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⑤④ **Duster-polisher made of plastic film.**

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⑤⑨ References cited:  
**DE-C- 245 928**  
**US-A-3 056 154**  
**US-A-3 329 985**  
**US-A-3 581 447**  
**US-A-3 608 708**  
**US-A-3 806 260**  
**US-A-3 885 249**

⑦③ Proprietor: **Omori, Shogo**  
**17-23 Mino 8-chome**  
**Mino City Osaka 562 (JP)**

⑦② Inventor: **Omori, Shogo**  
**17-23 Mino 8-chome**  
**Mino City Osaka 562 (JP)**

⑦④ Representative: **Boon, Graham Anthony et al**  
**Elkington and Fife High Holborn House 52/54**  
**High Holborn**  
**London, WC1V 6SH (GB)**

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## Description

This invention relates to a duster-polisher made of plastic film which is suitable for dusting clothes and the like and also for polishing shoes, bags, furnitures and others.

A duster made of plastic film by overlapping two rectangular sheets thereof, and connecting each opposing side to form a folded cylinder, or further sealing one of the remaining open sides to form a pocket, one face thereof being coated with a pressure sensitive adhesive so as to afford a dust catching ability, is known for some time. Usually, the adhesive layer is covered with a protector film with an adhesion reducing layer interposed therebetween to keep the adhesive face clean. The cylinder part, or in other words, the pocket with or without bottom functions as a hand pocket to hold the gadget.

If one face of the pocket is made soft and rough, preferably spongy, instead of coating with the adhesive, it can serve as a handy polisher.

US—A—3329 985 describes a lint removing mit having two delaminable assemblies each including inner and outer backing sheets and a tacky sheet therebetween having adhesive on both sides, the two assemblies being releasably connected to each other and the outer backing sheets being removable first to expose one side of each tacky sheet and when these are no longer tacky after use the assemblies are separated and reassembled so that the inner backing sheets are disposed outwardly of the mit and are adapted to be peeled off the tacky sheets to expose their tacky opposite sides.

US—A—3806 260 discloses a disposable mit for applying polishing material or the like having a first sheet of buffing material which can be attached by glue or stitching to a second sheet of material to which the opposite side is attached, for example, by gluing, a multiplicity of microcapsules containing a high quality lanolinized wax or shoe shine material. A third sheet of material is removably attached to the side of the second sheet opposite the side to which the first sheet is glued so as to form a closed pocket which protects the shoe shine material.

A duster-polisher having both functions of dusting and polishing and eliminating protector film by using the back face of the polisher therefor, is handy and economical. Outer faces thereof may be used as a printing space for advertisement or other purposes. But no such gadget has ever been proposed.

Accordingly, an object of this invention is to provide a handy duster-polisher made of plastic film having a face coated with a pressure sensitive adhesive for dusting and a soft and rough face for polishing.

Another object of this invention is to provide a less expensive duster-polisher of throwaway nature which has convenient printing spaces at the outer faces thereof for advertisement or other commercial purposes.

Other aspects, objects, and several advantages

of this invention will become apparent from reading of the following disclosure and the accompanying drawings.

Accordingly there is provided a duster-polisher made of plastic film which comprises a duster part, the duster part being substantially two sheets of plastic film overlapped and connected at each opposing side such that a pocket is formed, one outer face of said pocket being coated with a pressure sensitive adhesive to define an adhesive layer (4), characterised in that it comprises a polisher part having the size of the duster part consisting of at least, one sheet of plastics film (6) one face of which is soft and rough to define a polishing face, the other face of the polisher part is attached to the adhesive layer (4) with an adhesion reducing layer (5) interposed therebetween which allows the polisher part (6) to be removed thus allowing the duster part to be used.

