



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
29.09.2010 Bulletin 2010/39

(51) Int Cl.:
E04F 19/06^(2006.01)

(21) Application number: **10003205.1**

(22) Date of filing: **25.03.2010**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR
Designated Extension States:
AL BA ME RS

(30) Priority: **27.03.2009 GB 0905336**
27.03.2009 US 163902 P

(71) Applicant: **Pergo (Europe) AB**
231 25 Trelleborg (SE)

(72) Inventor: **Kornfalt, Sven**
21620 Malmö (SE)

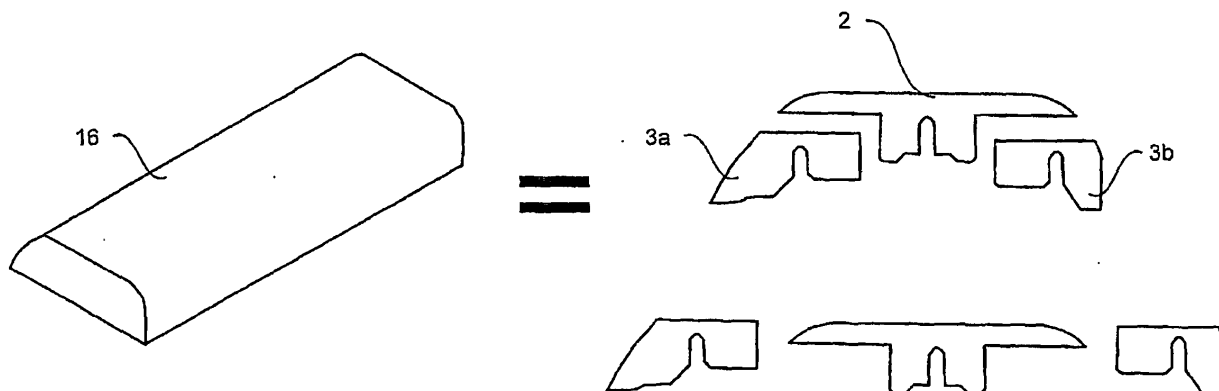
(74) Representative: **Müller-Gerbes Wagner Albiger Patentanwälte**
Friedrich-Breuer-Strasse 72-78
53225 Bonn (DE)

(54) **Joint cover assembly and kit comprising this joint cover assembly as well as installation method therefor**

(57) The invention relates to a joint cover assembly (2) for covering a gap between two floor elements covering a subsurface, the assembly comprising a first molding element (16) comprising an upper section having an exposed surface, the exposed surface comprising a décor, and a foot depending therefrom, wherein the foot has a gripping groove extending towards the exposed surface and being defined by two side walls; and a second molding element comprising an upper surface and a lower surface, to be joined to the first molding element, as well as an exposed surface comprising a décor, wherein the lower surface has a groove extending to-

wards the upper surface and being defined by two side walls; **characterised in that** the joint cover assembly furthermore comprises a track having two upstanding sections, wherein the distance between the upstanding sections corresponds substantially to the width of the foot and also to the distance between a gripping groove's side wall and a proximal side wall of the second molding element's groove. Furthermore, the invention relates to a kit comprising such joint cover assembly. Finally, the invention relates to a method of covering a sub floor adjacent a floor element by using this joint cover assembly or this kit.

Fig. 3



Description

1. Field of the Invention

[0001] The invention is a joint cover assembly that includes a molding, similar to a transition molding between two separate parts, such as a T-Molding, for covering a gap that may be formed between adjacent panels in a generally planar surface, such as between two adjacent flooring or wall or ceiling materials; or between a floor and a hard surface or carpet, or even a riser and a runner in a step (or a series of steps).

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2. Background of the Invention

[0002] Hard surface floors, such as wood (solid or engineered) or laminate flooring have become increasingly popular. As such, many different types of this flooring are assembled by providing a plurality of similar panels. The differing types of panels that have developed, of course, may have differing depths and thicknesses. The same is true when a laminate floor (often referred to as "floating floor") abuts another hard surface, such as a resilient surface (such as vinyl), tile or another laminate surface; a ceramic surface, or other surface, e.g., natural wood flooring. Thus, when laminate panels having different thicknesses or different floor covering materials are placed adjacent to a laminate floor, transition moldings are often used to create a transition between the same.

[0003] Additionally, one may desire to install floor panels adjacent to an area with different types of material. For example, one may desire to have one type of flooring in a kitchen (e.g., solid wood, resilient flooring, laminate flooring or ceramic tile), and a different appearance in an adjacent living room (e.g., linoleum or carpeting), and an entirely different look in an adjacent bath. Therefore, it has become necessary to develop a type of molding or floorstrip that could be used as a transition from one type of flooring to another,

[0004] A problem is encountered, however, when flooring materials that are dissimilar in shape or texture are used. For example, when a hard floor is placed adjacent a carpet, problems are encountered with conventional edge moldings placed therebetween. Such problems include difficulty in covering the gap that may be formed between the floorings having different height, thickness or texture.

[0005] Moreover, for purposes of reducing cost, it is important to be able to have a molding that is versatile, having the ability to cover gaps between relatively coplanar surfaces, as well as surfaces of differing thicknesses.

[0006] It would also be of benefit to reduce the number of molding profiles that need to be kept in inventory by a seller or installer of laminate flooring. Thus, the invention also provides a method by which the number of moldings can be reduced while still providing all the functions nec-

essary of different styles transition moldings.

3. Summary of the Invention

[0007] The invention is a joint cover assembly for covering a gap between edges of adjacent floor elements, such as floor panels of laminate or wood, although it may also be used as a transition between a laminate panel and another type of flooring, e.g., carpet, linoleum, ceramic, wood, etc. The assembly typically includes a body having a foot positioned along a longitudinal axis, and a first arm extending generally perpendicularly from the foot. The assembly may include a second arm also extending generally perpendicular from the foot. Securing elements are provided to secure attachments to the at least one of the first and second arms. These securing elements may take the form of adhesive. Although not preferred, the securing elements may also be in the form of a tab, which may be provided on at least one of the first or second arms, displaced from, or adjacent, the foot, extending generally perpendicularly from the arm.

