

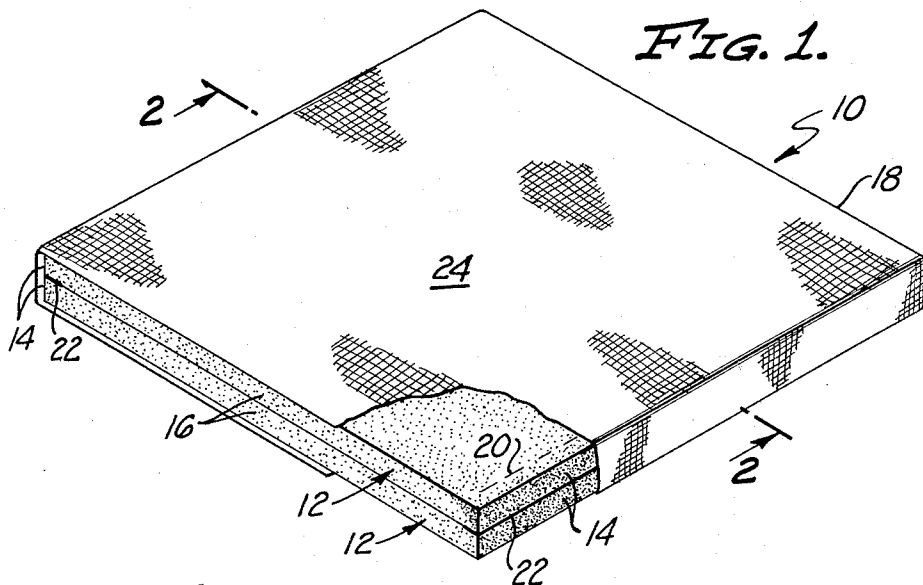
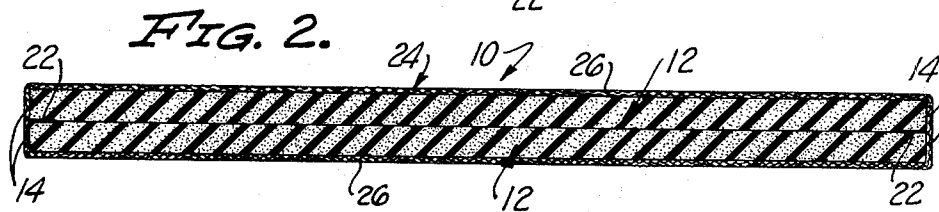
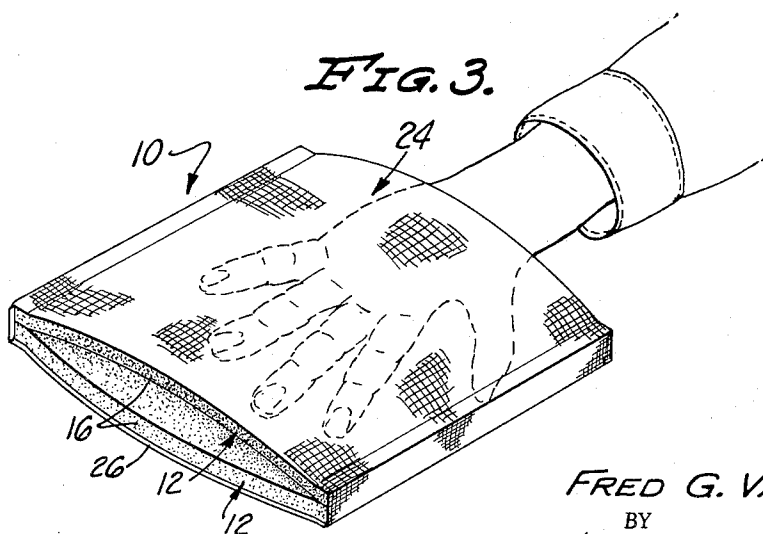
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CLEANING STRUCTURES

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1

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CLEANING STRUCTURES

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This invention pertains to new and improved cleaning structures which are primarily designed to be used in removing lint from surfaces to be painted, but which are also capable of being used for other cleaning purposes.

