

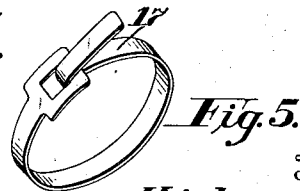
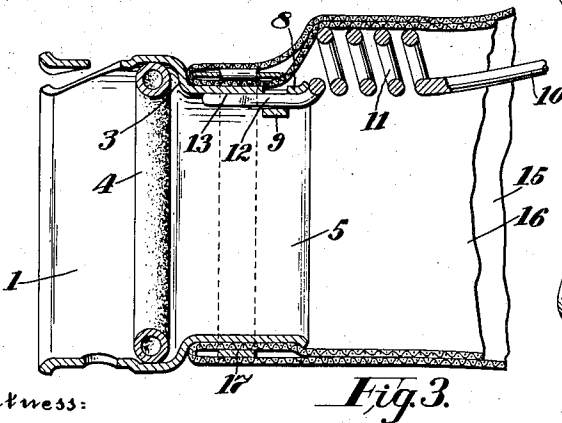
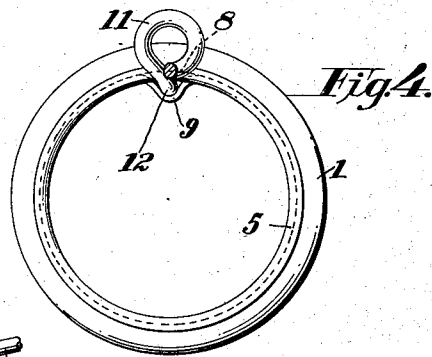
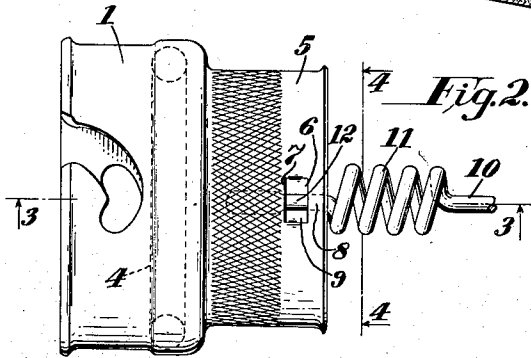
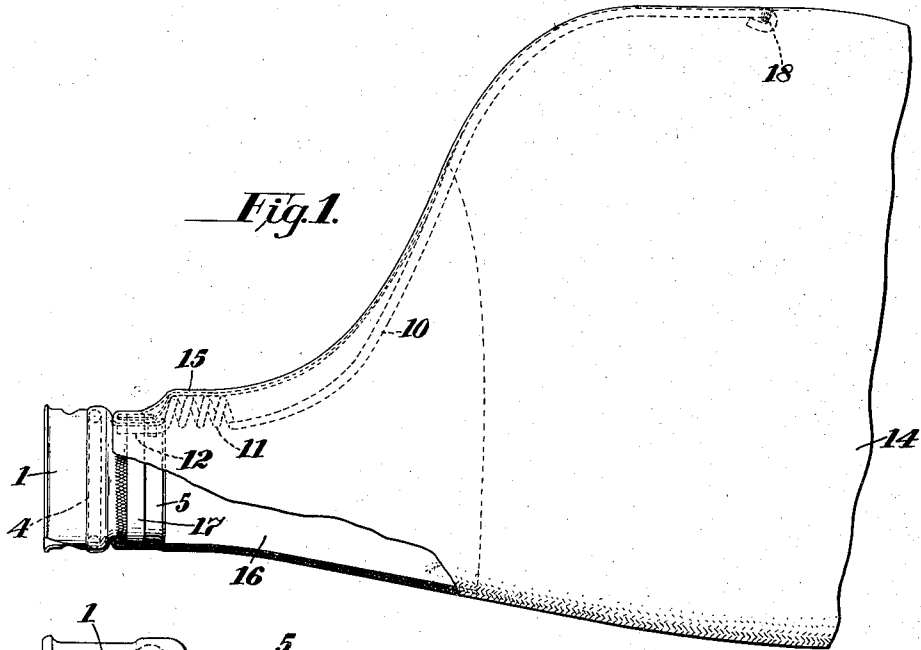
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DUST BAG SUPPORT FOR PORTABLE SUCTION CLEANERS

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DUST-BAG SUPPORT FOR PORTABLE SUCTION CLEANERS

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4 Claims. (Cl. 183—51)

This invention relates to suction cleaners of the portable type comprising a motor-driven suction-fan, suction-nozzle and dust-bag unit, adapted to be held in the hand of the user for the convenient cleaning of wall hangings, draperies, upholstered furniture, and the like.

