July 7, 1959 P. S. VOSBIKIAN ET AL 2,893,033

MOP HANDLE CONNECTION WITH MOP BODY PORTION

Filed March 11, 1957

Fig. 1.

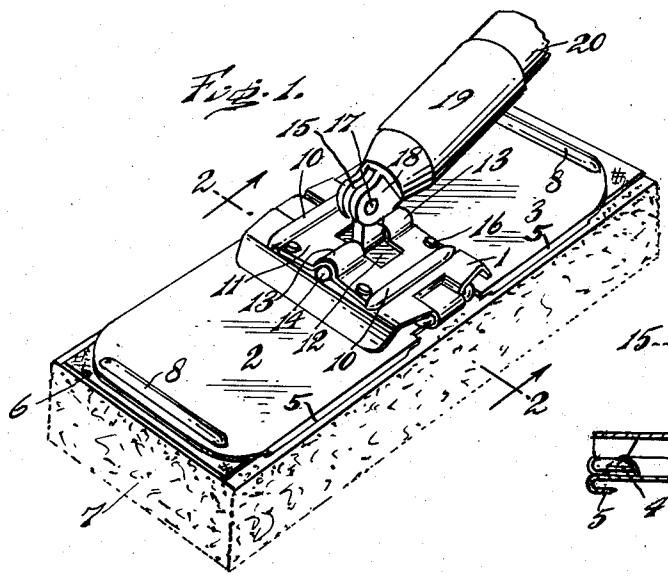


Fig. 2.

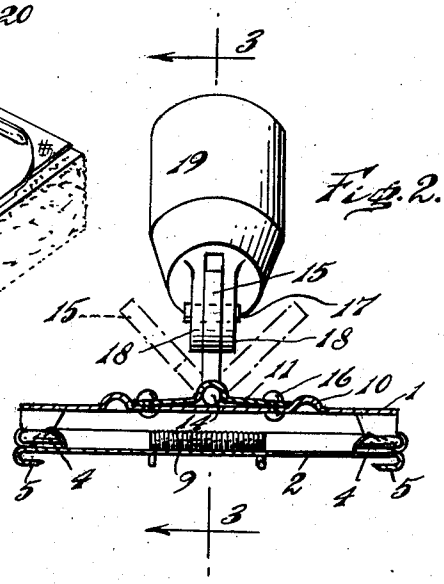


Fig. 3.

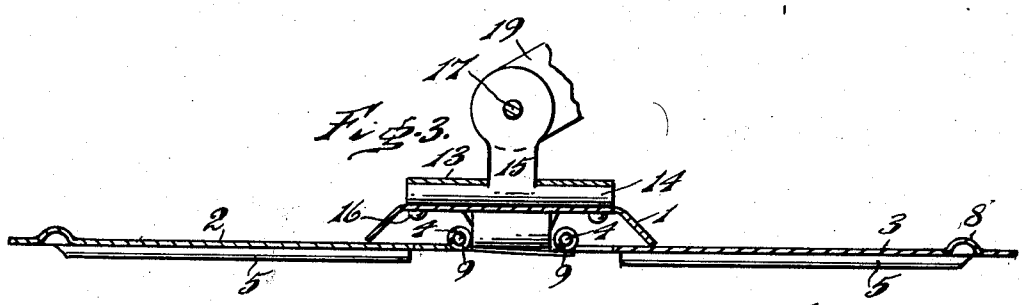


Fig. 8.

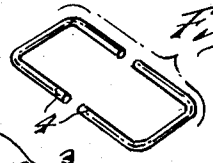


Fig. 4.

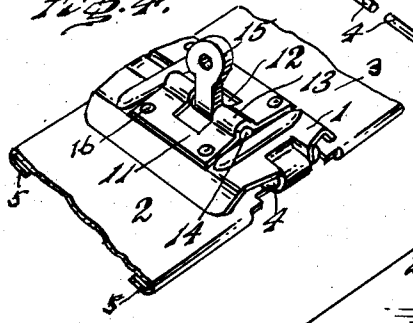


Fig. 5.

