Oct. 24, 1939. M. KORNER ET AL 2,176,908

MOP

Filed Feb. 18, 1938

Fig. 1

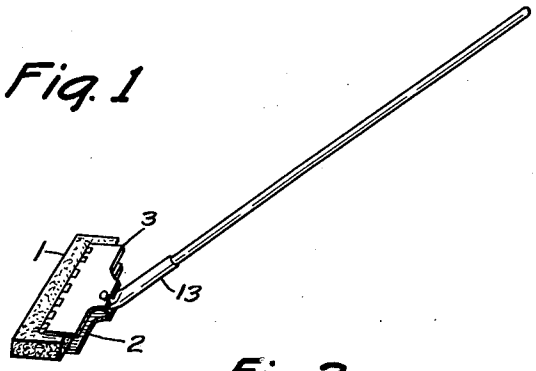


Fig. 2

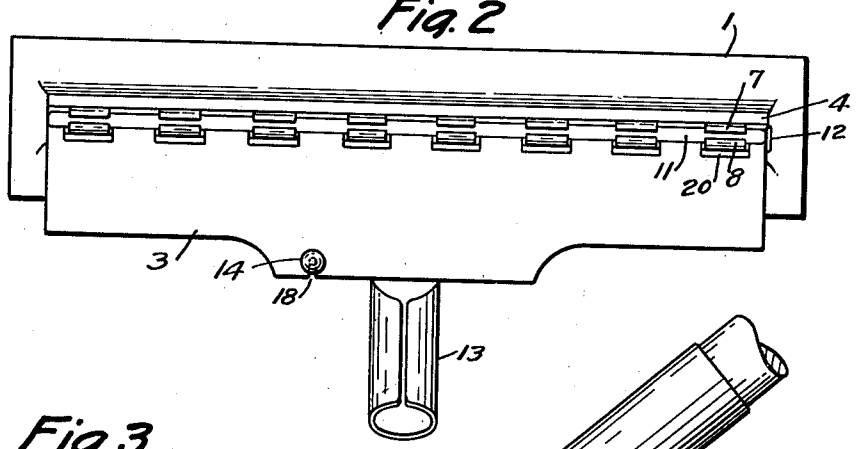


Fig. 3

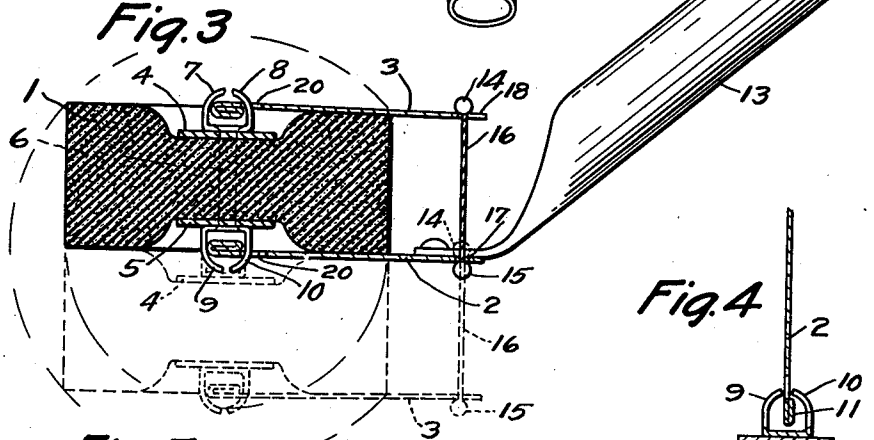
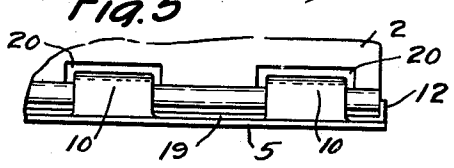


Fig. 4

Fig. 5



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MOP

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2 Claims. (Cl. 15—119)

The purpose of this invention is to provide improvements in the design of a mop of the type used for floors or other surfaces, and in which a block of sponge rubber or other similar material may be used; in which both edges of the mop are available for use, and also in which the mop may be held in one hand while it is turned over from one side to the other and wrung by the other.

