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ATTACHMENT DEVICE FOR MOPS AND THE LIKE

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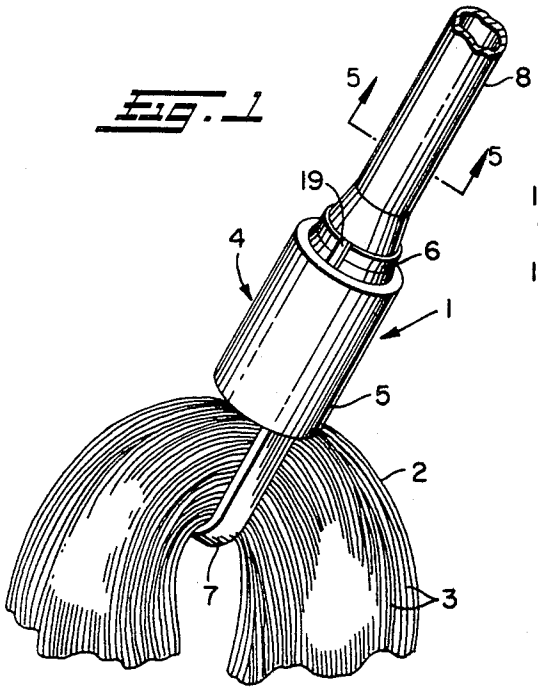


Fig. 1

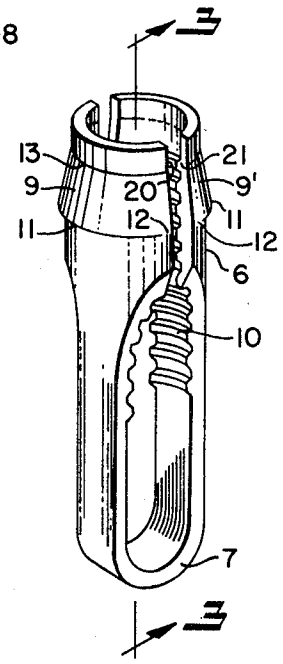


Fig. 2

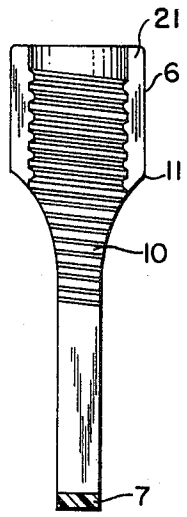


Fig. 3

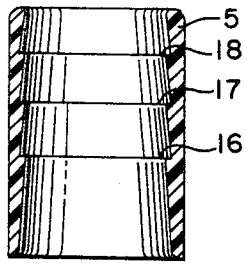


Fig. 4

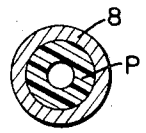


Fig. 5

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ATTACHMENT DEVICE FOR MOPS AND THE LIKE

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Int. Cl. A47l 13/23

ABSTRACT OF THE DISCLOSURE

An attachment device for mops and the like which includes an elongated member having a pair of generally semi-cylindrical sections and an intermediate strap section. The strap section is adapted to be folded about a bundle of mop cords. The device also includes a collar adapted for connection to the elongated member.

This invention relates generally as indicated to an attachment device for mops and the like and more particularly to such a device for attaching a mop swab to a handle.

The mop constructions which have been previously known have usually comprised bundles of yarn secured to an appropriate handle by means of a metallic clamp type holder with the sides or swab portions extending separately therefrom. A certain amount of skill is required, however, in order to manipulate such mops properly to achieve effective results as they are generally quite cumbersome and unwieldy to use. Moreover, the use of a metallic clamp or similar attachment means has the serious disadvantage that furniture, baseboards, etc. can be easily damaged due to contact with the attachment means as the mop is used.

To be suitable for use with clamp type attachment devices, the mop swabs generally have to have a fabric band encircling the central portion of the swab to which the clamp attaches in order to protect the absorbent cords from damage due to contact with the clamp. Because of such band, it is very difficult to conveniently launder the swab, and consequently the swabs are therefore generally discarded when they become soiled or frayed and a replacement swab is purchased. Accordingly, it is a principal objective of the present invention to provide an attachment device which may be used with mop swabs without such a fabric band and which may also be easily attached or detached from the swab.

Another object of the present invention is to provide a device which will not damage furniture, baseboards, or other objects which it may contact when the mop is used.

An additional object of this invention is to provide an attachment device which is readily detachable from a swab and capable of use with swabs of various sizes and weights.

Still another object is the provision of an attachment device which permits the mop swab to be removed from the handle and the attachment device in order to be washed in the usual manner without disarrangement of the cords.

Yet another object of the invention is to provide an attachment device which is simple, durable and economical in construction and which may be readily manipulated to attach or remove a mop swab from a handle.

