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(54) **DOOR MAT**

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(57) **ABSTRACT**

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A door mat comprises a body of textile material or the like (1) and a generally tray-shaped base (3) made of moulded thermoplastic material, within which the textile body (1) is inserted in a removable way. The perimetral rim (4) of the tray-shaped base (3) has an elastically deformable retention lip (8) projecting above the peripheral rim of the textile body, and the bottom wall (5) of the tray-shaped base (3) incorporates co-moulded inserts (6) having anti-slip surfaces (7) emerging on the surface to prevent any undesirable sliding or curling of the textile body (1) with respect to the tray-shaped base (3).

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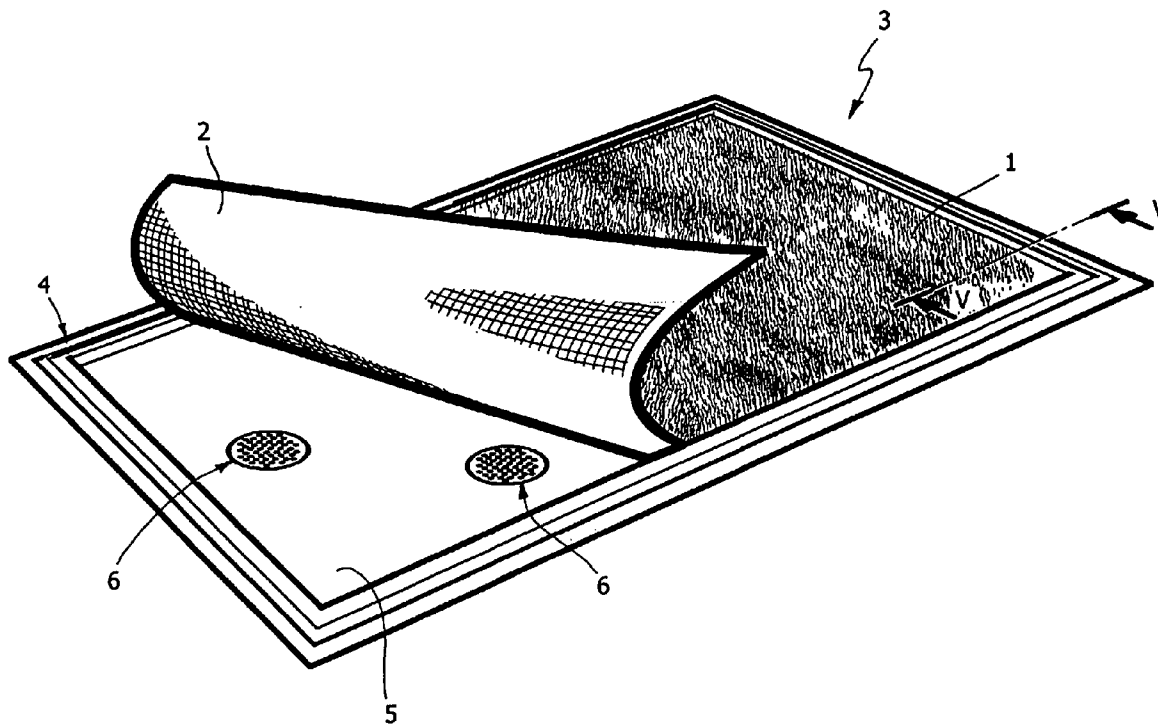