[0008] The outward-facing surface of the assembly may be formed as a single, unitary, monolithic surface that covers both the first and second arms. This outward-facing surface may be treated or untreated, for example, with a laminate or a paper, such as a decor, impregnated with a resin, in order to increase its aesthetic value, or blend, to match or contrast with the panels. Preferably, the outward facing surface has incorporated therein a material to increase its abrasion resistance, such as hard particles of silica, alumina, diamond, silicon nitride, aluminum oxide, silicon carbide and similar hard particles, preferably having a Moh's hardness of at least approximately 6. This outward-facing surface may also be covered with other types of coverings, such as foils (such as paper or thermoplastic foils), paints or a variety of other decorative elements.

[0009] The assembly is preferably provided with a securing means to prevent the assembly from moving once assembled. In one embodiment, the securing means is a clamp or track, designed to grab the foot. In a preferred embodiment, the clamp or rail may be joined directly to a subsurface below the floor element, such as a subfloor, by any conventional means, such as a nail, screw or adhesive.

[0010] A shim may also be placed between the foot and the subfloor. In one embodiment, the shim may be positioned on the underside of the clamp; however, if a clamp is not used, the shim may be positioned between the foot and the subfloor. The shim may be adhered to either the foot or subfloor using an adhesive or a conventional fastener, e.g., nail or screw.

[0011] The assembly may also include a second molding element, for example, in the form of a leveling block or reducer positioned between at least one of the first and second arms and the adjacent floor. The leveling block generally has an upper surface that is adjacent the arm, and a bottom surface that abuts against the adjacent

floor when assembled. In a preferred embodiment, the leveling block has a channel or groove formed in an upper surface, configured to receive the tab on the arm. The particular size of the leveling block is often chosen to conform essentially to the difference in thicknesses between the first and second panels. The exposed surfaces of the leveling block are typically formed from a variety of materials, such as a carpet, laminate flooring, ceramic or wood tile, vinyl, turf, paper, natural wood or veneer, vinyl, wood, ceramic or composite finish, or any type of covering, while the interior of the leveling block is generally formed from wood, fiberboard, such as high density fiberboard (HDF) or medium density fiberboard (MN), plastics, or other structural material, such as metals or composites, at least over a portion of the surface thereof may be covered with a paint, stain, foil, a plastic, a paper, a décor or a laminate to match or contrast with the first and second arms. The leveling block additionally facilitates the use of floor coverings having varying thicknesses when covering a sub-floor. The leveling block helps the molding not only cover the gap, but provide a smoother transition from one surface to another.

[0012] Alternatively, when the tab is used, the tab may be positioned to slidably engage the edge of a panel when no leveling block is used. A lip may additionally be provided and positioned on the tab in order to slidably engage a protuberance, adjacent an upper edge of the clamp, in order to retain the assembly in its installed position.

[0013] The tab is preferably shaped as to provide forces to maintain the assembly in the installed position. Thus, typically the tab may be frustum-shaped, (e.g., dove-tailed) with its narrow edge proximate the arm and the wider edge furthest from the arm. Additionally, the tab may be lobe shaped, having a bulbous end distal from the arm. In another embodiment, only one side of the tab need be tapered (e.g., half dove-tailed). Of course, any suitable shape is sufficient, as long as the engagement of the tab and groove can provide enough resistive forces to hinder removal of the installed assembly. By forming a suitable groove in the leveling block, the tab can help to secure the assembly in place. Typically, a corresponding groove, having a similar shape as the tab is included in the leveling block or reducer, e.g., having its wider base distal the arm and its narrower opening proximate the arm. It is to be understood by those skilled in the art that although the description throughout this specification is that the position of the tab is on the at least one of the first and second arms, and the groove is on the attachment, e.g., leveling block, the relative position of the tab and groove can be reversed.

[0014] The assembly may additionally be used to cover gaps between tongue-and-groove type panels, such as glue-less laminate floor panels. In addition to the uses mentioned above, the tab may also be designed to mate with a corresponding channel in the panel, the edge of one of the flooring elements, or may actually fit within a grooved edge. In order to better accommodate this type

of gap, a second tab may be positioned to depend from the second panel engaging surface.

[0015] An adhesive, such as a glue, a microballoon adhesive; contact adhesive, or chemically activated adhesive including a water-activated adhesive, may be also positioned on the abutting surfaces of the first molding element and the second molding element, on the tab, in the groove, on the foot, and on at least one of the arms. Of course, such an adhesive is not necessary, but may enhance or supplement the fit of the assembly over the gap between the floor elements. Additionally, the adhesive may assist in creating a more air-tight or moisture-tight joint.

[0016] The assembly may be used in other non-coplanar areas, such as the edge between a wall and a floor, or even on stairs. For example, the assembly may include the first and second arms, and foot as described above, but instead of transitioning between two floor elements placed in the same plane, may form the joint between the horizontal and vertical surfaces of a single stair element,

[0017] The inventive assembly may be used for positioning between adjacent tongue-and-groove panels; in this regard, the assembly functions as a transition molding, which provides a cover for edges of dissimilar surfaces. For example, when installing floors in a home, the assembly could be used to provide an edge between a hallway and a bedroom, between a kitchen and living or bathroom, or any areas where distinct flooring is desired. Additionally, the assembly may be incorporated into differing types of flooring, such as wood, tile, vinyl, carpet, or turf.

[0018] The invention also relates to an inventive method of covering a sub floor adjacent a floor element by use of the inventive joint cover assembly or a kit comprising the joint cover assembly and a corresponding track for affixing the joint cover assembly to a sub floor.

