Apr. 3, 1923. 1,450,556

W. J. McKEEVER

MOP

Filed May 23, 1922

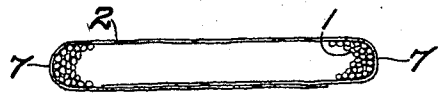


Fig. 2.

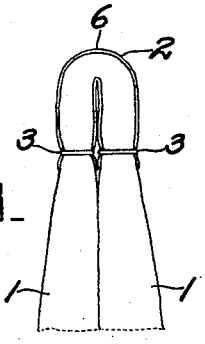


Fig. 3.

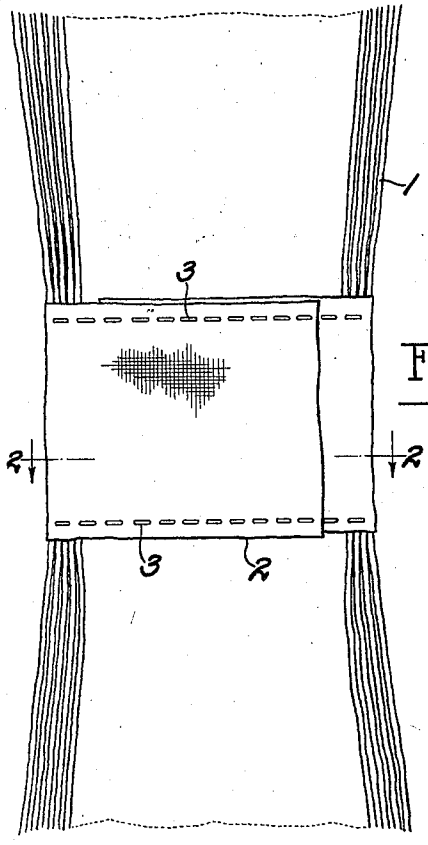


Fig. 1.

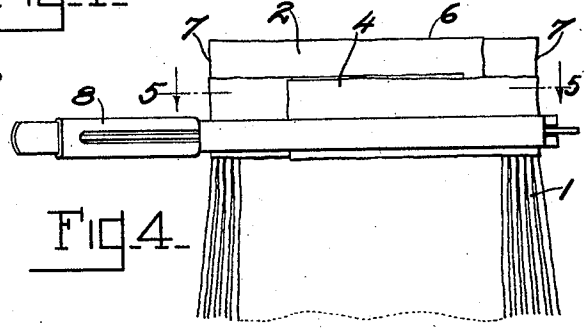


Fig. 4.

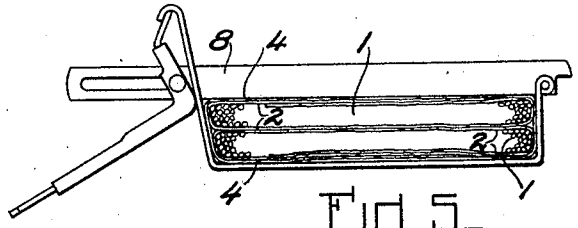


Fig. 5.

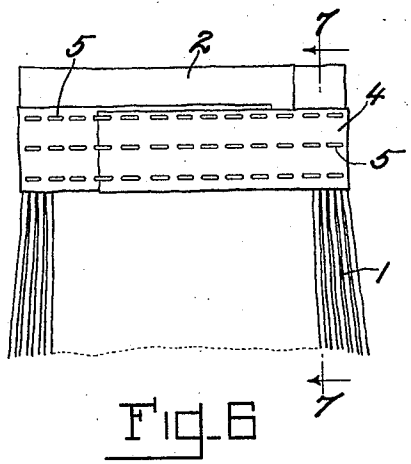


Fig. 6

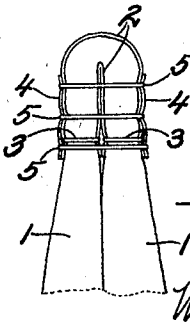


Fig. 7.

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UNITED STATES PATENT OFFICE.

WILLIAM J. McKEEVER, OF CAMBRIDGE, MASSACHUSETTS.

MOP.

Application filed May 23, 1922. Serial No. 563,013.

To all whom it may concern:

Be it known that I, WILLIAM J. McKEEVER, a citizen of the United States, residing at Cambridge, county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Mops, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to floor mops and is an improvement upon the device shown in United States Patent No. 832,413, October 2, 1906, to F. W. Pendergast.

The mop is preferably made of a large number of threads, strings or strands of fibrous material, preferably cotton yarn, laid out lengthwise in a pile and then folded over transversely in the middle, and reinforced and bound together to form the mop head. When the mop is to be used it is inserted in a holder having a suitable handle for use in manipulating the mop.

In the device of the Pendergast patent above referred to, there is no proper protection for the top of the mop, the strands of thread or yarn being exposed at the fold so that the strands are frequently caught on rough places when in use. Moreover, it is hard to get the mop into and out of the clamp of the holder as the teeth of the clamp catch in the yarn. One object of the present invention is to provide a protector for the entire head of the mop so that the yarn will not in any way interfere with the clamp nor catch in the rough places of the floor, and so that it will be greatly protected against wear. Another feature of the invention consists in the method by which the strands of the mop are folded and combined with the reinforcement.

