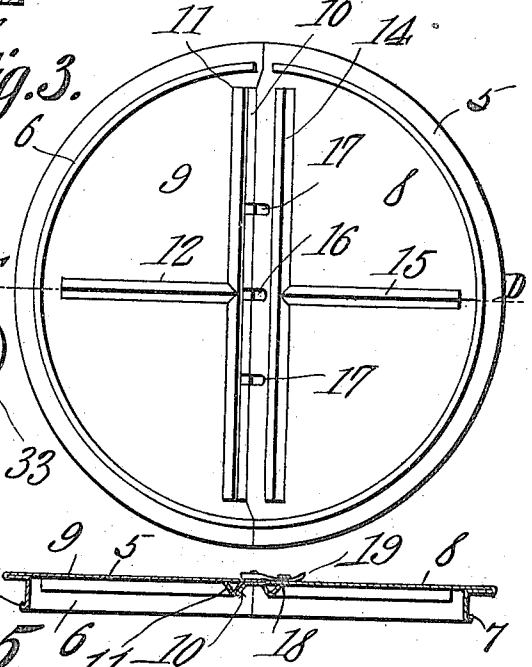


Fig. 2.

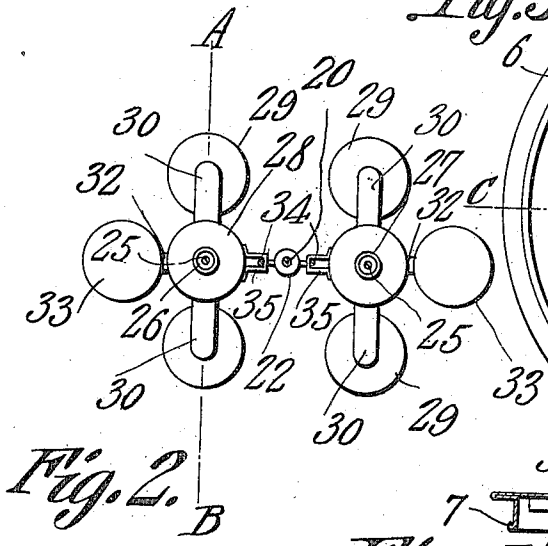
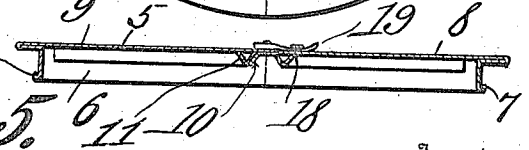


Fig. 5.



Witnesses

E. J. Kennedy

Mason B. Lawton

Inventor

Samuel Flowers

By C. A. Snow & Co.

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL FLOWERS, OF GALION, OHIO.

WASHING-MACHINE.

964,227. Specification of Letters Patent. Patented July 12, 1910.

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To all whom it may concern:

Be it known that I, SAMUEL FLOWERS, a citizen of the United States, residing at Galion, in the county of Crawford and State of Ohio, have invented a new and useful Washing-Machine, of which the following is a specification.

It is the object of this invention to provide a pounder for a washing machine, of novel and improved form, and to provide means for mounting and for operating the pounder.

Another object of the invention is to provide a cover for a washing machine, adapted to receive the pounding mechanism, and so constructed that the pounding mechanism may readily be assembled therewith.

Another object of the invention is to provide a washing machine having a cover which may be rotated upon the body of the washing machine, in order to dispose the pounder in different positions within the machine.

The drawings show but one form of the invention, and it is to be understood that changes, properly falling within the scope of what is claimed, may be made, without departing from the spirit of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings,—Figure 1 shows my invention in vertical transverse section, parts being in elevation; Fig. 2 is a top plan of the pounder-mechanism; Fig. 3 is a bottom plan of the cover for the machine; Fig. 4 is a transverse section on the line A—B of Fig. 2; Fig. 5 is a transverse section of the cover on the line C—D of Fig. 3; and Fig. 6 is a fragmental perspective of a portion of the cover, designed to show the coöperating elements whereby the component parts of the cover are held together.

In carrying out the invention, I provide, primarily, a receptacle 1, which may be of any contour. In the present instance, it is of cylindrical form, and is preferably fashioned from metal. Secured at spaced points about the receptacle 1, upon the exterior thereof and adjacent its upper edge, are brackets 2, in which are retained for rotation, balls 3, there being drainage openings 4 in the brackets 2 to permit the water finding its way out of the brackets. A cover 5 for the receptacle 1 is provided, this cover having a depending flange 6, adapted to inclose the upper edge of the receptacle 1. The lower edge of this flange 6 is rolled over to form a bead 7, adapted to rest upon the balls 3. By this construction, it will be seen that the cover 5 is so supported upon the receptacle 1, that the cover may readily, at the will of the operator, be rotated upon the receptacle. The cover 5 consists of parts 8 and 9, which, at their meeting edges, are overlapped upon each other, as seen most clearly in Fig. 6 of the drawings. The part 8 of the cover has, upon its meeting edge, an inclined flange 10, adapted to extend beneath the meeting edge of the part 9, and to bear against a reinforcing rib 11 which is secured to the lower face of the part 9, in close relation to its meeting edge, and parallel thereto. Extended at right angles to the rib 11, intermediate its ends, is a reinforcing rib 12, the rib 11 upon the part 9 being duplicated upon the part 8 by a rib 14, and the rib 12 of the part 9 being represented upon the part 8, by a similar rib 15. In the meeting edges of the parts 8 and 9, there are notches which, coöperating, form openings 16 and 17, located in the diameter of the cover 5.

