C. L. BREHIO.

WASHING MACHINE.

APPLICATION FILED JULY 7, 1920.

1,382,268.

Patented June 21, 1921.

2 SHEETS—SHEET 1.

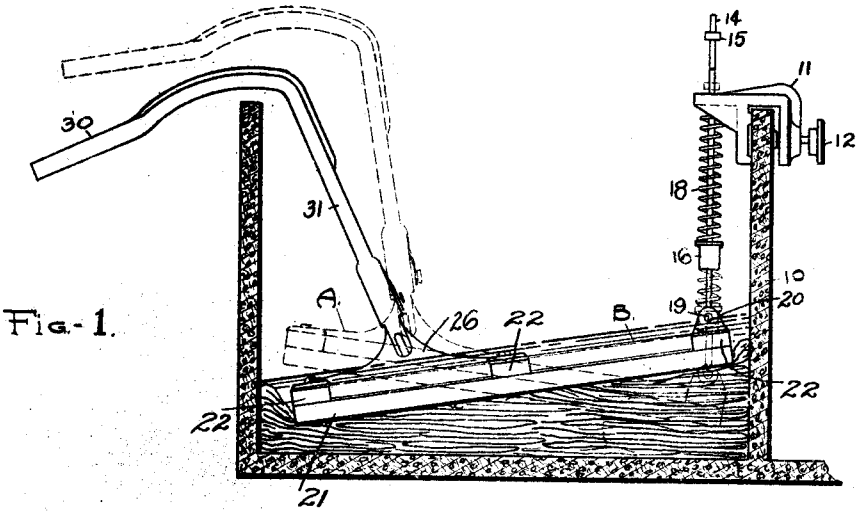


Fig. 1.

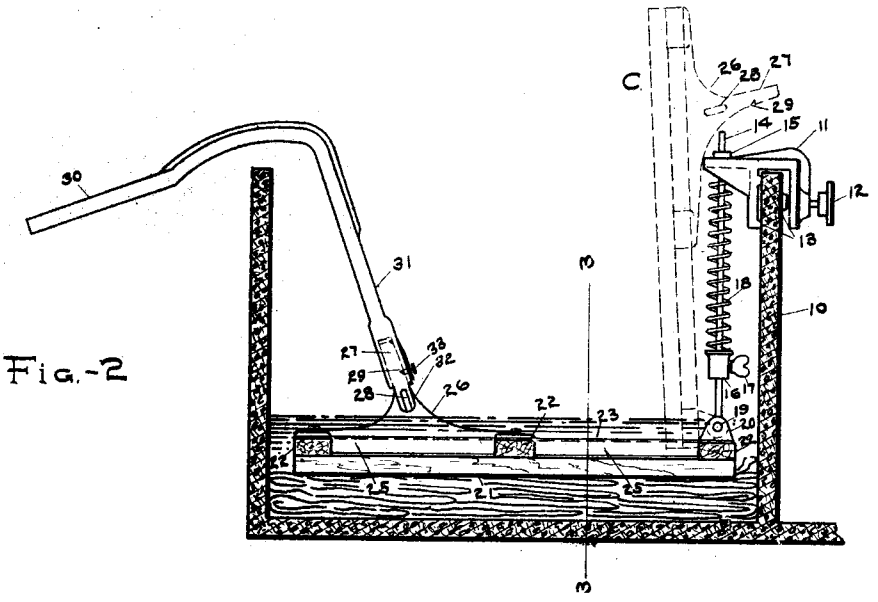


Fig. 2.

Inventor
Charles L. Brehio.
By attorneys.
Southgate & Southgate.

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2 SHEETS—SHEET 2.

Fig. - 3.

