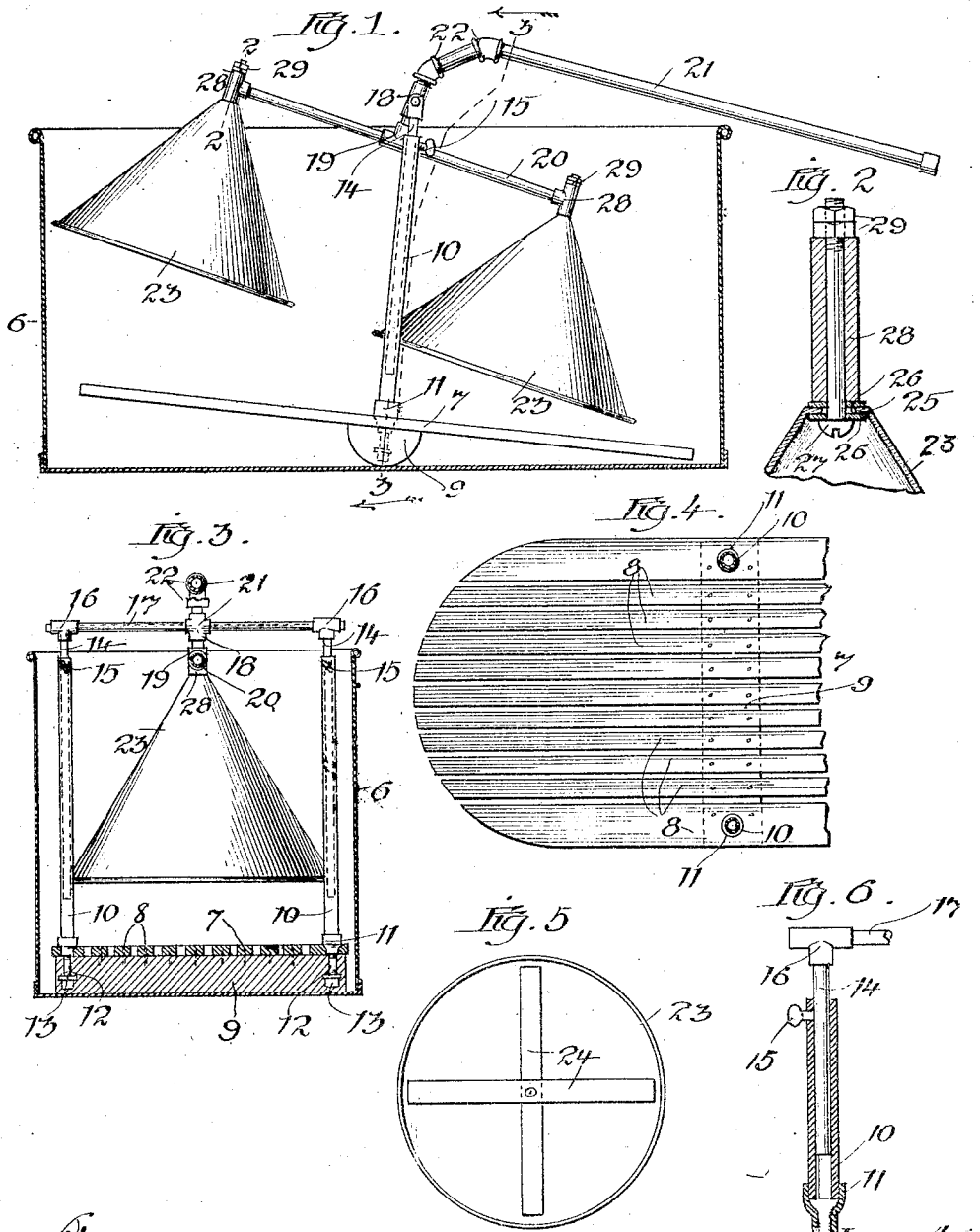


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LAUNDRY APPARATUS.
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993,012.

Patented May 23, 1911.



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UNITED STATES PATENT OFFICE.

JOHN L. ATWATER, OF WESTERN SPRINGS, ILLINOIS.

LAUNDRY APPARATUS.

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To all whom it may concern:

Be it known that I, JOHN L. ATWATER, a citizen of the United States, residing in Western Springs, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Laundry Apparatus, of which the following is a specification.

This invention relates to devices adapted to be used in washing clothes and fabrics.

The devices forming the subject matter of the invention are adapted to be used in any ordinary house washboiler by simply placing them therein and they do not need to be attached to the boiler or other receptacle in any way. Their nature and mode of operation is fully explained below, and will be understood from the accompanying drawing in which—

Figure 1 is a vertical section of a house washboiler showing therein the invention in elevation. Figs. 2 and 3 are sections on the lines 2—2 and 3—3 respectively of Fig. 1. Fig. 4 is a partial plan of the rocker which supports the clothes. Fig. 5 is a bottom plan of one of the suction cups. Fig. 6 is a vertical section of the supports of the suction cups.

