May 13, 1958 P. S. VOSBIKIAN ET AL 2,834,035

MOPS WITH SEPARATE CLEANING AND EXTRACTING HANDLES

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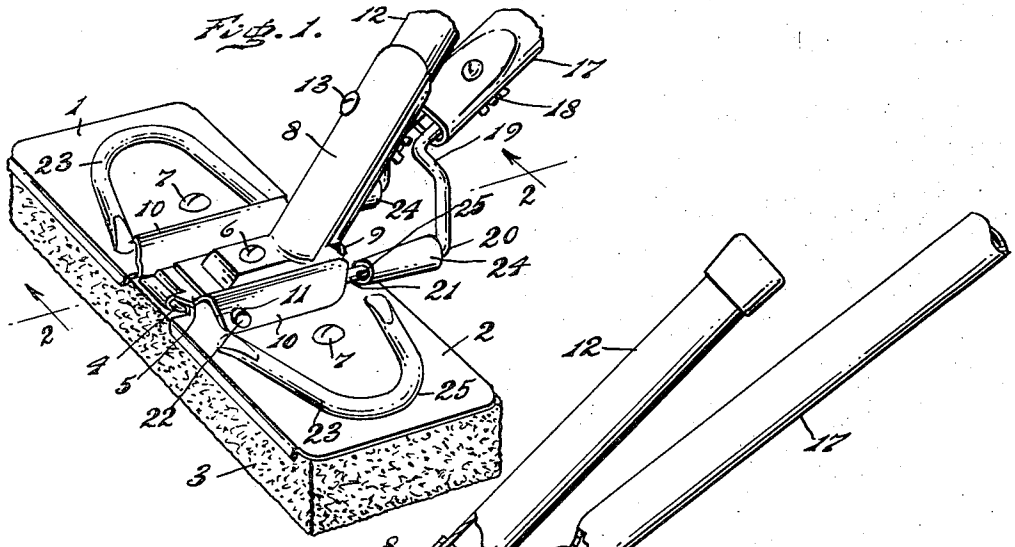

Fig. 1.

Fig. 2.

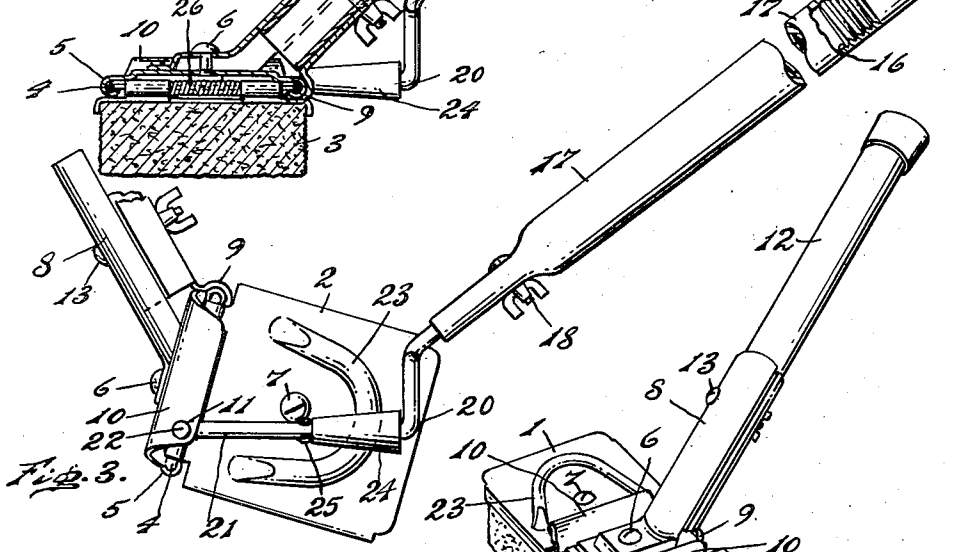

Fig. 3.

Fig. 4.

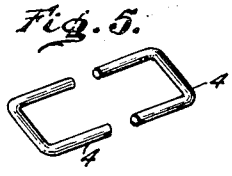

Fig. 5.

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MOPS WITH SEPARATE CLEANING AND EXTRACTING HANDLES

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1 Claim. (Cl. 15—119)

In our prior Patent No. 2,643,407, granted July 7, 1950, we have described and broadly claimed a novel construction and arrangement of a mop and extracting mechanism, wherein hinged sections carried by a body portion are provided with sponge material, and an extractor is provided having its pivotal axis extending transversely to the hinge axis and so related thereto as to cause stretches of the extractor on pivotal movement of the latter in one direction to pass transversely over the head sections to press them towards each other and thus effect the extraction operation.

Our present application employs some of the features of our prior patent aforesaid, but has an improved construction and arrangement of the component parts. The extractor is carried by a long handle for use in operating the mop for floor or wall work, and a short handle is fixed to the body portion of the mop. This enables the operator to use the mop separately from the extractor for cleaning windows and woodwork, and the extract-operation is accomplished by manually pressing the hinged sections towards each other.

The object of this invention is to devise a novel mop and extracting mechanism.

