

[54] **DUST MOP WITH THROW AWAY MOPPING ELEMENT**

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[58] Field of Search 15/144 A, 228, 229 AP, 15/229 B, 229 BC, 229 BP, 231, 232; 211/16, 65, 66, 89; 298/110, 111, 314

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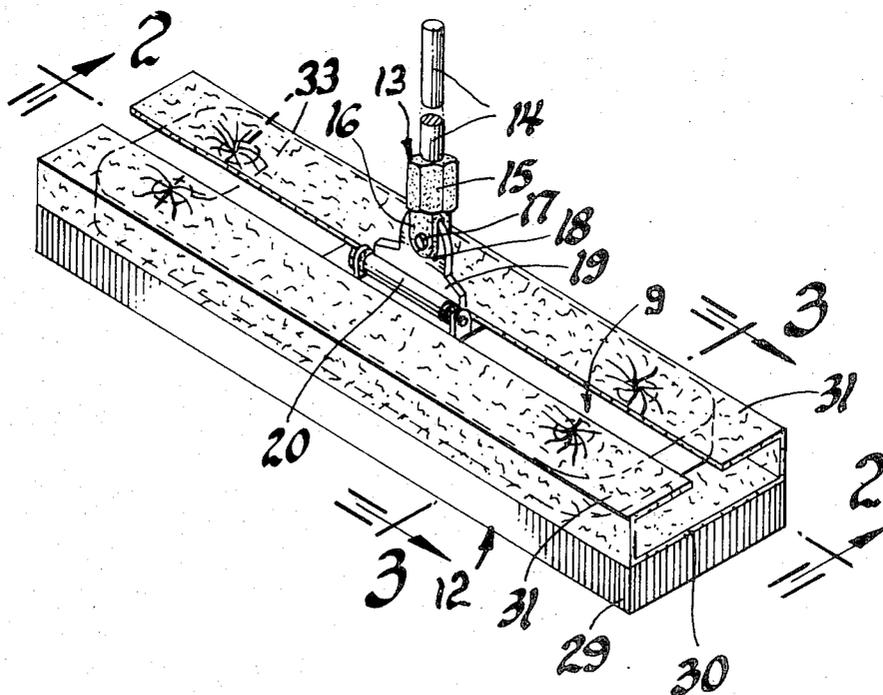
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[57] **ABSTRACT**

A dust mop provided with a throwaway mop head. The dust mop includes an elongated carrier member to which is swivelly mounted a mop handle. The carrier member includes an upper rigid portion and a lower cushion portion. A disposable mop head is mounted against the lower cushion portion and it includes a mop element made from an absorbent material and which is attached to a non-woven fiber cloth backing material that is folded upwardly and over the carrier member upper rigid portion and secured thereto by releasable retainer means.

