

Nov. 24, 1959

N. A. BUCCASIO

2,913,755

HOSE HOLDER FOR A VACUUM CLEANER

Filed Sept. 28, 1955

FIG. 1

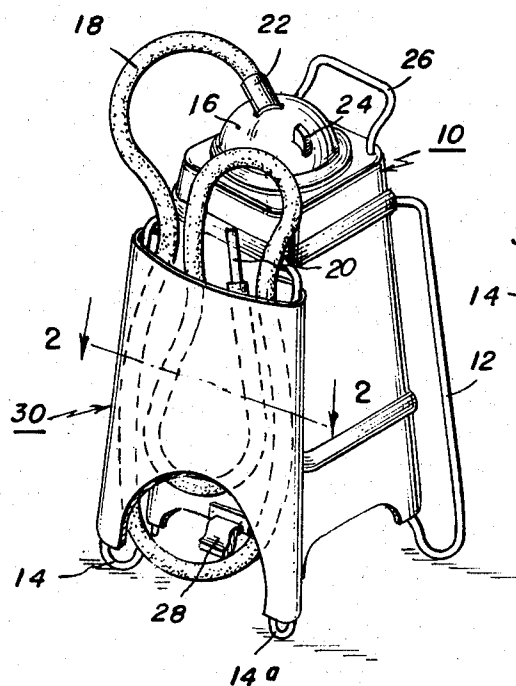


FIG. 2

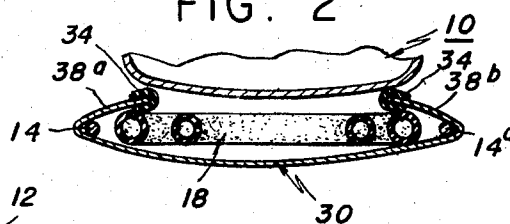
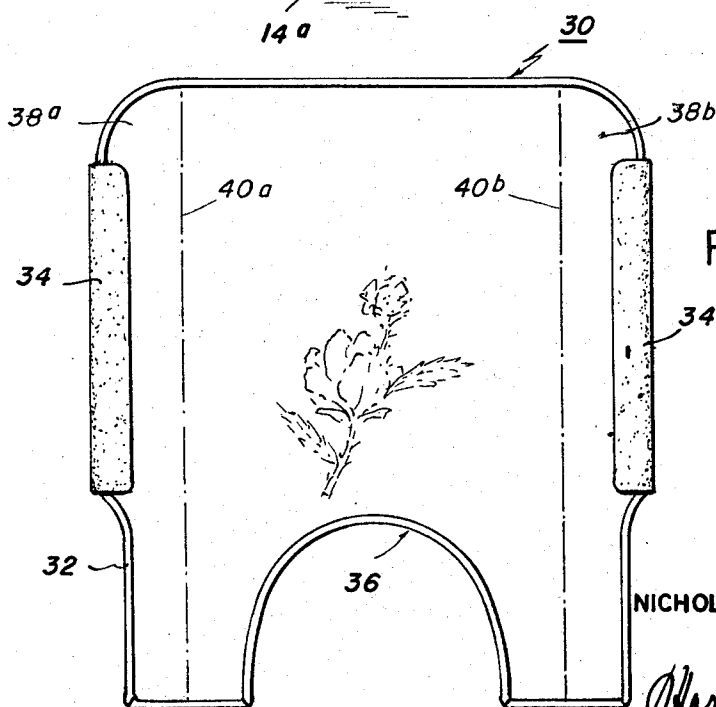


FIG. 3



INVENTOR
NICHOLAS A. BUCCASIO

BY

ATTORNEY

1

2,913,755

HOSE HOLDER FOR A VACUUM CLEANER

Nicholas A. Buccasio, Binghamton, N.Y.

Application September 28, 1955, Serial No. 537,097

2 Claims. (Cl. 15—323)

This invention relates to improvements in vacuum cleaners and more particularly to a hose holding attachment for portable electric vacuum cleaners of the so-called sleigh or runner type.

