

April 1, 1958

A. T. GOLDSTEIN

2,828,503

MOP DEVICE WITH SHAKING MECHANISM

Filed Feb. 8, 1954

2 Sheets-Sheet 1

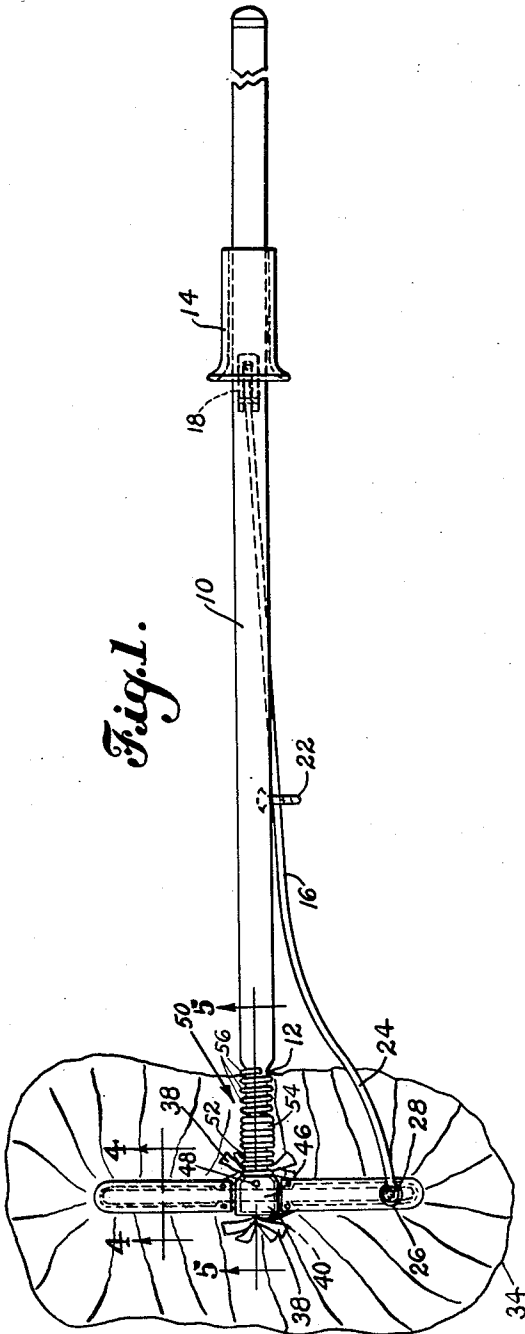
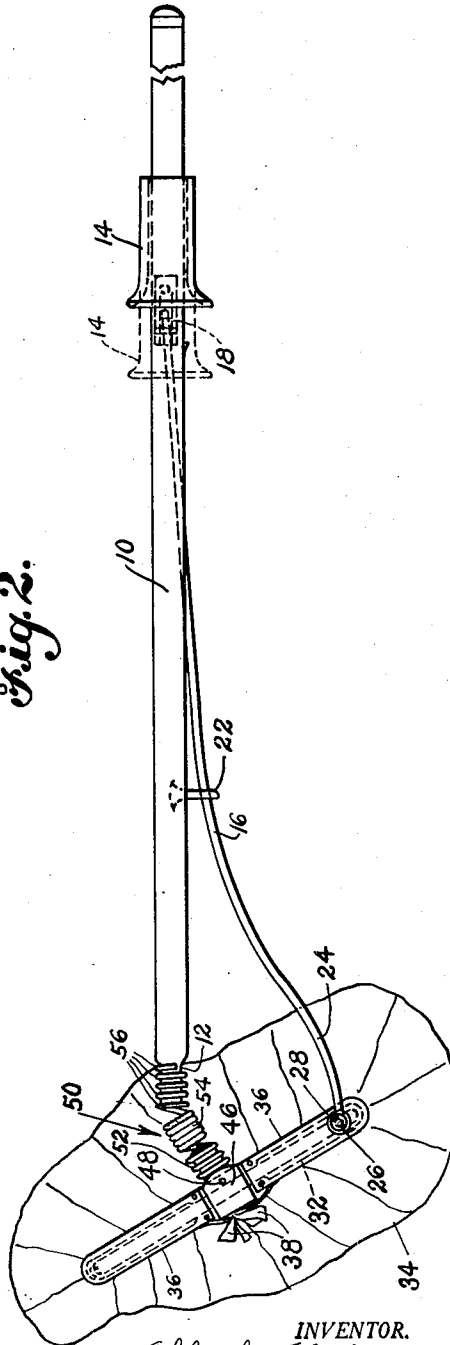


Fig. 2.



