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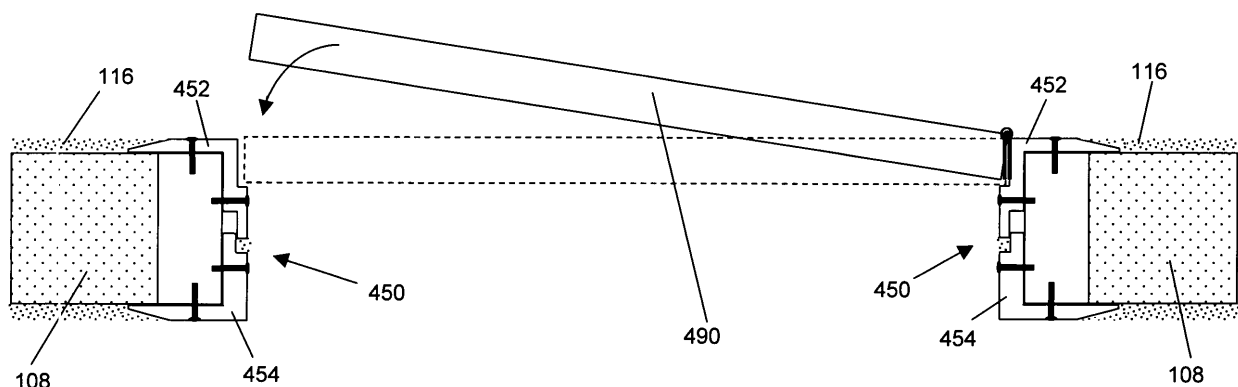
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(54) **Method and means for finishing a room**

(57) The invention relates to finishing means (450) for neatly finishing a room. The finishing means are for finishing a transition region between different areas of the room. The finishing means have a finished surface, typically oriented to the room which is to be finished, a back surface for abutment against a wall or construction material and at least one end portion which is adapted to be covered with spreadable covering material (116). The finishing means are first positioned and connected to the transition region to be finished and the surrounding wall and the at least one end portion is then covered by

covering material (116), using a guiding surface adjacent the region to be covered with covering material and extending over at least some area in the direction of the region to be covered with covering material. After applying the covering material, the front surface of the finishing means is flush, i.e. lies in the same plane, with the front surface of the applied covering material, thus completely integrating the finishing means in the walls or construction material or in the covering material on top of it. The finishing means can be a skirting board, a finishing means for outside corners, a finishing means for framework, a finishing means for a utility access points, etc.



**Fig. 19**

## Description

### Technical field of the invention

**[0001]** The present invention relates to a method for finishing a room and aiding means therefore. More in particular, the invention relates to finishing means for finishing edges, corners, frames, transition regions between different materials, etc. in a room having surfaces to be finished with spreadable covering material, such as e.g. plaster, or surfaces to be finished with a combination of plate material, such as e.g. plasterboard, and spreadable covering material.

### Background of the invention

**[0002]** Depending on the style of the chosen interior design, at present, different aiding means are available for finishing a room. In rooms that have walls and possibly also ceilings which are finished by plastering or by using plasterboard material, typically aiding means such as skirting boards, frame work, covering plates and corner profiles are used to protect, hide or neatly finish transitions between two or more plastered or plasterboard surfaces or between a plastered or plasterboard surface and another surface. At present, these aiding means are nearly always placed on top of the plastered or plasterboard wall(s) to hide the transition area(s) and often have a property, such as a shape or colour, which provides a decorative effect. Alternatively, if no decorative effect is to be obtained, finishing of transitions between two plastered or plasterboard walls or between a plaster or plasterboard wall and another surface is based on strips covering the transition area. Nevertheless, these typically lead to local curvature of the wall near the transition area and require a lot of installation time, as often plural subsequent cycles of plastering or joint filling and sanding are needed.

**[0003]** The interest for contemporary modern and sober architecture is increasing, which leads to a demand for finishing techniques having a minimal influence on the interior of a room. A typical example thereof is the increasing popularity of plastered windows and doors. Corners of plastered windows and doors typically are obtained by using metal profiles, which have the disadvantage of suffering from rusting. If strips are used to finish the corners near doors or windows, it is difficult to obtain nice right outside corners. Furthermore, if e.g. a door needs to be fixed in the plastered doorway, this either requires the use of a connection of the door to the floor, which is expensive and time consuming, or of the use of an additional, typically wooden, frame to which the door can be connected. The latter introduces additional decorative features, away from the minimalistic look, and furthermore requires significant additional efforts after the plastering works have been performed.

**[0004]** Skirting boards typically are applied to hide the transition area between the covering material on a wall

and the bottom side of that wall, just above the floor. This transition area is provided to prevent humidity problems on the wall, by separating the plasterwork from the region under the waterstop, if present, or by separating the plasterwork from the floor so as to prevent it from getting wet during cleaning for example. Most common known solutions, as mentioned above, are skirting boards that are placed in front of the plasterwork. From UK patent application GB2,321,478 A it is known to fix, prior to plastering of the wall, a plastic profile called ground with its backside to the wall, and to then provide plasterwork or plasterboard on the wall above the ground, whereby the plaster is in contact with the top of the ground. In order to obtain a neat finish, a skirting board then is fixed to the front side of the ground. The system still uses a skirting board to hide the transition region between the ground and the plaster region. Furthermore, the top of the ground is not adapted to optimally interact with the applied plaster material.

**[0005]** Finishing means for a utility access point, such as e.g. an electrical socket, a switch, a socket for telephone connection, a socket for internet connection a socket for cable connection, a socket for speaker connections, a socket for optical receivers, such as IR and RF transmitters/receivers, etc currently typically are installed by first positioning a box in the wall at the place where the utility access point needs to be installed then, prior to plastering or placing plaster board material and providing a finished wall, leading appropriate wires to these boxes, subsequently performing the plastering or installing the plasterboard material and finishing of the wall, and finally finishing the utility access point. The latter is done by connecting the electrical part of the electrical device with the appropriate wires, positioning the electrical part in the box in the wall - which is cleared from finishing material - and subsequently hiding the electrical part with a cover plate that partly rests on top of the plaster or plasterboard material. The utility access point thus always has a part, such as the cover plate, that is protruding outside the wall surface, i.e. outside the plastered surface or plasterboard surface. The latter is non-supportive for the minimalistic look to be obtained.

