Feb. 25, 1941. H. E. HATZENBUEHLER 2,233,289

MOP

Filed Oct. 25, 1938 2 Sheets-Sheet 1

Fig. 1

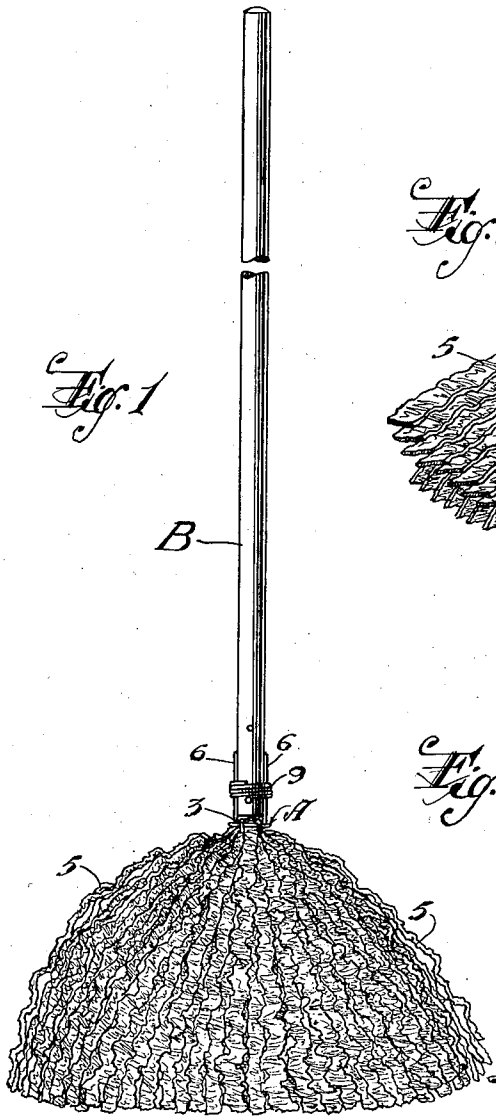


Fig. 2

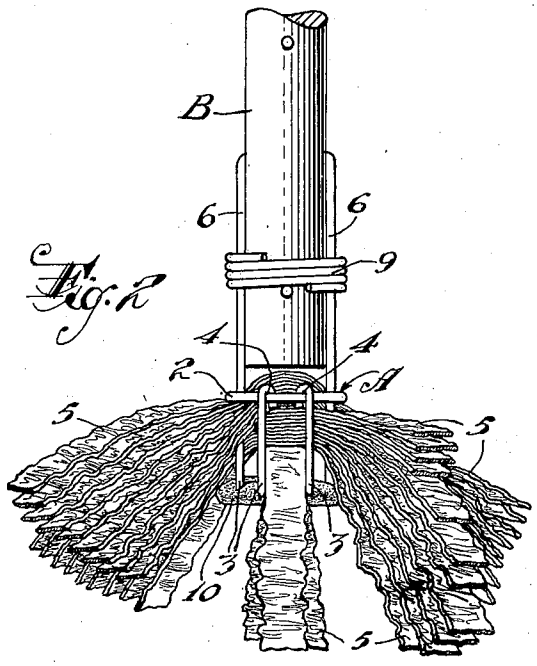
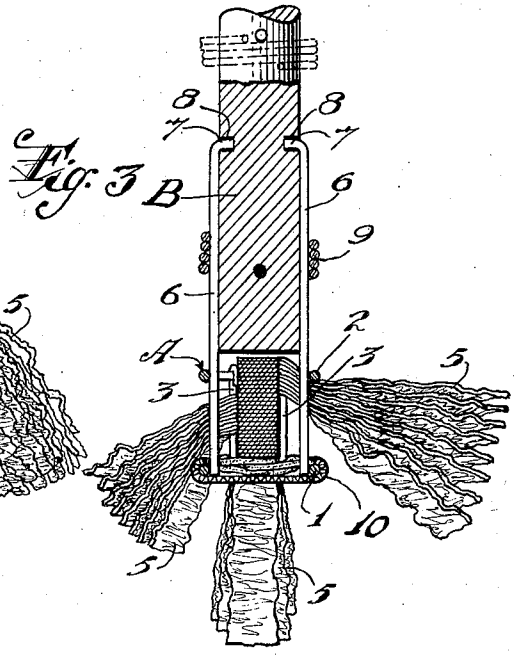


