

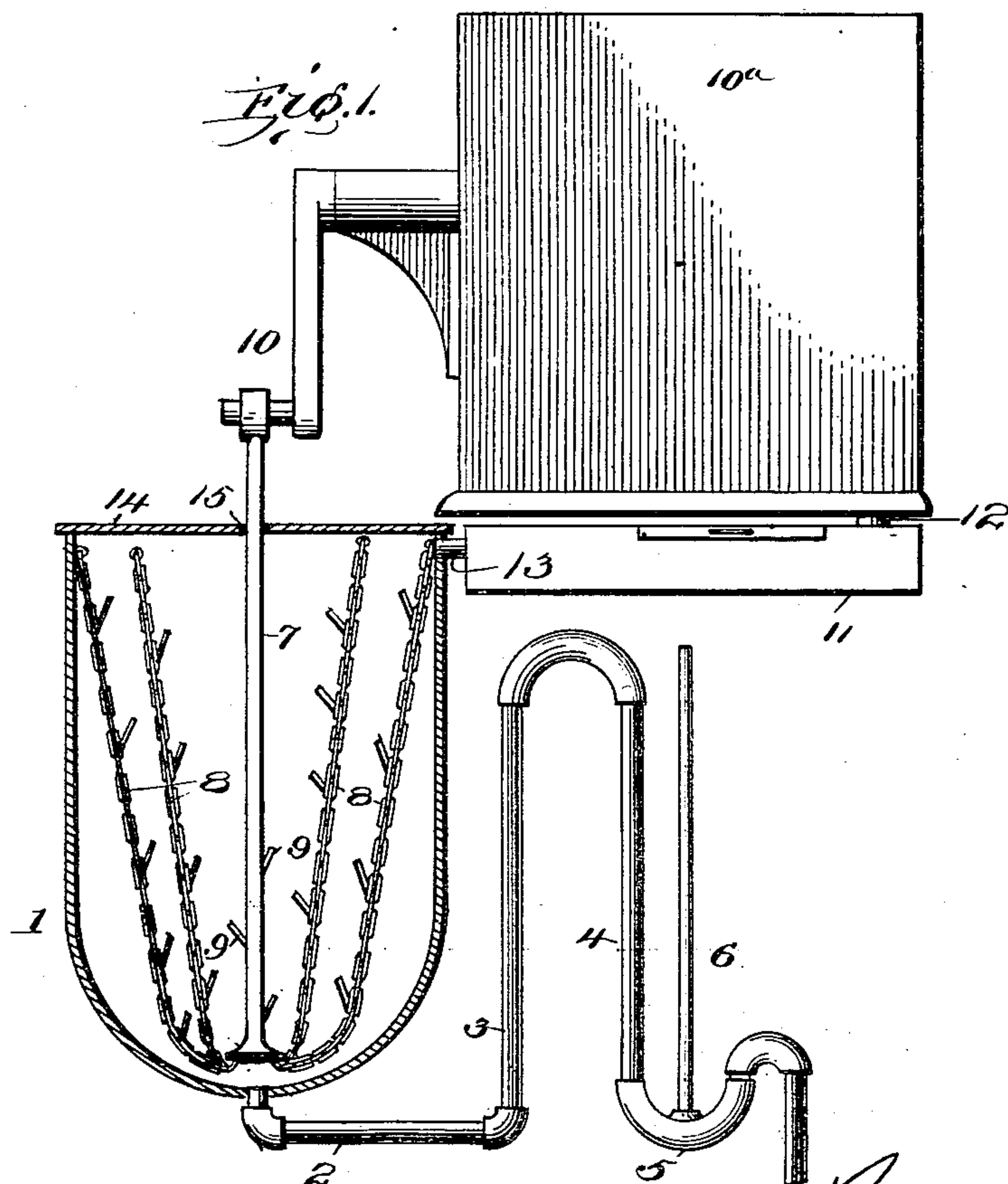
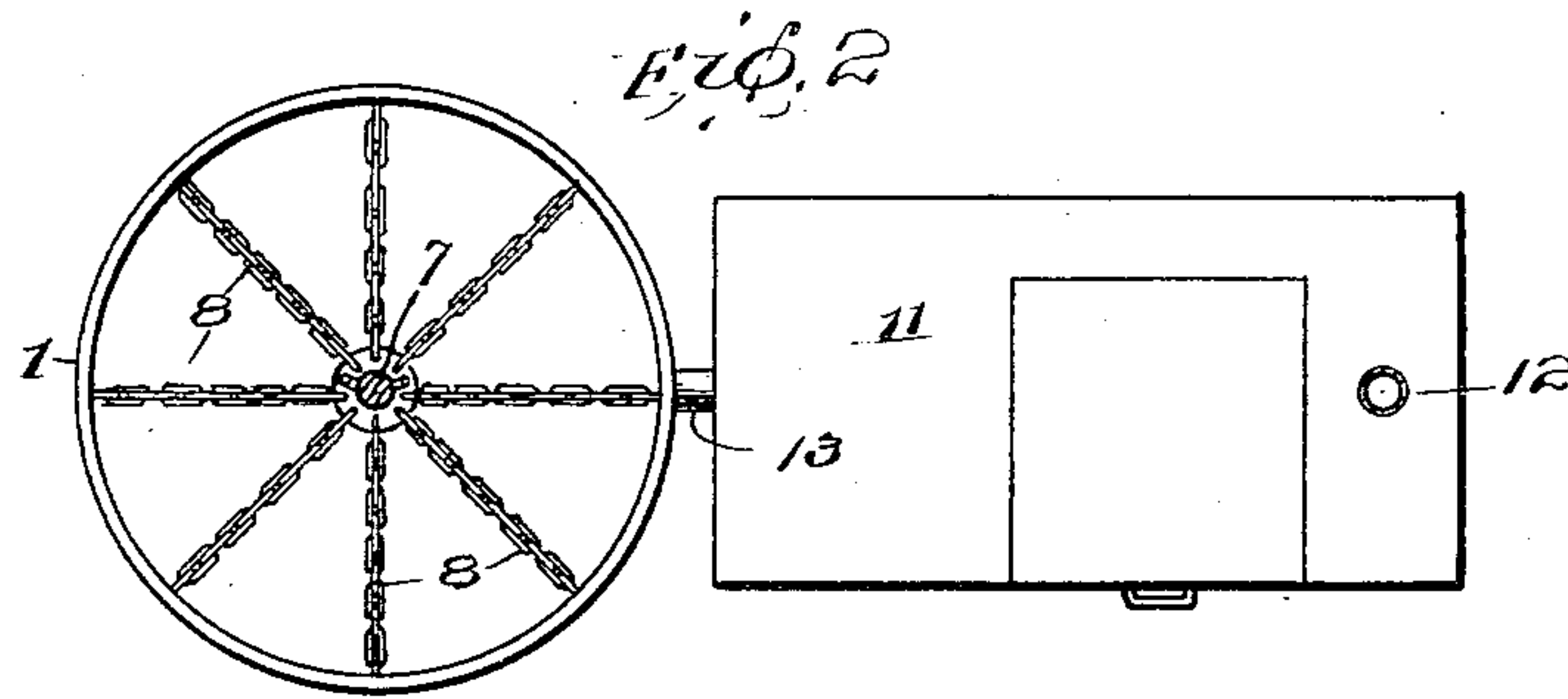
No. 751,149.