The above and other objects of this invention will be seen by reference to the description taken in connection with the accompanying drawings, in which:

Figure 1 is a perspective view, partly cut away, of an embodiment of this invention having a hand pocket with bottom,

Figure 2 is the perspective view shown in Figure 1, but with the polisher film acting as an adhesive protector partly taken off to show how to expose a fresh adhesive layer,

Figure 3 is a perspective view, partly cut away, of another embodiment of this invention wherein the hand pocket is bottomless,

Figure 4 is a perspective view of still another embodiment of this invention, wherein the polisher part consists of two sheets of plastic film overlapped and connected at each opposing side and at a remaining side to form a pocket with bottom, and

Figure 5 is a cross sectional side view, partly enlarged to show the layer structure, of the embodiment shown in Figure 4.

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout, Figure 1 shows an exemplary embodiment of this invention which has a hand pocket 1 with bottom 2. This pocket can be made of two rectangular sheets of plastic film overlapped one upon the other, and connected at each pair of the opposing sides 3, 3 and a pair of the remaining sides, by means, for example, of heat sealing. A less expensive version may be made by folding extruded thermo-plastic film cylinder to form two overlapped sheets connected, cutting laterally at a suitable length and heat sealing at one of the open ends. The means for making the pocket does not constrain the invention.

The upper face of the pocket 1 is coated with a suitable pressure sensitive adhesive, for example, of rubber type, polyacrylate type, or polyvinyl-ether type, to define an adhesive layer 4. The lower face of the film 6 is preferably flat and smooth to serve as a protector for the adhesive layer 4, while the upper face thereof is made soft

and rough, and preferably spongy, so as to act as a polisher face. The film 6 and a pocket 16 which will be mentioned later, have the same functions of protecting the adhesive layer 4 and serving as a polisher, and will be called "polisher" or "polisher part" when convenient. The film 6 may preferably be made of so-called non-woven, flocked, or bonded fabrics having the above mentioned characteristics. Between the adhesive layer 4 and the film or polisher part 6, an adhesion reducing layer 5 is provided to enable easy removal of the polisher part 6 from the adhesive layer 4. This special adhesive hardly adheres to the pressure sensitive adhesive, but suitably attaches to the film 6, and may be selected, for instance, from copolymers of higher alkyl acrylate and other acrylic or vinyl compounds or both, some waxes, or certain silicone resins or others.

The convenient size of the hand pocket 1, accordingly, the size of the duster-polisher of this invention, may be such that the four fingers of a hand except the thumb can loosely fit therein.

In order to use the duster-polisher of this invention as a polisher, simply insert the four fingers into the pocket 1 such that the rough face of the polisher faces palmside, and rub or polish the object. On the other hand, in order to use it as a duster, insert the four fingers, as before, into the pocket 1, and remove the polisher part 6 and expose the fresh adhesive layer 4 as depicted in Figure 2, and tap or slowly rub the object therewith. As well known, fresh adhesive face loses dusting ability with elapsed time.

Another embodiment of this invention shown in Figure 3 has a bottomless pocket 1. Because the four fingers can go through the pocket, the depth thereof can be made shorter and less expensive.

The further embodiment shown in Figures 4 and 5 is different from the one shown in Figure 1 in the respect that the film 6 therein is taken over by a pocket 16 (as mentioned above, will be called polisher or polisher part according to the context) consisting of two sheets of plastic film of the lower sheet 16a and the upper sheet 16b connected to each other in a similar manner as in pocket 1. The lower sheet is flat and smooth and functions as a protector for the pressure sensitive adhesive layer 4, with the adhesion reducing layer 5 interposed therebetween, and the upper face of the sheet 16b is made soft and rough, and preferably spongy, so as to serve as a polishing face. As a matter of course, the pocket 16 may be made bottomless to combine with the pocket 1 depicted in Figure 3. The embodiments of this type have an advantage in being able to serve as a duster and, at the same time, as a polisher, by separating them at the adhesion reducing layer 5.

In all embodiments above mentioned, the lowermost face and if desired, the uppermost face thereof, can be used as a printing space, wherein instructions of using the gadget, advertizing of any other messages are written.

