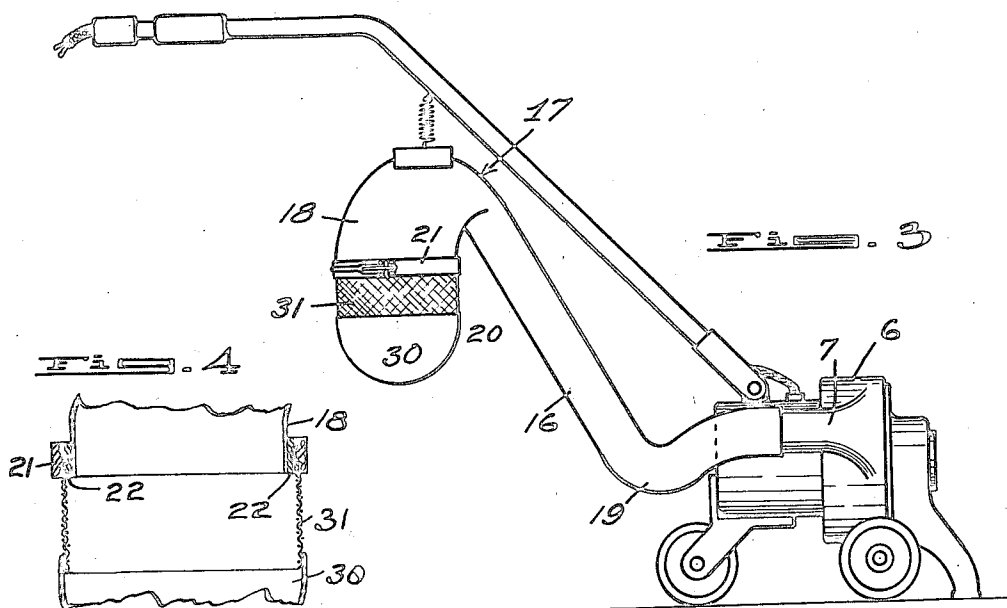
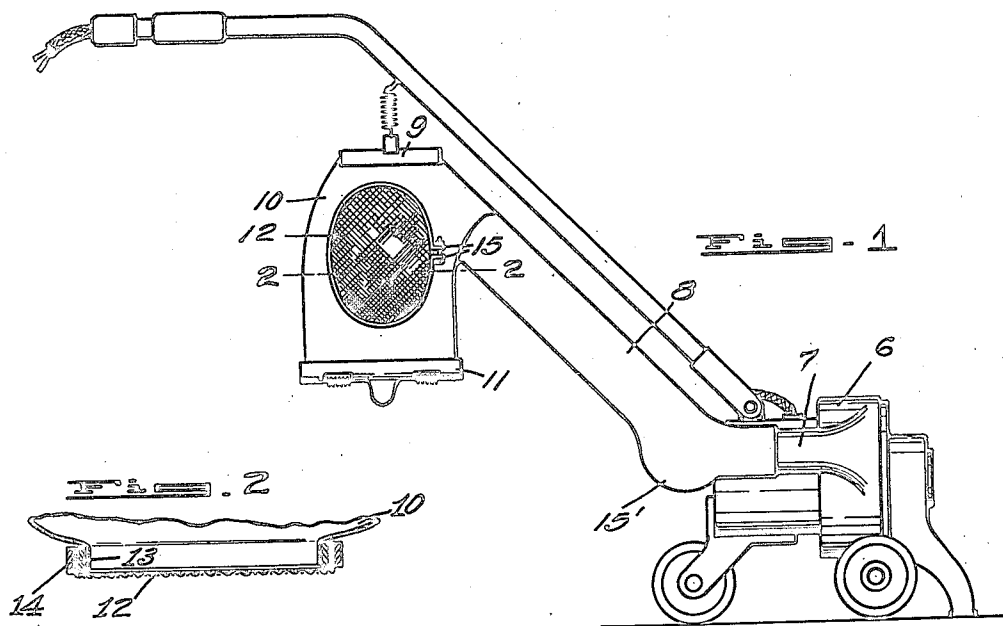


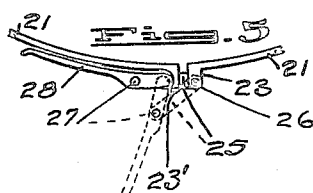
H. L. FORD.
DUSTPROOF VACUUM CLEANER BAG.
APPLICATION FILED JAN. 7, 1918. RENEWED SEPT. 19, 1921.

1,403,112.

Patented Jan. 10, 1922.



WITNESSES:
F. C. Matheny
P. J. Cook



INVENTOR
HARRIET L. FORD
BY
Cook & Matheny
ATTORNEYS

UNITED STATES PATENT OFFICE.

HARRIET L. FORD, OF SEATTLE, WASHINGTON.

DUSTPROOF VACUUM-CLEANER BAG.

1,403,112.

Specification of Letters Patent. Patented Jan. 10, 1922.

Application filed January 7, 1918, Serial No. 210,769. Renewed September 19, 1921. Serial No. 501,829.

To all whom it may concern:

Be it known that I, HARRIET L. FORD, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Improvement in Dustproof Vacuum-Cleaner Bags, of which the following is a specification.

This invention relates to improvements in dust bags or dust receptacles for vacuum cleaners, and the object of this improvement is to provide a dust bag of cheap and simple construction that is formed of material having a glazed internal surface so that it will permit the dust and dirt to drop out freely when the bag is cleaned and thereby render the bag sanitary.

