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SUCTION CLEANER

Filed April 18, 1929

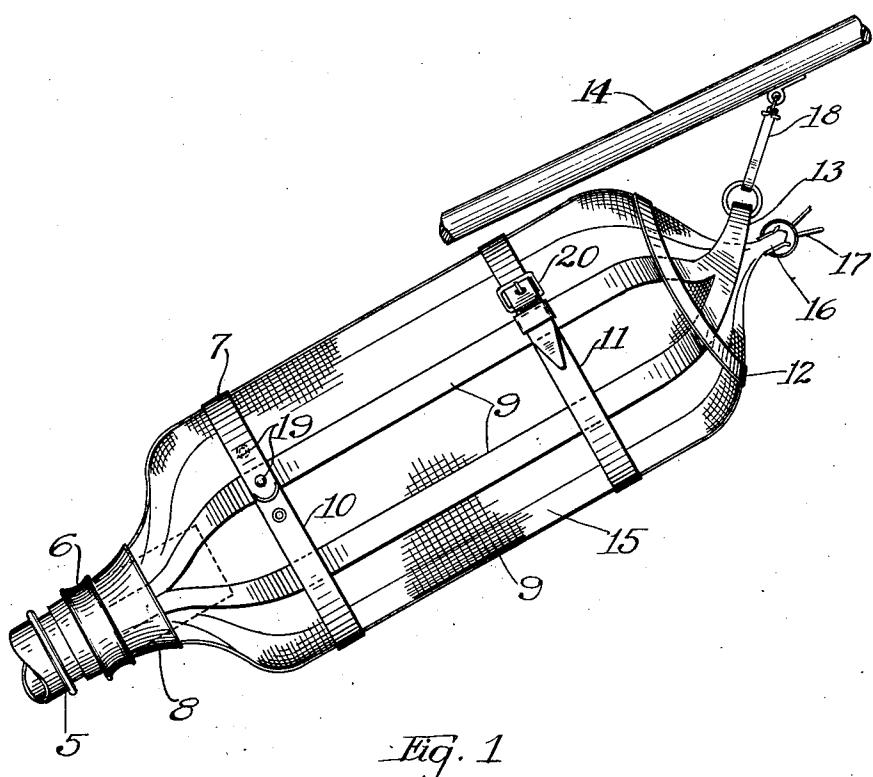


Fig. 1

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SUCTION CLEANER

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This invention relates to suction cleaners in general and particularly to dust bags for use on suction cleaners. More specifically the invention relates to a supporting member for 5 properly supporting a dust bag to a suction cleaner.

It has been found that a dust bag made from cotton felt material provides an excellent filtering medium. This material is substantially porous so that all the air entering the bag will easily seep through it and at the same time prevent dust from seeping through the bag and into the atmosphere. One objection to cotton felt material however, 15 is that it does not have sufficient tensile strength to stand up any length of time under ordinary usage. Means are therefore provided to reinforce the bag, by means of a harness in which the bag lies, whereby any tension or strain which is usually exerted on the bag will be transmitted to the support or harness. The bag will therefore merely lie in the harness and the only function required 20 of the bag and the purpose for which it is intended, is to filter dust laden air. It might be mentioned however, that since cotton felt filters the dust laden air so well and prevents any notable back pressure it has been found that a material of this kind is very desirable 25 for suction cleaner dust bags.

The object of the invention is to provide means for supporting a dust bag in position on a suction cleaner.

Another object is to provide means whereby 35 all the tension which is usually exerted on the dust bag will be exerted on a support or harness in which the dust bag is encased.

Another object is to provide a support for 40 dust bags which will absorb all the stresses and strains which are usually exerted on the bag, and which can be easily manipulated when inserting or removing the dust bag,

Another object of the invention is to provide 45 a support for dust bags which is comparatively easy to assemble, which is simple and efficient in operation, and which can be quickly and economically manufactured.

The invention comprises in general a supporting harness which is secured at the lower 50 end to the neck of the suction cleaner and

which has its other end provided with means for connecting it to the handle of the suction cleaner. The support or harness is arranged so that the bag may be easily inserted therein, and all the stresses and strains which are 55 usually applied to the bag will be transmitted to the support or harness. The only function therefore, required of the bag is that of filtering dust laden air.

The accompanying drawing illustrates a 60 selected embodiment of the invention and the view therein is as follows:

Fig. 1 is a side elevation of a bag in which the invention is embodied and shows the manner in which the bag is secured to a suction 65 cleaner.

Referring to the drawing, 5 designates the discharge neck or adapter of a suction cleaner to which bag securing means 6 are suitably arranged. A dust bag support or harness 7 is provided with a tapering neck 8 which is adapted to be secured to the suction cleaner by means of the clamping means 6. A plurality of longitudinal straps or tapes 9 which are secured to the neck 8 of the support 70 are also connected to the intermediate straps 10 and 11 and the upper strap 12. Some of the longitudinal straps 9 may extend beyond the upper support 12 to provide means 13 for suspending the upper part of the support or harness to the suction cleaner handle 14. The bag 15 which is arranged within the harness 7 is preferably open at its upper end at 16 and is closed by means of a clip 17 to which 75 flexible means 18 are provided for securing the upper end of the dust bag harness to the suction cleaner handle 14.

In order to permit access to the bag and to facilitate removal thereof from the harness, the cross-straps 10 and 11 may be provided with either the snap fastening means 19 or with a buckle 20 as clearly shown in the drawing.

The invention provides a support which 85 can be easily operated, which permits access to the bag, and which prevents any strain from being exerted on the bag. The harness 7 takes up all the tension and strain which is usually applied directly to the bag, and in the present invention a bag may be formed 100

of material which has excellent filtering qualities but does not have sufficient strength to last for a reasonable length of time unless used in connection with a harness of the type herein described and shown.

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 the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

I claim:

1. A dust bag support for suction cleaners, comprising a plurality of laterally spaced longitudinally extending members, means for securing said longitudinally extending members to the outlet of a suction cleaner, means for connecting said longitudinally extending members to a suction cleaner handle, and transversely extending means connecting said longitudinally extending members.

2. In a suction cleaner having a handle, a dust bag and means for supporting said bag adapted for connection to the body of said cleaner and to said handle comprising a plurality of members extending longitudinally of and separate from said bag and a laterally extending member connecting said longitudinally extending members and adapted to encircle said bag.

3. In a suction cleaner having an outlet and a handle, the combination of a dust filter and container having a mouth at one end and a discharge opening at a point removed from said mouth, supporting means adapted to enclose said filter and container and adapted to be secured at separated points to said outlet and said handle, means for securing said filter and container to said outlet and means independent of said supporting means for closing said discharge opening.

Signed at North Canton, in the county of Stark and State of Ohio, this 8th day of April, 1929.

WALTER C. DAVIDSON.