July 15, 1952 W. E. KAUTENBERG 2,602,948

FOUNTAIN SPONGE WASHER

Filed Sept. 20, 1947

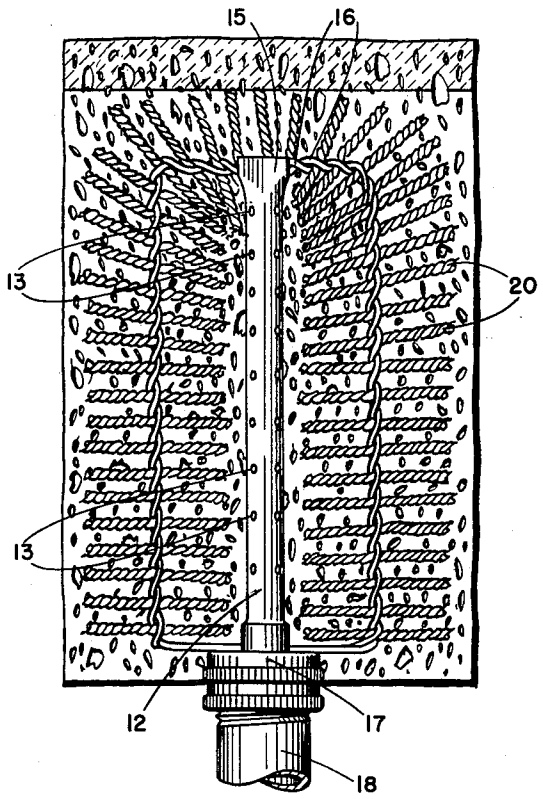


FIG. 1

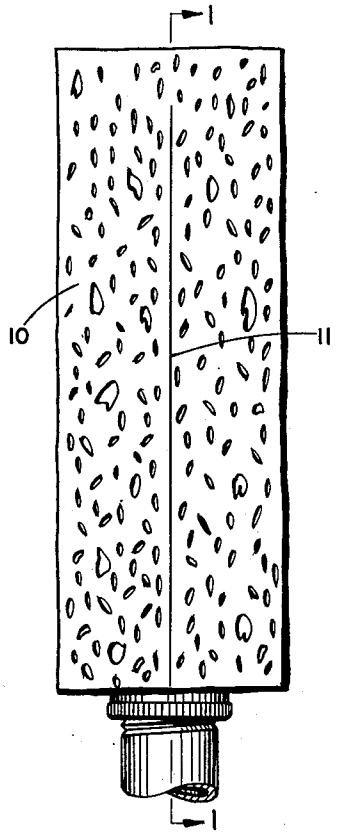


FIG. 2

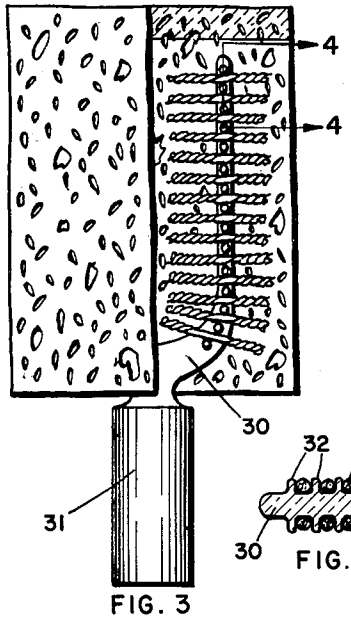


FIG. 3

FIG. 4

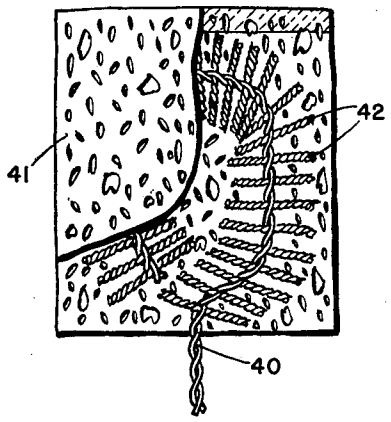


FIG. 5

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Patented July 15, 1952 2,602,948

UNITED STATES PATENT OFFICE

2,602,948

FOUNTAIN SPONGE WASHER

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Application September 20, 1947, Serial No. 775,351

1 Claim. (Cl. 15—130)

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This invention relates in general to a sponge washer and is more particularly described as a handled cellulose sponge for various purposes such as a car washer, a bath brush, a dish mop, and the like.

Although this invention may be applied to various sponge-like constructions made of actual sponge material, or of sponge rubber, it is particularly designed and intended to be used in connection with a cellulose sponge for general washing and cleaning purposes.

An important object of the invention is to provide a handle or holder which will adhere to a piece or pieces of cellular sponge when subjected to various washing and scrubbing operations.

A further object of the invention is to provide means insertable within a sponge or between pieces of a sponge for anchoring the sponge material more securely to a rigid holder of metal or other material.

A further object of the invention is to provide a firm anchor for a cellular sponge so that liquid may be discharged from the head through the sponge without disengaging the sponge from the head.

