March 1, 1955 W. E. KAUTENBERG 2,702,916

MOP HOLDER HAVING A SCREW OPERATED SLIDING JAW

Filed June 27, 1949

FIG. 1

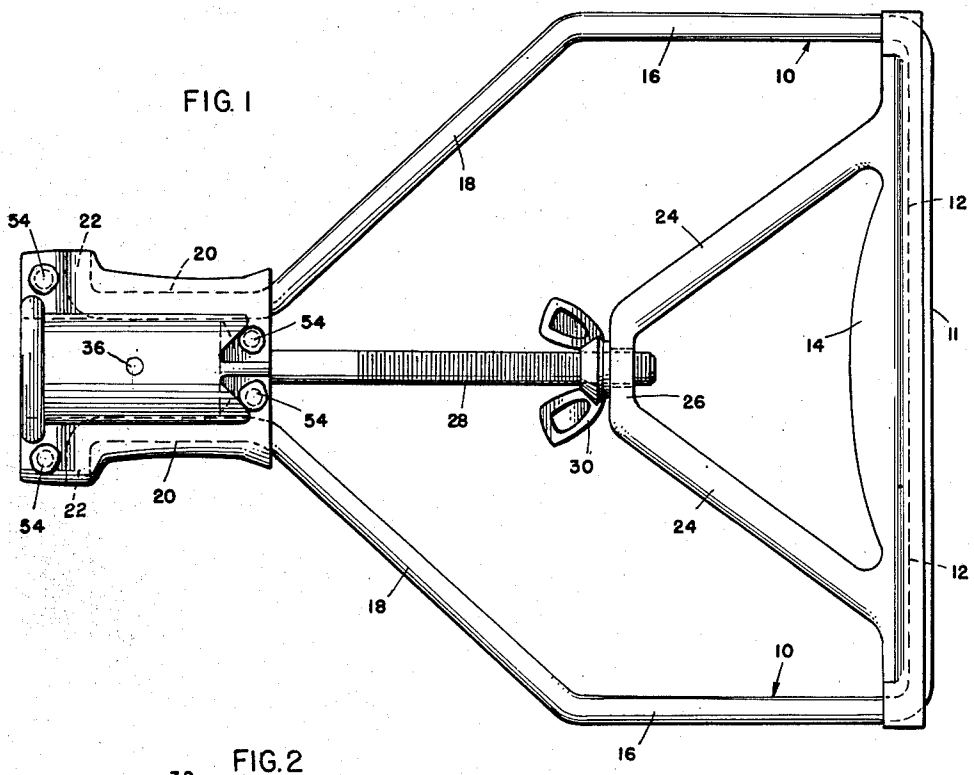


FIG. 2

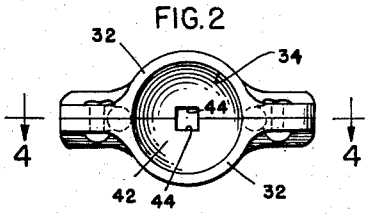


FIG. 3

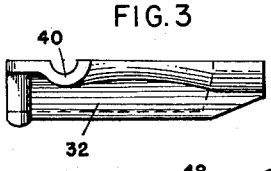


FIG. 4

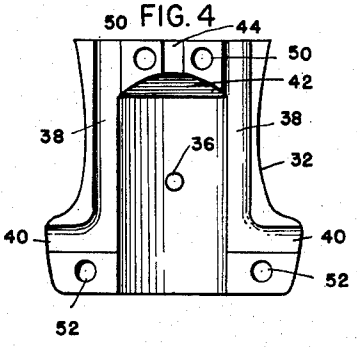
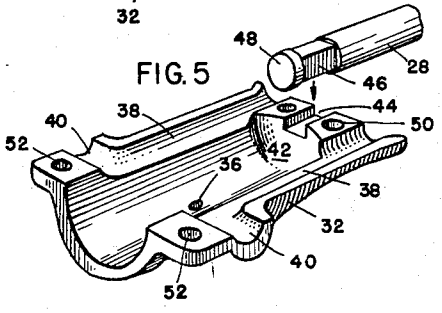


FIG. 5



INVENTOR:

WILLIAM E. KAUTENBERG

BY

Kent W. Worrall

ATT'Y

United States Patent Office 2,702,916
Patented Mar. 1, 1955

2,702,916

MOP HOLDER HAVING A SCREW OPERATED SLIDING JAW

William E. Kautenberg, Freeport, Ill., assignor to W. E. Kautenberg Co., Freeport, Ill., a corporation of Illinois

Application June 27, 1949, Serial No. 101,637

6 Claims. (Cl. 15—153)

This invention relates in general to mops and is more particularly described as a strong and sturdy mop structure for commercial use by janitors, and the like.

It has heretofore been the practice to provide a unitary sleeve member into which the mop elements as well as the mop stick are all connected. The present invention provides a common connecting structure which is made of split or separate parts adapted to be secured together for more readily connecting the component parts and securing them firmly in position.

