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(54) **BALL SUPPORT**

BALLSTÜTZE

SUPPORT DE BALLE

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Description

[0001] The invention relates to a ball support according to the preamble of claim 1. Such ball support is known from US 4 537 397 and is used to enable placing a ball in a stable position, slightly elevated relative to the playing field, so that the ball can be kicked off easily. Such ball support is often referred to as "kicking tee".

[0002] In particular in ball games involving oval balls, such as rugby, such ball support is used when the ball is to be kicked off in a dead moment of play. As it is, oval balls are preferably kicked off from a position in which their longitudinal axes are directed slightly upwards. As an oval ball is not stable in such position, the ball support is used for supporting the ball.

[0003] A drawback of the known ball support is that each time when the ball has to be kicked during playing, the ball supports have to be brought into the playing field, and after the ball has been kicked off, they have to be removed again. Leaving the ball support behind on the often muddy playing field may not only cause the ball support to become lost, but may also cause a player to trip over the ball support and become injured. In particular in ball games played by amateurs, such as in amateur rugby games, bringing in and removing the ball support is problematic, because often, there are no persons available willing to undertake to bring the ball support into the field from the sideline each time when the ball is to be kicked, and to subsequently remove it again. Moreover, the concentration of such person on his task is often deficient.

[0004] In practice, this has as a consequence that the player who kicked the ball cannot participate in the game temporarily, because he has to return the ball support to the sideline first. For that reason, the ball support is often thrown to the sideline over a large distance, which causes the danger of players or bystanders getting injured.

[0005] The object of the invention is to provide a ball support with which the above-mentioned drawbacks can be avoided. To that end, the invention provides a ball support having the features of claim 1. The effect thus achieved is that the stability of the ball support in operative position can be increased. To that end, the band is at least partially folded over by moving one lateral edge in the direction of the other lateral edge, causing the band to fold over at the location of the area of a different bending resistance. Preferably, the area having a different bending resistance has an endless groove or crease in the surface of the band. The ball support in the storage position can readily be taken along, for instance in the clothes of a player, without the ball support forming an impediment to the player during the playing of the game. Hence, when the ball is to be kicked, the ball support is already present on the playing field and need only be brought into its set-up operative position. After the kick has been taken, the ball support can be folded together into the storage position and carried

along by a player.

[0006] A further advantage of the ball support according to the invention is that now, each of the players can carry along his own ball support in his clothes. As a result, a ball support will usually not only be available more quickly, but will, as a rule, also be put away after the kick has been taken, as the player whose ball support is used will feel responsible for his own ball support.

[0007] As the band is endless, a ball support according to the invention can be handled very rapidly and simply, i.e. can be brought from the storage position into the operative position very fast and vice versa. In particular, the band, when handled, need only be deformed and/or folded into the set-up shape. This allows the handling time of the ball support to be very short. This is of major importance, because for handling the ball support in the heat of the game, little time is available. In addition, the ease of operation of the ball support may, accordingly, likewise be substantial. This is in particular of importance, because the sportsman or sportswoman is often tired and handling of the ball support often takes place under unfavorable conditions, such as during rain on a muddy playing field.

[0008] In an advantageous embodiment, a ball support according to the invention is characterized in that the band comprises lateral edges which differ in length, such that the surface of the band in operative position has the shape of a truncated cone. The effect thus achieved is that the stability of the ball support can be increased when a ball is placed therein.

[0009] In another embodiment, the ball support according to the invention is characterized in that the area having a different bending resistance and the lateral edge of the band are located in intersecting planes.

[0010] In yet another embodiment, a ball support according to the invention is characterized in that the lateral edges of the band are located in intersecting planes. These and previous embodiments have the advantage that the opening in operative position can lie in a plane enclosing an angle with the horizontal. The effect thus achieved is that during positioning of the ball on the ball support, the setting of the angle between the longitudinal axis of the ball and the horizontal can be facilitated. In addition, it can be achieved that the ball can be kicked from the opening in the ball support more easily and that the chance of the ball support being taken along by the ball can be reduced.

