Dec. 7, 1926. 1,609,295

J. GLOVER

MOP HEAD

Filed May 3, 1926

Fig. 1.

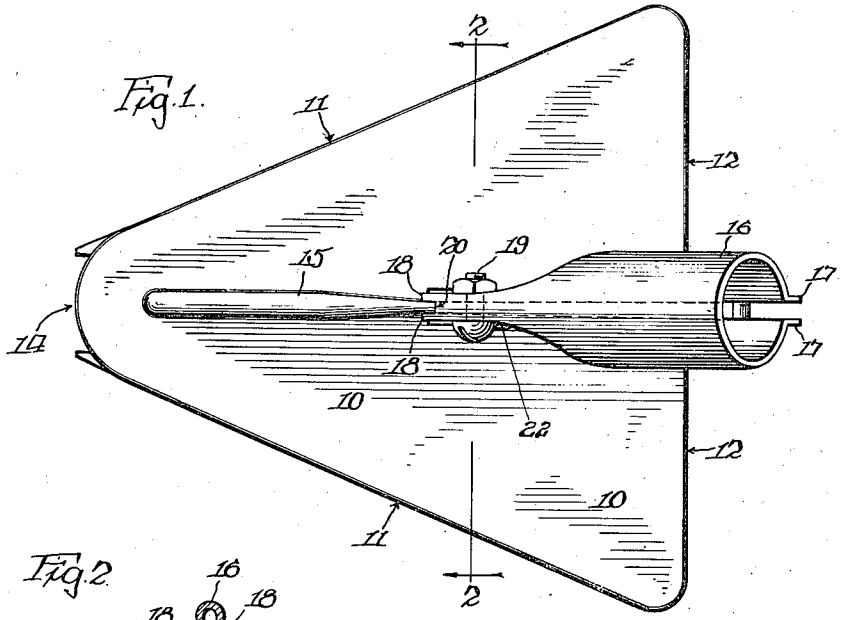


Fig. 2.

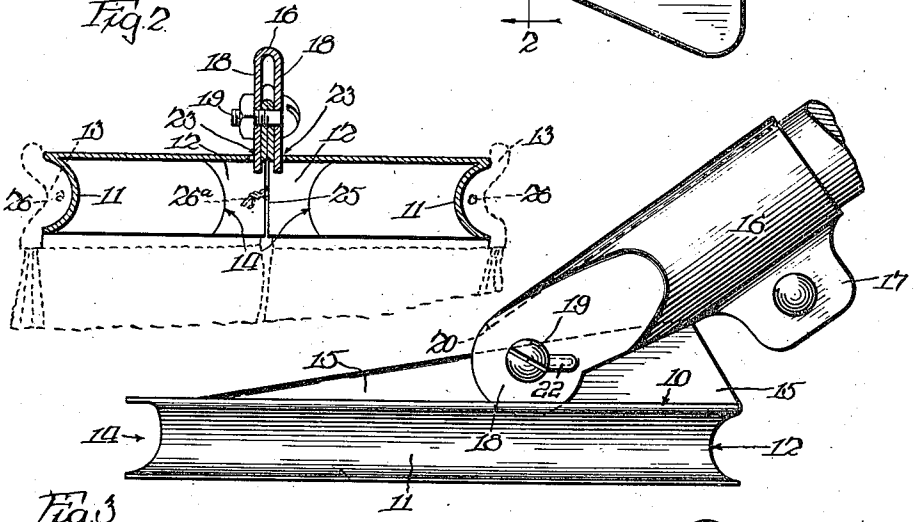
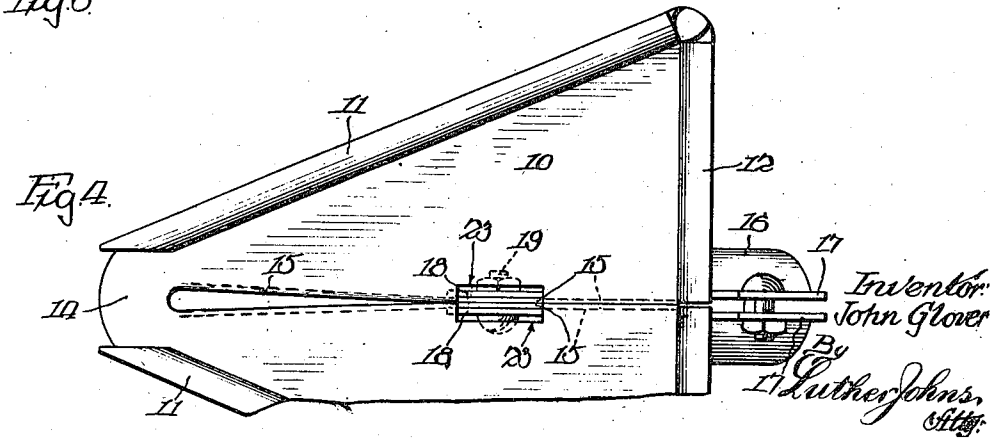


Fig. 3.

Fig. 4.



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Patented Dec. 7, 1926. 1,609,295

UNITED STATES PATENT OFFICE.

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MOP HEAD.

Application filed May 3, 1926. Serial No. 106,261.

These improvements relate to means in duster and mop construction for holding the flexible fabric wiping or scrubbing element usually called the swab.

The chief objects of the present invention are to provide a mop head device characterized by notable simplicity coupled with unusual strength and durability, providing for easy application and removal of the swab, well adapted for cleaning under radiators and in other vertically-narrow spaces, which is of low cost in construction, and having yerv few parts. Other objects and advantages will appear hereinafter.

