June 7, 1966 L. COLL 3,254,359

CASING FOR SUCTION CLEANER

Filed May 18, 1964 2 Sheets-Sheet 1

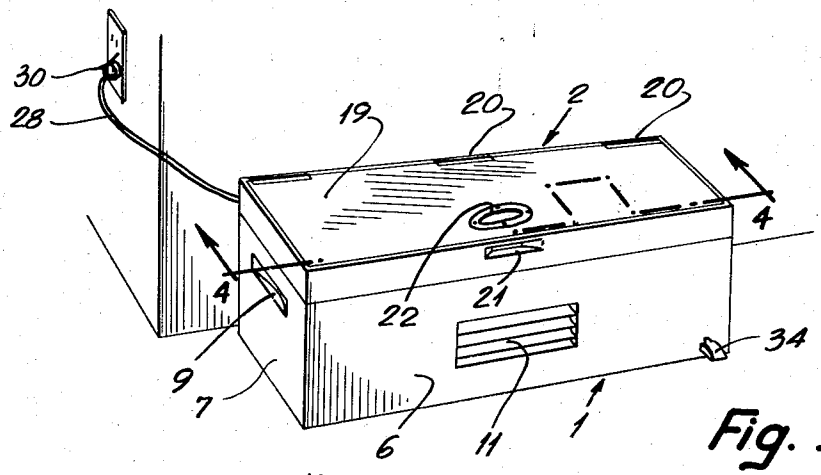


Fig. 1

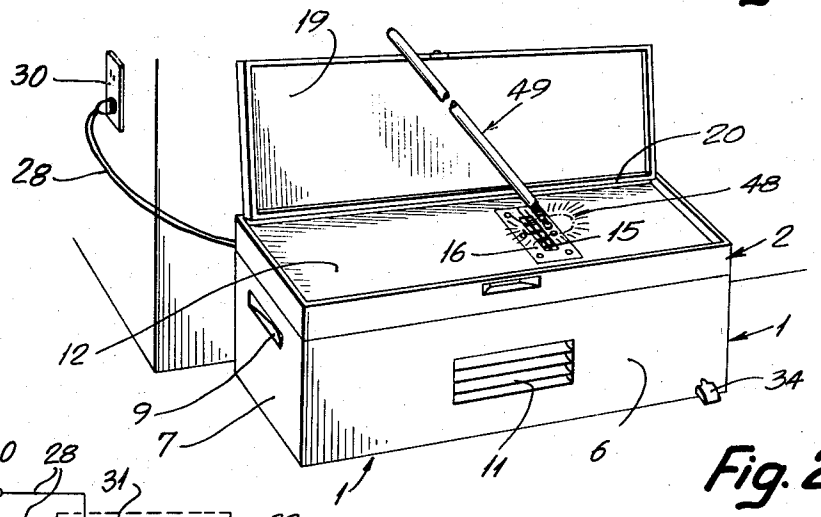


Fig. 2

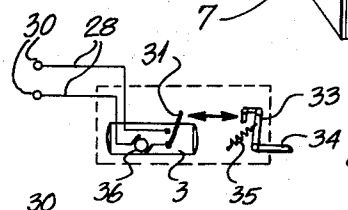


Fig. 6

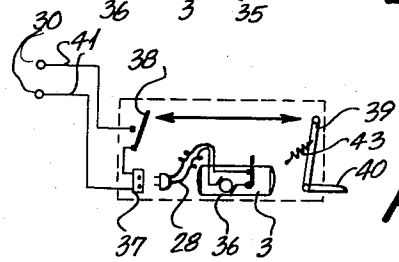


Fig. 7

INVENTOR
Laurent COLL
BY
Pierre Lesperance
PATENT AGENT

June 7, 1966 L. COLL 3,254,359

CASING FOR SUCTION CLEANER

Filed May 18, 1964 2 Sheets-Sheet 2

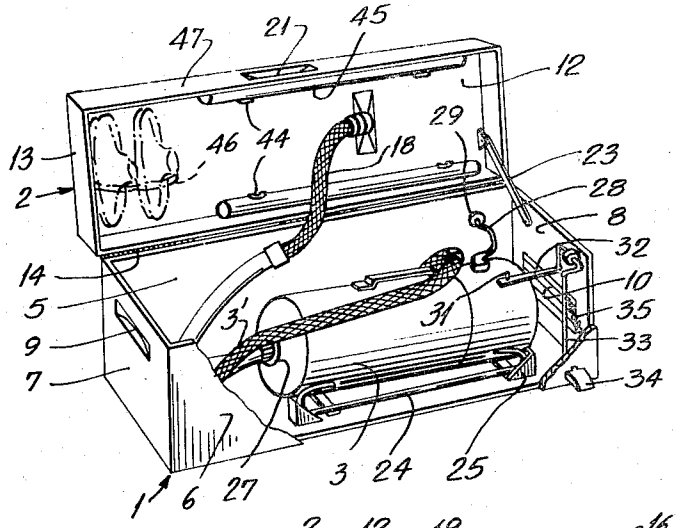


Fig. 3

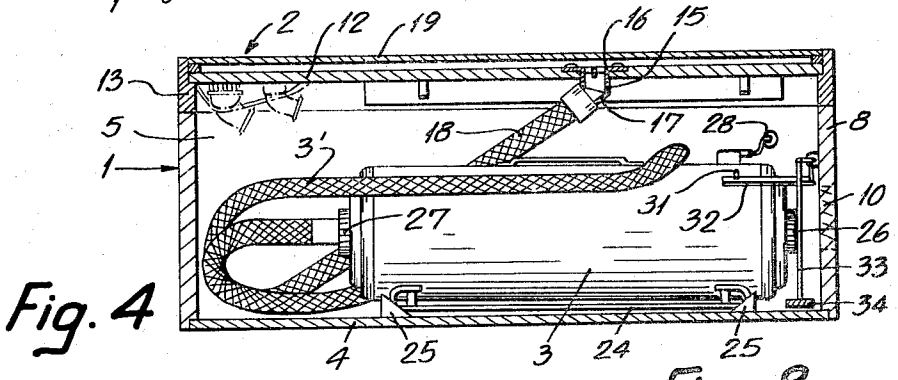


Fig. 4

Fig. 8

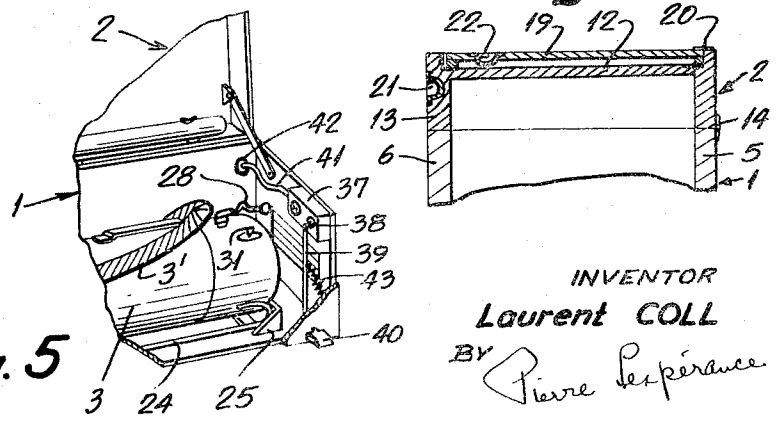


Fig. 5

INVENTOR
Laurent COLL
BY Pierre Lespérance
PATENT AGENT

United States Patent Office 3,254,359 Patented June 7, 1966

3,254,359

CASING FOR SUCTION CLEANER

Laurent Coll, Tracy, Quebec, Canada, assignor of fifteen percent to Norman Cote, Tracy, Richelieu, Quebec, Canada

Filed May 18, 1964, Ser. No. 368,211
5 Claims. (Cl. 15—310)

The present invention relates to a casing for housing a suction cleaner, and more particularly, to such a casing provided with means for cleaning a dust mop.

It is known that electrically-operated suction cleaners are mostly used for cleaning rugs, carpets, or the like, and do not replace the conventional manually-operated dust mop for cleaning floors made of tile, wood, and the like.

When not in use, the power-operated suction cleaner is normally stored in a closet or the like, and the housewife generally does not take the trouble of setting up the suction device for every-day cleaning. She generally uses the dust mop for such a purpose.

The general object of the present invention resides in the provision of a casing for an electrically-operated suction cleaner, which is provided with means whereby said suction cleaner can be used for cleaning a dust mop, said casing further being used for housing the suction cleaner when the latter is not in use.

Another object of the present invention resides in the provision of a casing of the character described, provided with dust mop cleaning means, which does not require any modification of the conventional suction cleaner for its use as a dust mop cleaner.

Another object of the present invention resides in the provision of a suction cleaner casing of the character described, which can be modified to accommodate and house any type of suction cleaner on the market, such as the cylindrical type and the tub type.

Another important object of the present invention resides in the provision of a casing of the character described, which is of relatively simple and inexpensive construction and which, yet, is very efficient as a dust mop cleaning device used in combination with a suction cleaner.

