

June 5, 1962

K. I. STRAND ET AL

3,037,230

DUSTING IMPLEMENT

Filed Aug. 25, 1961

Fig. 1.

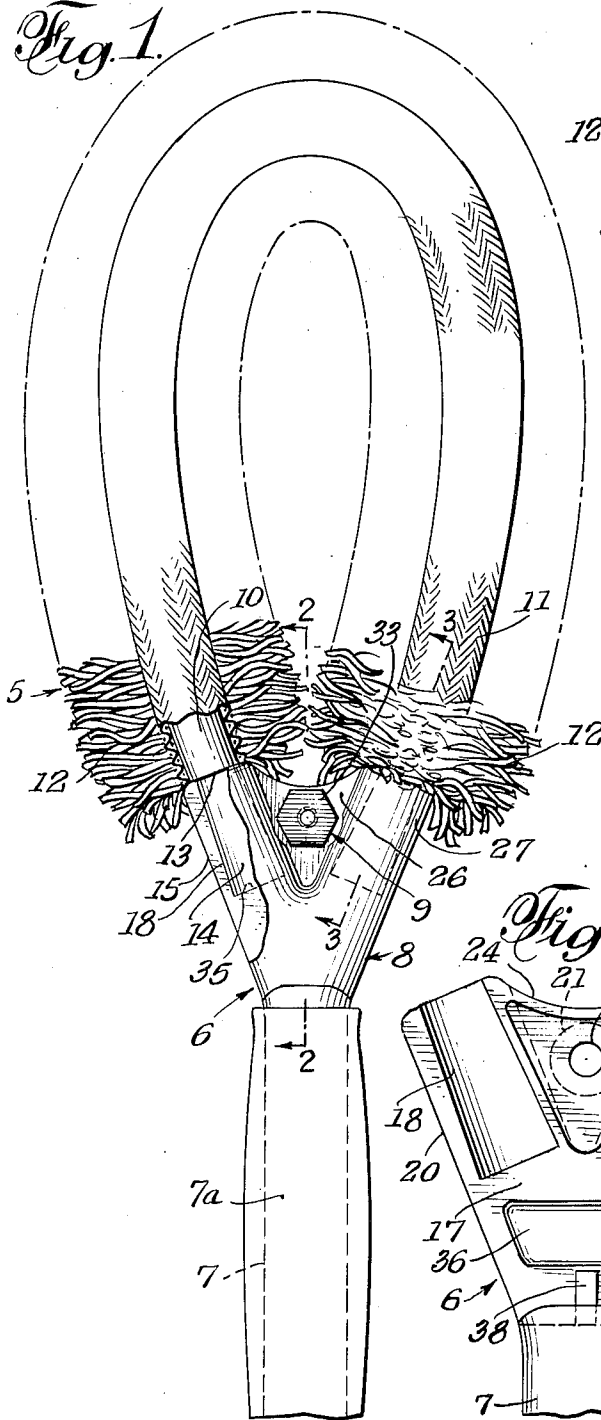


Fig. 2.

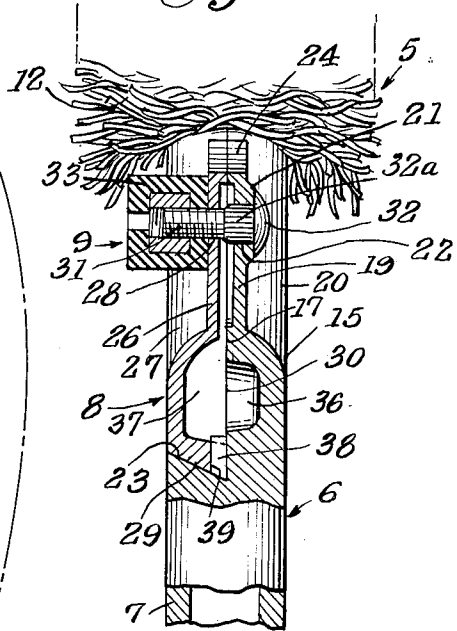


Fig. 3.