For the purpose of illustrating the invention, we have shown in the accompanying drawings a preferred embodiment 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 claim to the precise arrangement and organization of these instrumentalities as herein set forth.

Figure 1 is a perspective view of a mop and extractor embodying our invention, the handles being broken away.

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

Figure 3 is a side elevation showing the squeezing action.

Figure 4 is a perspective view with the extractor removed from the body portion.

Figure 5 is a detailed view of the U-shaped pintles.

Similar numerals of reference indicate corresponding parts.

Referring to the drawings:

The mop has hinged sections 1 and 2 to which sponge 3 is secured. The hinged sections are disposed in longitudinal alignment with their juxtaposed ends spaced from each other and deflected to receive pintles 4 which are retained in place by deflected portions of a body portion 5 which latter is secured to the backing of the sponge material by a bolt and nut arrangement 6. The sponge material is fastened to the sections by fastening devices 7 so that it can be replaced when it becomes worn. The bolt and nut secures a sectional handle bracket 8 to the body portion, the rear section having a tab 9 which is deflected under the pintle and the deflected portion of the body portion at the rear or inner end of the body portion.

The body portion at opposite sides is deflected to form channels 10 open at their bottoms, the outer sides of the channels normally contacting the head sections to limit the movement in one direction of the head sections. The channels extend transversely of the head sections, and at one end have holes 11 in their outer side for the reception of an extractor.

The front end of the handle bracket is flattened to snugly fit between the channels, and this bracket has a socket portion to receive a short hollow handle 12 secured in the socket by a bolt and nut 13.

The extractor

The extractor has a long handle consisting of sections for convenience in shipping, and having an outer section 14 externally threaded at its inner end as at 15 to be received in the threaded portion 16 of an inner section 17. This inner section 17 is flattened at its forward end to receive a loop of the extractor secured therein by a bolt and nut 18.

The extractor is formed from a single strand of wire having the stretches bent outwardly as at 19, then forwardly as at 20 at a downward angle and then merging into forwardly extending stretches 21 which terminate in laterally extending pivot members 22 adapted to be received in the holes 11 of the side channels 10 of the body portion. The stretches 21 diverge at their forward portions so that a tension is provided to retain the pivot members 22 in the holes of the channels.

It will now be apparent that we provide for the automatic squeezing of the mop when the handles are moved away from each other and for the manual squeezing of the mop when the extracting mechanism is removed from the mop.

In order to provide a gradual increase of the extracting action, the head sections are provided with the cam tracks 23 on which the stretches 21 ride and to overcome friction tubular rollers 24 preferably cone shaped are free to revolve on such stretches and are retained in position by upsetting the material of the stretches as at 25.

In the operation, assuming that the component parts are in assembled condition the operator holds the long handle in his left hand and the short handle in his right hand, and upon raising the short handle the rollers pass transversely over the cams to cause the hinge sections to be pressed together. If the pivot members 22 are disengaged from the holes in the channels, the extractor can be withdrawn and the mop used with the short handle.

The pintles 4 are U shaped and are insertable from the front and rear of the head sections and carry springs 26 which tend to retain the head sections in their upward position in contact with the body portion.

The extractor handle 17 is much longer than the handle 12 to provide a longer leverage for the extracting operation.

If the handle 12 is held in the right hand and the handle 17 of the extractor moved downwardly a progressively increasing squeezing action is exerted against the sponge material.

The tab 9 aids in preventing bending of the handle socket during the extracting operation.

It will be clear from the drawings, see more particularly Figure 2, that the bolt 6 secures the upper section of the handle bracket 8 to the body portion 5 and does not have any direct connection with the block 3 of absorbent material. The body portion has front and rear portions bent around the U-shaped ends of the pintles. The lower handle bracket section has its lower or inner end bent around the U-shaped end of the rear pintle. Thus, the handle bracket, body portion, backing members and block of absorbent material form a unit of structure, pivotally mounted on the pivot members 22.

If the mop handle 17 is held in one hand and the other hand of the operator moves the handle 12 forwardly and

downwardly, the front end of the body portion presses against the backing members to press them towards each other into a partially folded condition and said members pass between the rollers 24 to complete the extracting action. The lateral stretches 19 serve as stops to limit the extracting movement.

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

A mop, comprising a block of absorbent material, backing members secured to the top face of the block with their inner ends in spaced relationship and adapted to receive pintles, front and rear U-shaped pintles extending transversely of said backing members and pivoted thereto, a body portion overhanging the inner ends of the backing members and having front and rear portions bent around the bight ends of the U-shaped pintles, a sectional handle bracket having an upper section fixed only to the body portion and having a lower section bent around said rear pintle, an extractor handle connected with said handle bracket, a mop handle for moving said block over a surface to be cleaned, and a wire strand secured to said mop handle, said strand being bent upon itself to form outwardly extending lateral stretches merging into downwardly extending stretches which merge into forwardly extending straight stretches spaced from each other and terminating in pivot members pivoted to

the forward end of said body portion, whereby when said extractor handle is moved forwardly and downwardly relative to the mop handle the backing members are pressed towards each other until stopped by said lateral stretches coming into contact with said backing members.

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