The invention will be fully understood from the following description when taken in connection with the accompanying drawings, and the novel features thereof will be pointed out and clearly defined in the claims at the close of this specification.

In the drawings, Fig. 1 is a plan view of the layer of strands, having the band of reinforcing material wound around the same and stitched thereto before it is folded.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a vertical section showing the reinforced layer of strands after it is folded.

Fig. 4 is a view in elevation, showing the folded and reinforced layer of Figure 3 and the outer band wrapped around the same before stitching.

Fig. 5 is a section on line 5—5 of Figure 4.

Fig. 6 is a plan view of the mop in its finished form after the outer band has been attached.

Fig. 7 is a section on line 7—7 of Figure 6.

Referring now to the drawings, the threads 1 out of which the mop is formed are first laid out straight, as shown in Figure 1, in a flat pile of sufficient thickness and width to form half the thickness of the finished mop. A strip of canvas or other suitable reinforcing material 2 is then wound around the layer of strands transversely thereof, midway of the length of the layer, so as to form a fairly tight band, and is secured to the layer of strands by rows of stitching 3 which pass through both layers of canvas and the intermediate layers of strands so as to firmly hold the canvas and strands together, as shown in Figure 1. The layer with the attached reinforce is then folded along the median line of the canvas reinforce band.

The strip of canvas should be of sufficient width, that is, in the longitudinal direction of the threads or strands, so that when the canvas-bound layer of strands is folded transversely through the middle of the reinforce band the band will extend for some distance down on each side of the fold; that is, the band of canvas before being attached should be of a width twice the width of the completed head portion of the mop which is to be clamped in the holder. See Figure 3. Preferably the rows of stitching are on each side of the fold.

When the reinforced layer has been folded, as above mentioned, it will be seen that the reinforcing canvas covers the outer face of the fold and extends down on each of the two outside faces, and there are also two layers of the canvas on the inside of the fold in contact with each other, that is, one layer for each face of each half of the fold, and also the reinforcement extends over the side edges. A tape 4 is then wrapped around the canvas reinforced head and the mop is preferably placed in a clamp 8 to hold it in shape and then put into a press (not shown) so as to flatten the fold preparatory for the stitching of the outside tape or clamping band 4.

After it has been sufficiently pressed it is

taken out of the press. The tape is then secured by rows of stitching 5 which pass entirely through the tape and the layers of reinforcing canvas 2 and the enclosed folded strands, as shown in Figures 6 and 7. Preferably there are several rows of this final stitching, there being three of such rows shown in the drawings. Preferably the clamp 8 is kept on the head during the process of stitching the tape band 4, and is then removed.

It will thus be seen that in the finished mop the fold of the strands is completely covered and protected by the first layer of canvas, both at the edge 6 of the fold which forms the end of the head, and also around the side edges 7, and there are two layers of the canvas between the two inner faces of the fold, all secured together by rows of stitching. In addition thereto there is the outer band of tape which is secured by independent rows of stitching passing through both the canvas reinforcement and the strands, and covering the rows of stitching 3 of the first layer of canvas.

It will thus be seen that the strands which compose the mop are completely protected in all parts which are to be embraced by the clamp of the holder, which thus make it much more durable, and also by reason of there being no exposed strands and of the smooth outside surface of the head, it is much easier to get it into and out of the holder and there is no catching of the strands in the teeth or other parts of the holder.

What I claim is:—

1. A mop comprising a layer of strands folded upon itself, having a flexible reinforce extending over the fold and on both outer faces of the head for some distance back from the folded edge and on the edges and inner faces of the two layers of the folded portion, said reinforce being secured by stitches extending through said reinforce and the embraced layers of strands, and a clamping band of flexible material extending around the reinforced portion of the head and secured thereto by stitches passing through said clamping band and interposed layers of strands and reinforcing material.

2. A mop comprising a layer of fibrous material folded upon itself, having a flexible reinforce extending over the fold and for some distance back from the fold and around each edge of each layer of the fold, and across both inner faces of both layers of the fold, so that there are two contiguous layers of reinforcing material between the two inner faces of the folded layer, and a clamping band of flexible material encircling the reinforced folded layers and secured thereto.

3. A mop comprising a layer of fibrous material folded upon itself, having a flexible reinforce extending over the fold and for some distance back from the fold and around both edges of each layer of the fold, and across both inner faces and both layers of the fold, so that there are two contiguous layers of reinforcing material between the two inner faces of the folded layer, said reinforce being secured to each layer of the fibrous material by stitches passing through said reinforce and the embraced layers, and a clamping band encircling the said reinforced head and secured thereto by stitches passing through the said clamping band and interposed layers of fibrous material and reinforcing material.

In testimony whereof I affix my signature.

WILLIAM J. his × mark McKEEVER.

Witnesses:
EDITH R. GALE,
ALICE H. MORRISON.