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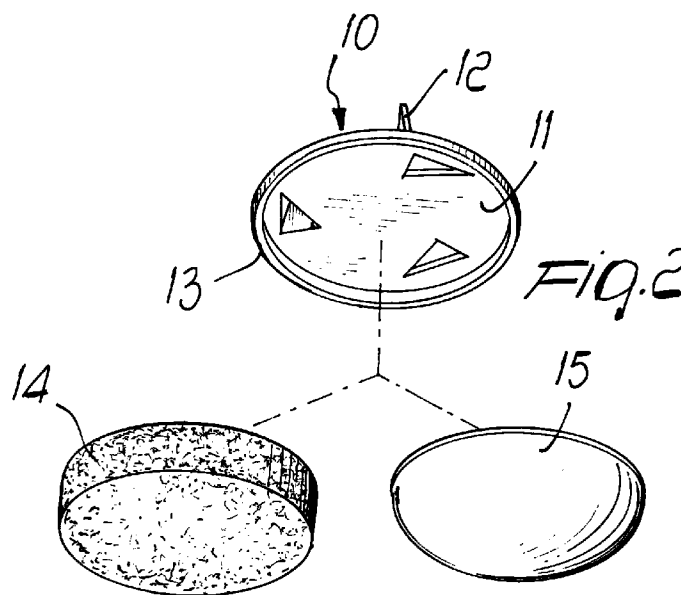
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(54) **Support, particularly for felts, rubber pads, or sliding blocks adapted to be fixed to the bottom of legs or feet of furniture, chairs, or the like**

(57) The present invention relates to a support (10), particularly for felts or rubber pads (14), or sliding blocks (15) adapted to be fixed to the bottom of the legs or feet of furniture, chairs, or the like. The support (10) is constituted by a metal plate (11) wherefrom two or more points (12) protrude in positions that are eccentric with respect to the centroid of the plate (11). The points (12) protrude substantially at right angles to the plate (11),

from a face thereof which is opposite to that associated with the felts or rubber pads (14), or sliding blocks (15). The points (12) penetrate in the bottom of the legs or feet of furniture, chairs, or the like upon assembly, and a rim (13) circumscribes the plate (11), and surrounds the felt or rubber pad (14), or sliding block (15).



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Description

The present invention relates to a support particularly but not exclusively usable for felts, rubber pads, or sliding blocks adapted to be fixed to the bottom of legs or feet of furniture, chairs, or the like.

It is known that it is often convenient to fix felts, rubber pads, or sliding blocks to the bottom of legs or feet of furniture, chairs, or the like; they act as silencing devices or as elements adapted to increase or reduce friction on floors and/or fitted carpets.

Felts, rubber pads, and sliding blocks, indeed in view of the task they must perform, are subject to wear and must, in the course of time, be replaced several times; therefore, owing to their intrinsic nature, they are consumables having a limited life.

Many types of felts, rubber pads, or sliding blocks are currently commercially available and differ from one another substantially in the method for fixing them to the bottom of the legs or feet of furniture, chairs, or the like.

Some felts, rubber pads, and sliding blocks are simply fixed to the bottom of the legs or feet of items of furniture by gluing.

These felts, rubber pads, or sliding blocks in fact have a surface that is covered with an adhesive and whereon a film is placed during packaging; the film can then be easily removed by the user during application.

This type of self-adhesive felt, rubber pad, or sliding block, despite being quick and simple to apply, is not free from drawbacks, the most severe of which is the fact that fixing by gluing does not ensure safe and durable functionality of said felts, rubber pads, and sliding blocks, especially in the case of heavy furniture or of furnishings that are moved frequently by sliding.

Indeed, in a relatively short time, especially in the presence of rather high ambient temperatures, sliding occurs between the surfaces of the felts, rubber pads, or sliding blocks and the bottom of the legs or feet, with a corresponding functional loss.

In order to obviate these sliding problems, some types of felts, rubber pads, or sliding blocks have been marketed which are supported by plastic plates which are shaped so as to form, along their perimeter, a containment rim for said felts, rubber pads, or sliding blocks. A nail, a screw, or an equivalent fixing element extends axially from said plates.