The foregoing and other important objects of the invention will become more apparent during the following disclosure and by referring to the drawings, in which:

FIGURE 1 is a perspective view of the casing in accordance with the invention in completely closed position;

FIGURE 2 is a similar perspective view, but showing how it is used for cleaning a dust mop;

FIGURE 3 is a perspective view of the casing, partially cut away, and showing the suction cleaner housed therein and how it is connected to the casing for use as a dust mop cleaning device;

FIGURE 4 is a longitudinal section of the closed casing and showing the conventional suction device therein;

FIGURE 5 is a partial perspective view of the suction cleaner and of the casing, in accordance with the second embodiment of the means for operating the suction cleaner from the outside of the casing;

FIGURE 6 is a schematic view of the electro-mechanical means for operating the suction cleaner from outside of the casing, in accordance with the first embodiment;

FIGURE 7 is a similar schematic view of the same means, in accordance with the second embodiment; and

FIGURE 8 is a partial cross-section of the top part of the casing.

Referring now more particularly to the drawings in which like reference characters indicate like elements throughout, the casing in accordance with the present

invention is in the form of an elongated rectangular box 1 with a closable lid 2 for receiving and housing a suction cleaner 3.

Box 1 has a bottom 4, longitudinal back and front walls 5 and 6, and end walls 7 and 8. End walls 7 and 8 are preferably provided with recessed hand grips 9 and end wall 8 together with front wall 6 are provided with air outlet grilles or gratings 10 and 11 respectively.

Lid 2, which is adapted to close the open top of box 1, consists of a panel 12, of rectangular shape, and provided with a perimetral flange 13 which is hinged at 14 to the top edge of back wall 5 and abuts against the top edges of the walls 5, 6, and 7 in the closed position of the lid.

Panel 12 is provided with a transverse opening, in which is fitted a suction head 15, which is permanently secured to panel 12. Suction head 15 comprises a grille plate 16, fitted in a recess on top of panel 12, the opening of which being in communication with a short bent tube 17 passing through the opening of the panel and connected to the end of the flexible suction tube 18, in turn removably connected to the conventional flexible suction tube 3' of the suction cleaner 3.

Panel 12 of lid 2 is recessed downwardly with respect to the upper edge of flange 13 and an auxiliary lid 19 is hinged at 20 to the back portion of the top edge of flange 13 and is adapted to be closed on top of panel 12 of the lid 2 in spaced relationship therewith. In the closed position of the auxiliary lid, the latter fits within the outer portion of flange 13 and is flush with the top edge of said flange.

Flange 13, as shown in FIGURE 8, is preferably provided with a recessed hand grip 21 for opening the lid 2. An auxiliary lid 19 is also provided with a hand grip 22 for opening the same without opening main lid 2, as shown in FIGURE 2.

Lid 2 is preferably provided with a retaining device 23 to limit the open position of the lid 2 to slightly more than 90 degrees.

The suction cleaner 3 shown is of the conventional tank or cylindrical type. In the embodiment shown, the body of the suction cleaner has floor-engaging runners 24 which are engaged by abutment members 25 upstanding from and secured to the bottom 4 of box 1.

The cleaner 3 is disposed longitudinally within the box 1 with its air outlet 26 opposite grille 10 of end wall 8. Its flexible suction tube 3' is connected to the air intake 27 of the opposite end of the body of the cleaner 3.

Means are provided for switching on or off the suction cleaner 3 while the latter is within box 1 with lid 2 closed.

In accordance with a first embodiment shown in FIGURES 4 and 6, the electrical cord 28 of cleaner 3 is passed through a suitable opening 29 in the back wall 5 of box 1 and connected to any standard wall receptacle 30 in the house.

The lever 31 of the conventional lever switch protruding from the body of suction cleaner 3 adjacent air outlet 26, is made to removably engage a hole made in a link 32 which is connected to a suitable linkage 33 to a foot pedal 34 protruding from front wall 6 adjacent the bottom of box 1.

Upon depressing foot pedal 34, level switch 31 is moved by axial displacement of link bar 32 to an "on" position. Upon release of foot pedal 34, a tension spring 35, connected to linkage 33, automatically returns the lever switch 31 to off position, whereby the switch controls the operation of the fan motor 36 of the suction cleaner 3.

In accordance with a second embodiment shown in FIGURES 5 and 7, the conventional cord 28 of the cleaner 3 is plugged into a socket 37 secured to the in-

side of box 1. Said socket 37 is connected in series with a lever switch 38, which is mechanically connected by linkage 39 to a foot-operated pedal 40 protruding on the outside of the box 1.

