

Feb. 3, 1942.

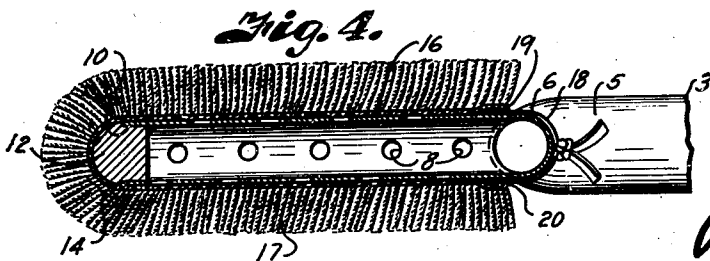
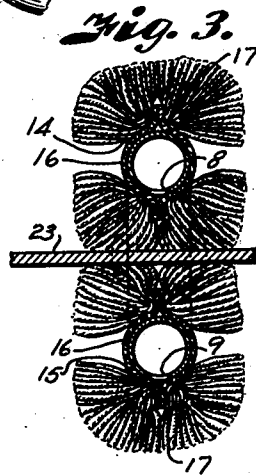
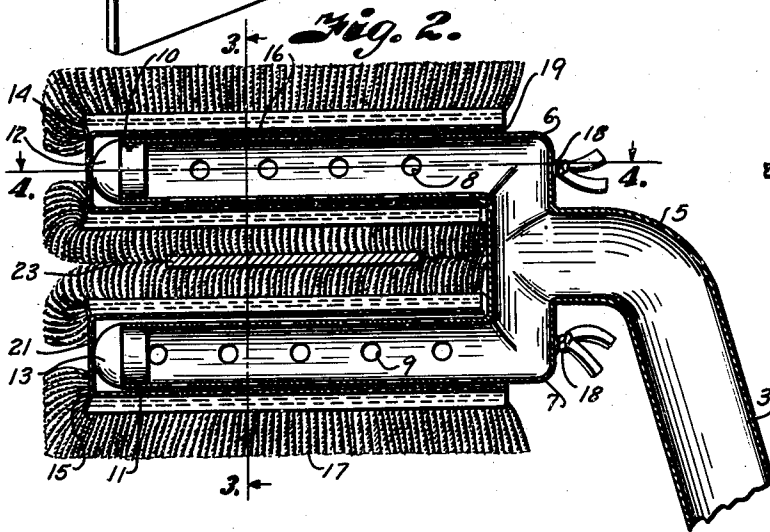
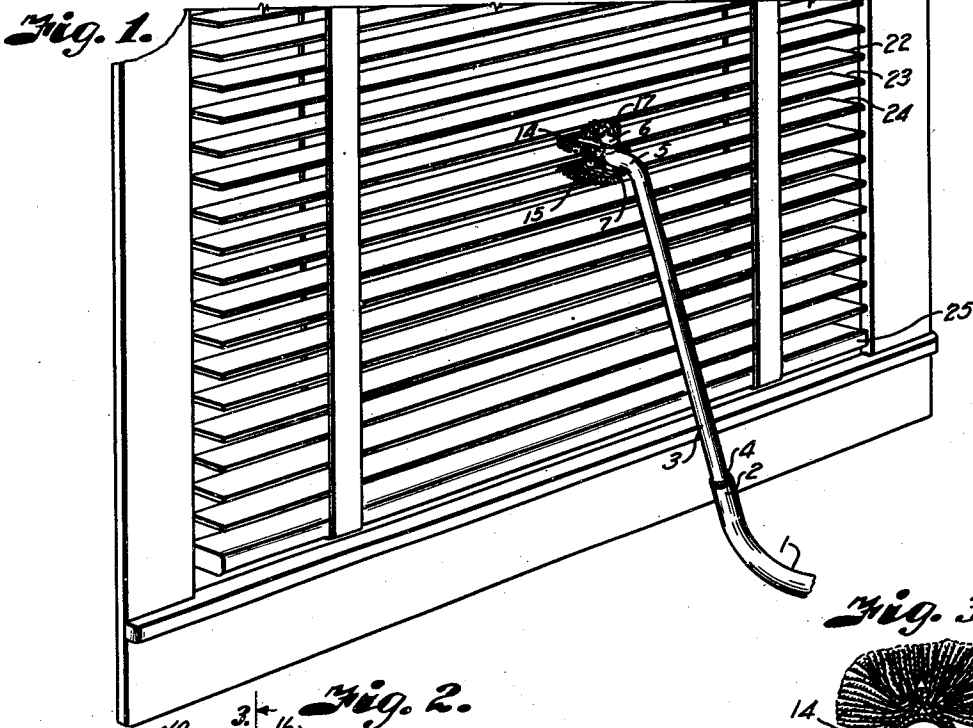
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2,271,694