**[0006]** In the above-described examples of finishing methods and means for finishing plastered or plasterboard walls, typically cracks may occur in transition areas of plaster or plasterboard surfaces. These cracks often are hidden by the finishing means placed on top of the plaster or plasterboard surfaces. Furthermore, if a minimalistic look is to be obtained, the installation of the finishing means is time consuming, as it often requires several sanding and plastering cycles.

### Summary of the invention

**[0007]** It is an object of the present invention to provide finishing elements for edges, corners, frames, etc. which allow a neat, minimalistic finishing between a plastered or plasterboard finished surface and an adjoining region.

**[0008]** The above objective is accomplished by a method and device according to the present invention.

**[0009]** The invention relates to a method for finishing a room, the room comprising a transition region between a first area and a second area. The method comprises connecting a finishing means on said transition region, the finishing means comprising at least one end portion extending onto said first area and at least a finished surface. The method furthermore comprises covering said first area and said at least one end portion with covering material, such that at least part of said finished surface lies in the same plane as and is adjacent to at least part of a front surface of said applied covering material. Thereby, covering said first area and said at least one end portion with covering material is performed after connecting a finishing means on said transition region. The finishing means comprises foamed thermoplastic material or wood plastic composite. The finishing means may consist of foamed thermoplastic material or wood plastic composite. The wood plastic composite may be a foamed material. The density of said foamed thermoplastic material may be between 330kg/m<sup>3</sup> and 570 kg/m<sup>3</sup>. The density of said wood plastic composites may be between 1000 kg/m<sup>3</sup> and 1450 kg/m<sup>3</sup>. Said at least part of said finished surface may extend over at least 0.5 cm, preferably over at least 1 cm, more preferably over at least 2 cm in the direction of said first area to be covered with covering material. With "at least part of said finished surface lies in the same plane as at least part of a front surface of said applied covering material", is meant that a mathematical plane can be constructed that comprises both said at least part of the front surface of the applied covering material and said at least part of said finished surface. Covering said first area and said at least one end portion may comprise applying covering material on said first surface and on said end portion of said finishing means, and making a fluent transition between said finished surface and said covering material by gliding with a linear aiding means from said at least part of said finished surface towards said covering material. In other words, said at least part of said finished surface may be used as a guiding means or guiding surface. The method may be specifically applied for finishing transition regions between a first and second area wherein said first area and said second area are making an angle of substantially 180° or larger with respect to each other as seen from the room. Covering said at least one end portion with covering material may comprise covering a front portion of said at least one end portion, oriented towards the room. The method may comprise providing at least two finishing means and connecting the two finishing means by shifting, clicking or clipping the two finishing means to each other.

**[0010]** Said finishing means may be any of a skirting board, a finishing means for an outside or an inside corner between two walls, a framework for a hole in a wall or a finishing means for a utility access point.

**[0011]** Said finishing means may comprise two ele-

ments and before connecting the finishing means on said transition region, the finishing means may be adjusted to a characteristic dimension of the second area by shifting the two elements with respect to each other or by adjusting the length of at least one of the two elements. The latter may comprise adapting a "framework" finishing means to the thickness of a wall.

**[0012]** The finishing means furthermore may comprise lighting means and, before covering, said lighting means may be provided with a connection to a power source.

**[0013]** The invention also relates to a finishing means for finishing a transition region between a first area and a second area of a room, said first area being intended to be covered with spreadable covering material, said finishing means comprising a first surface, a second, finished surface, opposite said first surface and at least one end portion, whereby said first surface is adapted for at least partial abutment against said transition region, and said end portion is adapted to be covered with said covering material such that at least part of said second, finished surface of said finishing means lies in the same a plane of and is adjacent to a top surface of said spreadable covering material. The finishing means comprises foamed thermoplastic material or wood plastic composite. The finishing means may consist of foamed thermoplastic material or wood plastic composite. The wood plastic composite may be a foamed material. The density of said foamed thermoplastic material may be between 330kg/m<sup>3</sup> and 570 kg/m<sup>3</sup>. The density of said wood plastic composites may be between 1000 kg/m<sup>3</sup> and 1450 kg/m<sup>3</sup>. Said at least part of said second, finished surface may extend over at least 0.5 cm, preferably over at least 1 cm, more preferably over at least 2 cm in the direction said first surface. Said first area and said second area may be making an angle of substantially 180° or larger with respect to each other as seen from the room.

**[0014]** Said end portion may have a slanted surface oriented towards the room, which slanted surface slopes from said first surface to said second surface. Said end portion may have a surface roughness or a surface structure on its surface oriented towards the room.

**[0015]** Said finishing means may be a U-shaped element having a base portion and two legs to form a framework for an opening in construction material. Said U-shaped element may comprise a recess adapted to receive part of a door. Said U-shaped element may comprise removable parts for positioning hinges or a door cam receiver.

**[0016]** Said U-shaped element may consist of a single element. Said U-shaped element may alternatively comprise two elements, shiftable with respect to each other in order to adapt the width of the base. Said two elements may at least partly fit together by virtue of their shape.

**[0017]** Said finishing means also may be a finishing means for a utility access point being any of an electrical socket, a switch, a socket for telephone connection, a socket for internet connection, a socket for cable connection, a socket for speaker connections, an electro-

magnetic radiation receiving device. Said finishing means may be a finishing means for an outside corner between two walls. Said finishing means also may be a skirting board comprising two elements, said elements at least partly fitting together by virtue of their shape. Said finishing means furthermore may comprise a means for receiving a lighting means. Said finishing means may be provided with a region that is adapted to be replaced with a utility access point means. Said finishing means may be a finishing means for an inner corner. The finishing means may be provided with connection features at the edges, allowing shiftable, clickable or clippable connection to a second finishing means having similar connection features. The finishing means may shift, click or clip together by virtue of the edge feature shapes.

