

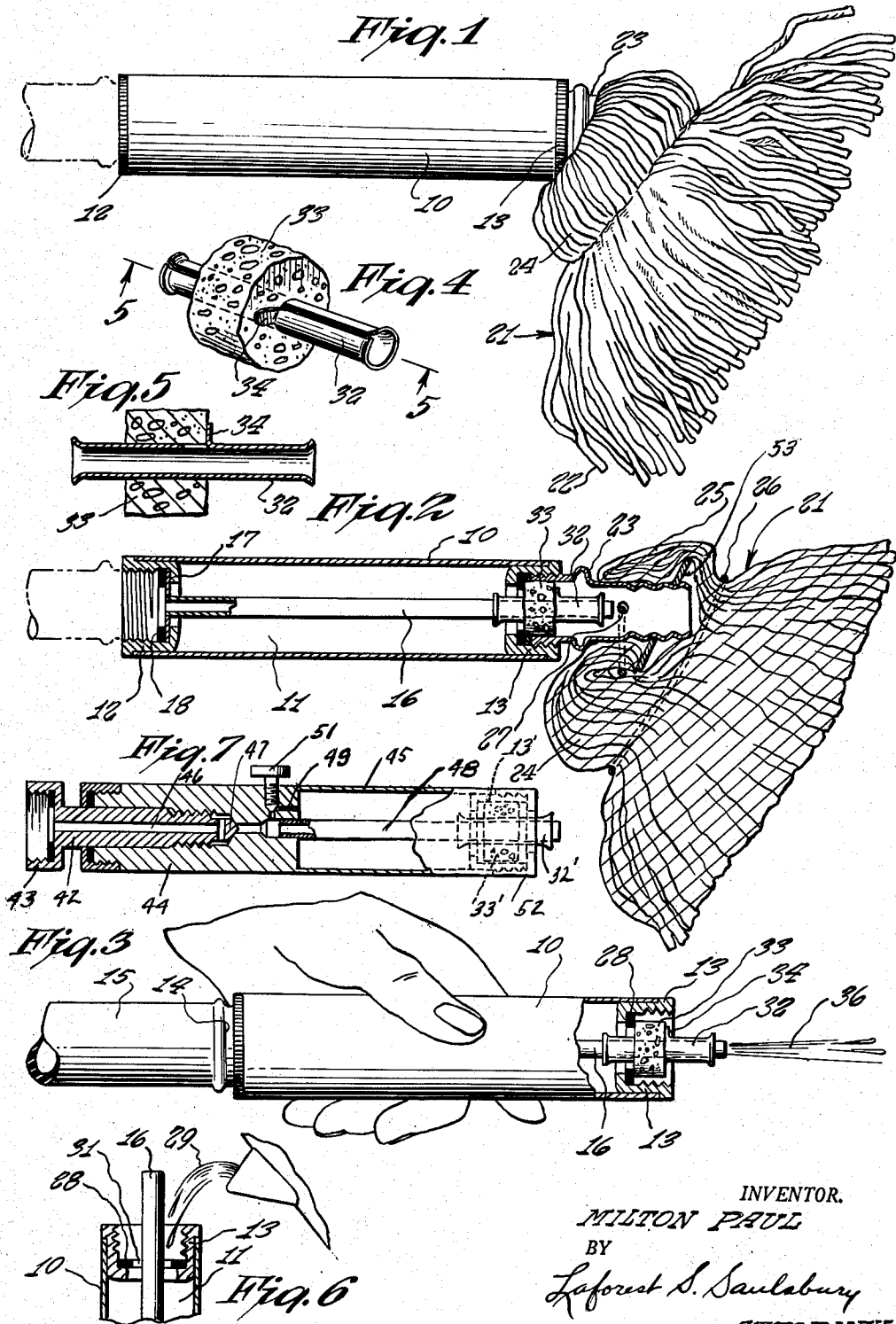
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WASHING DEVICE

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WASHING DEVICE

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2 Claims. (Cl. 15-129)

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This invention relates to a washing device and more particularly of the type adapted to be connected to a water hose.

It is an object of the present invention to provide a car washer device which serves as a handle, which provides for a chamber for containing soap which can be dispensed with the water to provide a soap foam on the surface being cleaned, and wherein the mop part of the device can be readily decoupled from the soap container and provide for a small water outlet so that a stream of water can be directed with force on the soaped surface to rinse the same and wherein access can be had to the soap chamber by simply removing a sleeve having a sponge cover thereon for the soap chamber from a central water tube which extends through the soap chamber.