Although fixing the plate to the bottom of the legs or feet by means of nails or screws eliminates the problem of the sliding of said plate with respect to said bottom, it causes severe drawbacks when it is necessary to replace the felt, rubber pad, or sliding block due to normal wear.

Both nails and screws or in any case any other element adapted to penetrate the surface of the bottom of the legs or feet produce, in the course of time, with the movement of the piece of furniture and with the very operation for extracting them for replacement, mechanical play that cannot be recovered further and that can

sometimes damage the piece of furniture, for example in the presence of small legs or feet.

A principal aim of the present invention is to provide a support, particularly for felts, rubber pads, or sliding blocks, that solves the drawbacks pointed out above by known types and ensures stable and durable fixing without sliding effects, and good interchangeability without the problems arising from any play that might be produced.

An object of the present invention is to provide a support which can be manufactured and sold at competitive costs.

Another object of the present invention is to provide a support which is substantially invisible once applied, so as to avoid compromising the aesthetic appearance of the piece of furniture.

Another object of the present invention is to provide a support that can be applied by the user simply and quickly.

Another object of the present invention is to provide a support that can be manufactured with known technologies that can be automated to a high degree.

With this aim, as well as these and other objects in view, there is provided a support, particularly for felts, rubber pads, or sliding blocks adapted to be fixed to the bottom of the legs or feet of furniture, chairs, or the like, characterized in that it is constituted by a metal plate wherefrom at least two points protrude in positions that are eccentric with respect to the centroid of said points, said at least two points protruding substantially at right angles with respect to said plate, in a direction that is opposite to that of said felts, rubber pads, or sliding blocks, said at least two points being adapted for penetrating in said bottom upon assembly.

Further characteristics and advantages of the present invention will become apparent from the following detailed description of two embodiments thereof, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is a perspective view of a support according to the invention;

figure 2 is an exploded view of the support of figure 1, in two possible applications thereof;

figure 3 is a lateral elevational view of the support according to the invention shown in figure 1, in a possible application thereof;

figure 4 is a lateral elevational view of the support of figure 1, in another possible application thereof;

figure 5 is a partially sectional lateral elevational view of a support according to the invention, in a different embodiment thereof;

figure 6 is a perspective view of the support of figure 5.

With particular reference to figures 1 to 4, a support particularly for felts, rubber pads, or sliding blocks adapted to be fixed to the bottom of the legs or feet of

furniture, chairs, or the like, according to the invention, is generally designated by the reference numeral 10.

The support 10 is constituted by a metal plate 11 having a circular shape in this embodiment.

Three points 12 protrude from the plate 11 and have a substantially triangular shape; said points are formed by blanking from said plate 11 in positions that are eccentric with respect to the centroid of said plate.

More specifically, the points 12, in this case, are formed at the corners of an imaginary substantially equilateral triangle which is centered on the plate 11.

The plate 11 is furthermore shaped so as to form, along its perimeter, a rim 13 for containing, in this case, a felt 14 or a sliding block 15.

The felt 14 or the sliding block 15 are fixed respectively to the plate 11 by gluing.

With particular reference to figures 5 and 6, a support particularly for felts, rubber pads, or sliding blocks according to the invention is generally designated by the reference numeral 100 in a different embodiment.

The support 100 is constituted by a metal plate 101 having, in this case, a substantially quadrangular shape; three essentially triangular points 102 protrude from said plate in an eccentric position with respect to the centroid of said plate.

The points 102 are arranged with respect to one another at the corners of a substantially equilateral triangle that is centered on the plate 101.

Moreover, the plate 101 is perimetricaly shaped so as to form a containment rim 103, in this case for a felt 104.

With particular reference to figure 5, the points 102, in an operating step, penetrate the bottom 105 of a leg 106 of a piece of furniture.

This anchoring of the plate 101 to the bottom 105 must be considered as being applicable, in a perfectly similar manner, to the plate 11.

