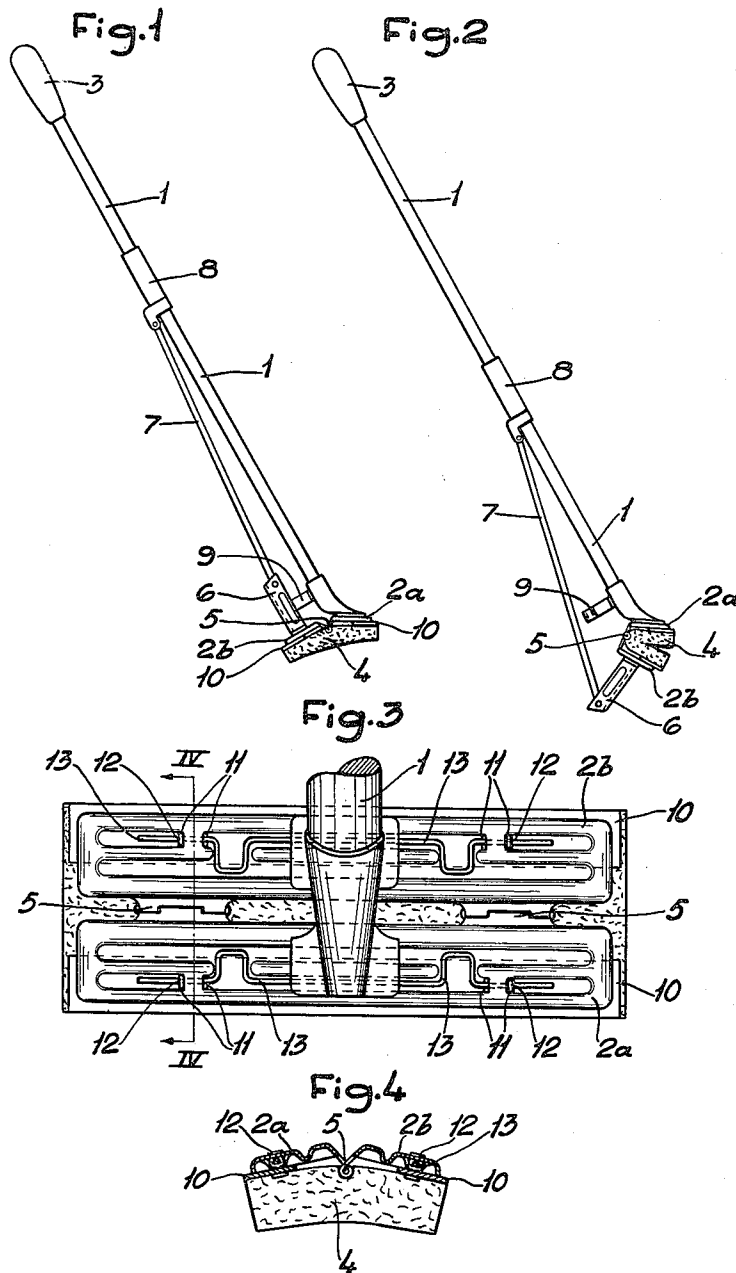


Aug. 23, 1955

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WRINGER TYPE SPONGE MOP

2,715,743

Filed June 19, 1951



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WRINGER TYPE SPONGE MOP

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Application June 19, 1951, Serial No. 232,325

Claims priority, application Sweden June 22, 1950

1 Claim. (Cl. 15—119)

The present invention relates to improvements in mops and more particularly to mops including a rod-like shaft at the lower end of which there is arranged a sponge holder plate consisting of one portion rigidly secured to the shaft and one swingable portion and provided with a sponge, arranged to be squeezed between said two portions upon swinging the one relatively the other.

The squeezing operation of the sponge in mops of the kind to which this invention pertains is generally carried out by means of a member slidable along the shaft and suitably constituted by a sleeve-shaped member surrounding the shaft and articulated to coupling means connecting the sleeve-shaped member and the swingable sponge holder plate portion.

So far the mop hereinabove described is previously known in a great number of embodiments. However, all the several constructions hitherto known and used are affected by a serious drawback in that they either are not capable of performing a good and complete squeezing of the sponge or they are comparatively complicated, comprising a great number of arms, levers, clamps etc. and most often require for their satisfactory operation two sponges, namely one on each plate portion. It is easily realized that the above-mentioned drawback also involves a high cost of manufacture of the mop device which further becomes bulky and unwieldy.

The main object of this invention is therefore to provide a mop which is cheap in manufacture and contains but a few movable parts.