[0011] In still another embodiment, a ball support according to the invention is characterized in that the band is manufactured from rubber. Thus, it is not only achieved that the band in storage position is sufficiently flexible to adapt itself to the shape of the body of a person, but also that the band in operative position is sufficiently flexible to adapt itself to possible unevennesses of the playing field.

[0012] Hereinafter, the invention will be specified with reference to a number of exemplary embodiments shown in the accompanying drawings. In these draw-

ings:

Fig. 1 is a schematic top plan view of a ball support in storage position;

Fig. 2 is a schematic top plan view of a ball support in operative position;

Fig. 3 is a schematic side elevation of the ball support of Fig. 2, cut through along the line II-II;

Fig. 4 is a schematic top plan view of a first embodiment of a ball support according to the invention in storage position;

Fig. 5 is a schematic top plan view of a first embodiment of a ball support according to the invention during deformation from the storage position into the operative position;

Fig. 6 is a schematic side elevation of the ball support of Fig. 5, cut through along the line VI-VI;

Fig. 7 shows the ball support of Fig. 6 in operative position;

Fig. 8 is a schematic top plan view of a second embodiment of a ball support according to the invention during deformation from the storage position into the operative position;

Fig. 9 is a schematic side elevation of the ball support of Fig. 8, cut through along the line IX-IX; and

Fig. 10 shows the ball support of Fig. 9 in operative position.

[0013] It is observed that the Figures are only schematic representations of preferred embodiments of the invention. In the Figures, identical or corresponding parts of the ball support in the second and third exemplary embodiments have been designated by reference numerals identical to those of the first exemplary embodiment, preceded by numbers 2 and 3 respectively.

[0014] Figs. 1-3 show a ball support. The ball support comprises a flexible, endless and substantially flat band 1. The surface 2 of the band 1 comprises an outer part 2A and an inner part 2B. The surface 2 of the band 1 is bounded by an upper lateral edge 3 and a lower lateral edge 4. The band 1 is manufactured from flexible material, such as, for instance, rubber. The band 1 is deformable between a storage position in which parts of the surface 2, for instance parts of the inner surface 2B, overlap each other in folded condition (Fig. 1), and an operative position in which the band 1 is set up so as to be ring-shaped and surrounds an opening 5 in which a ball can be placed for keeping it in its desired position. As shown in Fig. 1, in the storage position, parts of the outer surface 2A of the band 1 may also overlap each other. Preferably, the band 1 is brought into the storage position by laying it "flat" first and, next, folding it double a number of times or rolling it up. In the storage position, the ball support is thin and flexible. This allows the ball support to be readily carried along by a player in his sportswear.

[0015] The band 1 is brought into the operative position by unfolding the band 1 in the direction of the arrows

P1 and P2 until the band 1 is stretched and no parts of the outer surface 2A overlap each other. Then, the band 1 is folded open and set up to form a ring, such that no parts of the inner surface 2B overlap each other. After this, the band 1 is placed with a lateral edge, for instance the lateral edge 4, on a base, for instance the playing field 6, and a ball B is placed in the opening 5. The lateral edges 3 and 4 are different in length, such that the surface 2 of the band 1 in operative position has the shape of a truncated cone and the band 1 can properly bear the weight of the ball B.

[0016] Figs. 4-7 show a first embodiment of a ball support according to the invention. Starting from the storage position shown in Fig. 4, the ball support 1 is unfolded and set up into the intermediate position shown in Fig. 5. Subsequently, the part 28 located adjacent the lateral edge 23 of the band 1 is folded over in the direction of the part 29 located adjacent the lateral edge 24. This increases the stability and the bearing power of the ball support. In Fig. 6, the folding direction is indicated by arrows P3 and P4. The band 1 preferably comprises at least one circumferentially extending area having a deviating bending resistance and defining a folding line, in particular an area having a lower bending resistance. In this embodiment, this is an endless groove 27. In this exemplary embodiment, the groove 27 and the lateral edges 23, 24 each lie in parallel planes. The part 29 of the surface of the band 1 gives the ball support on the outside the shape of a truncated cone, while the part 28 gives the ball support on the inside the shape of a truncated cone.

