

Dec. 12, 1961

C. R. COURTENAY

3,012,265

SPONGE MOP

Filed Oct. 16, 1958

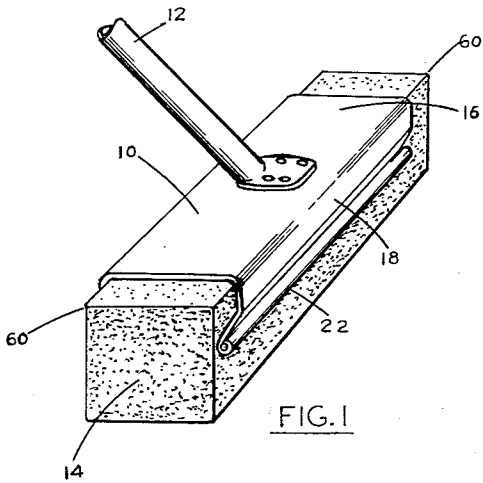


FIG. 1

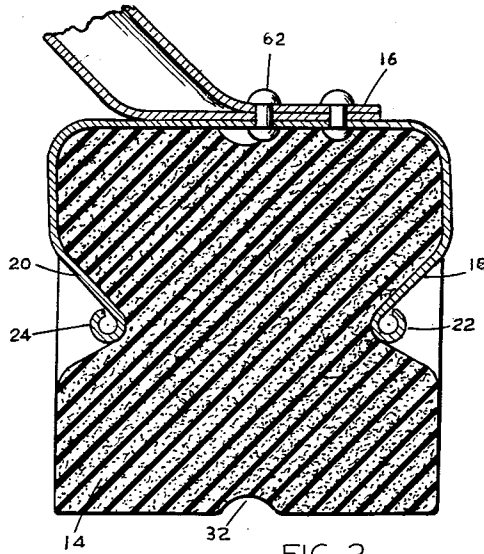


FIG. 2

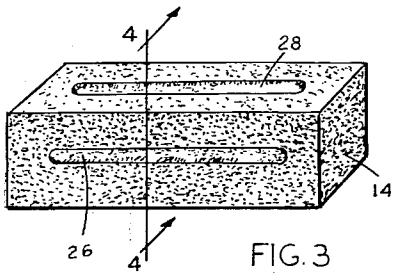


FIG. 3

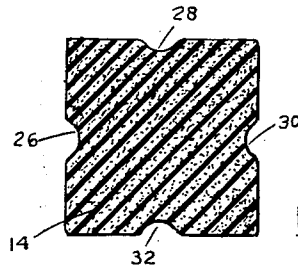


FIG. 4

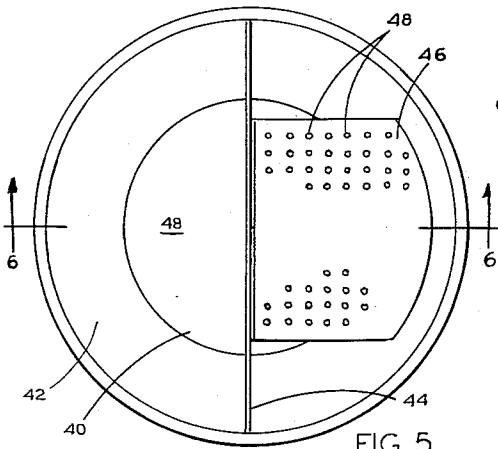


FIG. 5

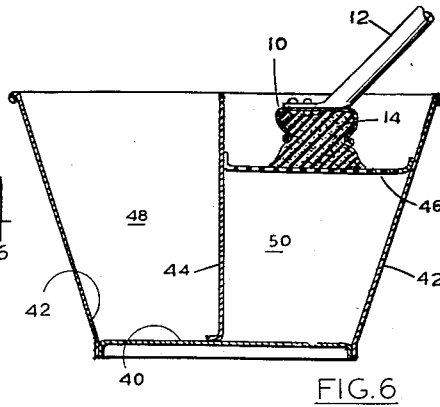


FIG. 6

INVENTOR.
CHARLES R. COURTENAY

BY

J. P. Keiper

ATTORNEY

1

3,012,265

SPONGE MOP

Charles R. Courtenay, 122 Winslow St., Watertown, N.Y.,

assignor of one-half to Joseph Purpura

Filed Oct. 16, 1958, Ser. No. 767,588

2 Claims. (Cl. 15-244)

This invention relates to mops and more particularly to a mop head utilizing a sponge rubber resilient block so shaped as to enable the presentation of any one of four sides thereof for active use.

