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(54) **Profile for finishing a floor covering**

(57) Profile for finishing a joint (4) in a floor covering (1), wherein this profile consists at least of two parts (6-7), namely, a first part (6) which can be provided above the edge of the floor covering (3) and thereby covers said joint (4) at least partially, and a second part (7) which can

be provided in said joint (4) for attachment of the profile (1), **characterized in that** an elastically deformable component (8) is connected to the profile (1), more particularly to said second part (7) thereof, wherein this elastically deformable component (8) is operative in said joint (4).

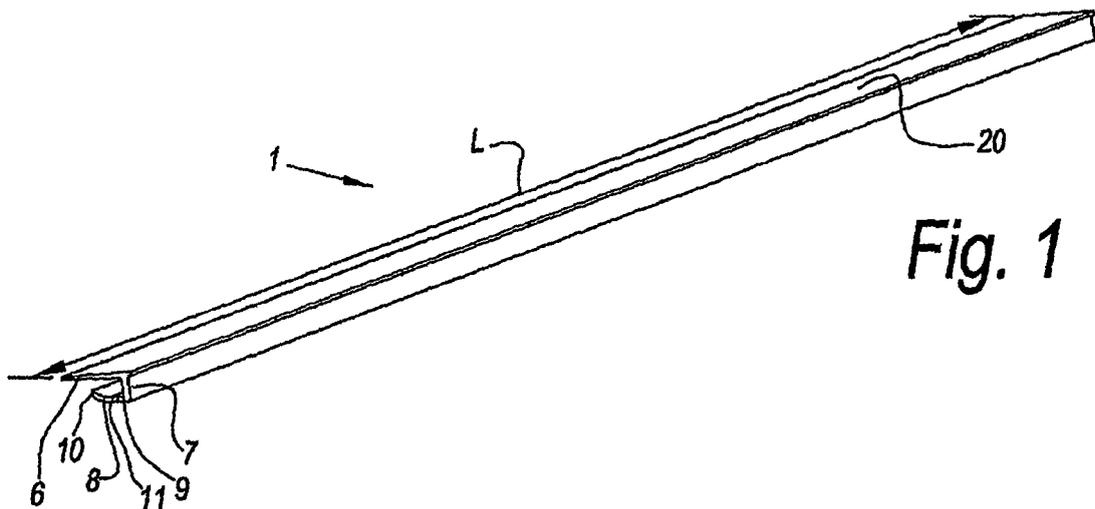


Fig. 1

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Description

[0001] This invention relates to profiles for finishing a floor covering, more particularly for finishing edges or joints in a floor covering.

[0002] In particular, the profiles of the invention are intended for being applied in combination with floatingly installed floor coverings, such as floatingly installed floor panels, for example, laminate panels, prefabricated parquet, veneer parquet or solid parquet. However, this does not exclude that they can also be applied in combination with other floor coverings, such as, for example, with hard floor panels which are glued flat on the subfloor and/of of which the possible tongue and groove connection is glued into each other. In these cases, this may also concern, for example, laminate panels, prefabricated parquet, veneer parquet or solid parquet.

[0003] When installing floor coverings, in particular with floatingly installed floor coverings consisting of floor panels, in a large number of cases actions have to be taken in order to finish the edges or joints thereof. Such edges or joints, which have to be finished additionally, may occur at the end of the floor covering, for example, against a wall, with a transition to another type of floor covering, or when providing an expansion joint between two floor coverings, whether or not being of a different type, by which, amongst others, of a different material or of different thickness is meant.

[0004] It is known that for finishing such edges or joints, use can be made of a finishing set, which consists of at least one holder and at least one finishing profile that can be attached onto the holder, wherein the finishing profile allows that the respective edge, joint or transition is covered thereby and thus in most cases also forms an aesthetic transition.

[0005] Herein, the holder mostly consists of a rail-shaped profile which can be attached on the underlying floor, for example, by means of gluing, screwing, nailing, or by simply installing this profile partially underneath the floor covering. Mostly, the holder also comprises an attachment part for attaching a finishing profile onto the holder.

[0006] Such finishing profile usually is formed as a, whether or not multi-part, decorative strip or the like, which can be pressed on in the rail-shaped profile. Further, it is known that such finishing profile can be realized in the form of an end profile, transition profile, adaption profile as well as in the form of an expansion profile or a combination thereof. End profiles mostly serve for the finishing against a wall, transition profiles for the transition from one type of floor covering to another type, adaption profiles for the transition between two floor coverings of different thickness, and expansion profiles for bridging over an expansion joint between two parts of a floor covering.

[0007] It is also known that the elements of such finishing set can be made of different materials, such as, for example, aluminum, synthetic material or a material

on the basis of wood, for example, plywood, MDF/HDF or the like. It is also known to apply combinations, wherein the holder consists of a well-defined material, for example, aluminum or synthetic material, whereas the finishing profile consists of another material, for example, a material on the basis of wood. Herein, the finishing profile is or is not encased by a layer-shaped covering, which may or may not match the floor covering and which can be of any kind whatsoever and may consist, for example, of a foil or laminate as well as lacquer or the like.

[0008] Such finishing sets and the component parts thereof are known, amongst others, from the patent documents EP 1 310 613, WO 03/040492, WO 96/12857, US 6,550,192, DE 198 54 452, DE 93 01 719, DE 198 54 452, DE 203 20 273, WO 2006/074824 and BE 531 292. The application of the finishing sets known from these patent documents is rather laborious, as each time first a holder has to be mounted on the underlying floor, either by gluing, screwing or by pushing it with a flange underneath the floor panels. The finishing profiles as such protrude rather much above the plane of the floor covering, which can lead to dangerous situations and/or is less attractive aesthetically. Moreover, with these finishing sets, it is necessary that adapters or other solutions are offered when such finishing set has to cooperate with floor coverings of different thickness.