DUSTER

Filed Aug. 1, 1938

2 Sheets-Sheet 1



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Fig. 5.

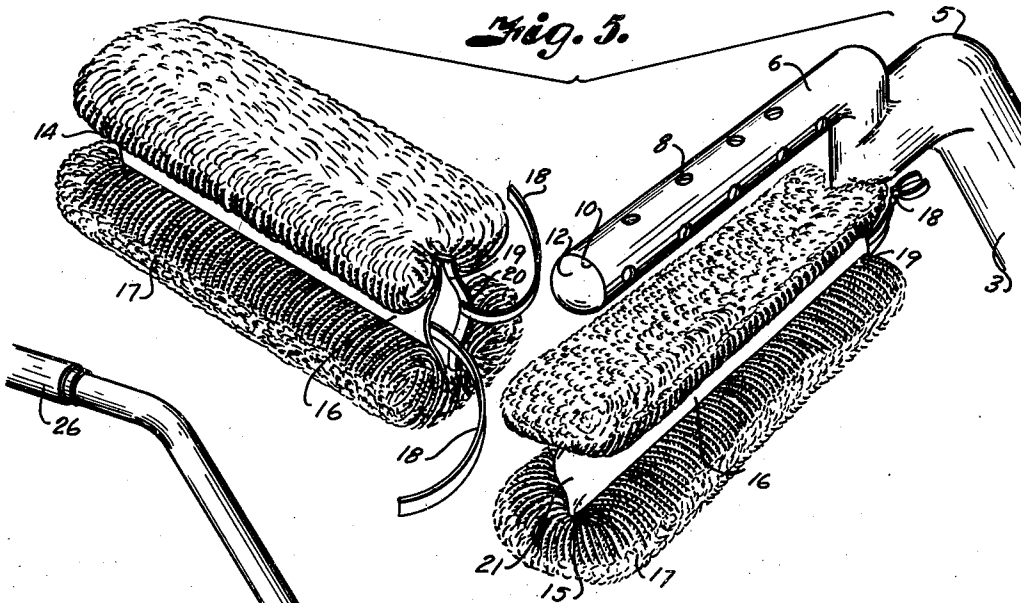


Fig. 6.

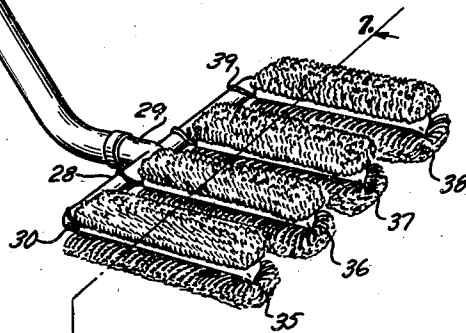
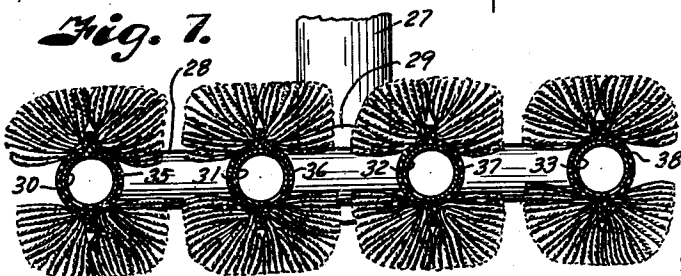


Fig. 7.