In the drawings Figure 1 is a top plan of the improved mop head; Fig. 2 is a vertical transverse section as on the line 2—2 of Fig. 1; Fig. 3 is a side view of the device; and Fig. 4 is a fragmentary bottom plan thereof. The fabric swab is shown by dotted lines in Fig. 2.

The body is shown as being of triangular contour, a shape preferred out of considerations of general utility. Mop heads of triangular shape are old.

The frame or mop head proper is formed from a single piece of sheet metal, such as iron, which may be substantially thin, say 20 gauge. It comprises a top plate 10, depending side flanges 11, and a rear flange 12. These flanges are on straight lines longitudinally and are concave in cross view, and together form a trough-like seat of generally ring-like form for accommodating the mop body 13. The side flanges 11 are discontinued at the front end, providing a space 14 between them there (Fig. 2), which construction permits the easy forming of the side flanges on straight longitudinal lines while the frame as a whole may nave a rounded or blunt end.

Centrally of the top plate 10 and extending longitudinally in fore-and-aft directions is a rib or vane 15 integral with and extending vertically upward from the top plate. It emerges from the plate near the front thereof and becomes gradually higher toward the rear, its preferred shape and proportions being shown in Fig. 3.

From Fig. 2 it will be seen that this rib or vane 15 is created by folding metal of the top plate upon itself. At that part of the vane where the handle-socket member is applied, and extending rearward therefrom, these folds are pressed tightly upon each other to form a more thin and flat upstanding vane. Forward of this socket-applying region the vane 15 is on more rounded lines and with the sides somewhat farther apart.

This rib or vane 15, extending substantially from end to end of the structure, strengthens it very materially, and it will be noted that this strengthening effect is produced where the push upon the plate when the device is in use tends to indent or deform the plate very objectionably. The depending flanges 11 and 12 provide strengthening effects also, but they do not prevent buckling by the plate under the usual conditions of use. By means of the vane 15 I am able to produce a notably light frame or head of this kind which is unusually strong and free from the deforming effects of the handle pressure, and one therefore which will have an indefinitely long life in service.

The handle socket 16 is not new. It is formed of sheet metal, has a pair of binding flanges 17 through which a bolt may be passed. It has also a pair of ears 18 shown as arcuate in outline which lie on opposite sides of the upstanding flange or rib 15, the bolt 19 passing through the rib 15 and thus holding the socket upon the mop head for rocking movements.

What is probably a novel feature in the joint connecting the mop head and socket is in the provision of a stop at 20, Figs. 1 and 2, which contacts the upper surface of the rib 15 and limits the forward movement of the handle and thus maintains the mop head from tipping up unduly at the front, or into a relative position which would require some manipulation to get it again into the desired relative position for use. The head may not tilt unduly in the opposite direction through the limited amount of movement provided at the rear between the socket and the top plate 10.

The usual position of the socket relative to the frame is shown in Fig. 2, and to maintain the parts yieldingly in that position I provide a small indentation in the metal of the ears 18 at 22 and a corresponding depression in the metal of the rib 15, so that when the parts are tightened upon each other by the bolt 19 the projection and recess at 22 will interfit and hold the parts yieldingly. Such an interlock is not new. It provides that the handle may be moved one way or the other through the use of a

little force necessary to spring the interlocking elements out of engagement with each other.

From Fig. 2 it will be noted that the ears 18 extend through the top plate 10. Two short slot-like openings 23 are cut in the plate adjacent to the rib 15 for this purpose.

From Fig. 2 it will be noted that the rear flange 12 is divided at 25, a construction which results from removing the excess metal there to provide for the flange 15. The narrow slot or division at 25 has an advantageous function in providing holding means for the swab and means for locating the twisted ends of the holding wire within the hollow area of the mop head. The swab 13 will be understood to be of the well-known construction in which there is a tubular fabric body from which extend yarn elements secured to the envelope by stitching. A wire 26 passes longitudinally through the envelope and its free ends, like the free ends of the swab, are brought together at the rear of the head adjacent to the slot 25, Fig. 2. The wire ends are there twisted together, binding the swab upon the trough-like flanges of the mop head, and these twisted ends 26^a of the wire are passed into the cut at 25, thus holding the swab against relative movement and at the same time getting these ends out of sight and where they are incapable of scratching furniture or injuring the operator while handling the mop.

Such mop heads are subjected to considerable rough usage, and experience has shown that they rapidly deteriorate in efficiency through deformation and the breakage or loosening of means for holding the several parts together. According to the present construction the number of separable parts has been reduced apparently to the minimum, and at the same time an unusually firm, strong, rigid and durable device is produced, and one which can be put upon the market at a relatively low price, and one also which has all of the advantages of ready removability of the swab, a secure holding thereof, lightness, handle-adjustability, low height, and freedom from projecting uncushioned parts likely to injure furniture or other objects when in use, the marginal parts of the head being protectively covered by the swab.

I contemplate as being included in the present invention all such departures from and modifications of what is thus specifically illustrated and described as fall within the scope of the appended claims.

I claim:—

1. A mop head comprising a metallic plate defining substantially the top area of the head and having integral trough-like swab-seating flanges at edge portions thereof, the plate having an upstanding integral vane comprising metal of the plate doubled upon itself and extending from near the front end to near the rear end of the plate, and handle-holding means mounted on said vane.

2. A mop head comprising a metallic plate of substantially triangular shape having integral trough-like swab-seating flanges depending therefrom at the side edges thereof, the plate having an upstanding integral vane comprising portions of the plate doubled upon itself, said vane extending from near the front end to near the rear end of the plate and being relatively low at its forward end and increasing in height in the rearward direction, and handle-holding means mounted for swinging movements on said vane, said handle-holding means comprising a socket member having a pair of ears respectively overlying opposite sides of said vane, with means for holding said socket members pivotally upon said vane.

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