A feature of disadvantage of the aforesaid sleigh or runner type portable electric vacuum cleaners resides in the failure thereof to make any provision for holding the relatively long and large-diameter flexible hose which connects the wand mounting the cleaning tool to the usually swiveled coupling head on the upper end of the cleaner body in orderly and compact fashion when the cleaner is not in use. Thus the housewife or other person using the cleaner, when called upon to move it from room to room or from one floor to another, is put to the inconvenience of either disconnecting the hose from the cleaner body and holding it separate therefrom or of somehow holding it attached to the cleaner body so that it will not dangle and give rise to the possibility of accidents. Also, difficulties are encountered in holding the hose coiled about the cleaner body during storage periods, so that usually it is left uncoiled, thereby taking up an inordinate amount of usually valuable storage space; and when left uncoiled as aforesaid it is also likely to become entangled with other articles being stored.

Stated broadly, a main object of the invention is the provision of an attachment for sleigh or runner-type portable electric type vacuum cleaners by which the flexible hose which connects the wand to the cleaner body may be held in orderly and compact manner to said body, making it easier to carry the cleaner about and also conserving space required in storing the cleaner.

Another object of the invention is the provision of a hose holding attachment for vacuum cleaners as aforesaid which is inexpensive in manufacture, simple to apply, and thoroughly dependable in use.

Yet another object of the invention is the provision of a hose holding attachment for vacuum cleaners characterized as in the foregoing which may be attached to existing vacuum cleaners by hand and without the use of tools and further without marring of the cleaner body or otherwise detracting from the appearance of the vacuum cleaner as a whole.

A still further object of the invention is the provision of a hose holding attachment for sleigh or runner-type portable electric vacuum cleaners, which is so constructed and arranged that it may be clipped to two runners of the cleaner and, when so applied, provides an enclosed space extending along a substantial arc of the cleaner body and substantially the depth thereof for housing the flexible hose which connects the wand to the swiveled coupling by which the hose is in turn connected to the cleaner body.

Yet another object of the invention is the provision of a clip-on type hose holding attachment for vacuum cleaners as aforesaid, characterized by its ability to lock itself to the cleaner body when clipped to the runners thereof.

The above and other objects and advantages of a hose

2

holding attachment for vacuum cleaners according to the present invention will appear from the following detailed description thereof, taken with the accompanying drawings illustrating a preferred embodiment of the invention, wherein

Fig. 1 is a perspective view of the hose holding attachment of the invention applied to a sleigh or runner type vacuum cleaner;

Fig. 2 is a broken-away section taken on line 2—2 of Fig. 1, which illustrates the manner in which the attachment locks to the cleaner body when clipped to two adjacent runners thereof; and

Fig. 3 is a plan view of the blank making up the hose holding attachment prior to its being applied to the vacuum cleaner as in Fig. 1, the dot-and-dash lines generally indicating the lines about which the side edge or wing portions of the blank are folded under the body portion thereof in the preforming and/or applying operation.

Referring to the drawings, reference numeral 10 generally designates the body of a popular make of portable electric vacuum cleaner presently on the market and which is provided with a pair of rear runners 12 (of which only one is shown) and a pair of front runners 14, 14a. It will be understood that while the cleaner has been illustrated in its upright position in which the aforesaid runners combine to form supporting legs which elevate the cleaner body above the floor, it may also be turned to rest on the rear runners 12 so that when pulled about it may glide along the floor, much the same as a sleigh or sled.

The cleaner body 10 contains the usual motor-driven suction fan and filter bag (not shown), and it is closed at one end, i.e. its upper end when disposed in its illustrated upright position, by a rotatable dome-shaped head 16 serving as a swiveled coupling for connecting to said body one end of a relatively elongated and large-diameter flexible hose 18, whose other end terminates in a nozzle 20 to which the tool-carrying wand or the cleaner tool proper (not shown) is attached. Usually the flexible hose 18 connects to the swiveled coupling head 16 through a sleeve 22 containing a detachable hose-end connection operable by a button 24 whereby the hose may be completely separated from the cleaner as and when desired. As is conventional, the upper (upright) end of the cleaner body 10 also mounts a handle 26 by which the cleaner may be carried about from room to room or from one floor to another. A motor-control switch 28 is also provided, such extending from the front side of the cleaner when disposed in upright position as illustrated, it being noted that the actuating member of the switch is shaped as a foot pedal arranged at convenient level for foot operation.