A cord 41 passing through opening 42 made in the back wall 5 of block 1, is connected to the socket 37 and lever switch 38 and to a standard wall receptacle 30 of the house.

The standard lever switch 31 of the vacuum or cleaner 3 is left in the "on" position.

Upon depressing pedal 40, lever switch 38 is actuated into the closed position, whereby the fan motor 36 of cleaner 3 is energized. Upon release of pedal 40, tension spring 43 connected to linkage 39 automatically returns the lever switch 38 to the "off" position, thereby stopping the motor 36 of cleaner 3.

The inside of lid 2 is preferably provided with spring clips 44 for removably retaining the conventional tubes 45, which are accessories of the suction cleaner 3.

The box 1 is preferably disposed in an accessible location within the house and cord 28 or 41 connected to the wall outlet receptacle 30, and suction tube 3' connected to the suction head 15. Lid 2 and auxiliary lid 19 are closed whereby the suction cleaner 3 therein is properly stored when not in use.

In order to clean the head 48 of a dust mop 49, auxiliary lid 19 is opened, as shown in FIGURE 2, and pedal 40 or 34 is depressed, thereby actuating the suction cleaner which creates a suction at suction head 15.

The mop head 48 is simply moved back and forth on the panel 12 of closed lid 2 across the grille plate 16, whereby all the dust and dirt is removed from the head 48. No dust or dirt can fall on the floor due to the provision of the flange 13 upstanding from panel 12. Any dust or dirt remaining on panel 12 is thereafter hidden from view by closing auxiliary lid 19.

Whenever it is desired to use the suction cleaner 3 in convention manner for cleaning rugs and the like, the flexible tube 3' disconnected from tube 18 of suction head 15 and the suction cleaner 3, is removed from box 1 and fitted with its accessories, such as tubes 45 and one or the other of suction heads 47.

In the first embodiment, cord 28 must be threaded through opening 29 and link bar 32 disengaged from lever switch 31 prior to removal of cleaner 3 from box 1. In the second embodiment, cord 28 is simply disconnected from socket 37.

While preferred embodiments in accordance with the present invention have been illustrated and described, it is understood that various modifications may be resorted to without departing from the spirit and scope of the appended claims.

What I claim is:

1. A casing for removably housing an electrically-operated suction cleaner, comprising a box having an open top and adapted to removably receive a suction cleaner through said open top, a lid closing the top of said box and hinged thereto, said lid having an opening made therein, a suction head fitted within said opening and including a grille plate extending over said opening, tube means removably connecting said head with the air inlet of said suction cleaner, said suction cleaner having an electric supply cord and a plug at the end of said cord, a socket and a series-connected lever-operated switch mounted within said box, an electric cord connected to said socket and switch and extending on the outside of said box to be connected to a supply of electricity, said socket adapted to removably receive the plug of the electrical cord of said suction cleaner, a foot pedal protruding from said box and pivotally mounted therein, linkage means connecting said foot pedal to the lever of said lever-operated switch, whereby depression of said pedal will close said lever-operated switch, and spring means returning said foot pedal into upper position, thereby causing said linkage means to open said lever-operated switch, said cleaner, when disposed in said box with its air inlet connected to said suction head and its electrical cord plugged into said socket and when operated by depression of said foot pedal, adapted to clean a dust mop moved along said lid across said grille plate, while said cleaner can be bodily removed from said box for use in conventional manner after opening of said lid and after disconnecting the electrical cord of said cleaner from said socket and the air inlet of said cleaner from said suction head.

2. A casing as claimed in claim 1, further including an additional lid hinged to said first-named lid and closable over the same to cover said opening in said first-named lid.

3. A casing as claimed in claim 1, further including air outlet means in the walls of said box.

4. A casing as claimed in claim 1, further including bracket means secured to the inside of said lid for removably retaining suction cleaner accessories within said box.

5. A casing as claimed in claim 1, wherein said lid consists of a panel and of a perimetral flange, said panel being recessed with respect to the upper edge of said flange, and a second lid pivoted to said flange and closable over said panel in spaced relationship therewith and closely fitting within the upper portion of said flange.

References Cited by the Examiner

UNITED STATES PATENTS

1,830,129	11/1931	O'Reilly et al.	15—310
2,367,437	1/1945	Salt	15—323
2,466,771	4/1949	Jones	15—4
2,544,405	3/1951	Weir	15—323 X
2,778,447	1/1957	Meyerhoefer	15—327 X
2,885,714	5/1959	Johnson	15—323 X

ROBERT W. MICHELL, *Primary Examiner.*