FIG. 1

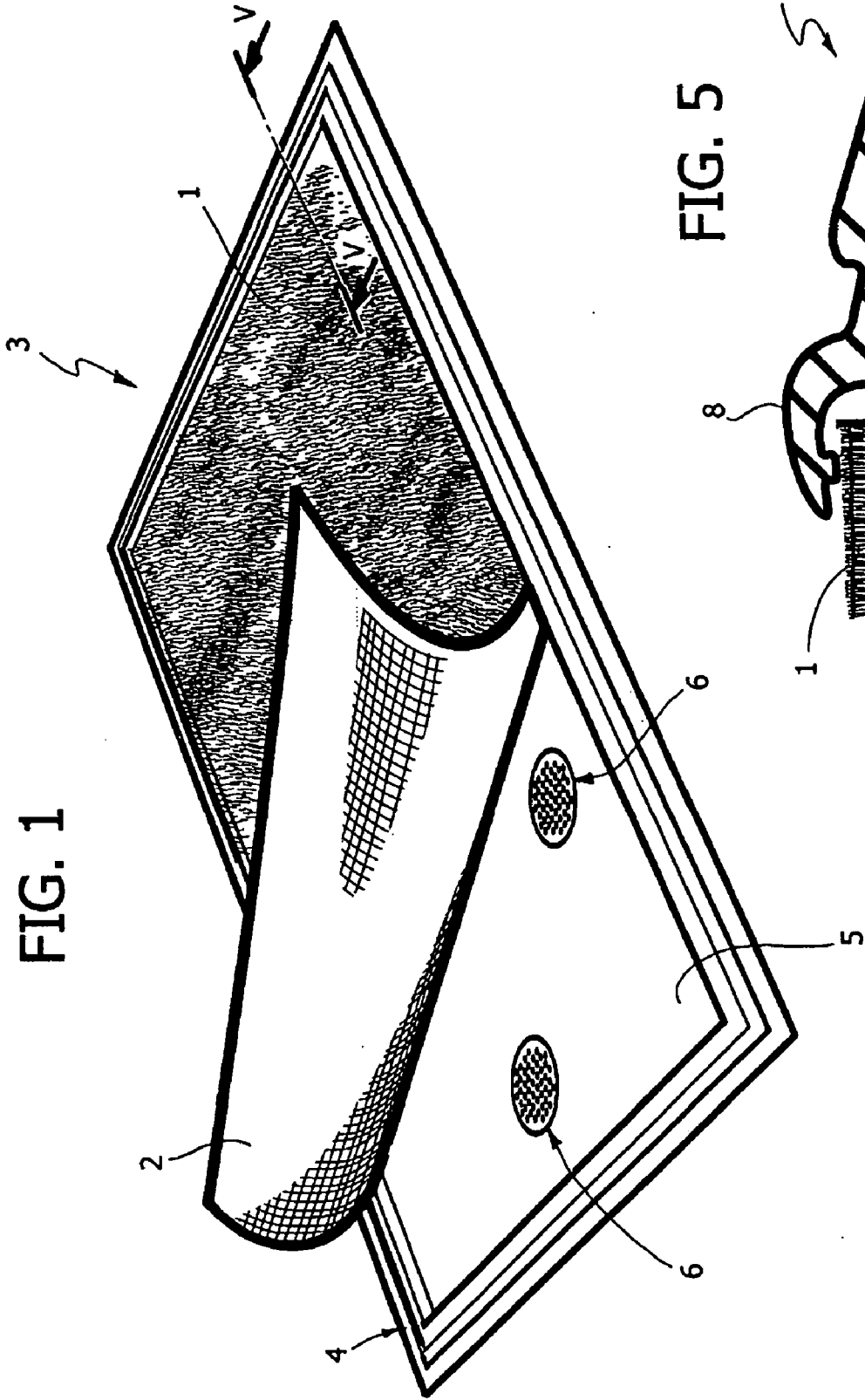


FIG. 5

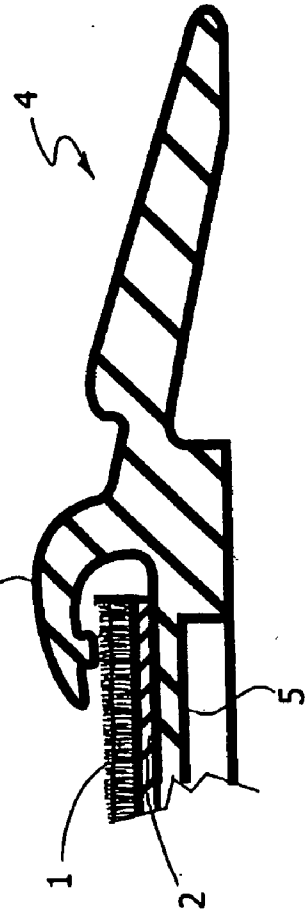


FIG. 2

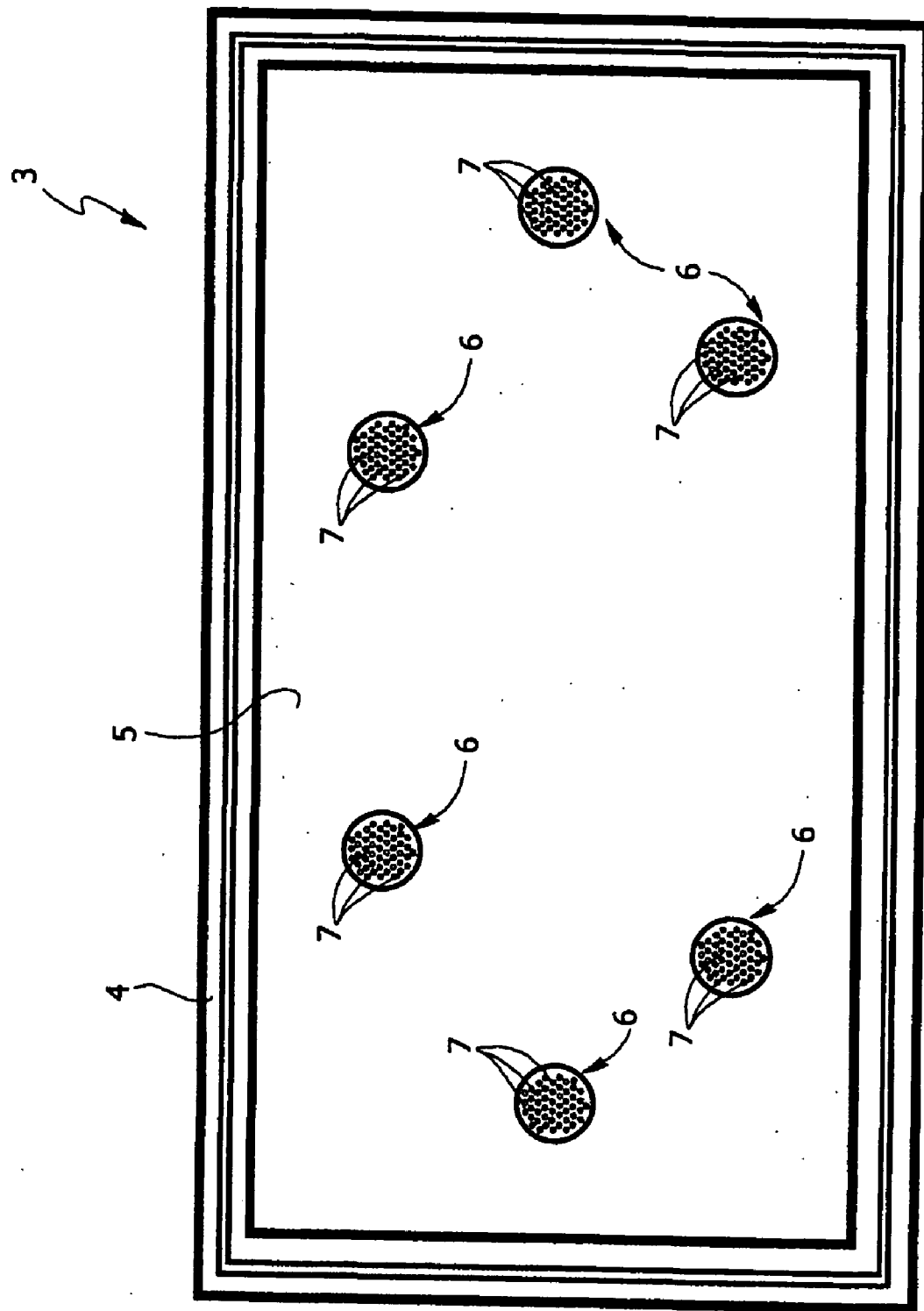


FIG. 3

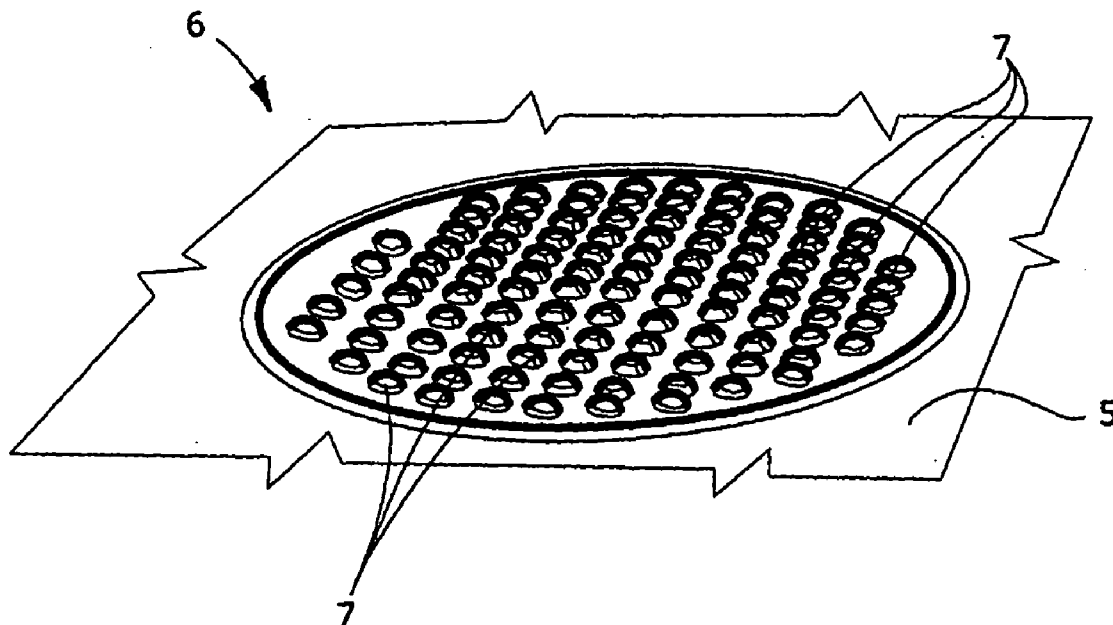
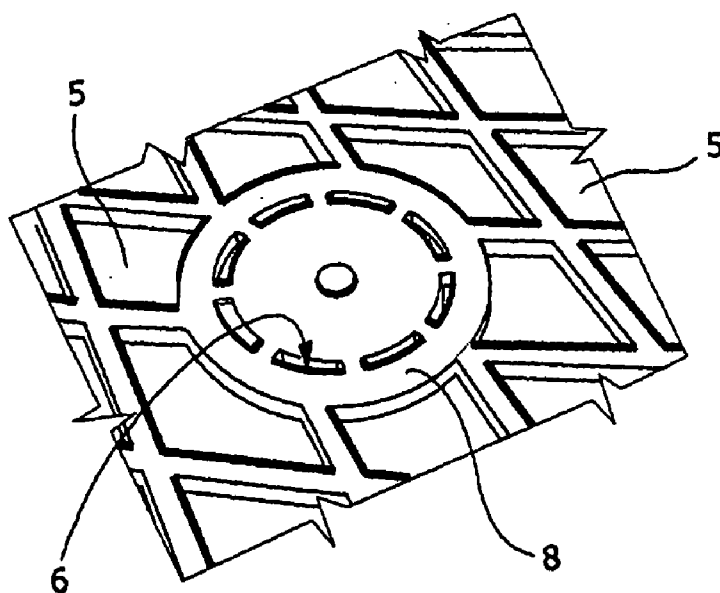


FIG. 4



## DOOR MAT

### FIELD OF THE INVENTION

[0001] The present invention relates in general to door mats, particularly of the type comprising a body made of textile material or the like suitable for wiping the soles of shoes, and a generally tray-shaped base, within which said textile body is inserted in a removable way.

### STATE OF THE PRIOR ART

[0002] Door mats of this type are known, for example, from the U.S. Pat. Nos. 3,083,393 and 4,361,925 (corresponding to the Italian patent No. IT-1135152). In the case of the second document, the base is made of moulded thermoplastic material, typically an elastomeric polymer, and