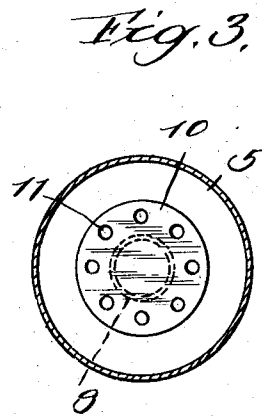
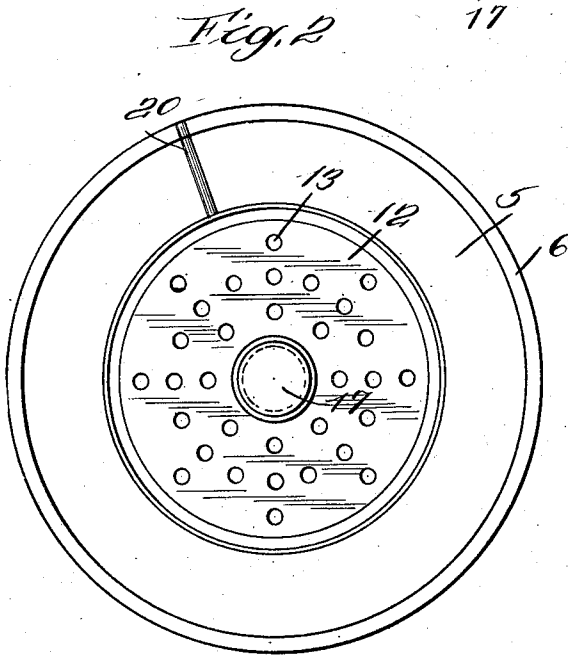
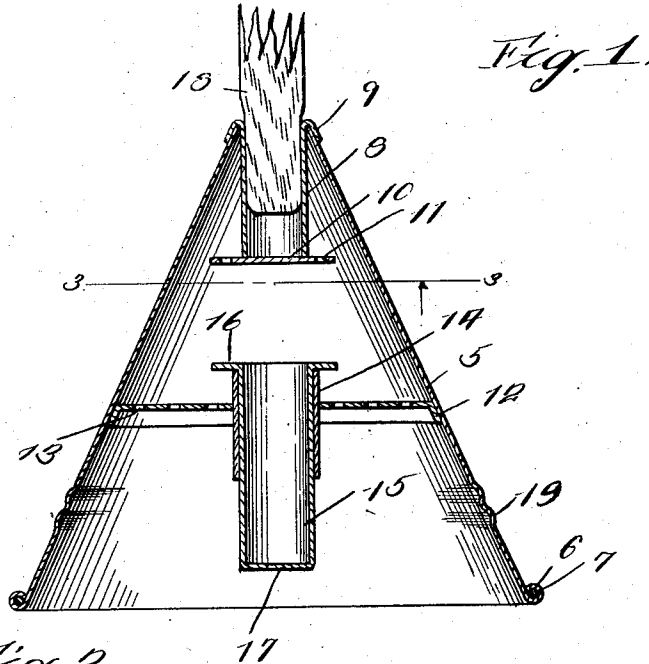


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CLOTHES WASHER.
APPLICATION FILED APR. 8, 1911.

1,027,543.

Patented May 28, 1912.



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UNITED STATES PATENT OFFICE.

CHARLES HENRY HYMAN, OF DENVER, COLORADO.

CLOTHES-WASHER.

1,027,543.

Specification of Letters Patent.

Patented May 28, 1912.

Application filed April 8, 1911. Serial No. 619,847.

To all whom it may concern:

Be it known that I, CHARLES HENRY HYMAN, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Clothes-Washers, of which the following is a specification.

The object of the invention is the provision of a clothes washing utensil of the pounder type provided with means to cause an up-rush of liquid through the clothes on the up-stroke of each reciprocation of the device.

The above and other objects will appear and be better understood from the following description taken in connection with the accompanying drawings in which:—

Figure 1 is a vertical section. Fig. 2 is a bottom plan view. Fig. 3 is a sectional plan view on the line 3—3 of Fig. 1.