[0017] The endless groove 27 and the lateral edges 23 and 24 may also lie in intersecting planes, while, for instance, the lateral edge 23 can be designed as indicated by the dashed line 23A or the endless groove 27 can be designed as indicated by the dashed line 27A (Fig. 6). This causes the top side of the opening 25 to be inclined during use, so that during placement of the ball B on the ball support, the setting of the angle between the longitudinal axis of the ball B and the horizontal is facilitated. In addition, the ball B can be kicked more easily from the opening 25 in the ball support without the ball B taking along the ball support. After folding over, the ball support is in its operative position and can be positioned with both lateral edges 23, 24 on the playing field 6 (Fig. 7).

[0018] Figs. 8-10 show a second embodiment of a ball support according to the invention, in which two grooves 37A and 37B are provided. The deformation from the storage position into the operative position shown in Fig. 10 proceeds analogously with the manner explained with respect to Figs. 4, 5, 6 and 7, the main difference being that an upper part 38 located adjacent the upper lateral edge 33 is folded inwards in the direction of the arrows P5 and P6, and that a lower part 39 of the surface 32 located adjacent the lower lateral edge 34 is folded outwards in the direction of the arrows P7 and P8. Subsequently, the band 1 is positioned on the playing field

6 with the groove 378 and the lateral edge 33 facing down.

[0019] It is observed that the invention is not limited to the above-described preferred embodiments. Many variants thereof are possible. Thus, the band may also be built up from plastic or metal links and/or interwoven plastic or metal threads. Further, the area having a deviating bending resistance may, for instance, comprise one or more thickening rings provided on the surface of the band, or a piece of thin, adhesive material, such as tape, connecting two parts of the surface of the band. Also, the area having a deviating bending resistance may be designed as a row of perforations or interrupted grooves extending along the circumference. Moreover, the ball support may advantageously be provided with an advertising print and/or a surface on which the owner can provide indicia.

[0020] These and other practical variants are understood to be within the framework of the invention as represented in the following claims.

Claims

1. A ball support, comprising a flexible endless and substantially flat band (1) having two lateral edges (23;24;33,34), said band (1) being deformable between a storage position in which parts of the surface of the band (1) overlap each other in folded condition and an operative position in which the band (1) is set up so as to be ring-shaped and surrounds an opening (25;35) in which a ball can be placed in order to keep said ball in its desired position, **characterized in that** the band (1) comprises at least one circumferentially extending area having a different bending resistance defining a folding line (27; 37A,37B) at the top side of the opening (25;35) when the band (1) is folded over by moving one lateral edge (23;33) in the direction of the other lateral edge (24;34).
2. A ball support according to claim 1, wherein the area having a deviating bending resistance defining a folding line (27;37A,37B) comprises an endless groove or crease.
3. A ball support according to any one of the preceding claims, wherein the area having a deviating bending resistance defining a folding line (27; 37A, 37 B) and a lateral edge (23, 24;33,34) of the band (1) lie in intersecting planes.
4. A ball support according to any one of the preceding claims, wherein the lateral edges (23, 24; 33,34) of the band (1) lie in intersecting planes.
5. A ball support according to any one of the preceding claims, wherein the band (1) is manufactured from

a resilient material, such as rubber.

