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HANDLE ATTACHMENT FOR MOPS

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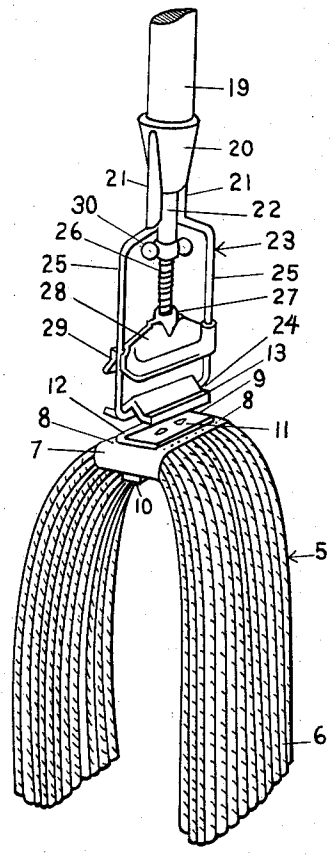


Fig. 1

Fig. 2

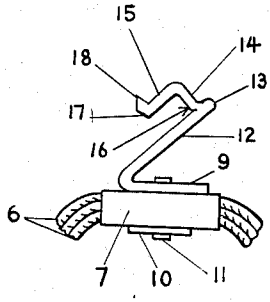
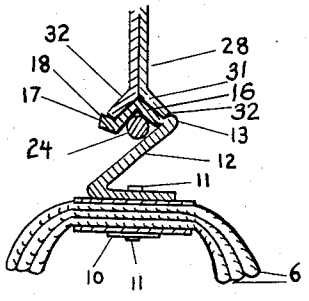


Fig. 3



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HANDLE ATTACHMENT FOR MOPS

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This invention relates to improvements in mops and more particularly to mops used for washing, scrubbing or polishing floors in industrial plants or households.

This application is a continuation-in-part of my application Serial No. 647,669, filed March 21, 1957, now abandoned.

My invention is directed primarily to the improvement of so-called industrial mops comprising a plurality of twisted fibrous strands or mop yarn bound together intermediate their ends by a heavy tape, braid or cloth band stitched through at both edges for permanently binding the strands and band together.

While these mops are more commonly used in industrial plants for washing, polishing, or scrubbing the floors, it is well known that the same mops are also frequently found in homes and used therein for the same purposes.

It will therefore be understood that my invention is directed to the type of mop above referred to and is in no way limited to mops classified according to their place of use, or whether they are used in dry or wet condition.

The primary object of my invention is to provide means on the mophead to which the mop handle may be quickly and easily connected or disconnected.

Another object is to provide means firmly secured to the mophead and forming a detachable working connection between the mophead and the mop handle.

A further object is to furnish a mop with a plate secured to the head thereof and having special means on said plate forming a detachable working connection between the mophead and the mop handle.

Another important object of my invention is to provide special means or abutments on the plate member to engage the ends of the inverted V-construction of the handle to prevent the handle from swinging off the plate member while the mop is in use.

A still further object is to provide a plate on the mophead forming a rigid working connection with the mop handle and constructed of inexpensive material.

Another object is to supply a mophead equipped with permanent inexpensive means to which the mop handle can be quickly and easily connected or disconnected without the necessity of touching the fibrous strands or mop yarn.

A further object is to furnish a mop with special means permanently secured to the mophead for detachably connecting the mop to the conventional mop handle.

With the foregoing objects outlined and with other objects in view, which will appear as the description proceeds, my invention consists in the novel features hereinafter described in detail, illustrated in the accompanying drawing, and more particularly pointed out in the appended claims.

In the drawing:

FIG. 1 is a perspective view of a mop embodying my invention and showing a conventional mop handle, partly broken away, and ready for connection thereto;

FIG. 2 is an end view of the mop shown in FIG. 1 and embodying my invention; and

FIG. 3 is a cross-sectional view of my improved mop with the handle, partly broken away, connected thereto.

Referring to the drawing in detail, 5 designates generally a conventional mophead employed for polishing, washing or scrubbing floors of tile, wood or similar material. These mopheads are usually made up of layers of twisted fibrous strands 6 of approximately equal length,

bound together across the middle by a band 7 of heavy tape, cloth or the like, stitched through at both edges as shown at 8 to permanently bind the strands and band together.

As will be seen from the drawing, I have provided a rather simple and inexpensive attachment for mopheads that will permit quick and easy connection of the mophead to the handle and disconnection of the handle from the mophead while at the same time providing means that will prevent the handle from swinging off the attachment while the mop is in use.

To accomplish these results, I provide a plate 9 of galvanized metal, aluminum, plastic or any other suitable material, resting on the mophead or band 7. A second plate 10 of similar material is provided on the underside of the mophead, and these two plates are joined together by staples 11 or the like, thus firmly securing the mophead to my improved atachment.

The plate 9 is preferably made slightly shorter and narrower than the mophead or band 7 so that it will not strike against the side walls or wall boards surrounding the surface being cleaned. Also, the plate 10, whose primary function is to anchor the staples to the mop and prevent them from being pulled through the mophead, may likewise be narrower and shorter than the band 7.

As seen in the drawing, one side edge of the plate 9 is turned upwardly and inwardly to form a slanting side wall 12. At this point, the wall 12 is bent inwardly at substantially right angles to form an abutment 13 for a purpose hereinafter described. From this right angle bend, the plate 9 extends upwardly and inwardly as shown at 14 and thence downwardly and outwardly as shown at 15 to form an inverted V-shaped channel member designated generally at 16. The outer end of the plate 9 is then bent outwardly and upwardly as shown at 17 to form a second abutment 18 in longitudinal alignment with the first abutment 13.

