

July 24, 1956

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2,755,498

FABRIC MOP AND RETAINING STRUCTURE THEREFOR

Filed Nov. 8, 1954

2 Sheets-Sheet 1

FIG. 1

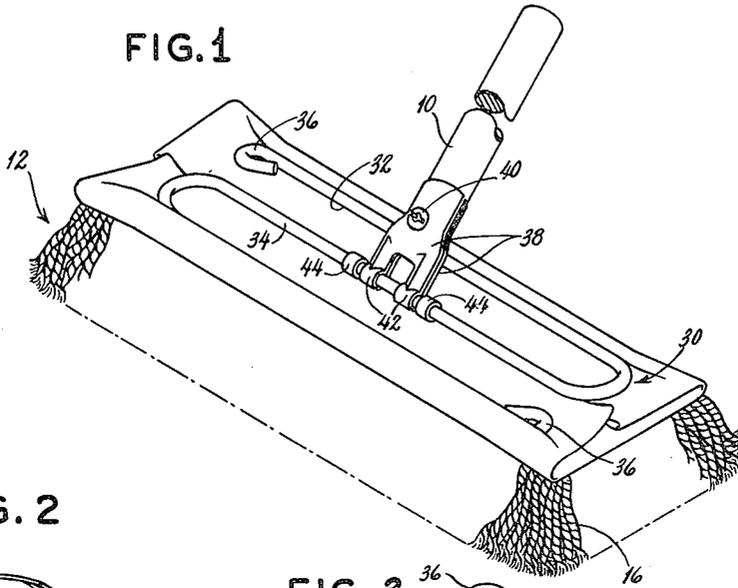


FIG. 2

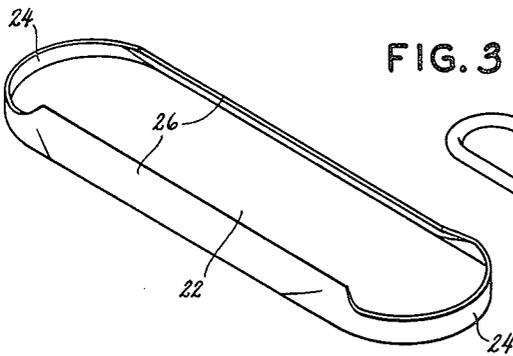


FIG. 3

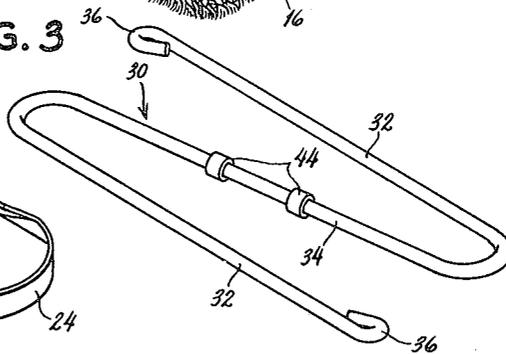
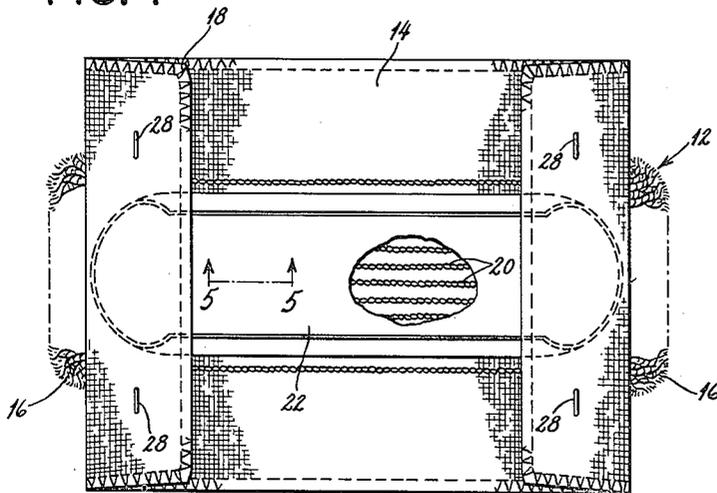