INVENTOR.
Alfred T. Goldstein
BY Harold E. Cole
Attorney

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Fig. 3.

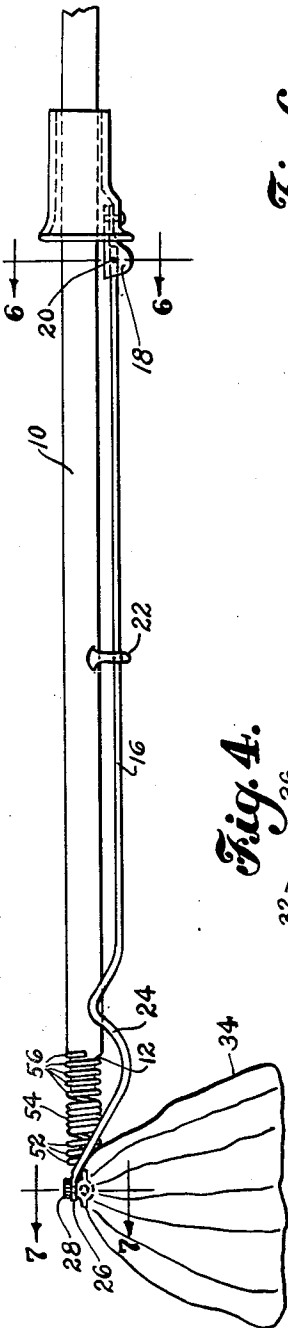


Fig. 6.

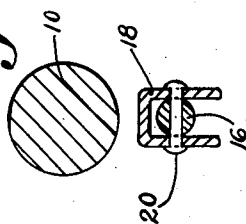


Fig. 7.

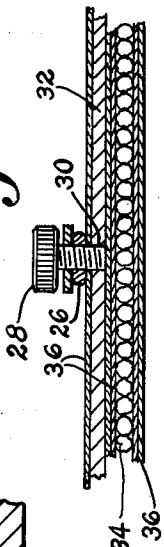


Fig. 5.

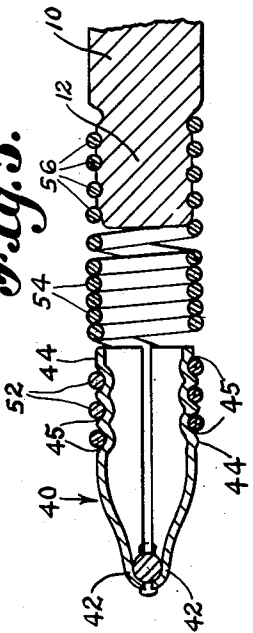
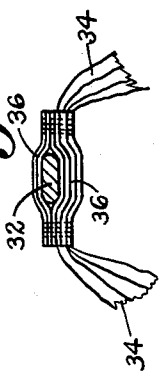


Fig. 4.



INVENTOR.
Alfred T. Goldstein
BY Harold E. Cole
Attorney

2,828,503

MOP DEVICE WITH SHAKING MECHANISM

Alfred T. Goldstein, Lynn, Mass., assignor to Malden Mop & Brush Company, Boston, Mass., a corporation

Application February 8, 1954, Serial No. 408,660

1 Claim. (Cl. 15—147)

This invention relates to a mop device with shaking mechanism. It is especially adaptable to dry mops.

One object of my invention is to provide shaking mechanism in combination with a mop handle and spring connecting means whereby effective shaking of the body of the mop can be achieved.

Another object is to provide such a combination whereby automatic and sudden return of the mop body, with its loose strands holding the dust, to normal position will provide an effective shaking action.

A further object is to provide a mop device with shaking mechanism that is unusually simple in structure and can be manufactured at a relatively low cost.

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and operative arrangement of parts such as is disclosed by the drawings. The nature of the invention is such as to render it susceptible to various changes and modifications, and therefore, I am not to be limited to the construction disclosed by the drawings nor to the particular parts described in the specification; but am entitled to all such changes therefrom as fall within the scope of my claim.

