Sept. 22, 1953 A. C. TOMANICA 2,652,583

SUCTION BRUSH HAVING REMOVABLE BRUSH UNITS FOR CLEANING VENETIAN BLINDS

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Fig. 1

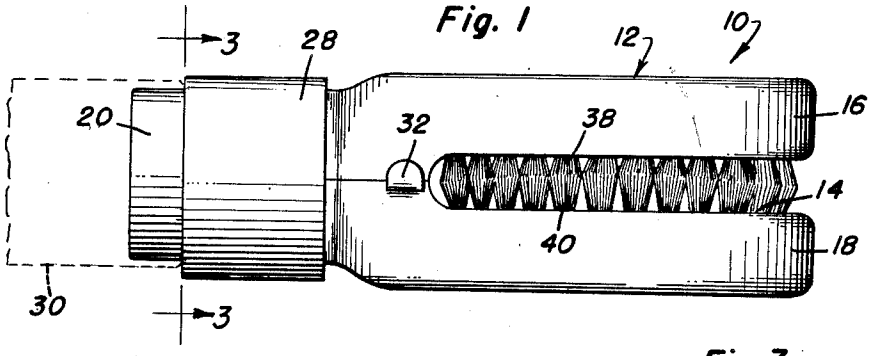


Fig. 2

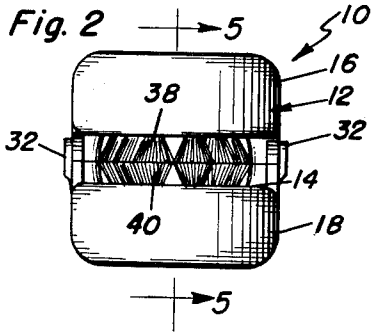


Fig. 3

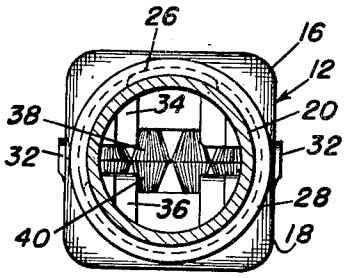
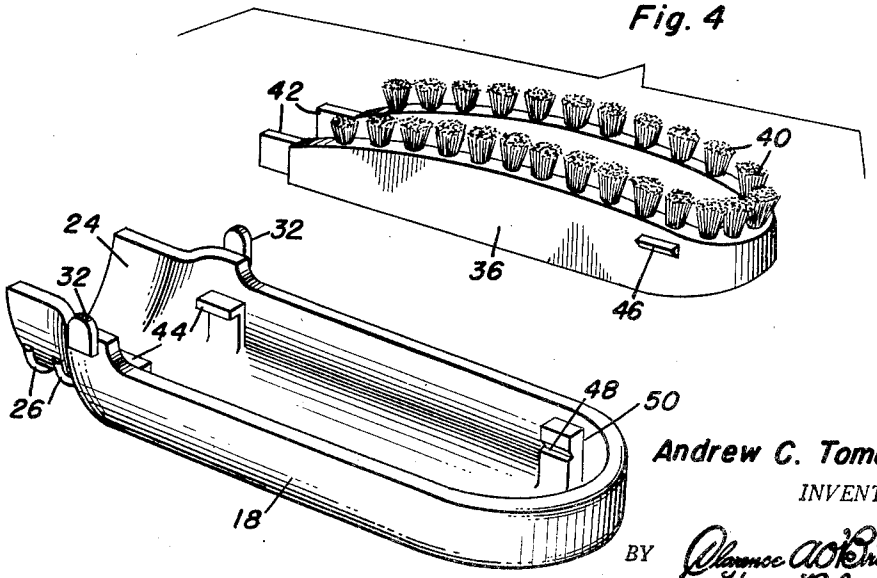