[0009] Further, the so-called self-adhesive skirting board is known as a cheaper alternative for the end profile, wherein this then specifically concerns the finishing of a floor covering against a wall. Such self-adhesive skirting board can consist of a lath encased with foil, which is placed flat on the edge of the floor covering directly against the existing wall. The self-adhesive skirting board is attached to the edge of the floor covering by means of a glue connection. Such glue connection can be obtained, for example, in that the self-adhesive skirting board is provided with a self-adhesive strip at its bottom side. Instead of an encased lath, the self-adhesive skirting board can also consist of a laminate sheet or foil only, which simply is glued onto the edge of the floor covering. Such self-adhesive skirting board, however, lacks strength. It is clear that the known self-adhesive skirting boards are simple and fast to mount, as no use is made of a separate holder; however, the glue connection attracts dust. Such self-adhesive skirting board can be applied with floor coverings of any thickness whatsoever. In the case of a self-adhesive skirting board substantially consisting of a laminate sheet or foil, it also can be cut to length in a simple manner or be provided with a miter by means of scissors or pincers. Advantageous with self-adhesive skirting boards of any type is that they can be made relatively thin and thus hardly need to protrude above the plane of the floor covering. Disadvantageous with self-adhesive skirting boards of any type, however, is that it moves along with the floor covering on which it is glued, for example, when shrinkage of the floor covering occurs with low air humidity, and thus a gap may be created between the wall and the self-adhesive

skirting board. With an expansion of the floor covering, too, such self-adhesive skirting board may lead to problems. The shifting force exerted on the glue connection namely may be so large that the glue connection fails. A further disadvantage of self-adhesive skirting boards of any type is that they cannot be dismounted and thus cannot be taken along when possibly house moving, which indeed is the case with manifold applied floating floor coverings which can be installed without glue and dismountable. Herein, this relates, for example, to floor coverings of the type which as such is known from WO 97/47834, which, at their edges, are provided with coupling parts, which allow that two of such floor panels can be locked together at the respective edges in all directions of the plane extending perpendicularly to the respective edge.

[0010] From US 2008/005,993, a finishing set is known which consists of a finishing profile which is equipped with separate loose elastic, telescopic components. The finishing profile always is attached by means of separate attachment means, for example, to the wall, and thereafter the telescopic components are placed in the joint or edge concerned. Said telescopic components contact the lateral edge of the floor covering and the wall or the lateral edge of another part of the floor covering. In this manner, it is prevented that gaps occur in the floor covering. Further, said telescopic components are kept at their place by means of the finishing profile. The finishing set of the aforementioned document is applied in each joint or at each edge of the floor covering, wherein said elastic telescopic components are only present on well-defined places along the respective joint or edge. This finishing set again consists of a plurality of separate loose components, which makes it cumbersome to install. A similar system is known from DE 201 06 575 U1, wherein a finishing set is used which consists of a finishing profile and a plurality of separate loose leaf springs, which are provided between the separately attached finishing profile and the edge of the floor covering. It is noted that the finishing sets of said documents do not always allow their application with floor coverings of different thickness.

[0011] The present invention in particular relates to an alternative for the profiles or finishing sets from the state of the art, wherein, according to various preferred embodiments thereof, also a solution is offered for the problems with the profiles or finishing sets from the state of the art. To this aim, the invention relates to a profile for finishing a joint in a floor covering, wherein this profile consists at least of two parts, namely, a first part which can be provided above the edge of the floor covering and thereby covers said joint at least partially and preferably substantially entirely or entirely, and a second part which can be provided in said joint for attachment of the profile, with the characteristic that an elastically deformable component is connected to the profile, more particularly to said second part. By "connected", here is meant that the elastic component is attached to the second part in a manner which prevents its coming loose with a normal

use of the profile. By the presence of such connection, no separate installation of the elastic component is required, which in fact is the case with the profiles from the state of the art. Preferably, the elastically deformable component is operative in said joint. By this, it is meant that the respective component in installed condition is deformed and thereby, whether directly or indirectly, exerts a force on the walls of the joints, for example, a tensioning force between the wall and the edge of the floor covering. Preferably, the deformation of the component concerned results at least in a horizontally active force component on the edge of the floor covering, wherein the respective finished joint is actively pressed open. An indirect force exertion may occur, for example, when the deformable component itself is not in contact with one or both walls of the joint to be finished, for example, in that another part of the profile is provided between this deformable component and the respective wall of the joint.

[0012] According to the invention, said elastically deformable component may suffice for tensioning said second part in the joint to be finished, such that by this, the entire profile can be actively kept on its place. The presence of the elastic component thus enables working without a holder and/or glue connection. However, such elastic component also may serve for other purposes. Moreover, it is not excluded that under extreme circumstances, the tensioning action will not or hardly be present. It is clear that preferably one works without a glue connection of the profile on the floor covering or subfloor.

[0013] Preferably, said first part, in a stress-relieved condition of the elastically deformable component, covers the entire second part. In this manner, a compact profile is obtained, which is convenient to use.

[0014] Preferably, said elastically deformable component is made in one piece with said second part and/or is said first component made in one piece with said second part. The fact that one or more parts of the profile are made in one piece results in a profile which is simple to handle. According to the invention, however, it is not excluded that one or more parts are connected to each other in another manner than in one piece, for example, in being glued to each other, and/or are connected by means of mechanic coupling means.

[0015] According to a particular variant of the invention, the actual profile or first part, and the actual second part are made as separate components, which are connected to each other via a mechanical connection, for example, via a so-called snap connection. Preferably, herein a detachable connection is concerned. Herein, the second part can extend over the entire length of said first part or can be realized as a plurality of discrete elements, which are provided in said joint along the length of the actual profile or first part. For example, one to four discrete elements per half meter of the joint to be finished can be used. In the case of the present particular variant, the actual profile as such does not have to consist of a resilient material. For example, this profile can comprise a wood-based and encased substrate, such as a MDF

or HDF substrate encased with laminate or foil.

[0016] Preferably, according to a first possibility, said elastic deformability is obtained at least in that this component consists of an elastic material. For example, use can be made of rubber-containing materials or other flexible synthetic materials. According to a second possibility for obtaining said elastic deformability, it is at least obtained by means of the shape of the respective component. Of course, it is not excluded that the abovementioned two possibilities are combined in one and the same elastic component. In the case of said second possibility, preferably use is made of a second part of spring steel. Such part may be obtained, for example, from a plate of spring steel by means of folding treatments and/or cutting and/or stamping treatments. Preferably, in such case the first part and the second part are realized according to the also above-mentioned particular variant, namely, as separate components.

