

Filed Feb. 24, 1954

CANNISTER-TYPE VACUUM CLEANER

5 Sheets-Sheet 1



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May 8, 1956

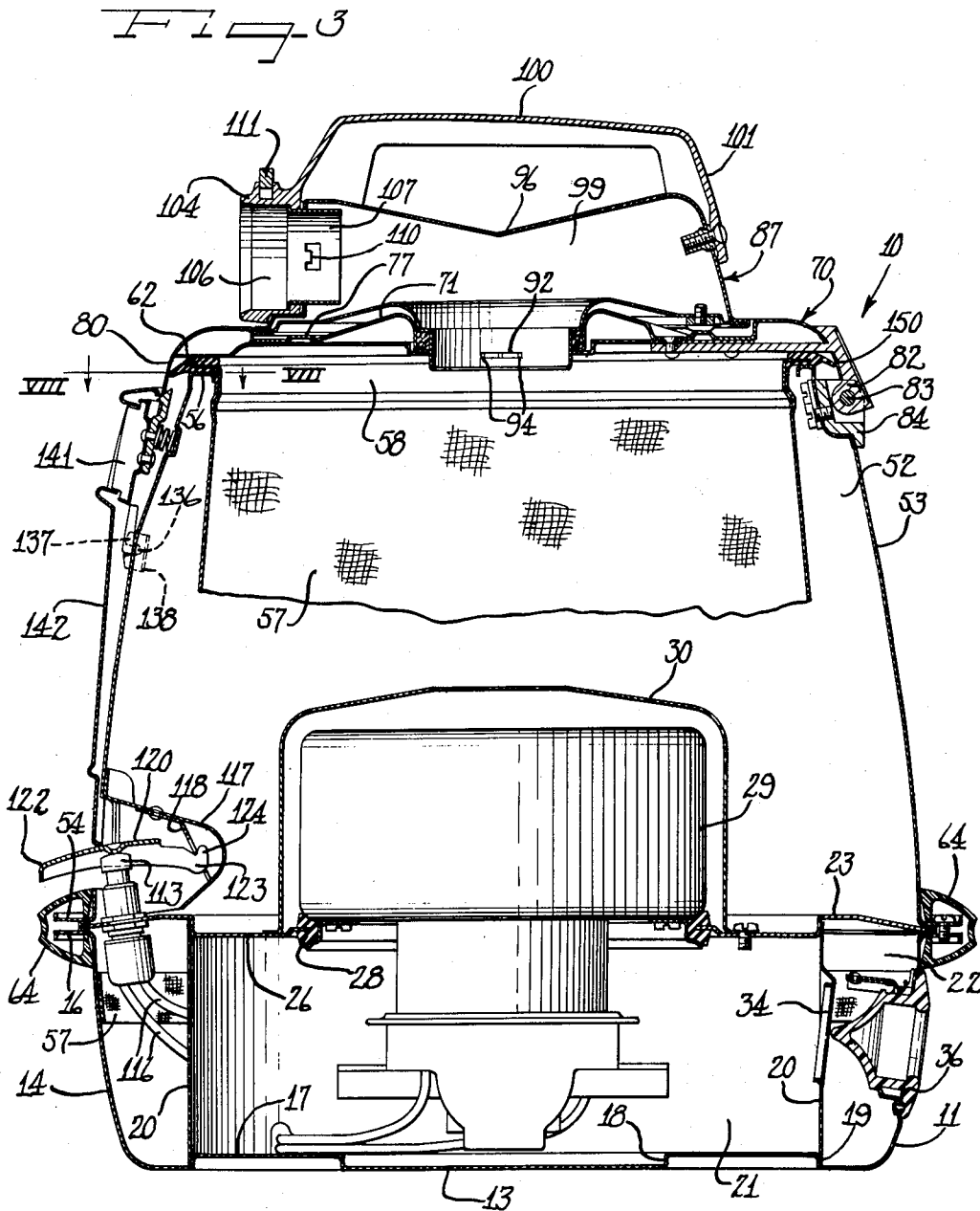
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2,744,585

