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CLEANING DEVICE

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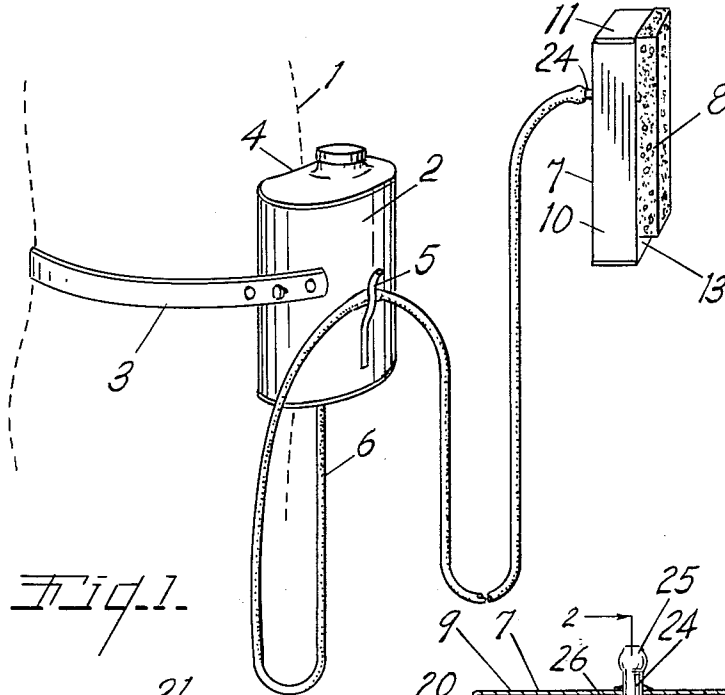


Fig. 1.

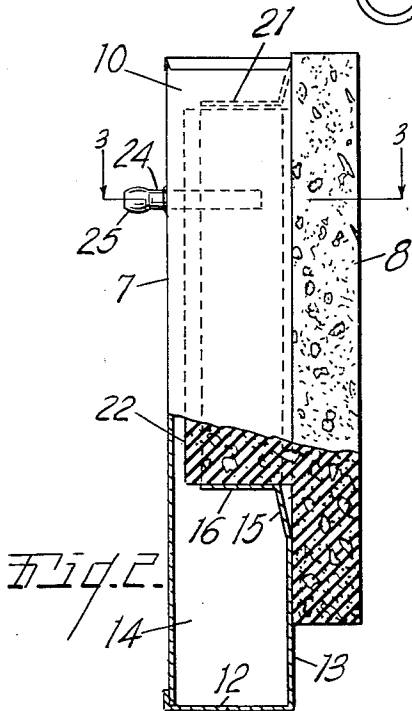


Fig. 2.

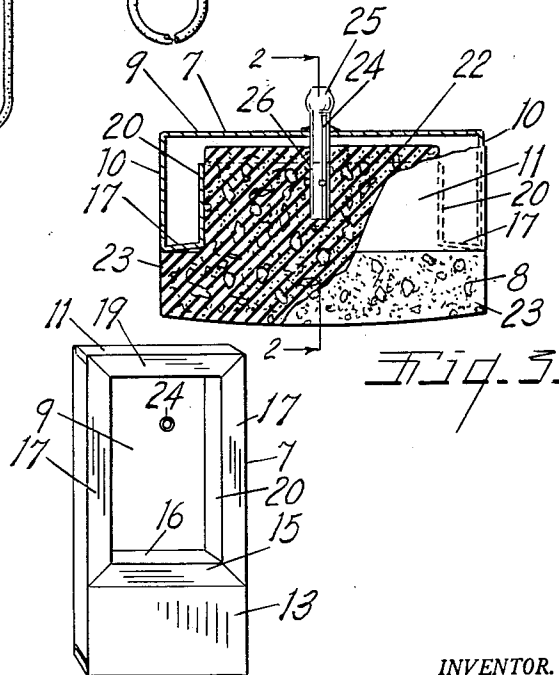


Fig. 3.