It is another object of the present invention to provide a washing device having a mop or scrubbing element so constructed on the same that the mop can extend at an angle to the main body of the device or handle portion so as to make easy the handling of the device on the surface being cleaned and of the hose which is coupled to the device.

Other objects of the present invention are to provide a washing device of the type adapted to be connected to a hose for supplying water to the same and with a soap chamber containing soap adapted to be dispensed with the water, which is of simple construction, inexpensive to manufacture, easy to assemble upon a hose, easy to convert from a washer with a mop element thereon to a pressure stream arrangement, compact, light in weight, and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

Fig. 1 is a side elevational view of the washer device with the mop element attached thereto.

Fig. 2 is a longitudinal sectional view taken through the device and through the mop element.

Fig. 3 is a side elevational view of the device with the mop element removed and with a portion broken away to show the interior of the device at the outer end.

Fig. 4 is an enlarged perspective view of the sleeve adapted to be fitted over the tubing and which contains a sponge rubber cover for the soap chamber.

Fig. 5 is a sectional view taken on line 5-5 of Fig. 4.

Fig. 6 is an illustrative sectional view showing how the soap is poured into the soap chamber.

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Fig. 7 is a fragmentary longitudinal sectional view of a modified form of the invention.

Referring now to the figures, 10 represents the outer casing of my device adapted to form the handle of the device and also the soap chamber, indicated generally at 11. In the opposite ends of the casing or main body 10 there are fitted and secured internally threaded female coupling elements 12 and 13. The element 12 is adapted to receive a coupling member 14 of a hose 15 from which water is extended to the device. Extending through the casing or body 10 is a tube 16 having a flange 17 thereon which rests in the bottom of the coupling 12. A washer 18 can be disposed in the coupling 12 in order to prevent leakage of water from the casing. The water entering the hose will be directed through the tube in a small stream. The tube 16 extends through the coupling 13 and beyond the end of the same. A mop or scrubbing element 21 containing threads 22 and a fitting 23 is secured into the female coupling 13. The tube 16 extends into the fitting 23. The mop element 21 can be readily removed from the coupling 13 or placed thereon as when a scrubbing action is to be effected with the washer device.

The mop element has the threads so arranged that there is a large body of the threads, as indicated at 24, located below the fitting 23 and a small body of threads, as indicated at 25, above the fitting. This permits the threads to lie at an angle on the fitting 23 in order to facilitate the handling of the washing device. A wire ring 26 surrounds the threads to make the same secure and provides for the portions 24 and 25. A second wire 27 is threaded through the fitting 23 itself and through the portion 24 whereby to positively retain the threads 22 upon the fitting 23.

The fitting 23 is made secure within the coupling 13 upon a washer 28 so that there is no leakage of water from the end of the coupling 13.

Referring now to Fig. 6, soap, as indicated at 29, is poured into the coupling 13 and since the internal diameter of the washer 28 is larger than the exterior diameter of the tube 16, and as indicated at opening 31, the soap 29 can enter the soap chamber 11. In order to retain the soap in the soap chamber, a sleeve 32 is slid onto the open end of the tube 16 and this sleeve contains a sponge rubber or soap absorbing mass 33 which is brought to bear against the outer face of the washer 28. The sponge rubber is held in place on the sleeve 32 by a struck up lip 34. The soap will accordingly be sealed within the chamber. This soap can be of liquid or in particle form.

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As the water leaves the end of the tube 16, it will build up in the mop element and particularly in the fitting 23, so that water will flow also rearwardly as well as forwardly and into the sponge rubber member 33. With the water in the member, the soap will be mixed with such water and a foam will be generated within the fitting 23 and will be dispensed throughout the mop threads. The sponge rubber and sleeve combination is removable from the tube at times when it is desired to fill the soap chamber with soap.

After the surface being cleaned has been thoroughly covered with soap foam and scrubbed, the mop or scrubbing element can be removed and a stream of water, as indicated at 36, without the soap can be directed upon the surface. The mop element can thereafter, with little difficulty, be placed again upon the fitting 13 so that the device can again be used as a scrubbing arrangement.