**[0018]** The invention also relates to a method for finishing a room, the method comprising connecting finishing means to a wall, said connecting comprising connecting a first profile for finishing a wall end, to an end portion of said wall and connecting a second profile, being a first part of a skirting board, to said wall, adjacent to said first profile, and, subsequently, after connecting finishing means to a wall, covering said wall and at least one end portion of each of said first and second profiles with covering material such that at least part of a finished front surface of each of said finishing means lies in the same plane as and is adjacent to at least part of a front surface of said applied covering material. The finishing means comprises foamed thermoplastic material or wood plastic composite. The finishing means may consist of foamed thermoplastic material or wood plastic composite. The wood plastic composite may be a foamed material. The density of said foamed thermoplastic material may be between 330kg/m<sup>3</sup> and 570 kg/m<sup>3</sup>. The density of said wood plastic composites may be between 1000 kg/m<sup>3</sup> and 1450 kg/m<sup>3</sup>. After said covering, flooring may be provided. After said flooring, second parts of the finishing means may be provided where applicable. Connecting finishing means to a wall furthermore may comprise connecting a profile for finishing an inner or outer corner to said wall. Connecting finishing means to a wall furthermore may comprise connecting a finishing means for a utility access point to said wall.

**[0019]** It is an advantage of an embodiment of the present invention that an integrated solution can be obtained for all finishing walls, ceilings, floors, windows, utility access points, etc. It is furthermore an advantage of the present invention that a perfect finish is obtained for edges in inside and outside corners and that, if desired, sharp edges can be obtained. It is also an advantage of the present invention that different finishing elements can be made of a single material type, such that adhering of the finishing elements to plaster, plasterboard or other material is equal for all finishing elements. It furthermore is advantageous that the finishing elements act on additional finishing elements in the same way as the spreadable material or plasterboard material is acting thereon. It is an advantage of the embodiments of the present

invention that a water-resistant solution is obtained for the finishing elements, that does not wear or rust. It is a further advantage of the present invention that a solution is presented, which does not suffer from cracks near the joints of the system. It is also an advantage of the present invention that an easy and fast installation is obtained, which needs less time to dry than prior art installations methods. It is furthermore advantageous that the finishing elements provide real edges that can be used by the joiner or plasterer to line up. It is furthermore an advantage of the present invention that finishing means, even for utility access points, contributing to a minimalist design are provided.

**[0020]** Although there has been constant improvement, change and evolution of devices and methods in this field the present concepts are believed to represent substantial new and novel improvements, including departures from prior practices, resulting in the provision of more efficient, stable and reliable devices of this nature.

**[0021]** These and other characteristics, features and advantages of the present invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention. This description is given for the sake of example only, without limiting the scope of the invention. The reference figures quoted below refer to the attached drawings.

#### Brief description of the drawings

**[0022]**

Fig. 1 show the relative humidity and temperature conditions during drying of a plastered wall finished with finishing means according to different embodiments of the present invention.

Fig. 2a and Fig. 2b respectively show a vertical cross-section of a wall finished with spreadable covering material using a two-part skirting board and a more detailed illustration of the two-part skirting board, according to a first embodiment of a first aspect of the present invention.

Fig. 3 is a vertical cross-section of a wall finished with plate-like covering material and spreadable covering material using a two-part skirting board, according to the first embodiment of the first aspect of the present invention.

Fig. 4 is a vertical cross-section of a wall finished with plate-like covering material and spreadable covering material using a two-part skirting board consisting of two equally shaped profile elements according to the first embodiment of the first aspect of the present invention.

Fig. 5 is a vertical cross-section of a wall finished with spreadable covering material using an alternative two-part skirting board, according to the first embodiment of the first aspect of the present invention. Fig. 6 is a vertical cross-section of a wall finished

with plasterboard plates using an alternative two-part skirting board, according to the first embodiment of the first aspect of the present invention.

Fig. 7a and Fig. 7b respectively show a vertical cross-section of a wall finished with plaster using a two-part skirting board adapted to integrate lighting means and a more detailed illustration of the two-part skirting board adapted to integrate lighting means, according to a second embodiment of the first aspect of the present invention.

Fig. 8 is a vertical cross-section of a wall finished with plasterboard plates using an alternative two part skirting board adapted to integrate lighting means, according to the second embodiment of the first aspect of the present invention.

Fig. 9 is a flow diagram describing a method for finishing a wall with plaster using a two-part skirting board according to the third embodiment of the first aspect of the present invention.

Fig. 10 is a horizontal cross-section of a finishing means for finishing an outside corner between two walls to be finished with spreadable covering material or spreadable covering material combined with plate like material, according to a first embodiment of the second aspect of the present invention.

Fig. 11 a and Fig. 11 b illustrate two elements for finishing an outside corner near a window frame, according to the second embodiment of the second aspect of the present invention.

Fig. 12 shows a horizontal cross-section of an outside corner near a window frame finished using the finishing means as described in Fig. 11 a and Fig. 11 b.

Fig. 13 shows a horizontal cross-section of a u-shaped element for the end of a wall to be finished with spreadable covering material, according to a first embodiment of a third aspect of the present invention.

Fig. 14 shows a horizontal cross-section of a u-shaped element for the end of a wall to be finished with a combination of plate-like material and spreadable covering material, according to the first embodiment of the third aspect of the present invention.

Fig. 15 shows a horizontal cross-section of a u-shaped element having an extensible base, according to the second embodiment of the third aspect of the present invention.

Fig. 16 shows horizontal cross-section of two profile elements adapted to co-operate like a u-shaped element for finishing a wall end to be finished using covering material, according to the second embodiment of the third aspect of the present invention.

Fig. 17 shows a horizontal cross-section of two profile elements adapted to co-operate like a u-shaped element for finishing a doorframe in a wall to be finished using covering material, according to the second embodiment of the third aspect of the present invention.

Fig. 18 shows a horizontal cross-section of two profile elements adapted to co-operate like a u-shaped element for finishing a doorframe in a wall to be finished using covering material, according to the second embodiment of the third aspect of the present invention.

Fig. 19 shows a horizontal cross-section of a door and doorframe finished using finishing means as described in Fig. 17 and Fig. 18.

Fig. 20 shows a finishing means for finishing a utility access point in a wall to be finished with covering material, according to a first embodiment of the fourth aspect of the present invention.

Fig. 21 shows a finishing element for creating a rounded inner corner between two surfaces to be finished with covering material, according to an embodiment of the fifth aspect of the present invention.