[0017] Preferably, said elastic deformability is obtained at least in that this part is made as a flange, which is connected with one extremity to said second part, however, cantilevers freely at another extremity. Herein, an example of the above second possibility is obtained. Preferably, said freely cantilevered extremity or otherwise made elastically deformable component shows, at its underside, an inclined part or rounded part, and/or the underside thereof extends from a, in respect to said second part, proximally situated point to a distal point, wherein said distal point is situated in a horizontal plane which extends higher than the horizontal plane in which said proximal point is situated.

[0018] According to an important preferred embodiment, at least said first and second parts have a shape which allows that they can be obtained by means of the same extrusion treatment. Such shape is **characterized in that** the profile has a longitudinal direction and that all or approximately all cross-sections perpendicular to this longitudinal direction are identical or approximately identical. Preferably, the parts concerned thus are effectively obtained by means of the same extrusion treatment.

[0019] According to another important preferred embodiment, at least the second part and said elastically deformable component connected thereto have a shape which can be obtained by means of the same extrusion treatment. Preferably, they thus are effectively obtained by means of the same extrusion treatment. Preferably, in this case a so-called coextrusion treatment is concerned, wherein the second part and the elastic component connected thereto are made of different materials. Preferably, these materials differ at least in that they have a mutually differing elasticity, wherein then preferably the material having the largest elasticity is applied for realizing said elastic part.

[0020] It is noted that extrusion allows to realize thin-walled profiles, such that by this technique, profiles can be achieved which hardly protrude above the plane of the floor covering. For example, it is possible to keep the protruding part thinner than 2 millimeters or even thinner

than 1.5 millimeters, while still maintaining a sufficient strength of the profile. In the case that the profile of the invention is provided with a separate decorative covering at its decor side, it may be necessary to make said protruding part thicker. In particular in the case that said decorative covering comprises a laminate layer, a sufficient rigidity of the profile is desirable in order to prevent or minimize warping as a result of the tensile stresses in the laminate.

[0021] Suitable materials for realizing the profile of the invention or a part or component thereof are, amongst others, aluminum, polyvinyl chloride (PVC), polyethylene (PE), preferably of high density (HDPE), polypropylene (PP), polyethylene terephthalate (PET) or nylon.

[0022] Preferably, said elastically deformable component extends substantially over the entire length of said second part, and this preferably uninterruptedly or substantially uninterruptedly. Such embodiment provides for a uniform tensioning of the profile in the joint concerned.

[0023] It is clear that the invention is particularly advantageous when said profile can be applied for finishing a joint in a floor covering, without any additional attachment means.

[0024] The profile of the invention may relate to an end profile, a skirting board or an expansion profile. Preferably, it relates to a profile which can be applied there, where self-adhesive skirting boards are applied, namely, when finishing an edge of a floor covering which adjoins a wall, sliding door, window, against an existing skirting board or the like.

[0025] According to a particular preferred embodiment, the profile of the invention can be rolled up in its longitudinal direction. It is clear that such embodiment is interesting in view of the packaging thereof. In such case, the profile namely can be transported and delivered in rolled-up condition. However, the invention does not exclude that the profile is offered in cut-to-length pieces.

[0026] The present invention also relates to a method for finishing a joint or edge of a floor covering, wherein the profile of the invention is applied. Particular advantages can be obtained when the profile is applied without a separate holder and/or glue connection, for example, in that this profile is pressed with said second part and the elastic component from above into the respective joint.

[0027] With the intention of better showing the characteristics of the invention, hereafter, as an example without any limitative character, several preferred embodiments are described, with reference to the accompanying drawings, wherein:

Figure 1 in perspective represents a profile having the characteristics of the invention;

Figures 2 to 4 in cross-section and at a larger scale represent how the profile of figure 1 can be applied; Figures 5 and 6 represent semi-finished products for manufacturing profiles having the characteristics of the invention;

Figures 7 to 9 respectively, in a view similar to that of figures 2 to 4, each represent another variant; Figure 10, in a cross-section, represents another variant;

Figure 11 in perspective represents an actual second part of a profile having the characteristics of the invention;

Figures 12 and 13 in a view similar to that from figure 9 represent an illustration of the application of the actual second part from figure 11;

Figure 14 represents another actual second part in a view similar to that from figure 11; and

Figure 15 illustrates the application of the actual part from figure 14.

[0028] Figure 1 represents a profile 1 having the characteristics of the invention, wherein this profile 1 is intended in particular for finishing an edge 2 of a floor covering 3, such as represented in figure 2, wherein this edge 2 forms a joint 4 with a nearby wall 5.

[0029] Figure 2 clearly shows that here, a profile 1 is concerned which consists at least of two parts 6-7, namely a first part 6, which can be provided above the edge 2 of the floor covering 3 and thereby covers said joint 4 at least partially and in this case completely or as good as completely, and a second part 7, which can be provided in the joint 4 for attaching the profile 1, and in this case also for supporting and/or reinforcing the profile 1.

[0030] The particularity of the profile 1 of the invention is that it shows an elastically deformable component 8, which is connected to said second part 7, or, in other words, is connected to a part of this profile 1 which is situated in the joint 4. The elastically deformable component 8 extends substantially, and in this case entirely and uninterruptedly, over the entire length L of said second part 7. The elastic deformability of the respective component 8 is at least partially obtained in that this component 8 is made as a flange, wherein this flange is connected with one extremity 9 to said second part 7, however, cantilevers freely at another extremity 10. The elastic deformability is influenced still further by the presence of a recess 11 in the respective flange.

[0031] Figure 2 clearly shows that, seen in this cross-section, said first part 6, in a stress-relieved condition of the elastically deformable component 7, covers the entire second part 7. This means that this first part 6 extends in horizontal direction at least up to, and in this case beyond, the second part 7. In this manner, it is obtained that the profile 1 can be introduced in the joint 4 without too many difficulties.