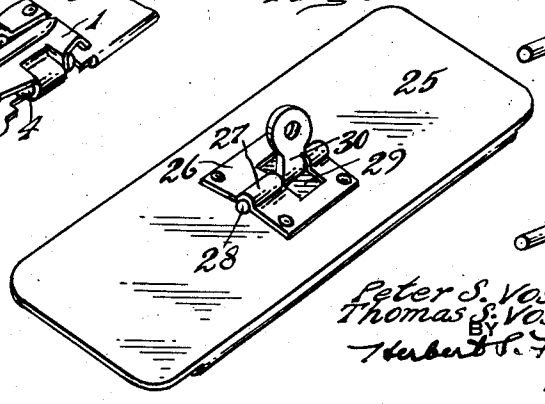


Fig. 6.

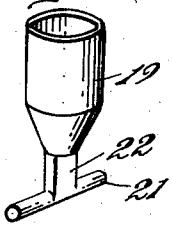
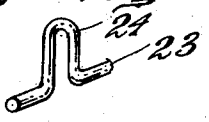


Fig. 7.



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MOP HANDLE CONNECTION WITH MOP BODY PORTION

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3 Claims. (Cl. 15—144)

The object of this invention is to devise a novel connection for securing a mop handle to the body portion of a mop.

A further object of the invention is to devise a novel construction and arrangement of a mounting comprising a plate of spring material having a channel extending across it and open at its bottom, said channel receiving a handle connection in the form of a rod received in the channel and having an arm, stud or post which extends upwardly through an opening in the spring plate and is pivotally connected with a handle socket to which the mop handle is connected. The rod bears against a body portion of the mop structure and its diameter is greater than the depth of the channel so that when the plate is secured to the body portion a pressure is placed on the rod to provide a frictional contact which restricts but does not prevent the turning movement of the rod.

The body portion of the mop has operatively connected with it in any desired manner a strip, pad or block of cleaning material of any desired type which, when moved over a surface to be cleaned, acts as a dust mop, a wiping mop, a wet or dry mop or as a waxing and polishing mop, in accordance with the character of cleaning material employed.

The body portion may consist of a single strip of rigid material, or, if an extracting type of mop is desired, of a plate in hinged relationship with a pair of backing members which carry the cleaning material so that when the backing members are pressed towards each other an extracting operation will be effected.

The arm of the bearing rod may be integral with the rod or connected to it in any desired manner.

With the foregoing and other objects in view as will hereinafter clearly appear, our invention comprehends a novel mop having a frictional adjustable connection between the handle and body portion of the mop.

It further comprehends a novel connection having a spring member having a channel extending across it and open at its bottom, whereby, when a bearing rod is in the channel and the member is fixed to a body portion of the mop, the bearing rod is clamped between the spring member and the body portion.

For the purpose of illustrating the invention, we have shown in the accompanying drawings preferred embodiments of it which we have found, in practice, to give satisfactory and reliable results. It is, however, to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized, and the invention is not limited, except by the scope of the appended claims, to the exact arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a perspective view of a mop, embodying our invention.

Figure 2 is a section on line 2—2 of Figure 1 with the sponge removed.

Figure 3 is a section on line 3—3 of Figure 2.

Figure 4 is a broken away perspective view of an embodiment of the invention showing the bearing rod channel extending transversely of the mop instead of longitudinally as in Figure 1.

Figure 5 is a perspective view of an embodiment of the invention in which a single backing member is employed for the cleaning material instead of a pair of hinged backing members as in Figure 1.

Figure 6 is a perspective view of a bearing rod and its post, the latter being fixed to a handle socket.

Figure 7 is a perspective view of another form of bearing rod and post.

Figure 8 is a perspective view of the hinge pins.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:

In the embodiment shown in Figures 1, 2 and 3, the mop has a body portion **1** in the form of a platelike member of rigid material such as metal or plastic, having opposite sides overhanging the inner ends of backing members **2** and **3** which are hinged together by hinge pins **4** around which opposite side portions of the body portion are deflected so that the body portion carries the backing plates. Opposite side, marginal portions are bent downwardly and inwardly as at **5** to slidably receive a flexible or other strip **6** secured to the cleaning material **7** which may be in the form of a strip, pad or block depending upon the purpose of the mop and the type of cleaning, waxing or polishing desired.