In the bottom of the boiler 6 I place a false bottom or rocker 7 composed preferably of separated slats 8 mounted at their centers upon a base 9 the under surface of which is rounded as plainly shown in Fig. 1. From the sides of the base 9 and extending upward are two upright pieces 10 of metal pipe firmly secured in thimbles 11 which are let into the false bottom, and are rendered very rigid therein by bolts 12, the upper ends of which are threaded in the thimbles and the lower ends of which are screwed or otherwise secured in heads or sockets 13.

In the uprights 10 are inserted two vertical rods 14 supported at any height therein desired by set screws 15, the vertical adjustment of the rods depending upon amount of room required for the goods being washed. The rods are provided upon their upper ends with tees 16, and these tees form end supports for a cross bar or shaft 17 which unites the rods 14. Centrally upon the cross bar is placed armed tee 18 and from the lower arm is hung a three armed tee 19 through the horizontal arms of which a bar 20 carrying suction cups at its ends as hereinafter stated, is passed. A hand lever 21 is attached to the tee 18 by couplings 22 and

connecting pipe sections and extends over the end of the boiler as shown at Fig. 1, and serves as a means of imparting a rocking motion to the whole apparatus upon the rounded base 9.

The bar 20 by reason of its being supported on cross bar 17 is capable of an independent rocking movement and when the hand lever 21 is actuated this independent rocking movement is given the bar 20, and at practically the same time with the actuations of the bottom rocker. Bar 20 carries at its ends suction cups 23, 23', and the rocking movement received from lever 21 carries these cups alternately downward upon the clothes being operated upon, and lifts them therefrom alternately. These cups are hollow, preferably cone shaped and provided at their bottoms with crossbars 24 adapted to prevent the clothes from entering them. At their tops the metal is bent to form a flat surface 25 and above and below this are washers 26 through which passes a bolt 27 entering to the interior of the cup and securing the cup to the tee 28. In the side arms of the tee 28 are entered the ends of bar 20, so that the cups are supported by the bar as will be understood. Lock nuts 29 may be employed upon the tops of the bolts.

With this construction the operation of the invention is as follows:—The base or rocker bottom of the apparatus described is first placed in the boiler preferably without being attached to it at any point. The clothes to be washed are then placed on the base, and the suction cups and their support are then secured in place upon the standards 10 and above the goods. After the water has reached the boiling heat, or while it is being heated, the lever is moved back and forth for a few minutes, thereby rocking the base and the cups at the same time. In the case of the base the ends move up alternately and down alternately thus lifting the clothes and depressing them alternately, forcing the water into them when moved downward, and draining it out of them when raised. At the same time one of the cups is forced upon the top of the goods while the other is lifted from them, squeezing the water out of the goods in the one case and causing a suction upon the goods which will attract the water into them in the other case. In this manner the water is kept moving in and out of the clothes and through them so that they become quickly cleansed.

In operating the apparatus, it will be noticed that in order to give motion to the bottom rocker, the top of the apparatus will be moved longitudinally, first toward one end and then toward the other end. It will also be noted that the bottom rocker can also be used with good effect, without the suction cups, also, that the false bottom can be widened or duplicated and the cups also duplicated if it is desired to employ a motor to operate them in an enlarged boiler.

While the suction cups or other pressing devices and rocking false bottom are moved simultaneously or nearly so it will be noticed that their movements are not exactly alike but may vary from each other very considerably. The pressing devices have a greater movement than the bottom, and usually begin to move before the bottom, and the movement of the bottom is likely to be arrested by contact with the bottom of the boiler before the pressing devices have finished their stroke, and variations in the movements are likely to be caused by different ways of operating lever 21. Thus a horizontal motion without lifting of the lever, causes the rocking of the false bottom without giving much movement to the pressing devices, while a lifting of the lever without the horizontal movement tends to swing the pressing devices without changing the position of the false bottom to any great extent.

I claim:—

1. In apparatus for washing clothes and fabrics, the combination with a wash boiler or other suitable vessel, of the rocking false bottom, a pair of suction cups mounted on

the ends of a swinging support, a hand lever for rocking the false bottom and the cup support, and an upright structure rising from said bottom and supporting said lever and said cup support.

2. In apparatus for washing clothes and fabrics, the combination with a washboiler or other suitable vessel, of a rocking false bottom supporting the goods to be washed, and rising and falling pressure devices mounted above the goods on a pivoted support mechanically connected to said false bottom and swinging so as to press on the goods, and means for operating the bottom and pressure devices.

3. In apparatus for washing clothes and fabrics, the combination with a washboiler or other suitable vessel, of a rocking false bottom supporting the goods to be washed, and rising and falling pressure devices mounted above the goods on a swinging support mechanically connected to said false bottom and swinging with a motion varying from that of the bottom.

4. In apparatus for washing clothes and fabrics, the combination with a washboiler or other suitable vessel, of a rocking false bottom supporting the goods to be washed, and suction cups located at opposite sides of a pivot supported from the false bottom upon which they swing above the goods, and alternately press upon and release them and means for actuating the bottom and the pressure devices out of unison.

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