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CLEANING TOOL FOR BLIND SLATS

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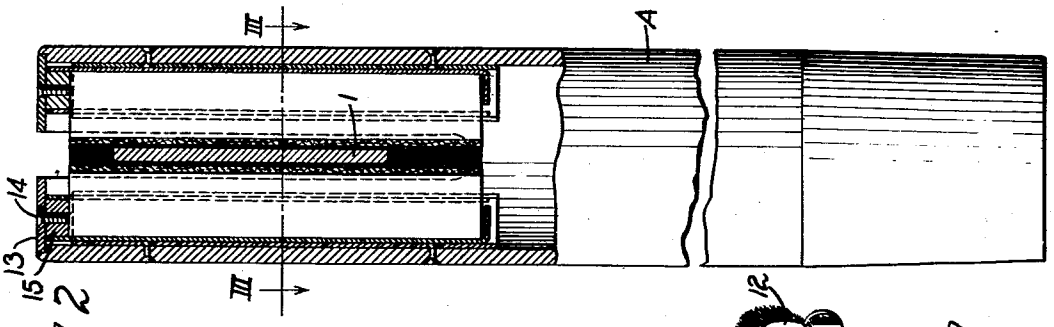


Fig. 2

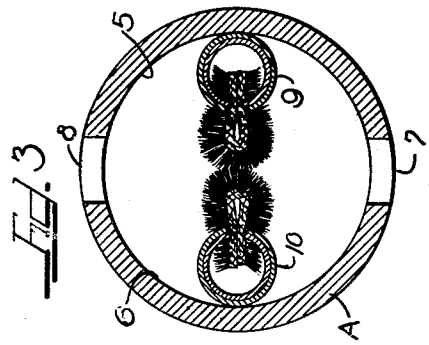


Fig. 3

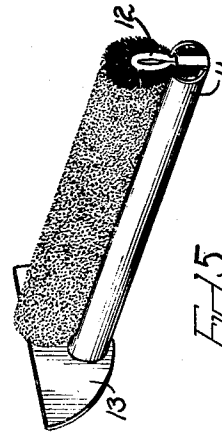


Fig. 4

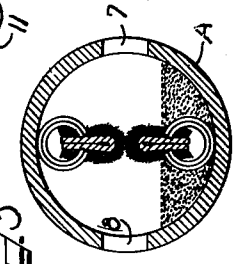


Fig. 5

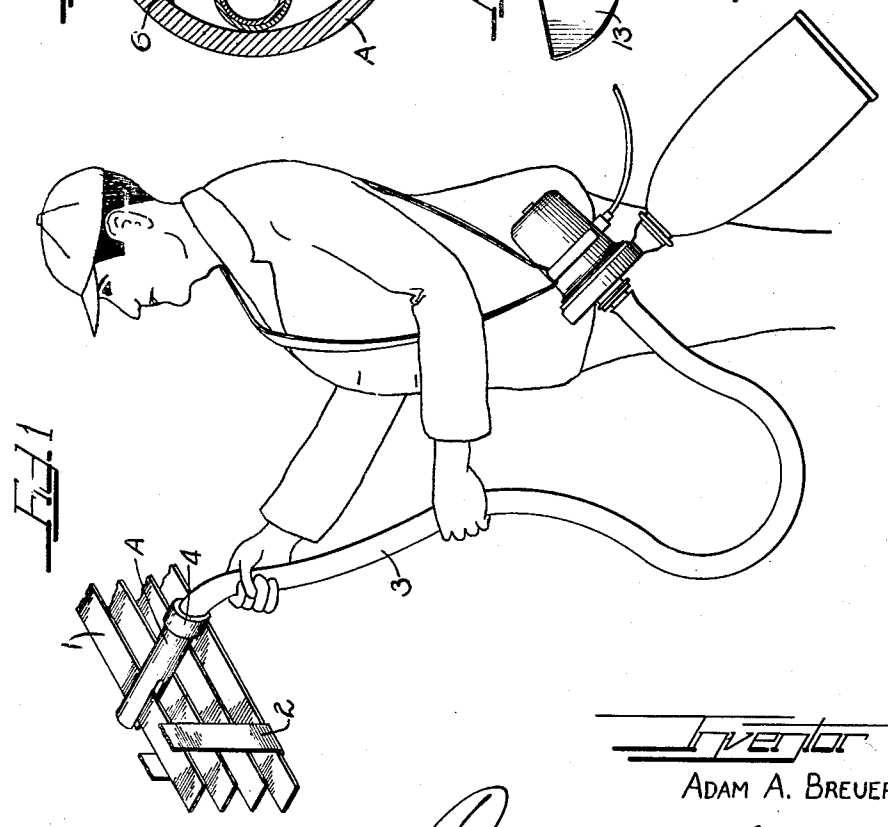


Fig. 1

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CLEANING TOOL FOR BLIND SLATS