CANNISTER-TYPE VACUUM CLEANER

Filed Feb. 24, 1954

5 Sheets-Sheet 2



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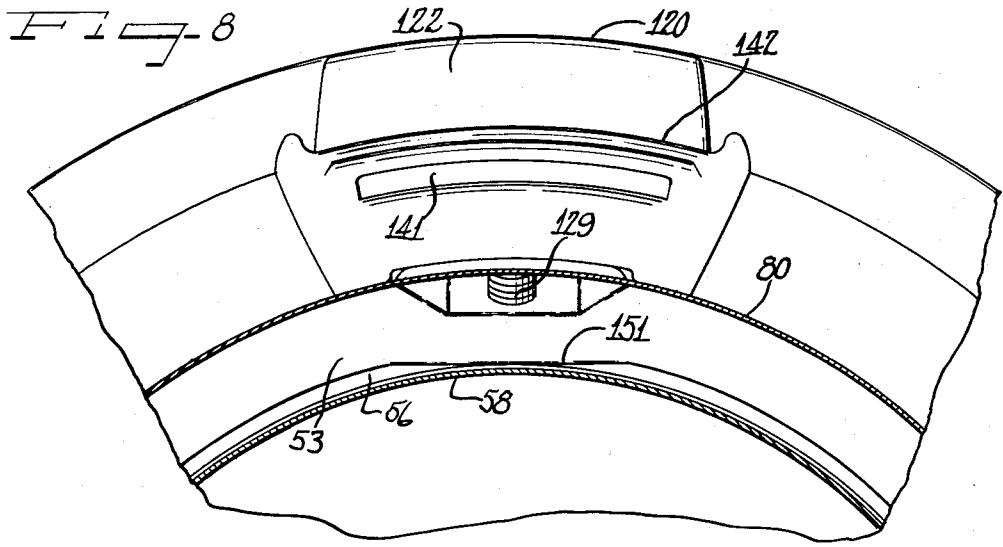
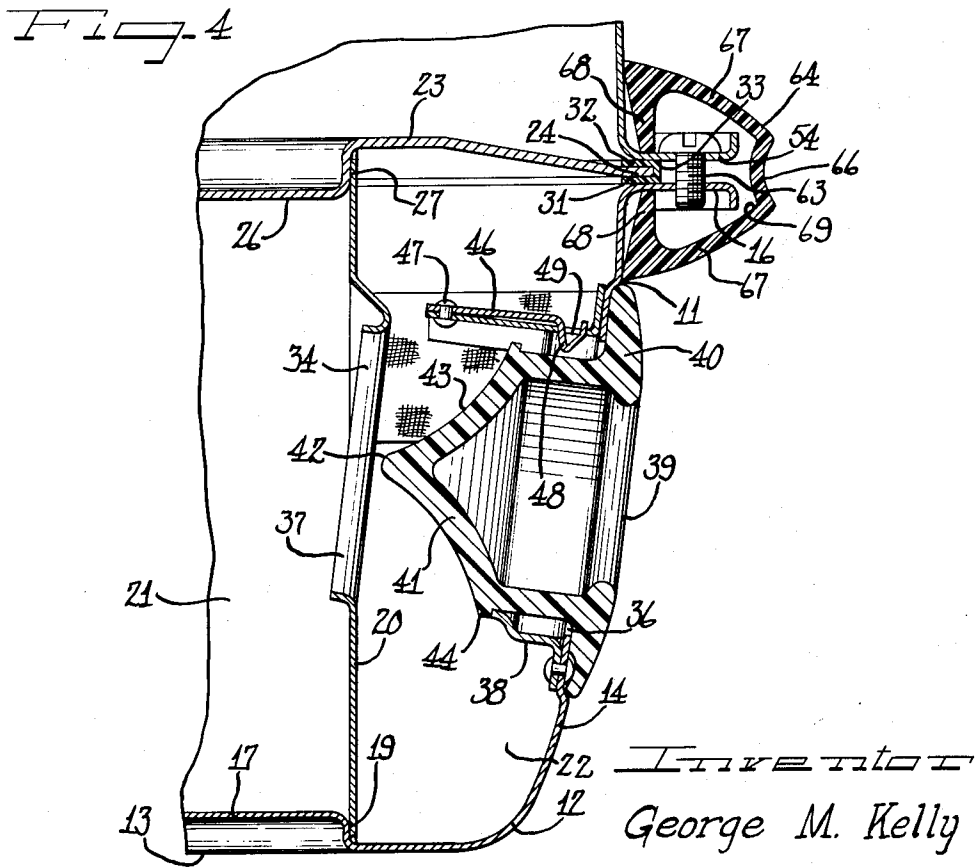
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CANNISTER-TYPE VACUUM CLEANER

Filed Feb. 24, 1954

5 Sheets-Sheet 3



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2,744,585

CANNISTER-TYPE VACUUM CLEANER

Filed Feb. 24, 1954

5 Sheets-Sheet 4

FIG. 7

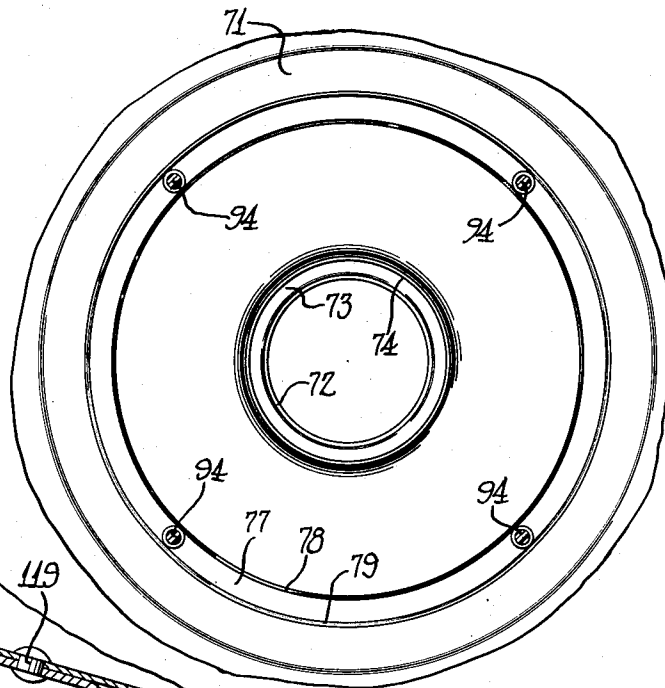
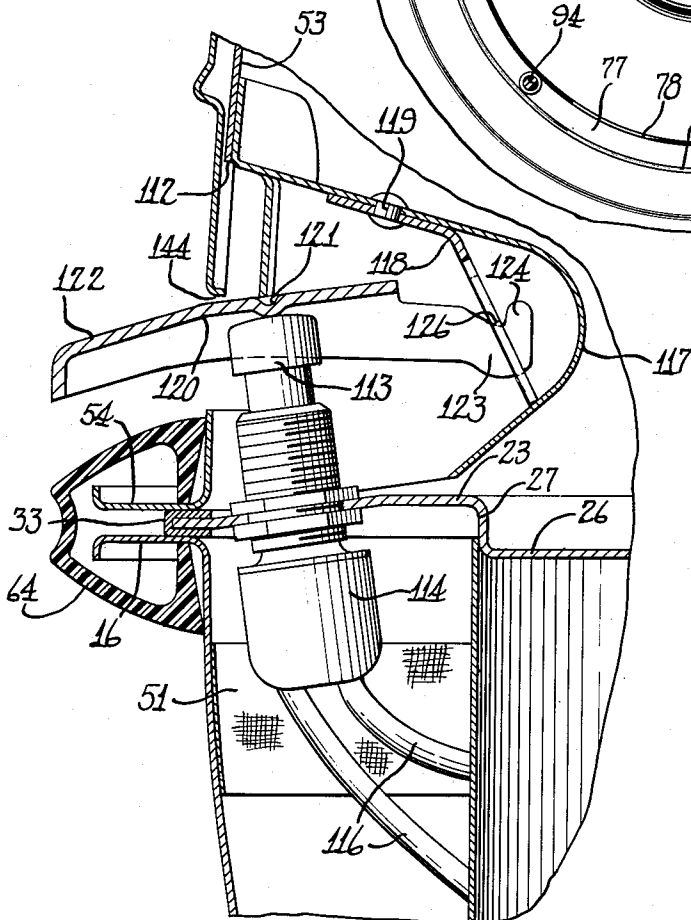