Fig. 4.

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CLEANING DEVICE

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4 Claims. (Cl. 15-567)

This invention relates to a cleaning device well adapted for use in cleaning walls and the like.

The main objects of this invention are:

First, to provide a cleaning device which is adapted for use in cleaning walls, ceilings and the like which is convenient to use, is highly efficient and does not drip.

Second, to provide a cleaning device which is well adapted for use with a cleaning liquid other than water and which minimizes the amount of such liquid required.

Third, to provide a cleaning device of this character which may be used as a fountain brush or cleaner, that is, the liquid is supplied through a flexible conduit from a supply container or one which may be used independently of a fountain supply.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a perspective view of an apparatus embodying my invention and including a fountain supply adapted to be attached to the body of the user.

FIG. 2 is a side elevational view of the device of my invention partially in vertical section on a line corresponding to line 2-2 of FIG. 3.

FIG. 3 is a fragmentary view partially in section on a line corresponding to line 3-3 of FIG. 2.

FIG. 4 is a front perspective view with the sponge removed.

In the accompanying drawing the body of a user is indicated by dotted lines at 1, the supply container 2 being adapted to be attached to the body of the user by a belt as indicated at 3.

The supply container 2 desirably has a curved inner wall 4 so that swinging or rocking is minimized. The container is provided with a clip 5 with which the flexible tube or conduit 6 may be engaged, the clip being such as to serve as a valve, that is, to cut off the flow of the liquid through the tube.

My invention comprises a sponge holder designated generally by the numeral 7 and a sponge 8. The holder comprises the rear wall 9, side walls 10, top wall 11, bottom wall 12 and front wall 13 extending a substantial distance from the bottom 12 and providing, with the associated walls, a reservoir 14 of substantial capacity.

The front wall 13 is provided with an inwardly inclined portion 15 with its upper end terminating in an inwardly projecting holder member 16. The side and top walls have inwardly projecting flanges 17 and 19 which are also inclined inwardly. The side and top wall flanges are provided with inwardly projecting holder members 20 and 21. These holder members terminate adjacent but in spaced relation to the rear wall and cooperate with the associated walls in providing channels opening to the reservoir 14.

The sponge 8 is preferably a synthetic sponge and has a substantial firmness as compared to most natural sponges. The holder member is desirably of general rectangular shape as is also the sponge. The sponge comprises an inner portion 22 conformed to closely and retainingly fit the holder members with the inner side of the sponge projecting beyond the holder members and adjacent to but spaced from the rear wall. The outer portion of the sponge has flange like portions 23 overlapping the flanges 17 and 19, the inner surfaces of these flanges being normally spaced from the inclined

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surfaces described and as illustrated in FIGS. 2 and 3. The purpose of this is to permit a squeegee action when pressure is applied to the sponge in use squeezing back the liquid that may work toward the edge of the sponge into the central portion thereof.

The device is designed to be used without the fountain structure if desired. However, it is also adapted to be used in connection with the fountain supply tank 2 and to that end it is provided with a feed tube 24 disposed through the rear wall and provided with a nipple 25 adapted to receive the rubber tube 6.

The feed tube projects through the rear wall into the holder a substantial distance and the sponge is desirably provided with a hole 26 closely fitting the feed tube and acting to slow or retard the discharge of fluid into the holder.

While I have described the structure as comprising a bottom front portion which coacts with the adjacent walls to provide a reservoir 14 of substantial capacity it will be understood that in use the position of the device is more or less constantly changing. When cleaning a ceiling, for example, the device is held face upwardly and in a generally horizontal position. When cleaning a floor or the like it is also held horizontally but facing downwardly the reservoir and channels surrounding the inner portion of the sponge retain the liquid. When held vertically as is commonly the case in cleaning walls it is desirable to hold it upright as is illustrated in the drawings. The to and fro swinging movement supplies the liquid to the sponge in all of these positions. The amount of liquid applied to a surface that is being cleaned is further controlled by the amount of pressure applied to the sponge.