[0019] US 2007/024566281 describes a joint cover assembly as well as a method for its installation, wherein the distinct molding elements of the joint cover assembly have a décor on their exposed surfaces and wherein the décor of the distinct exposed surface match. The whole content of US 2007/024566281 is incorporated herein by reference.

[0020] Conventionally, such joint cover assemblies and in particular its distinct parts are formed from at least two precursors or blocks which are each, typically, wrapped with a laminate. From the first block, the first molding element, i.e. the T-part, is milled, wherein the second molding element, i.e. the counterpart of the first molding element, is milled from a second block. Although not preferred, the joint between the first and second molding elements is achieved by a tongue-and-groove joint between the first and second molding elements. Subsequently, this joint cover assembly is typically affixed to the subfloor by use of a track in which engages at least the foot of the first molding element. This, however, requires a complex shape of the distinct molding elements

to be joined to each other. Furthermore, the tongue for the tongue-and-groove joint between the first and second molding element is generally manually removed in cases when the first molding element is used for the transition between a floor element and a adjoining carpet.

4. Object of the invention

[0021] It was, therefore, an object of the invention to provide a joint cover assembly for covering a gap between two floor elements covering a sub surface having a simple shape and structure, furthermore allowing for an improved and simplified fixation to the sub floor.

[0022] This object of the invention is achieved by the joint cover assembly having the features of claim 1 as well as by the kit having the features of claim 17 and the method having the features of claim 19.

[0023] Other objects, features and advantages of the present invention will become apparent from the following detailed description. It should be understood, however, that the detailed description and the specific examples, while indicating preferred embodiments of the invention are given by a way of illustration only, since various changes and modifications within the scope of the invention being defined by the claims will become apparent to those skilled in the art from this detailed description.

[0024] The joint cover assembly according to the invention provides for an improvement as to the joint of the distinct molding elements to each other by, firstly, providing a gripping groove within the first molding element's foot, and, secondly, by adjusting the dimension of the foot and/or the position and dimension of the gripping groove as to correspond to the distance between a gripping groove's side wall and a proximal side wall of the second molding element's groove.

[0025] Due to this shape and the corresponding distances, it is possible to achieve the joint of the joint cover assembly by an engagement of a track only, which in turn is also able to accommodate the foot of the first molding element if the first molding element is used exclusively.

[0026] This leads to the advantageous effect that a tongue-and-groove joint between the first and second molding element as known from US 2007/0245662 is not required anymore. Furthermore, the tongue provided at least one of the first molding element's section extending perpendicular to its foot does not have to be removed manually if the first molding element is used on its own, without cooperating with a second molding element. Additionally, because of the invention as described herein, only one single track dimension is sufficient in order to allow for a fixation of the joint cover assembly itself, and for fixing the joint cover assembly or the first molding element only on the sub surface. Finally, due to the less complex shape of the first and second molding elements in view of the structure known from US 2007/0245662, it is possible for the first time to provide for a production setup in which one single block is wrapped with the same

decorative material, laminate, vinyl, foil, pane, etc., and that all elements of the joint cover assembly according to the invention, i.e. the first molding element as well as at least one further second molding element, can be milled from this one single block. This, of course, provides for the effect that the décor on top of the exposed surfaces of the distinct elements certainly match.

[0027] The gripping groove within the foot does not have to be necessarily positioned in the center of the groove. In a preferred embodiment of the invention, however, it is in fact disposed in the center of the foot, thus giving the opportunity that if the external dimension of the foot corresponds to the distance of two adjacent groove side walls of the first and second molding element, the second molding element can be fixed on both sides of the foot by using tracks having the same dimensions. Therefore, as used throughout the specification and claims, "central" means only "disposed somewhere between opposite ends", and is not required to be in the exact middle.

[0028] Preferably, the gripping groove within the foot of the first molding element comprises a base portion having an enhanced width or distance between its side walls, wherein this base portion extends along a partial length of the groove. This advantageously provides for a recess of for instance a screw or nail head to be inserted through a track and possibly protruding from a track's base portion into the groove. The foot itself could then be inserted into such track without any clearance or gap due to a protruding fixing element.

[0029] Actually, the joint cover assembly according to the invention may preferably have a shape selected from the group consisting of a transition molding, a hard surface reducer, a carpet reducer an end molding, and a thus providing for the most common applications of joint cover assemblies in the field of covering a gap between two floor elements covering a sub surface.

[0030] In a preferred embodiment of the invention, the second molding element is sized and shaped to form one shape selected from the above-mentioned group, so that the invention advantageously provides for a joint cover assembly having an equally shaped first molding element, and a second molding element being different for the distinct applications, i.e. for a transition molding, a hard surface reducer, a carpet reducer, and a stair nose.

[0031] In a particularly preferred embodiment of the invention, the joint cover assembly has a first and second molding element being sized and shaped in the manner explained above, and joined to the first molding element in a first orientation, as well as a second, different, second molding element selected from the group consisting of a transition molding, a hard surface reducer, a carpet reducer, and a stair nose when joined in a second orientation to the first molding element. The joint cover assembly is, thus, able to be used in all usual applications.

[0032] As already mentioned above, the joint cover assembly according to the invention comprises a track joining the assembly, and preferably fixing the assembly to

the sub surface. In a particularly preferred manner, this track comprises a bottom section to be fixed to the sub surface, and two upstanding sections, for instance two substantially parallel side arms, having a distance corresponding substantially to the width of the foot and also to the distance between a gripping groove's side wall and a proximal side wall of the second molding element's groove. Preferably, the distance between the two upstanding sections of the track corresponds to the external dimension of the first molding element's foot. As used herein, "substantially" means +/- up to 5%, as it is often desirable, depending upon the material being used, to have the width between the upstanding sections of the track be slightly less than the width of the foot to provide a biasing force to grip the foot. Additionally, the upstanding sections need not be parallel to each other or perpendicular to the base section, as long as such upstanding sections extend away from the base section.

