

(19)



(11)

EP 1 854 369 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

14.11.2007 Bulletin 2007/46

(51) Int Cl.:

A43B 3/16 (2006.01)

A43B 3/18 (2006.01)

(21) Application number: **07425262.8**

(22) Date of filing: **04.05.2007**

(84) Designated Contracting States:

**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE
SI SK TR**

Designated Extension States:

AL BA HR MK YU

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(30) Priority: **12.05.2006 IT AR20060034**

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(54) **A shoe-sole wrap for protecting floors**

(57) A structure-device comprising a base (1), with the contour profile recalling that of a shoe, an edge (2), emerging from the contour of said base (1) and having sufficient height to wrap at least the sole (5) of the shoe (4) which penetrates therein until bearing on said base (1), a plurality of flexible and elastic elements (3) distrib-

uted along said edge (2), able to interact with the shoe (4) in such a way as to allow first the insertion until bringing the sole (5) nearly adhering to said base (1), then to hold it nearly adhering with said base, lastly an extraction tongue (6) projecting from the contour of said base (1) and particularly from its rear part.

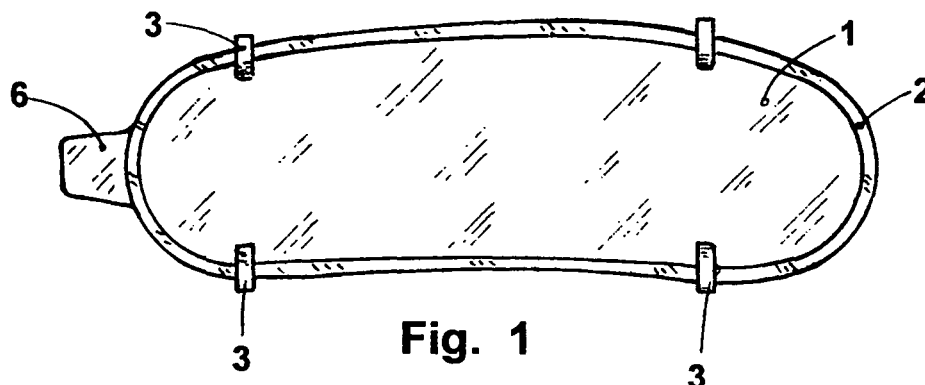
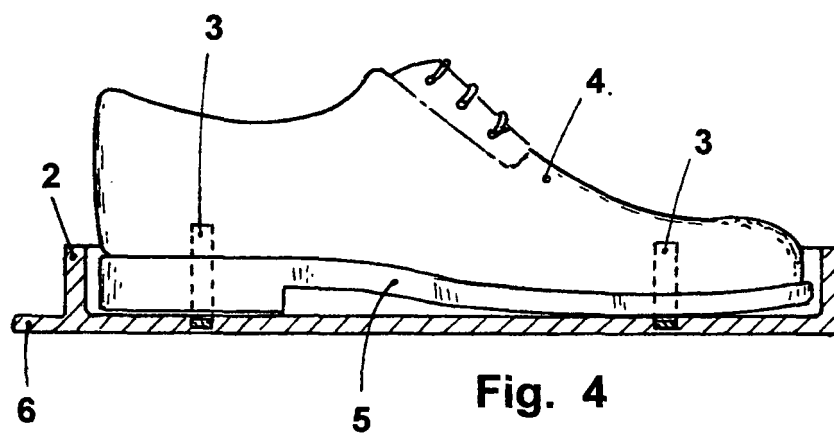


Fig. 1

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Description

[0001] The invention relates to a shoe-sole wrap device for protecting floors, aimed at the field of accessories, to be worn when one returns into a building, to protect the floor from the humidity and from the mud present on the sole of the shoes in days when the ground, walkways and roads are damp and/or muddy.

[0002] It is well known that on humid days, or otherwise when the ground, walkways and roads are wet, muddy and/or snow-covered, when persons return indoors, and in particular to their own home, wet and dirty the floor unless they take off their shoes. This does not take place particularly when the return is momentary. To overcome the identified problems, particularly in houses with garden and in general those whose entrance is preceded by a tamped earth path, pieces of fabric are used whereon are placed the shoes of the persons who enter, who then move the shoes rubbing them on the ground, without lifting the shoes.

