

[54] **LINT REMOVER HAVING LOCALIZED PROJECTIONS**

3,655,501 4/1972 Tesch..... 161/167 X

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[57] **ABSTRACT**

[52] **U.S. Cl.**..... **15/104 A**; 161/111; 161/406

[51] **Int. Cl.²**... **A47L 25/08**; B32B 3/10; B32B 7/06

[58] **Field of Search** 15/104 A; 161/111, 113, 161/167, 406; 206/813

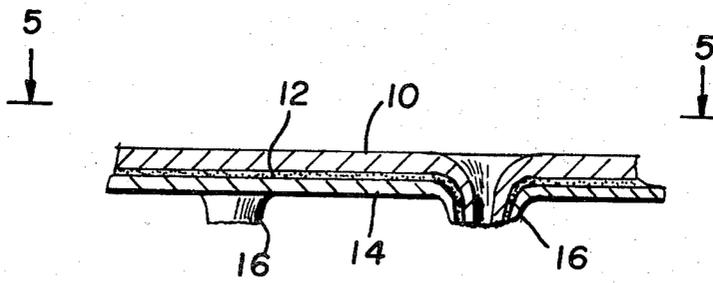
A lint remover pads for garments, fabrics and the like having an adhesive surface on a paper or cardlike backing which is protected until readied for use by the removal of a releasable cover sheet. To enable the adhesively treated surfaces to penetrate areas between the nap, texture, knit or woven ribs the pad is formed with a great number of projections in the backing members. These formed projections carry the adhesive on their formed short stubs of pin or tooth-like configurations. These adhesively coated projections disturb and enter the spaces between ribs when wiped or patted so as to remove lint, dust, hair, dandruff and other light surface debris from these hard to reach areas as well as the remaining surface areas.