It is well known that conventional washing and polishing operations leave an essentially clean surface, but that normally such a surface will be covered by a relatively small amount of lint and dust. It is also well known that such a small amount of lint and dust will tend to interfere with a satisfactory paint finish being achieved on a surface covered with this matter. As a consequence of this in certain fields where quality of a paint finish is critical it is customary to wipe a surface with a so-called "tac cloth" prior to the surface being painted. Thus, for example, in the automotive finishing field an automotive vehicle is wiped with a tac cloth so as to remove any vestiges of lint, dust or the like immediately prior to a painting operation being performed.

The term "tac cloth" is a common term in fields such as the automotive finishing field. It is employed to designate structures employing a cloth matrix serving to hold a coating of a non-drying type varnish or varnish type composition. Many of these compositions are purely of a synthetic character and are based primarily upon utilization of non-drying type sticky or viscous plasticizers. Usually the cloth matrix employed in a tac cloth is common cotton cheese cloth; it is possible to form satisfactory tac cloth structures using other matrixes such as loosely knitted cotton fabric or various types of loosely woven fabric in which cotton threads are bonded together through the utilization of a synthetic resin which is insoluble in the compositions used in conjunction with this type of matrix in a tac cloth.

It will be realized that these compositions used with tac cloths are, from the point of view of an average individual, relatively messy since they are sticky and viscous in character, but that that these properties which make them undesirable when they are in contact with the skin of an individual are necessary if these compositions are to satisfactorily serve to pick up lint, dust and the like upon a surface. Because of the unsatisfactory "hand dirtying" character of tac cloths, it has been known to hold these cloths through the intermediary use of a protective sheet of material or through the use of a common glove.

Although expedients of this category are more or less acceptable as far as protecting the hand of an individual is concerned, they are not effective from a commercial standpoint to a desired degree for several reasons. Whenever a tac cloth is held directly in the hand of an individual or is held in the hand of an individual covered by a glove or the like, or is held so as to be protected from the hand by means of a sheet of material, the amount of area which can be cleaned with a tac cloth during a single movement of the hand or arm is comparatively limited. This is primarily a consequence of tac cloths being limber, flexible structures. This is extremely disadvantageous by various commercial standpoints.

Obviously the speed with which a surface such as the surface of a car can be wiped with a tac cloth is significant in meeting price competition in an automotive finishing shop. If a man assigned to using a tac cloth can only cover an area roughly six inches wide with a single swipe of the hand, this is not as satisfactory as if a man can cover a larger area with the same physical

2

operation. Conventional manners of using tac cloth are also comparatively disadvantageous because of the curvature of many automotive and other surfaces. It is comparatively difficult if not impossible in many instances to curve a hand holding a tac cloth so as to get this tac cloth over various compound and other curves in such a manner as to pick up lint or dust satisfactorily and rapidly.

An object of the present invention is to provide new and improved cleaning structures which are designed so as to overcome the foregoing and various related disadvantages and limitations of cleaning surfaces with a tac cloth in accordance with conventional practice. A related object of the present invention is to provide relatively simple, inexpensive effective cleaning structures for use in removing lint, dust and the like from surfaces prior to these surfaces being painted. These and various other objects of this invention, as well as many specific advantages of it will be more fully apparent from a detailed consideration of the remainder of this description including the appended claims and the accompanying drawing in which:

FIG. 1 is a perspective view of a cleaning structure of this invention, a part of this cleaning structure being broken away so as to facilitate an understanding of it;

FIG. 2 is a cross-sectional view taken at line 2-2 of FIG. 1;

FIG. 3 is a perspective view illustrating the utilization of this cleaning structure.

The accompanying drawing is primarily intended so as to clearly illustrate for explanatory purposes a presently preferred embodiment of a cleaning structure of this invention. From a consideration of the remainder of this specification and of the drawing it will be obvious that various minor modifications of a routine constructional or engineering character may be made in this illustrated cleaning structure without departing from the inventive features of this structure as defined in the appended claims.

As an aid to understanding this invention it can be stated in essentially summary form that it concerns cleaning structures including two rectangular resilient, flexible pads located against one another so that the side edges of these pads are in alignment with one another and so that the front and rear edges of these pads also located adjacent to one another. In a cleaning structure as herein described the adjacent side edges of the pads are joined together and these pads are surrounded by a tubular tac cloth structure consisting of a fibrous matrix holding a viscous tacky type composition of a known character capable of picking up bits of lint and dust when applied to a surface.