FIG. 5

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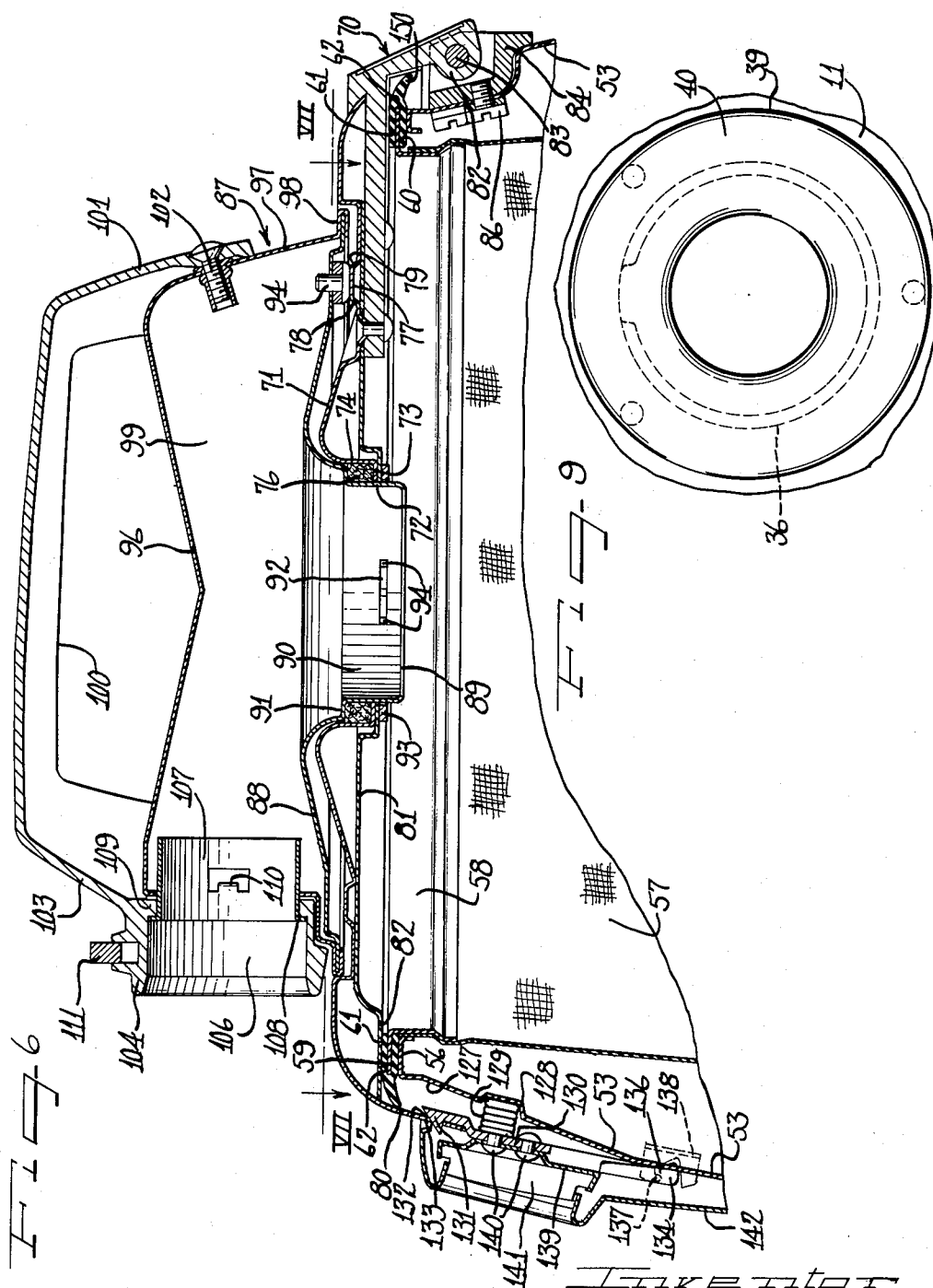
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CANNISTER-TYPE VACUUM CLEANER

Filed Feb. 24, 1954

5 Sheets-Sheet 5



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2,744,585

CANNISTER-TYPE VACUUM CLEANER

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Application February 24, 1954, Serial No. 412,163

23 Claims. (Cl. 183—37)

This invention relates generally to cleaning mechanisms and more particularly to a cannister-type vacuum cleaner, nomenclature which is used to describe an upright-type of a so-called tank-type vacuum cleaner.

It is an object of the present invention, therefore, to provide a cannister-type vacuum cleaner which is made of a reduced number of simplified parts and which is economical to manufacture and efficient in operation.

Another object of the present invention is to provide an improved swivel top construction for a cannister-type vacuum cleaner.

A further object of the present invention is to provide an improved hinged cover assembly for a cannister-type vacuum cleaner.

Yet another object of the present invention is to provide an improved latch and switch assembly for a cannister-type vacuum cleaner.

A further object of the present invention is to provide an improved means of compartmentation in a cannister-type vacuum cleaner utilizing simplified sheet form construction.

Yet another object of the present invention is to provide an improved sealing arrangement for a dirt separating means in a cannister-type vacuum cleaner.

A still further object of the present invention is to provide a hinged cover construction and a dirt separating means for a cannister-type vacuum cleaner which will effectively cooperate to produce a seal when the cover is closed but which will not lift the dirt-separating means out of the housing when the cover is raised.

Many other features, additional objects and further advantages of the present invention will become manifest to those versed in the art upon making reference to the detailed description which follows and the accompanying sheets of drawings in which a preferred structural embodiment of a cannister-type vacuum cleaner incorporating the principles of the present invention is shown by way of illustrative example.

On the drawings:

Figure 1 is an elevational view of a cannister-type vacuum cleaner provided in accordance with the principles of the present invention;

Figure 2 is a plan view of the cannister-type vacuum cleaner shown in Figure 1;

Figure 3 is a cross-sectional view taken substantially on line III—III of Figure 2;

Figure 4 is an enlarged fragmentary cross-sectional view similar to Figure 3 but showing in greater detail further constructional features of the present invention;

Figure 5 is a fragmentary cross-sectional view similar to Figure 3 but enlarged to show additional details of construction;

Figure 6 is a fragmentary cross-sectional view similar to Figure 3 but enlarged to show additional details of construction;

Figure 7 is a fragmentary cross-sectional view with parts shown in elevation taken substantially on line VII—VII of Figure 6;

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Figure 8 is a fragmentary cross-sectional view with parts shown in elevation taken substantially on line VIII—VIII of Figure 3; and

Figure 9 is a fragmentary elevational view showing the rubber baffle plug of Figure 4.