The invention is directed to a mop head of channel section and a square sectioned elongated sponge resilient rubber block adapted to be held by the head by gripping of the channel section flanges which extend downwardly to the mid portion of the opposite sides of the block. The invention is further directed to employing lengthwise extending grooves in the center of each side of the block for receiving the edges of the flanges. Further the invention has to do with a mop, the active element of which is resilient sponge rubber, and which is of such proportions as to more readily cooperate with a perforate mop pail shelf for squeezing action, by application of light downward pressure, the pail being divided to maintain fresh water separate from that squeezed from the mop.

The above and other novel features of the invention will appear more fully hereinafter from the following detailed description when taken in conjunction with the accompanying drawings. It is expressly understood that the drawings are employed for purposes of illustration only and are not designed as a definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings, wherein like reference characters indicate like parts:

FIGURE 1 is a perspective view of the sponge mop;

FIGURE 2 is a sectional view through the mop;

FIGURE 3 is a perspective view of the sponge element;

FIGURE 4 is a sectional view taken substantially on the line 4-4 of FIGURE 3;

FIGURE 5 is a top plan view of a pail adapted for use with the mop; and

FIGURE 6 is a sectional view taken on the line 6-6 of FIGURE 5.

In the drawings, there is shown a mop head comprising a rigid channel member 10, having a handle 12, in which is inserted the synthetic rubber sponge element 14. The sponge element preferably is square in section and has a length about three times its width. The channel member 10 comprises a main body or web portion 16 with integral flanges 18 and 20. The width of the body portion is approximately that of the width of the mop element. The flanges 18 and 20 have rolled edges 22 and 24 and are inwardly inclined or bent, so as to be spaced apart about two-thirds of the body or web portion. The length of the channel may be $\frac{2}{3}$ to $\frac{3}{4}$ of the length of the sponge element to which it is adapted, and the depth of the flanges of the channel is approximately $\frac{1}{2}$ of the overall width of the channel or mop element to be used therein.

The mop element, as shown in FIGURES 3 and 4 is normally square in section and is formed of resilient sponge rubber. The element is readily insertable into the holder, or head, and, if desired, may be provided with four central grooves 26, 28, 30 and 32 disposed centrally and lengthwise on each rectangular side thereof. The grooves may be of the approximate length of the mop head channel or, if desired, may extend the entire length of the block if more economical to cut or form in such manner.

2

It will be seen that the element is readily forced into the mop head channel in the manner indicated in FIGURES 1 and 2, such that the side flanges 13 and 20 pinch the upper portion and the rolled edges 22 and 24 seat in the two opposite grooves 26 and 30, or 28 and 32 as the case may be. The proportions referred to are such as to adequately receive and secure the mop element in the holder and yet permit ready removal thereof whenever desired. In practice, such grooves are not entirely essential but serve as a guide and assist the user in correct placement of the element as well as adding to the grip to some extent.

As the exposed face such as 34 of the mop element becomes worn or the pores thereof clogged so as to reduce its effectiveness and its ability to absorb and clean, the entire element may be quickly removed from the holder, rotated 90° or 180° and reinserted in the holder to present a fresh cleaning surface. Such operation can be repeated from time to time so as to present at all times a fresh or relatively fresh surface.

The mop is especially adapted for use in conjunction with a divided mop pail as shown in FIGURES 5 and 6. The pail is composed of a wide bottom 40, sloping sides 42, a central partition 44, and a squeeze shelf 46, having perforations 48 therein. The partition divides the pail into two water-tight compartments 48 and 50. Detergent and clean water are placed in the compartment 48 and the compartment 50 is employed preferably to receive the dirty water readily squeezed from the mop by the simple bearing down of the mop face upon the perforate shelf 46 in the manner shown. The mop is readily squeezed damp dry and the dirty water is thusly discharged and prevented from contaminating the fresh clean detergent water in compartment 48. With such a mop and pail the necessity for drawing fresh water and detergent is reduced by as much as four times by reason of the use of the separate compartment 50 to receive the spent and dirty wash water squeezed from the mop.