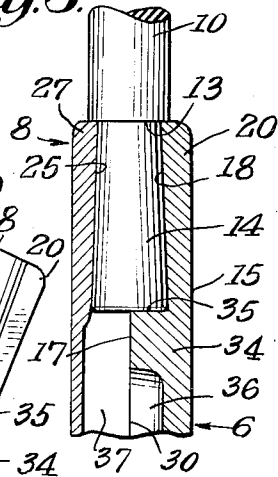
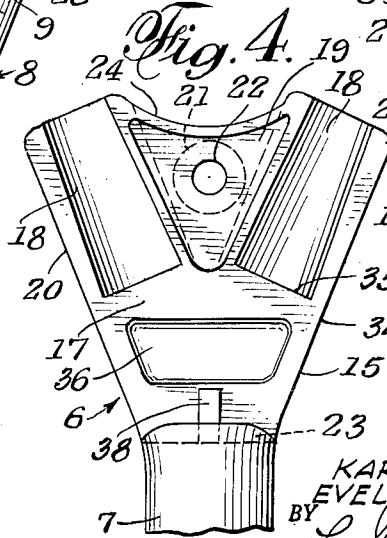


Fig. 4.



INVENTORS
KARL I. STRAND
EVELYN E. STRAND
BY *C. S. Stratton*
ATTORNEY

1

3,037,230

DUSTING IMPLEMENT

Karl I. Strand and Evelyn E. Strand, both of
3245 Hill, Huntington Park, Calif.

Filed Aug. 25, 1961, Ser. No. 134,802

4 Claims. (Cl. 15-229)

This invention relates to a dusting implement such as may be used for removing the dust from furniture and other surfaces.

This application is a continuation-in-part of our abandoned application, bearing the same title, Serial No. 70,846, filed November 21, 1960.

An object of the present invention is to provide a duster that is capable of ready separation of its parts and easy assembly, whereby the dust-gathering member of the implement may be changed with easy facility or removed for washing or other cleansing. Thus, the implement may be easily kept in proper dusting condition for efficient service in that regard.

Another object of the invention is to provide a duster of the character above referred to that, because the same has a single fastener unit, enables efficient handling for disassembly and assembly purposes, which may be carried out by mechanically inexperienced persons.

A further object of the invention is to provide a duster as characterized above embodying a novel cooperation between the duster and handle components of the device, whereby a duster implement is provided in which exposed portions of the handle are so shielded that accidental marring thereby of furniture surfaces and corners is largely obviated.

This invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description, which is based on the accompanying drawing. However, said drawing merely shows, and the following description merely describes, one embodiment of the present invention, which is given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

FIG. 1 is a front elevational view of a dusting implement according to the present invention with portions broken away.

FIGS. 2 and 3 are enlarged sectional views taken on the respective lines 2-2 and 3-3 of FIG. 1.

FIG. 4 is an inner face view, to the scale of FIGS. 2 and 3, of the base or handle member of the implement.

The dusting implement that is illustrated comprises, generally, a dust-gathering portion 5, a base member 6 provided with a handle extension 7, a clamp member 8 that cooperates with the base member to hold the ends of the portion 5 to form a loop, a single fastener 9 to secure the clamp member to the base member, and a rubber grip 7a covering the handle extension 7.

The dust-gathering portion 5 comprises a preferably round-sectioned and elongated member 10 that is preferably formed of a resilient material, such as rubber or one of the elastic plastics, and a flexible sleeve 11 strung on said member 10 provided with a multiplicity of dusting cords 12 or the like. Said sleeve is substantially coextensive in length to the length of the elongated member 10 between the end shoulders 13 thereof. Beyond said end shoulders, said member 10 is integrally provided with extensions 14 that flare from the shoulders to their

2

ends. In other words, said ends are frusto-conical and, in longitudinal section, are of dovetail form. It will be clear that said sleeve 11 may readily be moved on or off the member 10 in an endwise direction and that said sleeve will easily pass over the larger ends of the extensions 14.

The base member 6 is preferably formed of metal, such as an aluminum alloy, but may be advantageously formed of plastic that is rigid or of limited resiliency. Said base member is provided, at one end, with the mentioned handle 7, and at the other, with a triangularly-shaped part 15. Said handle 7 is made to be longitudinally hollow for lightness.

The part 15 has a generally flat face 17 in which are formed two similar recesses 18 that are disposed to include an acute angle between them and have a shape the same as the longitudinal sectional form of the mentioned extensions 14 of the member 10. It will be clear that said extensions are adapted to fit into said recesses 18 and be so angularly disposed that the elongated member 10 is bowed and is formed into a loop, as in FIG. 1, with the sleeve 11 conforming therewith. It will also be clear that because of the described shape of said extensions 14 and recesses 18, the former cannot be pulled endwise from the latter.

The side of the base member 6 opposite to the face 17 is formed, where the recesses 18 are provided, so as to generally conform to the transverse curvature of said recesses, said member 6 having a web portion 19 that is between and integrally connects the portions 20 in which said recesses are formed. Between the portions 20, the web portion 19 is provided with a boss 21 that is provided with an aperture 22 that is located centrally between the portions 20 of the base member.

