United States Patent

Whitaker

[15] **3,704,480**

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[54] **MOP HAVING A REMOVABLE PIVOTABLE HANDLE**

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[52] **U.S. Cl.** .....**15/144 R,** 15/145, 15/244 A

[51] **Int. Cl.** **A47l 17/08,** B25g 3/38

[58] **Field of Search** .15/143 B, 144 R, 144 A, 144 B, 15/145, 146, 147 A, 147 B, 172.176, 229 B, 229 BC, 229 BP, 244 A; 306/1, 11, 19, 20, 23; 285/396; 287/103 A

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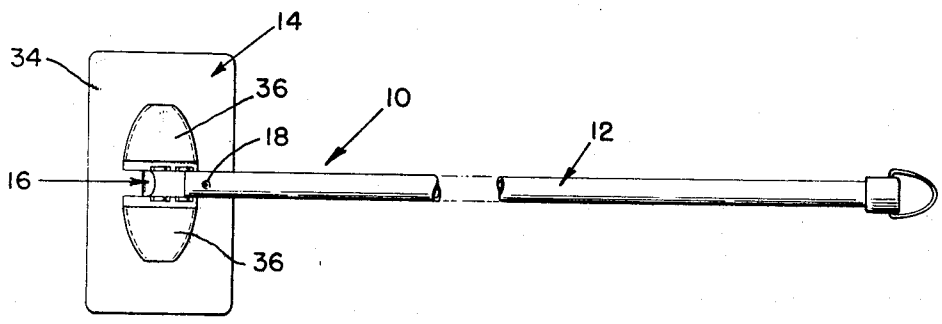
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Attorney—David Rabin

[57] **ABSTRACT**

A mop comprising a mop head portion pivotably connected to a handle and handle fastener through a releasable coupling. The mop may be utilized in a conventional manner or the mop head portion may be used by hand upon removal of the handle and handle fastener.

5 Claims, 7 Drawing Figures



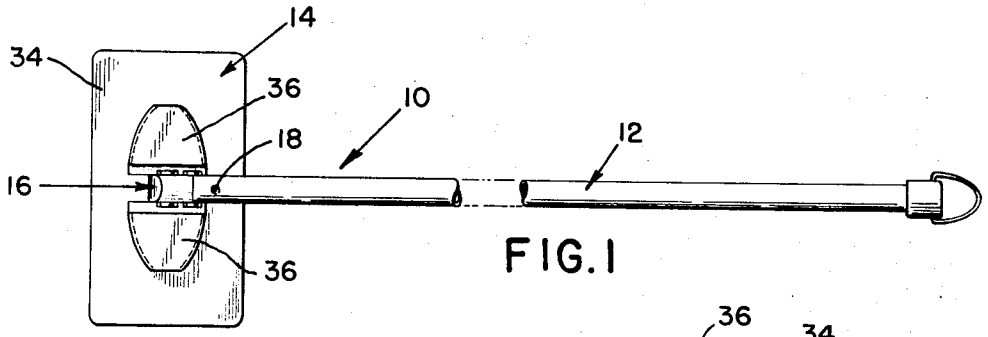


FIG. 1

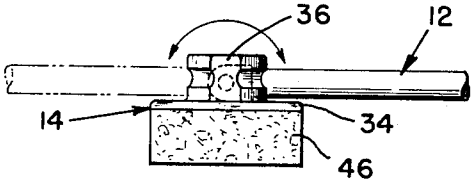


FIG. 2

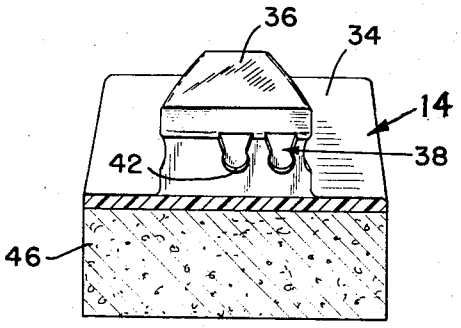


FIG. 4

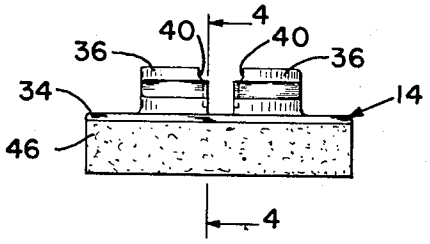


FIG. 3

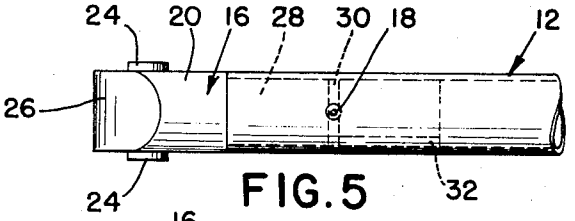


FIG. 5

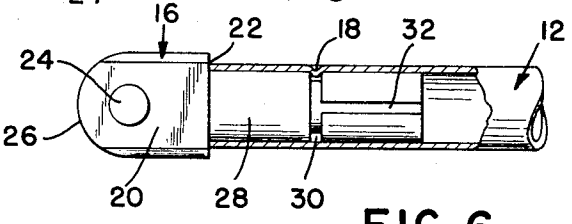


FIG. 6

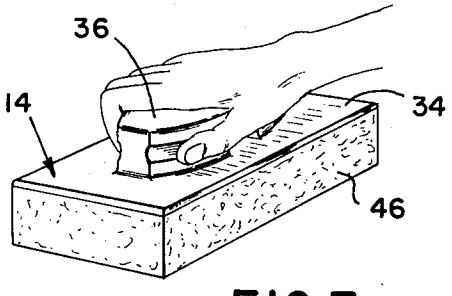


FIG. 7

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MOP HAVING A REMOVABLE PIVOTABLE HANDLE

BRIEF SUMMARY AND OBJECTS OF THE INVENTION

The present invention relates generally to a mop having a detachable handle and more particularly to a mop adapted to be used in a conventional manner, with the handle attached, or adapted to be held within the hand upon removal of the handle from the mop head portion.

