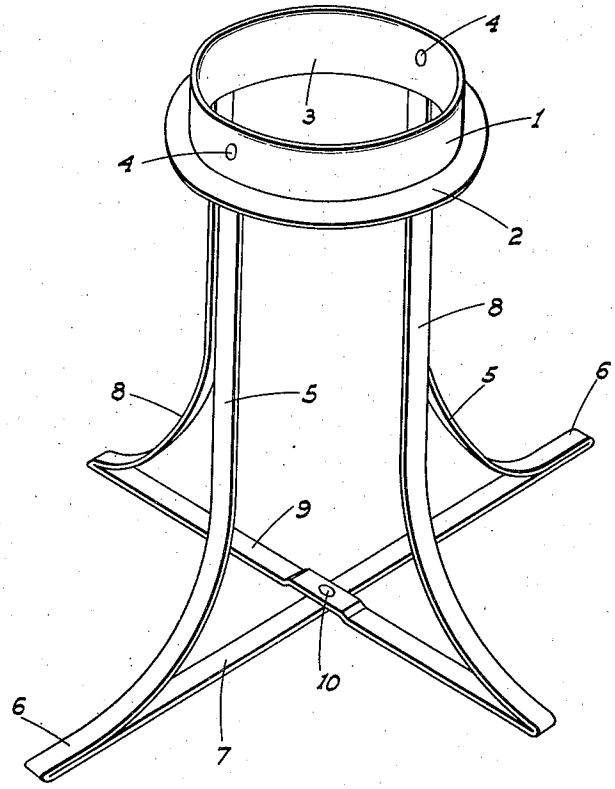
Dec. 20, 1938. A. N. GROOM ET AL 2,140,995

REFUSE DISPOSAL DEVICE FOR VACUUM CLEANER BAGS

Filed July 6, 1936 2 Sheets-Sheet 1

Fig. 1



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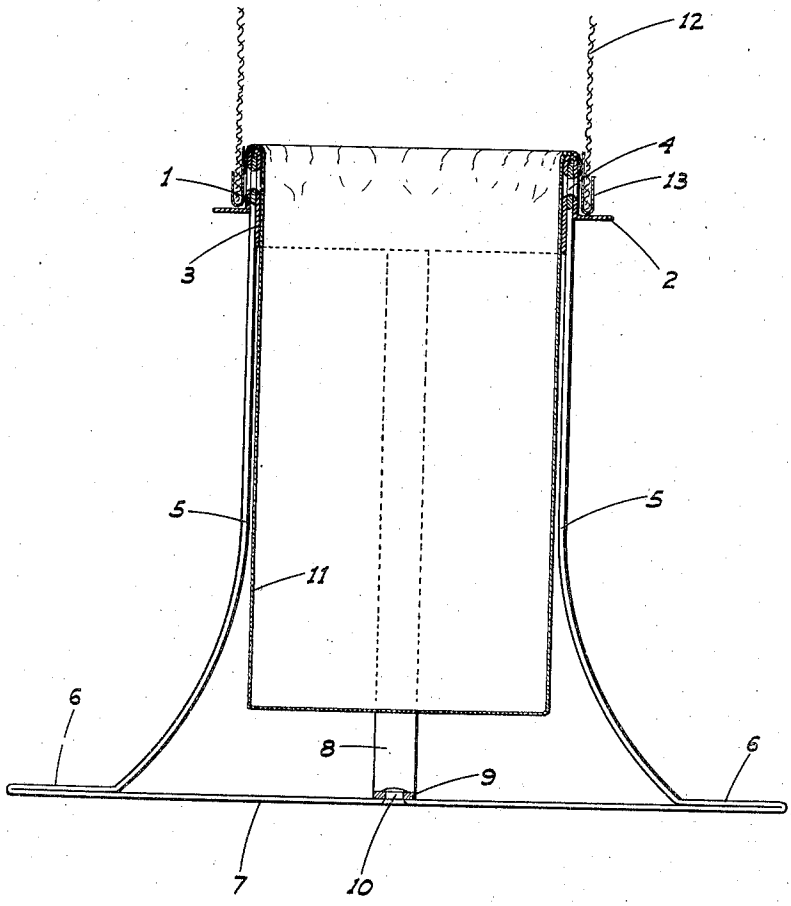
BY
ATTORNEY

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Fig. 2



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REFUSE DISPOSAL DEVICE FOR VACUUM CLEANER BAGS

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Application July 6, 1936, Serial No. 89,260

4 Claims. (Cl. 248—97)

This invention relates to the disposal of the dust and other refuse thrown into the catch bag of a vacuum cleaner by the action of the vacuum or suction fan thereof.

In vacuum cleaners, the refuse is caught in a flexible fabric bag (sometimes enclosed within a metal housing or container), and which bag must of course be emptied out from time to time.

Since this refuse is mainly in the form of very fine particles of dust, etc., inverting the bag in the open, and shaking the same to thoroughly discharge its contents, inevitably causes the fine dust to rise in a cloud about the operator. This is of course very disagreeable since it tends to cause coughing and sneezing, and is highly dangerous to health, since the dust is apt to contain disease germs which under the circumstances, are easily breathed in, and find lodgment in the throat or lungs of the operator or of any other person nearby.