The duster-polishers of this invention naturally belong to a so-called throwaway article, and may cause tack trouble when thrown away. However,

this can be completely avoided by turning the pocket inside out.

The term "plastic film" as used herein and in the claims are intended to include film of plastics such as polypropylene, polyethylene, polyvinyl chloride, polyvinylidene, chloride, polyamide, cellulose (celophane) and the like for the duster part, whereas for the polisher part, to include further film of non-woven, flocked and bonded fabrics made of plastics.

### Claims

1. A duster-polisher made of plastic film which comprises a duster part (1), the duster part being substantially two sheets of plastic film overlapped and connected at each opposing side such that a pocket is formed, one outer face of said pocket being coated with a pressure sensitive adhesive to define an adhesive layer (4), characterised in that it comprises a polisher part having the size of the duster part (1) and consisting of at least, one sheet of plastics film (6) one face of which is soft and rough to define a polishing face, the other face of the polisher part is attached to the adhesive layer (4) with an adhesion reducing layer (5) interposed therebetween which allows the polisher part (6) to be removed thus allowing the duster part (1) to be used.

2. A duster-polisher according to claim 1 wherein said pocket has a bottom.

3. A duster-polisher according to claim 1 wherein said polisher part is a pocket, one face thereof being attached to the adhesive layer (4) with said adhesion reducing layer (5) interposed therebetween, the other face being soft and rough to define a polishing face.

4. A duster-polisher according to claim 2 wherein said polisher part is a pocket (16) bottom, one face (16a) thereof being attached to the adhesive layer (4) with said adhesion reducing layer 5 interposed therebetween, the other face (16b) being soft and rough to define a polishing face.

### Patentansprüche

1. Staubwischer-Polierer aus einer Kunststoffolie mit einem Staubwischerabschnitt (1), welcher im wesentlichen aus zwei Blättern aus Kunststoffolie besteht, die einander überlappen und an jeder gegenüberliegenden Seite miteinander derart verbunden ist, daß eine Tasche gebildet ist, wobei eine Außenfläche der Tasche mit einem druckempfindlichen Klebemittel zur Bildung einer Klebeschicht (4) beschichtet ist, dadurch gekennzeichnet, daß ein Poliererabschnitt vorgesehen ist, der die Größe des Staubwischerabschnitts (1) aufweist und aus wenigstens einem Blatt aus Kunststoffolie (6) besteht, deren eine Fläche weich und rauh zur Bildung einer Polierfläche ist, daß die andere Fläche des Poliererabschnitts an der Klebeschicht (4) mit einer dazwischen angeordneten Haftverringerschicht (5) angebracht ist, die das Entfernen des Polierer-

abschnitts (6) und demgemäß die Verwendung des Staubwischerabschnitts (1) ermöglicht.

2. Staubwischer-Polierer nach Anspruch 1, dadurch gekennzeichnet, daß die Tasche einen Boden besitzt.

3. Staubwischer-Polierer nach Anspruch 1, dadurch gekennzeichnet, daß der Poliererabschnitt aus einer Tasche besteht, deren eine Fläche an der Klebeschicht (4) mit der dazwischen angeordneten Haftverringersschicht (5) angebracht ist, wobei die andere Fläche weich und rauh zur Bildung einer Polierfläche ist.

4. Staubwischer-Polierer nach Anspruch 2, dadurch gekennzeichnet, daß der Poliererabschnitt aus einer Tasche (16) besteht, deren eine Fläche an der Klebeschicht (4) mit der dazwischen angeordneten Haftverringersschicht (5) angebracht ist, während die andere Fläche (16b) weich und rauh zur Bildung einer Polierfläche ist.