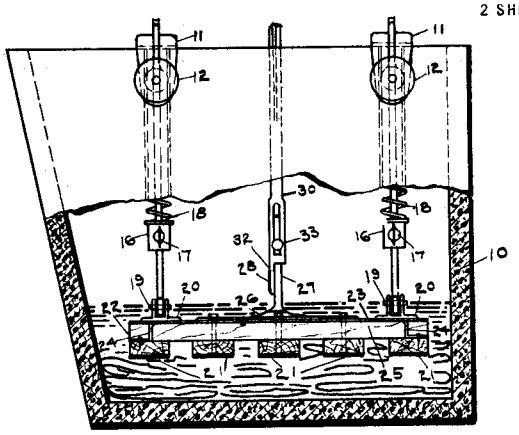
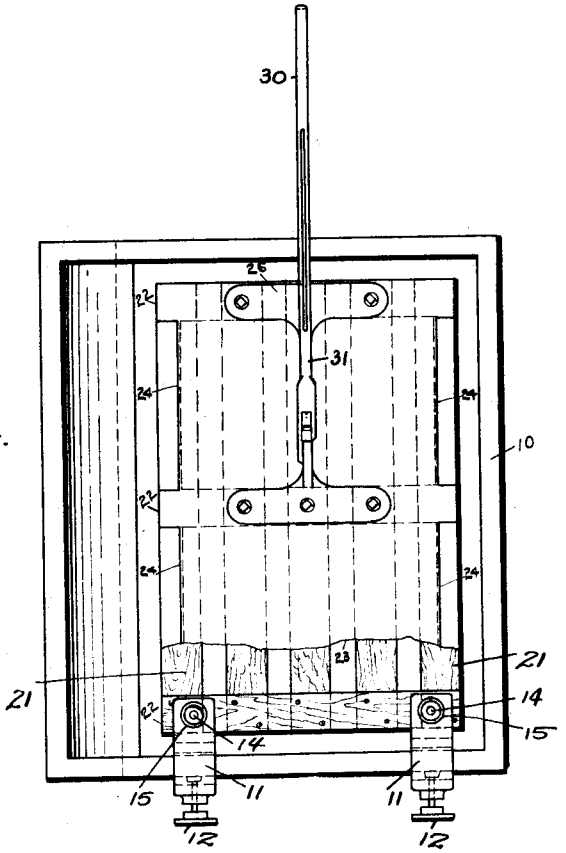


Fig. - 4.



Inventor
Charles L. Brehio.
By attorneys:
Southgate & Southgate.

UNITED STATES PATENT OFFICE.

CHARLES L. BREHIO, OF WORCESTER, MASSACHUSETTS.

WASHING-MACHINE.

1,382,268. Specification of Letters Patent. Patented June 21, 1921.

Application filed July 7, 1920. Serial No. 394,449.

To all whom it may concern:

Be it known that I, CHARLES L. BREHIO, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Washing-Machine, of which the following is a specification.

This invention relates to a washing machine capable of being operated by hand. Although the principle can be made use of with the application of power, it is intended mainly as a hand machine, and the principal objects are to provide a convenient and simple arrangement which can be used in an ordinary set or other tub if desired and will effect the thorough washing of the clothes; and to provide a device which can be adjusted up and down for different quantities of clothing, and one which contains very few parts and is extremely inexpensive. Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawings, in which—

Figure 1 is a sectional view of a tub with a preferred embodiment of this invention applied thereto, showing in dotted and full lines two positions of the operating parts during the operation of the device;

Fig. 2 is a similar view showing the parts in normal position and illustrating in dotted lines how the device can be moved up out of the way for taking the clothes out of the tub;

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2 showing one end of the device, and

Fig. 4 is a plan of the same.

This invention is adapted to be applied to any kind of a wash tub, and I have shown it as being detachably connected with and located in a set tub 10 of well known design.

For the purpose of connecting it with one of the walls of the tub I have shown two brackets 11, each being adapted to be secured to one upper edge of the tub by a hand screw 12, and two projections 13 formed on the bracket. Each bracket has a perforation therethrough in which operates a rod 14. This rod has a stop 15 on the end of the bracket and below it is a slide 16 adapted to be set in any adjusted position by a thumb screw 17.

Between the slide and the underside of the bracket is a spring 18 which obviously forces the rod down and yieldingly resists its elevation. The spring is light enough, however, to permit of the rod being raised in the manner to be described herein.

Each of the rods is pivotally connected through a pin 19 with a bracket 20. These two brackets 20 are mounted on the top of a platform which is formed of a plurality of parallel horizontal longitudinal pieces 21 and three cross pieces 22 in the form shown. The brackets are secured to one of the cross pieces at one end of the device.

