May 1, 1956 K. B. FORRESTER 2,743,471

MOP AND MOUNTING TUBE ASSEMBLY

Filed Oct. 17, 1950

Fig. 1

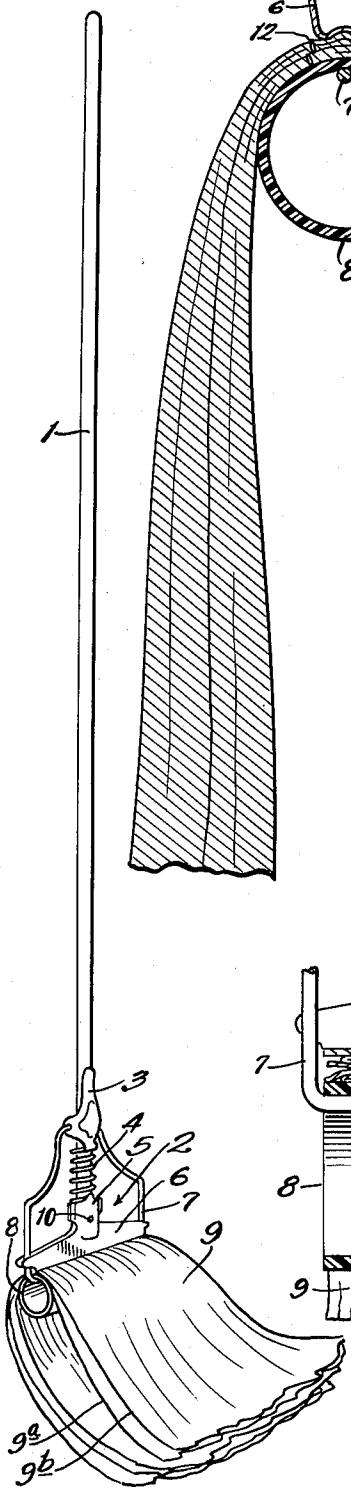


Fig. 2

Fig. 3

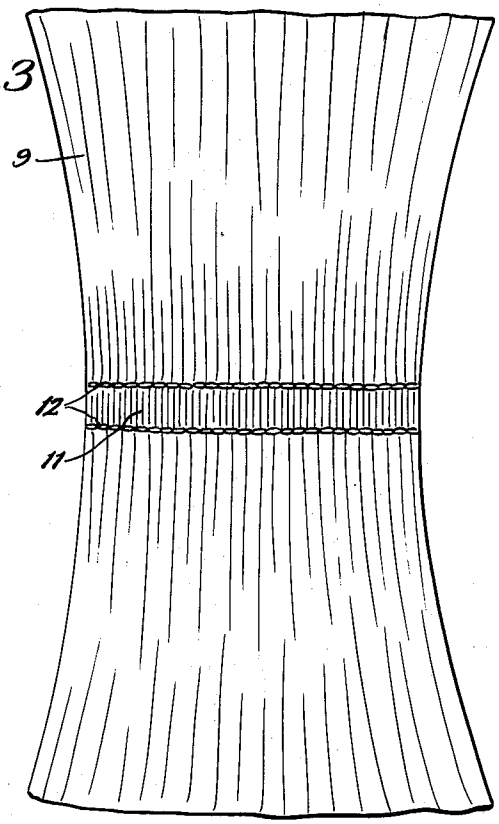
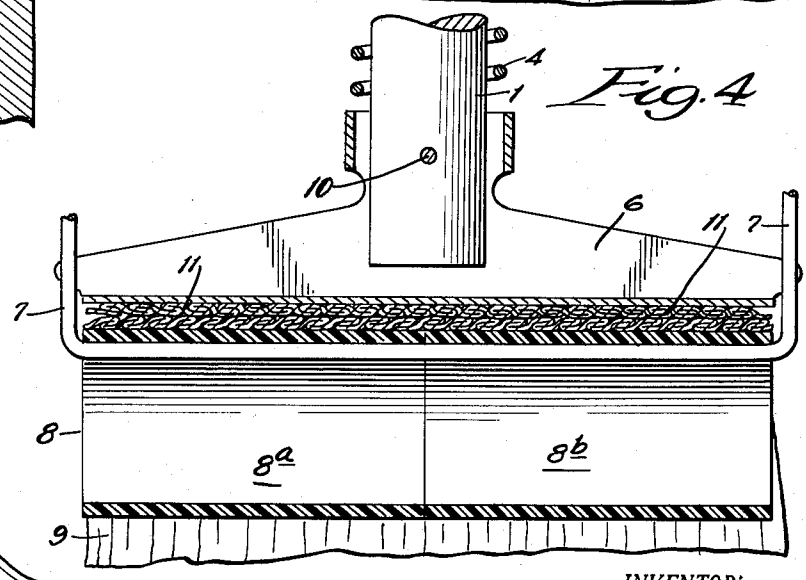


Fig. 4



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MOP AND MOUNTING TUBE ASSEMBLY

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5 Claims. (Cl. 15—228)

This invention relates to mops. More particularly, this invention relates to improvements in mop heads and mop bodies.

It is an object of my invention to develop an improved mop head for use with a mop body of flexible material. More specifically, it is an object of my invention to provide a mop head which will give a substantially squeegee action on the floor, and will also assist in wringing out the mop. Another object of my invention is to produce a mop head which allows excess water to flow off quickly. Still another object of my invention is to develop a mop head which will protect the mop body and cause it to wear evenly. Still another object of my invention is to provide a mop head which will not scratch the floors or objects thereon, such as furniture. A further object of my invention is to devise a mop body which is light in weight, easy to clean and remains relatively odorless. It is also an object of my invention to provide a mop which may be used effectively as either a wet mop or a dust mop. Other specific objects and advantages will appear as the specification proceeds.

