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DUST COLLECTOR BAG CLEANING MEANS

Filed March 8, 1957

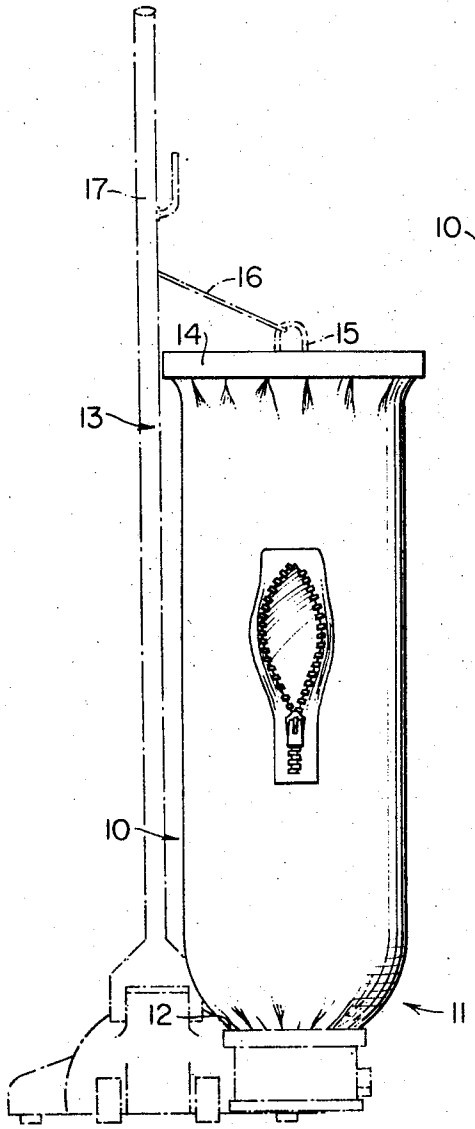


FIG. 1

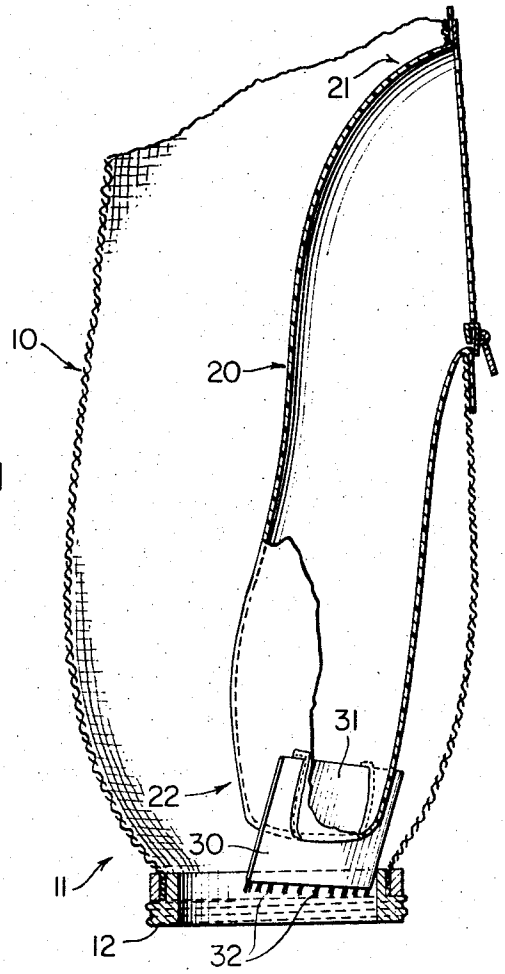


FIG. 2

INVENTOR.
NILES H. HAMMINK
BY Evans & Pearne
ATTORNEYS.

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DUST COLLECTOR BAG CLEANING MEANS

Niles H. Hammink, Rocky River, Ohio, assignor to The Scott & Fetzer Company, Cleveland, Ohio, a corporation of Ohio

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2 Claims. (Cl. 183—60)

The present invention relates to dust collectors for vacuum sweepers and more particularly to means for cleaning and emptying vacuum cleaner dust collectors.

A general object of the present invention is to provide for ready and convenient removal of the lint and caked dust which tends to adhere to the sides of an ordinary dust collector. Such lint and caked dust tends to clog and choke the mouth of the dust collector, impairing the cleaning action of the vacuum cleaner with which the dust collector is used and making it difficult and unpleasant to thoroughly empty the dust collector.

Another object of the invention is to provide a dust collector having clean-out means permanently associated therewith. Not only is separate storing of this clean-out means unnecessary and misplacing of it apart from the dust collector bag impossible but also the dust collector bag provided with the clean-out means as contemplated by the present invention takes up no more closet space or household storage space than does a dust collector of comparable capacity which is not provided with any clean-out means.

The several objects, advantages and features of the invention noted above are all subservient to the general and obvious purpose of the invention which is to accomplish improvements in design and function of dust collector bags which will tend to stimulate sales of these products and their use by the consuming public. The following description by way of example of one particular embodiment of the invention will make it possible to better apprehend the more specific objects, advantages and features of the invention. In the accompanying drawings:

Figure 1 is a rear elevation of a dust collector embodying the invention, the dust collector being shown in operative association with a vacuum cleaner.

