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DETACHABLE MOPHEADS AND FRAMES THEREFOR

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Fig. 1

Fig. 2

Fig. 3

Fig. 4

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This invention relates to mops and more particularly to detachable mop heads which are mounted on handles. One object of the invention is to provide a new and improved mop. Another object of the invention is to provide a new and improved mop having means for detachably securing it to a handle.

Still another object of the invention is to provide a new and improved mop having a frame which permits easy and quick manufacture of the mop.

A further object of the invention is to provide a new and improved mop frame to which the mop strands may be easily secured.

A still further object of the invention is to provide a mop having a loop insertable in a socket or holder secured to the end of a handle, the loop being adapted to be engaged by a suitable latch on the handle for locking said mop against withdrawal from the socket.

Additional objects and advantages of the invention will be readily apparent from the reading of the following description of devices constructed in accordance with the invention and reference to the accompanying drawings thereof, wherein:

Figure 1 is a front view of a new and improved mop showing the means which detachably secures it to a handle;

Figure 2 is a side view of the mop shown in Figure 1;

Figure 3 is a vertical sectional view of the mop shown in Figures 1 and 2 taken near the righthand side of the mop shown in Figure 1 and showing the mop detached from the handle; and

Figure 4 is a perspective view of the frame of the mop shown in Figures 1 to 3.

Referring now particularly to Figures 1 to 4, the mop 10 includes a frame 11 which is made of a single metal rod or wire. The frame includes a pair of rectangular sections 12 and 13 disposed below and on opposite sides of an inverted substantially U-shaped loop 14. The individual strings 15 of the mop extend through the rectangular sections 12 and 13 between the parallel horizontal spaced top and bottom edges 16 and 17, respectively, of the two sections and are folded over and onto opposite sides of the bottom members 17 of the sections. The strings are held against sidewise displacement by the outer vertical members 18 and the inner vertical members 19 of the sections 12 and 13. The free ends of the top members 16 abut the inner vertical members and may be secured thereto by welds if desired.

The strings 15 of the mop are secured to the frame 11 by a fabric strap 20 which encircles the frame around the bottom members 17 and is secured to the strings and the frame by at least one row of stitches 21 and a pair of vertical rows of stitches 22 and 23. The vertical rows of stitches 22 and 23 are disposed inwardly of the inner vertical members 19 of the frame. It will be apparent that these rows of stitches firmly secure the strap 20 and the strings 15 to the mop. It will also be apparent that this combination of a wire frame 11, strings 15 and a strap 20 make a string mop of simple easily assembled construction.

The mop 10 can be easily assembled since the top members 16 are bent outwardly at their junctures with the vertical outer members 18 until they are substantially in vertical positions. The mop strands 15 can then be placed over the bottom members 17 to fold downwardly on opposite sides thereof. The top members are then bent downwardly over the mop strands which are then held securely between the top and bottom members. The strap 20 is then disposed about the frame and the strands and the rows of stitches 21, 22, and 23 are secured through the strap and the strands to secure the strap and strands to the frame. It will be noted that the strands do not have to be threaded through the rectangular sections 12 and 13, which would be a time consuming and difficult operation.

The inner vertical members 19 of the frame extend upwardly of the top members 16 of the rectangular sections 12 and 13 to form, together with a top connecting member 24, the loop 14 which is insertable in a metal holder or socket 25 on the lower end of wooden handle 26. The lower end of the handle extends into a recess in the upper tubular portion 27 of the socket and is firmly secured in and to the socket by a bolt 28 which extends transversely through aligned apertures in the lower end of the handle and in the tubular portion 27 of the socket.

The lower portion 29 of the socket is of flat shape and has parallel vertical sides 30 and 31 which are spaced to provide a substantially rectangular inner passage or recess into which the loop 14 may be inserted. The end walls 32 and 33 of the lower portion 29 of the socket are provided with arcuate notches 34 on their lower edges which receive the inner ends of the top members 16 of the frame. The engagement of the top members in these notches, of course, prevents lateral displacement or movement of the frame relative to the socket.