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DUSTER

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3 Claims. (Cl. 15-158)

This invention relates to dusters, and more particularly to dusters of suction type, the principal object of the present invention being to provide a duster adapted for employment with a vacuum or like cleaning device and capable of cleaning surfaces soiled by loose dust and/or clinging dirt, and greasy or like substances.

Other important objects of the present invention are to provide a duster adapted to loosen soiling substances from surfaces to be cleaned and at the same time prevent escape of those substances into the surrounding atmosphere thus obviating resettlement of those substances on the cleaned surfaces; to provide for simultaneously cleaning a plurality of adjacent surfaces; to provide for increasing the effective surface cleaning area of dusters of this character; to provide for interchanging and reversing dusting and/or cleaning elements of a duster of this character; to provide an improved construction of duster head; to provide an improved manner of connecting the duster head on a vacuum or similar cleaning device; to provide an improved attachment for a vacuum or like cleaning device adapted to support and cooperate with the duster proper embodying features of this invention; to provide improved elements and arrangements of those elements employed in a duster of this character; and to provide a relatively simple, economical, very durable and highly efficient duster.

In accomplishing these and other objects of the present invention, I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a duster embodying the features of the present invention, illustrating an application of the duster in cleaning Venetian blind slats.

Fig. 2 is a longitudinal cross-sectional view through the supporting member branches with duster heads applied thereto, particularly illustrating the manner of simultaneously cleaning opposite surfaces of a Venetian blind slat.

Fig. 3 is a vertical cross-sectional view through the duster on the line 3-3, Fig. 2.

Fig. 4 is a horizontal cross-section through the duster illustrated in Fig. 2 on the line 4-4, Fig. 2.

Fig. 5 is a detail perspective view of the working end of a duster embodying the features of the present invention with one of the duster heads shown in disassembled spaced relation to its supporting branch.

Fig. 6 is a perspective view of a modified

form of the present invention illustrating the employment of the duster as a mop.

Fig. 7 is a transverse section through the duster illustrated in Fig. 6 on the line 7-7, Fig. 6.

Referring more in detail to the drawings:

1 designates a member normally connected with a vacuum or like cleaning device, not shown, which is adapted at one end 2 thereof for engagement with a hollow supporting member 3. The members 1 and 3, as in conventional practice, may have frictional engagement with each other, as indicated at 4, to facilitate interchanging various types of hollow supports with the member 1 leading to the source of suction or vacuum.

In the present instance, the supporting member 3 is of tubular construction and has a substantially laterally turned end 5 provided with branches 6 and 7. The branches 6 and 7 are perforate, as indicated at 8 and 9, and the normally open ends 10 and 11 thereof are closed by plugs 12 and 13.

Duster heads 14 and 15 are preferably removably and interchangeably mounted on the branches 6 and 7 of the supporting member and each duster head preferably includes a porous sleeve 16, which may be formed of duck, drill, or similar woven or relatively porous fabric. Tufts 17 are suitably fixed to the sleeves 16, as by sewing or the like, and preferably consist of clusters of strings or yarn having absorptive properties. The tufts are preferably fixed to the sleeves longitudinally thereof and in oppositely disposed outwardly extending relation, substantially as shown.

Fastening devices 18, such as the tie members illustrated, are also connected with the sleeves at the open inner ends 19 thereof, as indicated at 20 in Fig. 4.

The sleeves are preferably closed at their outer ends, as indicated at 21, which prevents the sleeves from sliding or piling up on the support.

In using a duster constructed as described, duster heads are applied to the perforate end of the hollow support by merely sleeving the duster head or heads thereon. The fastening devices 18 are secured to the support in a suitable manner and thus prevent displacement of the sleeves from the support in one direction.