Fig. 22 shows a finishing element for creating a right inner corner between two surfaces to be finished with covering material, according to the embodiment of the fifth aspect of the present invention.

Fig. 23a and Fig. 23b show a horizontal cross-section of different profile elements for finishing adapted to co-operate with other profile elements in a clickable/shiftable manner, according to embodiments of the present invention.

Fig. 24a and Fig. 24b show a horizontal cross-section of differently finished corners, finished using clickable and/or shiftable profile elements according to embodiments of the present invention.

**[0023]** In the different figures, the same reference signs refer to the same or analogous elements.

### 35 Description of illustrative embodiments

**[0024]** The present invention will be described with respect to particular embodiments and with reference to certain drawings but the invention is not limited thereto but only by the claims. The drawings described are only schematic and are non-limiting. In the drawings, the size of some of the elements may be exaggerated and not drawn on scale for illustrative purposes.

**[0025]** Furthermore, the terms first, second, third and the like in the description and in the claims, are used for distinguishing between similar elements and not necessarily for describing a sequential or chronological order. It is to be understood that the terms so used are interchangeable under appropriate circumstances and that the embodiments of the invention described herein are capable of operation in other sequences than described or illustrated herein.

**[0026]** Moreover, the terms top, bottom, over, under and the like in the description and the claims are used for descriptive purposes and not necessarily for describing relative positions. It is to be understood that the terms so used are interchangeable under appropriate circumstances and that the embodiments of the invention de-

scribed herein are capable of operation in other orientations than described or illustrated herein.

**[0027]** It is to be noticed that the term "comprising", used in the claims, should not be interpreted as being restricted to the means listed thereafter; it does not exclude other elements or steps.. Thus, the scope of the expression "a device comprising means A and B" should not be limited to devices consisting only of components A and B. It means that with respect to the present invention, the only relevant components of the device are A and B.

**[0028]** The present invention relates to finishing elements and methods for finishing a room with a minimalistic look. In particular, the invention relates to skirting boards, means for finishing outside corners between two surfaces, means for finishing end portions of free standing walls, means for finishing frames for doors or windows, means for finishing utility access points and means for finishing recesses or protrusions on surfaces. These finishing means aid to easily obtain a room with walls finished using spreadable covering material.

**[0029]** The finishing means aid to easily obtain a plastered, stuccoed or cemented look for a room, whereby the number of decorative elements is strongly restricted. The finishing means therefore are integrated as much as possible in the plastered, stuccoed or cemented walls or in plasterboard based walls of the room or in the covering material applied thereto. Furthermore, the finishing means may have a view which is similar to the plastered, stuccoed or cemented or plasterboard based walls, such that they are not only integrated in the wall spatially, but also e.g. with regard to colour and look, i.e. such that they seem like a part of the wall.

**[0030]** The invention relates to a finishing means for finishing a transition region between a first and a second area of a room or part of a room to be finished. The areas are finished by covering them at least with spreadable covering material, such as e.g. plaster, stucco or cement, optionally combined with plate-like material, such as e.g. plasterboard material. The different areas may be walls, ceilings, floors, etc. The finishing means can be a skirting board, a profile for finishing corners between walls making an angle, a profile for finishing a door or window frame, a profile for finishing a utility access point, etc.

**[0031]** The finishing means typically comprises a first surface which is adapted for at least partial abutment against the transition region between a first area, and a second area, which may both be a wall or additional construction material such as wooden beams or metal profiles, a second, finished surface, typically oriented towards the room and at least one end portion adapted to be covered with the spreadable covering material, such as e.g. plaster, joint filler, etc. At the front side of the finishing means, i.e. the side oriented towards the room once the finishing means is positioned, a guiding surface is provided. which may assist the craftsman to neatly apply spreadable covering material. It is an advantage that such a guiding and control surface is provided such

that a neat and flat finishing can be easily obtained. The guiding surface typically is part of the second, finished surface and is adjacent to the region where covering material will be applied. The guiding surface extends over a distance in a direction perpendicular to the longitudinal direction of the finishing means or in other words in the direction towards the region where the covering material needs to be applied. The guiding surface at least has a length in the direction towards the region where the covering material needs to be applied of at least 5 mm, preferably at least one 1 cm, and more preferably at least 2 cm, such that the craftsman can provide a neat transition between the finished surface and the covering material.

**[0032]** The finishing means thus is constructed such that the front surface of the covering material, once it is applied, and the second surface of the finishing means are flush or in other words lie in the same plane. In other words, a fluent surface, without additional curvature near the joint between the covering material and the finishing means is obtained. It thus is an advantage of the present invention that the finishing means is completely incorporated in the construction material, such as e.g. the wall, or in the covering material such that it supports the minimalistic look of the room. This is advantageous compared to most prior art systems, as these typically require an additional curvature near the joint in order to obtain a neat joint transition.

**[0033]** The end portion of the finishing means preferably may be formed such that the amount of material needed to cover the end portion near the guiding surface is less than the amount of material needed to cover the end portion near the edge with the first surface. In other words, the end portion has a free extremity away from the guiding surface, and the thickness of the end portion near the guiding surface is larger, preferably substantially larger, than the thickness of the end portion at its free extremity. In this way the thickness of the covering material may, e.g. gradually or stepwise, increase from small near the guiding surface to its general thickness at the first area, where no finishing means is present. Depending on the specific type of finishing means, further end portions may be provided.

**[0034]** The finishing means according to embodiments of the present invention may be used for finishing transitions between first and second areas including an angle of 180° or larger seen from the room to be finished, i.e. for straight angles, e.g. if a finishing means is applied for a utility access point in a flat wall, or for outside corners, e.g. if a finishing means is applied for end portions of walls or frames for doors or windows. The finishing means may also be used to create inner corners, it is for acute angles or obtuse angles smaller than 180°.

**[0035]** Additional features may be provided in the finishing means, e.g. small decorative effects such as shadow lines or the possibility to incorporate lighting means, which may provide indirect lighting of a room. This may have a safety function.