The flat side 30 of the lower portion 29 of the socket or holder is provided with a rectangular aperture or window 35. A leaf spring 36, whose lower end is secured to the flat side 30 beneath the window 35 by a rivet, 37, has a retainer section formed of an upwardly and inwardly inclined cam portion 38 which extends at an obtuse angle from the spring and a lock portion 39 which extends outwardly from the cam portion 38 and is disposed substantially perpendicularly relative to the flat side 30 of the socket. The outer end of the lock portion has a finger pull tab 40 by means of which the retainer section may be pulled outwardly through the window. It will be apparent that when the lock spring is in the position shown in Figures 1 and 2, the lock portion 39 of the lock spring abuts the inner side of the connecting or cross member 24 of the loop 14 and this secures the frame 11, and therefore the mop 10, to the handle 26.

The mop 10 may be detached from the handle 26, by pulling outwardly on the pull tab 40 of the lock spring to move the lock portion 39 outwardly of the window 35 and out of engagement with the cross member 24 of the loop 14. This frees the loop for outward movement from the socket and an outward pull on the mop will therefore move the loop out of the socket. Thus the mop is detached from the handle for washing or repair thereof.

When it is desired to again secure the mop to the handle, the loop 14 is inserted in the open end of the socket and pushed inwardly until it contacts the inclined cam portion 38 of the lock spring. A further upward push on the mop will now cause the cam portion to move outwardly and permit the cross member 24 of the loop to move past the lock portion 39 which then moves back behind the cross member to hold the loop securely in the
socket. When the loop is in this position, the top members 16 of the frame engage in the notches 34 and the frame is thus held quite rigidly in the socket.

It will now be apparent that a new and improved mop 16 has been described, and illustrated which includes a frame 11 having rectangular sections 12 and 13 through which the strings or strands 15 of the mop extend, and a strap 20 which extends about the frame to secure the strings to the frame. It will also be seen that the frame includes a loop 14 which can be inserted in a socket 25 having a lock spring which is adapted to engage the loop to lock the frame, and the mop, to the socket and therefore to the handle 26.

It will also be noted that since the two rectangular sections 12 and 13 are spaced from each other, the mop strands are divided into two groups or bunches which can be separately grasped and separately wrung out, it being obvious that if the mop is of large size it is difficult to grasp all of the strands at one time and even if this were possible it would be difficult to wring out all of the strands at one time.

The foregoing description of the invention is explanatory only, and changes in the details of the construction illustrated may be made by those skilled in the art, within the scope of the appended claims, without departing from the spirit of the invention.

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

1. A mop including: a single piece frame having a pair of spaced rectangular sections and a loop disposed between and connecting said rectangular sections, said loop having a pair of vertical members and a cross member connecting said vertical member and disposed above said rectangular sections; mop strands looped through said rectangular sections and having free ends extending away from said loop; and a flexible strap extending about said rectangular sections and said strands, said strap being sewed together by at least one row of stitches to secure said strands to said frame.

2. A mop comprising: a single elongate rod having two pairs of aligned upper and lower members, vertical outer members connecting the outer ends of each pair of upper and lower members, vertical spaced inner members extending upwardly from the inner ends of the lower members past the upper members, and means connecting the upper ends of the inner vertical members, the inner end of each of said upper members being disposed adjacent its adjacent inner vertical member, said upper members being bendable upwardly and outwardly about their junction with the outer vertical members; mop strands disposed between said upper and lower members and between said inner and outer vertical members, a horizontal flexible strap extending about said lower members and said strands, and stitches securing said strap to said strands.

3. A mop comprising: a single elongate rod having two pairs of aligned upper and lower members, vertical outer members connecting the outer ends of each pair of upper and lower members, vertical spaced inner members extending upwardly from the inner ends of the lower members past the upper members, and means connecting the upper ends of the inner vertical members, the inner end of each of said upper members being disposed adjacent its adjacent inner vertical member, said upper members being bendable upwardly and outwardly about their junction with the outer vertical members; mop strands disposed between said upper and lower members and between said inner and outer vertical members; a horizontal flexible strap extending about said lower members and said strands, and means securing said strap to said strands.

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