As forecast above, the illustrated vacuum cleaner, and this applies also to all other makes of sleigh or runner type portable electric vacuum cleaners with which I am familiar, is open to the objection that it is lacking in any provision of means for holding the relatively long and large-diameter flexible hose 18 when the cleaner is being carried about from room to room or from one floor to another, with the result that the hose must be held by hand to prevent it from dangling and becoming entangled with other objects, and from causing accidents by tripping over same. Of course, it is possible to completely disconnect the hose 18 from the cleaner prior to the latter being moved about from place to place, but such is hardly the solution as the hose in this instance must be carried by both hands to prevent dangling. The dangling hose also legislates against the vacuum cleaner being stored compactly in a small space and results in inconvenience when becoming entangled with other similarly stored articles.

According to the present invention, the aforesaid dis-

advantages are overcome in simple and effective manner through the provision of an attachment for vacuum cleaners which, when applied thereto as herein proposed, serves in combination with the cleaner body to provide a space or enclosure for holding the flexible hose 18 in an orderly and compact manner and against any possibility of dangling. Illustratively and as best shown in Fig. 3, such an attachment designated 30 comprises, in the first instance, a blank or sheet made of thin, light-weight material possessing some springiness, such as aluminum, which has width greater than that of the front wall of the cleaner body 10 by a predetermined amount required to provide in-bent side wing portions in the final article for the purpose to be further discussed, and height which is somewhat less than the vertical height of said cleaner body. Preferably, the sheet is provided along all edges with a suitable edging 32 designed to blunt same, and its upper side edge portions, which have slightly greater width than the lower side edge portions, are provided with additional edgings 34 of some soft material, such as felt or rubber, which, it will be noted, extend for substantially the full length of the wider edge portions. As also seen in Fig. 3, the sheet is also provided along its bottom edge with a deep recess 36.

In converting the aforesaid blank 30 to a hose holding attachment according to the invention, it is preferably first preformed to roughly elongated C-section as by bending its side edge or wing portions 38a, 38b inwardly around two rods placed as are the front runners or legs 14, 14a of the cleaner, or around the corresponding legs of an available cleaner, against which the blank is placed with its vertical center line disposed to coincide with the center line extending vertically through the space between said rods, or with the center line of the front side of the cleaner body if an available cleaner is used in preforming the blank. Such bending operation results in said wing portions 38a, 38b being infolded along substantially vertical lines of fold indicated by the dot-and-dash lines 40a, 40b (Fig. 3) which it will be understood are spaced laterally the distance of the runners or legs 14, 14a; and since the material of the blank remains springy to a degree despite the fact that the attachment has through preforming taken on a degree of permanent set, the bending operation further results in said wing portions having the potential of serving as spring clips.

The preformed attachment is now ready to be applied to a cleaner. Such is simply effected by first placing it, preferably by hand, just forwardly of the front runners or legs 14, 14a of the cleaner with which it is to be associated and in a position relative thereto which approximates its desired final position on the cleaner; thereupon opening up, i.e. bending backwardly, the in-bent wing portions 38a, 38b, which can be simply done by hand pressure; and thereupon simultaneously pushing the body portion of the attachment against said runners and allowing said wing portions to clip thereto when springing back to their in-bent position, meanwhile guiding and arranging said wing portions so that they move towards one another past the corners between the front and adjacent side faces of the cleaner body and assume a final position (as in Fig. 2) in which they extend intermediate the runners or legs 14, 14a and the cleaner front face and bear with spring pressure against the latter.

Preferably, the lower-end wing portions of the sheet, which are disposed to the side of the recess 36 thereof, rather than being engaged with the front side of the cleaner body as aforesaid, are instead brought forwardly so as to closely underlie the lower leg-like portions of the sheet body portions disposed immediately to the sides of the recess 36. This can be achieved merely by grasping said overlying and underlying leg and lower-end wing portions with the fingers and bringing them together with a pinching action.