[56] **References Cited**

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5 Claims, 6 Drawing Figures



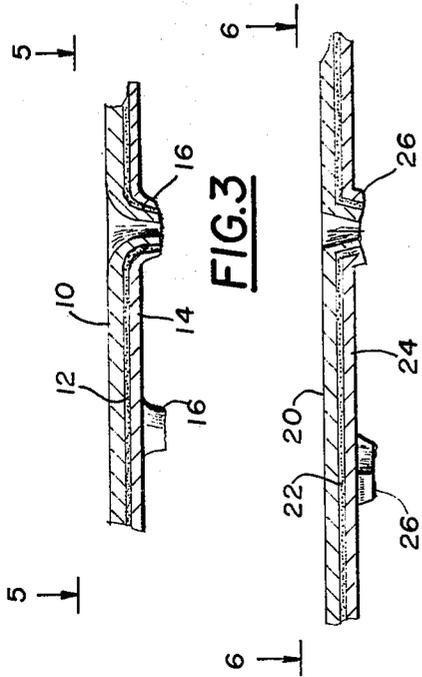


FIG. 3

FIG. 4

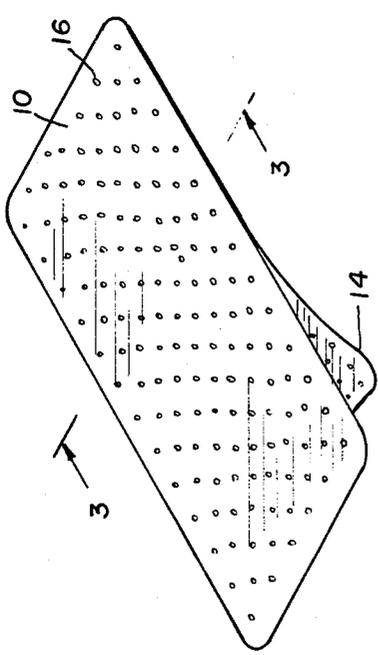


FIG. 1

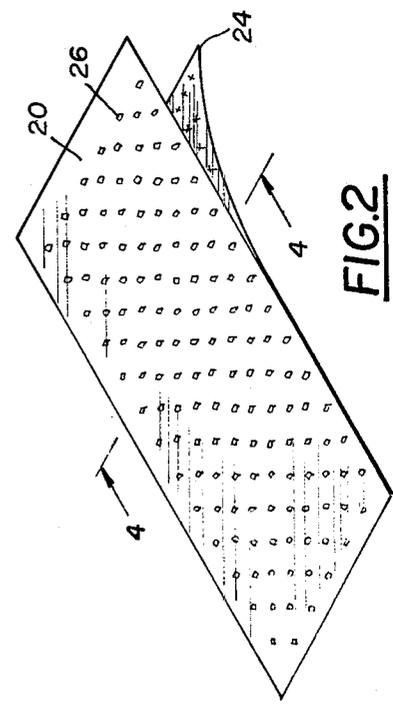


FIG. 2

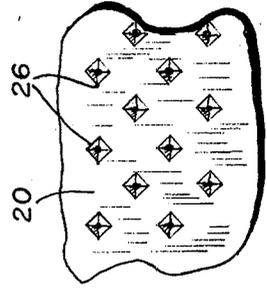


FIG. 6

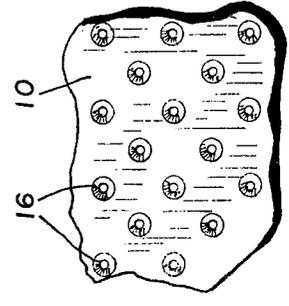


FIG. 5

LINT REMOVER HAVING LOCALIZED PROJECTIONS

BACKGROUND OF THE INVENTION

1. Field of the Invention

With reference to the classification of art as established in the United States Patent Office the present invention relates to the art as found in the general Class entitled, "Brushing, Scrubbing and General Cleaning" (Class 15) and more particularly to the subclass entitled, "implements" (subclass 104).

2. Description of the Prior Art

Lint removers using a tacky or adhesive surface for picking up lint or dirt from garments or fabrics are well known. Many such removers are on rollers and one of these incorporates a replaceable unit as shown in U.S. Pat. No. 3,231,918 to MARKS which issued on Feb. 1, 1966. A holder and replaceable cleaner unit is shown in U.S. Pat. No. 3,336,616 to MARTIN and issued on Aug. 22, 1967. In these and similar U.S. Patents, as well as other lint removers known to the applicant, means are not provided for the adhesive to enter the valley areas between the ribs formed by knitting or weaving and/or sufficiently penetrate and disturb the naps of the fabric. In the present invention the lint remover pad is formed with a multiplicity of sharp projections which form short tooth-like or needle-like members. These projection members, when the protective release cover is removed, provide adhesive coated teeth. These projections of the lint remover pad when moved over the fabric enter the valleys to remove lint and dust from the fabric. The projections further do disturb the fabric surface so as to cause the lint and dust to become more easily attached and accepted by the adhesive.

SUMMARY OF THE INVENTION

This invention may be summarized at least in part with reference to its objects.

It is an object of this invention to provide, and it does provide, a lint remover pad in which a backing member having a tacky adhesive surface has localized projections formed therein to provide tacky members adapted to enter valley portions or the nap texture of fabric to remove lint and the like.

It is a further object of this invention to provide, and it does provide, a disposable lint remover pad having a flexible backing member of cardboard or rigid paper. One face of this backing member is coated with a tacky adhesive which is protected until time of use by a release sheet of treated paper. A closely spaced pattern of pin-like projections is formed in this backing member and the applied release sheet resulting in the formation of small short pin-like projections having an adhesive coating. When uncovered these projections are adapted to enter into the valley portions or nap of the fabric being cleaned. These projections cause added disturbance to the fiber or fabric thus increasing the pads ability to draw foreign matter to its adhesive surface.

The lint remover pad of this invention, to be hereinafter more fully described, is made with a heavy paper or light cardboard backing member which may be ideally about two to three inches in width and four to six inches in length. One face is coated with a tacky adhesive and then until the time of use is protected with a release sheet of treated paper of the same size as the backing member. While in this assembled condition a

pattern of pin-like projections are formed in the pad by using a die means having a great number of metal pins to cause hollow pin or needle-like projections to be formed from the backing side through the adhesive coated side of the pad.