At least one cleaner manufacturer recognized the existence of this disagreeable and dangerous feature, and attempted to eliminate the same by placing an inner destructible paper bag within the permanent fabric bag, so that the refuse together with the paper bag, were removed as a unit from the fabric bag, and discarded without disturbance of the fine dust etc. It was found however that these paper bags lacked the necessary porosity to properly permit of the passage of air therethrough and as a result the efficiency of the cleaner was considerably lessened.

As far as we are aware therefore, the use of such paper bags has been discontinued, and the disposal of the refuse again presents the disagreeable features previously mentioned.

It is therefore the principal object of our invention to provide a device by means of which the refuse from the cleaner bag may be readily, quickly and thoroughly transferred to a destructible container, without the possibility of any fine dust etc. being disseminated into the surrounding atmosphere during the transfer operation.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects we accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a perspective view of the bag supporting and coupling stand.

Figure 2 is a sectional elevation of the stand, showing the cleaner bag and the transfer bag in cooperating relationship.

Referring now more particularly to the characters of reference on the drawings, the device comprises an outer band 1 having an outwardly projecting flange 2 about its base, and an inner band 3 spaced from the outer band all around except at the top, where it is connected thereto as shown. This band unit is preferably an integral member, pressed from sheet metal.

Depending from between and secured to the band as by rivets 4 at diametrally opposed points are legs 5, preferably flaring apart toward their lower end and provided at said end with flat or horizontal extensions 6 which serve as foot engaging pads. The feet are connected by a floor engaging bar 7; the legs and bar being preferably integral and bent from strap iron of suitable dimensions.

Another pair of legs 8 also depend in opposed relation to each other from between the band, but are not secured thereto, being free to move in space between the bands. These legs also flare out toward their lower end, and are connected at such end by a bar 9 which crosses and is pivotally riveted on the bar 7 as at 10; the rivet being in axial alinement with the band.

For use with the stand above described, we provide cheap substantially non-porous paper bags as indicated at 11. These bags may be of any convenient shape in cross section, not deeper than the distance from the stand-band to the bottom cross bars, while the width or diameter of the bag at the mouth is such that the mouth portion may be passed up inside the inner band 3, and folded or crimped over the outer band about the top thereof, as shown in Fig. 2. The one pair of legs being swingable relative to the other about the rivet 10 as an axis, enables the space between adjacent legs to be widened sufficiently for the ready insertion of the bag into initial position below the band unit, without having to distort or crumple the bag when so doing.

The vacuum cleaner bags 12 are surrounded at the neck by a metal band or collar 13, and the size of the outer band 1 is such that this collar fits closely over the same when the mouth of the bag is folded over said band as previously described.

In operation therefore the bag 11 is first mounted in place, and the cleaner bag 12 containing the refuse to be transferred is then engaged with the band 1; the flange 2 limiting the downward movement of collar 13. It will

thus be seen that this band unit forms in effect a coupling member between the bags, providing a substantially air tight connection. This enables the bag 12 to be held at its ends by both hands and shaken as thoroughly as necessary to completely discharge its contents into the bag below; the operator maintaining her feet on the pads 6 to hold the stand steady. Complete transfer of refuse from one bag to the other is thus made without the possibility of any fine dust escaping into the surrounding atmosphere. When the transfer operation is complete, the cleaner bag is disengaged from the coupling band, and the bag 11 may then be easily removed from association with the stand, its mouth closed, and be then discarded without disturbing any of its contents.

From the foregoing description it will be readily seen that we have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described our invention, what we claim as new and useful and desire to secure by Letters Patent is:

1. A supporting stand for use with a bag into which to transfer refuse from a vacuum cleaner bag, comprising a horizontal band member adapted to closely fit within the neck of the vacuum cleaner bag and to fit over the mouth of the transfer bag, the latter being adapted to be mounted in position first and before the cleaner bag and to be then folded over about the top of the member, supporting legs depending from said member and a flange projecting outwardly from the band member some distance below the top thereof to limit the downward movement of the cleaner bag neck.

2. A supporting stand for use with a bag into which to transfer refuse from a vacuum cleaner bag, comprising a horizontal band member adapted to closely fit within the neck of the vacuum cleaner bag and to fit over the mouth of the transfer bag, said member comprising inner and outer concentric bands spaced apart but connected together about the top, a pair of opposed legs depending from between and secured to the bands, another pair of opposed legs depending from between the bands in unsecured relation thereto, cross bars connecting corresponding legs adjacent the base thereof, and a pivot connection between said cross bars disposed axially of the band member.

3. A supporting stand for use with a bag into which to transfer refuse from a vacuum cleaner bag, said stand comprising a horizontal band member adapted to closely fit within the neck of the vacuum cleaner bag and to fit over the mouth of the transfer bag, said member comprising inner and outer concentric and cylindrical bands spaced apart but connected about the top, a pair of opposed supporting legs depending from between and secured on one band, an intermediate leg movable arcuately of the member in the space between the bands and means mounting the intermediate leg for such movement on the stand below the band member.

4. A supporting stand for use with a bag into which to transfer refuse from a vacuum cleaner bag, comprising a cylindrical member disposed with its axis vertical, an annular flange projecting outward from the cylindrical member at substantially right angles thereto and some distance below the upper edge thereof, both the inner and outer surface of the member above the flange being smooth and unbroken, and legs secured to and depending from the member; said legs being secured to the member without obstructing said smooth and unbroken surfaces.

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