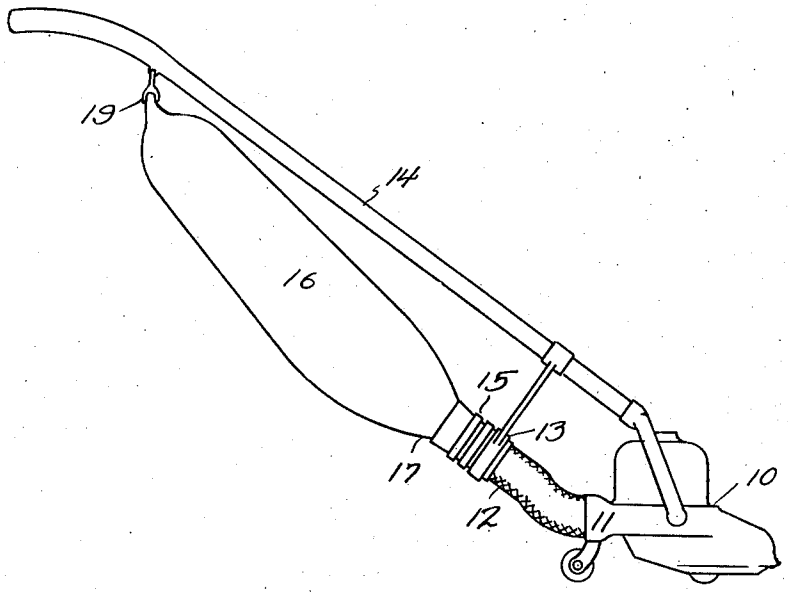
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VACUUM CLEANER

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VACUUM CLEANER

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7 Claims. (Cl. 15—16)

This invention relates to suction cleaners and particularly to porous paper dust collectors for suction cleaners.

The object of the invention is to provide an arrangement for employing a porous paper dust collector in connection with a pivoted handle cleaner, so as to avoid cracking or rupture of the bag at its neck where it connects to the fan casing outlet of the cleaner.

With these and other objects in view my invention consists in the combination and construction and arrangement of the various parts thereof, whereby the objects contemplated are attained, as more fully set forth in the accompanying specifications, pointed out in my claims, and illustrated in the accompanying drawing, in which:

The figure shows one form that the invention may take.

I have used the reference character 10 to indicate generally the body of a conventional suction cleaner (fan, motor, suction nozzle and floor wheels). The fan casing has an outlet 11 which in conventional types of cleaners is attached directly to the dust collecting bag.

In the present invention, a flexible, non-porous tube 12 is attached to the outlet 11 and its outer end is supported by a bracket 13 in fixed relation to the handle 14 so as to move therewith. Sufficient flexibility is inherent in the tube to allow the handle 14 to be moved normally.

The fixed end of the tube 12 or the bracket 13, carries a coupling 15. A bag 16 is attachable at its neck 17 to the coupling 15. The upper or rear end of the bag is supported by a suitable hanger 19, from the handle 14.

The bracket 13 removes all strain from the bag neck 17 that might otherwise be caused by movement of the handle, and the flexible tube allows the handle to be moved while continuously affording a passage from the fan casing outlet to the mouth of the bag.

The bracket 13 serves the multiple function of relieving the bag neck of the weight of the flexible tube, giving support to the bag where the weight of the accumulated refuse is concentrated, and forcing the outer end of the tube to move in unison with the handle.

I claim as my invention:

1. In a suction cleaner, a body unit including a fan casing outlet, a flexible non-porous tube communicating therewith, a handle pivoted to the body unit and projecting above said tube, a bracket secured to the handle, projecting downwardly, and carrying the outer end of said tube, a coupling communicating with said tube and carried by the bracket and a porous paper bag suspended from the handle, said bag having an inlet neck detachably attached to and communicating with said coupling.

2. In a suction cleaner, a body unit including a fan casing outlet, a flexible non-porous tube communicating therewith, a handle pivoted to the body unit and projecting above said tube, a coupling attached to the outer end of said tube, said coupling being rigidly secured to the handle to move in unison therewith, and a porous paper bag suspended form the handle, said bag having an inlet neck detachably attached to and communicating with said coupling.

3. In a suction cleaner, a body unit including a fan casing outlet, a flexible non-porous tube communicating therewith at one end, a handle pivoted to the body unit and projecting above said tube, a bracket rigidly secured at one end to the handle projecting downwardly, its other end being free and connected to the other end of said tube so as to enforce said end to move in unison with the handle, a coupling communicating with the said other end of the tube, and a porous paper bag suspended from the handle said bag having an inlet neck detachably attached to and communicating with said coupling.

4. In a suction cleaner, a body unit including a fan casing outlet, a flexible tube communicating therewith at one end, a handle pivoted to the body unit, a bracket rigidly secured to the handle at one end, its other end being free and connected to the other end of said tube so as to enforce said end to move in unison with the handle, a coupling communicating with the said other end of the tube, and a porous paper bag suspended from the handle said bag having an inlet neck detachably attached to and communicating with said coupling.

5. In a suction cleaner, a body unit including a fan casing outlet, a flexible tube communicating with said outlet at one end, a handle hingedly mounted with reference to the body unit, said handle having means projecting downwardly therefrom rigidly connecting the other end of said tube to the handle in fixed relation thereto and enforcing said other end to move in unison with the handle, a coupling communicating with the said other end of the tube and fixed relative to the handle, and a porous paper dust collecting and air filtering bag an upper region of which is suspended from the handle and a lower region of which has an inlet neck attached to and communicating with said coupling and detachable there-

from while the coupling remains fixed relative to the handle.

6. In a suction cleaner, a body unit including a fan casing outlet, a flexible tube communicating with said outlet at one end, a handle hingedly mounted with reference to the body unit, said handle having means projecting downwardly therefrom rigidly connecting the other end of said tube to the handle in fixed relation thereto and enforcing said other end to move in unison with the handle, and a porous paper dust collecting and air filtering bag an upper region of which is suspended from the handle and a lower region of which has an inlet neck communicating with said other end of the tube and detachable therefrom while the latter remains fixed relative to the handle.

7. In a suction cleaner, a body unit including a surface contacting nozzle and means supporting said nozzle for movement upon a surface covering undergoing cleaning at a fixed height above said surface; a handle hingedly mounted with reference to the body unit on a transverse, horizontal axis, a rigid bracket projecting downwardly from the handle, a bag coupling attached to said bracket, positioned below the handle, spaced therefrom, and rigidly associated therewith, a porous paper dust collecting and air filtering bag an upper region of which is suspended from the handle and a lower region of which has an inlet neck attached to and communicating with said coupling and detachable therefrom while the coupling remains fixed relative to the handle and suction producting means including a fan case supported upon said body unit forwardly of said coupling, said fan case having an inlet connection communicating with said nozzle and a rearwardly directed outlet connection communicating with said coupling, said connections and said fan case collectively constituting an air passage from said nozzle to the coupling, one of said connections embodying relatively movable hollow parts constituting a bendable region in said air passage, allowing said handle, coupling and bag in unison to move relatively to the body unit.

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