Dec. 24, 1968 PIERRE-JEAN RIBOUD 3,417,418

ADHESIVE-COATED CLEANING ROLLER

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Fig. 1

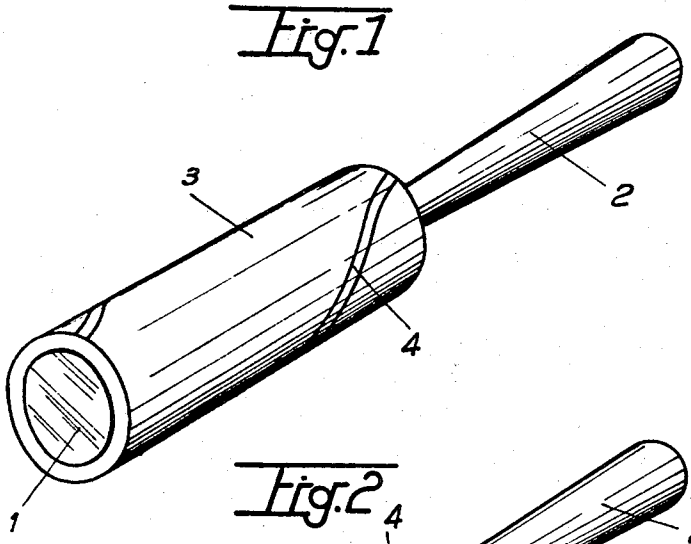


Fig. 2

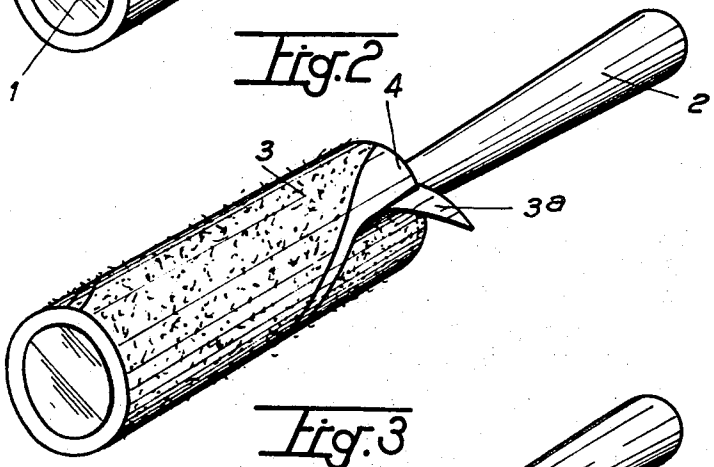
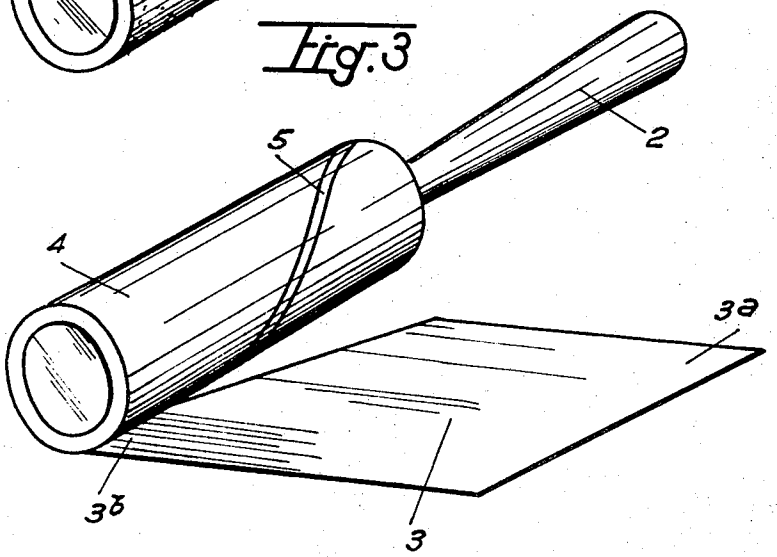


