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ELECTRIC MOP SHAKER

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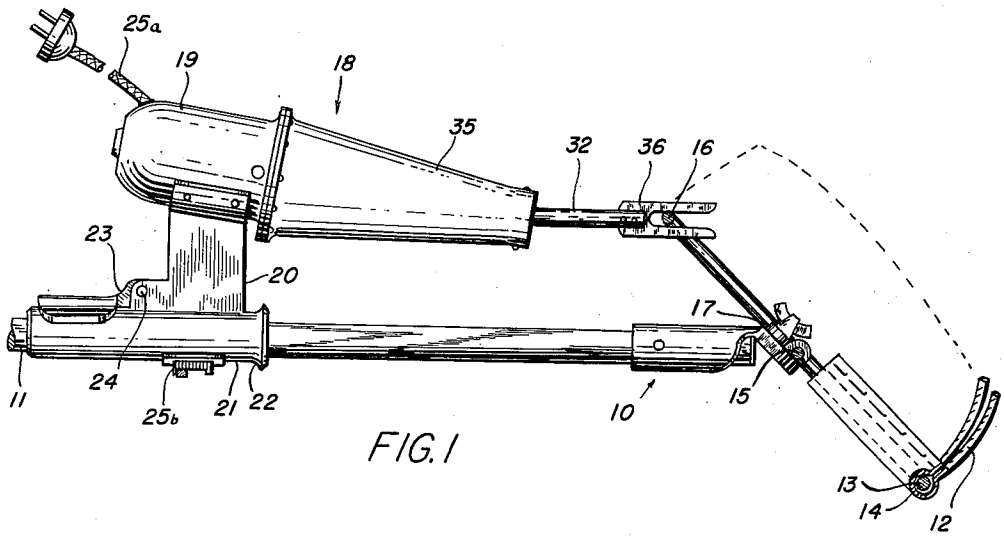


FIG. 1

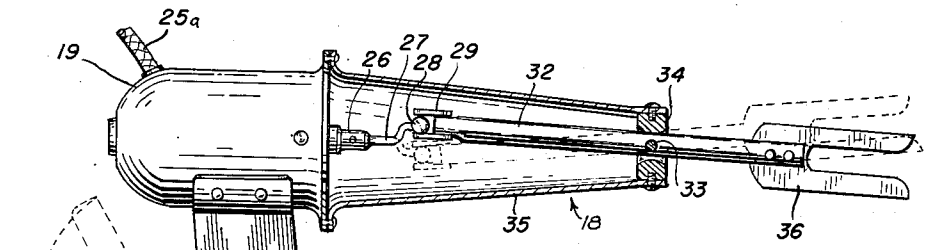
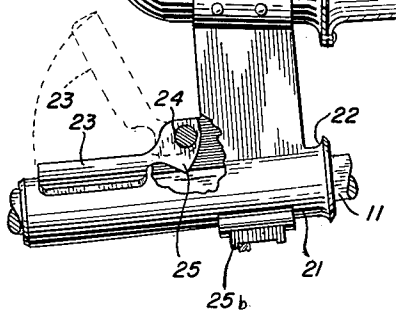


FIG. 2



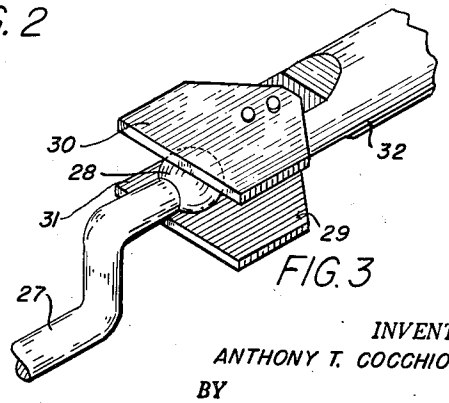


FIG. 3

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ELECTRIC MOP SHAKER

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4 Claims. (Cl. 15—94)

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This invention relates to means for cleaning mops, and more particularly to an apparatus adapted to be actuated by an electric motor to shake accumulated dirt from a swingable mop head.

One object of this invention is to provide a detachable mop shaker which will be light in weight, and which may be carried on said mop if desired so as to be available for use at all times.

Another object is to provide a device of the above nature which may be quickly and easily applied to any mop of the type having a swingable wire mop yarn holding frame.