An object of the invention is to provide a dust-bag support for a suction cleaner of the type in question, which is so constructed as to be relieved of excessive or destructive strains in the portion thereof adjacent the dust-bag connector to which the dust-bag and its supporting rod are customarily attached.

With the above and other objects in view, as will hereinafter appear, the invention comprises the devices, combinations and arrangements of parts hereinafter set forth and illustrated in the accompanying drawing of a preferred embodiment of the invention, from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

In the accompanying drawing, Fig. 1 is a side elevation, partly in section, of a suction cleaner dust-bag embodying the invention. Fig. 2 is a top plan view of the dust-bag connector and supporting rod. Fig. 3 is a section on the line 3—3, Fig. 2, with the dust-bag attached to its connector. Fig. 4 is a section on the line 4—4, Fig. 2 and Fig. 5 is a perspective view of the dust-bag clamping band.

The tubular connector 1 is usually made of sheet-metal and has at one end the usual bayonet-joint slots 2, 2, and internal circular seat 3 for the rubber sealing ring 4. The connector includes an end-portion 5 of reduced diameter which is formed with a plurality of circumferentially extending slots 6 and 7, disposed side-by-side and affording a plurality of clamping bands 8, 9, the latter of which is depressed inwardly.

The dust-bag-supporting rod 10 is preferably formed from a piece of spring wire with an open helix 11 adjacent the shank end 12 which is passed under the band 8 and over the band 9 and is spot-welded at 13 to the inner surface of the connector.

The bag 14 is of the usual construction having a reduced neck 15 and inwardly folded tubular portion 16 which is tightly and securely clamped to the reduced portion 5 of the connector 1 by the usual clamping band 17. The dust-bag may be stitched at 18 to the free end of the rod 10.

The present construction provides, in the portion of the rod 10 subjected to the greatest operative strains, a localized flexible or yielding sec-

tion which prevents such strains becoming distortive or destructive to the rod and thus avoids breakage of the latter. It will be observed that the helix 11 is mainly outside of the circular air-passageway through and produced beyond the connector into the bag 14, as shown in Fig. 4 and hence does not impede the flow of air.

The long non-helical or straightaway portion of the rod 10 between the helix 11 and stitches 18 is somewhat flexible or laterally springy but is not as springy or as heavy per unit of length as is the helical portion 11.

Having thus set forth the nature of the invention, what I claim herein is:—

1. In a dust-bag for a portable suction cleaner, a tubular dust-bag connector adapted for attachment to the dust-outlet of the cleaner, a dust-bag attached to said connector, and a one-piece dust-bag-supporting rod attached at one end only to said connector and having a relatively short helical portion adjacent said connector and a relatively long straightaway portion beyond said helical portion.

2. In a dust-bag for a portable suction cleaner, a tubular dust-bag connector adapted for attachment to the dust-outlet of the cleaner, a dust-bag having a neck attached to said connector, and a dust-bag-supporting rod attached at one end only to said connector and having a relatively short helical portion adjacent said connector and a relatively long straightaway portion beyond said helical portion, said helical portion being disposed mainly outside the air-passageway through and produced beyond the connector.

3. In a dust-bag for a portable suction cleaner, a tubular dust-bag connector adapted for attachment to the dust-outlet of the cleaner, a dust-bag attached to said connector, and a one-piece dust-bag-supporting rod attached at one end only to said connector and having a relatively short localized portion of increased flexibility closely adjacent its point of attachment to said connector and a relatively long and less flexible portion of reduced weight per unit length carried by the more flexible portion.

4. In a dust-bag for a portable suction cleaner, a tubular dust-bag connector adapted for attachment to the dust-outlet of the cleaner, a dust-bag attached to said connector, and a one-piece dust-bag-supporting cantilever rod having a relatively short and bent terminal portion of increased flexibility attached to said connector and a relatively long and free straightaway portion beyond said bent portion.

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