[0003] In another case, ample fabric slippers are used, worn with the shoes still on, in order to place a soft, absorbing layer to protect the floor. When the shoes are large and voluminous, as is the case in the wintertime, however, it becomes difficult to introduce the shoes in the slippers, which thus become unusable.

[0004] Similarly, fabric pads are difficult to keep constantly under the shoes so, after a short walk inside the building, wet and/or muddy shoes become detached and/or project from the pads and come in contact with the floor, dirtying it.

[0005] Currently, therefore, when the ground is wet, buildings and in particular country houses, those whose entrance is preceded by a damped earth path, are destined to have their floor damp and muddied.

[0006] An object of the present invention is to provide a pair of structures and/or devices to wear with one's feet in the shoes, including large winter shoes, with which to protect the floor against direct contact with the shoes of those who return into the building from outdoors.

[0007] Another object of the invention is to provide a pair of structures and/or devices that can easily be worn and then detached from the worn shoes, without requiring users to bend down, first to insert their feet with the shoes, then, when the user leaves the building, to detach said devices from their shoes.

[0008] Lastly, yet another object of the present invention is to provide a pair of structures and/or devices with low cost, easy to manufacture and easy to use.

[0009] The invention that has allowed the attainment of these results is embodied in a structure-device comprising a base, with the contour profile recalling that of a shoe, an edge, emerging from the contour of said base and having sufficient height to wrap at least the sole of the shoe which penetrates therein until bearing on said base, a plurality of flexible and elastic elements distributed along said edge, able to interact at least with the shoe in such a way as to allow first the insertion until

bringing the sole nearly adhering to said base, then to hold it nearly adhering with said base, lastly an extraction tongue projecting from the contour of said base and particularly from its rear part, able to favour the detachment of the invention from the shoe penetrated therein.

[0010] Such an invention is advantageous because it is structurally simple and low-cost.

[0011] It is advantageous because it is easy to use on shoes, without requiring the person using it to bend down to wear them and take them off.

[0012] It is advantageous because it is so structured as to wrap at least the base of the shoe with which it joins so that, when the shoe is wet and/or muddies and/or dirtied by unhealthy substances, the floor of the building, particularly the part next to the entrance, will not be soiled.

[0013] It is advantageous because it can be made of soft, easily washable material, so that no humidity and mud will accumulate therein which, over time and with use, may inevitably lead to dirty the floor to be protected against direct contact with the soles of the shoes of those who return from outdoors into the building, with said wet, muddied or even snowy shoes.

[0014] More characteristics of the invention, and the deriving advantages, shall become readily apparent, particularly to those skilled in the art, upon reading the detailed description that follows, referred to a preferred embodiment, illustrated purely by way of non-limiting example in the figures of the accompanying drawing table, in which:

- fig. 1 is the top plan view of a shoe-sole wrap structure for protecting floors;
- fig. 2 is a the view in longitudinal direction from the rear of the device of fig. 1, sectioned with a transverse plane next to the flexible and elastic retaining elements;
- fig. 3 is the lateral elevation view of the device of fig. 1, sectioned with a median longitudinal plane;
- fig. 4 is the lateral view of the invention, sectioned with a median longitudinal plane, combined with a shoe;
- fig. 5 is the front view in longitudinal direction from the rear of the invention sectioned with a transverse plane, combined with a shoe;
- fig. 6 is the front view in different scale and in longitudinal direction of the invention, sectioned with a transverse plane, showing the flexible and elastic retaining elements shaped with projecting teeth according to two rows at different levels relative to the inner base of the invention.

[0015] The drawings are exemplifying in nature and they are provided for the sole purpose of facilitating the comprehension of the invention, without constituting any limitation therefor.

[0016] Substantially, the invention consists of a shoe sole wrap device for protecting floors, to be used in pairs, constituted by a structure made of a soft material, par-

ticularly in its lower part destined to adhere to the floor to be protected against humidity, dirt and/or traces of unhealthy substances, against the mud and/or the snow carried by the shoes of the persons who, from outdoors, enter an environment, which is normally residential, whose floor is to be protected against humidity, against dirt and/or unhealthy substances, against mud and/or against snow and against anything else which becomes attached to the shoes.

