July 3, 1928. 1,675,736

H. M. STURGIS

MOP HEAD

Filed March 22, 1926

Fig. 1.

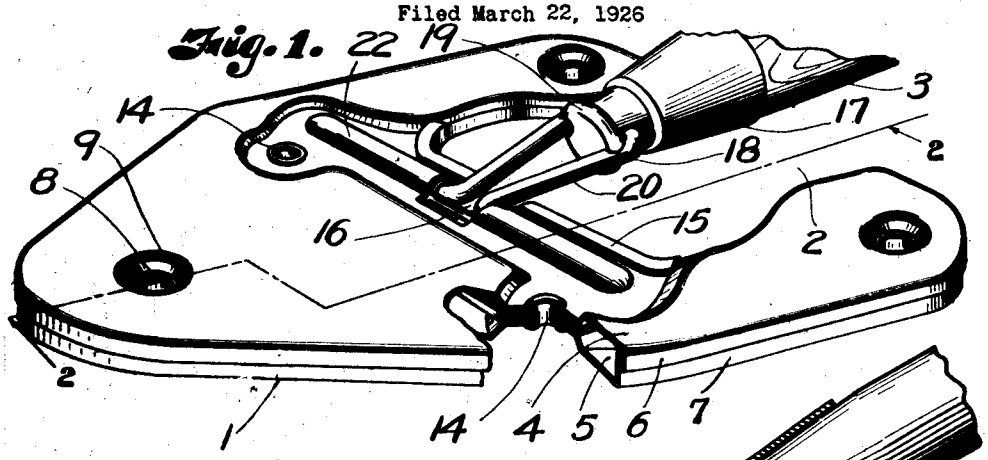


Fig. 2.

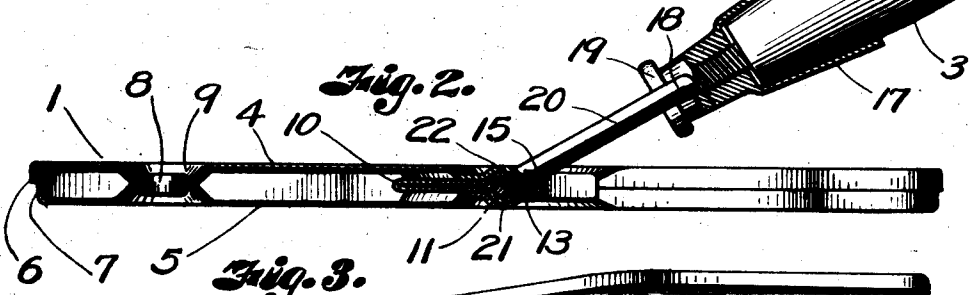


Fig. 3.

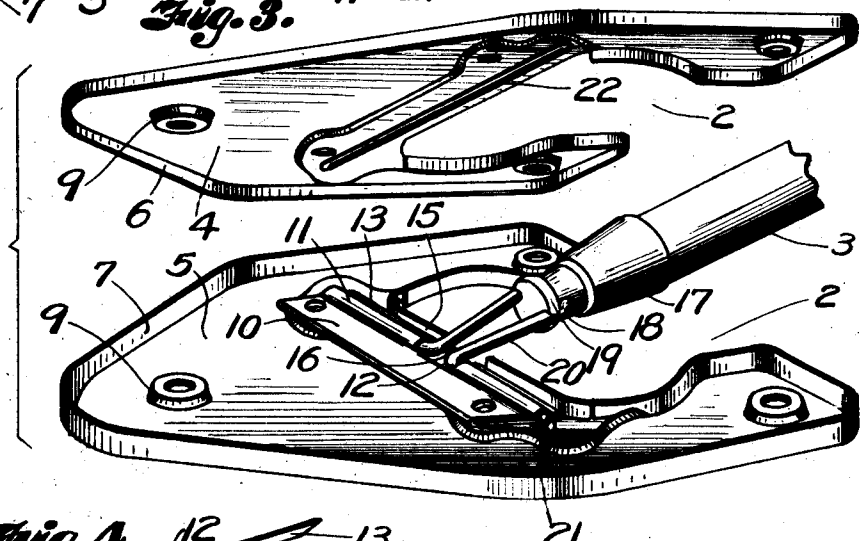
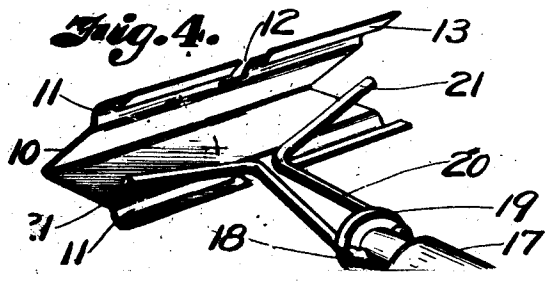


Fig. 4.



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UNITED STATES PATENT OFFICE.

HERBERT M. STURGIS, OF KANSAS CITY, MISSOURI, ASSIGNOR TO STURGIS MOP COMPANY, A CORPORATION OF DELAWARE.

MOP HEAD.

Application filed March 22, 1926. Serial No. 96,531.

My invention relates to mop heads and more particularly to one adapted for reversal in a handle stick so that the mop fabric on both sides of the head may be selectively employed, the principal object of the present invention being to securely but flexibly connect the head with the handle and provide an improved assembly of the head elements.