[0033] In any case, the track can be used as a recess for the first molding element's foot, or, alternatively, as a recess for the adjacent sidewalls of a joint first and second element of the joint cover assembly according to the invention. Most preferably, the second molding element is then joined to the first molding element via this track only, thus without the need for further adhesive between the two molding elements, or a tongue-and-groove joint between the distinct molding elements, as for instance known from US 2007/0245662.

[0034] In a further preferred embodiment of the invention, each of the exposed surfaces of the first and second molding element of the joint cover assembly according to the invention independently comprise a material selected from the group consisting of an abrasion resistant laminate and a foil. More preferably, each of the exposed surfaces of the first and second molding elements comprise an abrasion resistant laminate.

[0035] In a further preferred embodiment of the invention, at least one of the first molding element and the second molding element further comprise a core upon which the exposed surface is affixed, the core comprising at least one material selected from the group consisting of plywood, solid wood, particle board, fiber board, strand board, metal, plastic and composite. This is in particular suitable for applications in which, as already discussed above, the distinct molding elements are milled from one block wrapped with a laminate.

[0036] The core structure of the distinct components of the joint cover assembly according to the invention may be formed from a core material. Typical core material include wood-based products, such as high density fiber board (HDF), medium density fiber board (MDF), particle board, strand board, plywood and solid wood; polymer-based products, such as polyvinylchloride (PVC), thermoplastics or thermosetting plastics or mixtures of plastic and other products, including the reinforcement; and metals, such as aluminium, stainless steel, brass or copper. The various components of the invention are preferably constructed in accordance with the method disclosed by

US application No. 08/817,391, as well as US application No. 10/319,821, each of which is herein incorporated by reference in its entirety.

[0037] The resulting products typically have a durability rating as defined by European producers of laminate flooring. Such a product can have a durability rating of anywhere from AC 1 to AC 6. Preferably, the product of this invention has a rating of either AC 3 or AC 5.

[0038] Preferably, the first molding element comprises a general T-shape, wherein the foot depends generally perpendicularly from a longitudinal axis of the upper section. The first molding element may be provided with a first arm and a second arm extending in a single plane generally perpendicular to the foot. Preferably, the foot, the first arm and the second arm form a general T-shape, with the arms forming the upper structure and the foot forming the lower structure. Although the foot is preferably positioned at a central axis of the first molding element, it may also be preferable to vary the position of the foot "off center" with respect to the first and second arms. For example, the foot may be placed at the midpoint or anywhere in between, thus deviating from a symmetrical shape.

[0039] Furthermore, the first molding element need not form a true right angle with its foot. For example, the transition from a respective outstretched arm to a foot may be achieved by one or more rounded sections, or a plurality of straight sections. One or both transitions from the respective arms to the foot may be provided with a mangle.

[0040] In a second aspect according to the invention, a kit is provided, comprising the joint cover assembly according to the first aspect discussed in more detail above, and preferably means for affixing the joint cover assembly to a sub surface.

[0041] The kit may comprise screws and optionally a shim and/or a pad and/or adhesive. The kit, thus, provides for all usually required elements bringing the operator into a position to finally produce the joint cover assembly according to the invention, and to affix the joint cover assembly to the sub floor.

[0042] The kit may further include a second molding element in the form of a levelling block otherwise known in the art as reducer. When flooring elements are of different heights, the levelling block is positioned between either the first arm or the second arm of the first molding element as well as the sub floor. Preferably, the size of such levelling block is selected to correspond essentially to the difference in heights of the two flooring elements to be bridged by the joint cover assembly according to the invention.

[0043] However, if an adjustable pad is used, the particular height of the reducer is not particularly important. For example, if one flooring element is a ceramic tile, having a thickness of about 2 inches and the second flooring element is vinyl, having a thickness of ¼ inch, the levelling block would typically have a thickness of 1¾ inches to bridge the difference and be placed between a

first arm of the first molding element and the other flooring element.

[0044] Without the levelling block, a significant space would exist between the second flooring element and the first molding element, allowing for moisture and dirt to accumulate. While the difference in heights of the flooring elements is generally caused by difference and thickness between the two flooring elements, the present invention may also be used to "flatten out" in an even sub floor. In addition, a shim may be placed under the track to adjust for differences in floor thickness.

[0045] The track, in general a securing element, such as a metal track or rail, may be coupled to the sub floor by fasteners, such as truss or any conventional coupling method, such as nails or glue. The track and the foot of the first molding element are preferably cooperatively formed so that the foot can be inserted within the track without being removed. For example, the track may be provided with in-turned ends designed to grab the outer surface of the foot to resist separation in a vertical direction. Typically, the foot has a dove-tailed shape, having the shorter parallel edge joined to the arms of the first molding element. Furthermore, the track is a channelled element having a corresponding shape as to made with the foot and hold it in place. Finally, each of the T-element, mating section of the foot and/or the various grooves may be provided with notched or barbed edges to simultaneously assist in mating a resist disassembly.

[0046] The track may additionally be formed of a sturdy, yet pliable material that will outwardly deform as the foot is inserted, but will retain the foot therein. Such materials include, but are not limited to, plastic, wood/polymer composites, wood, and polymers. The track may additionally engage recesses in, for example, sides of the foot.

[0047] In a third aspect of the invention, it is provided a method of covering a sub floor adjacent a floor element, the method comprises providing a joint cover assembly according to the first aspect or a kit according to the second aspect, joining the first molding element to the second molding element with the exposed surface of the second molding element facing away from the first molding element, and affixing the joint cover assembly to the sub floor.