2 Claims, 4 Drawing Figures



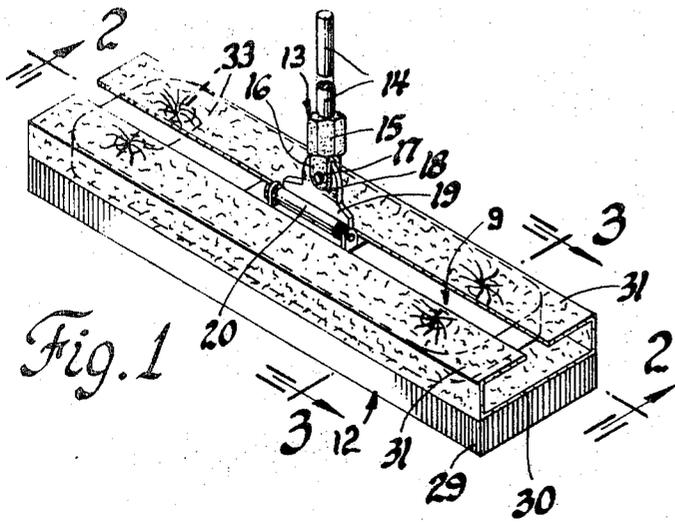


Fig. 1

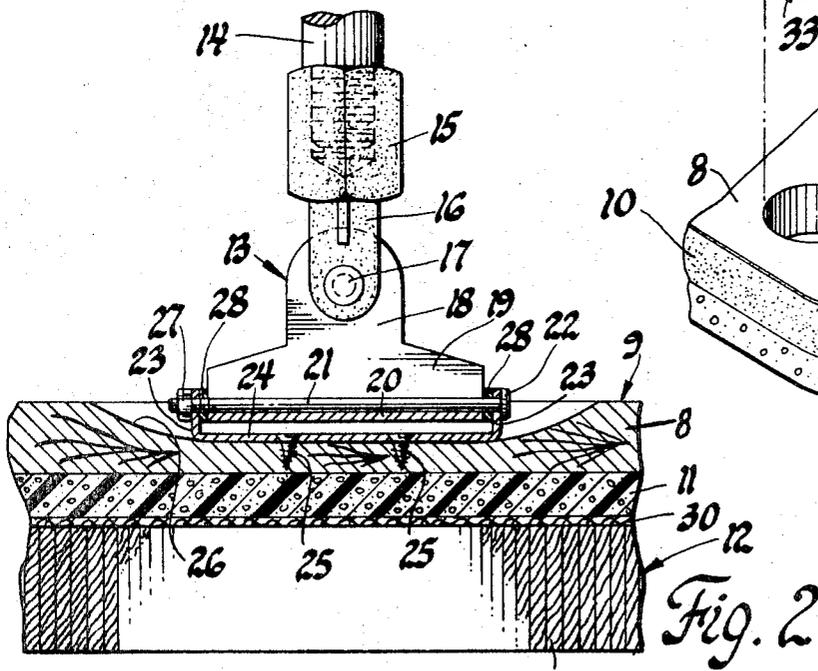


Fig. 2

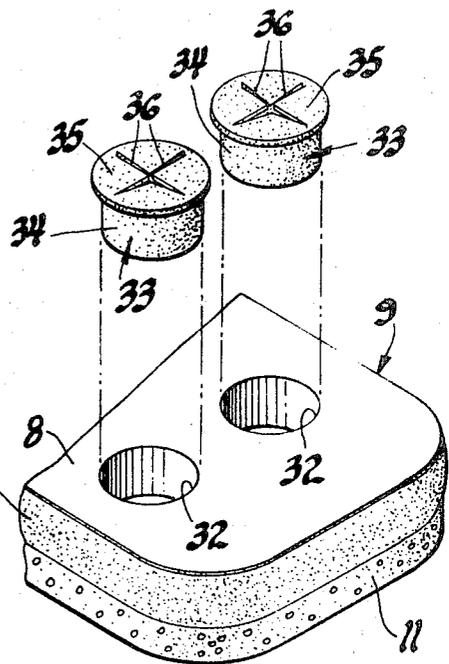


Fig. 4

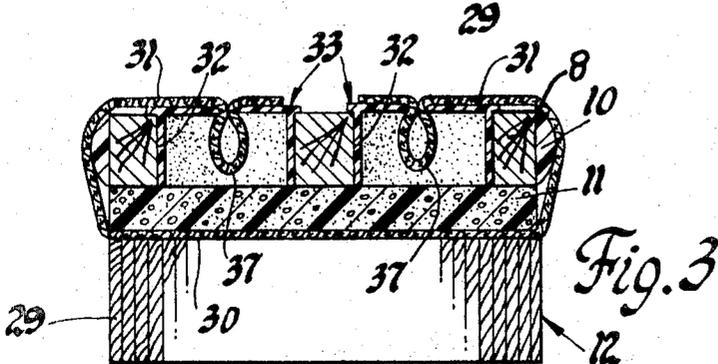


Fig. 3

DUST MOP WITH THROW AWAY MOPPING ELEMENT

SUMMARY OF THE INVENTION

This invention relates generally to the mop art and more particularly, to an improved dust mop having a disposable mop element.

The prior art dust mops have many inherent disadvantages. For example, the mop head is usually attached to a suitable frame by means of tie straps, snaps, or some type of pocket for attaching the mop head to a frame. The attaching of the prior art mop heads to the frame in the aforementioned manner is time consuming. Another disadvantage of such prior art mops is that they must be cleaned, treated and sterilized repeatedly when the dust mop is to be used for hospital use. A further disadvantage is that the mop carrier members are usually made from some hard material, which mars furniture when it hits the same, despite the fact that such frames may be covered by the mop head. In view of the foregoing, it is an important object of the present invention to provide an improved mop structure which overcomes the aforementioned disadvantages of the prior art dust mops.