In the drawings:

Figure 1 is a top plan view of my mop device with the shaking mechanism in normal position.

Figure 2 is a top plan view thereof showing the shaking mechanism in actuated position.

Figure 3 is a side elevational view of my mop device with the shaking mechanism in normal position.

Figure 4 is an enlarged sectional view taken on the line 4—4 of Figure 1.

Figure 5 is an enlarged sectional view taken on the line 5—5 of Figure 1.

Figure 6 is an enlarged sectional view taken on the line 6—6 of Figure 3.

Figure 7 is an enlarged sectional view taken on the line 7—7 of Figure 3.

As illustrated, my device has a handle 10 having a reduced lower end 12 which is preferably screw-threaded.

An actuating sleeve 14, preferably long enough to be grasped by the hand, is mounted on said handle 10 intermediate the ends thereof and attached to it is a connecting rod 16 by means of a forked pivot member 18 riveted as at 20 to said sleeve 14. Said connecting rod 16 slidably extends through an eye member 22 fixed to said handle, and adjacent its lower end is a somewhat irregularly extending or sinuous portion 24, and it terminates in an eye portion 26. A screw 28 extends through said eye portion 26, and screw-threadedly connects in a screw-threaded hole 30 to a mounting member 32 shown as an elongate rod. The latter receives the mop body, which is formed of strands 34 attached to two tubular stringers 36. Opposite ends of said mounting rod 32 enter the openings in said tubular stringers 36. Cords 38 on the inner ends of said stringers 36 hold the latter on the mounting rod 32 by tying pairs of cords, on opposite stringers, together.

A joining member in the form of a split socket 40 has two halves, each having a clamping end 42 that partly

encircle and firmly fit on a central portion of said mounting rod 32. The opposite or upper ends 44 extend towards said handle lower end 12 and have exterior, spiral indentations 45 therein. A protective pad 46 is attached to an intermediate portion of said socket 40 by a pin 48.

A connector member 50, in the form of a coil spring, connects said split socket 40 to said handle 10. As illustrated, there is a group of convolutions 52 at the lower or front end of said connector member 50 which are spaced apart, an intermediate group of convolutions 54 contacting each other, while a group 56 at the upper or rear end are spaced apart, all of which convolutions form a continuous coil spring. Said lower group 52 of said convolutions fit on said socket upper ends 44 while said upper group 56 fit on the screw-threaded portion of said handle lower end 12. Most of the convolutions forming said intermediate group 54 extend in a space between said socket 40 and said handle lower end 12, hence said coil connector 50 is free to bend, the upper end 56 remaining rigid on said handle lower end 12. Thus said coil spring 50 and split socket 40 provide a connecting means that flexibly connect said mounting rod 32 to said handle.

It will be noted in said Fig. 5 that the convolutions of said intermediate group 54 at opposite ends are non-contiguous. Said non-contiguous convolution at the end nearer said handle 10 particularly enables free movement of said group 54 sidewise as shown in said Fig. 2.

When said sleeve 14 is slid upwardly towards the free end of said handle 10, the mounting rod 32 is moved rapidly in a limited rotating movement. Tension in the connector spring 50 is built up, tending to cause a sudden return movement of the rod 32, thus shaking the mop body vigorously. When said sleeve is moved downwardly on said handle 10 from normal position a shaking movement, in a similar manner, occurs, hence rotative movement of said mounting rod 32, from normal, can occur in opposite directions.

Said sinuous portion 24 in said connecting rod 16 permits rotative movement of said mounting rod 32 in two opposite directions without said rod contacting said handle 10 during normal movement in either direction.

What I claim is:

A mop device comprising a handle, a mounting member adapted to receive a mop body, a joining socket attached to said mounting member, an actuating member movably mounted on said handle, a connecting rod movably connected to said actuating member and connected to said mounting member at a point spaced from said socket for shaking said mounting member, a coil spring connector attached to one end of said handle, part of said connector being connected to said socket, said connector embodying an intermediate portion between and spaced from said socket and handle having convolutions at opposite ends which are non-contiguous with, and spaced a substantial distance from, the next adjacent convolutions to facilitate said shaking movement and distortion of said connector at said non-contiguous convolutions whereby said intermediate portion is adapted to move sidewise upon actuation of said actuating member.

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