Other objects, features and advantages of this invention will become apparent to those skilled in the art upon a reading of the following more detailed description of the invention.

These and other objects are achieved by means of this invention in which an attachment device for mops and the like is provided which includes an elongated flexible member with a pair of generally semi-cylindrical sections and an intermediate strap section which connects the semi-

cylindrical sections and is adapted to be folded about a bundle of mop cords. The semi-cylindrical sections are threaded internally for attachment to a suitable handle and also have a circumferential ridge externally thereof for attachment to a collar. The attachment device also includes a collar which surrounds and is connected to the elongated member through an internal annular groove into which the circumferential ridge of the semi-cylindrical sections is inserted and retained.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described and particularly pointed out in the claims, the following description and the annexed drawings setting forth in detail certain illustrative embodiments of the invention, these being indicative, however, of but a few of the various ways in which the principles of the invention may be employed.

In said annexed drawings:

FIG. 1 is a fragmentary perspective view illustrating the attachment device of this invention connected to a mop swab and handle;

FIG. 2 is a perspective view of the elongated member of the attachment device;

FIG. 3 is a section view on line 3—3 of FIG. 2;

FIG. 4 is a section view of the collar; and

FIG. 5 is a sectional view on line 5—5 of FIG. 1 illustrating one form of handle arrangement.

Referring now more particularly to the drawings and especially to FIG. 1, a mop illustrated generally by the numeral **1** is shown which comprises a mop swab **2** of a multiplicity of twisted, stranded absorbent cords **3** (the terminology "cords" as used herein is intended to be generic to all similar materials such as yarns, strands, etc.). The attachment device is shown generally by numeral **4** and includes a collar **5** which surrounds the elongated member **6** which has a strap section **7** folded about the mop swab. A handle **8** is inserted into the elongated member.

Referring to FIGS. 2 and 3, the elongated member **6** is illustrated in more detail and comprises a strap or intermediate section **7** which interconnects two generally semi-cylindrical sections **9** and **9'**. The elongated member is preferably threaded internally as shown at **10** for attachment to a handle, but it will be appreciated that the handle may be attached to such member by other conventional means, as for example, a press fit, etc. The elongated member also has an external circumferential ridge or shoulder **11** on each of the semi-cylindrical sections. The circumferential ridge is tapered adjacent the respective sides of the semi-cylindrical sections as shown at **12**. Similarly, the elongated member is tapered slightly toward the top of the semi-cylindrical sections as indicated at **13**.

In FIG. 4, the construction of collar **5** is illustrated. The exterior configuration of the collar is, of course, generally cylindrical as is the interior, except that the interior has, in this embodiment, a plurality of annular grooves or steps therein **16**, **17** and **18** to accommodate mop swabs of different sizes and weights as will be more fully explained. The collar is thus designed to fit over the elongated member, as shown in FIG. 1, in which case the circumferential rib of the elongated member will be inserted and retained in one of the annular grooves of the collar.

To assemble the attachment device to a swab and handle, it is only necessary to take the elongated member and position it about a mop swab with the strap section surrounding the swab substantially centrally of its length. The collar can thereafter be positioned over the elongated member to accommodate the particular size of swab, i.e., until the circumferential ridge on the elongated member has engaged the appropriate groove or step of the collar. The handle will thereafter be engaged through its threaded end portion with the internal surface of the elon-

gated member which will cause the circumferential ridge to be retained in the annular groove. When assembled, as illustrated in FIG. 1, the two semi-cylindrical sections of the elongated member are separated one from the other as at **19** due to the handle being threadedly connected to the elongated member. Because of this construction, the attachment device may be easily connected to a swab as it is not necessary to align the facing edges **20** and **21** of the two semi-cylindrical sections when the device is being assembled.

Although the collar **15** has been illustrated as having a plurality of internal annular grooves, it will be appreciated, of course, that only one such groove may be provided or alternatively any number of such grooves may be provided, as desired. In any event, it will be necessary that at least one such groove be included.

The collar and elongated member of the attachment device are preferably of a flexible material such as a plastic, as for example, polypropylene or polyethylene, but other such materials may also be used if desired as for example aluminum.

The particular handle to be used with this connecting assembly may be, in general, any of those available as for example a wooden handle, metal, plastic etc. The handle may be a hollow aluminum shaft with a protective plastic coating on the exterior surface and a threaded plug P for engagement with the elongated member (as in FIGS. 1 and 5), of plastic, metal, or other suitable material, which can be tightly locked into the handle in any fashion as by a press fit, an adhesive, or crimping.

Insofar as the swab of this invention is concerned, many materials are suitable for use including rayon yarn or cord, blends of rayon and cotton or blends of rayon, cotton and nylon. Bleached hemp yarn or cord blended with a small percentage of braided nylon or other synthetic plastic strands such as Orlon and Dacron may also be used or alternatively cotton cord may be utilized.