Both for the plate 11 and for the plate 101, merely by way of example, it is possible to adopt a plate thickness of four to eight tenths of a millimeter.

Again in relation to both of the described embodiments, if the support 10 or 100 must be replaced, it is possible to easily reinstall a new support in a different position (rotated through a certain angle with respect to the position of the previous support) that is nonetheless always centered and therefore has the same firmness as the previous support.

In practice, it has been observed that the intended aim and objects have been achieved. It should in fact be noted that the support according to the invention combines absolutely stable and durable fixing to the bottom of the legs or feet of pieces of furniture, without the risk of sliding, with the possibility of reinstalling, simply by rotation, new supports in positions that are not damaged by the preceding supports and therefore have no play in anchoring.

Furthermore, the shape of the points and their limited size ensure that the support according to the inven-

tion causes no breakage or other damage to the piece of furniture to which they are applied.

The extreme constructive simplicity and the great possibility of automating the production processes, which essentially are blanking and pressing, should also be noted, as well as the extreme flexibility of the shapes that can be achieved by the support according to the invention; these shapes allow to apply it in the widest possible range of types of furniture, chair, or the like, and to adapt the shape of the support to the shape of the legs or feet of the specific piece of furniture, thus concealing the support once it has been anchored.

The present invention is susceptible of numerous modifications and variations, all of which are within the scope of the inventive concept.

The details may furthermore be replaced with other technically equivalent elements.

The materials and the dimensions may be any according to the requirements.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

Claims

1. Support, particularly for felts, rubber pads, or sliding blocks adapted to be fixed to the bottom of the legs or feet of furniture, chairs, or the like, characterized in that it is constituted by a metal plate wherefrom at least two points protrude in positions that are eccentric with respect to the centroid of said points, said at least two points protruding substantially at right angles with respect to said plate, in a direction that is opposite to that of said felts, rubber pads, or sliding blocks, said at least two points being adapted for penetrating in said bottom upon assembly.
2. Support according to claim 1, characterized in that said two or more points are formed by blanking said plate.
3. Support according to claim 2, characterized in that said two or more points have a substantially triangular shape.
4. Support according to one or more of the preceding claims, characterized in that said plate has a circular or polygonal shape.
5. Support according to one or more of the preceding claims, characterized in that said plate is shaped so as to perimetricaly form a rim for containing said felt, rubber pad, or sliding block.

6. Support according to one or more of the preceding claims, characterized in that three points protrude from said metal plate and are arranged at the corners of an imaginary substantially equilateral triangle that is centered on said plate.

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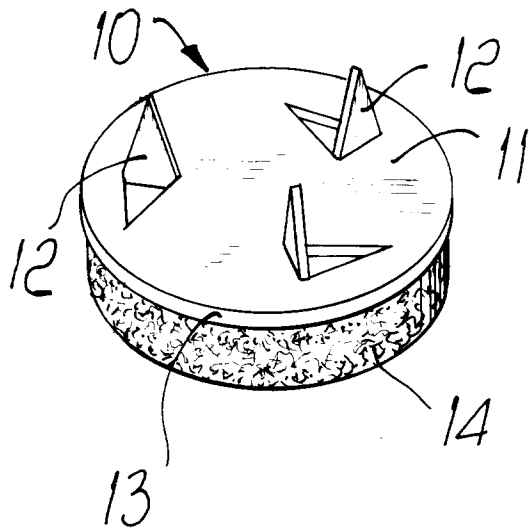