As shown on the drawings:

The cannister-type vacuum cleaner of the present invention is indicated generally at 10 and comprises a lower housing 11 which includes a sheet form member 12 bent to provide a bottom wall 13 and upstanding side walls 14 terminating in an outwardly extending peripheral flange 16.

The bottom wall 13 is particularly characterized by the provision of a rigidifying embossment 17 which is annular in form and which provides a vertically extending inner shoulder 18 and an outer shoulder 19.

A sheet form wrap-around member 20 is provided in the lower housing 11 which is substantially cylindrical in configuration, thereby to divide the lower housing into an inner compartment 21 and an outer annular compartment 22. The wrap-around member 20 at its lower edge abuttingly engages the outer shoulder 19. In other words, the rigidifying embossment 17 is wholly received within the wrap-around member 20 to facilitate the establishment of separate compartments in the lower housing 11.

A motor mounting plate is indicated at 23 and comprises a sheet form member shaped to provide a peripheral rim 24 which overlies at least a portion of the upper flange 16 provided on the lower housing 11. The motor mounting plate 23 is further shaped to provide a depending embossment 26 providing an outer vertically extending annular shoulder 27 so that the embossment 26 is wholly received within the wrap-around member 20 and the shoulder 27 abuttingly engages the upper edge portion of the wrap-around member 20.

The motor mounting plate 23 is centrally apertured and the inner annular edge portions thereof are wholly received in a rubber gasket 28 forming a seat for a motor suction unit 29 disposed to have its rotatable elements rotate on a vertical axis. A perforated shroud 30 made as a sheet form member rises upwardly from the motor mounting plate 23 and surrounds the portion of the motor suction unit 29 extending above the motor mounting plate 23. A portion of the motor suction unit 29 also extends below the motor mounting plate 23 into the inner compartment 21 so that all air discharged thereby will enter the inner compartment 21.

As is clearly shown in Figure 4, the rim 24 of the motor mounting plate 23 is received between the opposed parallel legs 31 and 32 of a rubber gasket 33. The leg 31 engages the flange 16 thereby to establish a seal between the rim 24 and the lower housing 11.

As is clearly shown in Figures 3 and 4, the wrap-around member 20 and the lower housing member 12 provide inner and outer registering apertures shown at 34 and 36, respectively. Portions of the wrap-around member 20 are flanged as at 37 to provide a rigid support tube portion for the aperture 34 and a retainer latch device 38 is connected to the upstanding walls 14 of the lower housing member 12 at the aperture 36, the retainer latch device 38 being located within the compartment 22 so as to be concealed from view in regard to the exterior of the housing 11.

If it is desired to utilize the cleaner 10 for blowing purposes, a blower tube (not shown) is inserted through the aperture 36 and the aperture 34, thereby forming a direct passage from the inner compartment 21 to the outside of the lower housing 11. The latch device 38 is adapted to cooperate with conventionally formed blower tube attachments so that the blower tube may be retained in firm assembly with the cleaner 10.

In ordinary cleaning use, the cleaner 10 is equipped with a removable baffle plug indicated generally at 39

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which may be formed of rubber or some other suitably flexible material. The details of construction of the rubber baffle plug 39 are clearly shown in Figures 4 and 9. The baffle plug comprises a generally cylindrical tubular body having an enlarged flange 40 which overlies the edges of the aperture 36 in the lower housing 11. The inside end of the baffle plug 39 is closed by a wall 41 which is generally conically-shaped and which is arranged so that the apex 42 extends towards and proximate to the aperture 34 in the wrap-around member 29, thereby providing a divergent baffle surface 43 to direct air flowing outwardly from the aperture 34 throughout the outer compartment 22.

A peripheral shoulder 44 is provided on the baffle plug 39 and engages behind an adjoining shoulder provided by the latch device 38. The latch device 38 is equipped with a spring latch 46 riveted at one end as at 47 and having an abutment 48 extending through an aperture 49 to cooperate with hose fittings, as well as to assist in retaining the baffle plug 40 in assembly with the lower housing 11.

As is shown in Figure 1, the lower housing 11, and more particularly the upstanding walls 14 of the lower housing 11 is provided with a plurality of openings 50 from which air under increased pressure escapes from the outer compartment 22 to the outside of the lower housing 11. To decoratively enhance the appearance of the cleaner 10 and to provide an additional filtering media as well as a noise suppressor, the openings 50 are covered by a strip of suitable cloth material, or what can be properly identified as a screen 51.

The cleaner 10 is further provided with an upper housing providing a dirt-separating compartment 52 and taking the form of a sheet form member 53 bent to provide generally cylindrical walls terminating at the lower end in a lower outwardly extending flange 54 overlying the upper flange 16 and engaging the leg 32 of the gasket 33. At the upper end of the upper housing 53, there is provided an inwardly extending horizontally disposed flange 56 providing a flat abutment surface for supporting a dirt-separating means. In the form of the invention herein described, the dirt-separating means constitutes a cloth filtering bag 57 connected to a relatively rigid support ring 58 flanged as at 59 so as to be received between the opposed legs 60 and 61 of a rubber gasket 62. The leg 60 engages the flat horizontal surface provided by the flange 56 to provide a seal between the upper housing 53 and the dirt-separating means so that all air drawn in through the upper housing will be passed through the cloth bag 57.

It may be noted that to establish an efficient seal at the lower flange 54, a plurality of fasteners 63 circumferentially spaced with respect to the lower flange 54 and the upper flange 16 are passed through the lower flange 54 and into firm assembly with the upper flange 16, thereby clamping the rubber gasket 33 and the rim 24 of the motor mounting plate 23 between the flanges 54 and 16 and placing the upper housing 53 and the lower housing 11 in firm assembly with one another.