An important object of the invention is to provide split connecting sleeves into which the extremities of the mop supporting bail, the mop tightening member and the mop stick are all inserted and secured together in cooperating relationship.

A further object of the invention is to provide new and improved means for securing the mop tightening means in place.

A still further object of the invention is to provide a simple strong and efficient mop structure which is easily adjusted, not likely to get out of order and lends itself to rapid and economical assembly.

A further object of the invention is to provide a complete and unitary mop head which may be furnished without the handle mop and also without the mop stick, if desired, adapting it to be economically packaged, stored and shipped.

Other objects will appear in the specification and will be apparent from the accompanying drawings in which,

Fig. 1 is a side view of a mop structure in accordance with this invention;

Fig. 2 is an end view of the split connecting shell;

Fig. 3 is a side view of one of the shell members;

Fig. 4 is a plan view of one of the shell members as taken on the line 4—4 of Fig. 2; and

Fig. 5 is a perspective view of the connected end of the mop attaching member.

One of the objections to the packaging, storage and shipment of mops is that the attachment of a mop stick at the factory makes it difficult to compactly package, store or ship them, and it is uneconomical to ship a complete mop with a stick attached because they occupy too much space.

The present invention provides a unitary mop head assembly which may be readily stored and shipped and to which a mop stick may be attached either at its destination or by a person to whom it is sold.

Referring now more particularly to the drawings, the mop comprises a somewhat rectangular bail member **10** having a straight outer portion **11** adapted to be seated in a groove **12** of a mop head **14** which extends beyond the sides of the straight portion **11** of the bail to provide recesses at the ends thereof for holding the bail and the cross head together in non-rotative position. The bail has parallel sides **16** with inwardly inclined portions **18** and parallel extremities **20** terminating in outwardly bent ends **22**.

Extending angularly from the cross head within the sides **16** of the bail are arms **24** joined in a perforated cross piece **26** for receiving the threaded end of a fastening bar **28**. Movable on the threaded portion of the bar **28** is a winged fastening nut **30** which engages the cross piece **26** to lock the bar in any adjusted position. A mop (not shown) is inserted between the straight portion **11** of the bail **10** and the outer recess portion of the cross head and is held in place by moving

the cross head tightly against the mop, clamping it between the cross piece and the bail.

To connect the adjusting bar **28** and the ends of the bail, a pair of similar shells **32** are placed together to form a central opening **34** at one end into which a mop stick may be inserted, and to which the mop stick may be securely fastened by means of an opening **36** through each of the shell parts. A rivet, nails or screws may be inserted through the openings **36** into the mop stick, firmly attaching it in place in a well known manner. At the sides of the opening **34** of each shell are half circular recesses **38** extending from one end of the shell for seating the parallel end portions **20** of the bail **10**, and with outwardly curved extensions **40** adjacent the other end for receiving the bent ends **22** of the bails. When the two half shells are placed together, these extremities of the bail are seated firmly in place so that the bail does not tend to turn or twist with respect to the shell.

At the inner end of each shell is an abutment **42** closing this end of the shell but having a rectangular slot **44** centrally thereof to receive one end of the bar **28** therein. This end of the bar has a flattened portion **46** near the end with larger shoulders at the ends of the flattened portion including a rounded extremity **48** at the end. The flattened portion **46** is of the proper size to be seated and contained firmly in the slots **44** of the adjacent shells so that when the two shells are clamped together, the bar **28** will be held by the the engagement of the flattened portion **46** therein against turning and also the end shoulders hold it against endwise movement.

To secure the shell parts together, holes **50** are provided in the abutment **42** at opposite sides of the slot **44** and holes **52** are provided at the other end of each shell just beyond the curved portion **40** in the side flanges of each shell. Through the corresponding openings of the two shells, screws or rivets **54** are inserted, thereby tightly binding the shell portion together, clamping the extremities of the bail therebetween and at the outer sides of the openings **34** for receiving the mop stick therein, and firmly engaging the end of the bar **28** in the slots **44** at the ends of the shell members.

With this construction, the mop cross piece **14** is easily adjusted with respect to the outer clamping portion of the bail and a mop engaged thereby is firmly held in clamping position by the thumbscrew **30**.

The assembly thus formed is complete as a unit and may be furnished alone or connected to a mop stick. This type of mop is particularly adapted for storage, shipment and commercial use by janitors and other workmen as any desired mop stick may be attached to the mop head depending upon the use to which it is put. Some operators require mop sticks longer than others and some prefer mop sticks of different sizes.

While a preferred construction has thus been described in some detail, it should be regarded by way of illustration or example rather than a restriction or limitation of the invention since various changes may be made in the construction, combination and arrangement of the parts without departing from the spirit and scope of the invention.