[0048] Even though the assembly according to the invention may function without any type of glue or adhesive, an alternative embodiment includes the placement of adhesive on the first and/or second molding element. The adhesive may be placed on the molding elements at the factory (for example, pre-glued). Alternatively, the glue may be applied while the floor elements are being assembled. The adhesive may be provided as a strip-type adhesive, but any type of adhesive, such as glue, chemical, or chemically-activated adhesive, water-activated adhesive, contact cements, micro balloon or macro balloon, encapsulated adhesive may be used.

[0049] The adhesive may be attached to any location where two pieces of the assembly are joined. Preferably,

adhesive is only applied to one of the arms of the first molding element in order to allow or accommodate some slight relative movement that may occur during changes of temperature, for example. This relative movement is known in the flooring art as "float". Allowing float may also eliminate unneeded material stresses as well, thereby reducing warping or deterioration of the material surface.

[0050] Typically, the adhesives used in the invention include a fresh adhesive, such as pergoglu (available from Perstorp AB of Perstorp, Sweden), water-activated dry glue, dry glue (needing no activation) or an adhesive strip with a peel-off protector of paper.

5. Brief description of the drawings

[0051] The invention will be explained in more detail with reference to a number of preferred embodiments illustrated in the attached drawings. These figures as well as the preferred embodiments therein are, however, only given for illustrative purposes, thus not being suitable to restrict or delimit the scope provided by the attached claims.

[0052] In the figures,

Fig. 1 shows a joint cover assembly according to the prior art in both a joined state and cross sections of a first and two alternative second molding elements,

Fig. 2 shows two blocks according to the prior art constituting a precursor material for the distinct molding elements,

Fig. 3 illustrates a block as a precursor material for a joint cover assembly according to the invention,

Fig. 4 illustrates a cross-sectional view of a first molding element according to the invention in cooperation with a track,

Fig. 5 illustrates three cross-sectional views of a joint cover assembly according to the invention joined via a track only.

6. Detailed description of the preferred embodiments

[0053] In Fig. 1, a joint cover assembly 1 according to U.S. Patent No. 6,860,047 and comprises a first, T-shaped molding element 2 as well as two different second molding elements 3a,3b, the first of which 3a is illustrated in a near joint position with respect to the first molding element 2. The first molding element 2 has two arms 4,5 being substantially in one plane and supporting the first molding element's exposed surface 6. Perpendicular to the first and second arm 4,5, the first molding element 2 comprises a foot 7 being disposed underneath the exposed surface 6. On the bottom side of the arm 5, a

tongue 8 is disposed, which is to cooperate with a corresponding groove 9 disposed within the second molding element 3a, or the groove 10 being disposed in the second molding element 3b. The foot 7 is to be inserted into a track 11 for fixation of the entire joint cover assembly to a sub surface (not shown). The first molding element 2 is disposed adjacent to a second molding element 3a substantially having the form of a quarter round molding. Instead of the molding element 3a, the first molding element 2 could also be joined to the second molding element 3b being in the form of a wall base molding. As shown in Fig. 1, the exposed surface 12 of the molding element 3a follows more or less a quarter circle and provides for a smooth transmission from the exposed surface 6 on top of the first molding element 2 to a sub surface being disposed adjacent to the entire joint cover assembly 1. In the wall base molding 3b, the exposed surface 13 comprises a first section being slightly inclined to the vertical direction, and a second section being vertically oriented, thus more or less perpendicular to the exposed surface 6 on top of the first molding element 2.

[0054] Fig. 2 illustrates two blocks 14,15 each being wrapped with a laminate. As shown in Fig. 2, the first block 14 is used as a precursor material for the first molding element 2 to be milled from block 14. The second block 15 is used as a precursor material for the two distinct second molding elements 3a,3b having the shape and dimension as already discussed in more detail with respect to Fig. 1. This production setup according to the prior art using two distinct blocks each wrapped with the same laminate is necessary due to the complex shape in particular of the arm's underside of the molding element 2 having the tongue 8 being positioned with its lower side facing away from the exposed surface 6. The second molding elements 3a,3b both provide for respective grooves 9,10 for engagement with the tongue 8 of the first molding element 2.

[0055] Fig. 3 illustrates a production setup according to the present invention in which one single block 16 is wrapped with the same decorative material, laminate, vinyl, foil, paint or the like. All three pieces, i.e., the first molding element 2 and the two distinct second molding elements 3a,3b are milled from this single block 16 due to the relatively simple structure of the molding elements 2,3a,3b and in particular due to the flat shape of the surfaces facing the other elements of the joint cover assembly.

[0056] Fig. 4 shows a cross section of two first molding elements 2 according to the invention having a gripping groove 17 being disposed in the center of the element's foot 7 and extending towards the exposed surface 6 of the element 2. In the base portion of the foot 7, a recess with a widened distance of the groove's sidewalls and extending along a partial length of the groove 7 is positioned in order to accommodate the head of a screw (not shown) designed to fix the track 11 on a sub surface (not shown). The track 11a, 11b comprises a base portion 11a as well as two upstanding sections in the form of

parallel side arms 11b,11c, wherein the distance between the side arms 11b,11c substantially corresponds to the external dimension of the foot 7 in order to provide for an engagement of the foot 7 inside the track 11 without a substantial clearance between these two parts 7,11.

[0057] Although not shown, the upstanding sections 11a, 11b of the track can be provided with additional holding means, e.g., flanges or other constructions to assist in mating and being secured with the gripping groove of the foot and second molding element. For example, the distal ends of the upstanding sections may have a "christmas tree" structure comprising one or a plurality of small downwardly angled extensions which pivot during installation and will resist disassembling forces. Similarly, the holding means may consist of a single flange extending inward from the distal end of the upstanding section which can engage the inside of the gripping groove, which groove may be provided with one or more corresponding cut-outs for engagement with the flange.