It will be seen that the corners 60 and end portion of the mop element protect woodwork from being contacted by the head 10 and that the element by its bulging effect, where not held by the head flanges, tends to protect woodwork and the like from contact with the head. Yet the element is adapted to efficiently operate in corners and the like to effect complete floor coverage. While it would appear that the four surfaces might become worn and so clogged with dirt as to require disposal of the element after presenting the four faces as a working face, the side faces of the element which may have been previously employed as the cleaning surface, will tend, while subjecting the bottom face to squeezing action, to be cleaned and "regenerated" and thus be adapted for further use, the squeezing pressure on the bottom face tending to clear the pores of the side faces, to render each side face adapted for further use. Thus the element has a relatively long useful life by reason of its adaptability to be rotated so as to present one active face after another until all four faces have been used. When the element has become worn sufficiently on all four faces it is readily removed and replaced with a fresh element.

The channel has affixed thereto the tubular handle 12 or a handle socket as desired, such handle being secured by rivets 62. In practice the holder and the handle may be made of aluminum of sufficient gauge to be rigid, and the lightness of the entire unit renders the same useable with a minimum of effort.

Although a single embodiment of the invention has been illustrated and described, it is to be understood that the invention is not limited thereto. As various changes in the construction and arrangement may be made without departing from the spirit of the inven-

3

tion, as will be apparent to those skilled in the art, reference will be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. A resilient sponge mop comprising a mop head, 5
said head comprising a rigid channel member having a rectangular flat web portion and depending integral marginal flanges along the sides thereof, said flanges being rolled and inbent toward each other along their lower edges, said rolled edges being spaced apart approximately 10
two-thirds the width of the web portion and said rolled edges lying in a common plane parallel to said web portion located below said web portion a distance of approximately one-half of the width of said web portion, and handle means secured to said web portion and extending angularly upward therefrom toward one side thereof, and a block of resilient sponge rubber of square cross section and of a width equal to the width of said web portion, and of a length substantially greater than the length of said channel member disposed within said head with the central portion of one face thereof engaging the entire inside surface of said web portion, said block being resiliently squeezed between said side flanges and rolled edges and being gripped in position in said head solely thereby, whereby said block may be readily 25
removed from said head and reinserted with a different side face thereof presented toward the inside surface of said web portion.

2. A resilient sponge mop comprising a mop head, 30
said head comprising a rigid channel member having a rectangular flat web portion and depending integral marginal flanges along the sides thereof, said flanges being rolled and inbent toward each other along their lower edges, said rolled edges being spaced apart approximately 35
two-thirds the width of the web portion and said

4

rolled edges lying in a common plane parallel to said web portion located below said web portion a distance of approximately one-half of the width of said web portion, and handle means secured to said web portion and extending angularly upward therefrom toward one side thereof, and a block of resilient sponge rubber of square cross section and of a width equal to the width of said web portion, and of a length substantially greater than the length of said channel member disposed within said head with the central portion of one face thereof engaging the entire inside surface of said web portion, said block being resiliently squeezed between said side flanges and rolled edges and being gripped in position in said head solely thereby, whereby said block may be readily removed from said head and reinserted with a different side face thereof presented toward the inside surface of said web portion, and said block having lengthwise extending grooves centrally disposed in each side face thereof, and said flange rolled edges being seated in two of said grooves on opposite faces of said block adjoining said face engaging the inside surface of said web portion.

References Cited in the file of this patent

UNITED STATES PATENTS

475,429	Zeiser	May 24, 1892
2,249,912	Oxley	July 22, 1941
2,586,472	McKown	Feb. 19, 1952
2,664,584	Twerdahl	Jan. 5, 1954
2,747,209	Johnson	May 29, 1956
2,803,031	Cervelli	Aug. 20, 1957
2,841,811	Carrol	July 8, 1958

FOREIGN PATENTS

641,113	France	July 28, 1928
---------	--------	---------------