June 18, 1940. J. D. LORENZ ET AL 2,204,806

FOLDABLE BRUSH OR SQUEEGEE

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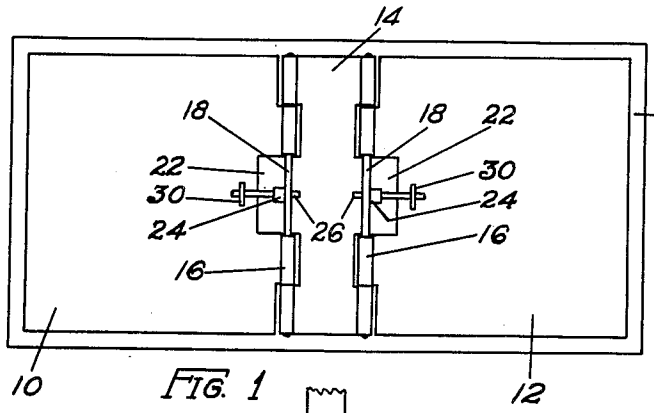


FIG. 1

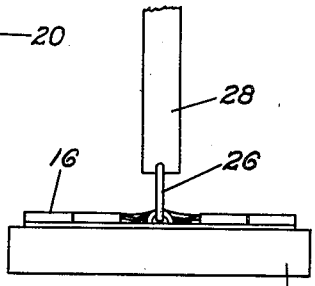


FIG. 3

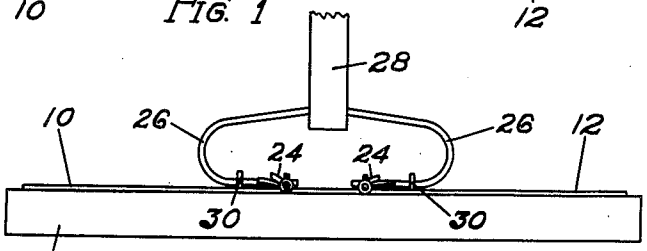


FIG. 2

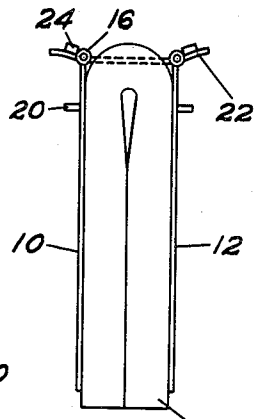


FIG. 4

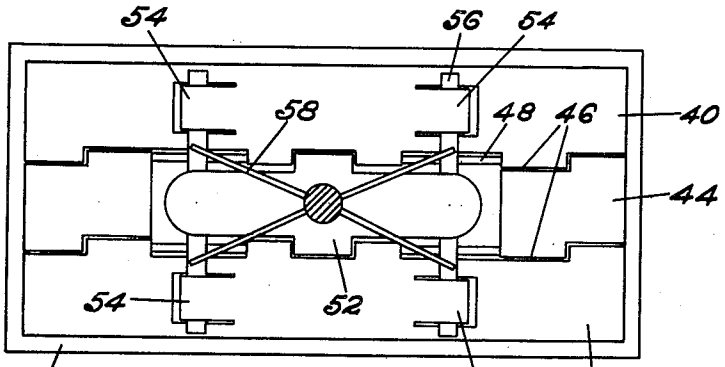


FIG. 5

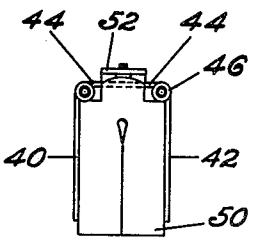


FIG. 7

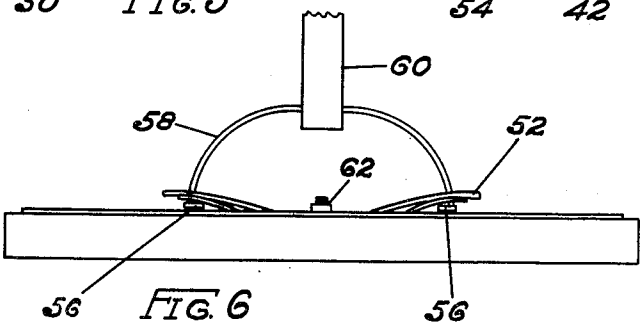


FIG. 6

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FOLDABLE BRUSH OR SQUEEGEE

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1 Claim. (Cl. 15—119)

This invention relates to an improved foldable brush, mop or squeegee, and has, for one of its principal objects, the provision of a squeegee or mop from which the water can be most conveniently expressed or expelled.

In the preferred embodiment of the invention, there is presented a section of absorptive material such as sponge, sponge rubber, fabric, mop material or the like mounted upon a backing or base which is hinged so as to be inwardly closing, permitting the absorptive layer to be compressed upon itself for the expelling of water or other fluids therefrom.

One of the important objects of the invention is to provide a folding mop or the like which is so constructed that while in use, it is prevented from collapsing or folding upon itself, this being accomplished by a detachable handle construction.

Another important object of the invention is to provide a foldable mop or squeegee of the class described in which the hinged back plates are so constructed that the hinges may be either on the outside or inside, and wherein the apparatus can be manipulated with equal facility in either case.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawing and following specification.