As an example of a particularly suitable type of mop swab, reference may be made to the prior patents of Theron V. Moss, 2,825,914, 3,011,198 and 3,115,658. These patents disclose certain features which are highly advantageous in the construction of mops which are particularly suited and arranged for mopping floors dry, and many of these features may, if desired, be included in the mop swabs to be used with the attachment device of this invention.

Although the attachment device of this invention has been illustrated and described primarily for use with a wet mop, it will be appreciated, of course, that the device is suitable for use with various types of mops, including certain of those commonly referred to as "dust mops" as, for example, that described and claimed in the copending application of Anna Marie Moss, Ser. No. 382,557 entitled "Mop," now Patent No. 3,336,620 issued Aug. 22, 1967.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claims, or the equivalent of such, be employed.

We therefore particularly point out and distinctly claim as our invention:

1. An attachment device for mops and the like comprising an elongated flexible member having a pair of generally semi-cylindrical sections and an intermediate strap section connecting said semi-cylindrical sections which is adapted to be folded about a bundle of mop cords or the like, said semi-cylindrical sections having means internally thereof for attachment to handle means and having a circumferential shoulder externally thereof for attachment to a collar, and a collar adapted for connection to said elongated member having at least one internal annular step in the bore thereof adapted to be engaged by said circumferential shoulders of said semi-cylindrical sections when said collar is moved longitudinally relative to said elongated member and said step moves past said shoulders thereby to retain said sections therein and to connect said elongated member and said collar.

2. The attachment device of claim **1** in which said elongated member is of plastic.

3. The attachment device of claim **1** in which said circumferential shoulder is tapered adjacent the respective sides of said semi-cylindrical sections.

4. The attachment device of claim **1** in which said elongated member is tapered toward the top of said semi-cylindrical sections.

5. An attachment device for mops and the like comprising an elongated flexible member having a pair of generally semi-cylindrical sections and an intermediate strap section connecting said semi-cylindrical sections which is adapted to be folded about a bundle of mop cords or the like, said semi-cylindrical sections being threaded internally for attachment to a handle and having a circumferential ridge externally thereof for attachment to a collar, and a collar adapted for connection to said elongated member, said collar having a plurality of internal annular steps spaced from one another axially of said collar and adapted to be engaged by said circumferential ridges of said semi-cylindrical sections to retain said sections therein and to connect said elongated member and said collar.

6. A mop comprising a swab member including a bundle of absorbent cords, an elongated flexible member having a pair of generally semi-cylindrical sections with an intermediate strap section connecting said semi-cylindrical sections folded about said bundle of cords substantially centrally of the length thereof, said semi-cylindrical sections being threaded internally and having a circumferential shoulder externally thereof, a collar having at least one internal annular step in the bore thereof surrounding said elongated member, said circumferential shoulder on said semi-cylindrical sections positioned in said annular step, and a handle threadedly engaged with said internal threaded portion of said elongated member forcing said circumferential shoulder into said annular step.

7. The mop of claim **6** in which said semi-cylindrical sections are separated one from the other by said handle in engagement with said elongated member.

8. The mop of claim **6** in which said handle comprises a hollow aluminum shaft with a protective coating thereon and a threaded plug tightly fitted within one end of said shaft.

9. A mop comprising a swab member including a bundle of absorbent cords, an elongated flexible member having a pair of generally semi-cylindrical sections with an intermediate strap section connecting said semi-cylindrical sections folded about said bundle of cords substantially centrally of the length thereof, said semi-cylindrical sections being threaded internally and having circumferential shoulders externally thereof, a collar having a plurality of internal, axially spaced annular steps formed in the bore thereof and surrounding said elongated member, said circumferential shoulders being adatped to engage one of said annular steps, and a handle threadedly engaged with said internal threaded portion of said elongated member thereby forcing said shoulders into said one annular step.

10. A mop assembly comprising a handle having a threaded end portion, an elongated flexible member having a pair of generally semi-cylindrical sections with an intermediate strap section connecting said semi-cylindrical sections which is adapted to be folded about a bundle of mop cords or the like, said semi-cylindrical sections being threaded internally and having a circumferential shoulder externally thereof, a collar having at least one internal annular step in the bore thereof surrounding said elongated member, said circumferential shoulder on said semi-cylindrical sections engaging said annular step, said handle being threadedly engaged with said elongated member to force said circumferential shoulder into said annular step.

11. The mop assembly of claim **10** in which said semi-cylindrical sections are separated one from the other by said handle in engagement with said elongated member.

12. The mop assembly of claim **10** in which said handle comprises a hollow aluminum shaft with a protective coating thereon and a threaded plug tightly fitted within one end of said shaft.

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U.S. Cl. X.R.

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