[0058] Fig. 5 illustrates a cross sectional view of a joint cover assembly according to the invention, wherein the track 11 engages with its side arms 11b, 11c into the respective grooves 17,18 provided in each of the first molding element 2 and the second molding element 3b shown herein. The width of the track 11, i.e. the distance between the distinct side arms 11a, 11b corresponds to both the external dimension of the foot 7 itself and the distance between the two grooves 7,18 defined by the distance of the two adjacent side walls 19,20 of the first and second molding elements 2,3b. The length of the groove 17 and/or the length of the groove 18 may be set in a manner as to compensate for a height difference between a flooring element (not shown) and the height of the second molding element 3b, as illustrated in Figs. 5B and 5C. Alternatively, the side wall 20 of the molding element 2 may also have means for accommodating the tip of the side arm 11b of the track 11 at a partial length of the groove 7 in order to compensate for inclinations of the fixed joint cover assembly 1 according to the invention.

Claims

1. A joint cover assembly for covering a gap between two floor elements covering a subsurface, the assembly comprising:

a first molding element comprising an upper section having an exposed surface, the exposed surface comprising a décor, and a foot depending therefrom, wherein the foot has a gripping groove extending towards the exposed surface and being defined by two side walls; and
a second molding element comprising an upper surface and a lower surface, to be joined to the first molding element, as well as an exposed surface comprising a décor, wherein the lower sur-

- face has a groove extending towards the upper surface and being defined by two side walls;
characterised in that
the joint cover assembly furthermore comprises a track having two upstanding sections, wherein the distance between the upstanding sections corresponds substantially to the width of the foot and also to the distance between a gripping groove's side wall and a proximal side wall of the second molding element's groove.
2. The joint cover assembly according to claim 1, **characterised in that** the groove within the foot is disposed in the center of the foot.
 3. The joint cover assembly according to claim 2, **characterized in that** the external dimension of the first molding element's foot corresponds to the distance of two adjacent side walls of the first and second molding element being joined to each other.
 4. The joint cover assembly according to any one of the proceeding claims, **characterised in that** the gripping groove within the foot comprises a base portion having an enhanced distance between its side walls, wherein this base portion extends along a partial length of the groove.
 5. The joint cover assembly according to any of the preceding claims, **characterised in that** the second molding element is sized and shaped such that when joined with the first molding element, the assembly forms one shape selected from the group consisting of a transition molding, a hard surface reducer, a carpet reducer, and an end molding a stair nose.
 6. The joint cover assembly according to claim 5, **characterised in that** the second molding element is sized and shaped such that when joined with the first molding element, the assembly forms one shape selected from the group consisting of a transition molding, a hard surface reducer, a carpet reducer, a wall base molding, a stair nose, an end molding, and a quarter round molding when joined in a first orientation to the first molding element; and a second, different, shape selected from the group consisting of a transition molding, a hard surface reducer, a carpet reducer, a wall base molding, a stair nose, an end molding, and a quarter round molding when joined in a second orientation to the first molding element.
 7. The joint cover assembly according to any of the preceding claims, **characterised in that** it further comprises a track joining the assembly to the subsurface.
 8. The joint cover assembly according to claim 7, **characterised in that** the track comprises a bottom section to be fixed to the subsurface, and two parallel side arms having a distance corresponding to the external dimension of the first molding element's foot.
 9. The joint cover assembly according to any of the claims 7 or 8, **characterised in that** the second molding element is joined to the first molding via the track only.
 10. The joint cover assembly according to claim 9, **characterised in that** the second molding element is joined to the first molding via engagement of the track's side arms with the respective grooves of the first and second molding element.
 11. The joint cover assembly according to any of the preceding claims, **characterised in that** each of the exposed surface of the first molding element and the exposed surface of the second molding element independently comprise a material selected from the group consisting of an abrasion resistant laminate, paint, lacquer, and a foil.
 12. The joint cover assembly according to any of the preceding claims, **characterised in that** the first molding element comprises a general T-shape, wherein the foot depends generally perpendicularly from a longitudinal axis of the upper section.
 13. The joint cover assembly according to one of the preceding claims, **characterized in that** the décor of the upper section of the first molding element and the décor of the exposed surface of the second molding match.
 14. A kit comprising:
 - a first molding element comprising an upper section having an exposed surface, the exposed surface comprising a décor, and a foot depending therefrom, wherein the foot has a gripping groove extending towards the exposed surface and being defined by two side walls; and
 - a second molding element comprising an upper surface and a lower surface, to be joined to the first molding element, as well as an exposed surface comprising a décor, wherein the lower surface has a groove extending towards the upper surface and being defined by two side walls; wherein the joint cover assembly furthermore comprises a track having two upstanding sections, wherein the distance between the upstanding sections corresponds substantially to the width of the foot and also to the distance between a gripping groove's side wall and a proximal side wall of the second molding element's groove.

15. A method of covering a subfloor adjacent a floor element, the method comprising:

providing a joint cover assembly according to claims 1 to 13 or a kit according to claim 14; 5
joining the first molding element to the second molding element with the exposed surface of the second molding element facing away from the first molding element; and
affixing the joint cover assembly to the subfloor. 10