**[0036]** Typical materials that can be used for the fin-

ishing means, although the invention is not limited thereto, are non-metal materials, such as e.g. foamed thermoplastic materials and wood plastic composites, the latter being either foamed or non-foamed. In embodiments of the present invention, the finishing means comprises foamed thermoplastic material or wood plastic composite. The finishing means may consist of foamed thermoplastic material or wood plastic composite. The wood plastic composite may be a foamed material. The density of said foamed thermoplastic material may be between 330kg/m<sup>3</sup> and 570 kg/m<sup>3</sup>, or may be between 350 kg/m<sup>2</sup> and 500 kg/m<sup>3</sup>. The density of said wood plastic composites may be between 1000 kg/m<sup>3</sup> and 1450 kg/m<sup>3</sup>. Typically such materials are obtained by using a mixture of different types of polystyrenes. The different types of polystyrenes may differ in melt flow index. The melt flow index may be in the range of 1.5 to 6.5. The different polystyrenes may be general purpose or high impact purpose polystyrenes. During extrusion a chemical blowing agent is added to the melt. Such a chemical blowing agent may be based on azo-dicarbonamide, although the invention is not limited thereto. The chemical blowing agent may be such that it dissolves at a predetermined processing temperature and that it pulls open the polymer matrix, which may result in a cellular structure providing good jointing of the material to plaster and joint-fillers. The foamed material may be provided with an additional layer of water-based paint for further improvement of the adhesion. It is an advantage of the foamed material that it provides a visually similar finish as a plasterboard or plaster wall, i.e. no substantial differences can be seen between the finished foamed material and typical plasterboard or plaster. Typical examples of foamed thermoplastic materials may be polyvinyl chloride, polystyrene, polyethylene, polypropylene, etc. Wood plastic composites, which are materials that comprise wood, in various forms, and thermoplastic material may also be used. The material used preferably is shock and splitting resistant and dimensionally stable, i.e. the shape will not alter by time. Furthermore, the material preferably is such that humidity has no influence on the mechanical properties. It is furthermore preferred that the material has good binding properties with the plaster. It is an advantage of the material that it does not show cracks near the joints, deteriorating the quality of the degree of finishing. The material also may be primed such that it easily accepts a layer of paint, or such that it can be finished easily. The material also can be made flame retardant. In a preferred embodiment, the finishing means may be made of foamed polystyrene materials, such as e.g. duropolymer® available from ORAC N.V., Belgium. This material may be made flame retardant. The foamed polystyrene material may for example comprise between 50% and 100% of polymer polystyrene, preferably between 80% and 100% of polymer polystyrene, e.g. for 95% of polymer polystyrene. The material has the advantage that it does not deteriorate and is resistant to most common solvents and moisture, that it is shock and splitting re-

sistant, that it does not alter by time, that humidity has no influence on the mechanical properties, that it is acoustically neutral, UV-resistant and has a low oral toxicity. The material can furthermore easily be sanded and sawn, which allows a faster installation. This material has good interaction properties with covering material, especially with plaster, such that, after installation, substantially no cracks occur at the edges between the finishing elements and the plaster covering material. By way of example, temperature and relative humidity conditions for plaster covering material during four subsequent days after one week of drying are shown in Fig. 1. No small nor large cracks could be seen in the region of the edges between the finishing elements and the plaster covering material.

**[0037]** Connecting the finishing means to the wall or to additional construction material can be performed by any suitable fastening means such as screwing, glueing, etc. For glueing typical glues - although the invention is not limited thereto - such as e.g. ORAC DecoFix PRO or ORAC DecoFix Hydro can be used, as available from ORAC. In order to improve connectability of different elements, tooth-like structures may be provided in the surface to be abutted against the wall or additional construction material.

**[0038]** In the following, different types of the finishing means will be described according to different aspects of the present invention

**[0039]** In a first aspect of the present invention, a finishing means is provided for obtaining a neat transition between a first and a second area of a room which lay in a direct line with each other, e.g. a wall above a water stop means and a wall under the water stop means. In other words, the finishing means provides a neat transition between two areas including an angle of 180° with respect to each other. The neat transition is obtained by providing a skirting board, which is integrated in the finished wall. In other words, whereas conventionally skirting boards are placed in front of a finished wall to hide the transition region between a plastered and a not-plastered area of the wall, the skirting boards of the present invention are positioned such that at least part of the surface of the skirting board oriented towards the room, is level to the surface of the plaster work on the wall. Some examples of the application of such skirting boards can be seen in Figs. 2 to 6.

**[0040]** The skirting board 100 according to a first embodiment of the first aspect of the present invention consists of two elements 102, 104 adjusted to fit together by shape for at least parts of the two elements 102, 104, as shown in Fig. 2a. The first element 102 comprises a first surface 106 suitable for abutment against a wall 108, a second surface 110 typically oriented towards the room and end portions 112, 114. The first element furthermore comprises a guiding surface 118, adjacent to the region where covering material 116 will be applied, which assists for applying spreadable covering material 116. The first end portion 112 is adapted for being covered by cov-

ering material with which the wall 108 needs to be covered, such as spreadable covering material 116 like plaster, stucco, cement, or spreadable covering material 116 combined with plate like material 117 such as plasterboard plates combined with plaster, etc. The exact shape of the first portion 112 adapted for receiving spreadable covering material is not critical. Nevertheless, it can be chosen such that it optimally interacts with the spreadable covering material 116.

**[0041]** Fig. 2b shows, by way of example, a more detailed illustration of an embodiment of a skirting board 100 according to the present invention. The first end portion 112 has a trapezium-like shaped protrusion, whereby the upstanding side A oriented towards the room may be slanted and may comprise a saw tooth like structure which allows good interaction with material such as plaster, stucco or cement. Furthermore a horizontal top side B may be such as plaster, stucco or cement. Furthermore a horizontal top side B may be provided which allows to at least partly support the wall covering material 116. The latter is especially useful if plate like material such as plasterboard material is used, as illustrated in Fig. 3. It can be seen from Fig. 3 that, between the plate-like wall covering material 117 and the first end portion 112 of the first element 102, spreadable covering material 116 is applied.

