

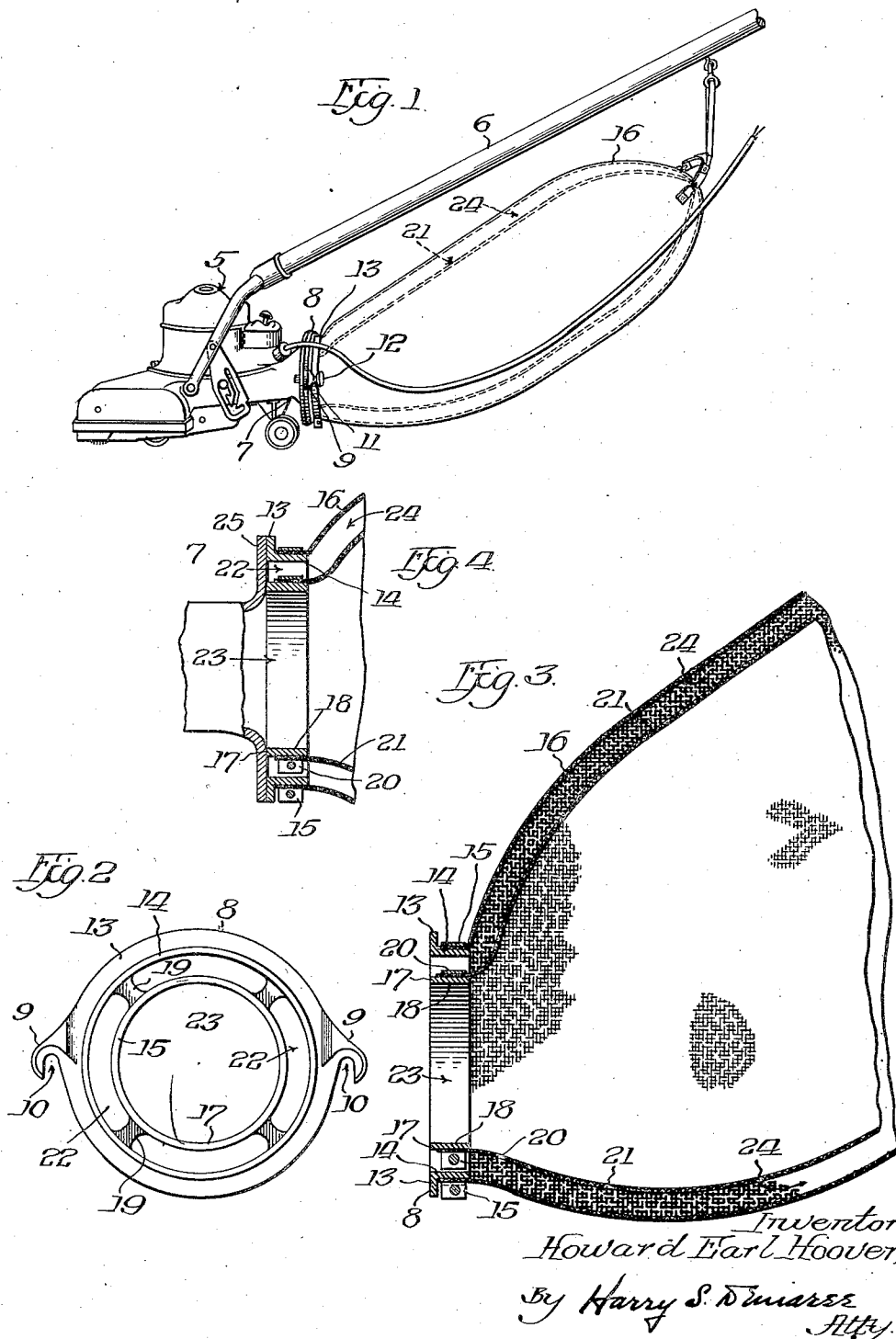
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H. E. HOOVER

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DUST BAG RING

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UNITED STATES PATENT OFFICE

HOWARD EARL HOOVER, OF GLENCOE, ILLINOIS, ASSIGNOR TO THE HOOVER COMPANY,
A CORPORATION OF OHIO

DUST-BAG RING

Application filed January 28, 1929. Serial No. 335,437.

This invention relates to dust bag rings for securing dust bags to suction cleaners.