Patentansprüche

1. Ballstütze, ein biegsames, endloses und im Wesentlichen flaches Band (1) umfassend, das zwei Seitenkanten (23, 24; 33, 34) besitzt, wobei das Band (1) zwischen einer Aufbewahrungsposition, in der Teile der Oberfläche des Bandes (1) in einem gefalteten Zustand übereinander liegen, und einer Arbeitsposition verformt werden kann, in der das Band (1) so aufgestellt ist, dass es ringförmig ist und eine Öffnung (25; 35) umgibt, in die ein Ball platziert werden kann, um in seiner erwünschten Position gehalten zu werden, **dadurch gekennzeichnet, dass** das Band (1) zumindest einen ringförmig erstreckten Bereich besitzt, der eine andere Biegesteifigkeit hat und einen Falz (27; 37A, 37B) an der Oberseite der Öffnung (25; 35) definiert, wenn das Band (1) übereinandergefaltet ist, indem eine Seitenkante (23; 33) in Richtung auf die andere Seitenkante (24; 34) bewegt wird.
2. Ballstütze nach Anspruch 1, **dadurch gekennzeichnet, dass** der Bereich abweichender Biegesteifigkeit, der einen Falz (27; 37A, 37B) definiert, eine endlose Rille oder Falte umfasst.
3. Ballstütze nach einem beliebigen der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** der Bereich abweichender Biegesteifigkeit, der einen Falz (27; 37A, 37B) definiert, und eine Seitenkante (23, 24; 33, 34) des Bandes (1) in sich schneidenden Ebenen liegen.
4. Ballstütze nach einem beliebigen der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** die Seitenkanten (23, 24; 33, 34) des Bandes (1) in sich schneidenden Ebenen liegen.
5. Ballstütze nach einem beliebigen der vorangehenden Ansprüche, **dadurch gekennzeichnet, dass** das Band (1) aus einem elastischen Werkstoff wie Gummi hergestellt ist.

Revendications

1. Support de balle, comprenant un flexible sans fin et une bande sensiblement plate (1) ayant deux bords latéraux (23 ; 24 ; 33 , 34), ladite bande (1) étant déformable entre une position de stockage dans laquelle des parties de la surface de la bande (1) se recouvrent l'une l'autre dans une condition pliée et une position de fonctionnement dans laquelle la bande (1) est montée de façon à être en forme d'anneau et entoure une ouverture (25 ; 35) dans laquelle

le on peut placer une balle de façon à mettre ladite balle dans sa position désirée, **caractérisé en ce que** la bande (1) comprend au moins une surface s'étendant de façon circulaire ayant une résistance à la flexion différente définissant une ligne de pliage (27 ; 37A, 37B) sur le côté supérieur de l'ouverture (25 ; 35) lorsque l'on plie la bande par dessus en déplaçant un bord latéral (23 ; 33) dans la direction de l'autre bord latéral (24 ; 34).

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2. Support de balle selon la revendication 1, dans lequel la surface ayant une résistance à la flexion déviante qui définit une ligne de pliage (27 ; 37A ; 37B) comprend une gorge sans fin ou rainure.
3. Support de balle selon l'une quelconque des revendications précédentes, dans lequel la surface ayant une résistance à la flexion déviante qui définit une ligne de pliage (27 ; 37A, 37B) et un bord latéral (23, 24 ; 33, 34) de la bande (1) repose dans des plans sécants.
4. Support de balle selon l'une quelconque des revendications précédentes, dans lequel les bords latéraux (23, 24 ; 33,34) de la bande (1) reposent dans des plans sécants.
5. Support de balle selon l'une quelconque des revendications précédentes, dans lequel on fabrique la bande (1) à partir d'un matériau flexible, tel que du caoutchouc.