#### Revendications

1. Gant de dépoussiérage-lustrage fait à partir d'une feuille de matière plastique, comprenant une partie de dépoussiérage (1) formée essentiellement de deux feuilles de matière plastique superposées et reliées par leurs côtés opposés de

façon à former une poche dont une face extérieure est revêtue d'un adhésif sensible à la pression, constituant une couche adhésive (4), caractérisé en ce qu'il comprend une partie de lustrage de même taille que la partie de dépoussiérage et formé d'au moins une feuille (6) de matière plastique dont une face est douce et non-lisse et constitue une face de lustrage, l'autre face de la partie de lustrage étant fixée sur la couche adhésive (4) avec interposition d'une couche de réduction d'adhérence (5) qui permet d'enlever la partie de lustrage et d'utiliser alors la partie de dépoussiérage (1).

2. Gant selon la revendication 1, dans lequel la poche a un fond.

3. Gant selon la revendication 1, dans lequel ladite partie de lustrage est une poche dont une face est fixée à la couche adhésive (4) avec interposition de ladite couche de réduction d'adhérence, l'autre face étant douce et non-lisse et constituant une face de lustrage.

4. Gant selon la revendication 2, dans lequel ladite partie de lustrage est une poche (16) dont une face (16a) est fixée sur la couche adhésive avec interposition de ladite couche de réduction d'adhérence (5), l'autre face (16b) étant douce et non-lisse et constituant une face de lustrage.

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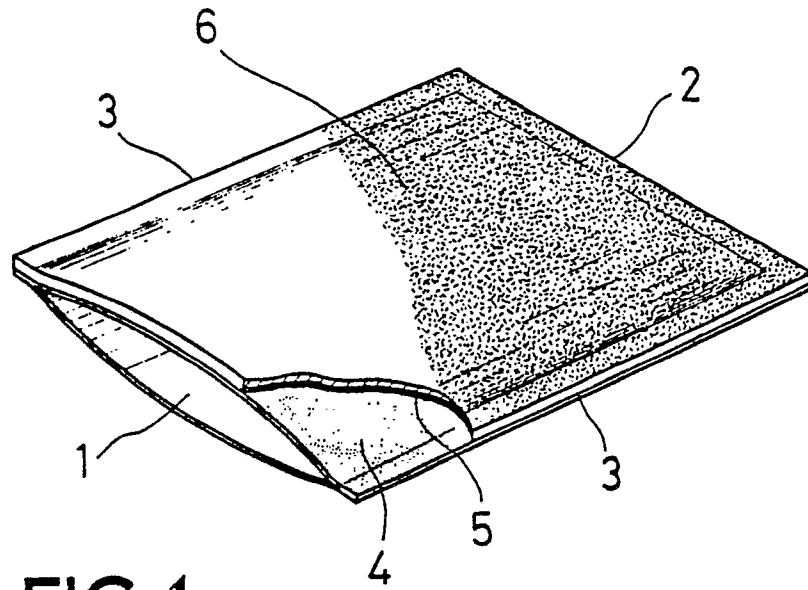