The support 3 may then be applied to the member 1 leading to the source of suction and upon energization of the source of suction, the duster of the character illustrated in Figs. 1 to 4, may be conveniently employed for cleaning opposite surfaces of Venetian blind slats in the manner indicated in Fig. 1. This cleaning operation

is carried out by extending the branches 6 and 7 of the duster between adjacent slats 22, 23 and 24 of a conventional Venetian blind 25, the adjacent tufts on adjacent sleeves on the branches 6 and 7 contacting the opposite faces of the intermediate Venetian blind slat 23.

It is apparent that the inner tufts on the sleeves not only remove loose dust from the slat surfaces, but, due to their contact with those surfaces, also remove greasy substances closely adhering to the slat surfaces. It is also apparent that simultaneously with cleaning opposite surfaces of the slat 23, the surfaces of the slats 22 and 24 adjacent the slat 23 are also cleaned. It is also apparent that the loose dirt removed from the slat surfaces, is drawn into the tufts of the duster heads and held there by the suction in the supporting member, which prevents escape of the dust into the surrounding atmosphere for subsequent resettlement on the slat surfaces.

In Figs. 6 and 7, a modified form of the invention is shown, wherein a source of suction 26 is employed and adapted for suitable engagement with a hollow supporting preferably tubular member 27. A manifold 28 is preferably provided in this instance which has a connection 29 with the supporting member. The manifold 28 may, if desired, be swivelly connected to the member 27. A plurality of branches 30, 31, 32, and 33 are connected with the manifold 28, the branches being perforate, as indicated at 34 in Fig. 7. The duster heads 35, 36, 37, and 38 are preferably substantially similar to the duster heads 14 and 15 described in connection with the preferred form of invention, and have suitable fastening devices 39 for removably mounting the duster heads in desired position on the branches and manifold.

In using this modified form of invention, it is contemplated that the duster be employed as a mop or like floor cleaning device and may have any number, size and length of branches and duster heads depending on the size of mop desired and the purpose for which it is to be used. It is also apparent that the duster in its modified form is admirably fitted for picking up loose dirt and cleaning the floor of grimy substances adhering thereto, the suction applied to the duster heads on the manifold branches preventing escape of loose dust into the room and retaining the dust and grime on the duster heads. Where desired, oil or polish may be used

on the duster heads without departing from the spirit of my invention.

By providing the manifold with a swivel connection with the support 27, it is apparent that the manifold may be turned to a vertical position as distinguished from the substantially horizontal position illustrated in Fig. 6 in such a manner that radiators and like objects may be easily cleaned as well as other objects positioned in close relation to each other.

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

1. In a duster of the character described, a hollow support adapted for connection at one end thereof with a source of suction, a plurality of spaced branches mounted on the other end of said support, said branches having perforations and communicating with said support, porous sleeves having tufts thereon, the sleeves being removably mounted on said branches, and fastening devices on the sleeves engageable with the support for normally retaining said elements on said support.

2. In a duster of the character described, a tubular member adapted for connection at one end thereof with a source of suction, a manifold at the other end of the tubular member, spaced perforate tubular branches mounted on said manifold and communicating with the interior thereof, and dust collecting elements removably mounted on said branches, said elements each consisting of a porous sleeve having one closed and one open end for applying the sleeves to the branches, and fastening devices on the open ends of the sleeves engageable with the manifold for normally retaining the sleeves in enclosing relation to said branches.

3. In a duster of the character described, a tubular member adapted for connection at one end thereof with a source of suction, a manifold swivelly mounted on the other end of the tubular member, spaced perforate tubular branches mounted on said manifold in communicating relation thereto and in substantially the same plane, porous sleeves having tufts thereon, said sleeves being sleeveable on said branches, respectively, and fastening devices engaged with the sleeves and engageable with the manifold for securing the sleeves to the manifold.

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