FIG. 4



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2 Sheets-Sheet 2

FIG. 5

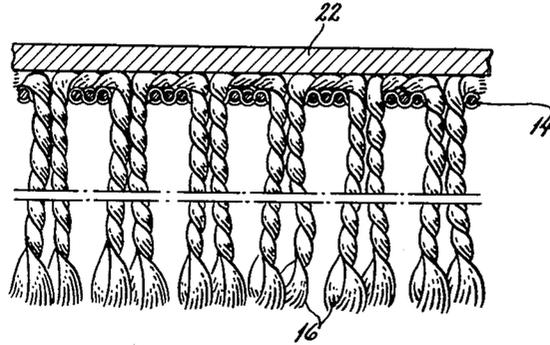


FIG. 6

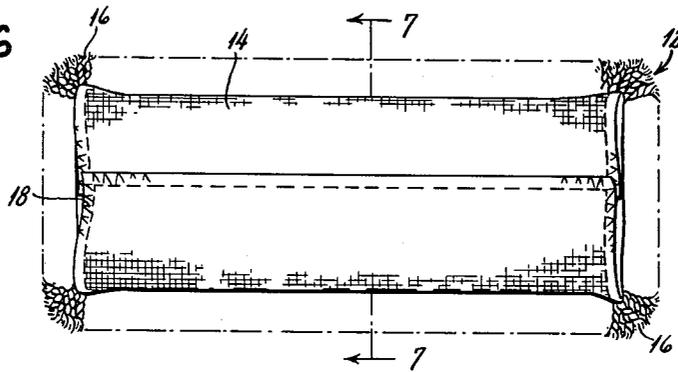


FIG. 7

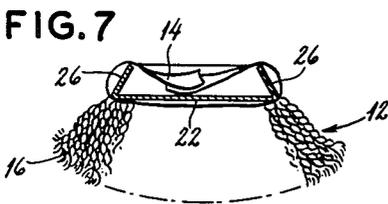


FIG. 9

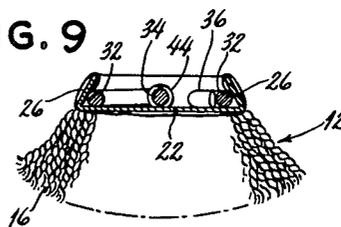
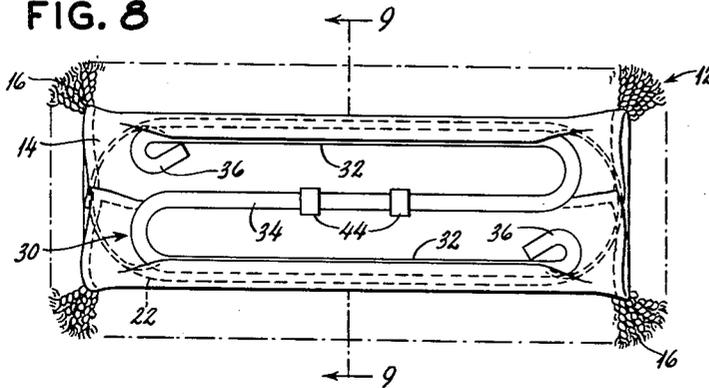


FIG. 8



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1

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**FABRIC MOP AND RETAINING STRUCTURE THEREFOR**

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Application November 8, 1954, Serial No. 467,290

1 Claim. (Cl. 15—229)

This invention relates to a mop of the type having a fabric back and the invention relates more specifically to improved means for supporting or retaining the mop on a handle.

It is an important object of the invention to provide in a construction of the aforementioned type retaining means which will not only firmly secure the mop to an operating handle but which will also permit the operator to easily and quickly remove the mop for washing or cleaning and which also permits easy replacement of the mop on the handle.

A more specific object of the invention is to provide a mop retainer which includes a rigid back for the mop to support the same in operative position and which also includes readily detachable means for connecting the back to a handle.

Another object of the invention is to provide mop retaining means of the character described which is sturdy and durable and which is simple and economical to manufacture.