Devices of this nature have been provided wherein the mop is attached to the handle and may be wrung independently or by forcing plates against the sides, however, these devices are inconvenient, and, therefore, it is desirable to improve the construction, and provide such a mop in which the mop may be permanently held by a handle from one side, and a member pressed against the handle by the thumb or by the other hand when it is desired to wring the mop, and also in which the mop may be turned over so that either edge is available for use.

The object of this invention is, therefore, to provide improvements in the construction of mops, wherein a handle is attached to one side and a holding plate to the other, in which the plate may be forced against the handle from either the top or bottom to wring the mop.

Another object is to provide improvements in a mop of this type, in which either surface of the mop may be used.

Another object is to provide improvements in mops of this type, in which the mop is readily detached from the handle.

Another object is to provide improvements in mops of this type, in which the mop is hinged about the end of a handle and held in working position by a holding means adapted to be applied from either side.

A further object is to provide a mop of this type in which plates are normally permanently secured to the opposite sides of the mop, and these plates are provided with removable holding means for the handle and a wringing plate.

And a still further object is to provide a mop of this type, in which both edges are available for use, and in which both sides may be wrung by pressing them against the handle which is of a simple and economical construction.

With these ends in view the invention embodies a mop comprising a block of sponge rubber or other suitable material, plates permanently attached to the opposite sides of said block with hinge members extending outward therefrom, a plate held in the said hinge members at one side of the block having handle holding means permanently mounted thereon, another similar plate hingedly attached to the opposite side of the block and positioned to extend backward from either side of the block, and means removably holding said latter plate to the plate upon which the handle is mounted.

Other features and advantages of the invention will appear from the following description taken in connection with the drawing, wherein:

Figure 1 shows a general view of the mop.

Figure 2 is a plan view of the mop.

Figure 3 is a cross section through the mop showing it in one position in full lines, and in an inverted position in dotted lines.

Figure 4 is a detail showing a section through the hinge member with part of one of the plates shown therein.

Figure 5 is a detail showing one end of the hinge member at which a stop is provided for limiting the movement of the plates when being inserted in the hinge member.

In the drawing the mop is shown as it may be made, wherein numeral 1 indicates the block of material forming the mop, numeral 2, the handle holding plate, and numeral 3, the wringing plate.

The mop 1 is preferably formed of a block of sponge rubber, however, it will be understood that any suitable material may be used, and this is provided with plates 4 and 5 indented in the opposite sides and secured together by rivets or bolts 6. Open fingers 7, 8, 9 and 10 extend outward from the plates 4 and 5, and the plates 2 and 3 are hingedly held therein. It will be noted, in Figure 4, that one of the plates 2 is shown in a vertical position, and, in this position, the plate is free to slide with a bead 11 thereon inside of the opening between the members 9 and 10, and these plates are moved inward until their leading edges engage a stop 12 at the far side, thereby preventing the plates sliding straight through when the device is being assembled.

The plate 2 on the lower side of the mop, in the position shown in Figure 3, is permanently attached to a socket 13 in which a handle may be inserted, as shown in Figure 1, and the plate 3 is on the opposite side of the mop, and these two plates are held together by buttons 14 and 15 on a strand 16. The strand passes through an opening 17 in the plate 2, and is held in a notch 18 in the plate 3, and it will be noted that, when the position of the mop is reversed, the block 1 will be rotated about the hinge on the plate 5 until it assumes the position shown in dotted lines in Figure 3, and the plate 3 will be moved around

until it is in the position indicated by the dotted lines, and, when it is in this position, the button 15 will be drawn downward with the strand 16 in the dotted position, and with the button 14 on the opposite side of the plate 2, in which it is indicated by the dotted lines, and, when the parts are in this position, the button 15 may be placed in the slot 18 in which the button 14 is shown in full lines.