As can best be seen in FIG. 2, the flat face 17 terminates in an undercut face 23. The end edge of the web portion at the wider part thereof is concavely recessed, as at 24, to afford non-interfering relief to avoid contact of the base member with a surface being dusted.

The clamp member 8 has a shape that generally conforms to the shape of the part 15 of the base member 6, is provided with two recesses 25 that cooperate with the recesses 18 to confine the conically flared end extensions 14 of the member 10, with a web 26 that is similar to web 19 and which connects portions 27 in which said recesses 25 are formed, and an aperture 28 that is in register with the aperture 22. At the narrow end of the member 8, the same is provided with an angled face 29 that is adapted to inter-engage with the undercut 23 to so locate the clamp member 8 on the part 15 that face 17 of the latter part and face 30 of the clamp member are either in contact or in close adjacency.

Since the extensions 14 are enclosed in the seats formed by the cooperating recesses 18 and 25, the same are effectively held in connection with the base member 6, hence, with the handle 7.

The single fastener 9 comprises a threaded bolt shank 31 that passes through the registered apertures 22 and 28, a head 32 on said shank and disposed on the boss 21, a roughened shank portion 32a that has tight non-rotational engagement in aperture 22, and a rubber-covered nut or the like 33 on the threaded end of the bolt shank that extends beyond the outer face of the web 26. This type of nut is provided to obviate marring of the outer surface of web 26, even under many manipulations, and also to produce such friction with said web as to obviate accidental backing off and inadvertent loosening of the clamp.

So that part 15 may be light in weight yet rigid for the purpose, the same is formed with a thickened portion 34 beyond the ends of the recesses 18, thereby forming faces 35 defining ends for said recesses. By forming a pocket 36 in portion 34, the latter is lightened yet does not re-

duce the desired rigidity of the part 15. The clamp member 8 is considerably lightened by a pocket 37 that, in effect, comprises a lower extension for the recesses 28 and connects the same.

Proper registration of the part 15 and the clamp member 8 is obtained through the medium of a key projection 38 on the face 17 of the base member adjacent to the undercut face 23, and a complementary slot or recess 39 formed in the inner face 30 of the clamp member 8. Said key and the connecting bolt insure against lateral displacement of the clamp member relative to the base.

While the foregoing has illustrated and described what is now contemplated to be the best mode of carrying out the invention, the construction is, of course, subject to modification without departing from the spirit and scope of the invention. Therefore, it is not desired to restrict the invention to the particular form of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

Having thus described this invention, what is claimed and desired to be secured by Letters Patent is:

1. A dusting implement comprising a round-sectioned resilient and non-metallic elastic member having thereon a sleeve with dusting cords thereon, extensions on the ends of said member having a round and longitudinal dovetail form, a rigid base member having a pair of recesses open at one end and of the same longitudinal-sectional dovetail shape as said extensions and in which said extensions are fitted, said recesses having end faces and being disposed at an acute angle to each other to thereby hold the extensions of the elastic member at the same relative angle and to bow the member between its ends to form an elastic loop, a rigid, thin web spanning between the recesses, said base member being provided with a trans-

verse undercut face beyond the ends of the recesses in said member, a clamp member having an end edge complementary to said face and engaged therewith, said clamp member having a pair of recesses complementary to the recesses in the base member which cooperate to form bores that conform to the shape of the said dovetail extensions to enclose said extensions of the elastic member, a rigid, thin web spanning between the complementary recesses, and a single fastener extending through both said webs and connecting the clamp and base members to confine said extensions against endwise displacement from said recesses.

2. A dusting implement according to claim 1 in which a key projection is provided on the base member and the clamp member is formed with a slot for said projection to hold the base and clamp members in registration.

3. A dusting implement according to claim 1 in which the fastener comprises a headed bolt that extends transversely through the base and clamp member with the head thereof disposed against the outside of one of said members, and a nut on said bolt disposed against the outside of the other member and having thereover a non-metallic, non-marring cover.

4. A dusting implement according to claim 1 in which the base member is provided with an elongated handle extension, and a rubber grip on said extension.

References Cited in the file of this patent

UNITED STATES PATENTS

| | | |
|-----------|---------|---------------|
| 1,516,026 | Neff | Nov. 18, 1924 |
| 1,675,218 | Jerabek | June 26, 1928 |
| 2,323,687 | Strand | July 6, 1943 |