Fig. 3



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Feb. 25, 1941. H. E. HATZENBUEHLER 2,233,289

MOP

Filed Oct. 25, 1938 2 Sheets-Sheet 2

Fig. 4

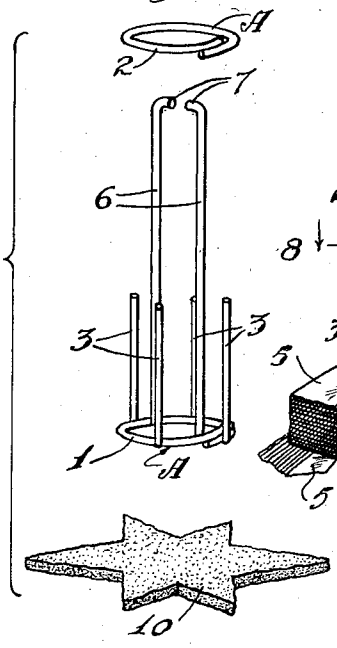


Fig. 5

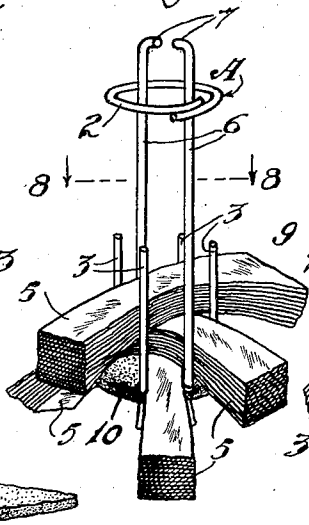


Fig. 6

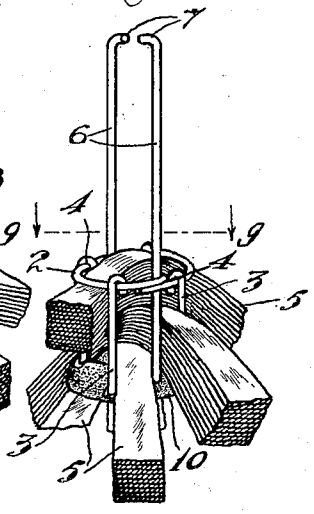


Fig. 8

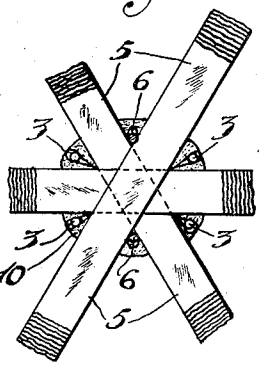


Fig. 9

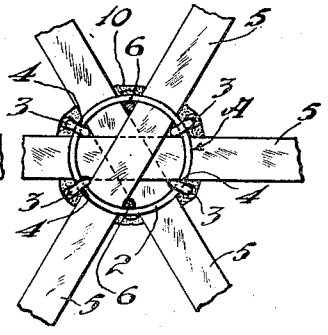
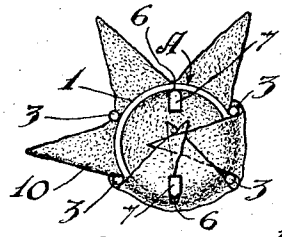


Fig. 7



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Patented Feb. 25, 1941 2,233,289

UNITED STATES PATENT OFFICE

2,233,289

MOP

Hugo E. Hatzenbuehler, Newark, N. J.

Application October 25, 1938, Serial No. 236,864

1 Claim. (Cl. 15—229)

This invention relates to a mop head and particularly to a dry dusting, cleaning and polishing mop head which includes a mass of crinkled paper strips impregnated with oil or the like.

A prime object of the invention is to provide a mop head of this character which shall be simple and inexpensive in construction so that the mop head economically can be discarded and replaced after it has become soiled from use.

Another object is to provide such a mop head which shall include novel and improved means for securing together a plurality of bundles of paper strips, so that the bundles can be easily and quickly assembled and securely bound together at slight cost.

Another object is to provide a novel and improved method of making a crinkled paper mop head whereby the paper can be easily and thoroughly crinkled and shall remain in crinkled condition for an indefinite period of time.

Other objects, advantages and results of the invention will appear from the following description when read in conjunction with the accompanying drawings in which

Figure 1 is a side elevation of a mop embodying my invention.