FIG. 1

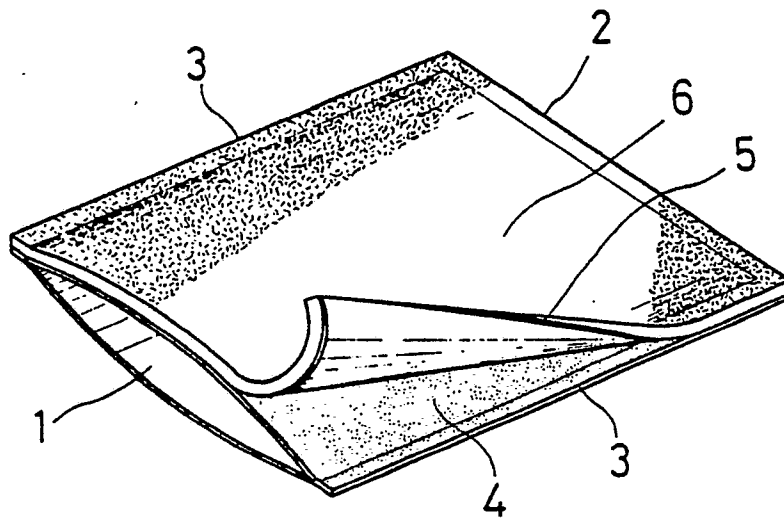


FIG. 2

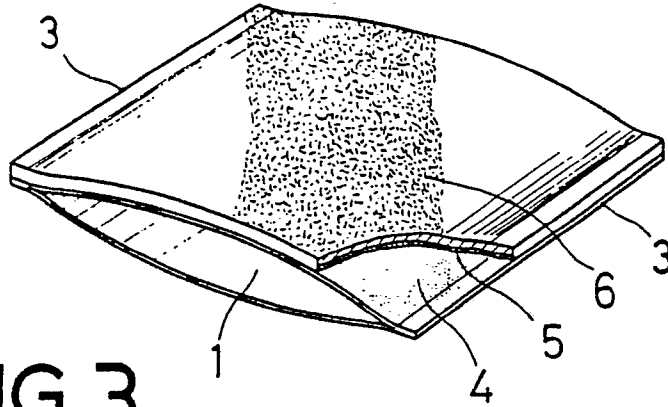


FIG. 3

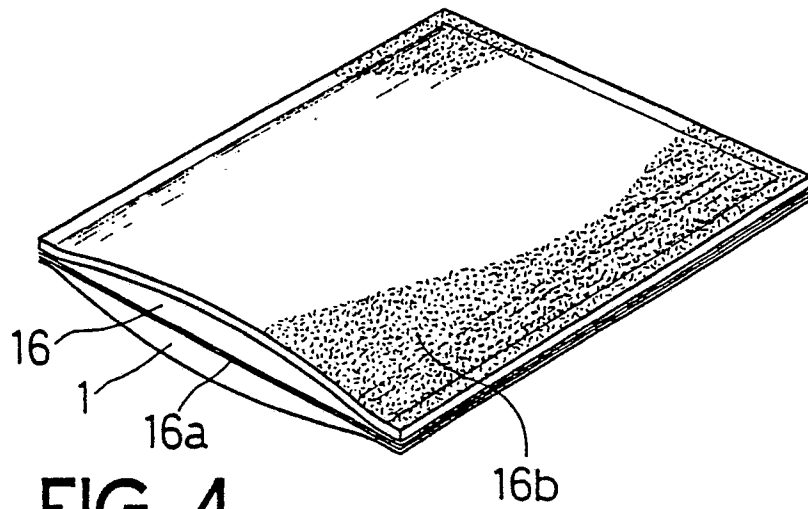


FIG. 4

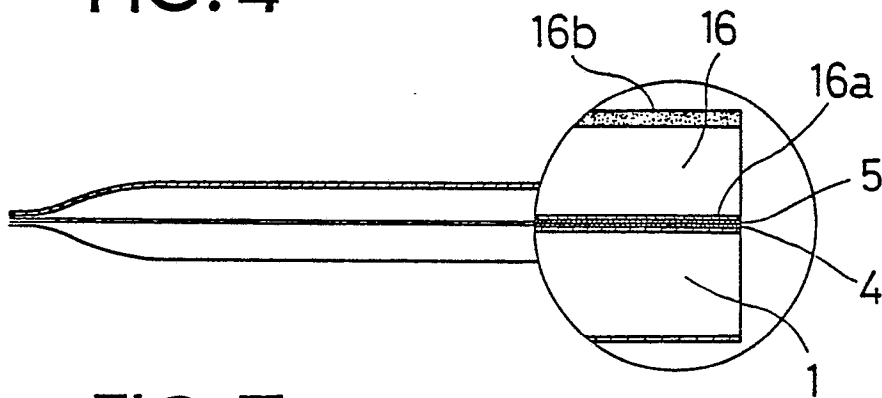


FIG. 5