To decoratively enhance the cleaner 10 and to provide a flexible bumper surface around the cleaner 10, there is provided a ring 64 made of a flexible material such as an extruded soft plastic or rubber or the like. The ring provides a peripheral concave surface indicated at 66 and side walls which are indicated at 67 and which diverge outwardly to contact the upper and lower housings, respectively. Each of the side walls 67 is provided with an inwardly turned end wall 68 which lie in opposed spaced relationship and which engage the opposing flanges 54 and 16, respectively. Thus, the flanges 54 and 16 are completely embraced and are almost wholly contained within the hollow recess 69 provided by the ring 64 and an annular bumper cushion extending around the entire cleaner is provided by the ring 64.

Referring now more particularly to Figure 6 in connection with Figure 3, it will be noted that there is pro-

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vided in accordance with this invention a cover construction which is indicated generally at 70.

The cover construction 70 comprises a main cover plate 71 consisting of a sheet form member bent to provide a centrally disposed inlet opening 72 circumscribed by a horizontally extending flange 73 and an adjacent vertically extending flange 74, together providing a recess to receive and retain an annular sealing member 76.

Radially outwardly of the centrally disposed opening 72 there is provided on the main cover plate 71 an annular upstanding embossment 77 forming a trackway extending between inner and outer concentrically aligned shoulders indicated at 78 and 79, respectively.

The main cover plate 71 is further shaped to provide depending side wall portions 80 which are spaced concentrically outwardly of the flange 56 on the upper housing 53.

A separate pressure plate member 81 takes the form of a sheet form member shaped to provide an annular abutment surface 82 overlying and engaging the leg 61 of the rubber gasket 62 and also providing a centrally disposed opening in register with the inlet opening 72 of the main cover plate 71. The pressure plate member 81 is preferably placed in firm assembly with the main cover plate 71, for example, by spot welding or the like.

The entire cover unit is provided with a hinging device 82 receiving a hinge pin 83 journaled in a hinge bracket 84 connected in firm assembly to the upper housing 53 by means of a plurality of fasteners 86.

Cooperating with the cover unit 70 is a swivel top construction indicated generally by the reference numeral 87. The swivel top construction includes a sheet form member 88 which is shaped to provide a centrally disposed inlet opening 89 circumscribed by a generally vertically extending flange 90 which projects through the inlet opening 72 and which provides an inner wall in spaced relation to the wall 74 so as to confine the sealing ring member 76 therebetween. The sheet form member 88 of the swivel top construction 87 is further provided with a horizontally extending flange portion 91 overlying the annular seal ring member 76, thereby further assisting in confining the annular sealing ring member 76. The flange 90 is apertured as at 92 and is embraced by a snap ring 93. The snap ring 93 is split and is provided with inwardly extending end portions indicated at 94 so as to be locked in firm assembly with the flange 90 of the sheet form member 88. The snap ring 93 underlies the edges of the inlet opening 72 of the cover unit 70, and more particularly the edges of the opening provided by the pressure plate member 81, thereby to retain the sheet form member 88 in movable assembly for swivel movement with the cover unit 70.

As is clearly shown in Figure 6 and in Figure 7, the swivel movement of the swivel top construction 87 is stabilized by the provision of a plurality of circumferentially spaced bearing members indicated at 94 carried by the sheet form member 88 in register with the trackway on the upstanding embossment 77 formed on the main cover plate 71. In the form of the invention illustrated, the bearing members 94 conveniently comprise button members having a head portion made of molded nylon, a plastic material noted for its self-lubricating properties when used in connection with sliding contact on a metal surface such as is provided by the trackway of embossment 77.

The swivel top construction is provided with a second sheet form member 96 which is shaped to provide a cover wall extending between generally upstanding side walls 97. The side walls 97 terminate in a double flange 98, or in other words, a flange which is turned back upon itself to provide a recess for receiving the rim of the sheet form member 88. The sheet form members 88 and 96 together form an inlet compartment 99 which communicates with the interior of the housing 53 through the opening 89.

A handle member 100 has a rear leg portion 101 which

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is fastened in firm assembly to the upstanding walls 97 of the sheet form member 96 by means of a fastener 102.

The front leg 103 of the handle 100 is shaped to provide a coupling unit 104 particularly characterized by a tubular passage 106 which is adapted to receive a suction hose and other auxiliary attachments conventionally associated with a vacuum cleaner. To place the front leg 103 of the handle 100 in assembly with the sheet form member 96 and the swivel top construction 87, there is provided a tubular ferrule 107 which is flanged as at 108 to overlie an annular shoulder 109 on the coupling portion 104. A struck out retainer portion 110 on the ferrule 107 engages behind the edges of an opening formed in the upstanding side walls 97 of the sheet form member 96. A finger manipulable latch 111 is carried by the coupling portion 104 and cooperates with auxiliary attachments utilized in connection with the cleaner 10.

Referring now more particularly to Figure 5, it will be noted that the upper housing 53 is recessed as at 112. Extending into the recess 112 is the push button actuator 113 of a push button switch 114 carried in firm assembly with the motor mounting plate 23. Suitable conductor wires 116 place the switch 114 in circuit relationship with the motor suction unit 29.

A support frame 117 is firmly attached to the upper housing 53 and projects inwardly of the recess 112. A hinge support 118 is firmly attached to the frame 117 by means of a rivet 119 and depends generally into the recess 112.

A pedal actuating member indicated generally at 120 is provided with a medial rib 121 engaging the push button actuator 113 of the switch 114 and includes a foot manipulable pedal portion 122 which extends outwardly of the recess 112. At the opposite end of the actuating member 120 there is provided a pinless hinge portion 123 which more particularly comprises a finger 124 engaging behind a suitable shoulder 126 provided on the hinge member 118.

Now referring back to Figure 6, it will be noted that the upper housing 53 is recessed as at 127 and is further provided with an embossment 128 seating a coil spring 129 forming a continuous biasing means.

A latch actuating member 130 is provided with a medial abutment surface engaging against the coil spring 129 and further includes a latch keeper portion 131 including a camming surface 132 and cooperating with a recess 133 formed in the depending walls 80 of the main cover plate 71 to latch the cover unit 70 closed on the housing 53. The opposite end of the actuating member 130 is provided with a pinless hinge portion 134, more particularly comprising a finger 136 engaging behind a shoulder 137 provided by a bracket 138 carried in firm assembly on the upper housing 53.