Fig. 3



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Fig. 4

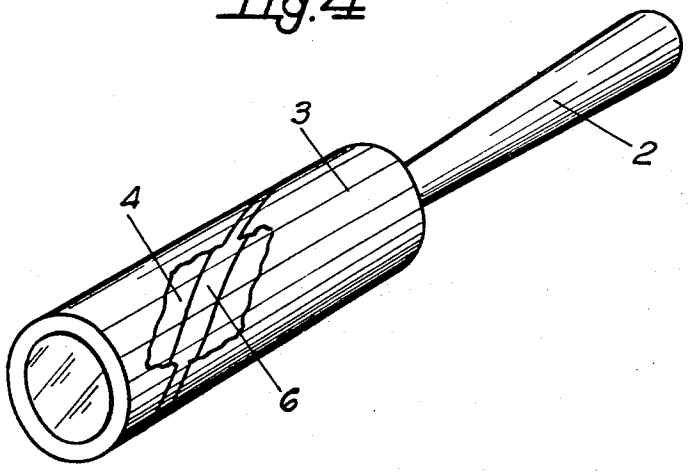
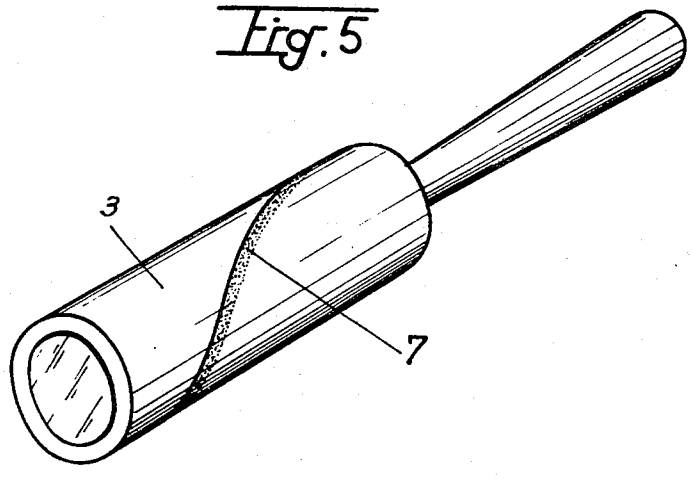


Fig. 5



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ADHESIVE-COATED CLEANING ROLLER

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Claims priority, application France, July 6, 1966, 3,295
3 Claims. (Cl. 15—104)

ABSTRACT OF THE DISCLOSURE

A tool for collecting dirt and dust has a cylinder rotatably mounted on a handle and carrying a plurality of layers of outwardly adhesive spirally-wound sheets. The edges of the outermost sheet can be located when dirty by making a subjacent layer of a different colour and leaving a gap between turns of the spiral of each layer or by colouring one edge of each layer differently from the remainder thereof.

This invention relates to cleaning tools and more particularly, adhesive cleaning rollers.

Adhesive cleaning rollers have been proposed which are constituted by a cylinder pivotally mounted about its longitudinal axis on a support such as a handle and covered, with successive layers of adhesive sheets spirally wound and each having its adhesive surface outwardly.

When a user applied this roller, causing it to roll on a dusty surface, the dust is picked up and retained by the adhesive.

When the adhesive is saturated with dust and dirt, the user unwinds the first adhesive sheet by one turn around the cylinder in order to reveal the subjacent adhesive sheet which is clean. The beginning of peeling off of the dirty part of the adhesive sheet is a somewhat delicate operation since the user must locate the oblique end of the spiral sheet and very frequently the uniform deposit of dust hides the oblique end from view.

The present invention has for its object, by way of novel industrial product, an adhesive cleaning roller as hereinbefore referred to, improved in such a manner as to overcome this difficulty.

In a first embodiment in accordance with the invention, the spirals of each layer do not join and a sheet of different colour from that of the layer is placed beneath each layer, at least in the space existing between the spiral turns.

This sheet may be formed by an adhesive layer or even by a plain narrow band of sufficient width to cover the space between turns.