**[0042]** The thickness of the skirting board 100, indicated by thickness d in Fig. 2b, may be chosen in correspondence to the thickness of a typical standard thickness finishing material, such as e.g. a plasterboard plate. The skirting board 100 thus may be produced in several standard thicknesses corresponding with the thicknesses of commercially available plasterboard plates, such as e.g. 9.5 mm and 12.5 mm. In this way, the finished surface of the plasterboard plate and the second surface 110 of the first element of the skirting board 100 can be positioned level with each other with respect to their sides oriented towards the room. The goal is that after the covering material 116, 117 has been applied to the wall 108 and to the end portion 112, the second, finished surface 110 of the first element 102 and the outer surface of the covering material 116, 117 are flush, i.e. the covering material 116, 117 and at least part of the second, finished surface 110 are level or lie in the same plane.

**[0043]** The upper region of the front surface of the first element 102, which is adjacent to the region where covering material 116 will be applied and which thus typically lies adjacent the edge between the second, finished surface 110 and the first end portion 112, furthermore is a guiding means 118, i.e. a guiding surface 118, for the craftsman when applying covering material 116, 117 to the wall 108. The guiding surface 118 extends over a distance in the direction perpendicular to the longitudinal direction of the profile or finishing means, or in other words in the direction towards the region where the covering material 116 needs to be applied. The guiding surface 118 typically is part of the second, finished surface 110. The guiding surface 118 at least has a length in the

direction towards the region where the covering material needs to be applied of at least 5 mm, preferably at least one 1 cm, more preferably at least 2 cm such that the craftsman can provide a neat transition between the finished surface 110 and the covering material 116, 117. The latter can be obtained by gliding with a long, linear aiding means, from the guiding surface 118 towards the covering material 116, 117. The linear aiding means thereby may be positioned completely on the guiding surface 118 and shifted towards the covering material 116. Using this guiding surface 118, the craftsman can easily obtain that the front surface of the covering material 116, i.e. the surface oriented towards the room, and the second, finished surface 110 are flush or, in other words, lie in the same plane.

**[0044]** The second element 104 is adjusted to fit by shape with at least part of the second end portion 114 of the first element 102 of the skirting board 100. It is positioned with its bottom part 122 such that it is in contact or nearly in contact with the floor 120, after flooring is done. The first element 102 thus typically is connected prior to applying covering material 116, 117 to the wall, while the second element 104 is mounted after having applied covering material 116, 117 to the wall 108 and after flooring.

**[0045]** The front side 124 of the second element 104 typically has a finished surface similar to the second surface 110 of the first element 102 and the placement of the second element 104 is such that its front side 124 is flush, i.e. lies in the same plane, with the second finished surface 110 of the first element 102 and the front surface of the covering material 116, 117 applied to the wall.

**[0046]** The use of a second element 104 has the advantage that applying covering material 116, 117 can be done prior to flooring, and that nevertheless the floor 120 can extend under the skirting board 100, thus providing a neat result.

**[0047]** Alternative skirting board designs are shown in Fig. 3, Fig. 4, Fig. 5 and Fig. 6 illustrating the use of both plate-like covering material 117 and spreadable covering material 116.

**[0048]** The skirting board 100, shown in Fig. 4, illustrates the possibility to use two identical elements 102, 104, which allows to reduce the number of different components to be fabricated. The front surface and the back surface of the elements 102, 104 then both need to be finished, i.e. have a surface that does not require additional covering with covering material

**[0049]** The skirting boards 100 shown in Fig. 5 and Fig. 6 comprise a small recess 126 between the first and second elements 102, 104, which acts as a small decorative effect creating some kind of shadow line in the skirting board 100. Although no further finishing is needed, an additional covering, e.g. a glass fibre covering, (not represented in the drawings) may be provided over the complete skirting board 100, over the plastered wall and the first element 102 of the skirting board 100 or solely over the wall. Further types of finishing may be provided,

whereby the front surfaces of the skirting board elements 102, 104 may already have a prefabricated specific colour or specific surface pattern, in agreement with the finishing needs of the rest of the room. As can be seen from Fig. 5 and Fig. 6, the exact shape of the first and second elements 102, 104 is not relevant, and e.g. defines the outer appearance and width of the recess 126, and thus of the so-called shadow line.

**[0050]** A second embodiment of the first aspect of the invention describes a skirting board 200 as described above, furthermore adjusted to incorporate lighting means. Such a skirting board 200 is indicated in Fig. 7a, Fig. 7b and Fig. 8. The skirting board 200 has the same features as the skirting board 100 described in the first embodiment, but it comprises furthermore a recess 202 wherein lighting means 204 can be positioned. In a preferred embodiment, the recess 202 is at least partly covered by a covering part 206 which preferably is an integral part of the first element 102, as shown in more detail in Fig. 7b, such that indirect lighting of a room can be obtained. Such indirect lighting not only may be part of a design concept, but also may be useful e.g. to increase safety by illuminating walls, stairs, etc. without the need for illuminating the whole room. Lighting means 204 that can be used are mainly restricted by their size, as they need to fit in the recess 202 of the skirting board 200. Typical lighting means 204 that can be used are wire lighting, small bulbs, LEDs such as e.g. high power LEDs, etc. Such lighting devices may e.g. be Orac lighting IL. 100 or IL. 110 obtainable from ORAC N.V., Belgium. These lighting means 204 may be fixed to the inner surface of the recess 202 by any suitable means such as e.g. by glueing, nailing or clipping. Electrical connections may be provided on a wire running through the skirting board 200, to increase the ease during mounting of the system. At the inner side of the recess 202, a reflective material (not represented in the drawings) may be provided to optimise the lighting effect of the lighting means 204. Again Fig. 7a illustrates the use of a skirting board 200 with spreadable covering material 116, and Fig. 8 illustrates the use of a skirting board 200 with plate-like covering material 117 and spreadable covering material 116.

**[0051]** In a third embodiment of the first aspect of the present invention (related to skirting boards), a method 250 is described for obtaining a neat finishing of a transition between a first and a second area of a room which lay in a direct line with each other, e.g. a wall or additional construction material above a water stop means and a wall or additional construction material under the water stop means, using any one of the above described skirting boards 100, 200. In other words, the finishing means provides a neat transition between two areas including an angle of 180° with respect to each other. The finishing means thereby also provide the transition between the wall 108 and the floor 120. The different steps of the method for finishing are shown in Fig. 9.