The backing members may have upwardly deflected ribs **8** forming pockets into which the backing strip for the cleaning material may extend to assist in retaining the cleaning material in assembled condition with the backing members.

Springs **9** carried by the hinge pins tend to move the backing members towards the body portion.

The foregoing is one of many constructions and arrangements which may be employed for operatively connecting the cleaning material with the body portion.

The body portion may have upwardly extending spaced ribs **10** to position a spring member **11** which as shown is in the form of a strip or plate of spring material having central opening **12**, and at opposite sides of such opening the plate is deflected upwardly as at **13** to form a channel open at its bottom and ends and disposed longitudinally of the mop as in Figure 1 or transversely of the head of the mop as in Figure 4.

A handle connector **14** in the form of a round bearing rod is mounted in such channel and rides on the top face of the body portion and has a central stud or post **15** extending upwardly through the opening **12**. The spring member near its corners is fixed to the body portion by fastening devices such as for example the rivets **16** or other suitable fastening means. The diameter of the bearing rod is greater than the depth of the channel in which it is mounted so that a spring tension is exerted against the rod to restrict but not prevent its turning movement.

The opening **12** is in the form of a slot extending through and transversely across the channel **13**, and is of greater length than width. The stud **15** is wider than the width of the slot but is of a length to permit the stud to be inserted from beneath through the slot. The stud and bearing rod are then turned to bring the bearing rod in registry with the channel. The side walls of the slot align the stud and act as guides for its movement during the operation.

In Figures 1, 2 and 3, the upper end of the stud or post **15** is connected by a pivot member **17** to ears **18** of a handle socket **19** of any desired construction and to which a mop handle **20** is connected.

The connector **14** may be in the form shown in Figure 6 in which a bearing rod **21** has a stud **22** welded or otherwise fixed to the handle socket **19**, or in the form shown in Figure 7 wherein the bearing rod **23** has a central loop **24**.

In Figure 5, instead of hinged backing plates carried by the body portion, the backing for the cleaning material is in the form of a flat strip or plate **25** of rigid material, and the body portion **1** is omitted. The plate **25** forms the body portion of the mop and a tension plate **26** is riveted to it. This plate **25** is the same construction as in Figure 1, having a channel **27** open at its bottom and ends to receive a bearing rod **28** and has an opening **29** through which a stud **30** carried by the bearing rod extends. The stud **30** is pivotally connected with a handle socket in a similar manner to that shown in Figure 1. It will thus be clear that the bearing rod contacts the top face of the bearing plate **25** and the spring member presses the bearing rod against the plate **25**. The sides of the plate **25** at opposite sides are deflected to form side channels into which the covering strip for the cleaning material is slid.

When the hinged backing members and body portion which carries them is used as in Figures 1, 2 and 3, an extracting type of mop is provided, since the extraction operation will take place when the backing members are pressed towards each other.

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

1. A mop, comprising a body portion, cleaning material carried by the body portion, a spring member having a channel closed at its top and open at its bottom, with a top opening through the closed top of the channel said spring member being fixed at marginal portions to the top face of the body portion, a bearing rod in said channel riding on said body portion and having a stud insertable from the bottom of the spring member through the top opening and extending upwardly through said opening, said spring member pressing the bearing rod against the body portion, and a mop handle connected with said stud.

2. The construction defined in claim 1, wherein the spring member is in the form of a flat plate, and the diameter of the bearing rod is of greater depth than the depth of said channel.

3. A mop, comprising a body portion having upwardly extending spaced ribs, cleaning material carried by the body portion, a plate of spring material positioned between said ribs fixed at marginal portions to the body portion and having a channel extending across it, said channel being closed at its top and open at its bottom, a bearing rod in said channel and pressed against said body portion by said plate, said channel having a top opening and said rod having a part extending upwardly through said top opening, and a mop handle connected with said part.

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