In a second embodiment in accordance with the invention the spirals are practically joined and the edge of each foil is tinted or coloured.

There is described hereafter by way of non-limiting example, various embodiments of an improved cleaning roller in accordance with the invention, with reference to the accompanying drawings, in which;

FIG. 1 is a perspective view of a first embodiment of the cleaning roller;

FIG. 2 is a perspective view, at the commencement of peeling off a dirty layer;

FIG. 3 is a perspective view at the termination of the peeling of a dirty layer; and

FIGS. 4 and 5 are views similar to FIG. 1 of two other embodiments.

As is shown in FIGS. 1 to 3, the roller is constituted by a cylinder, for example of cardboard, which is covered by several layers of adhesive sheet, for example of adhesive paper, the adhesive surface of these sheets facing outwardly and which cylinder is provided with two end discs **1**, of a diameter at most equal to that of the cylinder; the assembly is pivotally mounted on a handle **2**.

Each of the adhesive layers is formed by rolling in spiral form several sheets such as three or four, and each is of a different colour from that of the subjacent layer; the layers may, for example, be alternatively white and green. The turns of the sheets are not joined, a predetermined space being left between them.

In these conditions, when the external surface of the brush is saturated with dust and it is desired to remove this surface, it is sufficient to pull off the oblique edge **3***a* of the outer sheet **3** (FIG. 2), which is easy since it is possible to see the sheet **4** which is below and of which it is thus possible to see the edge of the sheet **3**, and thus the point of commencement of the oblique pulling edge **3***a*; then the sheet is pulled off. The force exerted on the oblique edge **3***a* cannot cause tearing of the sheet. On the other hand, the user has no need for scissors since the development of each spiral terminates at another oblique edge **3***b* opposite to the first. When the dirty sheet **3** has been removed, a new clean sheet **4** appears (FIG. 3); this sheet is also in non-joined spirals, a layer **5** of different colour being visible in the space existing between the turns of the sheet **4**.

The difference in colour between the sheets may be effected by tinting of the mass of the support, or by printing on this support, or by tinting the adhesive material. It is also possible to obtain the required effect by the use of alternate completely different supports, such as, for example, a support of white paper and a support of plastics material such as thin polyvinyl-chloride.

In the embodiment of FIG. 4 the spirals of different sheets are again slightly spaced from one another and a narrow band **6** is disposed below each sheet such as **3**, in the space existing between the spiral turns. The band **6** is relatively narrow but of sufficient size to cover the space between the spirals; this band may, for example, be of paper or of plastics material, but its colour must be different from that of the sheets, the latter being, in this case, all of the same colour. The narrow band **6** may be adhesive or non-adhesive.

In the embodiment of FIG. 5 the sheets are in the form of adjoining spirals but one of their edges is tinted or coloured, as indicated at **7**. This tinting or colouring may be carried out, for example, at the time of rolling of the sheets, with the aid of an inked roller disposed along the width.

What is claimed is:

1. A cleaning roller comprising a support, a cylinder rotatably mounted on said support, a plurality of sheets spirally wound in layers on said cylinder so that the edges of said sheets are spaced apart, each of said sheets having an outwardly facing adhesive surface, a contiguous sheet of different color from the outermost sheet being visible through the space between the edges of said outermost sheet, said contiguous sheet underlying at least one of said last mentioned edges to delineate the same.

2. A cleaning roller according to claim **1**, wherein said sheet of a different colour has an adhesive surface.

3. A cleaning roller according to claim **1**, wherein said sheet of a different colour has the form of a narrow

band of sufficient width to span the space between said edges.

References Cited

UNITED STATES PATENTS

342,781	6/1886	Cook.	
2,274,712	3/1942	Kroner	206—57
2,807,039	9/1957	Butler	15—104
3,016,137	1/1962	Pollock	206—58

3,337,895	8/1967	Clements	15—209 XR
3,342,325	9/1967	Dreher	15—104 XR
3,343,194	9/1967	Ramelson	15—104

FOREIGN PATENTS

1,421,516	11/1965	France.
594,225	11/1947	Great Britain.

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