**[0052]** In a first step 252, the first element 102 is con-

nected to the first area, such as e.g. the wall 108, using any convenient technique such as for example screwing, glueing, nailing or clicking. This is done prior to covering of the wall 108 with covering material 116, i.e. prior to the plastering, stuccoing or cementing or prior to the application of plate-like material 117 such as e.g. plasterboard and the subsequent joint filling 116. It will be clear that if plasterboard is to be used and an additional framework of beams or profiles is needed to obtain the correct placement of the plasterboard plates, this framework needs to be placed prior to connecting the first element 102, as the first element then typically is connected to the framework, instead of to the wall 108. Alternatively, the thickness of the skirting board could be adjusted such that it covers the total thickness of the framework and the covering material applied, in which case it can be connected to the wall 108. Connecting the first element 102 of the skirting board 100, 200 prior to covering the wall 108 is in contrast with conventional systems wherein the skirting board, which provides the finish, is placed after plastering, stuccoing or cementing of the walls has been done.

**[0053]** After the first element 102 is connected to the first area, such as e.g. the wall 108, the first area and at least part of the first end portion 112 of the first element 102 are covered with spreadable covering material 116 such as plaster, stucco, cement or with a combination of plate like material 117 and spreadable covering material 116, as indicated in step 254. The skirting board 100, 200 thereby assists the craftsman who is applying the covering material 116, 117, as especially in the case of plaster, stucco or cement, the guiding means 118 of the front surface 110 is used for neatly applying spreadable covering material 116 such as plaster, stucco or cement or joint filler. The latter can be obtained by gliding with a linear aiding means from the guiding surface 118 towards the covering material 116. The linear aiding means thereby may be positioned completely on the guiding means 118 and shifted towards the covering material 116.

**[0054]** After the wall-covering step, typically flooring of the room is done. Flooring is done such that substantially a specific floor level is obtained. The latter is described in step 256. Flooring is performed at least partly underneath the skirting board 100, 200.

**[0055]** After flooring, the second element 104 of the skirting board 100, 200 can be positioned and connected to the wall 108 or to the framework.

**[0056]** In specific embodiments, as e.g. shown in Figs. 2 to Fig. 8, the specific shape of the first part 102 and the second part 104 may be such that these parts can be slightly shifted in a vertical direction with respect to each other so that they can correct for slight variations in the floor level. The second part 104 can be fixed to the wall 108 with any suitable means, e.g. by glueing, screwing, nailing sliding, clicking, etc. as represented by step 258. If no further finishing is to be applied, it is preferred that fixing means are used that are not visible after placement.

**[0057]** Further finishing of the wall may be performed,

e.g. by painting the wall. The skirting board 100, 200 either can be painted at the same time, or the skirting board 100, 200 could already have a pré-painted finished surface 110, 124 oriented towards the room. In preferred embodiments, the material wherein the skirting board 100, 200 is made may have similar properties as the covering material 116, 117, such that no large differences can be seen between the painted covering material 116 and the painted skirting board 100, 200. Other ways of finishing, such as e.g. covering the wall and the second, finished surfaces with wallpaper, fibreglass wall coverings or textured fibreglass wall coverings optionally also can be performed. Alternatively, the textured surface such as the one on fibreglass wall coverings also could already be applied to the second, finished surface 110, 124 of the skirting board 100, 200 such that applying textured fibreglass wall coverings only needs to be performed on the covering material 116 of the wall 108 and not on the second, finished surface 110, 124.

**[0058]** If the system is adapted for containing lighting means 204, the electrical connection toward the skirting board 100, 200 can be e.g. done prior to placement of the first element 102 while further installation of the lighting means 204, if present, in the recess 202 can be done either prior to or after application of the skirting board 100, 200 to the wall 108.

**[0059]** In a second aspect, the invention relates to finishing means for finishing an outside corner, such as e.g. an outside corner between two walls or an outside corner as present near a window. The finishing means for an outside corner provides a neat transition between two areas making an angle, as seen from the side of the room, larger than 180° with respect to each other.

**[0060]** A first embodiment of a finishing means for neatly finishing a room to be covered with spreadable covering material such as a room to be plastered, stuccoed or cemented or to be finished using plate like material such as e.g. plasterboard, is shown in Fig. 10 to Fig. 12. Fig. 10 illustrates a finishing means 300 for an outside corner between two walls 108 to be finished using covering material such as spreadable covering material 116 or plate-like covering material 117. After finishing of the walls, the finishing means 300 will be incorporated completely "in" the wall or in the covering material 116, 117 applied to the wall, thereby supporting a minimalistic look. Furthermore, the finishing means allows to make a sharp edge, which is part of the finishing means 300, and does not need to be covered anymore with spreadable covering material 116 such as plaster, stucco, cement or other filling material, as is often the case in prior art.

**[0061]** The finishing means 300 according to the first embodiment of the second aspect comprises two legs 302, 304, a back surface 306 which is at least partly abutted to the wall 108 or to additional construction material 308 and a second, finished surface 310. The two legs 302, 304 each have an end portion 312, 314 which is adapted for being covered by spreadable covering material 116 with which at least part of the wall is to be

covered, such as plaster, stucco, cement or joint filling material, used if finishing is performed using plasterboard material 117. The finishing means 300 furthermore comprises a guiding means for aiding the craftsman to apply covering material 116. The guiding means consists of an area or guiding surface that is adjacent the region where covering material 116 needs to be applied and that extends over a distance in the direction perpendicular to the longitudinal direction of the profile or in other words in the direction towards the region where the covering material 116 needs to be applied. The guiding means typically is part of the second, finished surface. The guiding surface has a length in the direction towards the region where the covering material 116 needs to be applied of at least 5 mm, preferably at least one 1 cm, more preferably at least 2 cm, such that the craftsman can provide a neat transition between the finished surface and the covering material 116. The latter can be obtained by gliding with a linear aiding means from the guiding surface towards the covering material 116. The linear aiding means thereby may be positioned completely on the guiding means and shifted towards the covering material 116. It is an advantage of the present invention that the guiding surface is adjacent the region where covering material 116 is to be applied.

**[0062]** Similar as described for the embodiments of the first aspect, the end portions 312, 314 may comprise slanted surfaces, tooth-like parts or plasterboard supporting portions to improve the contactability and interaction with the covering material 116.