[0032] The elastically deformable component 8, which in this case is formed as a freely cantilevered extremity 10 of a flange, shows, at its underside 12, a rounded part 13, which, as figure 13 clearly shows, assists in the deformation of the component 8 when introducing the profile 1 in the joint 4 concerned. The underside 12 of the elastically deformable component 8 in this case, namely, at the location of said rounded part 13, inclined part or other

equivalent guiding surface, comes into contact with the edge 2 of the floor covering 3, whereby, when the profile 1 is pressed down further into the joint 4, a deformation of the component 8 is performed. In other words, the underside 12 of the elastically deformable part 8, as becomes clear from figure 2, in this example extends from a, situated in respect to said second part, proximal point 14 towards a distal point 15, wherein said distal point 15 is situated in a horizontal plane H1, which extends higher than the horizontal flat plane H2 in which said proximal point 14 is situated.

[0033] In the example, said elastically deformable component 8 is made in one piece with said second part 7. In this case, the entire profile 1, with the exception of a possible decorative covering 16, is made in one piece. In this case, this is obtained by means of the same extrusion treatment, wherein so-called coextrusion is applied and said elastically deformable component 8 substantially is extruded in another material than the material in which said second part 7 substantially is performed. The elastic deformability in this case thus also is obtained at least partially in that the respective component 8 substantially consists of an elastic material.

[0034] Figure 4 represents the final position of the profile 1 and shows that the elastic component 8 is deformed in respect to the initial geometry represented in dashed line 17. By this deformation, an active tensioning of the profile 1 in said joint 4 is created, wherein in this case the occurrence of gaps between the wall 5 and the profile 1 are counteracted, even when the floor covering 3 shrinks or extends to a certain extent. Arrows 18 schematically represent the forces on the profile 1 obtained by the tensioning. It is clear that the elastically deformable component 8 is operative in the joint 4, in that a horizontally active force component is operative on the edge 2 of the floor covering 3. The finished joint 4 is actively pressed open, as equal, however, opposite forces, as represented by arrows 18, effect on the edge 2 of the floor covering 3 and the wall. In this case, the force exertion on the wall 5 is indirect, as the elastically deformable component 8 as such does not come into contact with the wall 5, however, this force is transferred via the actual profile or first part 6 to the wall 5. In this case, the force exertion on the edge 2 of the floor covering 3 in fact is direct.

[0035] From figure 4, it also becomes clear that the herein represented profile 1 can be applied without additional attachment means. Further, it is clear that the figures 2 through 4 also form an illustration of the method mentioned in the introduction.

[0036] Figure 5 shows that possibly, two of such profiles 1 can be formed during the same extrusion treatment. Afterwards, they then have to be separated, either during the manufacturing thereof, or during the installation thereof, according to the represented line 19.

[0037] Figure 6 represents another example of such semi-finished product, wherein said first parts 6 are oriented or approximately oriented with their decor sides 20

in the same plane. Such arrangement allows at simpler application of a possible decorative layer on the decor sides 20. This application preferably is performed prior to the separation of the two profiles 1.

[0038] It is clear that all profiles 1 having the characteristics of the invention can be provided with a decorative layer 16 at their decor side 20 or decorative side. Such decorative layer 16 may comprise, for example, a laminate layer, a veneer layer or a foil. Of course, it is also possible to work without a separate decorative layer.

[0039] Further, it is clear that the figures 1 to 4 represent the implementation of the invention with a so-called end profile.

[0040] Figure 7 represents the implementation of the invention with a so-called expansion profiles, wherein in this case two elastically deformable components 8 are used, which both are connected to the second part 7 of the profile 1 and come into contact with a different edge 2 of the floor covering 3 in order to tension the profile in this manner actively in the expansion joint 4. It is noted that in an expansion profile, such tensioning can also be achieved when only one elastically deformable component 8 is applied. Preferably, the expansion profile then contacts one edge 2 with the elastically deformable component 8 and another edge 2 with a not or hardly deformable component thereof. Such profile is not represented here.

[0041] Figure 8 represents still another variant of a profile 1 according to the invention. Here, again an end profile is concerned. The respective variant shows two particularities, which can be applied, whether or not in combination, with all profiles 1 of the invention. According to a first particularity of the embodiment in figure 8, the profile 1 comprises an elastically deformable component 8, wherein the elasticity thereof substantially is obtained by the geometry of the second part 7. To this aim, the second part 7 is provided with a hollow chamber 21, which allows the deformation of the elastic component 8. It is noted that the connection leg 22 at the underside 12 of the second part 7 possibly may be omitted, wherein as well as profile 1 with the characteristics of the invention would be obtained. According to a second particularity, the decorative covering 16 of the profile 1 from figure 8 is made with an excess part 23, which can be provided against the wall 5.

[0042] Figure 9 represents another variant of a profile 1 according to the invention. Herein, this relates to a so-called scotia. Of course, the profile 1 of the invention also can be made as a skirting or quarter round. In dashed line 25, figure 9 represents another variant of the invention, wherein the actual profile or the actual skirting board, or, in other words, the actual first part 6, is attached onto the actual second part 7. In this case, for this purpose a detachable mechanical connection is applied. The represented connection relates to a so-called snap connection; however, other connection types of course are not excluded. By means of such arrangement is obtained that the actual first part 6 can be attached at choice either

in a classical manner, or by means of the actual second part 7. It is also obtained that the same actual second part 7 can cooperate with various different actual first parts 6, for example, with an actual first part 6 in the form of an end profile, skirting board, scotia, quarter round or the like.

[0043] It is clear that figure 9 with the dashed line 25 forms an illustration of the particular variant of the invention mentioned in the introduction.

[0044] Figure 10 represents another variant, wherein the elastically deformable component 8 is not performed as a freely cantilevered extremity, but rather as a hinging material part. This hinge allows that the remaining material of the second part 7 can move around this hinge. In this manner, with such profile 1, in a similar manner as in figures 2 to 4, a tensioning of the profile 1 in a joint 4 can be achieved.