Suction cleaners of the conventional portable type employ a single dust bag for their air separation means. By providing a pair of dust bags, as set forth in the copending application Serial No. 335,442, Stanley R. Cummings, filed concurrently herewith, means are provided to practically eliminate the possibility of any dirt escaping through the bags and into the atmosphere. The double or plurality bag arrangement permits one bag to act as a scalper and another to act as a fine filter which insures easy cleaning of the bags as well as providing positive dust and air separation. As set forth in the aforesaid copending application the bags may be made of different materials, or they may have different filtering qualities, or they may be made of the same material. The number of bags used depends upon the material from which the bags are made and they may be made from any kind of material.

The primary object of the present invention is to provide means for securing a plurality of dust bags to a suction cleaner.

Another object is to provide a bag ring having a pair of annular concentric flanges for securing an inner and outer dust bag to the bag ring and for keeping the inner bag suitably spaced from the outer dust bag.

A further object is to provide a bag ring of novel and simple construction for supporting the dust bags whereby dust and other refuse contained in the bags may be readily discharged and removed through the bag ring.

The accompanying drawing illustrates a selected embodiment of the invention and the views are as follows:

Fig. 1 is a perspective view of a suction cleaner embodying the invention.

Fig. 2 is a plan view of the improved bag ring.

Fig. 3 is a detail sectional view of a pair of bags applied to the bag ring.

Fig. 4 is a detail sectional view showing the bag ring applied to the discharge mouth of a suction cleaner.

Referring to the drawing, 5 designates generally a suction cleaner which is propelled

by a handle 6 and has a discharge mouth 7 to which the bag ring 8 is detachably connected.

The bag ring comprises oppositely disposed ears 9 having slots 10 which fit on studs 11 on the cleaner and are maintained in position by means of thumb nuts 12. An outer ring 13, having an annular flange 14 which is integral with the outer ring, receives a clamping ring 15 for securing the outer bag 16 to the ring.

An inner ring 17 has an annular flange 18 which is concentric with the flange 14 and is connected to the outer ring by a plurality of webs 19. A clamping ring 20 is arranged on the flange 18 for detachably securing the inner bag 21 to the bag ring 8.

The webs 19 extend radially from the inner ring and provide the arcuately shaped slots 22 between them to permit the dust, or other refuse which is filtered through the inner bag, to be easily and readily discharged through these slots. The central opening 23 of the bag ring 8 is relatively large and permits dust and other matter contained in the inner bag to be readily discharged therefrom. This relatively large opening is advantageous as a great majority and the bulky part of the refuse will be contained in the inner bag. That portion of the finer particles of dust which seep through the inner bag will be collected in the space 24 between the two bags where it can be readily discharged through the slotted openings 22.

The discharge mouth of the cleaner is preferably provided with an annular flange 25, Fig. 4, which is sufficiently wide so as to cover the openings 22 in the ring when the ring is attached to the cleaner. This construction prevents any dust accumulating in the space 24 from entering any of the operating parts of the cleaner and it also prevents dirt and dust passing through the cleaner from being directly deposited between the bags. The space 24 therefore receives only the finer particles of dust which filters through the inner bag and is retained therein until the bags are cleaned.

The invention provides a bag ring which permits a pair of bags to be used and properly spaces them at all times. Due to the novel

construction of the ring, the bags may be quickly and readily secured to the bag ring or detached therefrom, as required.

Changes may be made in the form, construction and arrangement of the parts without departing from the spirit of the invention or sacrificing any of the advantages thereof and I reserve the right to make all such changes as fairly fall within the scope of the following claims.

I claim:

1. A bag ring for attachment to a suction cleaner having a plurality of bag receiving flanges spaced by a perforated web.
2. A bag ring for suction cleaners having radially spaced axially extending annular flanges and having an opening therethrough between said flanges.
3. The combination with a suction cleaner having an outlet provided with a terminal flange, of a bag ring having radially spaced annular flanges each adapted for attachment of a dust bag, said ring having an opening therein between said flanges so positioned as to be closed by said outlet flange when said ring is attached to the cleaner.
4. The combination with a suction cleaner having an outlet surrounded by a flat annular flange, of a bag ring having a flange thereon fitting said outlet flange, means for detachably securing said flanges together, said bag ring having spaced axially extending flanges thereon and an opening between said flanges so positioned as to be closed by said outlet flange when said ring is attached to the cleaner.

Signed at Chicago, in the county of Cook and State of Illinois, this 12th day of January A. D., 1929.

HOWARD EARL HOOVER.