

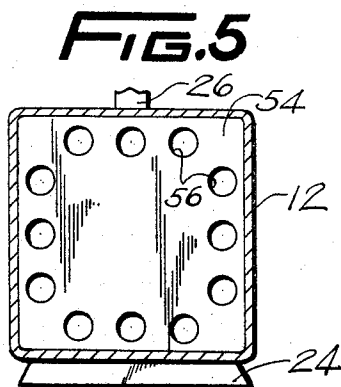
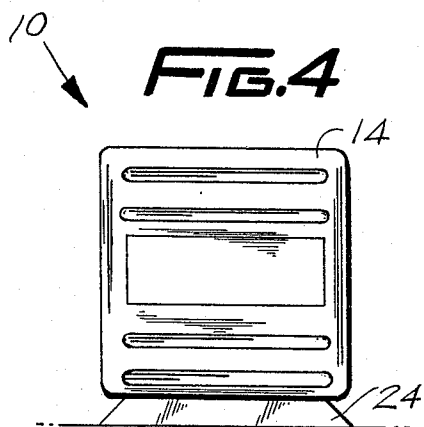
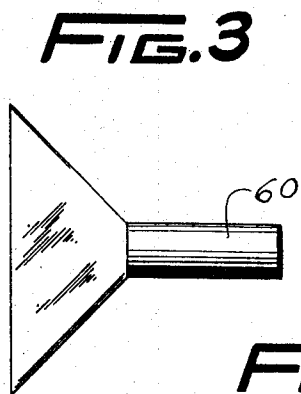
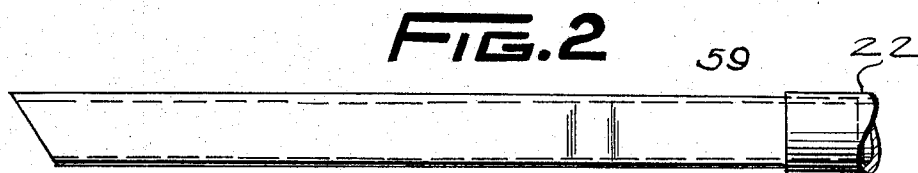
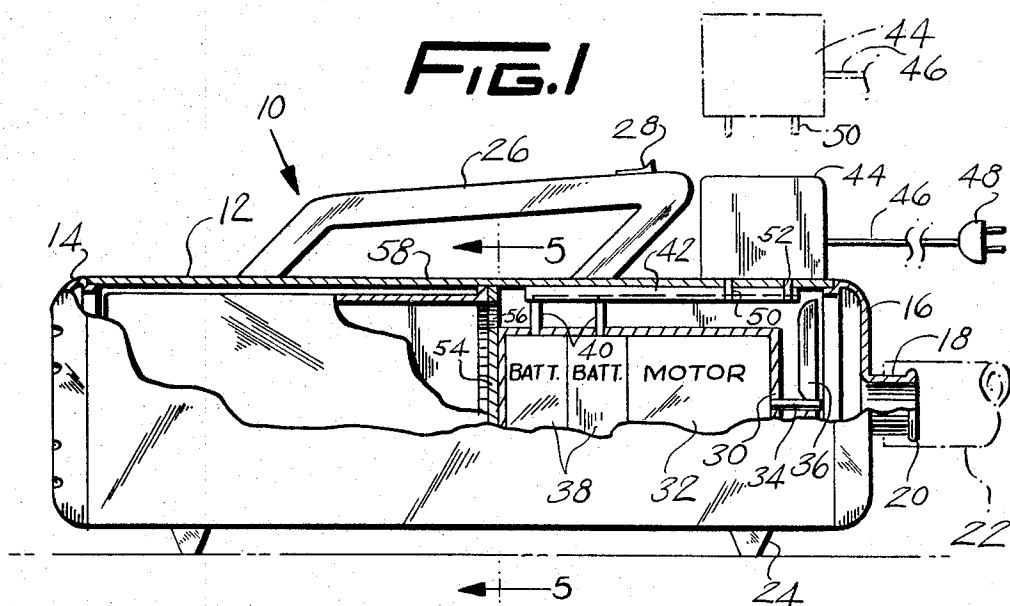
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3,267,510

PORTABLE VACUUM CLEANER

Filed April 22, 1964



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3,267,510 PORTABLE VACUUM CLEANER

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1 Claim. (Cl. 15-344)

This invention relates to electrically operated vacuum cleaner devices and more particularly to a battery operated vacuum cleaner.

It is an object of the present invention to provide a portable vacuum cleaner which will be an all-purpose apparatus and which will be small and light in weight and which will be powered by a battery operated motor, such as those used in cordless shavers.

Another object of the present invention is to provide a portable vacuum cleaner which will be used indoors and out of doors and may be carried to any location with a minimum of effort and which will provide a means for cleaning windows for dust, hornets' nests, and the like.

A further object of the present invention is to provide a portable vacuum cleaner which will be used for cleaning window sills, screens, walls, draperies, Venetian blinds, floor boards and all hard-to-reach places, such as dresser drawers, closets of all kinds, and will also be handy for workshops, for cleaning all electrical equipment.