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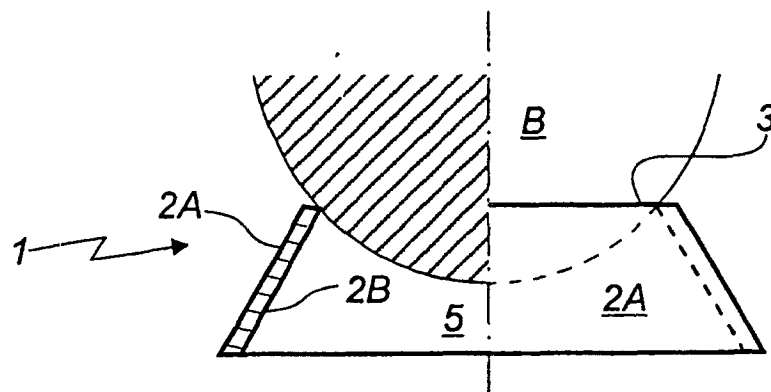
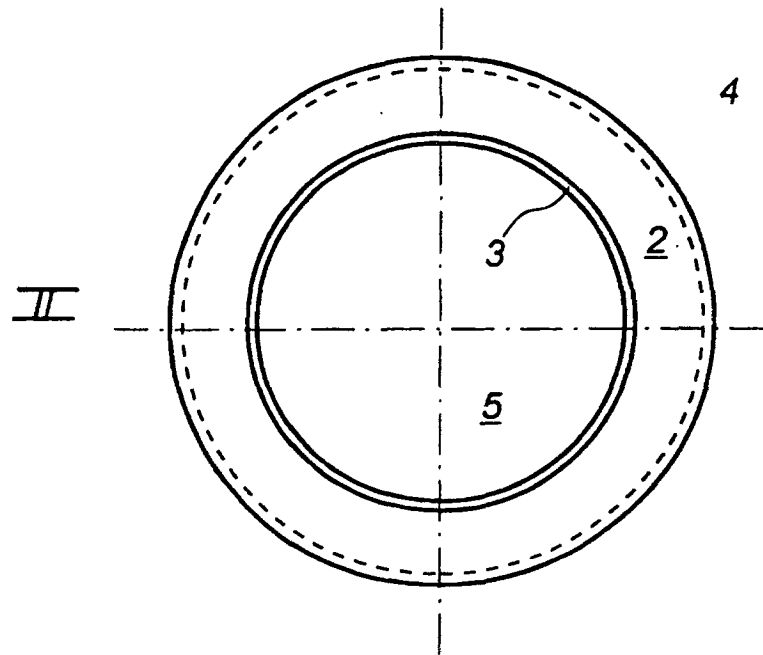
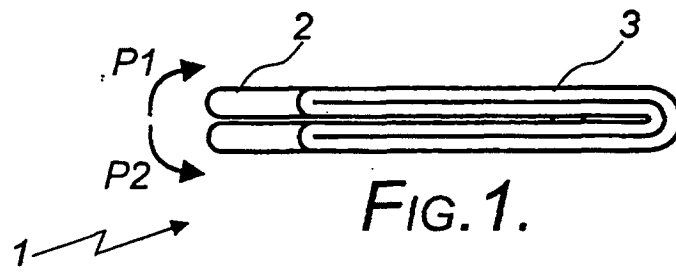
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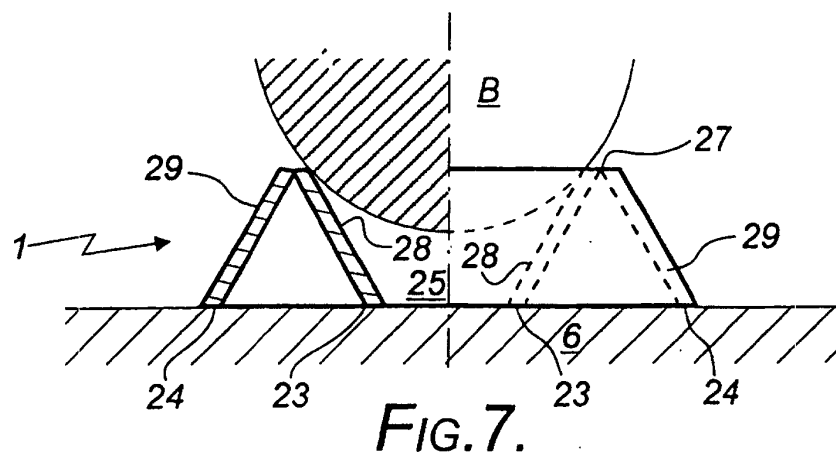