Fig. 1

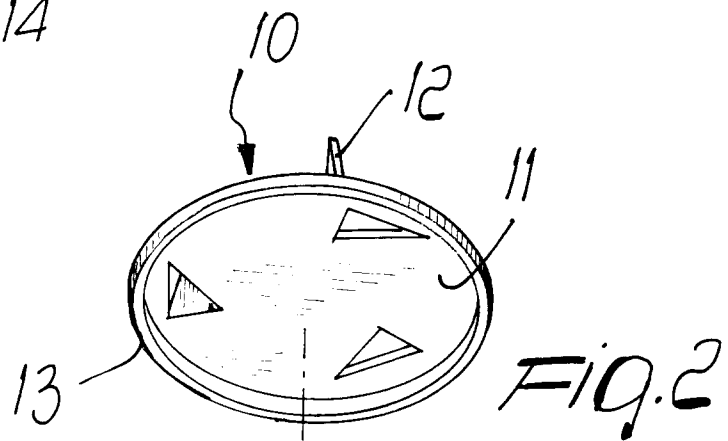


Fig. 2

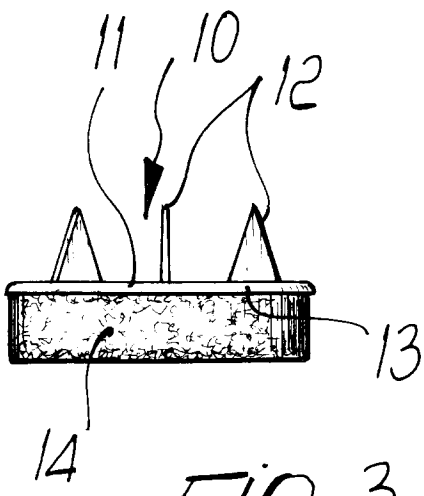
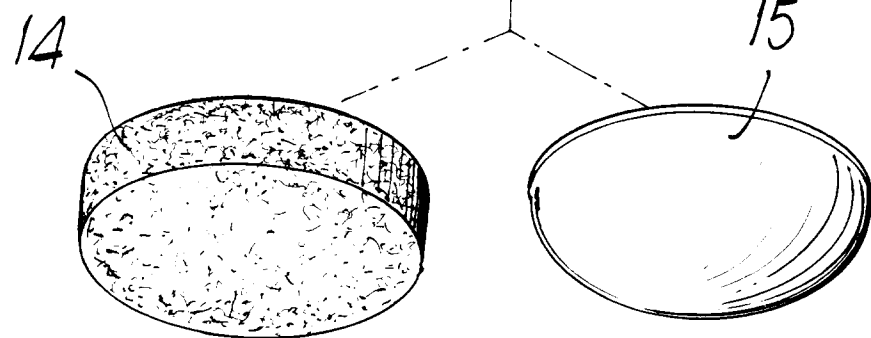