It is another object of the present invention to provide an improved low cost dust mop which is prelaunched, pretreated to pick up dirt, pretreated hygienically for use in hospitals and the like, and which may be thrown away when it becomes dirty.

It is a further object of the present invention to provide an improved dust mop structure which is compact and simple in construction, light in weight, economical to manufacture and efficient in use.

It is still another object of the present invention to provide a novel and improved dust mop which includes an elongated carrier member provided with a pair of holes on each end thereof on the upper side thereof, a mop handle, means for swivelly attaching the carrier member to said mop handle, a mop head including a mop element made from strands of an absorbent material and affixed to a backing material having a pair of attachment flaps extended upward and over the upper side of said carrier member, and retainer means carried in said holes on said carrier member for operative engagement with said attachment flaps for releasably securing the mop head to the carrier member. The mop head backing material is preferably a non-woven fiber cloth material.

While it will be apparent that the preferred embodiment of the invention herein disclosed is well calculated to fulfill the objects above stated, it will be appreciated that the invention is susceptible to modification, variation and change.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is an elevational perspective view of a dust mop made in accordance with the principles of the present invention.

FIG. 2 is a fragmentary, elevational section view of the mop structure illustrated in FIG. 1, taken along the line 2—2 thereof, and looking in the direction of the arrows.

FIG. 3 is an elevational, section view of the structure shown in FIG. 1, taken along the line 3—3 thereof, and looking in the direction of the arrows.

FIG. 4 is a fragmentary, exploded perspective view showing a pair of mop head attachment cups and a portion of the mop carrier member.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings, and in particular to FIGS. 1 and 2, the numeral 9 generally indicates a mop head carrier member on which is operatively mounted a mop head generally indicated by the numeral 12. The carrier member 9 includes an upper elongated rigid portion 8 which may be made from any suitable material as, for example, from an elongated, rectangularly shaped layer of wood. The carrier member 9 also includes an elongated rectangularly shaped lower cushion portion 11 which is attached to the lower surface of the rigid portion 8 by any suitable adhesive. The cushion portion 11 may be made from any suitable elastic material as, for example, a suitable rubber or a suitable foam plastic material. As illustrated in FIGS. 3, and 4, a suitable cushion or bumper 10 is mounted around the periphery of the carrier member rigid portion 8. The bumper 10 may be made from any suitable elastic material as, for example, a suitable rubber or foam plastic material which is adhered to the outer periphery of the rigid portion 8 by any suitable means, as by a suitable adhesive.

As shown in FIGS. 1 and 2, the dust mop is provided with a mop handle 14 which has its lower end threadably attached to a handle attachment means generally indicated by the numeral 13. As shown in FIG. 2, the handle attachment means 13 includes a tube or sleeve 15 which has a threaded bore in its upper end that threadably receives the lower end of the handle 14. A pair of spaced apart legs 16 are integrally mounted on the lower end of the sleeve 15 and they are disposed on the opposite sides of an attachment tongue 18 and they are pivotally connected to the tongue 18 by a suitable rivet 17. The attachment tongue 18 is integrally formed on the upper end of an attachment plate 19 which is formed integral with an attachment tube 20.

The attachment plate 19 is swivelly attached to the carrier member 9 by the following described structure. An elongated horizontal pivot rod 21 is carried by the tube 20 and it extends through suitable apertures in a pair of upstanding ears 23 of a suitable U-shaped attachment clip means which has an elongated longitudinally disposed body portion 24. The apertured ears 23 are integrally formed at the ends of the body portion 24. The U-shaped attachment clip means is disposed in an elongated longitudinal concave recess 26 which is formed in the upper surface of the rigid carrier portion 8 and is secured in place by a pair of suitable screws 25.

The pivot rod 21 is provided with a suitable head 22 on one end thereof and with a lock nut 27 on the other end thereof. A plastic washer 28 is mounted around the pivot rod 21 at each end of the attachment plate 19. It will be seen that by adjusting the lock nut 27, a controlled degree of swivel tension can be provided. The swivel tension can thus be adjusted to the individual user's preference.