Figure 2 is a fragmentary cross-sectional view of the collector shown in Figure 1.

A collector provided according to the invention comprises a tubular dust bag generally indicated at **10**. The tubular dust bag **10** has a first open end **11** terminating in a mouth which is attachable to the dust exhaust of the vacuum cleaner with which the dust collector is to be associated. The open end **11** may be provided with a collar **12** which defines the end mouth and which cooperates with the vacuum cleaner structure to provide a releasable operative connection between the collector bag and the dust exhaust of the vacuum cleaner.

The dust bag **10** has a second closed end **13**. This end may comprise a rigid end member **14** which is hung or otherwise supported on the vacuum cleaner structure. In the illustrated example of the invention the end member **14** is provided with an eye **15** which is received on a hook **16** fixed to the handle **17** of the vacuum cleaner.

According to the present invention, the dust bag **10** contains a flexible sleeve such as the sleeve **20**. This sleeve has a first or upper sleeve end **21** terminating in a second mouth (the mouth at the open end of the dust bag **10** having been designated the first mouth). The mouth

at the upper end of the sleeve **20** opens through the side of the dust bag **10** as illustrated in the drawings. This mouth is preferably provided with a zipper closure which is shown in its open or nearly open position in the drawings.

The second or lower end **22** of the sleeve **20** is closed. It is movable within the dust bag **10** to a position adjacent the mouth at the open end of the dust bag. It is stitched, sealed, seamed, stapled or otherwise fixed to a scraping or brushing member **30**. The member **30** may be designated a cleaning member, and is preferably relatively rigid and is graspable from the interior of the sleeve **20**. The member **30** may be provided with bristles **32**. The member **30** may be rendered capable of being easily grasped from the interior of the sleeve **20** by being arranged to actually extend interiorly of the sleeve walls, as shown. Alternatively, it may merely be fixed to the exterior of the sleeve **20**, the arrangement of the parts being such that the scraping member can be grasped through the walls of the sleeve **20** without directly touching the scraping member. For example, the illustrated structure might be modified by eliminating the interior portion **31** of the scraping member **30**, the lower end of the sleeve **20** being closed with only the exterior portions of the scraping member **30** being associated with the sleeve in such modification. It would nevertheless be relatively easy in such modification to grasp the scraping member from the interior of the sleeve **20**, as by depressing the walls of the sleeve around the scraping member to a slight degree with the fingers whereby a grip on the scraping member through the walls of the sleeve would be afforded.

When the vacuum cleaner with which the dust bag **10** is associated is in use, the zipper at the upper end of the sleeve **20** may be closed. The sleeve **20** and scraper **30** together constitute a clean-out means which is contained within the dust bag and is permanently associated therewith. This clean-out means does not have to be stored separately and it cannot be misplaced apart from the dust bag itself. A vacuum cleaner provided with the dust collector contemplated by the present invention takes up no more closet space or other household storage space than does a vacuum cleaner provided with a dust collector of comparable capacity which does not have a clean-out means.

When it is desired to clean out the dust collector, the dust bag **10** is removed from the associated vacuum cleaner, the upper end of the sleeve is opened, the hand is slipped through the sleeve to grasp the scraper **30** at the lower end of the sleeve, and lint and caked dust are scraped or brushed from the mouth of the dust bag **10**, making it easy to thoroughly empty the contents of the dust bag.

The description of an embodiment of the invention has been given above by way of example. Other embodiments may be provided which differ in details from that described above. Accordingly, the scope of the invention is not restricted by all the details of the described embodiment. The scope of the invention is defined in the following claims.

What is claimed is:

1. Dust collector means for vacuum cleaners comprising a porous tubular dust collector bag for filtering the dust out of dust-laden air exhausted by a vacuum cleaner while allowing the air to pass, said bag having a first open bag end terminating in a first mouth defined by a collar and also having a second closed bag end, a flexible sleeve having a first sleeve end terminating in a second mouth which opens through the side of said tubular dust collector bag, said sleeve having a second closed sleeve end normally positioned within said dust collector

bag and movable to a position adjacent said first mouth, a cleaning member fixed to said second closed sleeve end and graspable from the interior of said sleeve upon insertion of the hand into the sleeve from the exterior of said dust collector bag.

2. Dust collector means for vacuum cleaners comprising a porous tubular dust collector bag for filtering the dust out of dust-laden air exhausted by a vacuum cleaner while allowing the air to pass, said bag having a first open bag end terminating in a first mouth defined by a collar and also having a second closed bag end, a flexible sleeve having a first sleeve end terminating in a second mouth which opens through the side of said tubular dust collector bag, a zipper closure for said second mouth, said sleeve having a second closed sleeve end normally positioned within said dust collector bag and movable to a position adjacent said first mouth, a cleaning member fixed to said second closed sleeve end and graspable from the interior of said sleeve upon insertion of the hand into the sleeve from the exterior of said dust collector bag.

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