In addition to the above summary the following disclosure is detailed to insure adequacy and aid in understanding of the invention. This disclosure, however, is not intended to prejudice that purpose of a patent which is to cover each new inventive concept therein no matter how it may later be disguised by variations in form or additions of further improvements. For this reason there has been chosen a specific embodiment of the lint remover pad having localized projections as adopted for use for removing debris from fabrics. This pad is shown in two embodiments chosen for the purposes of illustration and description as shown in the accompanying drawing wherein:

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 represents an isometric view of a lint remover pad in which an end of the release paper has been separated from the adhesive surface of the pad, this pad depicted as having pin-like projections of round configuration;

FIG. 2 represents an isometric view of a lint remover pad as in FIG. 1 but with the pin projections formed with a tapered four-sided configuration;

FIG. 3 represents a fragmentary sectional side view in a greatly enlarged scale of the pad of FIG. 1, this view taken on the line 3—3 thereof and looking in the direction of the arrows;

FIG. 4 represents a fragmentary sectional view in a greatly enlarged scale of the pad of FIG. 2, this view taken on the line 4—4 thereof and looking in the direction of the arrows;

FIG. 5 represents a plan view of a fragmentary yet typical portion of the pad of FIGS. 1 and 3, this view in a slightly reduced scale from that of FIG. 3 and looking in the direction of the arrows on the line 5—5 of FIG. 3, and

FIG. 6 represents a plan view of a fragmentary yet typical portion of the pad of FIGS. 2 and 4, this view in a slightly reduced scale of FIG. 4 and looking in the direction of the arrows on the line 6—6 of FIG. 4.

In the following description and in the claims various details will be identified by specific names for convenience, these names, however, are intended to be generic in their application. Corresponding reference characters refer to like portions throughout the several figures of the drawing.

The drawing accompanying, and forming part of, this specification discloses certain details of construction for the purpose of explanation but it should be understood that structural details may be modified and that the invention may be incorporated in other structural forms than shown.

DESCRIPTION OF THE PAD OF FIGS. 1, 3 and 5

Referring now to the drawing and the lint remover pad as seen in FIGS. 1, 3 and 5, the pad depicted is generally rectangular in configuration and has a backing member 10 which is of light cardboard or heavy paper having a good tear resist. On the lower surface of the backing member 10 is applied a "tacky" adhesive material to provide an adhesive surface 12. This adhesive is like or similar to adhesives used on known lint re-

moving rollers, pads and the like. A release sheet 14 is placed on and over this adhesive surface 12 to permit further processing of the pad and shipment of the pad to the user. It is contemplated that this release sheet 14 will remain in place until the user strips it from the pad to expose the adhesive in a clean "tacky" condition to lift the lint and dirt from the fabric surface to be cleaned.

Preferably in a regular, staggered pattern there is formed in both the backing 10 and release sheet 14 a great number of pin-like projections 16. As reduced to practice, these projections are formed by forcing a metal pin of a few thousandths of an inch in diameter and a sharpened configuration through the backing 10, the adhesive layer 12 and the release sheet 14. The resulting pin-like projections extend outwardly from the adhesive side and generally normal to the pad. As seen in FIG. 3, the several projections 16 are hollow, tapered portions which, as reduced to practice and with the release paper 14 removed, may extend only one sixty-fourth to one thirty-second of an inch. The projecting portions carry the adhesive 12 with them so that all sides of pin projections 16 are adhesive covered to provide an embossed pattern of projections rather than a punctured pattern of projections.

Description of the Pad of FIGS. 2, 4 and 6

Referring next and finally to the lint remover pad of FIGS. 2, 4 and 6, a back member 20 is like member 10 in configuration and substance. Adhesive 22 like adhesive 12 is "tacky" and is applied to one surface of the backing member 20. A release sheet 24 is placed on and over the adhesive-like release sheet 14. This release sheet protects the adhesive surface until it is removed by the user to expose the adhesive surface to pick up lint, dirt, etc.