My invention, which substantially achieves the above objects, involves in part the attaching of a resilient cylinder, such as one of yieldable plastic, to a mop head so that a flexible mop body may be fastened about such cylinder. My invention also involves in part a mop body composed of sheets of plasticized paper or fabric having their central portions pleated. My invention also comprehends a combination of my new mop head and mop body.

My invention is illustrated, in a preferred embodiment, by the accompanying drawing, in which—

Fig. 1 is a perspective view of the assembled mop showing my improved mop head and mop body; Fig. 2 is a side view taken in section of the mop head with the mop body attached; Fig. 3 is a plan view of one sheet of the mop body; and Fig. 4 is a vertical section view of the mop head with the mop body attached.

In the various figures of the drawing, like reference numbers designate like parts.

In the illustration given, 8 designates a hollow tube or cylinder having two separate portions 8^a and 8^b. Although I prefer to have tube 8 segmented as shown, it can also be constructed in one piece. Segmenting tube 8 tends to improve the squeegee action as well as drainage. Tube 8 can also be cut diagonally at the ends to further improve drainage. Tube 8 is preferably constructed of a yieldable plastic material such as polyethylene. It may, however, advantageously be constructed of rubber or other resilient material since pliability and nonabrasiveness are among the most important requisites for the cylinder material.

Tube 8 is adjustably secured to mop head 2 by bracket 7 which passes longitudinally through tube 8. It is apparent, of course, that any other suitable fastening means may be used so long as it allows the securing of a flexible mop body about tube 8. Bracket 7 is fastened to clamp 3 which is hinged on spring 4. Spring 4 is secured about

handle 1 by fastener 5 and pin 10. Fastener 5 is integrally formed with elongated head portion 6.

Mop head 9 is composed of two sheets or strips 9^a and 9^b as shown best in Fig. 1. Although I have found it desirable to use a plurality of sheets in the mop head, one sheet is very satisfactory. Sheets 9^a and 9^b of mop head 9, being identical, each have pleats 11 secured by two rows of stitching 12. The pleating reduces the width of the central portions of the sheets and the stitching prevents separation of the pleats. In addition to stitching, various other means of bonding together the gathered central portions can be used, such as gluing or heat-sealing. The sheets forming the mop head are preferably made from a plastic-coated paper such as Viskon, which is manufactured by the Visking Corporation of Chicago, Illinois. Such plastic-coated paper is highly adsorbent and is easily cleaned since the dirt does not stick to it. Moreover, it remains relatively odorless. Also, however, the sheets used in the mop head can advantageously be made from various plasticized fabrics of suitable adsorptivity, such as plastic-coated rayon or cotton. Nylon fabric can also be used.

Although I have shown, as preferred, that the tube 8 is secured to the mop head, it can alternatively be fastened to the mop body, providing thereby a ready means for attaching the mop body to the mop head.

To prepare the mop for use, clamp 3 is opened, lowering bracket 7, and then allowing a flexible mop body to be passed between cylinder 8 and elongated head portion 6. If my new mop body is used, one or more sheets can be inserted so that their pleated portions are around the top of the cylinder. When the mop body or preferably the sheets of my invention have been centrally positioned, they are clamped against cylinder 8 by closing clamp 3. The mop is then ready for service, and can be advantageously used for both wet mopping and dust mopping.

While in the foregoing specification I have shown my mop structure in great detail and in a specific arrangement for illustration, it will be understood that such arrangement and details of the structure may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. In a mop including an elongated head portion and a clamping bracket of relatively small cross section, the combination comprising a resilient, hollow flexible tube running longitudinally of said head and attached thereto by said bracket, said tube being open-ended and of relatively large internal diameter with the major part of the periphery thereof unattached except along the limited area of attachment by said bracket and with the remote interior surface substantially spaced from the area of attachment for providing a substantially core-less tube having a void interior permitting the tube to be flattened on the application of pressure thereto by said head, and a mop body secured about said tube, said mop body being composed of at least one flexible absorbent and elongated sheet draped over said tube and having a narrow transverse central portion provided with a plurality of flat contiguous pleats secured against separation and providing loose folds at the free end portions of the sheet.

2. In a mop including an elongated head portion and a clamping bracket of relatively small cross section, the combination comprising a resilient, hollow flexible plastic tube running longitudinally of said head and attached thereto by said bracket, said tube being open-ended and of relatively large internal diameter with the major part of the periphery thereof unattached except along the limited area of attachment by said bracket and with the remote interior surface substantially spaced from the area of attachment for providing a substantially core-less tube having a void interior permitting the tube to be

flattened on the application of pressure thereto by said head, and a mop body secured about said tube, said body being composed of at least one elongated sheet of plastic coated paper having a narrow transverse central portion provided with a plurality of flat overlapping pleats and means securing said pleats against separation, said pleated central portion being attached to the tube and providing loose folds at the free end portions of the sheet.

3. A mop assembly adapted for attachment to a mop head, and comprising a relatively thin wall resilient and hollow tube having a relatively large internal diameter and adapted for attachment to the mop head along a limited surface and being otherwise core-less and free to flatten upon application of pressure thereto, and a mop body comprising at least one flexible absorbent and elongated sheet having in the narrow transverse central portion thereof flat pleats secured against separation and engaging the tube in secured position, the remaining portions of the sheet being free and presenting loose folds toward the free ends thereof.

4. The mop assembly as claimed in claim 3, wherein said sheet is composed of plasticized fabric.

5. The mop assembly as claimed in claim 3, wherein said sheet is composed of plastic-coated paper.

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