between the dorsal face of the textile body and the bottom wall of the tray-shaped base there are provided elements of temporary anchorage of the microhook (Velcro®) type.

[0003] This solution, albeit suitable for preventing undesirable displacements of the textile body with respect to the tray-shaped base, is far from practical, in particular as regards the inconvenience of separation of the textile body from the tray-shaped base when it becomes necessary to separate them for periodic cleaning and washing of said textile body.

### SUMMARY OF THE INVENTION

[0004] The object of the present invention is to overcome the aforesaid drawback and more in particular to provide a door mat of the type defined at the start of the present description, in which, during use, any possible sliding and curling of the textile body with respect to the tray-shaped base will effectively be prevented without recourse to formations of mutual connection of the microhook type or similar mechanical systems.

[0005] According to the invention, this purpose is achieved basically thanks to the fact that the perimetral rim of the tray-shaped base has an elastically deformable retention lip engaged above the peripheral rim of the textile body.

[0006] According to another peculiar characteristic of the invention, the bottom wall of the tray-shaped base conveniently incorporates inserts co-moulded within said base, which have an anti-slip surface emerging on said bottom wall.

[0007] According to a preferred embodiment of the invention, the aforesaid anti-slip surface is defined by projecting formations of said co-moulded inserts, conveniently including stud-shaped projections.

[0008] Said inserts conveniently have a circular shape, and are pre-arranged in two sets of three.

### BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The invention will now be described in detail with reference to the annexed plate of drawings, which are provided purely by way of non-limiting example and in which:

[0010] **FIG. 1** is a perspective view of a door mat according to the invention;

[0011] **FIG. 2** is a top plan view of the tray-shaped base of the door mat;

[0012] **FIG. 3** is a perspective top plan view of one of the inserts of the tray-shaped base;

[0013] **FIG. 4** is a perspective view from beneath of **FIG. 3**; and

[0014] **FIG. 5** is a cross-sectional view at a larger scale according to the line V-V of **FIG. 1**.

### DETAILED DESCRIPTION OF THE INVENTION

[0015] With reference initially to **FIG. 1**, a door mat according to the invention comprises a body **1** made of textile material or the like suitable for wiping the soles of shoes, having a generally quadrangular shape and provided, on its dorsal surface, with an anti-slip substrate **2**, for example made of latex or thermoplastic rubber.

[0016] The textile body **1** is housed, by means of a shape fit, in a generally tray-shaped base **3** made of moulded plastic material, for example thermoplastic rubber.

[0017] The tray-shaped base **3** has a perimetral rim in relief **4**, which surrounds a bottom wall **5**, on which the substrate **2** of the textile body **1** rests.

[0018] According to the peculiar characteristic of the invention, the perimetral rim **4** of the tray-shaped base **3** has an elastically deformable continuous retention lip **8** engaged above the peripheral rim of the textile body **1**. As is illustrated in detail in **FIG. 5**, said lip projects towards the inside of the tray-shaped base **3** and has a characteristic substantially hook-shaped cross section resting on the surface of the textile body **1**.

[0019] According to another innovative aspect of the invention, the bottom wall **5** of the tray-shaped base **3** incorporates a plurality of inserts **6**, which are also normally made of plastic material, obtained by means of co-moulding with the tray-shaped base **3**.

[0020] In the case of the example illustrated, the inserts **6** are arranged, in the way clearly visible in **FIG. 1**, in two sets of three and have a generally circular shape.

[0021] As is visible in detail in **FIGS. 1 and 3**, each insert **6** has on top an anti-slip surface emerging on the surface of the bottom wall **5** of the tray-shaped base **3**. Said anti-slip surface is defined by projecting formations **7** that include stud-shaped projections, for example, in part rounded (the peripheral ones), and in part tapered or even pointed (for example, the innermost ones).

[0022] On the opposite side, i.e., in the area corresponding to the respective bottom surfaces, the inserts **6** are coated with protective parts **8** formed integrally on the dorsal surface of the bottom wall **5** of the tray-shaped base **3**, for example according to the configuration represented in **FIG. 4**.

[0023] Thanks to the arrangement described above, the lip **8** and the anti-slip formations **7** of the inserts **6** effectively prevent any undesirable sliding or curling of the textile body **1** with respect to the tray-shaped base **3**, avoiding, however, a mutual mechanical connection that could render its separ-

ration inconvenient in the case where it is necessary to clean or replace said textile body 1.

[0024] Of course, the details of implementation and the embodiments may vary widely with respect to what is described and illustrated herein, without thereby departing from the scope of the present invention, as defined in the ensuing claims.

1. A door mat, comprising a body (4) made of a material suitable for wiping the soles of shoes and having a peripheral rim, and a generally tray-shaped base (3) made of a moulded thermoplastic material and within which said textile body (4) is inserted in a removable way, said tray-shaped base having a perimetral rim (4\*) provided with an elastically deformable retention lip (8) engaged above said peripheral rim of said textile body.

2. The door mat according to claim 1, wherein said tray-shaped base has a bottom wall incorporating inserts which are co-moulded within said base (3) and having anti-slip surfaces (7) emerging on the surface on said bottom wall of said tray-shaped base.

3. The door mat according to claim 2, wherein said anti-slip surfaces are defined by projecting formations (7) of said inserts.

4. The door mat according to claim 3, wherein said projecting formations (7) include stud-shaped projections.

5. The door mat according to claim 4, wherein said stud-shaped projections are in part rounded and in part tapered or pointed.

6. The door mat according to claim 2, wherein said inserts (6) have a circular shape.

7. The door mat according to claim 2, wherein said inserts are arranged in two sets of three inserts.

8. The door mat according to claim 1 wherein said tray-shaped base has an anti-slip dorsal surface with areas superimposed over of said inserts.

9. The door mat according to claim 1 wherein said textile body (4) has an anti-slip substrate.

10. The door mat according to claim 1 wherein said elastically deformable retention lip (8) projects towards the inside of said tray-shaped base and has a substantially hook-shaped cross section.

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