The invention consists in the novel construction of peculiarly shaped dust bag having a glazed inside surface, and in the combination with such bag of means for permitting the air to escape freely at one point thereof.

In the accompanying drawings, Figure 1 is a view in side elevation of my dust bag as it may appear when attached to a vacuum cleaner of well known form; Fig. 2 is an enlarged sectional view on broken line 2, 2 of Fig. 1; Fig. 3 is a view in side elevation of a slightly modified form of this device; Fig. 4 is a fragmentary sectional view of the device shown in Fig. 3; and Fig. 5 illustrates a detail that may be embodied in the invention.

The ordinary dust bag that is used on a vacuum cleaner is made out of a closely woven fabric that permits the air to pass outwardly therethrough but catches and collects the dust on the inside thereof. The inside of these bags is rough and after the bags are used the dust will adhere thereto so tightly that it is practically impossible to shake it loose when the bag is cleaned out. This dust also permeates the bag to such an extent that when the cleaner is in use the finer dust will come out through the bag, especially when the bag strikes against any object as a piece of furniture.

This invention provides a dust proof bag having a glazed interior to which dust will not adhere and also provides a separable portion through which air may escape that may be removed from the bag and cleaned or replaced by a new piece of material when it has become saturated with finer dust. The

shape of the dust bag is another important feature of the invention that will be more fully hereinafter explained.

Referring to the drawings throughout which like reference numerals indicate like parts the numeral 6 indicates a vacuum cleaner of well known type that is provided with a fan outlet passageway 7 that is adapted to have a dust bag secured thereto.

8 is my dust bag that may be of substantially tubular form at the end that connects with the fan outlet 7 and is adapted to extend upwardly along the handle of the vacuum cleaner and be secured thereto as by a clip 9.

The bag terminates at its upper end in an enlarged portion 10 that is adapted to hang vertically, as shown, when the cleaner is in use, the outer end of the portion 10 being adapted to be folded over and clamped in a closed position by a spring clamp 11 of well known form.

12 is a piece of fabric that will permit the passage of air and prevent the passage of dust and secured within the side of the depending bag portion 10. The fabric 12 may be sewed or cemented to the bag portion 10 to form a part of the wall thereof if desired but such fabric is preferably removable therefrom so that it may be detached from the dust bag and cleaned or replaced by new material.

Where the fabric piece 12 is made removable as shown a hoop 13 of any rigid material may be secured to the bag portion 10 and the edges of the fabric portion 12 may be inserted between the hoop 13 and an exterior extensible hoop 14 as shown in Fig. 2.

The hoop 14 is provided with out-turned ends 15 through which a bolt may be passed so that the hoop 14 may be tightened on the hoop 13.

The bag 8 is preferably provided near the point where it connects with the fan member 7 with a pocket 15' that catches dust and heavier particles of dirt that have been drawn into the bag and prevents the same from finding their way back into the fan of the cleaner.

Fig. 3 illustrates a dust bag having a passageway 16 of substantially uniform size up to the point 17 where it is turned downwardly to form an enlarged portion 18 similar to the portion 10 of Fig. 1.

The passageway is curved as at 19 to prevent the return of dust and dirt into the fan

of the cleaner, the curved portion 19 performing the same function as the pocket 15' shown in Fig. 1.

20 is a detachable bag for the end of enlarged portion 18, such bag having an expansible hoop 21 on the top end thereof that is adapted to slip over and clamp onto a hoop 22 on the end of the enlarged portion 18, see Fig. 4.

10 The hoop 21 may be provided with out-turned ends 23 and 23' slotted as at 24 for the reception of a clamping member 25 that is secured by a pivot 26 to one of the end members 23 and is pivoted as at 27 to a lever arm 28 so that when the end of the lever arm is placed against the outside of end member 23' as shown by dotted lines and is moved into the position shown by full lines, the hoop 21 will be tightened on the hoop 22.

20 The bag 20 is composed of an end section 30 of glazed material and an upper section 31 of fabric that will permit the passage of air and prevent the passage of dust.

25 The glazed portions of the dust bags may be made of rubberized cloth, oil cloth, or any other kind of material having a surface to which dust will not adhere.

It will be noted that the extreme end 30 of the bag 20 is made of glazed material for the reason that the dust and dirt, after it enters the enlarged bag 20, will drop into the ends of such bag from which it may be easily removed when that portion of the bag is detached from the upper portion thereof.

35 In operation, the dust will all be carried up the tubular portion of the dust bags until

it reaches the enlarged portions thereof, and will then drop into the ends of the bags without adhering to the sides of the fabric sections.

40 If desired, more than one of the fabric sections 12 may be used in the bag shown in Fig. 1.

45 After the bag has been used the glazed surface thereof may be washed with a disinfectant solution that will destroy any germs that may adhere thereto.

The seams of the bag may be either cemented or stitched, or such seams may be stitched and then cemented to render them 50 impervious to dust.

It is also desirable to have the exterior surface of the bag glazed, although this is not necessary to the successful operation of the device.

55 It is obvious that changes in the form of construction of this dust bag may be made within the scope of the following claim.

What I claim and desire to protect by Letters Patent is:

60 A dust bag comprising a tubular portion adapted to be disposed in an inclined position having a pocket near its lower end, said tubular portion terminating at its upper end in an enlarged receptacle normally adapted to hang in a vertical position. 65

Signed by me at Seattle, Washington this 29th day of December 1916.

HARRIET L. FORD.

Witnesses:

E. B. HERALD,

F. C. MATHESSEY.