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CREVICE TOOL FOR SUCTION CLEANERS

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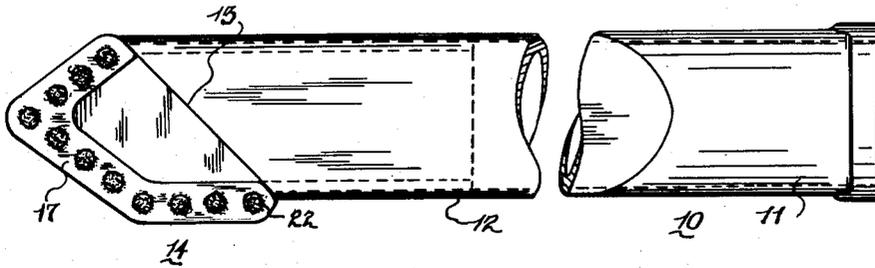


Fig. 1

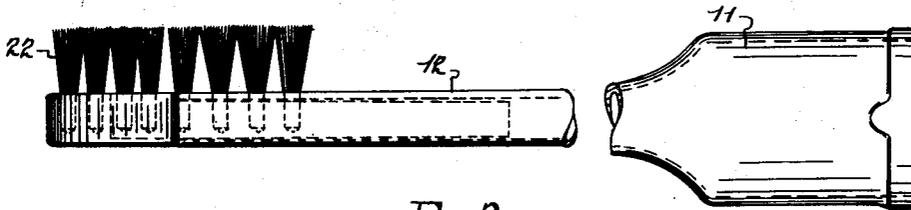


Fig. 2

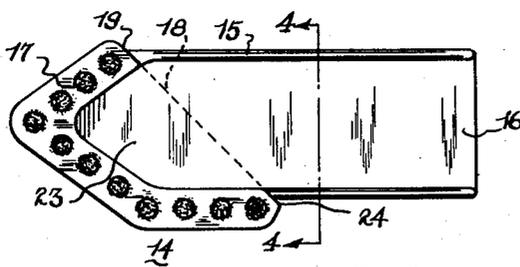


Fig. 3

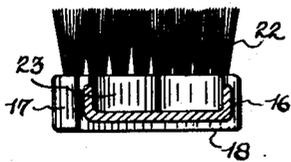


Fig. 4

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CREVICE TOOL FOR SUCTION CLEANERS

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2 Claims. (Cl. 15-374)

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This invention relates to attachment tools for suction cleaners, and more particularly to an improved crevice tool for attachment to the extension hose of a suction cleaner.

The conventional suction cleaner comprises a flexible extension hose terminating in a rigid tube or wand adapted to receive various types of cleaning tools. Among such tools is a crevice tool having a tubular portion of circular cross section adapted to telescope or interfit with the hose wand which merges with a portion or blade of rectangular cross section of a size which may be projected between the slats of Venetian blinds or the fins of home heating radiators or the like. In many instances it is desired to combine the suction effect with a brushing action for thorough cleaning, but a permanently affixed brush prevents effective use of such a tool in cases where only limited space is available for inserting the tool.

I have developed a crevice tool having a brush which is quickly and easily detachable from and attachable to the tool. Further, the brush is so shaped that it tends to break up a straight line suction effect and cause a lateral suction which is highly desirable in cleaning Venetian blinds and the like.

According to the invention, the brush has a portion of U-shaped cross section adapted to be telescoped within the open end of the tool blade and a pointed or V-shaped exposed portion having upstanding bristles whereby when the tool is projected between the slats of a Venetian blind or the like the bristles will brush the slat and at least a part of the suction effect will be in a direction generally at right angles to the slat's surface. When it is desired to use the tool without the brush, the brush is merely pulled out of telescoping relation with the tool proper.

It is a primary object of the invention to provide an improved crevice tool for attachment to the extension hose of a suction cleaner.

Another object of the invention is to provide a brush for a crevice tool of the above type which can be quickly and easily attached to and removed from the tool.

Another object of the invention is to provide a crevice tool of the above type having a detachable brush which serves a dual function of acting as a brush and directing at least a portion of the air flow in a direction generally at right angles to the tool blade.