[0017] Said structure is normally obtained, or at least prevalently obtained by moulding. It comprises:

- a base 1, with its contour profile recalling the shape of that of a shoe 4;
- an edge 2 emerging from the contour of said base 1;
- a plurality of flexible and elastic retaining elements 3 so shaped as to interact with the shoe 4 to enable it to penetrate into the invention until bringing its sole 5 nearly to adhere to said base 1, then to retain the shoe 4, and hence its sole 5, nearly adhering to said base 1;
- an extraction tongue 6, projecting from the contour of said base 1.

[0018] The edge 2, emerging from the contour or in proximity to the contour of the base 1, has sufficient height to wrap at least the sole 5 of the shoe 4, penetrated in its interior until bearing on said base 1, in such a way that the humidity and/or mud or snow present on the shoe do not end on the floor to be protected.

[0019] The flexible and elastic elements 3, in the exemplifying embodiment shown in figures 1, 2, 3, 4 and 5, are distributed along the contour of the base 1, in a plurality of distinct points. In this case, each of said flexible and elastic retaining elements 3 is hook-shaped, with a sinuous shape of the projecting part so that, when it is pressed from above, as occurs when the shoe 4 presses to penetrate into the invention, it spreads outwards to enable the shoe 4 to penetrate until reaching the base 1. Then, the elastic return of the elements 3 causes them to compress the shoe, thereby remaining adhering thereto and hence making the invention, when the user is walking, an appendix of the shoe 4 wrapped thereby.

[0020] This "coupling" operation takes place by simple compression of the shoe 4 on the flexible and elastic elements 3, without requiring the person to bend downwards to intervene with his/her own hands to wear said shoe-sole wrap device for protecting floors.

[0021] In the described solution, each flexible and elastic element 3 is hook-shaped to carry out the retaining action. Normally, in the described solution, the flexible and elastic elements 3 are parts, two by two, of a same element, whose part that joins them is not visible because it is buried in the material whereof the base 1 of the invention is made.

[0022] In a different embodiment, the one exemplified in figure 6, the flexible and elastic elements are shaped as retaining teeth 8 and they are distributed at least along

segments of the edge 2 from which they emerge, oriented towards the central part of the base 1. Said elements with retaining tooth profile 8 can constitute peripheral strips, continuous or otherwise, and they may be distributed according to one or more rows at different levels from the base 1, in such a way as to favour their grip on the shoe 4 and achieve a stable coupling therewith. In the solution shown in figure 6, a double row of retaining teeth 8 is shown.

[0023] The shoe-sole for protecting floors of the invention further comprises the extraction tongue 6 that enables the user to extract his/her shoe from the related sole-wrapping structure. In fact, by pressing with his/her other foot the tongue 6 of the structure-device to be detached, in such a way as to block it on the floor, the user can, lifting his/her leg, free and then detach the shoe from the sole wrap whose tongue was pressed. Pressing first on the tongue 6 of a structure-device and then on the other, the user removes the pair of sole wraps of the invention with no need to bend down. It is advantageous that said extraction tongue 6 projects from the related base 1 at an end segment in a rear position.

[0024] The invention may not have a well-defined coupling direction, therefore it can be symmetrical relative to a transverse median line. The tongue 6 therefore, in this case, may project indifferently from one side which, when worn, may be the front one or the rear one on the invention.

[0025] The material whereof the invention is made may thus be among the most diversified. In any case, it should be washable to enable it to be cleaned with water. The construction details may vary, without altering the functional logic constituting the basis of the invention, without the variations, which may be made during its manufacture, departing from the scope of protection defined by the claims that follow.

Claims

1. A shoe-sole wrap for protecting floors, **characterised in that** it comprises a base (1), with the contour profile recalling that of a shoe, an edge (2), emerging from the contour of said base (1) and having sufficient height to wrap at least the sole (5) of the shoe (4) which penetrates therein until bearing on said base (1), a plurality of flexible and elastic elements (3) distributed along said edge (2), able to interact with the shoe (4) in such a way as to allow first the insertion until bringing the sole (5) nearly adhering to said base (1), then to hold it nearly adhering with said base (1), and an extraction tongue (6) projecting from the contour of said base (1).
2. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** it is made of a soft material.

3. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** it is obtained by moulding.
4. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the edge (2), emerging towards the contour of the base (1), has sufficient height to wrap at least the sole (5) of the shoe (4) which penetrates its interior until it bears on said base (1). 5
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5. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the flexible and elastic retaining elements (3) are distributed along the edge (2) and are located in a plurality of distinct points. 15
6. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the visible part of the flexible and elastic elements (3) is shaped as a retaining hook. 20
7. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the flexible and elastic elements are shaped as retaining teeth (8) and are distributed at least along segments of the edge (2) wherefrom they emerge oriented towards the central part of the base (1). 25
8. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the flexible and elastic elements are shaped with a profile recalling the shape of a retaining tooth (8) and are distributed in rows at different levels from the base (1). 30
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9. The shoe-sole wrap for protecting floors, as claimed in claim 1, **characterised in that** the extraction tongue (6) projects from the base (1) at an end segment. 40

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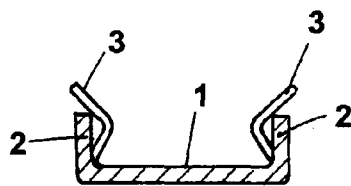
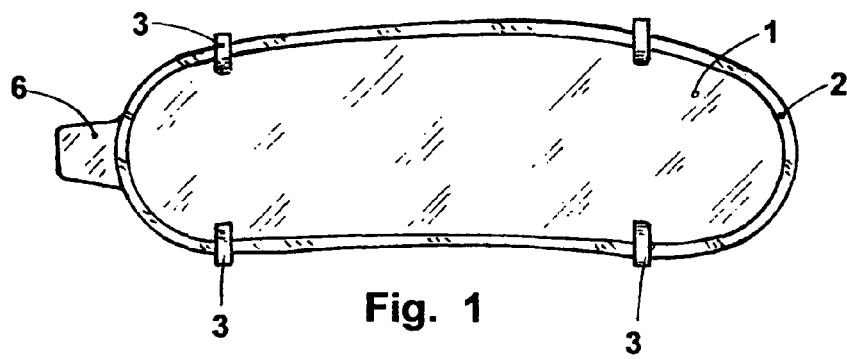


Fig. 2

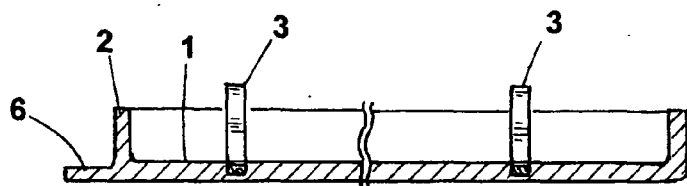


Fig. 3

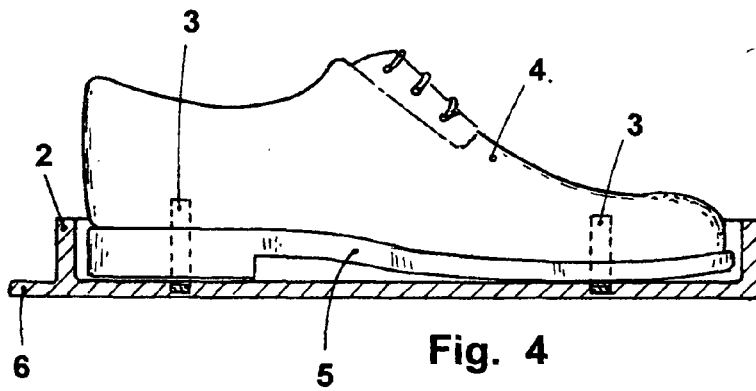


Fig. 4

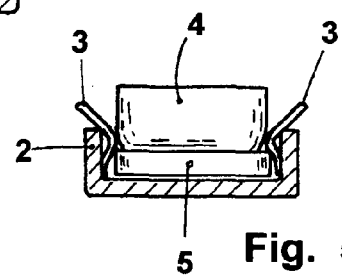


Fig. 5

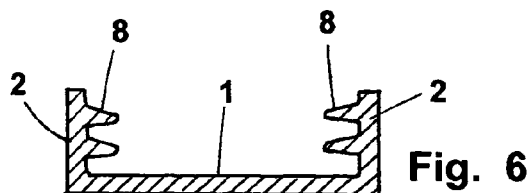


Fig. 6



European Patent
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EUROPEAN SEARCH REPORT

Application Number
EP 07 42 5262

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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