In Fig. 7, there is shown a modified form of the invention. This form of the invention includes an arrangement whereby soap can be taken from the soap chamber and by Venturi action passed into the water stream so that water and soap can be extended under pressure and at great distances as when the device may be used for washing second floor windows from the exterior of the house. A coupling part 42, having an internally threaded portion for receiving the hose, is extended into a main body 44. The part 42 has a central opening 46 and on its inner end has a tapered valve surface 47 adapted to engage a seat within the body 44 so as to shut off the flow of water through the body 44 or to control the volume of the same.

On the forward end of the body part 44 is a soap chamber 45 through which extends a tube 48 through which water is passed. This tube 48 extends beyond the chamber 45 and surrounding it is the usual sleeve 32' with the sponge rubber member 33' thereon for closing the soap chamber 45 and preventing the outward flow of soap. Secured in the end of chamber 45 and projecting therefrom is an externally threaded fitting 13'.

The mop element which is used in this form of the invention would be internally threaded and is secured to the end of the chamber 45 by externally threaded fitting 13' and when removed can be replaced with an internally threaded fitting 52 which will retain the sponge rubber member 33' in place. The sponge rubber member 33' extends to the interior face of the fitting 13'. A small passage 49 extends from the soap chamber 45 into the body part for the mixing of the soap with the water stream when the device is being used without the mop element. A screw valve element 51, which is easily accessible, can be adjusted to control the flow of soap through the passage 49. It is found with the mop element 21 in place on the body 10 or with a similar mop element on the body 44 of Fig. 7, that the mop strands are sufficient to cause the backing up of the water whether the mop is on or off the surface being cleaned. Greater soap action, however, is effected when the mop strands are bearing against the surface being cleaned so that greater soap action results because the water is more retained upon the surface being cleaned and is held back for action in the sponge. The thickness or the nature of the mop element can be of any size or of any material and which will allow more or less water

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to leave the device whether the device is on or off the surface being cleaned.

It should now be apparent that I have provided a washing device adapted to contain soap whereby the soap can be passed into the water flow and mixed within the mop element, or, as shown in Fig. 7, the soap can be mixed with a water stream where water is being extended under pressure upon the surface being cleaned and without the use of the mop element.

In order to provide a rigid backing for the mop element 21 so that the fitting 23 can be kept from having contact with the surface being cleaned as the mop element 21 is used, there is provided and secured in a fixed manner to the fitting 23 and within the portion of the threads that are fixed to the fitting 23, a ring 53 which has a large area.

The outlet diameter of the tube 16 can be of different size depending upon the soap action desired. With the water striking the mop or other obstruction lying in its path with force and backing up with great pressure, the water is obliged to enter the pores in the sponge and mix with the soap and with this action being with great force the soap and water will be activated, aerated and atomized. This mixture of soap and water in a highly aerated state is accordingly received by the mop threads so that great foam will result without material loss of water. The atomizing action will accordingly depend upon the size of the end of the tube 16.

It will be apparent that by the provision of a small outlet hole and an obstruction in the path of the projected stream of water to create back pressure for accumulating soap, a foam will be produced in large quantities. Water pressure used on the soap activates, aerates and atomizes the soap. The mop element may be replaced by a brush or other type water applying medium.

While various changes may be made in the detail construction, it shall be apparent that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A washing device comprising a casing adapted to contain soap, coupling members on the opposite ends of the casing, one of said coupling members adapted to receive a hose, a scrubbing element received by the other of said coupling members, a tube extending between the coupling members and into the scrubbing element for the purpose of conducting water through the casing to a point within the scrubbing element, and a soap absorbing member surrounding the tube in the coupling member adjacent the scrubbing element in order to retain the soap within the casing against large outward flow and adapted to receive the back flow of the water in order to create within the scrubbing element a soap solution.

2. A washing device comprising a hollow member having coupling means upon the ends of the same, a mop element including a fitting secured to the coupling means at one end, said other coupling means adapted to receive a hose, a tube extending through the hollow member from one end to the other and into the mop element fitting, said hollow member serving as a soap chamber, the soap chamber being open at the mop element end, a sleeve slidable upon the tube and a sponge rubber closure member on said sleeve adapted to extend over the opening in the coupling means whereby soap leaving the

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soap chamber will pass slowly out of the same and through the sponge rubber member, the mop element being so constructed that water will back up and engage with the soap of the sponge rubber member.

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