[0045] Figure 11 represents an actual second part 7 for composing a profile 1 according to the particular variant mentioned in the introduction. The second part 7 is performed as a discrete element, wherein a plurality of such elements are provided along the joint 4 to be finished, in order to cooperate with one profile or actual first part 6. The actual second part 7, represented here, is manufactured substantially or even entirely from steel, such as spring steel, by means of one or more folding and/or cutting and/or stamping treatments. The element represented here is obtained in one piece from the same sheet material and consists of a central section 26, two arms 27, each consisting of two sections 28-29, and a lying part 30. In this case, the elastic deformability is obtained by means of the specific shape of the arms 27, which form the elastically deformable component 8 which is required according to the invention. Here, namely, a springy action between the extreme sections 29 of the arms 27 and the central section 26 is provided. Of course, such springy sections or arms 27 can be made in any form. Preferably, they comprise at least two sections 27-29, which extend in substantially parallel planes and between which there is a springy action. Preferably, these two sections 27-29 are connected to each other via at least a third section 28, wherein this third section 28 extends in a plane intersecting said parallel planes.

[0046] Figure 12 represents that the actual profile or first part 6, and the actual second part 7 are formed as separate components, wherein these two parts can be connected to each other via a mechanically detachable connection 31. Herein, this relates to a connection 31 by means of a so-called snap coupling, which is situated on the lying part 30 of the actual second part 7. Figure 12 further represents that for the installation, the actual second part 7 is provided in the joint 4 to be finished, wherein the central section 26 preferably is directed towards the wall 5 or is in contact therewith, whereas the extreme sections 29 of the arms 27 preferably are directed towards the edge 2 of the covering 3 or are in contact therewith. The lying part 30 is provided at least partially on the floor covering 3. Then the actual profile, which comprises

a matching profiled part 32, is attached thereto, i.e. snapped or clicked thereon.

[0047] Figure 13 represents the completely installed condition of the profile 1 of the invention according to the particular variant mentioned in the introduction. It is possible to design the snap coupling such that it actively pulls the actual profile or first part 6 against the floor covering 3 and/or the wall 5.

[0048] Figure 14 represents another actual second part 7 for an embodiment according to the particular variant of the invention mentioned in the introduction. The second part 7 is made as a discrete element, wherein a plurality of such elements is provided along the joint 4 to be finished in order to cooperate with one profile or actual first part 6. The actual second part 7, represented here, is substantially or even completely manufactured of steel, such as spring steel, by means of one or more folding and/or cutting and/or stamping treatments. The element represented here is obtained in one piece from the same sheet material and substantially consists of a central springy part 33, a lying part 30 with a snap coupling 31 and two extreme sections 29.

[0049] Figure 15 represents that the actual second part 7 of figure 14, when being installed, pushes itself with said extreme sections 29 off the wall 5. Just as with figures 11 to 13, here a springy action between the extreme sections 29 and the central springy part 33 or elastically deformable component 8 of the actual second part 7 is provided. The snap coupling 31 shows the same construction as the snap coupling from figures 11 to 13 and is provided on the lying part 30. In installed condition, the lying part 30 is situated at least partially on the floor covering 3 to be finished.

[0050] In general, it is also noted that by an elastically deformable component, a component is meant which, with a same applied force, allows for a higher elastic deformation than said first and second parts. In this manner, it can be achieved that, when installing the profile 1, this respective component deforms earlier than other parts of the profile 1. Said other parts of the profile 1 preferably are free from deformation or noticeable deformation with a normal usage of the profile.

[0051] Further, it is noted that the profiles illustrated in the figures can cooperate with floor coverings of different thickness without adapters or other measures being necessary for this purpose. Preferably, such profile can cooperate with at least two floor coverings, wherein the difference in thickness is at least 3 millimeters. For example, a profile may be offered which can cooperate with floor coverings which show any thickness situated between 7 and 10 mm. Still better, such profile can cooperate with at least two floor coverings, wherein the difference in thickness is at least 6 millimeters. For example, a profile can be offered which can cooperate with floor coverings showing any thickness situated between 6 and 12 mm.

[0052] In figure 5, further it is also represented that the semi-finished product mentioned there can be provided with a notch 24, which assists in separating the semi-

finished product into two profiles 1. Possibly, such separation then can be performed simpler by means of simple tools or by hand.

[0053] The present invention is in no way limited to the embodiments described herein above; on the contrary, such profiles may be realized according to various variants without leaving the scope of the present invention.

10 Claims

1. Profile for finishing a joint (4) in a floor covering (1), wherein this profile (1) consists at least of two parts (6-7), namely, a first part (6) which can be provided above the edge (2) of the floor covering (3) and thereby covers said joint (4) at least partially, and a second part (7) which can be provided in said joint (4) for attachment of the profile (1), **characterized in that** an elastically deformable component (8) is connected to the profile (1), more particularly to said second part (7), wherein this elastically deformable component (8) is operative in said joint (4).
2. Profile according to claim 1, **characterized in that** said elastically deformable component (8) is made in one piece with said second part (7).
3. Profile according to claim 1 or 2, **characterized in that** said elastic deformability is obtained at least **in that** this component (8) consists of an elastic material.
4. Profile according to any of the preceding claims, **characterized in that** said elastic deformability is obtained at least **in that** this component (8) is made as a flange, which is connected with one extremity (9) to said second part (7), however, cantilevers freely at another extremity (10).
5. Profile according to claim 4, **characterized in that** said freely cantilevered extremity (10), at the underside (12) thereof, comprises an inclined part or rounded part (13).
6. Profile according to any of the preceding claims, **characterized in that** at least said first part (6) and second part (7) are obtained by means of the same extrusion treatment.
7. Profile according to any of the preceding claims, **characterized in that** at least the second part (7) and said elastically deformable component (8) connected thereto are obtained by means of the same extrusion treatment.
8. Profile according to any of the claims 1 to 3, **characterized in that** said first part (6) and said second part (7) are performed as separate components,

which can be connected to each other via a mechanically detachable connection (31).