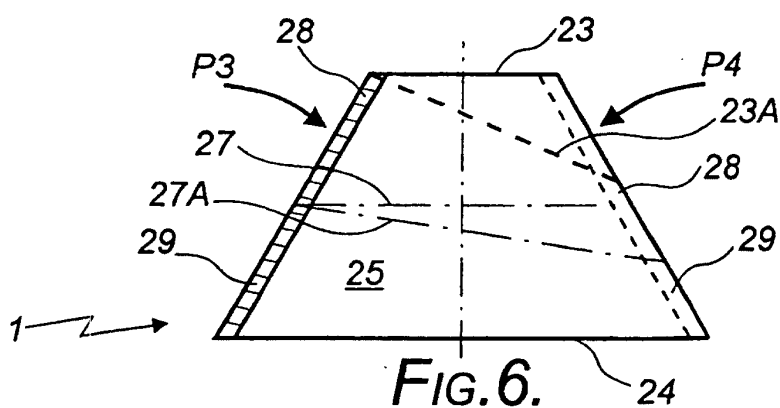
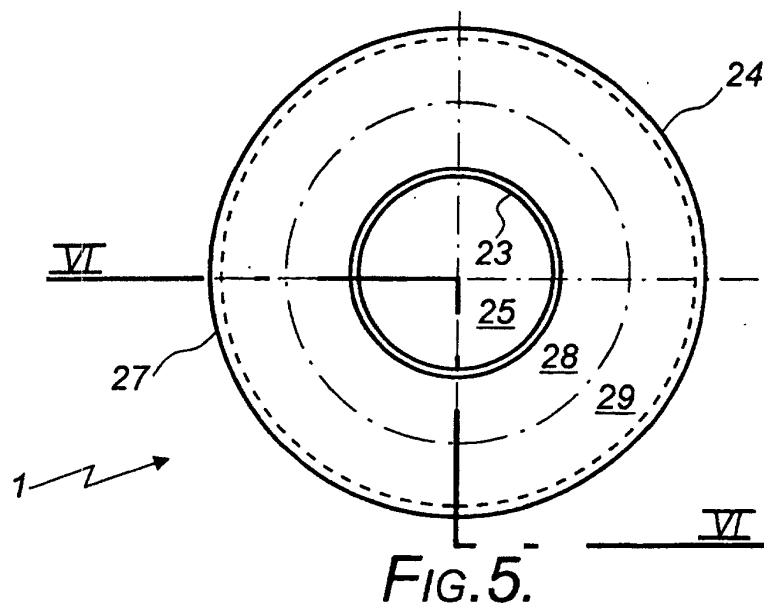
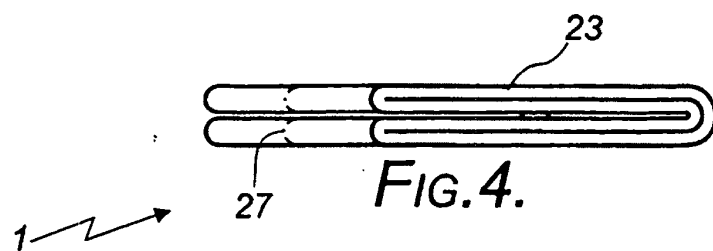
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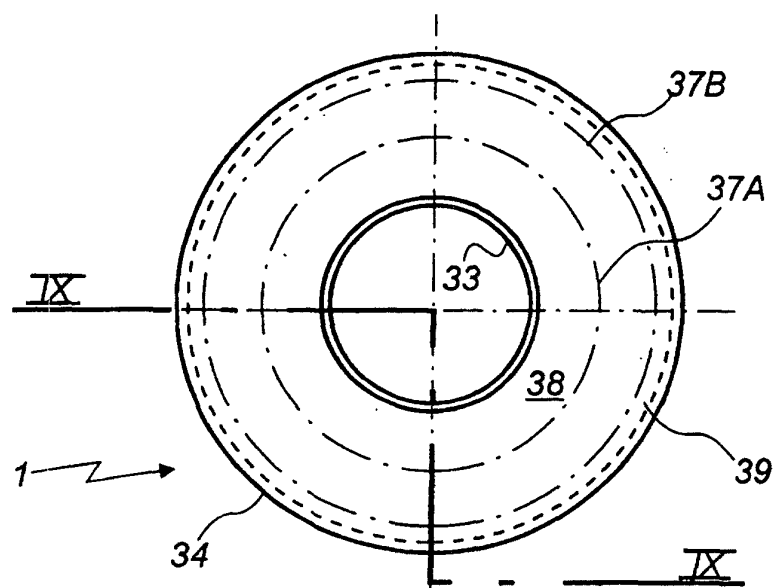


