June 18, 1935. H. HERTZ 2,005,690

DUST BAG SUPPORT FASTENING FOR PORTABLE SUCTION CLEANERS

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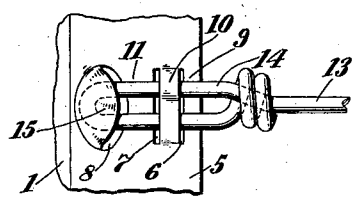


Fig. 6.

Fig. 1.

Fig. 7.

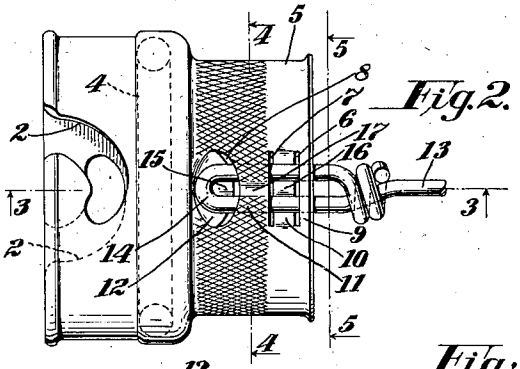


Fig. 2.

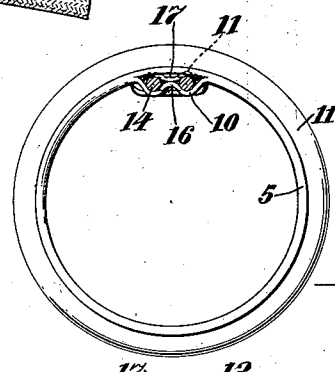


Fig. 5.

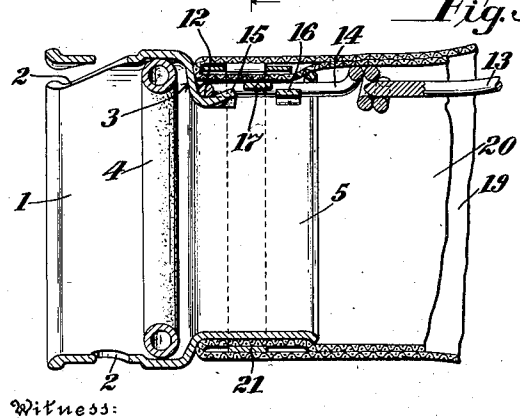


Fig. 3.

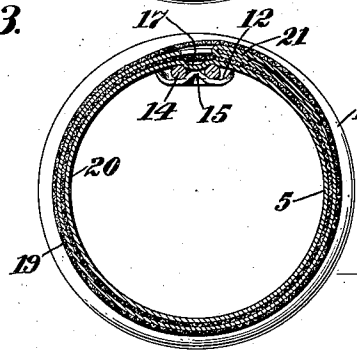


Fig. 4.

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DUST BAG SUPPORT FASTENING FOR PORTABLE SUCTION CLEANERS

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3 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 simplified and improved means for securing a dust-bag supporting device to the coupling collar or connector commonly used for detachably connecting the dust-bag to the dust-discharge opening or conduit of the suction-fan.

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 connector and dust-bag-supporting rod. Fig. 3 is a section on the line 3—3, Fig. 2, with the dust-bag attached to the connector. Fig. 4 is a section on the line 4—4, Fig. 2. Fig. 5 is a section on the line 5—5, Fig. 2. Fig. 6 is an inside fragmentary plan view of the connector and dust-bag-supporting rod and Fig. 7 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 bayonet-joint slots 2, 2, and internal circular seat 3 for the annular 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, 7 and 8, disposed side-by-side and affording a plurality of clamping bands 9, 10, 11.

The slot 8 is a curved or crescent-shaped slot and affords an intermediate portion which is depressed below the inner cylindrical wall of the connector to form a seat 12. The band 10 is also inwardly depressed.

The dust-bag supporting rod 13 is provided at one end with an elongated loop 14 which is passed alternately across opposite faces of the bands 9, 10 and 11; the end of the loop being received in the seat 12. A central portion 15 of the seat 12 is indented outwardly into the loop 14 to lock the latter. The bands 10 and 11 are also centrally indented into the loop 14, at 16 and 17, respectively, to grip and secure the loop.

The bag 18 is of the usual construction having a reduced neck 19 and inwardly folded tubular portion 20 which is tightly and securely clamped to the reduced portion 5 of the connector 1 by means of the usual clamping band 21. The bag-neck covers and seals the slots 6, 7 and 8. The bag may be stitched at 22 to the free end of the rod 13 which is preferably made of spring wire having sufficient stiffness to support the bag under normal operative conditions.

The present construction affords a simple, strong and secure means for fastening the dust-bag support 13 to the connector element. The looping of the rod at its end-portion adjacent the connector 1 strengthens the portion of the rod subjected to the greatest strain while in service.

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 sheet-metal dust-bag connector having a plurality of spaced circumferentially extending slots disposed side-by-side and affording a plurality of bands, one of said slots being curved to provide an intermediate portion which is depressed below the inner cylindrical wall of said connector to form a seat, and a dust-bag supporting rod having an end-portion gripped by said bands and received in said seat.

2. In a dust-bag for a portable suction cleaner, a tubular sheet-metal dust-bag connector having a plurality of spaced circumferentially extending slots disposed side-by-side and affording a plurality of bands, and a dust-bag supporting rod having a looped end-portion gripped by said bands, one or more of said bands having portions indented into the looped end-portion of said supporting rod.

3. In a dust-bag for a portable suction cleaner, a tubular sheet-metal dust-bag connector having a crescent-shaped slot therein affording an intermediate portion which is depressed below the inner cylindrical wall of said connector to form a seat, a dust-bag supporting rod having at one end a loop received in said seat, a central portion of said seat being outwardly indented into said loop to lock the latter, and means spaced from said seat and cooperating with the latter to support said loop.

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