Another object of the invention is to provide a mop the sponge of which can easily be squeezed, to remove effectively most of the water and dirt absorbed therein.

A further object of the invention is to provide a mop that can easily be manufactured in quantity.

According to a broad feature of this invention a mop of the general construction described above is arranged in such a manner that, viewed from the side of the plate at which the sponge is fastened, the angle between the two sponge holder plate portions is less than 180 degrees.

More specifically, in accordance with one feature of this invention said angle should preferably be about 135 degrees.

The above-mentioned and other objects and features of the invention as well as advantages thereof will be more readily understood from the following detailed description when read in conjunction with the accompanying drawings, in which:

Fig. 1 is a side view of a mop according to this invention, the sponge holder plate portions being in their normal position,

Fig. 2 is a side view similar to that in Fig. 1 but with the sponge holder plate portions in the squeezing position,

Fig. 3 is an enlarged plan view of the mop plate showing the arrangement of the sponge fastening device, and

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Fig. 4 is a section on the line IV—IV in Fig. 3.

Referring now to the drawings, and particularly to Figs. 1 and 2 therein, which illustrate one preferred embodiment of the invention, numeral 1 designates a tubular or rod-like shaft at the lower end of which there is arranged a sponge holder plate consisting of two plate portions 2a and 2b and hinge portions 5; one of which plate portions is rigidly mounted on the shaft while the other is swingably arranged as by means of the hinge portions 5. A handle 3 is affixed at the upper end of the shaft and a sponge 4 is affixed to the sponge holder plate suitably in a manner which will be fully described below. Secured to the swingable sponge holder portion 2b is an arm 6 articulated to a lever 7 which, in turn, is articulated to a sleeve-shaped member 8 slidable along the shaft 1. To lock the plate portion 2b in its normal position, the lower part of the shaft is provided with a resilient member 9 intended to be inserted into the arm 6 which may, for that purpose, have a channel-shaped cross-section.

Referring now to Figs. 3 and 4, there is illustrated in these figures a sponge block and a preferred method for fastening the sponge block to its plate. The sponge block consists of the sponge 4 and two comparatively narrow rectangular strips 10 glued on top of the sponge 4 consisting of a relatively soft but resistant material, e. g. wood fibre board. The strips while effectively stiffening up the sponge, do not damage walls, furniture or other objects with which the mop may come into contact when used. In the strips 10 there are openings 11 traversed by lugs 12 which continue through correspondingly situated openings in the holder plates 2a and 2b. The sponge block is held by cotters 13 inserted through holes in the lugs and arranged so as to be longitudinally slidable. The central portions of the cotters are preferably bent into U-shaped loops, whereby the handling of the cotters is facilitated. As shown in Fig. 3, when the sponge has been attached to its holder plate the loops are lowered into recesses in the holder plate. On account of that construction it will be feasible to use the implement under very low furniture.

The operation of the mop is apparent from the foregoing description. When it is desired to compress the sponge, the sleeve 8 is pushed downwards along the shaft 1 thereby actuating the lever 7 which causes the swingable plate portion 2b to swing round its hinge portions 5 whereby the sponge is folded and positively wrung on account of the fact that the holder plate portions will be substantially parallel in the squeezing position which is, in turn, made attainable by the angular arrangement of the holder plate portions in their normal position.

The plate portions are in contact with the top of the sponge block along the longitudinal outer edges of the plate portions but are spaced from the top of the block along the longitudinal inner edges of the plate portions. The space between the top of the sponge block and the main body of the plates is effected in part by the fact that the upper surface of the sponge block and the plates are not parallel but are at angles between 135 degrees and 180 degrees. In compressing a one-piece sponge, the convex side stretches and expands and the free space between the upper surface of the block and the plate portions permits this movement of the sponge from the normal working position to squeezing position.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

A mop comprising a shaft, a compressible one piece elongated rectangular sponge block, a holder plate overlying the top of the sponge block, said plate being constituted by a rectangular plate portion rigidly secured to

said shaft and a rectangular swingable plate portion of the holder plate swingable from a normal working position in which the face of the sponge block is substantially flat, to a substantially parallel squeezing position in which the sponge block is folded on its longitudinal central axis, means for actuating the swingable plate portion comprising a member slidable along the shaft, an arm secured to the swingable plate portion, a link pivotally connected to the arm and to the slidable member, means for securing each of the plate portions to the sponge block with the outer longitudinal edges of the plate portions in contact with the top of the sponge block and the inner longitudinal edges of the plate portions and the main portions of the plates being spaced from the top of the sponge block, the interior angle between the two plate portions in the normal working position being between 135 and 180 degrees when viewed from the short side of the rectangle.

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