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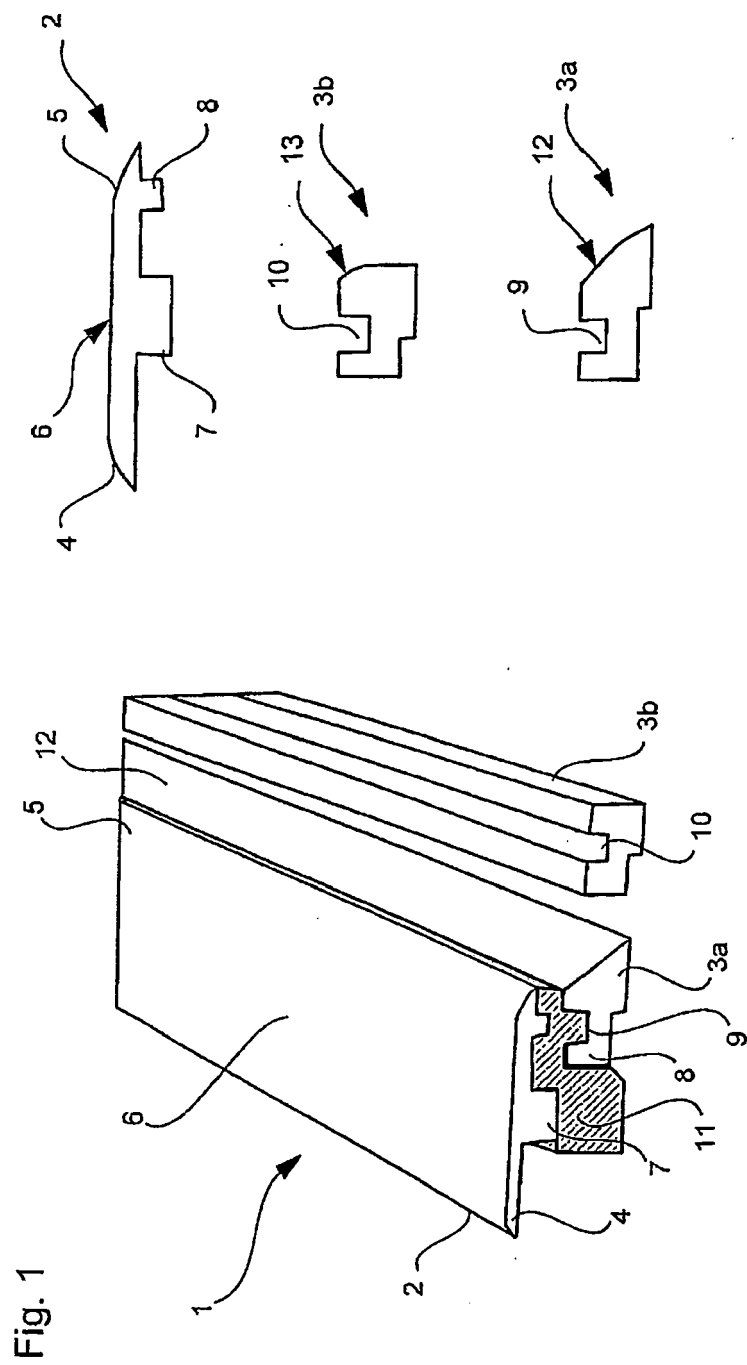


Fig. 2

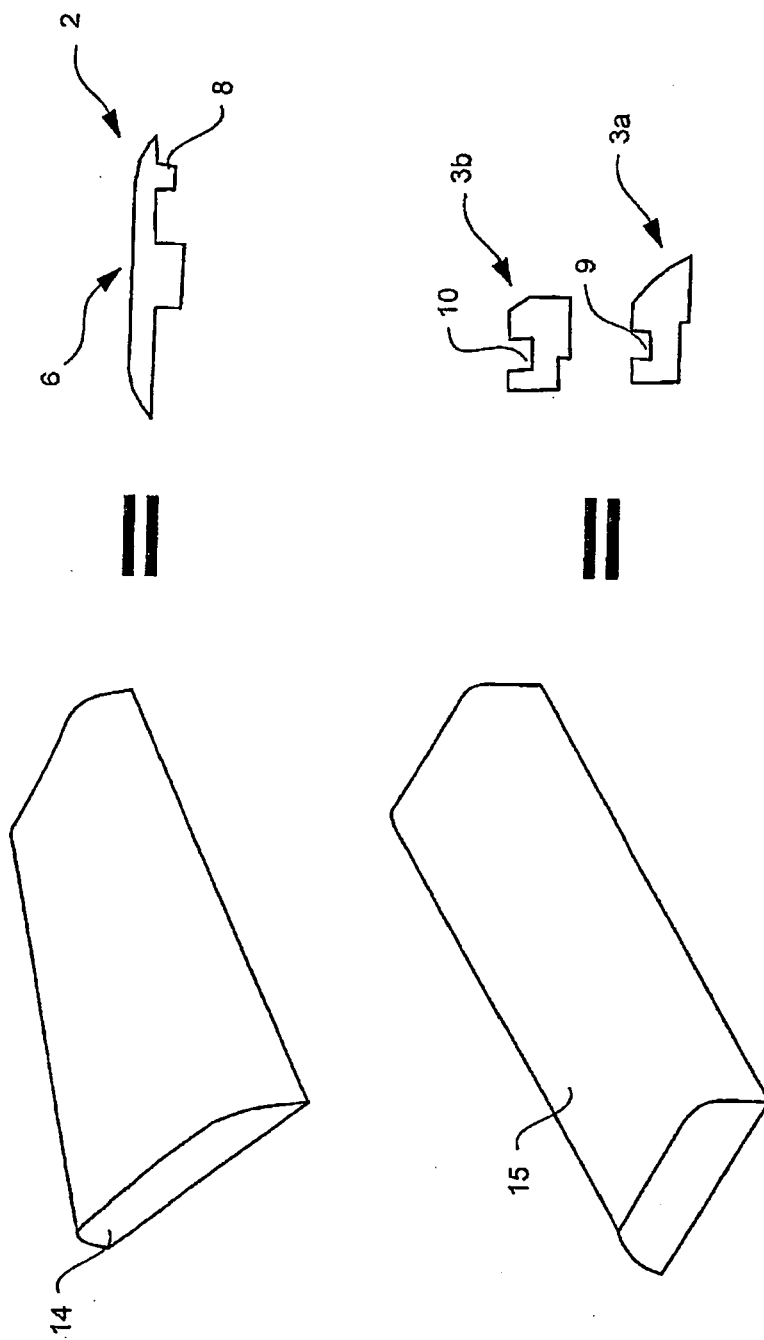
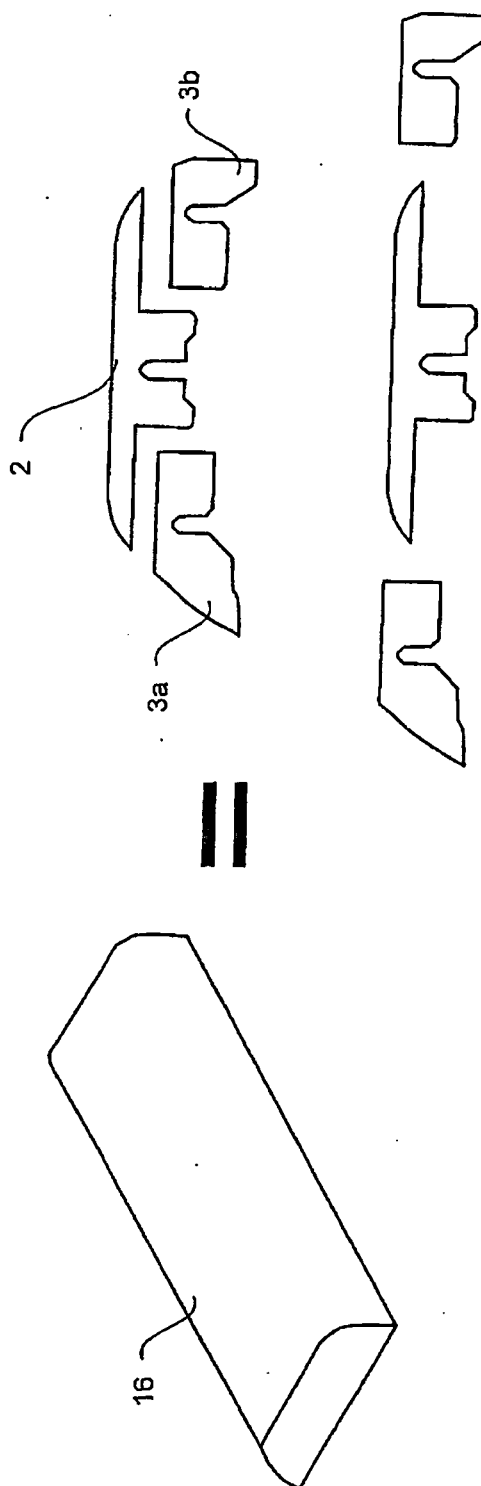