The greatest moisture area is at the center of the sponge which mainly effects the washing action as the flange portion does not hold as much moisture and there is a constant tendency to squeeze liquid back into the sponge thereby avoiding dripping and the waste of liquid.

When using the cleaning device for a long period of time it is convenient to use the supply tank in connection therewith. This is not designed to provide a constant flow of liquid but merely for the purpose of recharging the reservoir. The clip 5 provides a convenient means for supporting the tube 6 and also has a squeeze type of cut oil valve.

I have illustrated the device as a holder made up of sheet metal. However, I contemplate that it may desirably be made up of plastic either molded in one piece or by parts fusedly joined together.

I have illustrated and described my invention as in a highly practical embodiment thereof. I have not attempted to illustrate or describe other adaptations which I contemplate as it is believed this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a cleaning device, a sponge holder member constituting a liquid reservoir and comprising rear, side, top and bottom walls, and a front wall extending from the bottom wall but terminating in substantially spaced relation to the top wall, inwardly projecting flanges on the top wall and the portion of the side walls above said front wall, the upper end of said front wall and said flanges having inturned holder members on their edges terminating adjacent but in spaced relation to the rear wall, said flanges and the upper end of said front wall having inwardly inclined surfaces, and a sponge of synthetic material of substantial firmness having an inner portion fitting within said holder members and projecting beyond the inner edges thereof and an outer portion having flange-like edges overlapping said flanges and

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the upper portion of said front wall, the portion of said sponge overlapping said inwardly inclined surfaces being out of contact therewith when the sponge is not subjected to pressure.

2. In a cleaning device, a sponge holder member constituting a liquid reservoir and comprising rear, side, top and bottom walls, and a front wall extending from the bottom wall but terminating in substantially spaced relation to the top wall, inwardly projecting flanges on the top wall and the portion of the side walls above said front wall, the upper end of said front wall and said flanges having inturned holder members on their edges terminating adjacent but in spaced relation to the rear wall, a sponge of synthetic material of substantial firmness having an inner portion fitting within said holder members and projecting beyond the inner edges thereof and an outer portion having flange-like edges overlapping said flanges and the upper portion of said front wall, and a feed tube disposed through the bottom to project into the holder, said sponge having an opening therein receiving the inner end of the tube.

3. In a cleaning device, a sponge holder member constituting a liquid reservoir and comprising rear, side, top and bottom walls, and a front wall extending from the bottom wall but terminating in substantially spaced relation to the top wall, inwardly projecting continuous flanges on the top wall and the portion of the side walls above said front wall, the upper end of said front wall and said flanges having inturned continuous holder members on their edges, said flanges and the upper end of said front wall being inwardly inclined, and a sponge having an inner portion fitting within said holder members and an outer flange-like portion overlapping said flanges and the upper portion of said front wall, the portion of said sponge overlapping said inwardly inclined sur-

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faces being out of contact therewith when the sponge is not subjected to pressure, said wall parts and said holder members defining a liquid reservoir and distributing channel therefor surrounding the sponge.

4. In a cleaning device, a sponge holder member constituting a liquid reservoir and comprising rear, side, top and bottom walls, and a front wall extending from the bottom wall but terminating in substantially spaced relation to the top wall, inwardly projecting continuous flanges on the top wall and the portion of the side walls above said front wall, the upper end of said front wall and said flanges having inturned continuous holder members on their edges, a sponge having an inner portion fitting within said holder members and an outer portion overlapping said flanges and the upper portion of said front wall, said wall parts and said holder members defining a liquid reservoir and distributing channel therefor surrounding the sponge, and a feed tube disposed through the bottom to project into the holder, said sponge having an opening therein receiving the inner end of the tube.

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