In a staggered pattern as in the pad of FIG. 1, the pad of FIG. 2 has pin-like projections 26 formed therein. A four-sided tapered pin member is forced through the back member 20, adhesive 22 and release sheet 24. These form a hole having a square cross-section in which the pin-like projections are also tapered. As reduced to practice, they extend one sixty-fourth to one thirty-second of an inch from the adhesive coated side of the back member 20 and like projections provide an embossed pattern of projections rather than a punctured pattern of projections. All sides of these projections are adhesive covered.

The size, configuration and extent of projection is, of course, a matter of selection. The pins forming the projections may be three sided, four or more sided and have an ellipse cross-section or combinations thereof. The shape of the pin-like projection and the pattern arrangement is merely a matter of choice. The resulting pin-like projections extending from the adhesive side of the backing member are used in cleaning the fabric. The size and shape of the pad is a matter of choice.

Use of the Lint Remover Pad

To use the lint remover pad of this invention the user grasps a pad assembly and at one edge separates the backing member by inserting a fingernail or like sharp edged member between this member and the release sheet to separate a portion of the release sheet from the adhesive surface. When a sufficient portion of the release sheet is removed from the adhesive surface to permit grasping, the release sheet is removed from the

adhesive in the usual manner. The cloth or fabric to be cleaned is then patted or rubbed by the adhesive surface to remove the lint or dirt on the surface. The lint or dust that is in the valleys between the ribs or in the nap of the fabric is removed by moving the pad along the fabric with the projections entering the valleys or surface texture to disturb, engage and pick up the dust and lint. After the adhesive surface becomes loaded with lint and/or dust it is discarded. As the pad assembly of this invention requires no auxiliary equipment it is low in cost and is contemplated to be a "throw-away" item. It is also contemplated that in most cases the backing material is printable to permit advertising messages to be affixed and displayed.

Terms such as "up," "down," "bottom," "top," "front," "back," "in," "out" and the like are applicable to the two embodiments shown and described in conjunction with the drawing. These terms are merely for the purposes of description and do not necessarily apply to the position in which the lint remover may be constructed or used.

It is to be understood the invention is not limited to the configurations but that modifications may be made within the scope of the accompanying claims and protection is sought to the broadest extent the prior art allows.

What is claimed is:

1. A lint remover pad for fabrics, said remover as prepared for the eventual use by the user including: (a) a flexible sheet providing a backing member of paper material and having sufficient rigidity to retain deformations such as made by sharpened pins; (b) a permanently "tacky" adhesive material applied as a coating to substantially all of one surface of the backing member; (c) a releasable and removable protective cover sheet contiguously placed on the "tacky" adhesively coated surface to protect said surface against undesired contamination, and (d) a multiplicity of tooth shaped short projections formed in the backing member throughout the same by piercing the sheets with sharpened pins, said projections extending from the adhesively coated side and carrying on their outer surfaces the "tacky" adhesive, said projections being sufficiently rigid to act as comb-like teeth so that as and after the protective cover sheet has been removed and the pad is moved over and patted on the fabric being cleaned these projections, when moved across the cloth, enter into the nap, rib and valley portions to engage the debris therein and to cause added disturbance to the fibers thus increasing the pad's ability to draw foreign matter to its adhesive surface.

2. A lint remover pad as in claim 1 in which the projections are formed in the pad by using a die means having a great number of metal sharpened pin projections and applying the die to the uncoated side of the flexible sheet so that hollow projections are formed in both the backing member and to a lesser extent in the protective cover.

3. A lint remover pad as in claim 2 in which the metal pin projections are conical in configuration.

4. A lint remover pad as in claim 2 in which the metal pin projections have a plurality of sides arranged in a tapered configuration.

5. A lint remover pad as in claim 2 in which the pin projections are arranged in a staggered pattern.

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