In the drawings I have shown in detail a preferred embodiment of the invention, but it will be understood that various changes may be made from the construction shown, and that the drawings are not to be construed as defining or limiting the scope of the invention, the claims forming a part of this specification being relied upon for that purpose.

Of the drawings,

Fig. 1 is a perspective view showing the mop attached to a handle;

Fig. 2 is a perspective view of the rigid back forming a part of the mop supporting and handle attaching means;

Fig. 3 is a perspective view of the spring member forming an additional part of the mop supporting and handle attaching means;

Fig. 4 is a plan view of the mop back and mop, showing the mop unfolded at the sides;

Fig. 5 is an enlarged fragmentary longitudinal section taken through the mop back and mop as indicated by the line 5—5 of Fig. 4;

Fig. 6 is similar to Fig. 4 but shows the mop fabric completely folded upon the mop back;

Fig. 7 is a transverse sectional view taken as indicated by the line 7—7 of Fig. 6;

Fig. 8 is similar to Fig. 6 but shows the spring member in place; and

Fig. 9 is a transverse sectional view taken as indicated by the line 9—9 of Fig. 8.

It will be readily understood that the mop retaining and handle attaching means of this invention may be used with a variety of handle types and with any mop of the type having a fabric back. Therefore, the handle 10 and the mop 12 shown in the drawings are to be considered as merely exemplary. The exemplary mop is a dry mop having a relatively heavy rectangular canvas back 14 to which the active mopping elements 16, 16 are connected. The edges of the canvas back 13 are over-stitched as indicated at 18 to prevent fraying and all of the edges extend

2

a substantial distance beyond the mopping elements 16, 16. That is, the said mopping elements are all located in a central, substantially rectangular area on the canvas back 14 so that the sides and ends of the canvas extend laterally beyond the mopping elements and can be folded over the area containing the mopping elements, as will be described.

The mopping elements 16, 16 comprise yarns of substantial length which are connected to the canvas 14 in chenilled fashion as shown in Figs. 4 and 5. That is, each yarn is looped through the canvas back 14 so that the opposite ends of the yarn depend therefrom and the yarns are arranged in rows 20, 20 extending longitudinally of the canvas back 14.

It has been found that a mop of the aforescribed type can be used repeatedly and will have a long useful life if properly cleaned or washed after periods of use. Therefore, it is highly desirable to have the mop detachably secured to an operating handle so that it can easily be removed for washing and easily replaced after washing.

An important element of the mop retaining and handle attaching means of this invention is a rigid metallic plate 22 having straight and substantially parallel sides and rounded ends. The plate 22 is provided in sufficient size to substantially cover the yarn area on the canvas back 14 and is located on the side thereof opposite the yarns 16, 16. At each of its rounded ends, the plate 22 is provided with an upstanding flange 24 and each side of the plate 22 has a longitudinally extending flange 26 of greater width than the end flanges 24, 24. The side flanges 26, 26 also project upwardly but are bent laterally inwardly of the plate 22.

It is important to observe that the plate 22 is arranged on the canvas 14 over the yarn area and extends longitudinally of the canvas. The end portions of the canvas extending beyond the rounded ends of the plate 22 are folded upon themselves and over the said ends of the plate. The end portions of the canvas 14 are secured in folded position as by staples 28, 28 or by tack stitching or the like. In any event, the folded ends of the canvas 14 are secured to define pockets at the ends of the yarn area on the canvas back into which pockets the ends of the plate 22 are placed. These pockets prevent relative longitudinal movement between the plate 22 and the canvas 14.

Thereafter, the sides of the canvas back 14 are folded over the sides edges of the plate 22 as shown in Fig. 6. Thus, the plate 22 is completely or substantially completely enveloped or folded within the canvas back. It will be readily understood that if the canvas is secured in the aforescribed folded position upon the plate, the said plate will provide a rigid back for the mop 12 from which the yarns or mopping elements 16, 16 depend.

