

W. H. BILLINGS.
MOP.
APPLICATION FILED OCT. 4, 1911.

1,045,115.

Patented Nov. 26, 1912.

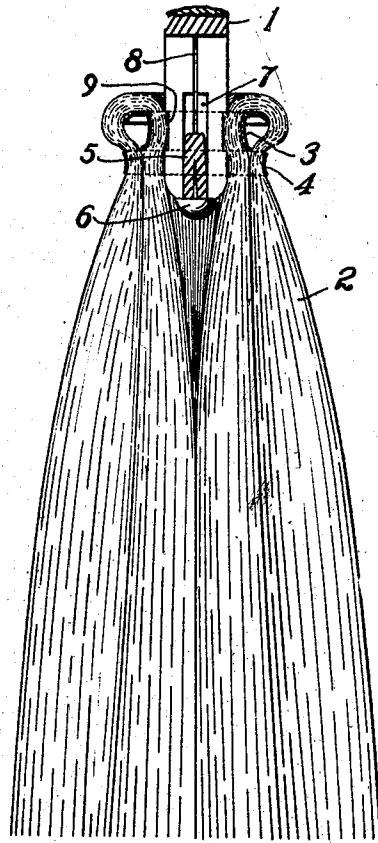


FIG. 1



FIG. 3

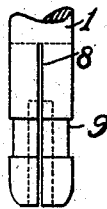


FIG. 2

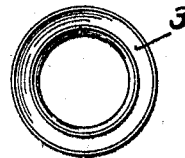


FIG. 4

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MOP.

1,045,115.

Specification of Letters Patent.

Patented Nov. 26, 1912.

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To all whom it may concern:

Be it known that I, WALTER H. BILLINGS, a citizen of the United States, residing at Newton, county of Middlesex, Commonwealth of Massachusetts, have invented certain new and useful Improvements in Mops, of which the following is a specification.

This invention relates to improvements in mops and like articles and particularly to the construction of the head of the same.

It is the object of my present invention to devise a structure by which the assemblage of the mop material upon the handle can be accomplished rapidly and readily to produce a mop of standard dimensions and finish.

The construction and method of employment of my invention will be more fully described in the specification which follows. In that specification and in the drawings which form a part of it, I have set forth the particular form of mop structure as an illustrative embodiment of my invention. This form I have found of practical advantage in the manufacture of mops and well adapted to commercial use.

Throughout specification and drawings like reference numerals are employed to indicate corresponding parts and in the drawings: Figure 1 is a central sectional view of the mop, the handle being broken away above the mop head. Fig. 2 is a side view of the handle end, forming ring and plug separated and with a portion of the mop material indicated in the ring. Fig. 3 is an end view of the mop handle, and Fig. 4 is a bottom view of the ring.

The handle 1 is constructed in the usual manner in the form of a staff of suitable length having adjacent to one end an annular groove 9. The end of the handle 1 has a counterbore indicated at 7 and has also kerfs at right angles to each other as indicated at 8, thus providing a split end on the handle. The plug 5 having a hemispherical head 6 is provided for entry in the counterbore 7 to expand the end of the handle within the forming ring 3.

The forming ring 3 is constructed with an overhanging upper flange at 3' turned down to form a rounded shoulder on the upper side. The ring 3 is integral or unsplit, being formed continuous and without joint so that it will withstand the severe strain of the expansive action of the wedge

5 in forcing out the split end of the handle 1 to grip the mop material which lies between the ring 3 and the inserted handle. On the lower side the ring is spun out as shown at 3² to permit the spread of the mop material 2, which in the form shown is yarn. Obviously the material might be any suitable fabric or substance adapted to the use for which the mop is intended.

The material 2 is hung over the ring 3 being arranged about it symmetrically so as to completely cover the ring and so as to hang down upon each side thereof in a substantially symmetrical arrangement. The split end of the handle 1 is then inserted through the ring until the annular groove 9 is opposite to the inner wall of the ring 3. The mop material 2 is then parted and a tapered plug 5 is then driven in place, expanding the split end of the mop so that the groove 9 clamps the ring and the mop material.

One of the difficulties which has always existed in mops in practical use has been the fact that the end of the handle within the mop proper has been liable to scratch and mar any finished surface upon which the mop is being used. I, therefore, provide a hemispherical head for the plug 5. This head may be formed integral with the plug 5, the whole being made of fiber or any other suitable material which is not liable to scratch.

In assembling my mop a suitable amount of mop material 2 is hung over the ring 3 being arranged symmetrically thereon. The split end of the handle 1 with the plug removed is then driven in until the end of the groove 8 comes opposite the ring 3. The split end of the handle 1 will be compressed slightly on entering the ring but as soon as the groove 8 reaches the ring, the handle will again expand gripping the material against the ring. The plug 5 is then driven in place being preferably coated with glue prior to driving so that it will be permanently held therein. This plug may be of some suitable non-scratchable material as fiber, as indicated in Fig. 2 or may be a wooden plug having a rubber headed button as indicated in Fig. 1.

After the handle has been securely lodged within the ring 3 the mop material is drawn down symmetrically and fastened by a band 4, thus permanently establishing the shape

of the mop head. The mop is then trimmed to suitable length.

In the assembled form as shown in Fig. 1, it will be seen that the material is allowed to expand symmetrically around the mop handle and yet is firmly held and bound at the head. In this expanded form the end of the handle 1 is protected by the mop material 2 which closes in at the center to cover the end. If, however, the mop should become parted in use and the end of the mop should be brought in contact with the finished surface, the head will prevent scratching.

In finishing the mop the band 4 is drawn around the mop material just below the ring 3. This prevents the upper strands of the mop material from riding up within the upper edge of the ring and forms a complete head, common to all mops of this type. Owing to the fact that the material is drawn over a ring this head will not be dependent in any way upon the skill of the operator. The advantage of this will be readily seen when it is considered that the shape has heretofore been dependent upon tying the mop material by cords which were drawn around the end of the mop handle and knotted.

Various modifications may obviously be made in the form and construction of my device, all without departing from the spirit of my invention if within the limits of the appended claims.

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

1. A mop comprising a handle member having a split end and formed with a peripheral depression about said split end, an integral forming ring lodged on said end

over said depression, mop material hung over said ring and disposed about said handle end, and a wedge within said split end for expanding the handle member to compress the interposed material within said depression and to hold said ring in place.

2. In a mop head, an integral forming ring having a rounded and overhanging upper shoulder for supporting the arch of the mop head and an outwardly extending, depending flange for guiding the inner and outer layers of mop material.

3. A mop comprising a handle member having a split end, an integral forming ring lodged on said end, a mop material hung over said ring, and symmetrically disposed about said handle end, a wedge for expanding said handle end to compress the interposed material and hold the ring in place, said wedge having a rounded head of non-abrasive material disposed axially of said handle and centrally of the surrounding mop material, substantially as shown and described.

4. A mop comprising a handle member having a split end, an integral forming ring having an over-hanging upper shoulder for supporting the arch of the mop material, a mop material hung on said ring, and symmetrically disposed about said handle end, a wedge for expanding said handle end to compress the interposed material and to hold the ring in place.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER H. BILLINGS.

Witnesses:

R. B. ELLMS,

VICTORIA LOWDEN.