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2 Claims. (Cl. 15—158)

The present invention relates to cleaning tool for blind slats and more particularly the one for use with suction cleaning apparatus for cleaning Venetian blinds.

An object of the present invention is to provide a tubular attachment for suction cleaning hose whereby the slats and tapes of Venetian blinds may be readily cleaned in situ.

Another object of the present invention is to provide a tool for attachment to a suction cleaner hose whereby the tapes and slats of Venetian blinds may be readily cleaned and the dirt thereon withdrawn by suction without spreading the dirt as the tool is used.

A further object of this invention is to provide a tool which may be attached to a suction hose whereby the slats and tapes of Venetian blinds may be readily cleaned without having to remove the slats or tapes.

Generally speaking, the present invention contemplates an attachment having a bifurcated end adapted to straddle a slat or tape of a Venetian blind, with the parts formed by the bifurcation provided with wiper elements so that as the tool is worked back and forth along the length of the slats and tapes, the dirt thereon will be drawn through the suction cleaner to a waste receptacle such as a dust bag.

The above, other and further objects of the present invention will be apparent from the following description and accompanying drawing.

The accompanying drawing illustrates an embodiment of the present invention and the views thereof are as follows:

Figure 1 is a view showing isometric fragmental portions of a Venetian blind and showing the tool of the present invention secured to a suction hose, with the tool applied to a slat of the blind and showing an operator manipulating the tool to clean the blind;

Figure 2 is an enlarged fragmental view, partially in elevation and partially in axial section, showing the illustrated form of a tool or attachment, and showing the tool applied over a blind slat;

Figure 3 is a transverse sectional view through the tool, taken substantially in the plane indicated by line III—III of Figure 2, and with the slat removed;

Figure 4 is an isometric view of one of the wiper elements and its construction;

Figure 5 is a transverse sectional view through the bifurcated end of the tool, showing the disposition of the wiping elements such as to provide for dirt accumulation alongside a wiping element, as the tool is in use.

The drawing will now be explained.

Referring to Figure 1, a fragmental portion of a Venetian blind is illustrated, with portions of the blind slats indicated at 1 and the tapes at 2.

An operator carrying a suction cleaning device on his person, suspended by a suitable strap, has the tool attachment A of the present invention secured to the end of the hose 3 for cleaning the slats and tapes of the Venetian blind.

The tool or attachment A, as herein illustrated, is constructed as a cylinder open at both ends and is adapted at one end for connection to the hose 3 of a vacuum suction cleaning device, as by means of a coupling or collar 4.

The other end of the tube is slotted or bifurcated sufficiently to be passed over a blind slat, edgewise thereof, and to be worked back and forth along the length of the slats for wiping the dirt which has accumulated on the same. As thus formed, the forward end of the tool has substantially semi-cylindrical end portions 5 and 6. Diametrically opposed slots 7 and 8 are provided so that the tube may straddle a blind slat or tape.

Secured to the inner surface of the end portion or extension 5 is a substantially cylindrical clip 9 having an opening from end to end directed towards the center line or axis of the tool.

Similarly, another clip 10 is secured against the inner surface of the extension or end portion 6 arranged in the same manner.

Wiping elements are endwise insertable in and removable from the clips 9 and 10.

A wiping element is illustrated in Figure 4 and as there illustrated includes a cylindrical body 11 formed in tubular shape with a slot from end to end, and a fabric 12 consisting of a lamb's wool material folded back on itself, with its ends clamped in the slot formed in the tubular member, to provide the formation illustrated in Figure 4. Tubular members 11 are adapted to slidably engages the clips 9 and 10, and are insertable from the open end of the tube.

The outer ends of the bifurcated portions 5 and 6 of the body 11 is provided with a segmental portion 13 which constitutes an end closure for the particular bifurcation or extension at the open end of the tube.

