

Dec. 23, 1941.

E. R. CROOKER, SR
CLOTHES WASHING IMPLEMENT

2,267,232

Filed July 20, 1939

2 Sheets-Sheet 1

Fig. 8.

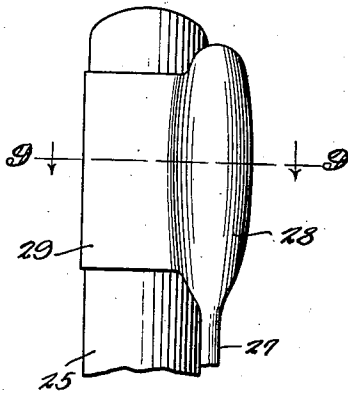


Fig. 1.

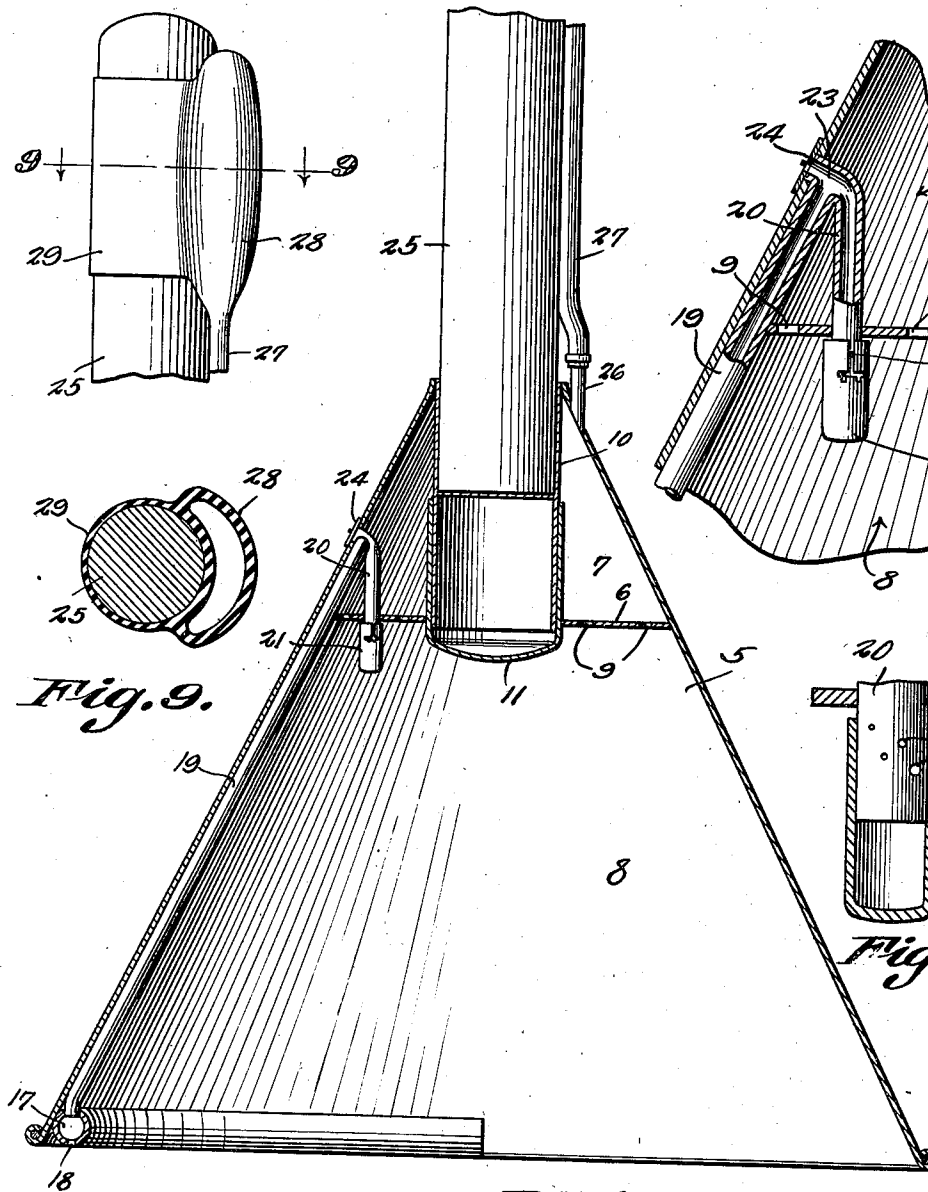


Fig. 6.