Fig. 4



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Fig. 5

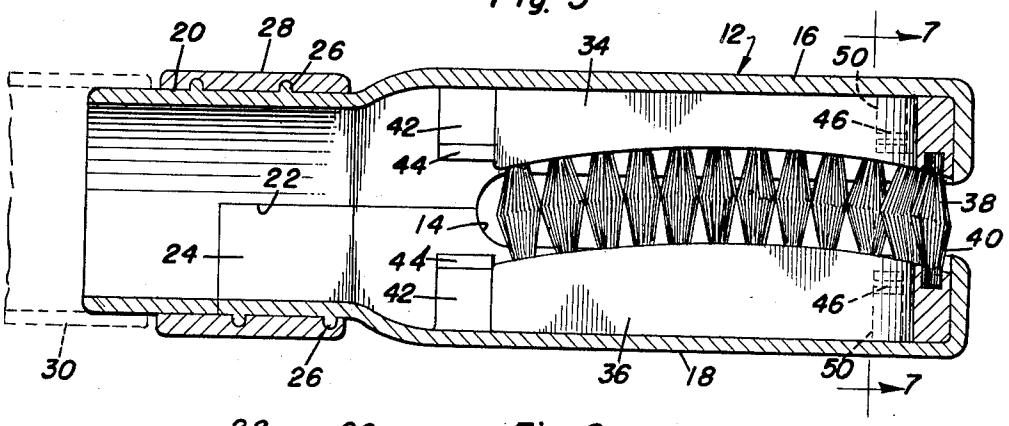


Fig. 6

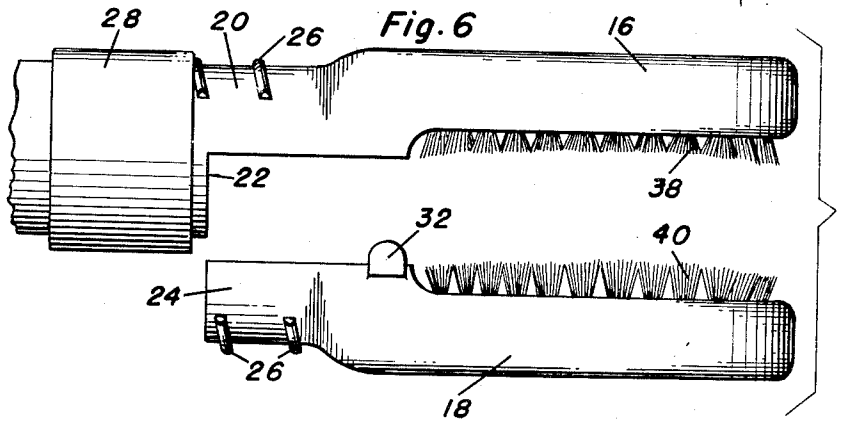


Fig. 7

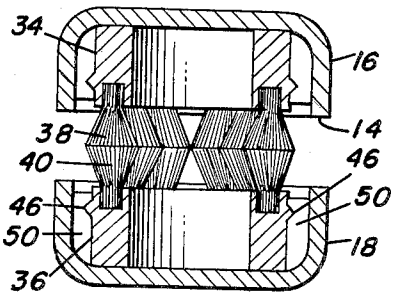
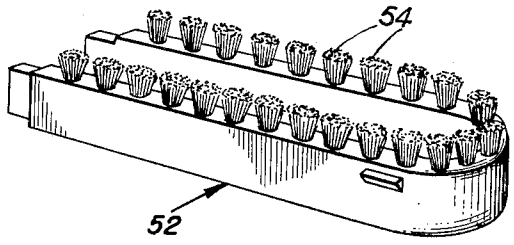


Fig. 8



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UNITED STATES PATENT OFFICE

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SUCTION BRUSH HAVING REMOVABLE BRUSH UNITS FOR CLEANING VENETIAN BLINDS

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Application May 29, 1950, Serial No. 164,986

3 Claims. (Cl. 15—394)

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This invention relates to new and useful improvements and structural refinements in brushes for cleaning slats of Venetian blinds, and the principal object of the invention is to facilitate convenient and expeditious cleaning of Venetian blind slats by employing a suction brush which, in the nature of an attachment, may be used in combination with a conventional vacuum cleaner.

Some of the advantages of the invention reside in its simplicity of construction, in the interchangeability of its brush units, in its efficient and expeditious operation, and in its adaptability to economical manufacture.

With the above more important objects and features in view, and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a side elevational view of the invention;

Figure 2 is a front end view thereof;

Figure 3 is a transverse sectional view, taken substantially in the plane of the line 3—3 in Figure 1;

Figure 4 is a group perspective view showing one section of the housing and one of the brush units;

Figure 5 is a longitudinal sectional view, taken substantially in the plane of the line 5—5 in Figure 2;

Figure 6 is a group elevational view, similar to that shown in Figure 1, but illustrating the housing sections and brush units separated;

Figure 7 is a transverse sectional view, taken substantially in the plane of the line 7—7 in Figure 5, and;

Figure 8 is a perspective view of a modified brush unit used in the invention.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, and more particularly to Figures 1–7 inclusive, the invention consists of a suction brush for cleaning Venetian blind slats, which suction brush is designated generally by the reference character 10 and embodies in its construction an elongated housing 12 which is provided with a transverse recess 14, open at the sides and front thereof, as is best illustrated in Figures 1 and 2.

The housing 12 is composed of upper and lower

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complemental sections 16, 18 respectively, the upper section 16 being equipped with a substantially tubular adapter 20 which is recessed as at 22 to accommodate a substantially semi-cylindrical portion 24 of the lower housing section 18.