Figure 2 illustrates the segmental portions 13 as secured to the tubular bodies 11 by means of screws 14, and in this instance the adjacent ends of the tubular bodies are supplied with fillers 15 which are tapped to receive the screws. Any

other manner of attaching the segmental pieces 13 to the extremities of the bodies 11 may be utilized.

The wiping elements are so constructed that when two of them are in place, in the clips 9 and 10, the nap of each will engage the opposed surfaces of a blind slat or tape with wiping action, as the tool is moved back and forth along such slat or tape.

The clips 9 and 10 are so related to the slots 7 and 8, as to maintain the wiping elements in laterally spaced relation to the side surfaces of the bifurcated portions or extensions, thus providing dust pockets 16 along the wiping elements to therein accumulate dirt wiped from a blind or tape by the wiping elements.

The segmental portions 13, of the wiping elements, close the open extremities of the bifurcated portions or extensions of the tool substantially in alignment with the margins of the slot, so that the air inlet to the interior of the tool is limited to the slot formed in the tool.

When the tool is attached to a suction hose, as illustrated in Figure 1, the bifurcated end applied over a slat or tape, and the tool moved along the slat or tape, the wiping elements will wipe off the dirt into the lower of the dirt pockets along the sides of the elements, and the suction stream will carry the dirt through the hose into a dust bag, or other receptacle, as is usual in suction cleaning apparatus.

The fact that the air inlet, for the suction stream, is limited substantially to the width of the slot assures the collection of all dirt that may be wiped off a slat or tape, as there is no tendency of the tool to push any of the dirt ahead of the tool as it is being moved along a slat or tape, but otherwise to gather the dirt into the interior of the tube by reason of the suction of the apparatus.

The fact that the cleaning elements are removable makes it possible to keep them free of accumulation of matter which otherwise might clog them and render them less effective for the cleaning operations. Furthermore, such removable cleaning elements makes replacement an easy accomplishment.

It will be observed that the device of the present invention is one which may be readily applied to a suction hose, for efficiently cleaning Venetion blind slats or tapes.

The tool of the invention is applied to the blind tapes in the same manner as described with reference to the slats and has been found very satisfactory for cleaning the tapes as well as the slats.

Figure 5 illustrates the dirt pockets alongside the cleaning elements. Of course it is to be understood that dirt accumulates in the pockets adjacent the lower of the wiping elements.

Figure 2 illustrates the manner of application of the tool to a slat, a slat being shown in section at 1.

It will be observed that the tool of the present invention is one which may be economically manufactured and is satisfactory and efficient in use.

The tool or attachment herein illustrated and described, has been illustrated as cylindrical in section. Of course it is not limited to such shape as any other suitable shape may be utilized, provided that suitable connection is made at one end for attachment to a suction hose.

The term "Venetian blind" is herein used generally and not by way of limitation, as the invention is capable of use in cleaning the opposite surfaces of any substantially slatlike or tapelike article.

Where, in the claims, the word "slat" is used, it is to be understood as including tapes.

The tool is so constructed that its end may be applied to a slat between the front and back tapes for cleaning the slats between the tapes.

The invention has been described herein more or less precisely as to details, yet it is to be understood that the invention is not to be limited thereby, as changes may be made in the arrangement and proportion of parts, and equivalents may be substituted without departing from the spirit and scope of the invention.

The invention is claimed as follows:

1. A tool for cleaning Venetian blind slats, comprising a tubular member having bifurcated ends for straddling a slat, elongated wiper elements within said end portions, said wiping elements being endwise insertable and removable, end pieces on the outer ends of said elements to close the tube ends adjacent the slot, and clips secured against the inner surfaces of said tube for securing said elements in place.

2. A tool adapted for connection to a suction hose for cleaning Venetian blind slats comprising a hollow cylindrical member open at both ends and being slotted inwardly from one end forming two substantially semi-cylindrical portions for straddling a slat, opposed cleaning elements within said semi-cylindrical portions extending longitudinally of the same, the outer ends of said elements carrying end pieces adapted to close the outer ends of said semi-cylindrical portions to thereby limit the suction inlet to the slot, the semi-cylindrical portions constituting pocket means along said elements for collecting dirt removed from a slat by said elements whereby the dirt in said pocket means is subjected to the suction stream for removal of the dirt from said tool.

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