Briefly, the mop of the present invention includes a tubular handle releasably attached to a handle socket through a fastening means comprising a handle projection slideably receivable within a plurality of slots formed within the handle socket. The handle socket includes projections or pivot pins adapted to be releasably snapped into sockets formed within opposed handle support members on the mop head portion for permitting the handle to pivot relative to the head.

One of the primary objects of the invention is the provision of a novel mop arrangement having a removable handle.

Another object of the invention is the provision of a mop having a head portion adapted to be readily and conveniently removed from the handle for utilization by hand.

Still another object of the invention is the provision of a unique and relatively inexpensive mop of simple construction.

Other objects and advantages of the invention will become apparent during the course of the following detailed description.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 is a top plan view of the novel mop of the present invention;

FIG. 2 is a side elevational view of the mop of FIG. 1, the limits of pivotable displacement of the handle with respect to the mop head being shown in full and broken lines;

FIG. 3 is a front elevational view of the mop head, the handle and handle socket being removed therefrom;

FIG. 4 is an enlarged perspective sectional view of the mop head taken along lines 4—4 of FIG. 3;

FIG. 5 is an enlarged top plan view of the handle socket releasably secured to the handle;

FIG. 6 is a side elevational view of the handle socket secured to the handle, portions of the handle being broken away; and

FIG. 7 is a perspective view illustrating the utilization of the mop head when detached from the handle.

DETAILED DESCRIPTION OF THE INVENTION

Referring to the drawing, the mop **10** includes a handle **12** connected to the head **14** of the mop by a handle socket **16**.

The handle **12** preferably is of tubular construction having a protrusion **18** formed by punching the tubular construction inwardly. One end of the tubular handle is open for receiving the handle socket **16**. The handle socket **16**, which is preferably of molded construction, includes a first section **20** having a shoulder **22** for limiting displacement into the handle **12** and opposed

projections **24** for coupling the socket to the mop head **14**. The lower end portion **26** of section **20** is arcuate for facilitating pivotable displacement of the handle **12** relative to the head **14**.

The socket **16** also includes a second generally cylindrical section **28** having a groove **30** extending about the circumference thereof and a groove **32** located normal to the groove **30**. The groove **32** extends from the groove **30** to the end of the second section **28**.

The mop head **14**, which may be of molded plastic construction, comprises a generally flat plate **34** having opposed, upstanding supporting members **36, 36** defining sockets **38** for releasably retaining the projections **24** of the handle socket **16**. The support members **36, 36** are spaced sufficiently for pivotably receiving the handle **12** therebetween, and as shown by FIG. **3**, the upper ends of the members **36, 36** are recessed as at **40** to facilitate insertion of projections **24** into the sockets **38**. As illustrated by FIGS. **1** and **4**, a pair of sockets have been shown on each of the o-posed members **36** permitting the handle and handle socket to be selectively positioned on the head **14**.

Each socket **38** is defined by an arcuate wall **42** which is slightly larger than but generally corresponds to the contour of one of the projections **24**, and guide walls that converge towards the arcuate wall **42**. The distance between the ends of the guide walls at the junctures of the guide walls with the arcuate wall **42** is slightly less than the width of a projection **24** such that the handle socket projections **24** are snapped into and releasably retained within the sockets **38** by urging downwardly the end of handle **12** adjacent the socket **16**.

A sponge-like material **46** is secured by adhesive or other suitable means to the side of the plate **34** opposite the support members **36**. While the thickness of the sponge material may vary, the width and length of the material generally corresponds to the size of the plate **34**. opposed

The mop **10** may be used in a conventional manner with the handle and handle socket secured in either pair of the opposed sockets **38**. Alternatively, the handle **12** and handle socket **16** may be disengaged from the head **14** and the head **14** employed as illustrated by FIG. **7**. When utilized in this manner, the upstanding support members **36** serve as a handle.

The handle **12** may be removed from the handle socket **16** by rotating the handle until the projection **18** within groove **30** is aligned with slot **32**, and withdrawing the tubular handle axially of the handle socket.

I claim:

1. A mop comprising a head portion having cleaning means secured thereto, handle means including an elongated handle and fastener means attached thereto having opposed projections thereon, at least a portion of said handle being tubular, said fastener means including a first section defining said opposed projections and a second section releasably secured within said tubular portion, said second section defining a first peripheral groove and a second peripheral groove extending from said first peripheral groove to the end of said second section, said handle means further including an inwardly directed projection on said tubular portion for cooperating with said first peripheral groove for locking said handle to said handle fastener means,

said head portion including a pair of opposed upstanding portions spaced to receive an end portion of said handle therebetween, each opposed upstanding portion defining a socket and each of said sockets comprising a guide portion and a bearing portion for releasably receiving said projections.

2. A mop as defined in claim 1, wherein said first section and said second section of said fastener means being of integral, molded construction.

3. A mop as defined in claim 1, wherein said second section is generally cylindrical and said first peripheral groove is a circumferential groove and said second peripheral groove extends normal to said first circumferential groove.

4. A mop as defined in claim 1, said head further including a generally flat plate having said cleaning means secured thereto, said plate and said support means being of integral construction.

5. A mop as defined in claim 1, each of said opposed upstanding portions including a plurality of sockets therein.

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