The mop head 12 includes a mop element 29 which is made from a suitable material as, for example, a cotton yarn, felts strand or any suitable absorbent material. The mop element 29 is prelaunched and pretreated with a suitable germicide agent which will kill staph germs, and it is also pretreated to pick up dirt.

The mop element 29 is secured to a mop element backing material 30 by any suitable adhesive in the usual manner. The backing material 30 may be of any suitable material, as for example, a non-woven cloth material. One suitable non-woven fiber cloth material is an unwoven polypropylene fiber cloth material.

The mop element backing material 30 includes an extension 31 along either side thereof, and said extensions 31 function as attachment flaps. The attachment flaps 31 are brought upwardly around the sides of the carrier member 9 and they are then folded over the top thereof and are secured to the carrier member 9 by the following described means.

As shown in FIG. 4, each end of the carrier member rigid portion 8 is provided with a pair of vertical holes or seats 32 in each of which is press fitted a retainer cup 33. Each retainer cup 33 includes a cylindrical body 34 and an integral top wall 35 in which is formed a pair of cross slits 36. The cups 33 are made from a flexible plastic or any other suitable flexible material so that the portions of the cup wall between the slits 36 are flexible, whereby the attachment flaps 31 may be quickly and easily secured to the carrier member 9 by pressing the attachment flap portion overlaying each cup downwardly into the slits 36 to form an inwardly extended loop 37 as shown in FIG. 3. The portions of the cup wall 35 between the slits 36 then spring upward and hold the attachment flaps 31 in place.

It will be seen that the dust mop of the present invention provides a structure wherein the mop head 12 may be easily attached in place on the carrier 9, and be removed therefrom in a quicker and more efficient manner than the prior art type mop structures which include tie straps or snaps or other means of attaching the mop head to a carrier frame of some sort. The disposable mop element of the present invention is adapted to be used in the same manner as the prior art mops. However, it will be seen that the disposable mop element 12 of the present invention is a labor saving device and is economical, since for hospital use it does not need recleaning, treating, and sterilizing for further use. The mop element of the present invention is economical to make and accordingly, it may be used only once and then disposed of. The mop element 12 of the present invention may be sold in a sealed bag to prevent contamination of the treated mop during shipment and storage before it is used.

While it will be apparent that the preferred embodiment of the invention herein disclosed is well calculated to fulfill the objects above stated, it will be appre-

ciated that the invention is susceptible to modification, variation and change.

What is claimed is:

1. In a dust mop, the combination comprising:

- a. an elongated carrier member provided with a pair of holes on each end thereof, on the upper side thereof;
- b. a mop handle;
- c. means for attaching the carrier member in a swivel manner to said mop handle;
- d. a mop head including a mop element made from strands of an absorbent material and fixed to a backing material having a pair of attachment flaps extended upward and over the upper side of said carrier member;
- e. retainer means carried in said holes on said carrier member for operative engagement with said attachment flaps for releasably securing the mop head to the carrier member;
- f. said mop head backing material comprising non-woven polypropylene fiber cloth material;
- g. said retainer means including a plurality of inverted retainer cups mounted in said holes and provided with slits on the outer ends thereof through which are extended portions of said attachment flaps for releasably securing the mop head to the carrier member.
- h. said swivel attachment means including an elongated clip means attached to the carrier member and including a pair of spaced apertured ears extended upward from the carrier member;
- i. an attachment plate connected to said handle;
- j. a pivot tube formed on the lower end of said attachment plate and being disposed between said spaced apart apertured ears, a pivot rod extended through said ears and through said pivot tube;
- k. a plastic washer disposed on said pivot rod between each ear and each end of said attachment plate; and
- l. a lock nut means on said pivot rod for securing the pivot rod in a selected adjusted position between said attachment plate and said pair of ears.

2. The dust mop structure as defined in claim 1, wherein: (a) said carrier member includes an upper rigid portion in which said holes are formed, a lower cushion portion which is secured to the lower surface of said rigid portion, and a peripheral cushion formed around the periphery of said rigid portion.

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