The invention, in a preferred form, is shown in the drawing and hereinafter more fully described.

In the drawing:

Figure 1 is a top plan view of the improved foldable brush or squeegee constructed in accordance with the principles of this invention.

Figure 2 is a side elevation of the device of Figure 1, showing the same with an operating handle attached thereto and in position thereon.

Figure 3 is an end view of the device of Figure 1, showing the handle in position.

Figure 4 illustrates the mop or squeegee of Figures 1, 2 and 3 in collapsed or folded position, in which position the wash water or other liquid is conveniently expelled therefrom.

Figure 5 is a top plan view of another foldable brush, mop or squeegee constructed in accordance with the principles of this invention and illustrating a slight modification.

Figure 6 is a side elevation of the structure of Figure 5.

Figure 7 is an end view of the device of Figure 5, showing the same with the handle removed and in collapsed or water expelling position.

As shown in the drawing:

The reference numerals 10 and 12 indicate generally the metallic plates which comprise back portions of the improved foldable mop or squeegee of this invention. These plates are joined by a central smaller plate 14 which is connected to the outermost plates 10 and 12 by means of hinges 16 and hinge pins 18.

Fastened to the under-face of the back plates 10, 12 and 14 by means of glue, vulcanizing or in any other suitable manner is a pad or a layer of some material adapted for washing or mopping purposes such as sponge rubber, fabric, mop strands or the like.

As best shown in Figure 1, the central plate 14 has a pair of side extensions 22 which overlap the end plates 10 and 12 respectively, and mounted on or formed integral with each extension is a loop 24 through which the inner end of a bracket 26 is adapted to pass as best shown in Figure 2. This bracket element 26 is attached to a handle 28, and the juxtaposed ends before passing through the loops 24 also are fitted into and passed through rings or loops 30 which are mounted on or integral with the plates 10 and 12. In this manner, the metal plates 10, 12 and 14 are held in flat alignment so long as the handle 28 and its attached bracket 26 are in position, and the scrubbing pad or squeegee 20 is likewise maintained in a flat operative position.

Whenever it is desired to express the water or other wash liquid from the squeegee pad 20, the handle 28 and its bracket 26 are removed from the rings and loops 30 and 24, whereupon the outer plates 10 and 12 can be moved about the hinges 16 and with respect to the central plate 14, thereby allowing the two halves of the squeegee pad 20 to be brought together as shown in Figure 4, and upon pressure being applied on the plates 10 and 12, water or other contained liquid is very effectively expelled or expressed from the squeegee pad. The plates may then be immediately returned to their normal flat aligned position and the handle and its bracket again inserted, whereupon the device is ready for further use.

In the modified form of Figures 5, 6 and 7, there are two base plates 40 and 42 joined by a central plate 44, hinge elements 46 forming the connection, and a hinge pin 48 is likewise provided. It will be noted that the hinges 46 and the hinge pins 48 extend longitudinally of the structure and the squeegee pad 50, thereby enabling the same to be doubled over into the shape

shown in Figure 7, which is preferred in some instances.

In order to maintain the plates in proper alignment when the device is in use, a middle plate 52 is provided which extends along the longitudinal axis of the central plate 44, but slightly above the level thereof and preferably parallel thereto for the major portion of its extent as best shown in Figure 6.

Cooperating with this element 52 are struck-up portions 54 of the plates 40 and 42 respectively, and a pair of strips 56 are adapted to be fitted into the space between the upwardly projecting ends of the middle plate 52 and the upwardly-struck projections 54 of the plates 40 and 42, all as illustrated in Figure 6. These strips 56 form part of a handle structure which includes a resilient bracket element 58 similar to the bracket 26 of Figures 1 to 3 inclusive and the usual operating handle 60 which may be of wood, metal or other material. The central plate 52 is preferably held in position by means of a nut 62, and when the handle together with its bracket structure and the attached strips 56 are removed, the entire device can be folded over upon itself as shown in Figure 7 for the purpose of expressing water or other liquids therefrom.

Although the drawing illustrates a form in which the handle is detachable, a permanently affixed handle may be used equally well being also mounted either in the space 14 or 52.

It will be obvious that herein is provided a squeegee or mop which, besides constituting an effective cleaning and scrubbing device, can also be very conveniently and readily dried or wrung out whereby contained water or other liquids can be readily expelled or expressed therefrom, rendering the device immediately suitable for further operations. The amount of water expressed from the squeegee depends simply upon the amount of pressure which can be placed on the back or supporting plates, which obviously can be considerable without the exertion of any great force.

We are aware that many changes may be made and numerous details of construction varied throughout a wide range without departing from the principles of this invention, and we, therefore, do not purpose limiting the patent granted hereon otherwise than as necessitated by the prior art.

We claim as our invention:

A foldable squeegee, comprising a pair of supporting plates, a central plate of lesser extent than the supporting plates having side extensions overlapping each supporting plate, hinges joining the central plate to the supporting plates, loops integral with each supporting plate and with each side extension of the central plate, and a scrubbing element fastened to the under side of the plates, together with a bracket removably associated with all four loops, whereby the plates are maintained in flat alignment for scrubbing operations, and a handle connected to the upper portion of the bracket.

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