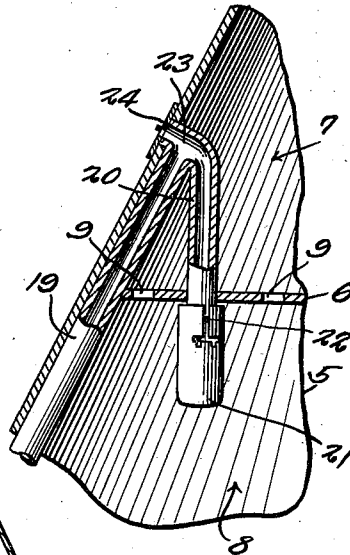


Fig. 9.

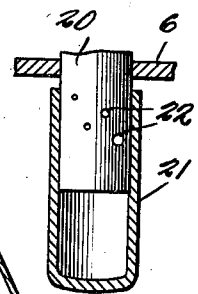


Fig. 7.

Edwin R. Crooker, Sr.
INVENTOR.

BY *Chas. Snow & Co.*

ATTORNEYS.

Dec. 23, 1941.

E. R. CROOKER, SR
CLOTHES WASHING IMPLEMENT

2,267,232

Filed July 20, 1939

2 Sheets-Sheet 2

Fig. 2.

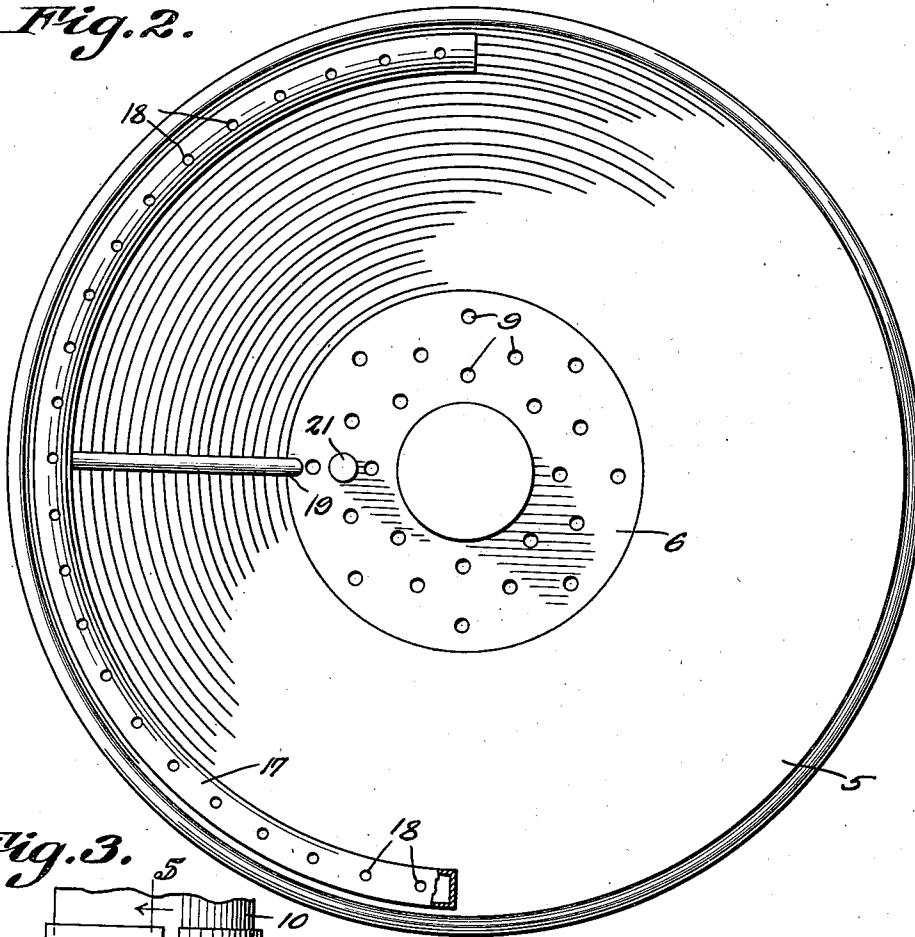


Fig. 3.

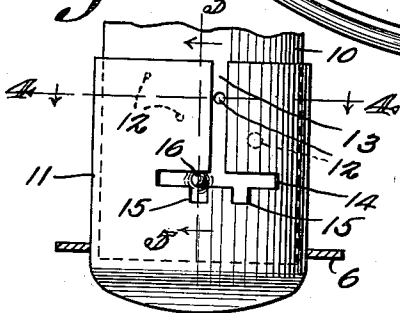


Fig. 5.

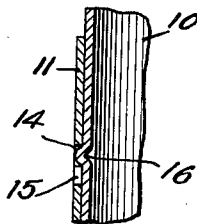


Fig. 10.