As clearly shown in the drawing, the slanting wall 12 of the plate 9 is bent inwardly sufficiently to bring the center of the inverted V-shaped trough or channel 16 into substantial alignment with the longitudinal center line of said plate.

The conventional mop handle now in general use today comprises a handle 19 of wood or the like having a metal ferrule 20 mounted thereon, from which depends a pair of side sleeves 21 and a central sleeve 22.

A mophead engaging member 23 comprising a cross bar 24 is provided with upwardly extending arms 25 converging toward one another and extending into the side sleeves 21 wherein they are anchored in any suitable manner such as force fitting, welding or the like.

A threaded bolt 26 is slidably mounted in the central sleeve 22. The lower end of the bolt is anchored in a collar 27 on the upper end of a slidable member 28 mounted on the side arms 25 as shown at 29. A wing nut or the like 30 is threaded on the bolt 26. When this nut is turned clockwise on the bolt it will abut against the lower end of the sleeve 22 and force the bolt 26 and with it the sliding member 28 downwardly toward the cross bar 24. If the wing nut 30 is turned in the opposite direction (counterclockwise) on the bolt 26, this will free the nut from the sleeve 22 and permit manual movement of the bolt and slide member 28 upwardly away from the cross bar 24.

As seen in FIG. 3, the lower end of the sliding member 28 is of inverted V-shape in cross-section as indicated at 31.

The foregoing is a general description of one form of conventional mop handle now on the market. However, it is realized that there are other somewhat similar mop handles in which the sliding member 28 is spring operated, but the essential features of such mop handles are sub-

stantially similar to those above described, that is, they consist of the cross bar **24** and the sliding element or member **28** with one of these elements movable toward and away from the other. As clearly shown in the drawing, my improved attachment for conventional mops is particularly adapted for quick and easy connection to and disconnection from the present-day mop handle.

To assemble the handle to the mophead provided with my improvement, the operator will simply move the cross bar **24** of the handle into the inverted V-shaped trough or channel member **16**, then force the slidable member **28** downwardly by means of the nut **30**, into firm engagement with the top of the inverted V-shaped trough or member **16** of the plate **9**. As the inverted V-shaped member **28** of the handle moves into engagement with the upper surface of the inverted V-shaped member **16** of my attachment, the cross bar **24** of the handle will be forced into the channel **16** of the plate **9**, thus firmly locking the mop handle to the mophead.

From FIG. 3 it will be seen that as the slidable member **28** moves into engagement with the plate **9**, the outer edges **32** of the inverted V-shaped portion **31** of said member will engage the abutments **13**, **18** so that when the mop is moved back and forth across the floor this engagement of the outer edges of the slidable member **28** with said abutments will prevent the handle from swinging off my attachment.

Because my attachment is made of inexpensive material, easily and economically manufactured, and can be readily and quickly attached to the mophead at minimum expense, it can be made a permanent part of the mop to be discarded therewith, without materially increasing the cost of the mops now on the market.

The advantages of my invention, providing simple, inexpensive and novel connector means between the mophead and the handle far outweigh the minor additional cost that may be involved in the installation of one of my attachments on the present-day mops.

Also, the advantages of the invention, from a sanitary standpoint, should also be given due consideration. With my attachment, the operator can quickly and easily connect the mop handle to or disconnect it from the mophead without touching the strands **6**.

From the foregoing, it will be apparent that I have provided simple and inexpensive connector means enabling quick and easy connection of a mophead to a conventional mop handle. Also, my connector means enables the operator to quickly and easily disconnect the mop handle from the mophead without having to touch the dirty, messy strands of a mop that has had extensive use over greasy, oily, dirty floors.

Also from the foregoing it is believed that the construction and advantages of my invention may be readily understood by those skilled in the art, and it is apparent that changes may be made in the details disclosed without departing from the spirit of the invention as expressed in the claims.

What I claim and desire to secure by Letters Patent is:

1. In combination, a handle having a cross bar and an inverted V-shaped element movable relative to said cross bar, a mophead having an attachment of substantially Z-shape in cross-section throughout the length thereof, said attachment having an inverted V-shaped portion for receiving said cross bar, and means on said handle for moving said inverted V-shaped element into and out of engagement with said inverted V-shaped portion of the attachment.

2. In combination, a handle having a cross bar and an inverted V-shaped element movable relative to said cross, bar, a mophead having an attachment of substantially Z-shape in cross-section throughout the length thereof, said attachment having an inverted V-shaped portion for receiving said cross bar, said inverted V-shaped portion having abutments at opposite sides thereof, and means on said handle for moving said inverted V-shaped element into and out of engagement with said oppositely disposed abutments.

3. In combination, a handle having a cross bar and an inverted V-shaped element movable relative to said cross bar, a mophead having an attachment of substantially Z-shape in cross-section throughout the length thereof, said attachment having an inverted V-shaped portion for receiving said cross bar said inverted V-shaped portion having abutments at opposite sides thereof, and means on said handle for moving said inverted V-shaped element into and out of engagement with said inverted V-shaped portion of the attachment and into and out of engagement with said oppositely disposed abutments.

4. A mophead for use with a cross bar and an inverted movable V-shaped element provided on a handle therefor, said mophead having an attachment which is substantially Z-shaped in cross-section throughout its length, said attachment having a lower portion secured to said mophead, an upper inverted substantially V-shaped portion which is adapted to receive and hold the cross bar when the V-shaped element is forced into receiving relationship with the inverted V-shaped portion, and a pair of abutments at opposite sides of the inverted V-shaped portion for engagement with the V-shaped element for stabilizing the position of the attachment relative to the V-shaped element and cross bar.

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