When applied to a cleaner as aforesaid, the attachment as herein proposed in effect forms a false front wall on

the cleaner body 10 which is spaced forwardly therefrom a distance corresponding substantially to the forward spacing of the runners 14, 14a from the cleaner front wall, which distance will be found to be slightly less than the normal diameter of the flexible hose 18. It is also a feature of the invention that this so-called false front wall is effectively locked to the cleaner by the action of the inwardly-folded side wing portions 38a, 38b of the blank 30 in springing past the corners between the front side of the cleaner body and the adjacent sides thereof, and thereupon of bearing with some spring pressure against said front side of the cleaner body. However, even though they bear relatively tightly against the cleaner body, said in-bent side edge portions of the blank, following its final attachment, are prevented from marring the body because of the provision of the edgings 34 of soft material extending along said side edges. It is also to be noted that, when the attachment is applied as in Fig. 1, the bottom edge recess 36 is disposed forwardly of the pedal-operated control switch 28; hence, even though co-operated with the same front wall of said cleaner body as that on which the switch is mounted, the attachment does not interfere in any way with the operation of the switch.

Consequent to the attachment forming with the front side of the cleaner body a shallow, open-top housing or compartment having width corresponding substantially to the width of the cleaner body and which is disposed just forwardly thereof, the flexible hose 18 may be held to the cleaner body in orderly and compact manner by the simple operation of pushing it downwardly through the open top of the housing or compartment, preferably finally looping it so that the hose nozzle 20 is upwardly disposed and accessible. While only incidental to the holding of the hose, this nozzle disposition is of advantage since it simplifies the operation of pulling the hose from the housing when it is desired to use the cleaner. It is also to be observed that, since the side edge portions 38a, 38b of the attachment are folded over the runners 14, 14a and thence extend into engagement with the front face of the cleaner body, said portions form vertical side edge closures for the compartment which of course prevent the hose or a loop thereof escaping by moving sideways therefrom.

Although for purposes of description the attachment according to the invention has been described as made from sheet aluminum, it may be made from other suitable materials, including sheet plastic material. When made of sheet plastic, the attachment is preferably molded to generally U- or channel-shape and dimensioned so that it will telescope over the runners, rather than being sprung over the runners as described. Also it is to be understood that a hose holding attachment operating according to the principles of the invention may be applied by suitable means other than those described above, so long as such connect it to a pair of runners corresponding to the runners 14, 14a as described to form a housing or compartment of width and depth as to receive and hold a hose generally as illustrated in Fig. 1.

Without further analysis, it will be appreciated that the invention provides a simple and effective hose holding attachment for sleigh or runner-type portable electric vacuum cleaners capable of achieving the objectives of the invention as outlined in the foregoing. However, as many changes could be made in carrying out the above constructions without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

I claim:

1. The combination of a portable electric vacuum cleaner having a pair of supporting runners spaced outwardly from a side of the cleaner body and a flexible suction hose extending between the tool of the cleaner and said cleaner body, and an attachment therefor compris-

5

ing a sheet-form member secured to said cleaner body and extending transversely between said runners and substantially coextensive with said cleaner body and being disposed parallel to said cleaner side and having side edge portions extending inwardly towards said cleaner side, said side edge portions being folded around said runners and thence extending inwardly towards each other and bearing with spring pressure on said side of the cleaner body, said member cooperating with said cleaner side to form an enclosure into which the hose may be coiled when moving the cleaner about and during its storage.

2. A hose holding attachment for a sleigh-type electric vacuum cleaner comprising a sheet-like member provided along its side edges with means for clipping said member to a pair of the runners with which such a cleaner is provided and which are spaced outwardly from a side of the cleaner body, thereby to form with the cleaner side a hose-holding enclosure, said sheet-like member having in its bottom edge a downwardly opening recess for providing access to cleaner control means ex-

6

tending from the lower end of the cleaner body into the space between said runners, said sheet-like member otherwise adapted to extend substantially coextensive with said side of the cleaner body when clipped to the runners as aforesaid, said clip means comprising side-wing portions integral with said member and being bent inwardly towards one another to underlie said member proper along its side edges.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 159,960	Davey	Sept. 5, 1950
D. 159,961	Davey	Sept. 5, 1950
2,248,585	Ross et al.	July 8, 1941
2,364,846	Hartman	Dec. 12, 1944
2,560,486	Shears	July 10, 1951
2,607,945	Fontaine	Aug. 26, 1952
2,634,189	Hill	Apr. 7, 1953
2,712,917	Flora et al.	July 12, 1955
2,731,103	Ortega	Jan. 17, 1956