A support frame 139 is held in firm assembly with the actuating member 130 by one or more rivets indicated at 140 and received within the support frame 139 is a panel member 141 which preferably comprises a decorative material made of plastic or the like and providing an indicia bearing name plate surface. The panel member 141 also functions as a push button actuator for the actuating member 130 so that the actuating member 130 may be depressed against the bias of the coil spring 129 to disengage the keeper portion 131 from the recess 133.

Extending between the upper and lower recess portions 127 and 112 of the upper housing 53 is a trim panel indicated generally at 142. The trim panel 142 conveniently takes the form of a sheet form member which is chrome plated or otherwise decoratively enhanced in ornamental appearance. The trim panel member 142 is provided with an upper recess 143 snugly receiving the panel member 141 and a lower recess 144 which passes and confines the actuating member 120. The trim panel member 142 is firmly assembled to the side walls of the upper housing 53 and cooperates to confine both of the actuating member 130 and 120 for pivotal movement

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relative to the housing 53. It is by virtue of this relationship that the pinless hinge connections are effected between the actuating members 120 and 130 and the housing 53. Additionally, it will be noted that the trim panel member 142 provides a broad expansive space shown at 146 extending between the recesses 143 and 144 and forming a protective kick plate surface so that an operator attempting to engage the foot pedal actuating member 120 will not inadvertently cause damage to the housing 53 of the cleaner 10.

When the cover unit 70 is closed, the seal effected by the sealing member 62 is further improved by the provision on the sealing member 62 of a peripheral outwardly extending flexible lip 150 which engages and seals against the depending side walls 80 of the main plate member 71. This invention contemplates a further improvement in the cover and housing structure which precludes inadvertent displacement of the dirt-separating means when the hinged cover unit 70 is pivoted with respect to the housing 53. In this regard, particular reference is made to Figure 8 wherein it will be noted that the upper housing 53 is offset as at 151 and the retainer ring 58 of the dirt-separating means is similarly offset so that the bag 57 will not be lifted when the cover unit 70 is pivotally displaced with respect to the housing 53.

Although various minor structural modifications might be suggested by those versed in the art, it should be understood that I wish to embody within the scope of the patent warranted hereon all such modifications as reasonably and properly come within the scope of my contribution to the art.

I claim as my invention:

1. In a cannister-type vacuum cleaner, a lower housing member consisting of a sheet form member bent to provide generally cylindrical upstanding side walls terminating in an outwardly projecting circumferential flange and having a bottom wall particularly characterized by an annular embossment providing a pair of concentrically spaced inner and outer shoulders rigidifying said bottom wall, a sheet-form wrap-around member providing upstanding walls on said bottom wall and having one edge thereof abutting said outer shoulder on said embossment to divide the interior of said lower housing into inner and outer concentrically aligned compartments, a motor mounting plate comprising an annular sheet-form member shaped to provide an embossment received in said wrap-around member and providing an annular shoulder abutting the opposite edge of said wrap-around member, said mounting plate having an outer circumferential rim carrying a U-shaped rubber gasket with one leg of said gasket underlying said rim to engage said flange and the other leg of said gasket overlying said rim, said wrap-around member and said lower housing member providing inner and outer registering apertures, a retainer latch in said outer compartment between said apertures adapted to receive a blower tube forming a direct passage from the inner compartment to the outside of said lower housing member, a removable baffle plug closing said outer aperture of said lower housing member and having a cone-shaped wall extending toward said inner aperture of said wrap-around member, thereby to direct air flow from said inner aperture through said outer compartment, said upstanding walls of said lower housing member having a plurality of openings therein for discharging air from said outer compartment, and dirt suction and separating means mounted on said lower housing discharging filtered air under increased pressure into said center compartment.

2. In a cannister-type vacuum cleaner, a lower housing consisting of a sheet-form member bent to provide generally cylindrical upstanding side walls terminating in an outwardly projecting circumferential flange and having a bottom wall particularly characterized by an annular embossment providing a pair of concentrically spaced inner and outer shoulders rigidifying said bottom wall,

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a sheet form wrap-around member providing upstanding walls on said bottom wall and having one edge thereof abutting said outer shoulder on said embossment to divide the interior of said lower housing into inner and outer concentrically aligned compartments, a motor mounting plate comprising an annular sheet form member shaped to provide an embossment received in said wrap-around member and providing an annular shoulder abutting the opposite edge of said wrap-around member, said mounting plate having an outer circumferential rim carrying a rubber gasket engaging said flange, said upstanding walls of said lower housing having a plurality of openings therein for discharging air from said outer compartment, an upper housing member consisting of a sheet form member bent to provide generally cylindrical side walls terminating at one end in an outwardly turned lower circumferential flange overlying said gasket and at the other end in an inwardly turned upper circumferential flange, fastening means between said lower flange and said lower housing flange holding said upper and lower housings in clamped together assembly, a cover closing the upper end of said upper housing, dirt-separating means in said upper housing including a rubber sealing gasket clamped between said cover and said upper circumferential flange, and a motor suction unit on said mounting plate discharging filtered air from said upper housing into said inner compartment, and inlet means in said cover to said dirt-separating means.

3. In a cannister-type vacuum cleaner, a lower housing consisting of a sheet-form member bent to provide generally cylindrical upstanding side walls terminating in an outwardly projecting circumferential flange and having a bottom wall particularly characterized by an annular embossment providing a pair of concentrically spaced inner and outer shoulders rigidifying said bottom wall, a sheet form wrap-around member providing upstanding side walls on said bottom wall and having one edge thereof abutting said outer shoulder on said embossment to divide the interior of said lower housing into inner and outer concentrically aligned compartments, a motor mounting plate comprising an annular sheet-form member shaped to provide an embossment received in said wrap-around member and providing an annular shoulder abutting the opposite edge of said wrap-around member, said mounting plate having an outer circumferential rim carrying a rubber gasket engaging said flange, said upstanding walls of said lower housing having a plurality of openings therein for discharging air from said outer compartment, an upper housing member consisting of a sheet form member bent to provide generally cylindrical side walls terminating at one end in an outwardly turned lower circumferential flange overlying said gasket and at the other end in an inwardly turned upper circumferential flange, fastening means between said lower flange and said lower housing flange holding said upper and lower housings in clamped-together assembly, a cover comprising a sheet-form member shaped to overlie said upper housing member, a hinge and latch between said cover and said upper housing member at opposite sides thereof whereby said cover is pivotally movable relative to said upper housing, a dirt-separating means in said upper housing including a rubber gasket clamped between said circumferential flange and said cover and a motor suction unit on said mounting plate discharging filtered air from said upper housing into said inner compartment, and inlet means in said cover to said dirt-separating means.