The means for securing the canvas 14 in folded position over the plate 22 and the means cooperating with the said plate to attach the mop 12 to the handle 10 comprises a generally Z-shaped spring member or frame 30. The spring member 30 may be formed of spring-tempered wire or light bar stock which can be compressed. By "compressing" the spring member 30 is meant forcing the end bars or cross pieces 32, 32 of the spring member toward the intermediate bar or cross piece 34. When compressed, the spring member 30 is adapted to fit within the side flanges 26, 26 and between the end flanges 24, 24 of the plate 22. However, the spring member 30 will fit within the side flanges 26, 26 only when the end bars 32, 32 of the spring member are under compression sufficient to cause the intermediate bar or cross piece 34 to lie substantially parallel to the said end bars. The spring member 30 is provided in sufficient length so that the ends thereof are adjacent the rounded ends of the plate 22 with the spring member 30 inserted therein. It should be noted that the opposite ends 36, 36

3

of the spring member 30 are bent upon themselves to avoid sharp protuberances.

As best shown in Figs. 7, 8 and 9, the end bars 32, 32 of the spring member 30 engage and clamp the folded sides of the canvas back 14 against and under the side flanges 26, 26 of the plate 22. The end portions of the Z-shaped spring member also engage and clamp the folded ends of the canvas back 14 against the end flanges 24, 24 of the plate 22. Accordingly, when the spring member 30 is compressed and placed over the plate 22 and the folded canvas back 14 so that the bars 32, 32 engage under the side flanges 26, 26, the mop 12 is firmly held in place on the rigid metal back plate 22.

Attachment to the handle 10 is afforded by a pair of cooperating bifurcated clamps 38, 38 which are located in diametrically opposed relationship on one end of the handle 10 and which are detachably secured thereto as by a bolt 40 and a nut (not shown). The extending arms 42, 42 of each bifurcated clamp member 38 are rounded at their ends to engage the intermediate cross piece 34 on the spring member 30. With the arms 42, 42 engaging the cross piece 34 on opposite sides thereof, the aforementioned bolt 40 is tightened within its nut to bring the clamp members 38, 38 together. When the clamp members have been securely tightened on the end of the handle 10 the bifurcated ends of the clamps will embrace the cross piece 34 so that the handle can be pivoted thereabout. Stop means are provided on the cross piece 34 to prevent movement of the handle therealong. The stop means comprise a pair of rings 44, 44 which are welded to the cross piece 34 in spaced apart relationship at the sides of the clamp members 38, 38. That is, the rings 44, 44 are provided on the cross piece 34 in spaced apart relationship so that the clamp members 38, 38 can engage the said cross piece between the said rings, but cannot move along the cross piece.

It will be quite apparent that it is unnecessary to remove the handle and/or the handle clamps from the spring member 30 after initial manufacture and assembly thereof. That is, the spring member 30 can be compressed and thereby disengaged from the plate 22 and the canvas back 14 without removing the handle. It will also be apparent that the mop 12 can then easily be removed for washing and can easily be replaced on the metal plate 22.

4

I claim as my invention:

In a mop construction, the combination of a rigid longitudinally extending plate having substantially parallel sides and rounded ends and having an upstanding flange at each end and also having an upstanding and inturned flange extending along each of its sides, a substantially rectangular fabric mop back having a plurality of mopping elements connected to and depending from a central substantially rectangular area of the fabric which area covers the bottom of the said plate, the end portions of the fabric being folded over the respective ends of the plate, a plurality of staples securing the respective end portions of the fabric in folded positions and defining pockets in the said folded end portions for the respective ends of the said plate, said fabric being also folded over the sides of the said plate, a generally Z-shaped spring member which is compressed so that all of its cross pieces are substantially parallel and which engages the folded fabric at the sides of the plate and clamps the same along and under the said inturned flanges and which further secures the fabric against the upstanding flanges at the ends of the said plate, stop means secured on the intermediate cross piece of the said spring member in spaced apart relationship, an operating handle, and clamping means secured to one end of the said handle and pivotally connected to the said intermediate cross piece between the said stop means whereby the said rigid back and fabric are pivotally and detachably connected to the said operating handle.

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