9. Profile according to any of the preceding claims, **characterized in that** the second part (7) is performed as a plurality of discrete elements, which are provided along the length of the joint (4) to be finished and cooperate with only one actual first part (6). 5
10. Profile according to any of the preceding claims, **characterized in that** said elastically deformable component (8) extends substantially over the entire length (L) of said second part (7), and this preferably uninterruptedly or substantially uninterruptedly. 10
15
11. Profile according to any of the preceding claims, **characterized in that** said profile (1) can be applied for finishing a joint (4) in a floor covering (3), without additional attachment means. 20
12. Profile according to any of the preceding claims, **characterized in that** this relates to an end profile, a skirting board or an expansion profile.
13. Profile according to any of the preceding claims, **characterized in that** said elastically deformable component (8) relates to a hingeable material part, around which the second part (7) can move. 25
14. Profile according to any of the preceding claims, **characterized in that** said elastically deformable component (8) in its final position in the joint (4) is deformed and in this manner results in a tensioning of the profile (1) or the actual second part (7) in the joint (4). 30
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15. Profile according to claim 14, **characterized in that** the profile relates to an end profile and that said tensioning results in preventing the occurrence of gaps between said wall (5) and the profile (1). 40

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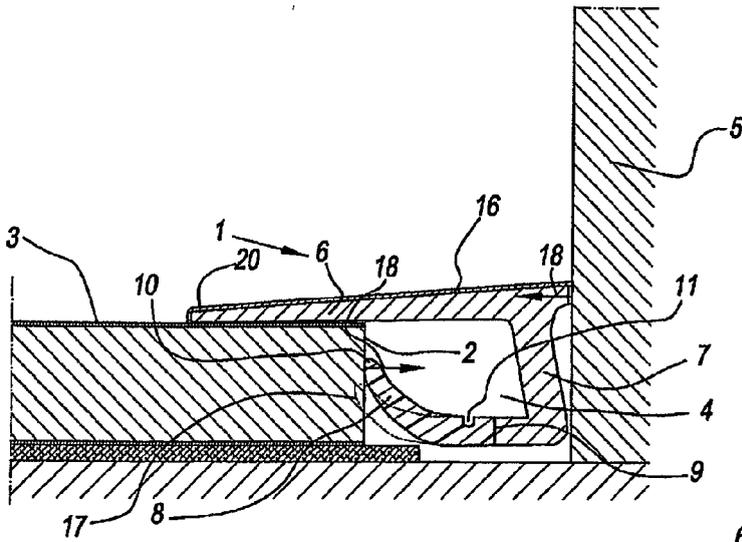