Fig. 3

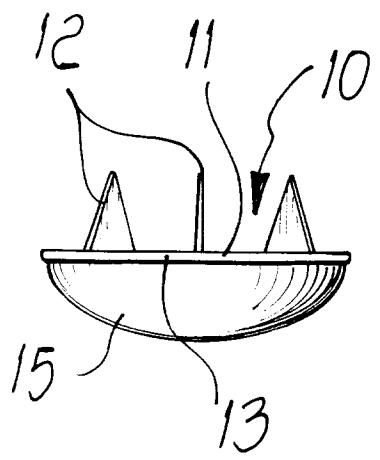
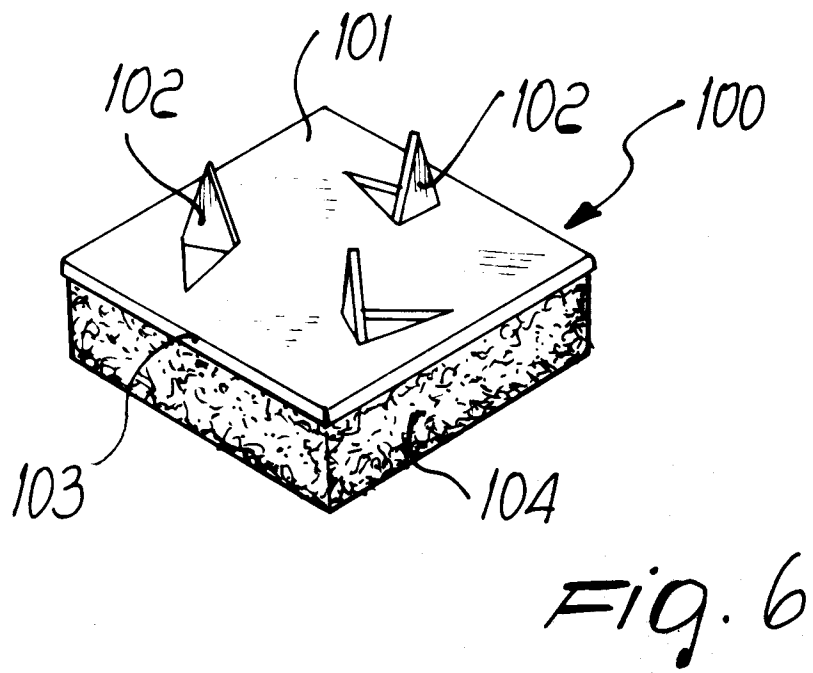
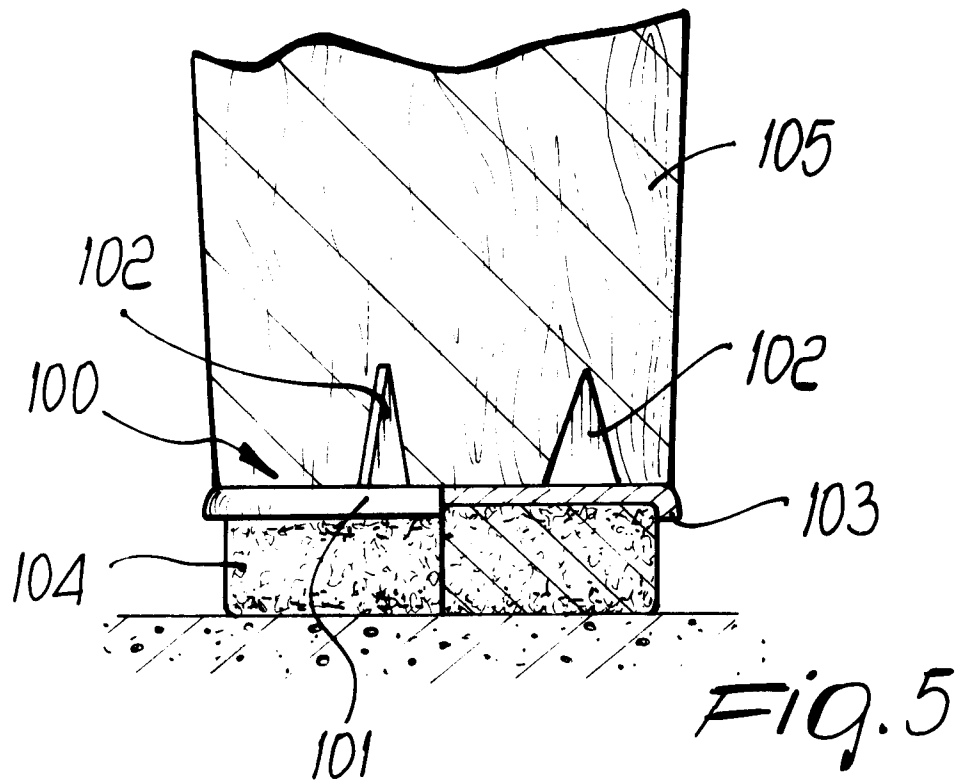


Fig. 4





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EUROPEAN SEARCH REPORT

Application Number
EP 96 10 4334

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	GB-A-252 919 (DUCKWORTH) * the whole document *	1,3	A47B91/06
Y	---	2,5	
Y	CH-A-88 354 (KEIMER) * page 1, column 1, paragraph 3 - column 2, paragraph 2; figures 1-3 *	2,5	
A	---	4,6	
A	GB-A-984 601 (EVERED AND CO. LTD.) * claim 1; figures 1,2 *	5	
A	US-A-1 659 489 (KAYNOR) * figures 1-3 *	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6) A47B
Place of search THE HAGUE		Date of completion of the search 21 June 1996	Examiner Jones, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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