Other objects of the invention will appear in the specification and will be apparent from the accompanying drawings in which,

Fig. 1 is a sectional view of a sponge having an interior liquid dispensing head as used for a car washer, in accordance with this invention, as taken on the line 1—1 of Fig. 2;

Fig. 2 is a side elevation of a sponge in accordance with this invention;

Fig. 3 is a part sectional and part elevational view of a cellular sponge having an inserted handle as used for a bath brush;

Fig. 4 is a sectional view as taken on the line 4—4 of Fig. 3; and

Fig. 5 is a part sectional and part elevational view of a sponge washer in the form of a dish mop, in accordance with this invention.

In each form of the invention, a reinforcing or supporting structure is inserted between pieces of or within a single suitably cut piece of sponge and is provided with an anchoring medium preferably in the form of twisted cord or fabric which adheres more readily to an adhesive and provides additional flexible contact engagement between the adhesive and the sponge material, such cord or fabric being then attached to a wire frame or holder by which the sponge may be handled and applied.

Referring now more particularly to Figs. 1 and 2 of the drawing, a piece of sponge material 10

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is shown having a cut 11 which terminates at a distance from one end of the sponge so that the extremity of the sponge which receives the most wear is not actually severed. Between the cut portions of the sponge material is inserted a fountain head having a tube 12 with a number of discharge openings 13 around the tube. The outer end 15 of the tube is partially flattened and closed over a twisted wire holder 16 forming an anchor for the outer end of the holder and allowing a partial discharge of liquid from the end of the tube. At the other end of the tube is a hose connector 17 for receiving the end of a rigid or flexible hose 18 which may be threaded thereinto or coupled in any other suitable manner.

The twisted wire holder 16 is shaped somewhat to conform to the shape of the sponge desired and as shown in Fig. 1, it is somewhat rectangular, the extremities of the holder being attached to the end of the hose and the hose connector 17 by soldering or in any other suitable manner. Between the wires of the holder 16, as they are twisted together, are transverse fabric cords 20 which are bound tightly in the wires as they are twisted, the extremities of the cords being trimmed so that they will be contained within the confines of the sponge to which they are attached, and the cords being spaced closely together to provide a maximum attachment surface for an adhesive which is applied to both inner exposed surfaces of the sponge and to the holder 16, the cord 20, and the surface of the tube 12. When the side portions of the sponge are then pressed together and the adhesive is allowed to harden or set, the holder is firmly attached to the sponge by the engagement of the fabric cords 20 which are preferably of yarn, either cotton, woolen, or a suitable flexible plastic material.

In the form shown by Figs. 3 and 4, the holder has a yoke 30 which extends within the sponge material, and a handle 31 which extends outside of the sponge material and provides means for using it. Each arm of the yoke 30 has projections 32 for separating fabric cords 34, twisted together and around the yoke between adjacent projections. These cords 34 are also trimmed at the opposite ends so that they will extend within the confines of the sponge material and will provide a maximum contact engagement between the holder and the sponge when a suitable adhesive is applied thereto.

In the form of the invention shown by Fig. 5, a twisted wire holder 40 has a bent portion to fit within the confines of sponge material 41 and an outer portion which forms a handle by means of

which the completed article may be moved and used as a dish mop, for example, or for other washing and cleansing purposes. In this form of the invention, twisted fibers **42** are held between the twists of the wire holder and provide a maximum contact surface for an adhesive applied thereto and to the inner surface of the sponge material.

In all of these forms, the holder is attached and flexibly held in engagement with the sponge material by means of the large contact surface of the flexible cords, not relying upon the engagement of the holder which is easily made of metal or may be made of plastic in the case of a holder as shown by Fig. 3. Thus the sponge material is firmly held, it is not easily disengaged from the fabric, a flexible movement of the sponge is provided and no reliance is placed upon the adherence of the metal or other non-adhering parts of the holder.

While I have thus described preferred embodiments of the invention, they should be regarded as illustrations or examples of the invention and not as a restriction or limitation thereof, since various changes may be made in the construction, combination and arrangement of the parts without departing from the spirit and scope of the invention.

I claim:

In a fountain sponge washer, a hose connection member having a tube extending therefrom with a number of discharge openings in the wall of the tube, a twisted wire holder in the form of a yoke having a portion connected to the outer end of

the tube, this end of the tube being partially flattened and closed over the yoke forming an anchor for the outer end of the wire holder, the sides of the wire holder yoke extending parallel to the tube at opposite sides thereof, a plurality of short fabric cords secured in the twists between the wires and disposed in a substantially common plane which includes the two side portions of the yoke and the axis of the tube, a block of sponge material having portions on opposite sides of the fabric cords and the outer surface of the sponge material entirely covering and enclosing the cords, and an adhesive applied to the inner surfaces of the sponge, to the fabric cords, the wires, and the tubular member for firmly attaching these parts together and permitting a yielding movement of the sponge material about its edges with respect to the holder without tearing it loose therefrom.

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