Fig. 4

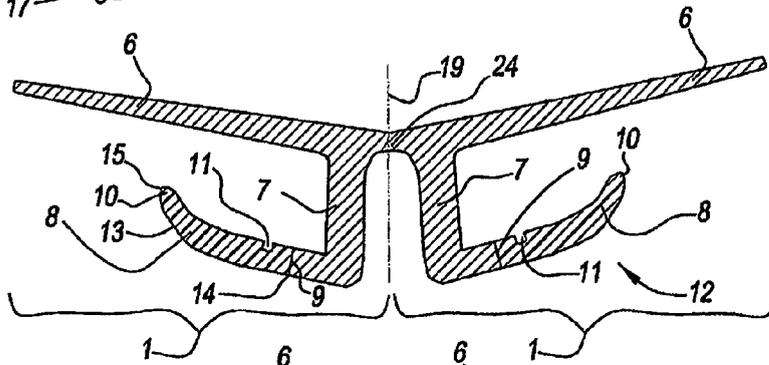


Fig. 5

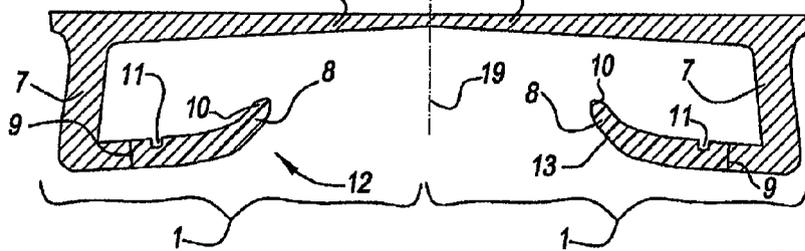


Fig. 6

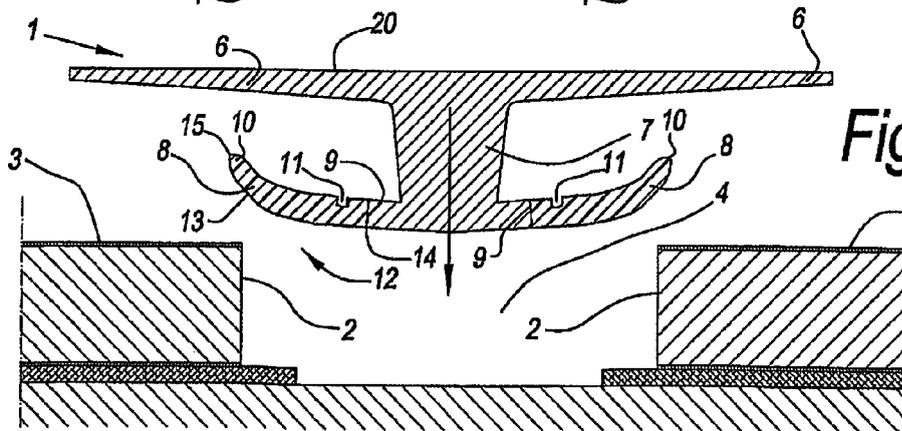


Fig. 7

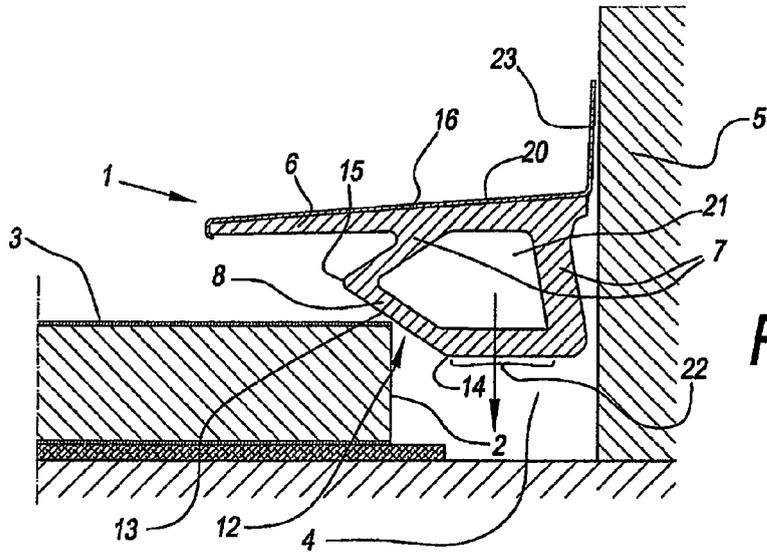


Fig. 8

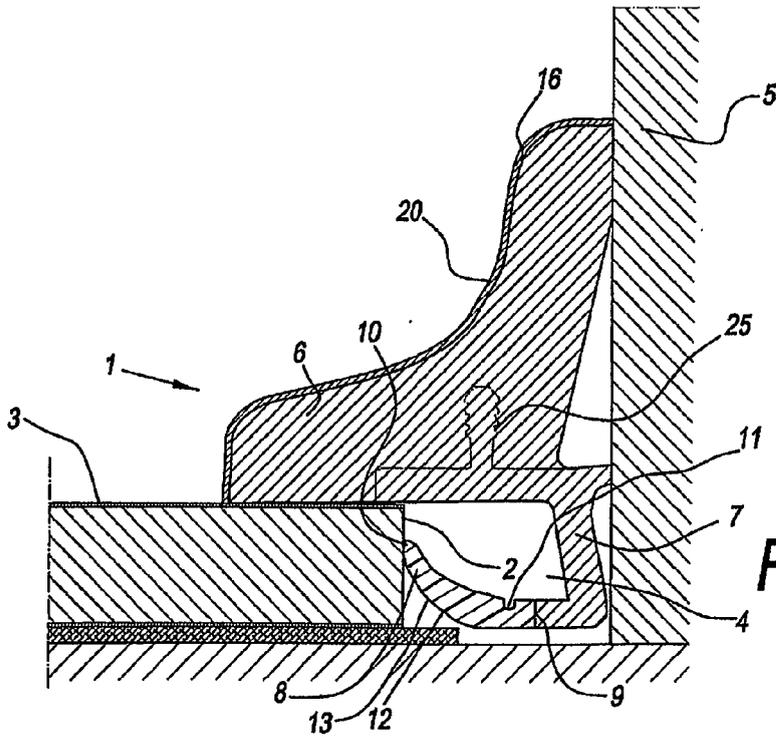


Fig. 9

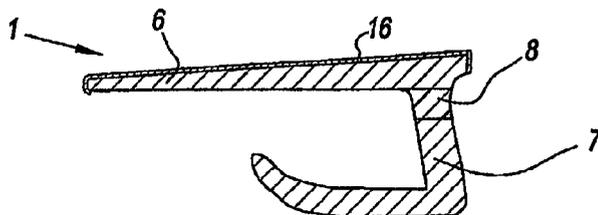


Fig. 10

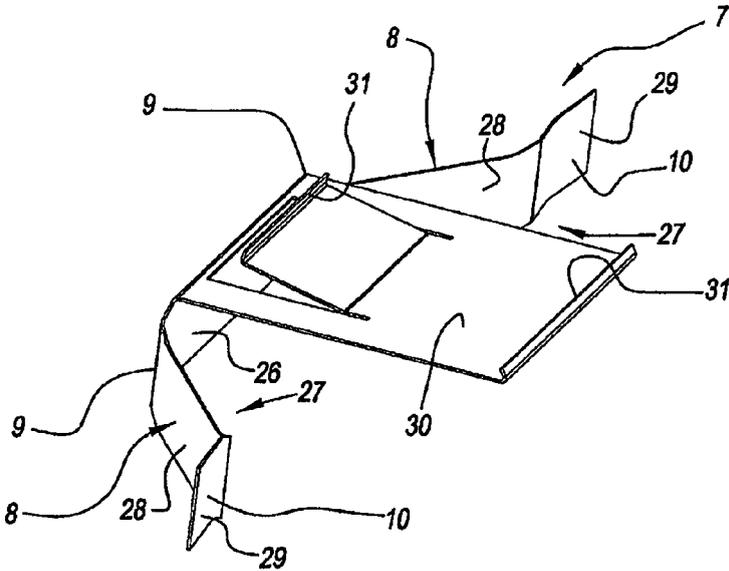


Fig. 11

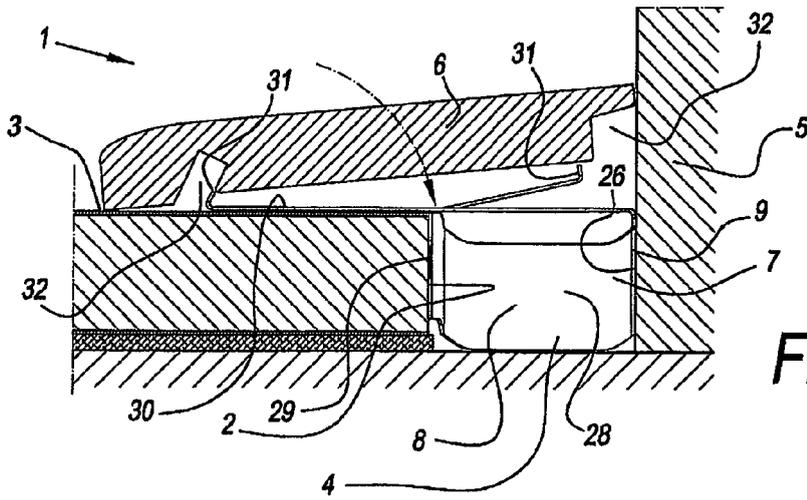


Fig. 12

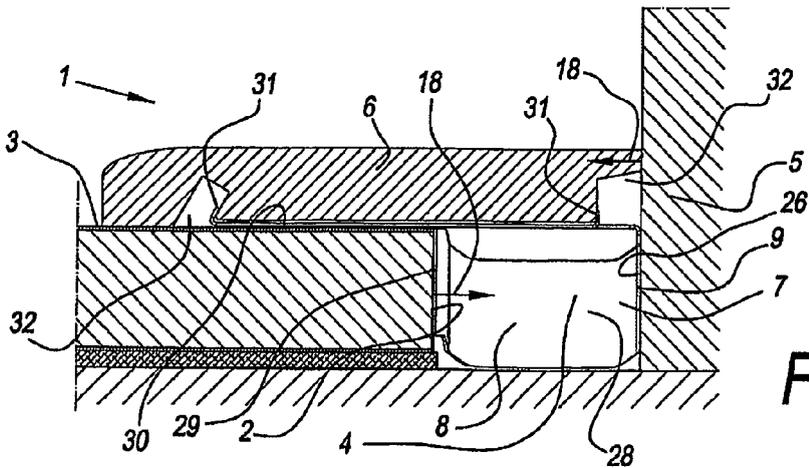


Fig. 13

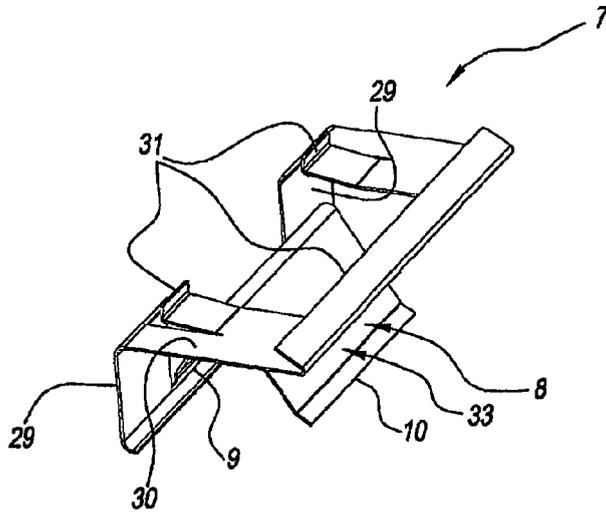


Fig. 14

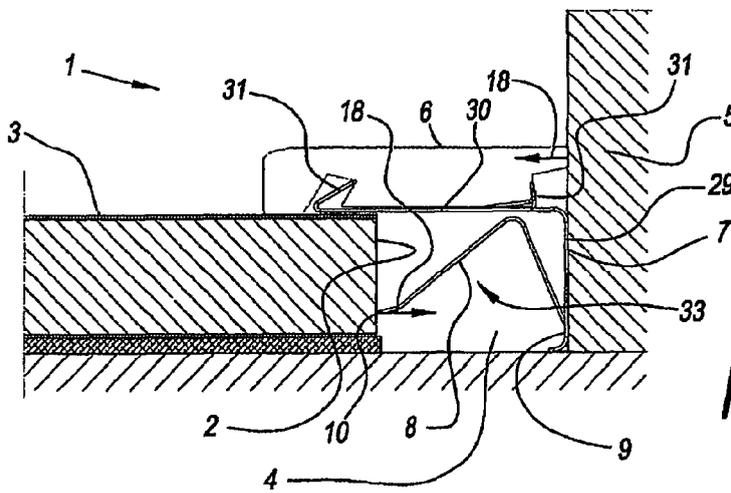


Fig. 15



EUROPEAN SEARCH REPORT

Application Number
EP 10 00 9024

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2008/005993 A1 (SU TONG [CN]) 10 January 2008 (2008-01-10) * page 1, paragraphs 15,22 * * page 2, paragraphs 27,50 * * page 3, paragraph 54; figures 1-3 * * page 4, paragraph 72; figures 1,4-7 * -----	1,3, 8-12,14, 15	INV. E04F19/04 E04B1/68 E04F19/06
X	DE 44 45 026 A1 (JOHANNBOEKE JOERG [DE]) 20 June 1996 (1996-06-20) * figures 1,4,5,6,7,8 * -----	1-7, 10-15	
X	US 2 230 688 A (IRWIN GAVOTTE J) 4 February 1941 (1941-02-04) * figures 1-5 * -----	1-3,6,7, 10-15	
X	DE 101 61 099 A1 (BELLGARDT ROBERT [DE]) 18 June 2003 (2003-06-18) * figure * * -----	1-5,8, 11,12, 14,15	
X	US 6 219 982 B1 (EYRING KURT S [US]) 24 April 2001 (2001-04-24) * figures 1,2,7,9,10 * -----	1-7, 9-12,14, 15	TECHNICAL FIELDS SEARCHED (IPC) E04F E04B E06B A47K
X	US 5 065 960 A (CASTELLUCCI NICHOLAS T [US]) 19 November 1991 (1991-11-19) * figures 2,3,4,11-13 * -----	1-15	
X	US 4 555 885 A (RAYMOND RONALD P [US] ET AL) 3 December 1985 (1985-12-03) * figures 1,2,3 * -----	1-5,7,8, 10-15	
X	WO 2006/032262 A1 (JOECKS MARTIN [DE]) 30 March 2006 (2006-03-30) * figures 1,3 * -----	1,8,9, 11-15	