In accomplishing this and other objects of the invention I have provided the improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:—

Fig. 1 is a perspective view of a mop head and handle, parts being broken away for better illustration.

Fig. 2 is an offset longitudinal section on the line 2—2, Fig. 1.

Fig. 3 is a disassociated view of the head elements and handle.

Fig. 4 is a detail, disassociated view of the handle clip and a part of the handle.

Referring more in detail to the drawings:—

1 designates an assembled head, preferably pentagonal, with a recess 2 in its rear end through which the handle 3 may swing when the head is reversed to present a different face of the mop fabric (not shown) for use.

In detail construction, the head comprises top and bottom plates 4—5 of sheet metal having edge flanges 6—7, one adapted to telescope within the other when the plates are brought together to form the head, the plates being then secured together by eyelets 8, located in pockets 9 formed by countersinking the plates as illustrated in the drawings.

To provide proper pivotal mounting of the head on the handle, the pivot should be located at the center of the head on an elongated axis that will hold the head flat to a floor, and in a manner that will prevent a too free movement of the head relative to the handle. Such a mounting is effected by means of a clip 10, formed of a sheet metal strip bent upon itself and having longitudinal grooves 11 adjacent its free edges for seating the handle prongs, having transverse notches 12 at the centers of its free edges, through which the shanks of the handle prongs may move when the head is turned on its pivotal mounting, as will presently be described, and having a lip 13 on one edge of the clip which is turned back over the other edge of the clip when the parts are assembled, to hold the clip to the handle prongs.

The clip 10 is located between the body plates 4—5, at the base of the handle recess 2, with the free edges directed rearwardly, and the body plates pressed or countersunk thereover to hold the clip firmly to the head. The countersunk portions of the body plates and the clip are then secured together by eyelets 14, the edge of the body plate 5 being turned up over the edge of the body plate 4 at the base of the recess 2 to form a keeper flange 15. The rear edges of the plates 4—5 and the flange 15 are cut away to form the opening 16 in registration with the notches 12 in the clip, for accommodation of the shanks of the handle prongs.

The handle member comprises the stick element, a ferrule 17, and a prong element consisting of a piece of spring wire 18 extending from a top 19 on the end of the handle and bent upon itself to form the shanks 20 and laterally directed prongs 21, which latter are bent laterally and upwardly for the purpose presently described.

In assembling the parts, constructed as described, the body plates are stamped to form the edge flanges, the rivet and clip countersinks, the shank notches and the keeper lip, the clip countersinks embodying transverse grooves 22 for receiving the ribs on the clip formed by the pressing in of the prong grooves 11. The clip is likewise formed by stamping to form the prong grooves, the shank notches and keeper lip, and the blank bent to the V shape illustrated in Fig. 4.

The first step of assembly is of the clip on the handle prongs. This is accomplished by setting the clip in a die, locating the handle prongs over the grooves in the lower member of the clip and pressing the top member downwardly onto the upwardly inclined prongs, spring the prongs to alignment within the clip grooves and finally turning up the keeper flange to lock the clip closed against the tension of the prongs. The lower head plate is then placed in a die, the clip laid in the countersink (Fig. 3), and the top plate pressed home, the die forming the countersinks that press the plates over the clip, forming the ribs over

the clip ribs, forming the eyelet countersinks and setting the eyelets. The head is thus formed and the fabric covering applied.

In using the mop the head will pivot on the handle shanks when pressure is applied to permit the head to be moved flatwise over a floor, but will not turn loosely because of friction of the compressed spring prongs in their grooves, the tension being sufficient to hold the head in set position, but not so great as to interfere with adjustment of the head or its reversal when it is desired to present an opposite fabric face for use.

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

1. A mop head comprising separate plate members, a clip interposed between the plate members, including prong bearings arranged longitudinally of the clip and spaced centrally thereof and of the plate members, and means permanently connecting the plate members and clip to form the head.

2. A mop head comprising separate plate members and a clip connected to form the head, the clip being arranged transversely between the plate members and having spaced prong bearings, the plate members being recessed in line with the space between the prong bearings to permit reversal of the head when connected to the shanks of prongs mounted in said bearings.

3. A mop head comprising separate plate members and a clip, the clip composed of a folded strip of sheet metal, having opposed grooves adjacent its side edges, and the edge of said clip being notched to separate the grooved portions into separate prong bearings, the clip being secured to said plates and the plates notched in line with the clip notches, whereby handle shanks may project through the notches and prongs on said shanks may have mounting in said bearings to permit the head to pivot on said prongs.

4. A mop head comprising separate plate members, recessed at the rear to about their longitudinal centers and countersunk to form inwardly offset portions adjacent the bases of said recesses and notched at the centers of said plate members, a clip interposed between said plates, having transversely extending bearings, spaced in alignment with the plate notches, and means permanently connecting the plates and fixing the clip therebetween.

5. In combination with a mop handle comprising spring wire shanks having laterally turned end prongs bent out of longitudinal alignment, a clip comprising a strip of sheet metal having grooves adjacent opposite edges thereof and having notches intersecting the grooves, the strip being bent upon itself to register the grooves and notches and upon the prongs to align the prongs within the bearings formed by said grooves, a keeper lip on one edge of the clip overlying the other edge thereof to hold the parts together against the tension of said prongs, body plates enclosing the clip and having handle shank notches, and means permanently connecting the plates and the clip.

In testimony whereof I affix my signature.

HERBERT M. STURGIS.