4. In a cannister-type vacuum cleaner of the type having a housing providing a dirt-separating compartment and a generally horizontal opening therinto, the improvement of a circumferential inwardly extending flange formed on said housing at the horizontal opening, a cover comprising a sheet-form member shaped to overlie said upper housing member, a hinge and latch between said cover and said upper housing member at opposite sides

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thereof, whereby said cover is pivotally movable relative to said upper housing, a dirt-separating means in said upper housing including a rubber gasket clamped between said upper circumferential flange and said cover and a motor suction unit discharging filtered air from said upper housing, and inlet means in said cover to said dirt-separating means.

5. In a cannister-type vacuum cleaner, a housing providing a dirt-separating compartment and a generally horizontal opening therinto, and a cover assembly, comprising, a sheet-form member bent to provide an annular embossment having concentrically spaced inner and outer shoulders separated by a trackway providing surface, a rotatable nozzle overlying said sheet-form member and movably carried thereby for relative rotation with respect thereto, and circumferentially spaced trackway-engaging bearing means carried by said nozzle engaging said trackway to stabilize rotatable movement of said nozzle on said cover.

6. In a cannister-type vacuum cleaner, a housing providing a dirt-separating compartment, and a generally horizontally opening therinto, and a cover assembly, comprising, a sheet-form member bent to provide an annular embossment having concentrically spaced inner and outer shoulders separated by a trackway providing surface, said cover having a downwardly turned center flange inwardly of said trackway providing an inlet opening, a nozzle device including a lower plate member overlying said cover assembly and providing a downwardly turned center flange extending through said inlet opening, a retainer ring carried by said lower plate member underlying said center flange of said cover, whereby said nozzle and said cover ring may be relatively rotated, and circumferentially spaced track-engaging bearing means carried by said lower plate of said nozzle engaging said embossment to stabilize rotational movement of said nozzle on said cover.

7. In a cannister-type vacuum cleaner, first and second sheet form members providing flat annular adjoining surfaces, the first member having an annular embossment providing concentrically spaced inner and outer shoulders separated by a track providing surface, the second member having a circumferentially spaced track engaging means for movably engaging said track, both of said members having centrally flanged portions inwardly of said track providing an opening, the flanged portion of said second member projecting through the flanged portion of said first member, and outwardly extending retainer means on said second member for overlying and movably engaging said flanged portion of said first member, said members adapted to form components of the cover and swivel top of the cannister-type vacuum cleaner.

8. A swivel top construction for a cannister-type vacuum cleaner comprising, a cover plate having a center opening and an annular embossment providing an upstanding trackway radially outwardly of said opening, and a nozzle unit providing a bottom plate overlying said cover plate and having a flanged opening in register with said center opening, retaining means underlying the edges of said center opening and engaging the flanges of said bottom plate to retain said nozzle unit in swivel assembly with said cover plate, and bearing means on said cover plate engaging said trackway to stabilize rotational movement of the nozzle unit on the trackway.

9. A swivel top construction for a cannister-type vacuum cleaner comprising, a cover plate having a center opening and an annular embossment providing an upstanding trackway radially outwardly of said opening, and a nozzle unit providing a bottom plate overlying said cover plate and having a flanged opening in register with said center opening, retaining means underlying the edges of said center opening and engaging the flanges of said bottom plate to retain said nozzle unit in swivel assembly with said cover plate, and bearing means on said cover plate

engaging said trackway, said bearing means comprising a plurality of circumferentially spaced nylon buttons.

10. In a cannister-type vacuum cleaner as defined in claim 4, said cover providing depending side walls spaced concentrically outwardly of said flange, said flange and said cover having spaced apart opposing surfaces inwardly of said walls for clamping against said rubber gasket, and a peripheral radially outwardly extending flexible lip formed on said gasket overhanging said flange and engaging and sealing against said depending side walls of said cover.

11. In a cannister-type vacuum cleaner, a lower housing comprising a sheet-form member shaped to provide a bottom wall and upstanding side walls terminating in an upper outwardly extending flange, an upper housing member comprising a sheet-form member shaped to provide side walls terminating in a lower outwardly extending flange, a motor suction unit having a mounting plate extending outwardly between said upper and lower flanges, a U-shaped peripheral rubber gasket on the rim of said mounting plate having its opposite legs engaging said upper and lower flanges, respectively, a plurality of fasteners extending through said flanges and clamping said upper and lower housings into sealed assembly with said mounting plate, and a flexible ring member embracing and concealing said upper and lower flanges and providing a bumper cushion ring for the housings.

12. In a cannister-type vacuum cleaner, a lower housing comprising a sheet-form member shaped to provide a bottom wall and upstanding side walls terminating in an upper outwardly extending flange, an upper housing member comprising a sheet-form member shaped to provide side walls terminating in a lower outwardly extending flange, a motor suction unit having a mounting plate extending outwardly between said upper and lower flanges, a U-shaped peripheral rubber gasket on the rim of said mounting plate having its opposite legs engaging said upper and lower flanges, respectively, a plurality of fasteners extending through said flanges and clamping said upper and lower housings into sealed assembly with said mounting plate, and a flexible ring member embracing and concealing said upper and lower flanges and providing a bumper cushion ring for the housings, said upper housing having a recess formed therein near the lower flange thereof, a push button switch carried by said mounting plate to control said motor suction unit, and a foot pedal actuator member overlying said switch and pivotally connected to said upper housing inside of said recess and extending outwardly of said recess to be engaged by an operator.