This platform has located on the three cross pieces a sheet of metal as for example, galvanized iron, which forms a top flat piece 23. This is screwed or nailed down to the wooden cross pieces, and its side members 24 are bent down between them so as to form an air chamber 25 extending substantially the full width of the platform, and extending from one cross piece to the other above.

The longitudinal pieces 21 are spaced apart and constitute the means for engaging the clothing or other articles to be washed. These have spaces between them of considerable width for a purpose to be described and these spaces communicate with the air spaces 25 above mentioned.

Mounted on the two cross pieces located at the center and opposite end of the platform is a bracket 26. This is preferably screwed in position in any convenient way. It is provided with an upright guide 27 which slants upwardly and with a guiding lug 28 cast on it and located centrally in alinement with the guide 27. This guide 27 is also provided with a notch 29. This bracket is designed for supporting a handle 30. This handle has a downwardly projecting portion 31 substantially at right angles to the handle proper and this has a slot in which the guide 27 is adapted to fit. This handle also has a projecting portion 32 having an open ended slot at the end for engaging the lug 28 when the handle is forced down over the guide to hold the two parts together. It is also provided with a spring catch pin 33 adapted to engage in the notch 29 to prevent the accidental displacement of the parts. In this way the handle can be slid into place and will become self-locked therein without any attention on the part of the operator, but in order to remove the handle it is necessary to pull out the spring latch 33 and thus with-

draw the latter from the notch. Then the handle can be drawn off.

In the operation of the device the clothes are placed in the tub and sufficient water admitted. Then the parts are placed in position as indicated in Fig. 2, the slides 16 being raised or lowered as may be necessary to permit of the platform resting freely on top of the clothes. Now the operator manipulates the handle by moving it up and down. When he moves it up the suction caused by trying to raise one of the air chambers 25 out of the water will resist this action and the platform will swing to the position marked A in Fig. 1. On the contrary when he forces the handle down that end of the platform will tend to sink and the other end to rise, so that it will assume the position marked B in Fig. 1 or substantially that. This operation is repeated continuously as long as may be necessary. The washing action is secured by the oscillation of the platform and the suction produced by moving the air chambers in the upper part of it. The suction sets up currents of water and also tends to move the clothes. It is operated positively on one side and by the springs 18 on the other resisting the upward motion of that end of the platform. It has been found in practice that this is a convenient and simple, as well as inexpensive, way to provide for washing. It is clear also that it is adjustable for washings of different sizes, because the platform can be raised in accordance with the adjustment of the slides 16. When the washing is finished the handle is removed in the manner above specified and the platform swung back into the position shown in dotted lines at C in Fig. 2. Then the washing can be taken out and if desired the whole device can be removed very readily to be dried or cleaned.

Although I have illustrated and described only a single form of the invention I am aware of the fact that modifications can be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details of construction herein shown and described, but what I do claim is:—

1. In a washing machine, the combination of a movable platform having two air chambers at opposite ends opening below the water, whereby when either end of the platform is raised suction will be produced to cause circulation of the water, means for yieldingly supporting one end of the platform adjacent to one of said chambers, and means at the other end of the platform adjacent to the other chamber by which said other end can be raised and lowered.

2. In a washing machine, the combination with a container for the water and clothes, of an oscillatable platform adapted to rest on the clothes in the water and having spaced longitudinal bars constituting the lower surface of the platform and two air chambers each communicating with the spaces between the bars and located above them.

3. In a washing machine, the combination with a container for the water and clothes, of a platform adapted to rest on the clothes in the water and having longitudinal bars at the lower side spaced apart and having two end air chambers communicating with said spaces and located above them, a handle at one end for oscillating said platform by alternately raising and lowering said end positively, and yielding means for supporting the other end to permit of its moving oppositely to the end which is positively moved.

4. In a washing machine, the combination with a container for the water and clothes, of a platform adapted to rest on the clothes in the water, a handle for moving one end of said platform up and down, a bracket adjustably connected with the opposite end of the container, a rod slidably mounted in said bracket, a slide adjustable up and down the rod, a spring mounted between the slide and bracket, and means for pivotally connecting the rod to the platform at said opposite end.

In testimony whereof I have hereunto affixed my signature.

CHARLES L. BREHIO.