In the embodiment of my invention illustrated in the drawing, 5 designates a metallic hollow frusto-conical body, the lower edge portion of which has a bead 6 and a strengthening wire 7 located in the bead.

A socket 8 is arranged in the upper open end of the body 5, and has at its upper end the down-turned flange 9 which receives the upper edge portion of the body 5, the parts being secured against displacement in any suitable manner, such as by solder in order that an air tight joint will be effected.

The lower end of the socket 8 is provided with an enlarged circular bottom or disk 10, the periphery of which is in juxtaposition to the inner surface of the body 5, as shown. Referring to Fig. 1 it will be seen that the disk 10 is considerably greater in diameter than the socket 8, and is located at a point substantially midway of the center and upper end of the body 5, and adjacent to its periphery is provided with a plurality of openings 11.

The disk 10 overlies a metallic diaphragm 12 having perforations 13. The diaphragm 12 is arranged at the medial portion of the body 5 and is fixedly secured in any preferred manner to the inner surface of the body 5 and parallel with the disk 10.

The central portion of the diaphragm 12 is provided with a hollow cylindrical guide 14, the lower end of which extends to a point substantially midway between the lower end of the body and adjacent face of the diaphragm 12. The upper end of the

guide extends a trifle above the upper face of the diaphragm 12 as shown.

A hollow cylindrical plunger 15 is slidably fitted in the guide 14, the upper end of said plunger having an outturned flange 16 to bear on the upper edge of the guide 14 and serving as a stop to limit the downward movement of the plunger. The upper end of the plunger 15 is open, and the lower end thereof is provided with a bottom 17, as shown. The plunger is greater in length than the guide 14 so that when the parts are in their normal positions, as shown in Fig. 1, the bottom of the plunger will extend adjacent to the plane of the lower edge of the body 5.

The socket 8 receives the lower tapered end portion of an operating handle 18. In order to strengthen the body 5 suitable annular ribs 19 are formed therein. As shown in Fig. 2 the body may be formed of a single sheet of metal, in which event the edges thereof are secured together and seamed, as shown at 20.

In use the device is inserted into a receptacle containing soapy water and clothes and forced downwardly, whereby the bottom 17 of the plunger coming into contact with the clothes is forced upwardly. As the downward movement of the body continues, the water and clothes will enter the space between the diaphragm and lower end of the body, and finally the water will pass through the perforated diaphragm 12 and into the compartment between the latter and upper end of the body. It will be noted that during this action the upward movement of the plunger will continue until the stop or flange 16 thereof abuts against the lower face of the disk 10.

The diameter of the flange or stop 16 is such that when the same bears upon the disk 10, the openings 11 thereof will be covered by the flange 16, but the interior of the plunger will be out of communication with the interior of the body 5. During the upward movement of the plunger considerable air will be displaced, this air being forced through the water entering the body and through the diaphragm and out of body, whereby the volume of the air pocket will be reduced at the upper end of the body. By virtue of this reduction in the volume of the air pocket, the water will rise considerably above the disk 10 and enter the open-

ings 11 which overlie the flange or stop 16, so that when the body is moved upwardly this pressure will impart an initial downward movement to the plunger in the event
5 of the clothes being more or less wedged in the space below the diaphragm 12. As the upward movement of the body continues and the plunger moves downwardly, the water in the compartment above the dia-
10 phragm will rush into the space formerly occupied by the plunger, whereby the water will rush upwardly through the clothes and into the said compartment. The plunger's reciprocating action will thus cause suffi-
15 cient agitation of the liquid to properly cleanse the clothes. It will be observed that after the first upward movement of the body, the plunger 15 will be filled with liquid,

whereby the weight thereof will be increased and future downward movements thereof 20 will be facilitated.

Having thus described the invention what is claimed as new is:—

In a clothes pounder, the combination of an imperforate casing, a perforated dia- 25 phragm arranged in the casing, a guide connected to the diaphragm, and a bottomed piston open at its upper end and sliding in the guide and having a stop to abut the guide. 30

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES HENRY HYMAN.

Witnesses:

MARY K. HALBEKANN,
ALICE M. MATTERN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."