Figure 2 is a side elevation of the mop head on an enlarged scale with portions of the paper strips omitted for clearness in illustration.

Figure 3 is a vertical longitudinal sectional view through the mop head.

Figure 4 is an exploded perspective view showing various parts of the holder for the mop head.

Figure 5 is a perspective view of the mop head showing the parts partially assembled.

Figure 6 is a similar view showing the parts completely assembled.

Figure 7 is a top plan view of the main frame of the holder and the shield partially applied thereto.

Figure 8 is a horizontal sectional view on the line 8—8 of Figure 5, and

Figure 9 is a similar view on the line 9—9 of Figure 6.

Specifically describing the invention, the mop head includes a holder A which comprises a main frame that includes a base 1 and a cap 2 connected by tie wires 3. As shown, each of the base 1 and cap 2 is a circular wire ring, and the tie wires 3 are equi-distantly spaced circumferentially of the rings in parallel relation to each other. One end of each tie wire is fixedly secured, as by welding, to the base ring 1, while the other ends of certain of the tie wires 3 are looped or hooked over the cap ring 2 and preferably fixedly connected to the cap ring as by welding as at 4. Preferably the rings 1 and 2 are arranged in spaced relation with their centers approximately collinear.

Between the base 1 and the cap ring 2 are firmly clamped a plurality of bundles 5 of paper strips, the bundles being of approximately the same length and being clamped between the cap and base at approximately the middle of their lengths in superposed and crossing relation to each other as shown in Figures 2, 6 and 9. The bundles are held in angular relation to each other by the passing of the bundles between oppositely disposed pairs of the tie wires 3.

Two opposite of the tie wires designated 6 extend upwardly beyond the cap ring to provide means for attaching the mop head to a handle B. The free extremities of the wire 6 are inturned at 7 toward each other to separably enter recesses 8 in the handle B, and the inturned ends 7 are held in said recesses by a band or ring 9 slidable on the handle over the wires 6. The ring also holds the wires against pivotal movement about the inturned end 7, and if desired, the handle may be formed with longitudinal grooves to receive the wires 6. To attach the mop head to the handle, the ring 9 is slipped upwardly on the handle beyond the wires 6 as shown by dotted lines in Figure 3, whereupon the inturned ends 7 of the wires are fixed into the recesses 8. Then the ring 9 is slid downwardly on the handle over the wires 6 as shown by solid lines in Figure 3.

To shield floors or other surfaces over which the mop may be slid from contact with the metal holder, the base ring 1 may be covered with a shield 10 of suitable material such as felt which may be approximately star-shaped. The shield is applied to the base ring by laying the shield against the underside of the ring and folding the points of the shield inwardly between the tie wires as shown in Figure 7, and the points are held in this position by the bundles of paper strips 5 clamped tightly over the points of the shield.

After the bundles of paper strips have been secured in the holder A, the free ends of the strips are crinkled in any suitable manner. Preferably the paper strips are subjected to steam which softens the paper, after which, and while they are soft, the free ends of the strips are squeezed and bent so as to crinkle them as shown in Figures 1 and 2. After the paper has dried, the strips are impregnated with oil or furniture polish, as by dipping the strips into the oil and

then removing the excess oil from the strips in a centrifugal dryer.

The mop embodying the invention is made of inexpensive material, and the structure of the mop head is simple so that it can be manufactured at small cost. The paper strips will remain crinkled for long periods of time, and after the paper has become too soiled for use, the mop head can be discarded in toto.

The details of structure of the mop may be modified and changed by those skilled in the art without departing from the spirit or scope of the invention, and obviously the mop head may be attached to a handle or other manipulating device in any desired manner.

Having thus described my invention, what I claim is:

A mop head comprising a wire base ring and a wire cap ring arranged in spaced relation with their centers approximately collinear, a plurality of wires rigidly connected to both of said rings in spaced relation circumferentially thereof to secure said rings together, and a plurality of bundles of strips of material each clamped at approximately the middle of its length between said base ring and said cap ring in superposed and crossed relation to the other bundles and extending diametrically of said rings between oppositely disposed pairs of said wires, and a shield for said base ring comprising a piece of material underlying said base ring with its edges folded inwardly over the ring and clamped between the base ring and said bundles of strips of material.

HUGO E. HATZENBUEHLER.