Other objects of the invention and the invention itself will become increasingly apparent from a consideration of the following description and drawings, wherein:

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Figure 1 is a fragmentary plan view of a crevice tool embodying the invention;

Figure 2 is an elevational view of the tool shown in Fig. 1;

Figure 3 is a plan view of the brush attachment illustrated in Figs. 1 and 2; and

Figure 4 is a transverse sectional view taken along the line 4-4 of Fig. 3.

Referring now to the drawings, I have indicated generally at 10 a conventional crevice tool comprising a tubular portion 11 adapted to telescope over and have a tight fit with the wand of an extension hose coupled to a suction cleaner. Portion 11 merges into a portion 12 of rectangular cross section which preferably terminates in an end 13 cut angularly. The tool 10 is usually formed of metal or a suitable class of material.

The brush generally indicated at 14 comprises a frame 15, preferably formed of plastic material, having a thin walled portion 16 of U form cross section and a thickened lip or edge portion 17. It will be noted that lip 17 extends beneath the bottom wall of portion 16 a distance corresponding to the thickness of the bottom wall of rectangular portion 12 of tool 10 and extends laterally beyond each side wall of portion 16. The bottom edge of lip 17 is cut angularly to correspond with end 13 of tool 10, as indicated at 18, whereby this edge together with side edges 19 and 24 abut the end of tool portion 12 to limit relative telescoping action between the tool and brush and form an effective seal therebetween when brush portion 16 is projected within tool portion 12.

Lip 17 is of generally V shape in plan view, since I have found this shape most effective when projecting the brush into corners and the like. A plurality of holes are formed in the lip to receive brush bristles, as indicated at 22, the bristles being secured in any suitable manner as by bonding or stapling. It will be noted that the lip walls extend upwardly to be substantially flush with the top wall of tool portion 12 and form a recess, indicated at 23, adjacent the end of tool 10. The height of lip 17 which includes the thickness of the frame bottom wall forming the base of recess 23, substantially conforms to the depth of the tool blade, indicated as portion 12, as illustrated in Fig. 2. It will be apparent that when the tool is used either for suction cleaning or blowing that the lip walls together with the upstanding bristles will tend to direct the air stream at right angles to the tool which is highly desirable for efficient cleaning when the tool is projected between the slats of Venetian blinds or the like, since the air stream will be directed toward or

away from the surface being cleaned rather than parallel thereto.

Although I have described the tool as adapted to effect cleaning by suction when the extension hose is coupled to the cleaner intake, it is understood that the hose may be coupled in a conventional manner to the cleaner exhaust whereby cleaning may be effected by a combined brushing and blowing action.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

What I claim is:

1. The combination with a crevice tool adapted to be attached to a suction cleaner extension hose and of the type having a blade with an opening generally rectangular in cross section, of a brush adapted to be detachably secured to the tool, said brush comprising a frame formed of solid rigid material and having a thin wall portion of U cross section adapted to be telescoped within the blade, the base of the frame of the U section substantially conforming to the width of the blade opening and the upstanding legs of said section substantially conforming to the depth of the blade opening whereby the frame forms a relatively tight fit with the blade, the base of

the U section extending forwardly of the blade engaging portion, the extending portion having an upstanding thickened peripheral lip having a height substantially conforming to the depth of the blade and adapted to abut the sides of the blade to form an upwardly open recess forwardly of the blade, and brush bristles extending upwardly from the lip whereby the lip wall and bristles will tend to deflect air at right angles to the blade during use of the tool.

2. The combination described in claim 1 and wherein the extending base portion of the frame is of generally V form with the apex of the V remote from the blade, and the lip forms a generally V-shaped wall for the recess.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,823,071	Thamm	Sept. 15, 1931
2,206,738	Broek et al.	July 2, 1940

FOREIGN PATENTS

Number	Country	Date
46,152	Denmark	Sept. 5, 1932
104,536	Sweden	May 19, 1942
462,997	Germany	July 19, 1928
512,641	Germany	Nov. 15, 1930