The portions 20, 24 of the respective sections 16, 18 are provided with complemental screw threads 26 to accommodate an externally screw threaded collar 28, whereby the two sections of the housing are separably held together. This is illustrated in Figures 1 and 5, and it is to be noted that when the collar 28 is in position and sustaining the housing sections together, the portion 20 of the section 16 projects outwardly from the collar and is thereby adapted for connection to the suction hose of a conventional vacuum cleaner, as indicated at 30.

In addition, a pair of upwardly projecting lugs 32 are secured to and project upwardly from opposite sides of the lower section 18 so as to embrace the upper section and prevent any possible lateral displacement or shifting of one section relative to the other.

Horizontally elongated upper and lower brush units 34, 36, are positioned in the respective upper and lower sections 16, 18 of the housing 12, these brush units having opposing, contacting sets of bristles 38, 40 respectively, which are preferably complementally concave and convex so as to conform to the cross section of a conventional, concavo-convex Venetian blind slat.

The brush members 36, 34 are elongated and are provided at one end thereof with a pair of projecting prongs 42 which are adapted to engage a pair of hook-shaped detents 44 provided in each of the housing sections 16, 18, while the remaining end portions of the brush members are equipped at the opposite sides thereof with wedge shaped protuberances 46 which are engageable with complemental recesses or notches 48 provided in upstandings posts 50 with which the housing sections 16, 18 are also equipped. By virtue of this arrangement the brush units 34, 36 are removably retained in position in their respective housing sections, so that they may be expeditiously removed and replaced by simply separating the housing sections after removal of the retaining sleeve 28. It is to be understood that the posts 50 are sufficiently resilient so that they may be sprung apart to facilitate placing of the keepers 46 in the notches 48 while the brush units are being installed.

Finally, with respect to the modified embodiment of the brush unit which is illustrated in

Figure 8 and designated generally by the reference character **52**, this brush unit is similar to the units **34**, **36**, already described, with the exception that the bristles **54** of the brush unit **52** are substantially flat for cleaning flat Venetian blind slats.

It is believed that the advantages and use of the invention will be clearly understood from the foregoing disclosure, and accordingly, further description thereof at this point is deemed unnecessary.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

Having described the invention, what is claimed as new is:

1. A suction brush for cleaning Venetian blind slats comprising a housing provided with a transverse recess open at the sides and front thereof, means on said housing for connecting said suction brush to a source of suction, said housing including upper and lower complemental sections, means for separably connecting said sections, upper and lower brush units positioned in the respective upper and lower sections of said housing, said recess providing a passageway for flow of air past said brush units, said brush units having opposed sets of bristles disposed in said recess for engagement with relatively opposite sides of a slat, first and second pairs of detents in opposite end portions of each of said sections, each of the first pairs of detents having opposing surfaces thereof provided with grooves parallel to the longitudinal axis of said housing, a pair of opposing hooks provided on each of said second pair of detents, pairs of prongs projecting longitudinally from one end of each of said brush units, said prongs slidably engaging said hooks, and pairs of keepers provided on each of said brush units, said keepers being slidably disposed in said grooves.

2. A suction brush for cleaning Venetian blind slats comprising a housing provided with a transverse recess open at the sides and front thereof, means on said housing for connecting said suction brush to a source of suction, said housing including upper and lower complemental sections, means for separably connecting said sections, upper and lower brush units positioned in the respective upper and lower sections of said housing, said recess providing a passageway for flow of air past said brush units, said brush units having opposed sets of bristles disposed in said recess for engagement with relatively opposite sides of a slat, the opposing sets of bristles of said brush units being complementally convex and concave to conform to the cross-section of a convexo-concave slat, first and second pairs of detents in opposite end portions of each of said sections, each of the first pairs of detents having opposing surfaces thereof provided with grooves parallel to the longitudinal axis of said housing, a pair of opposing hooks provided on each of said second pair of detents, pairs of prongs projecting longitudinally from one end of each of said brush units, said prongs slidably engaging said hooks, and pairs of keepers provided on each of said brush units, said keepers being slidably disposed in said grooves.

3. In a suction brush for cleaning Venetian blind slats, the combination which includes: a housing including upper and lower complemental sections provided with a transverse recess open at the sides and front thereof and together forming a tubular portion at the rear thereof; lugs upon one of the said complemental sections extending to engage opposite sides of the other section to prevent lateral shifting thereof; tubular means slidable over said tubular portion of said housing clamping said complemental sections together, said tubular portion providing a connection for said housing to a source of suction; and upper and lower brush units positioned peripherally about said transverse recess and in said upper and lower sections of said housing, the bristles of said brush units being complementally concave and convex to conform to the cross section of a convexo-concave slat with the said bristles of said brush unit in substantial contact with each other.

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