		-/--	
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 December 2010	Examiner Severens, Gert
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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EPO FORM 1503 03.82 (P04C01)



EUROPEAN SEARCH REPORT

Application Number
EP 10 00 9024

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 101 07 864 A1 (ERNST RUESCH GMBH [DE]) 30 August 2001 (2001-08-30) * figures 1,2 * -----	1-5,8,9, 11,12, 14,15	
			TECHNICAL FIELDS SEARCHED (IPC)
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 14 December 2010	Examiner Severens, Gert
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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EPO FORM 1503 03 82 (P04G01)

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 10 00 9024

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14-12-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008005993 A1	10-01-2008	WO 2008000136 A1	03-01-2008
DE 4445026 A1	20-06-1996	NONE	
US 2230688 A	04-02-1941	NONE	
DE 10161099 A1	18-06-2003	NONE	
US 6219982 B1	24-04-2001	NONE	
US 5065960 A	19-11-1991	NONE	
US 4555885 A	03-12-1985	NONE	
WO 2006032262 A1	30-03-2006	DE 102004046588 B3 DE 112005002915 A5	04-05-2006 30-08-2007
DE 10107864 A1	30-08-2001	AT 266782 T EP 1233119 A2 ES 2219587 T3 US 2002112431 A1	15-05-2004 21-08-2002 01-12-2004 22-08-2002

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- EP 1310613 A [0008]
- WO 03040492 A [0008]
- WO 9612857 A [0008]
- US 6550192 B [0008]
- DE 19854452 [0008]
- DE 9301719 [0008]
- DE 20320273 [0008]
- WO 2006074824 A [0008]
- BE 531292 [0008]
- WO 9747834 A [0009]
- US 2008005993 A [0010]
- DE 20106575 U1 [0010]