FIG. 8.

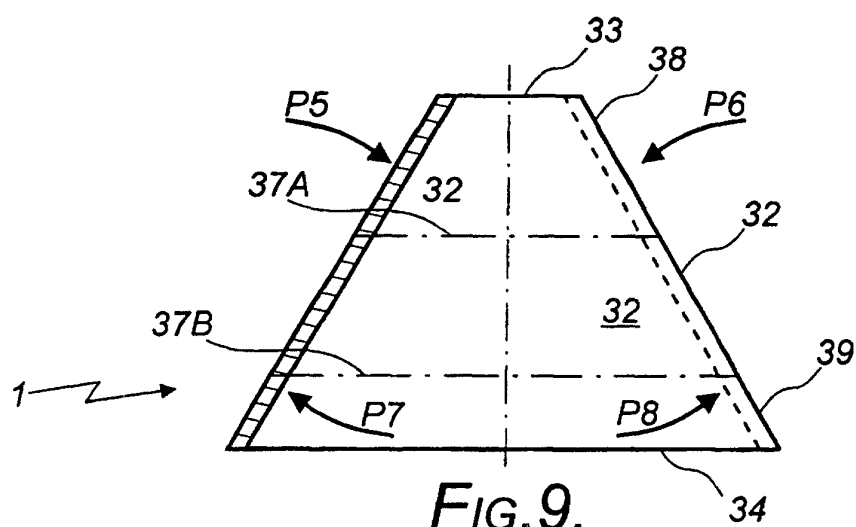


FIG. 9.

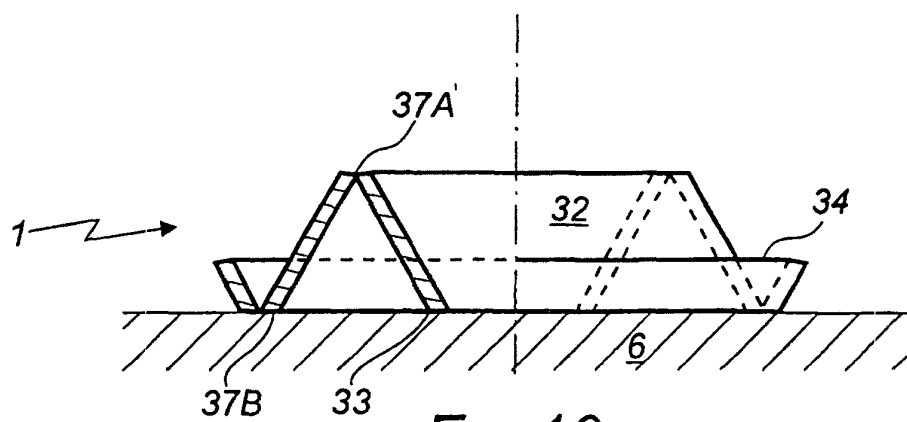


FIG. 10.