The hinge members are formed as shown in Figures 4 and 5, with open hinge members spaced apart with spaces 19 between them, and the plates 2 and 3 are provided with openings 20 through which the members 7, 8, 9 and 10 may extend when the plates are bent downward in the holding or gripping position. It will be understood, however, that these hinged parts may be formed in any manner or by any means, and also that the plates 2 and 3 may be attached to the block of material in any other manner or by any means.

It will be understood that other changes may be made without departing from the spirit of the invention. One of which changes may be in the use of other means for attaching a handle to the plate 2, another may be in the use of other means for holding the plates 2 and 3 together, and still another may be in the use of other means for securing the plates to the block of material.

The construction will be readily understood from the foregoing description. In use the mop may be provided as shown and described, and it will be noted that the block 1 is removably attached to the handle so that it may readily be removed and replaced as may be desired. The unit comprising the block consists of a mop element, indicated by the numeral 1, with the plates 4 and 5, and the members 7, 8, 9 and 10, all of which are permanently attached to the element 1, and these are placed on the handle by inserting the plate 2 between the members 9 and 10, as shown in Figure 4, and with the bead 11 on the inside, and then, after this is in place, turning the block to a horizontal position either as shown in full lines in Figure 3, or as indicated by the dotted lines. When this is in place, the plate 3 may be inserted between the elements 7 and 8 in a similar manner, and then this may be moved downward to a horizontal position and the button 14 snapped in the slot 18. The projections 12 are provided at the far ends of the hinge members in order to prevent the plates passing out of the opposite ends thereof. This installs the mop in the working position, and, when it is desired to use the opposite edge, it is only necessary to move the button 14 out of the slot, turn the block 1 with the attachments completely around, as indicated by the dash lines, with the inner end of the plate 2 as a center, and with the plate 3 assuming a horizontal position on the lower side of the element 1. When the complete unit has been turned to the position indicated by the dotted lines, the button 15 is moved downward, with the strand 16 passing through the hole 17, and the button 15 may then be snapped into the slot 18. This makes it possible to hold the element 1 in working position either above or below the plate 2 to which the handle is permanently attached. At the same time, when it is desired to wring the mop or element 1, it is only necessary to hold the handle in one hand, and press downward or upward on the plate 3, as, with the mop in the position shown in full lines in Figure 3, one side of the mop may be wrung, whereas, with the mop turned over to the position indicated by the dotted lines, the opposite side may be wrung by forcing the plate 3 upward. This makes it possible to wring both sides of the mop by the simple movement of pressing downward or pulling upward on the plate 3, and, while this is taking place, the mop is firmly held by the handle through the plate 2. It will also be noted that, with this particular hinge, it is possible to assemble the parts without screws, nuts or bolts, as the plates are assembled with a free sliding movement in the sides of the block of material which enables the consumer to connect or assemble the metal parts with the rubber slab without using screws or tools of any kind.

Having thus fully described the invention, what we claim as new, and desire to secure by Letters Patent, is:

1. A mop comprising an elongated rectangular shaped slab of material, a handle having a plate extending from one end, with the plate hingedly attached to one side of the slab, a complementary plate member hingedly attached to the opposite side of the slab, the points at which the said plate of the handle and plate member are hingedly attached being located midway of the width of the slab and on the center extending lengthwise thereof, and means removably holding the free edge of said plate member to the plate of the handle, with one-half of the slab therebetween and the other half protruding in position for mopping; said mop characterized in that the holding means of the plate member to the plate of the handle may be released, and the slab rotated about the point where the plate of the handle is hingedly attached thereto through an angle of 180°, in which position the said plate member may be removably held to the opposite side of the plate of the handle by the said holding means with the opposite face of the slab protruding.

2. A mop, as described in claim 1, further characterized in that the means by which the slab of material is hingedly attached to the plate of the handle and plate member comprises strips of material permanently secured to and indented in the said slab with open prongs spaced along said strip and extending therefrom, and beads on the edges of the said plate of the handle and plate member, with the said plates adapted to slide between the said prongs, with the beads on the inside, and with the prongs adapted to pass through openings along the plates adjacent the beads, providing a complete 180° movement of the parts, and also providing easy removal of the said slab from the said plate of the handle and plate member.

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