Secured to the part 8 of the cover, parallel with the meeting edge of the said part, is a resilient finger 18, one end of which upstands away from the part 8. Pivoted at one end to the part 9 of the cover, is a resilient latch 19, adapted to be moved pivotally to engage the finger 18, the latch 19 having an upstanding shoulder 36, adapted to coöperate with the finger 18 in limiting the sliding movement of the parts 8 and 9 upon each other, when they are brought together. There may be any number of these locking devices composed of the parts 19 and 18. In the present instance, I have shown two of them.

A support for the pounding mechanism of this machine is provided, the same, in the present instance, consisting of a rod 20 which is adapted to be mounted in the opening 16 of the cover. This rod 20 is provided at its upper end with a hand-hold 21, and at its lower end with an enlargement 22. This enlargement 22 may be a block of wood into which the lower end of the rod 20 is inserted. The member 22 bears upon the bottom of the receptacle 1 to support the rod 20 in upright position.

Pivoted intermediate its ends upon the rod 20, above the cover 5, is a lever 23, provided with a suitable operating handle 24. By seizing the handle 24, the cover parts 8 and 9 may be rotated upon the anti-friction devices shown in the form of the balls 3, the member 22 rotating upon the bottom of the receptacle 1. Thus the pounders may be revolved about the axis of the receptacle, so that the entire contents of the receptacle may be pounded. Upright rods 25, are pivoted at their upper ends, to the lever 23, and at their lower ends, are operatively connected with the pounders. The rods 25, are mounted in blocks 26 secured within collars 27, rising from the closed upper ends of central cups 28. Located upon opposite sides of the central cups 28, are auxiliary cups 29, somewhat shorter than the central cups; and the cups 28 and 29 are secured together by means of retaining strips 31. Arcuate pipes 30 connect the upper portions of the central cups 28 with the upper portions of the auxiliary cups 29, the said pipes 30 being extended through the side walls of the cups 28, and through the end walls of the cups 29. By means of strips 32, outer cups 33 are secured to the central cups 28, between the auxiliary cups 29. These outer cups 33 are of substantially the same length as the central cups 28. Fixed to and rising from the block 22 at the end of the rod 20, are standards 34, upon which reciprocate guides 35, secured to the adjacent sides of the central cups 28.

When it is desired to operate the machine, the pounding mechanism is placed within the receptacle 1. One of the parts 8 or 9 of the cover 5 is then mounted upon the receptacle and the other part is then placed in position, the rod 20 registering in the opening 16, and the rods 25 registering in the openings 17. By means of the interlocking elements 18 and 19, the parts 8 and 9 of the cover 5 will be held securely together, the flange 10, upon the part 8, bearing against the reinforcing rib 11 upon the part 9, and serving to strengthen and secure together the component parts of the cover. By operating the lever 23, the several cups 28, 29 and 33 may be reciprocated, thoroughly pounding the clothes which are in the receptacle. By manipulating the handle 24, the cover 5 may be rotated upon the receptacle 1, to dispose the several cups in successive positions within the receptacle, the anti-friction means 3, carried by the receptacle 1, facilitating the rotation of the cover 5 upon the receptacle. Obviously, if desired, by grasping the handhold 21, the pounding mechanism and the cover 5 may be lifted from the receptacle 1 in a single operation.

It is not necessary that the cover and the pounding mechanism be employed upon a receptacle of the particular contour shown. If desired, the cover may be lifted off from the receptacle upon which it is shown in Fig. 1, and placed upon the curved end portion of a common wash-boiler, thus permitting the device to be operated in the boiler, while the same is upon the stove. Referring to Fig. 4 of the drawings it will be seen that the auxiliary cups 29 are considerably shorter than the central cup 28, and that there is a free communication between the tops of the cups 29 and the side walls of the central cup 28. When the pounder, represented by the cups 29 and the cup 28, is thrust downwardly upon the garments which are mounted within the receptacle 1, the water will, in the first instance, rise in all of the several cups 28 and 29. When, however, the cups 29 are filled, the water which is in the cups 29 will be carried over into the central cup 28. This overflow of the contents of the cups 29 into the cup 28, will cause the air which is in the top of the cup 28 to be compressed, and this compression of the air in the top of the cup 28 will force the water which is in the cup 28 downwardly, thoroughly cleansing the garments.

Owing to the disposition of the several cups 28, 29 and 33, shown most clearly in Fig. 2, it will be seen that a large proportion of the cross sectional area of the receptacle 1 is covered, and that, by rotating the pounders within the receptacle 1, the entire contents of the receptacle may be thoroughly agitated and cleansed.

Having thus described the invention, what is claimed is:—

1. In a washing machine, a receptacle; a cover therefor consisting of separable parts; operating mechanism working between the meeting edges of said parts; means for uniting the cover parts against relative movement; anti-friction devices interposed between the cover and the receptacle; and a lever for actuating the operating mechanism, and constituting a means for rotating the cover upon the anti-friction devices.

2. In a washing machine, a cover consisting of separable, coöperating parts, having coöperating notches in their meeting edges, defining spaced openings in the cover, the cover being provided with a depending flange; a finger secured to one part; a resilient latch member pivoted to the other part to engage yieldingly with the finger; a support extended through one of the openings; an operating member carried by the support; pounders; connections between the pounders and the operating member, adapted to be received in the other openings; a receptacle adapted to be inserted within the flange; and anti-friction means upon the receptacle adapted to receive the flange for rotation upon the receptacle.

3. In a washing machine, a cover consisting of separable, coöperating parts hav-

ing their meeting edges over-lapped, one of said parts having a reinforcing rib along its lower face adjacent its meeting edge; there being a flange upon the meeting edge of the other part arranged to extend below the rib-carrying part, to bear against the rib; and a locking device upon the parts to hold the flange against the rib.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

SAMUEL FLOWERS.

Witnesses:
R. C. TRACHT,
L. M. TRACHT.