Another object is to provide a device of the above nature which when power-actuated will automatically shake dirt from the yarn of the mop quickly and thoroughly.

A further object is to provide a device of the above nature which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view, there has been illustrated in the accompanying drawing one form in which the invention may conveniently be embodied in practice.

In the drawing,

Fig. 1 is a side elevation of the electric mop shaker as it appears when operatively attached to a mop handle and a mop head.

Fig. 2 is a view similar to Fig. 1, shown on an enlarged scale, with certain parts of the mop shaker in section.

Fig. 3 is a perspective view on an enlarged scale of the crank and slot driving connection between the motor shaft and mop-shaking lever.

Referring now to the drawings, in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 generally indicates a mop of the type having an elongated handle 11 and a swingable head 12 secured upon a yarn-carrying wire frame 13 having substantially parallel spaced sections 14, 15, 16, said head being secured to said handle 11 by a swivel clamp 17.

The mop shaker is generally indicated by the numeral 18, and comprises a motor 19 adapted to be secured upon the handle 11 by a quick releasable bracket 20 which terminates in a sleeve portion 21 adapted to receive the mop handle 11. The sleeve portion 21 is provided with a flared end 22 which serves to guide the mop handle into said sleeve portion 21, and a releasable clamping lever 23 pivoted to the sleeve

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portion by a pin 24, said lever including a cam 25 which is adapted to have clamping engagement with the mop handle 11 in any desired position along its length.

The motor is connected by an extension cord 25a to any convenient source of electric current and may be controlled by a hand switch 25b located on the outer part of the sleeve portion 21.

A set screw coupling 26 is provided for joining the motor shaft to a crank 27 having an offset ball end 28 embraced by a slot bearing 29 made up of a pair of parallel spaced plates 30, 31 secured to the end of a lever arm 32. A cross pin 33 pivotally mounts the arm 32 in an apertured closure 34 at the outer end of a tapered crank housing 35 which is secured at its other end as by screws to the housing of the motor 19.

The opposite outer end of the lever arm 32 is provided with a fork 36 for embracing the rear edge of the frame section 16 of the mop head.

Operation

In operation, a mop 10 of any desired type will first be inserted in the sleeve portion 21 of the mop shaker 18, and clamped in the desired position by the cam 25 of the clamp lever 23, after previously placing the prongs of the fork 36 over the rear edge 16 of the wire frame 13.

The precise position at which the handle 11 is clamped in the sleeve 23 should be such that the fork 36 will be free to vibrate the swingable frame 13 of the mop head 12 through the maximum angle.

At occasional intervals, the mop head will be hung out of the window, and the extension cord 25a connected to a power outlet. The rotation of the motor crank 27 will then cause the lever 32 to vibrate and shake the accumulated dirt from the mop head.

One advantage of the present invention is that the mop head will be automatically shaken without any effort on the part of the operator and without imparting any appreciable vibration to his hands while holding the handle 11.

While there has been disclosed in this specification one form in which this invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosure, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what

is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a dusting mop, the combination comprising an elongated mop handle, a yarn frame, said handle having a pivoted connection at its lower end to a central portion of said frame for permitting swingable movement of said frame with respect to said handle, means for oscillating said frame comprising a rockable lever arm connected to the outer edge portion of said frame, and an electric motor fixed to said handle and operatively connected to said lever arm for rapidly oscillating said lever arm and said frame about their pivots, whereby dust and dirt may automatically be shaken from the mop frame without movement of said handle.

2. The invention as defined in claim 1 wherein said oscillating means comprises a crank connected at one end to said motor for rotation thereby, an elongated crank housing fixed at one end to said motor and longitudinally disposed with respect to said crank, an apertured closure member within the other end of said crank housing, a pivot pin transversely mounted in the aperture of said closure, said lever arm being centrally fulcrumed on said pivot pin, and means including said lever arm operatively connecting the other end of said crank and an outer portion of said frame for oscillating said frame with respect to said handle.

3. The invention as defined in claim 2 wherein said connecting means comprises a bifurcated member fixed at the outer end of said lever arm and embracing said outer portion of said frame.

4. The invention as defined in claim 3 wherein said interconnecting means further comprises a universal bearing at the inner end of said lever arm engaged with said other end of said crank.

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