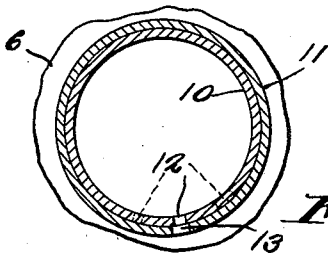
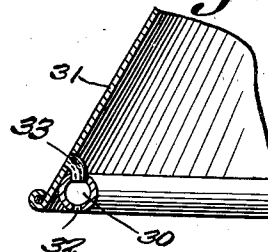


Fig. 4.

Edwin R. Crooker, Sr.

INVENTOR.

BY *Albrowlee.*

ATTORNEYS.

UNITED STATES PATENT OFFICE

2,267,232

CLOTHES WASHING IMPLEMENT

Edwin Ray Crooker, Sr., Lauderdale, Miss.

Application July 20, 1939, Serial No. 285,594

3 Claims. (Cl. 62-218)

This invention relates to clothes washing implements adapted for hand use, and particularly to that type of implement designed to force water through the articles being washed to effect a thorough cleaning of the articles, with the minimum amount of exertion on the part of the operator.

An important object of the invention is to provide means for controlling the quantity of soap passing from the soap container forming a part of the washer head, to the end that the proper amount of soap will be supplied to the washing liquid at all times.

A still further object of the invention is the provision of means to regulate the suction produced by the action of the washer, to increase the efficiency of the washer.

A further important object of the invention is to provide a washer which will operate to rotate the articles within the tub or container while they are being washed, eliminating the necessity of moving the washer to various positions within the tub or container to contact the various articles under treatment.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 is a longitudinal sectional view through a washer constructed in accordance with the invention.

Figure 2 is a bottom plan view thereof.

Figure 3 is an enlarged detail view illustrating the soap container, used within the washer head.

Figure 4 is a sectional view taken on line 4-4 of Figure 3.

Figure 5 is a sectional view taken on line 5-5 of Figure 3.

Figure 6 is a fragmental sectional view illustrating the soap container and tubes through which the air enters and exhausts from the washer head.

Figure 7 is a detail view of the regulating sleeve mounted on one end of the air tube.

Figure 8 is an elevational view illustrating the bulb connected with the air tube which is supported adjacent to the handle of the washer.

Figure 9 is a sectional view taken on line 9-9 of Figure 8.

Figure 10 is a fragmental sectional view illustrating a modified form of the invention.

Referring to the drawings in detail, the washer includes a head indicated by the reference char-

acter 5, the head being hollow and preferably cone-shaped, as clearly shown by the drawings. The reference character 6 designates a partition which extends across the head, near the upper end thereof, dividing the head into a soap compartment 7 and a washing compartment 8, the partition 6 having a plurality of openings 9, through which the liquid soap passes into the washer head.

Extending into the head, is a tube 10, which is of a length to extend through the partition 6, the tube 10, being spaced from the partition 6, providing a clearance for the soap container 11, which is slid into position over the lower end of the tube, as clearly shown by Figure 1 of the drawings. Openings are formed in the tube 10, at 12, the openings being of various sizes, to admit liquid to the interior of the tube 10 and soap container 11. The soap container 11 is provided with a cut-away portion 13 extending downwardly from the upper edge thereof, the cut-away portion 13 communicating with a transverse cut-away portion 14 which in turn has cut-away portions 15 formed in one edge thereof. A lug 16 is punched outwardly from the tube 10, and moves in the cut-away portions 14 and 15, regulating the movement of the soap container 11, and at the same time affording means for securing the soap container in position. Due to this construction, it will be seen that by rotating the soap container 11 over the tube 10, openings of various sizes may be brought into registry with the cut-away portion 13 to regulate the quantity of liquid passing into the soap container. In the use of the device, it is contemplated to use soap in solid form in the soap container, so that liquid passing over the soap, will pick up the soap and pass into the soap compartment 7, where it will flow through the openings 9 to contact with the clothes being washed.

Secured within the confines of the head 5, and disposed adjacent to the lower edge thereof is a semi-circular chamber 17, which is preferably circular in cross section, the ends of the semi-circular chamber 17 being closed. Openings 18 are formed in the lower surface of the semi-circular chamber 17 so that air may flow into and out of the chamber through these openings, for purposes to be hereinafter more fully described. Communicating with the chamber 17, is a tube 19 that is secured along the inner surface of the head 5, the upper end of the tube 19 extending through an opening in the partition 6, where it communicates with the relatively short tube 20 which is shown as extending downwardly through an opening in the partition 6, where it provides a support for the sleeve valve 21 which is provided with cut-away portions adapted to register with the openings 22, formed

in the lower end of the tube 20. By rotating the sleeve valve 21, various openings 22 may be exposed, regulating the amount of air passing through the tube 20.