I claim:

1. A mop holder, comprising a cross head and a bail engageable and movable relatively to the cross head, the bail having parallel portions extending adjacently together at their extremities and turned outwardly at right angles at the ends, an adjusting bar engaging the cross head between the sides of the bail and extending toward the adjacent outwardly turned ends thereof and connecting means for the ends of the bail and the bar, comprising a pair of substantially semi-circular shells movable together to engage over the ends of the bail and the end of the bar, the shells together having a recess for inserting a mop stick therein, and each of the shells having grooves at the opposite sides of and communicating with the opening for the mop stick extending from one end and bent outwardly adjacent the other end to receive the outwardly turned ends of the bail, the bar having a flattened portion adjacent the

end opposite the cross head, with larger shoulders at the ends of the flattened portion and the inner end of each shell having a flat angular slot therein for engaging the flattened portion adjacent the end of the bar and holding it between the shells against turning and the shoulders preventing longitudinal movement with respect to the shells, and means for attaching the shells firmly together.

2. A mop holder, comprising a cross head and a bail having parallel sides engaging the ends of the cross head to prevent relative turning, the cross head having arms extending inwardly with a perforated cross piece between the arms, a bar threaded at one end and extending through the perforation of the cross piece and having a flattened portion near its other end with larger shoulders at the ends of the flattened portion, the extremities of the bail having parallel portions bent outwardly at their ends, a pair of similar substantially semi-circular shells placed oppositely together to form a recess for receiving a mop stick therein and to form communicating recesses at the sides of the mop stick opening extending from one end of the shell to receive the said parallel portions of the bail and having outwardly bent portions to receive the outwardly bent ends of the bail, and each of the shells having an abutment at its inner end with a rectangular slot therein to jointly receive the flattened end of the bar between said shoulders and fastening means extending through the shells for securing them firmly together holding the extremities of the bail in place and holding the adjusting bar in the shells against rotation and the shoulders limiting endwise movement.

3. In a mop, the combination with a bail having adjacent parallel extremities with the ends turned outwardly, of a cross head for engaging the bail having an inward attaching portion, a bar having a threaded end extending through the attaching portion of the cross head and an angular portion adjacent the other end, larger shoulders at the ends of the angular portion, mop clamping means comprising a nut movable on the threaded end of the bar against the cross head, an attaching holder for the bar and the ends of the bail comprising a pair of similar shells placed oppositely together and forming a circular opening for receiving a mop stick, means forming a pair of circular grooves at the opposite sides of the mop stick opening extending from the inner end of the shells and bent outwardly at the sides adjacent the other end of the shells, and the shells each having an inner abutment with an angular slot therein for together receiving the angular portion of the bar adjacent the end and between said shoulders to prevent the bar from turning and moving longitudinally in the shells, and the shells being formed with perforations through the abutments and through the outer ends adjacent the outwardly turned ends, and fastening means insertable through the corresponding openings for tightly binding the shells together.

4. In a mop, a bail and a cross head having interengaging portions for preventing relative rotation, a bar having a threaded end extending through the cross head, a lock nut on the threaded portion of the bar engaging the cross head, a flattened portion with larger end shoulders adjacent the other end of the bar, the bail having adjacent parallel extremities turned outwardly at right angles, and common engaging means for the flattened end of the bar and the adjacent ends of the bail comprising a pair of similar shells secured together and having recesses and adjoining grooves therein for seating the end of a mop stick therein and the outwardly turned and parallel ends of the bail at the sides of the mop stick and at the ends of the shells and for engaging the flattened portion of the bar between said shoulders adjacent the extremity of the bar.

5. In a mop, a bail and a cross piece movable relatively to each other for engaging mopping material therebetween, clamping means for engaging the ends of the bail comprising similar half shells providing also a socket for receiving one end of a mop stick therein, an adjusting and clamping bar between the bail and the cross piece having a threaded extremity movable through the cross piece, a lock nut movable on the threaded extremity against the cross head, the bar having a flattened portion with larger end shoulders adjacent the other end and the shell means for the bail ends having a joint angular slot therein for engaging the flattened portion of the bar adjacent the end thereof and between said shoulders to prevent the bar from rotating and from moving longitudinally in adjusting the bail relative to the cross piece.

6. In a mop, a bail and a cross piece adjustable relatively with each other to grip mopping material therebetween, an adjusting bar having a threaded end extending through the cross piece, an adjusting nut on the threaded end of the bar movable to engage the cross piece, the bar having a flattened portion with end shoulders adjacent the other end thereof, and common connecting means for the ends of the bail, for the bar and for receiving the end of a mop stick, said means comprising a pair of similar substantially semi-cylindrical shells placed oppositely together to form a recess for the end of a mop stick, the shells having grooves at the sides of the recess for seating the ends of the bail at the sides of the mop stick recess and an abutment at the inner ends of each shell having an angular slot therein for jointly seating the flattened portion of the bar between said shoulders, and means for rigidly attaching the shells together.

References Cited in the file of this patent

UNITED STATES PATENTS

1,475,479	Feth	Nov. 27, 1923
1,619,624	Maszczyk	Mar. 1, 1927
1,968,622	Smith	July 31, 1934
2,014,109	Lawlor	Sept. 10, 1935
2,042,803	Pleiss	June 2, 1936
2,081,631	Maeda	May 25, 1937
2,103,565	Tarbox	Dec. 28, 1937
2,425,763	Teigen	Aug. 19, 1947