13. In a cannister-type vacuum cleaner, a lower housing comprising a sheet-form member shaped to provide a bottom wall and upstanding side walls terminating in an upper outwardly extending flange, an upper housing member comprising a sheet-form member shaped to provide side walls terminating in a lower outwardly extending flange, a motor suction unit having a mounting plate extending outwardly between said upper and lower flanges and overlying said side walls of said lower housing for vertical support thereby, a U-shaped peripheral rubber gasket on the rim of said mounting plate having its opposite legs engaging said upper and lower flanges, respectively, a plurality of fasteners extending through said flanges and clamping said upper and lower housings into sealed assembly with said mounting plate, and a flexible ring member embracing and concealing said upper and lower flanges and providing a bumper cushion ring for the housings, said upper housing terminating on its upper end in an upper inwardly extending peripheral flange, a dirt-separating means including a rubber gasket seated on said upper flange, and a cover assembly hinged and latched to said upper housing to seal against said gasket.

14. In a cannister-type vacuum cleaner, a lower housing comprising a sheet-form member shaped to provide a

bottom wall and upstanding side walls terminating in an upper outwardly extending flange, an upper housing member comprising a sheet-form member shaped to provide side walls terminating in a lower outwardly extending flange, a motor suction unit having a mounting plate extending outwardly between said upper and lower flanges, a U-shaped peripheral rubber gasket on the rim of said mounting plate having its opposite legs engaging said upper and lower flanges, respectively, a plurality of fasteners extending through said flanges and clamping said upper and lower housings into sealed assembly with said mounting plate, and a flexible ring member embracing and concealing said upper and lower flanges and providing a bumper cushion ring for the housings, said upper housing terminating on its upper end in an upper inwardly extending peripheral flange, a dirt-separating means including a rubber gasket seated on said upper flange, and a cover assembly hinged and latched to said upper housing to seal against said gasket and including a latch member pivoted at one end to said upper housing and having a keeper portion engaging said cover.

15. In a cannister-type vacuum cleaner, a lower housing comprising a sheet-form member shaped to provide a bottom wall and upstanding side walls terminating in an upper outwardly extending flange, an upper housing member comprising a sheet-form member shaped to provide side walls terminating in a lower outwardly extending flange, a motor suction unit having a mounting plate extending outwardly between said upper and lower flanges, a U-shaped peripheral rubber gasket on the rim of said mounting plate having its opposite legs engaging said upper and lower flanges, respectively, a plurality of fasteners extending through said flanges and clamping said upper and lower housings into sealed assembly with said mounting plate, and a flexible ring member embracing and concealing said upper and lower flanges and providing a bumper cushion ring for the housings, said upper housing terminating on its upper end in an upper inwardly extending peripheral flange, a dirt-separating means including a rubber gasket seated on said upper flange, and a cover assembly hinged and latched to said upper housing to seal against said gasket, said upper housing having upper and lower recesses formed therein adjacent the respective upper and lower flanges thereof, a push button switch carried by said mounting plate and having actuating means extending into said lower recess, a first actuator member engaging said actuating means and having a pedal portion extending outwardly of said recess and a retainer portion engaging said upper housing inside of said recess, whereby pivotal movement of said first actuating member will operate said switch to control said motor suction unit, biasing means carried by said upper housing in said upper recess, a second actuator member engaging said biasing means and providing a keeper portion engaging said cover and a retainer portion engaging said upper housing portion, and a trim panel member connected to said upper housing and providing a kick plate protector surface on the exterior of said housing and confining said first and second actuating members in operating assembly with said upper housing.

16. In a cannister-type vacuum cleaner as defined in claim 15, said kick plate having a recess formed therein in register with said second actuator, and a movable push button member extending into said recess in an accessible position and being connected to said second actuator for operating said second actuator.

17. In a cannister-type vacuum cleaner having an electric operating motor, a housing having spaced apart recesses formed therein, one of said recesses having a first actuator member projecting outwardly thereof and the other of said recesses having a second actuator member projecting outwardly thereof, each of said actuator members having a pinless hinge portion engaging said housing, and a panel member mounted on the outside of said housing between said actuator members and including

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recess means receiving and confining said first and second actuator members, the confined actuator members being thereby retained in pivotal assembly with said housing, said first recess being provided near a lower portion of said housing, a push button switch in said recess engaged by said first actuator to control energization of the vacuum cleaner motor, said second recess being provided at the top of said housing, a hinged cover for said housing, and a keeper portion on said second actuator latching said cover in assembly with said housing.

18. In a cannister-type vacuum cleaner as defined in claim 17, said second actuator member having a push button portion extending through said panel member recess means into an accessible position to provide an indicia bearing name plate surface operable as a push button actuating means for unlatching the cover.

19. In a cannister-type vacuum cleaner of the type having a housing providing a dirt-separating compartment and a top opening therefor, the improvement of a circumferentially inwardly extending flange formed on said housing at the opening, a cover comprising a sheet-form member shaped to overlie said housing member, a hinge and latch means between said cover and said housing member at opposite sides thereof, whereby said cover is pivotally movable relative to said housing, dirt-separating means in said housing including a rubber gasket clamped between said circumferential flange and said cover, and an offset portion between said dirt-separating means and said housing to prevent upward movement of said dirt-separating means when said cover is pivotally moved relative to said housing.

20. In a cannister-type vacuum cleaner, the improvement of a housing providing a generally circular top opening receiving dirt-separating means, said dirt-separating means having a generally circular flange overlying

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said housing at the edges of said opening, said housing and said dirt-separating means having an offset portion extending radially inwardly at the edges of the otherwise circular opening complementally formed to preclude inadvertent lifting of said dirt-separating means from said housing.

21. In a cannister-type vacuum cleaner as defined in claim 19, said rubber gasket having a peripheral radially outwardly extending flexible lip overhanging said flange and engaging and sealing against said side walls of said cover.

22. In a cannister-type vacuum cleaner as defined in claim 20, a cover for said housing overlying said circular opening and having inlet means formed therein for communicating dirt-laden air to said dirt-separating means.

23. In a cannister-type vacuum cleaner as defined in claim 20, a cover on said housing member overlying said circular opening and a hinge and latch means between said cover and said housing member at opposite sides thereof, whereby said cover is pivotally movable relative to said housing, said cover having air inlet means formed therein for communicating dirt-laden air to said dirt-separating means.

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