The actual details of this invention can best be more fully explained by referring directly to the accompanying drawing. Here there is shown a cleaning structure 10 of the present invention utilizing two pads 12 of a flexible, resilient character. Preferably these pads are of a waterproof material such as a natural or synthetic rubber. Also, preferably these pads 12 are of a foamed variety so as to have a greater degree of resiliency than is normally possessed by a mere sheet of a water impervious elastomeric material. The pads 12 are preferably of the same dimensions; they have side edges 14 which are located next to one another. They also have front and rear edges 16 and 18, respectively, which are also located next to one another when the cleaning structure 10 is stored prior to use. The side edges 14 in the structure 10 may be secured together by stitches 20 or through the use of a conventional adhesive 22. Either of these expedients is considered to make the side edges of the pads 12 relatively stiff as compared to the degree of stiffness of the remainder of the pads 12.

A tubular tac cloth structure 24 is used with the

3

cleaning structure 10 so as to surround the surfaces of the pads 12 remote from one another and so as to extend around the side edges 14. Preferably this tubular tac cloth structure 24 is slightly larger in dimension that the distance around the pads 12 and the side edges 14 so as to facilitate its being located upon and removed from these pads. Also preferably it is of substantially the identical length between the front and rear edges 16 and 18 of the pads 12 so as to substantially cover the opposed surfaces of these pads during the use of the cleaning structure 10. The tac cloth structure 24 in accordance with established practice consists of one or more layers of a relatively loose type of fabric 26 and a viscous tacky material of a non-drying type or category known at the present time located on the fabric 26 so as to be held by it. Because of the character of this material it is not separately identified in the accompanying drawing.

During the utilization of the cleaning structure 10 normally a hand is inserted between the pads 12 either between the front or the rear edges 16 or 18 substantially as indicated in FIG. 3 of the drawing. This, of course, bows the pads 12 outwardly slightly as shown in this figure of the drawing. Then the cleaning structure 10 is ready to use. As it is used the surface of this structure 10 beneath the palm of the hand of an individual is applied to a surface from which lint, dust or the like is to be removed. During such application as the structure 10 is moved from one area to another it is a comparatively simple matter to adjust the configuration of the hand so as to effectively cover various curves as may be on a surface. Further, the relatively rigid character of the side edges 14 in the structure 10 enables this structure 10 to be readily inserted around various ornamentations or the like or in other "hard-to-get" places with a minimum of difficulty. Obviously this structure 10 may be turned over so as to use different sides of it as part of the tac cloth structure 24 becomes over contaminated with lint or becomes "worn out."

It will be realized that it is relatively simple to replace the tac cloth structure 24 in the structure 10 whenever this is desired by the simple expedient of slipping one tac cloth structure 24 off of the pads 12 and then by slipping another tac cloth structure of the same character over these pads 12. It will also be realized that as the structure 10 is used the hand of an individual using this structure is effectively protected from contact with the tac cloth structure 24, and that the effective area which may be covered by the hand is increased to a substantial or material extent.

4

In the presently preferred embodiment of a cleaning structure 10 of the present invention it is preferred to form each of the pads 12 so that it is approximately 8 inches square and approximately one-fourth inch thick. It will be realized, however, that these dimensions may be changed depending upon specific needs, desired and the like. These particular dimensions are given herein merely to facilitate a complete understanding of this invention.

Because of the nature of the cleaning structure 10 this invention is to be considered as being limited solely by the appended claims forming a part of this disclosure.

I claim:

1. A cleaning structure which includes:

two rectangular pads having a normal planar configuration, each of these pads being formed out of a foamed, elastomeric composition, said pads being located against one another so as to have adjacent aligned side edges;

means connecting said side edges of said pads so as to increase the rigidity of said side edges as compared to the rigidity of either of said pads and to provide a free opening between said pads having front and rear entrances to accommodate the hand of a user; and

a removable tubular tac cloth structure extending over the surfaces of said pads remote from one another and around said side edges of said pads and having end openings substantially co-extensive with said front and rear entrances, said tac cloth structure including a fibrous matrix holding a viscous non-drying composition.

2. A cleaning structure as defined in claim 1 wherein said means connecting said side edges comprise stitches.

3. A cleaning structure as defined in claim 1 wherein said means connecting said side edges comprises an adhesive binding said side edges to one another.

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