A still further object of the present invention is to provide a portable vacuum cleaner which will be particularly useful for automobile upholstery and cleaning the entire interior of an automobile, and the bag on the interior of the device will be made of cloth and when full may be disposed of.

The present invention is further provided with a length of noncollapsible hose, a brush and angular hose which will be used to get into corners, and the device will be simple enough to operate so that even a child may operate it safely.

Other objects of the invention are to provide a portable vacuum cleaner bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation and use.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

FIGURE 1 is a side view of the present invention shown partly broken away;

FIGURE 2 is a plan view of one of the attachments;

FIGURE 3 is a plan view showing a modified attachment;

FIGURE 4 is an end view of FIGURE 1; and

FIGURE 5 is a cross sectional view taken along the lines 5-5 of FIGURE 1.

Referring now more in detail to the drawing, a portable vacuum cleaner 10 made in accordance with the present invention is shown to include a hollow elongated, substantially square in cross-section housing 12 having a snappable end cover 14 at one end and a snappable end cover 16 at the other end to confine the components of vacuum cleaner 10. End cover 16 is provided with a hollow circular neck 18 having an annular bead 20 which provides a means for retaining hose 22 which is received upon neck 18. A pair of parallel, spaced apart legs 24 are fixedly secured to the underside of housing 12 and provide support means for vacuum cleaner 10. An elongated handle 26 having a switch 28 mounted within the fore-end is fixedly secured to the top of housing 12 and provides handle grip means for carrying vacuum cleaner 10. A container 30 is received within housing 12 and is secured to the bottom of housing 12 and provides compartment means for an electrically operated motor 32 which

has a shaft extending through one end of container 30. The propeller 36 is fixedly secured to shaft 34 and provides means for ingressing air through neck 18 of cover 16. A pair of batteries 38 are received behind motor 32 within container 30 and provide power means for operating motor 32 when switch 28 is pushed to the on position. A plurality of contacts 40 extend upwardly from container 30 and are electrically connected to a printed circuit strip 42. A plug-in battery charger 44 provided with a cord 46 and plug 48 for plugging into an electrical outlet is provided with a pair of spaced apart prongs 50 which are received through openings 52 of printed circuit strip 42 and by means of battery contacts 40 provide a means for recharging the batteries 38 when they are exhausted. An inner wall 54 abuts with one end of container 30 within housing 12 and is provided with a plurality of radially spaced apart openings 56 which allow for the ingress of air and dirt into a disposable cloth bag 58, contained within the rear of housing 12. A pair of accessory attachments 59 and 60 may be secured within hose 22 and provide means for cleaning when secured to the neck 18 of vacuum cleaner 10.

In operation, either one of the attachments 59 or 60 may be secured by means of hose 22 to neck 18 of cover 16, and by means of a series circuit (not shown) switch 28, when pushed to the on position closes the circuit to motor 30 with batteries 38. Propeller 36 then rotates and ingresses air through neck 18 which will take up dirt or dust through either of the attachments 59 or 60 and the air-borne dirt is then ingressed through openings 56 of inner wall 54 into disposable cloth bag 58.

It shall be recognized that disposable cloth bag 58 is removable from within housing 12 by snappingly disengaging end cover 14.

It shall further be recognized that when batteries 38 become exhausted, battery charger 44 is plugged into printed circuit strip 42 in housing 12 and plug 48 on cord 46 is plugged into an electrical outlet and thus batteries 38 are recharged by battery charger 44 which is then removed after batteries 38 are again fully charged.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What I claim as new and desire to protect by Letters Patent of the United States is:

A portable, battery operated vacuum cleaner comprising, in combination, an elongated casing having a substantially square cross-section, a pair of snappable end covers carried by said casing, one of said covers provided with a circular inlet neck, a motor, a shaft extending outwardly from said motor, a propeller mounted on said shaft for drawing air into said casing during the operation of said motor, a handle secured to said casing, a switch mounted on said handle for starting and stopping said motor, a plurality of batteries adapted to provide power means for said motor, a flexible hose connected to said neck and adapted to provide guiding means for the dirt particles when they enter the vacuum within said casing, a printed circuit strip secured within said casing, said plurality of batteries secured to said printed circuit strip, a removable battery charger secured to the exterior of said casing and adapted to supply said batteries with the electric power through said printed circuit strip, a container for securing said batteries and said motor therein, said container secured within said casing and positioned to provide an air passage between the container and casing, a laterally disposed inner wall within said casing, said wall provided with a plurality of openings therein to provide a passage for airborne dust and dirt ingressed through said circular neck, a disposable bag within said casing, the open end of said bag being adapted to be removably

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secured to said inner wall within said casing, said bag being adapted to receive dust and dirt passed through the perforations of said inner wall, and the free end of said circular neck is provided with an annular bead for retaining said hose upon said neck.

References Cited by the Examiner

UNITED STATES PATENTS

2,867,834	1/1959	Kelly	-----	15—327
3,027,507	3/1962	Hubner	-----	15—412

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FOREIGN PATENTS

1,095,620	12/1954	France.
1,164,749	5/1958	France.
5 1,196,420	5/1959	France.
1,299,817	1/1962	France.

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