Fig. 3



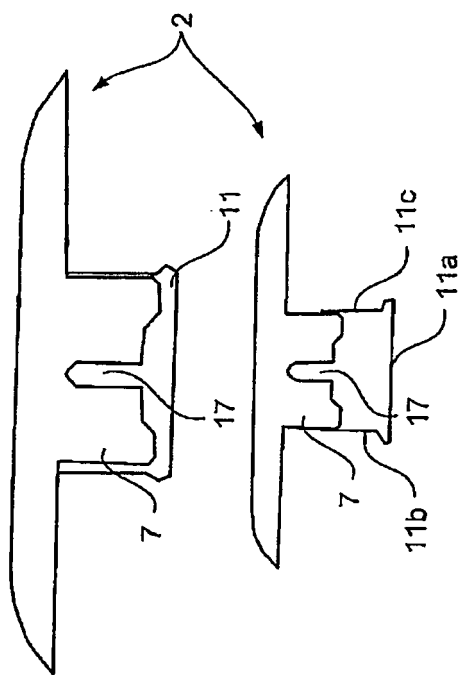
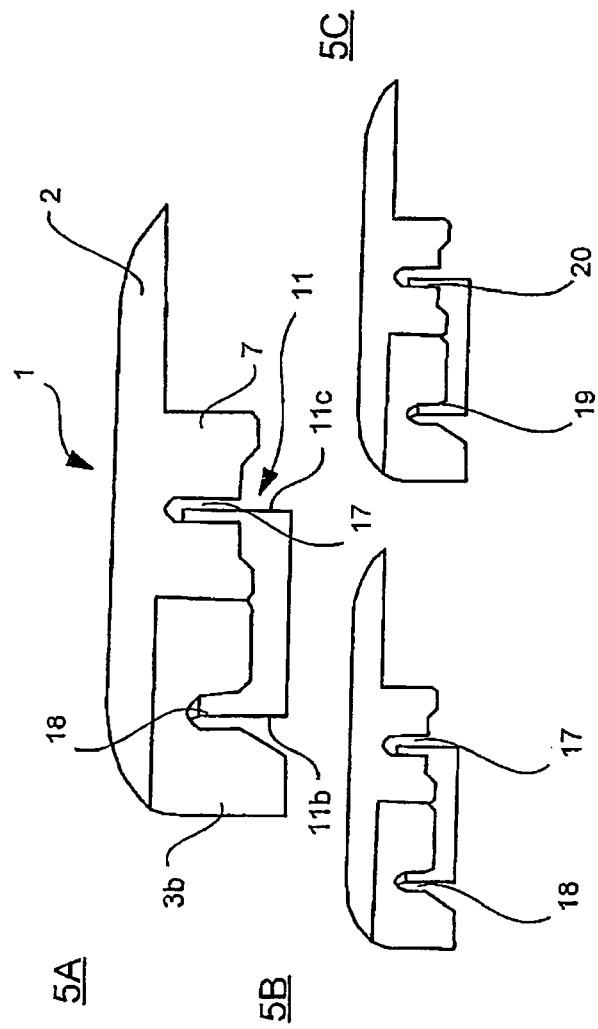


Fig. 4

Fig. 5



REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- US 2007024566281 A [0019]
- US 20070245662 A [0026] [0033]
- US 08817391 B [0036]
- US 10319821 B [0036]
- US 6860047 B [0053]