PATENTED FEB. 2, 1904.

P. CUNNEEN.
WASHING MACHINE.

APPLICATION FILED JULY 24, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

PETER CUNNEEN, OF NEW ROCHELLE, NEW YORK.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 751,149, dated February 2, 1904.

Application filed July 24, 1903. Serial No. 166,893. (No model.)

To all whom it may concern:

Be it known that I, PETER CUNNEEN, a citizen of the United States, residing at New Rochelle, in the county of Westchester, State of New York, have invented new and useful Improvements in Washing-Machines, of which the following is a specification.

My invention relates to washing-machines, more especially for washing small articles—such as sanitary napkins, infants' diapers, and the like—and has for its main objects, first, to provide an improved means for agitating the articles during the cleansing operation and, secondly, to provide an improved means for periodically and automatically removing and renewing the water during the agitation. These objects I accomplish in the manner and by the means hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of my improved device. Fig. 2 is a detail top plan view of the tub and soap-box.

Similar numerals of reference denote corresponding parts in the two views.

In the said drawings the reference-numeral 1 denotes the tub, the same being preferably rounded at its bottom, as shown. Leading from the bottom of the tub is a discharge-pipe 2 for the water, the same extending upward into the short leg 3 of a siphon, the long leg 4 of which is formed with a trap 5, having a vent-pipe 6.

Extending centrally downward into the tub 1 is a rod 7, having attached thereto at its lower end the ends of a plurality of flexible agitators, such as chains 8, whose other ends are in turn secured annularly to the interior surface of the tub near its upper end, said central rod 7 and annular chains 8 being provided with a series of upward-extending projections 9, as shown.