The tubes 19 and 20 communicate at 23, the tubes being also in communication with the atmosphere, through the member 24, which may be in the form of a whistle, to the end that air passing through the member 24 will cause a signal to be made indicating to the operator, that the washer is functioning properly, and that the proper stroke is being used. The handle of the washer is indicated by the reference character 25, and as shown, the handle fits in the upper end of the tube 10, where it is held by frictional contact with the wall of the tube.

Supported at the upper end of the head 5, and communicating with the compartment 7, is a short pipe 26, to which the tube 27 is connected, the upper end of the tube 27 being supplied with the bulb 28 which is secured to the handle, by means of the band 29, shown as encircling the handle. In connection with the bulb 28, it might be stated that the bulb is so located with respect to the handle 25, that it will be in a position to be gripped or grasped by the hand of the person operating the washer. Thus it will be seen that when pressure is exerted on the bulb 28, the bulb will be compressed, forcing air into the compartment 7, from where the air will pass into the lower portion of the washer head. When the bulb is released, on the upstroke of the washer, it is obvious that air will be sucked into the tube 27 and bulb 28, allowing the water to rise within the head, to accomplish its purpose.

In the form of the invention as shown by Figure 10 of the drawings, a semi-circular chamber 30 is provided near the lower end of the washer head 31, the chamber 30 being provided with openings 32 in the lower edge thereof. A pipe indicated at 33 establishes communication between the chamber 30 and atmosphere, and due to the location of the pipe 33, it will be seen that when the washer head is moved within the liquid of the container in which the head is being operated, the liquid will seal the open end of the pipe 33. As the washer head is elevated, and the level of the water is below the open end of the pipe 33, air will be admitted to the chamber 30, releasing the vacuum therein and allowing the articles which have been drawn into engagement with the chamber 30, to be released therefrom.

In the use of the device, hard soap is positioned in the soap container 11, and the sleeve valve 21 is rotated to admit the desired quantity of air to the pipe 20.

The washer is now moved vertically within a container in which clothes to be washed are placed. As the washer is moved vertically, it is obvious that the articles will be lifted by suction caused by the chamber 17 contacting with the articles, which causes the openings 18 thereof to be closed.

Upon the upstroke of the washer, it is obvious that air will enter the tube 19, releasing the articles. In view of the fact that the chamber 17 is semi-circular in formation, it will be seen that the action of the washer will be to rotate the articles within the chamber, as the articles are being drawn towards the chamber 17, and moved away therefrom.

With the movement of the washer within the container, liquid enters the soap container liquefying the soap, which passes outwardly into the compartment 7, where it passes through the opening 9 into the liquid in which the washer is being used.

As before stated, upon downward movement of the washer, bulb 28 is compressed, forcing air into the head 5. As the bulb is released and expands, air will be drawn into the bulb, allowing the water to rise to a great height in the head 5 so that the water may pass into the soap container 11, as described.

By regulating the sleeve valve 21, the amount of air passing through the tubes 19 and 20 may be regulated, increasing or decreasing the suction in the semi-circular chamber 17.

When it is desired to use the washer in rinsing water, the container 11 may be rotated to completely close the openings 12 thereof, thereby preventing soap entering the rinsing water.

In view of the foregoing disclosure it is thought that a further detail disclosure as to the operation of the washer is unnecessary.

What is claimed is:

1. A washer of the class described comprising a washer head, a semi-circular chamber secured within the head at the lower end thereof, said chamber having openings in the lower surface thereof, a tube extending upwardly from the chamber and communicating with the atmosphere at a point adjacent to the upper end of the head, a tube communicating with the first mentioned tube and extending downwardly into the washer head, and through which air enters the washer head, a valve controlling the passage of air through the tube, and means controlled by the operator for forcing air into the washer head and drawing air from the washer head, and thereby regulating the passage of water into the washer head.

2. A washer of the class described comprising a hollow washer head, a semi-circular chamber secured within the washer head adjacent to the open end thereof, said chamber having openings formed in its lower surface, a tube communicating with said chamber and extending along the inner surface of the head, the upper end of said tube extending through the wall of the head and communicating with the atmosphere, a substantially short pipe connected with the tube and extending into the head, the free end of the pipe being open and means including a sleeve valve positioned on the open end of the pipe and adapted to regulate the volume of air passing through the tube and pipe, whereby the vacuum and compression within the head is controlled.

3. A washer of the class described comprising a substantially cone-shaped hollow washer head, a semi-circular tubular chamber mounted within the head adjacent to the lower edge thereof, the ends of the tubular chamber being closed, said chamber having a plurality of openings formed in the lower surface thereof, a pipe communicating with said chamber and extending through the wall of the washer head, establishing communication between the tubular chamber and atmosphere, and a handle by means of which the washer head is operated.

EDWIN RAY CROOKER, SR.