The upper end of the rod 7 is attached to the crank-arm 10 of a suitable motor inclosed in casing 10^a. While this motor may be of any desired type and propelled by any suitable means—such as electricity, gas, steam, or compressed air—I prefer to employ a water-motor—such, for instance, as the one disclosed in an application for Letters Patent filed by me of

even date herewith, Serial No. 166,892. With such a motor, or with any form of water-motor, I locate beneath the same a suitable soap-box 11, into which the water from the motor discharges through pipe 12, and which in turn discharges the water impregnated with the soap therein into the tub through pipe 13. Said soap-box 11 is preferably employed even when the motor is not of the water type, in which event the water-supply for the tub is first led into said soap-box and from thence discharged into the tub through pipe 13.

From the above description the operation of my improved device will be understood to be as follows: The tub 1 being charged with the articles to be washed and a suitable lid 14, having an elongated slot 15 therein to accommodate the movement of the rod 7, being placed thereon, said tub having been previously partly filled with water, the motor is started, the rotation of crank 10 of the same reciprocating rod 7 vertically in said tub, which in turn raises and lowers the lower ends of the agitators 8, and thus constantly and effectively agitate the articles therein, this agitation being aided by the upwardly-extending projections 9 on said rod and agitators, but which by reason of their upward projection will not interfere with the withdrawal of the articles when the washing is completed. When a water-motor is employed, the water actuating the same is discharged into soap-box 11, where it takes up the soap therein and discharges constantly into the tub, or when a motor of another type is employed a constant supply of water is provided for the soap-box 11, which performs the same function. During this agitation of the articles in the tub this constant supply of water will gradually fill the same until the level of the top of the siphon is reached, when the latter will function and withdraw the water that has become soiled by taking up the dirt in the articles being washed, said siphoning action continuing until broken by the vent-pipe 6 in a manner well understood, whereupon the tub 1 will be again gradually filled with the soapy water until the siphon-functioning level is again reached. In this way the articles are subjected to a constant and effective agitation and

the water periodically and automatically withdrawn and replenished.

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

1. In a washing-machine, a tub, a series of annularly-disposed flexible agitators each attached at one end to the tub, and means for vertically reciprocating the other ends thereof centrally within said tub.

2. In a washing-machine, a tub, a series of annularly-disposed flexible agitators each attached at one end to the tub near its upper end and extending downwardly therein, and means for vertically reciprocating the other ends thereof centrally within said tub.

3. In a washing-machine, a tub, a series of annularly-disposed flexible agitators each attached at one end to the tub, a common central vertically-disposed rod to which the other ends of said flexible agitators are connected, and means for vertically reciprocating said rod or chain.

4. In a washing-machine, a tub, a series of annularly-disposed flexible agitators each attached at one end to the tub near its upper end and extending therefrom downwardly into said tub, a common central vertically-disposed rod to which the lower ends of said flexible agitators are connected, and means for vertically reciprocating said rod.

5. In a washing-machine, a tub, a series of annularly-disposed flexible agitators each attached at one end to the tub near its upper end and extending therefrom downwardly into said tub, a common central vertically-disposed rod to which the lower ends of said flexible agitators are connected, means for vertically reciprocating said rod, and a series of upwardly-disposed projections on said rod and flexible agitator.

6. In a washing-machine, a tub, means for

constantly agitating the contents thereof, means for affording a continuous supply of water thereto, and means for intermittently and automatically exhausting the water therefrom.

7. In a washing-machine, a tub, an agitator for said tub, a water-motor for actuating said agitator and discharging its water continuously into said tub, and a siphon connected with said tub and adapted to operate by the rise of the water-level therein to automatically and intermittently exhaust the water therefrom.

8. In a washing-machine, a tub, an agitator for said tub, a water-motor for actuating said agitator, a soap-box into which said motor discharges its water and which in turn discharges into said tub, and a siphon connected with said tub and adapted to operate by the rise of the water-level therein to automatically and intermittently exhaust the water therefrom.

9. In a washing-machine, a tub, a series of annularly-disposed flexible agitators therefor each attached at one end to the tub near its upper end and extending therefrom downwardly into said tub, a common central vertically-disposed rod to which the lower ends of said flexible agitators are attached, a water-motor for vertically reciprocating said rod, a soap-box into which said motor discharges its water and which in turn discharges into said tub, and a siphon connected with said tub and adapted to operate by the rise of the water-level therein to automatically and intermittently exhaust the water therefrom.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

PETER CUNNEEN.

Witnesses:

THOMAS DURANT,
PERCY B. HILLS.