**[0063]** The thickness of the legs 302, 304 of the finishing means 300 may be such that it corresponds with the thickness of typical standard covering materials such as plasterboard 117, i.e. 9.5 mm or 12.5 mm. In any way, the finishing means is constructed such that the second, finished surface 310 is flush, i.e. lies in the same plane, with the front surface of the covering material 116 at the areas such as the walls, i.e. the surfaces of the covering material 116 oriented towards the room

**[0064]** Similar to the first aspect, the finishing means 300 may also comprise a guiding means to be used for the craftsman when applying covering material 116.

**[0065]** The finishing means 300 can be fixed to the outside corner of the walls using any suitable technique such as e.g. glueing, screwing, nailing, etc.

**[0066]** The finishing means 300 can be made of any suitable materials, such as e.g. polystyrene materials, polyester materials or plastic, although the invention is not limited thereto.

**[0067]** Similarly as in the first aspect of the present invention, the finishing means 300 for the outside corner may comprise a means for incorporating a lighting element or a decorative element, such as a groove (not illustrated in the drawings).

**[0068]** A second embodiment of the second aspect of the present invention relates to a finishing means 350 for finishing an outside corner e.g. at a window frame. These finishing means 350 can be seen in Fig. 11a and Fig.

11b, and in Fig. 12. The finishing means 350 comprises at least a first element 352 that comprises two legs 354, 356 each having an end portion 358, 360 respectively. The end portion of the first leg 354 is adapted to be covered with covering material 116 and therefore may comprise a slanted surface, a tooth-like structure, etc. as described in more detail in the above-described embodiments. The finishing means 350 furthermore comprises a guiding means for aiding the craftsman to apply covering material 116, the guiding means, described in more detail in the above described embodiments, consisting of an area or guiding surface that is adjacent the region where covering material 116 needs to be applied, and that extends over a distance in the direction towards the region where the covering material 116 needs to be applied, i.e. over at least 5 mm, preferably at least one 1 cm, more preferably at least 2 cm such that the craftsman can provide a neat transition between the finished surface 364 and the covering material 116. The end portion 360 of the second leg 356, either can be positioned directly to the window or window profile or is adapted to cooperate with a second element 370 that bridges that part of the wall between the window and the first element 352 of the finishing means 350

**[0069]** Positioning the first element 352 directly to the window can only be performed if the length of the second leg 356 is in agreement with or adjusted to the thickness of the wall wherein the window is provided. If a second element 370 is used in combination with first element 352, the elements are adapted to fit together by virtue of their shape. This may e.g. be obtained by the end portion 360 of the first element 352 having a protrusion 362 and the second element 370 having an end portion 372 with a recess 374, such that the end portions 360 and 372 fit to each other based on their peculiar shape. Once in position, the front side, i.e. the second, finished surface 364 of the first element 352 is flush, i.e. lies in the same plane, with the second, finished surface 376 of the second element 370. The first element 352 and the second element 370 may be shifted with respect to each other to adjust to the exact thickness of the wall wherein the window is provided, as indicated with arrow c in Fig. 12. Thereby, a groove 380 can be formed whereby the width of the groove 380 depends on the relative position of the first element 352 and the second element 370 with respect to each other.

**[0070]** A third aspect of the present invention relates to a finishing means for a framework construction for a wall head or a doorframe having a minimalistic look. A door opening typically is obtained by providing a hole in construction material such as in a wall. In order to neatly finish the edges of the construction material or wall, while retaining a minimalistic look, a framework as described in the present embodiment is combined with a plaster, stucco or cement finishing or a plasterboard finishing combined with the application of joint filler.

**[0071]** According to a first embodiment of the third aspect of the present invention, a finishing element 400

comprises a U-shaped element 402 as e.g. shown in Fig. 13 and Fig. 14, having a base 404 and two legs 406, 408. The U-shaped element 402 typically has a first surface 410 that can be abutted against a wall 108 or additional construction material 412 that is applied to the wall 108 to obtain the correct size of the doorway. The first surface 410 extends over the back of the base 404 and the legs 406, 408 of the U-shaped element 402, i.e. the side of the U-shaped element 402 that is oriented towards the wall 108. On the outer side of the U-shaped element 402 i.e. the side of the U-shaped element 402 that is oriented towards the room, a second, finished surface 414 is present. This finished surface 414 extends over the front side of the base 404 and the legs 406, 408.

**[0072]** The legs 406, 408 are provided with end portions 416, 418. These end portions 416, 418 are adapted for receiving covering material 116 by which the wall 108 needs to be covered to finish it, such as e.g. plaster, stucco or cement, as shown in Fig. 13, or for the joint filler 116 used to finish the edges between plasterboard material 117 and the finished surface 414 of the legs 406, 408, as shown in Fig. 14. Similar as described for the skirting board and the finishing means for finishing an outside corner, the exact shape of the end portions 416, 418 is not critical, but can be chosen such that it optimally interacts with the covering material 116. The upstanding side of the end portions 416, 418, i.e. the connection between the wall-abutting surface 410 and the finished top surface 414 may be slanted and it furthermore may comprise a tooth-like structure for improving the interaction between the covering material and the end portions 416, 418. In other words, the latter allows a better contact between the end portions 416, 418 and the plastered, stuccoed or cemented layer. Other shapes also can be used to improve the contactability. The goal of the finishing element 400 is that after the covering material 116 has been applied to the wall 108 and to the end portions 416, 418, the second, finished surface 414 on the legs 406, 408 and the outer surface of the covering material 116 are flush, i.e. lie in the same plane, i.e. the covering material 116 and at least part of the second, finished surface 414 are level. Part of the finished surface 414 furthermore may act as a guiding means 420 or guiding surface for the craftsman when applying covering material 116 to the wall 108. The guiding surface 420 is adjacent the region where covering material 116 needs to be applied and extends in the direction of that region for at least 5 mm, preferably at least 1 cm, more preferably at least 2 cm. Using this guiding means 420, the craftsman can, especially in the case of covering material 116 spreadable during application such as plaster, stucco and cement, easily obtain that the upper surface of the covering material 116, i.e. the surface of the covering material oriented towards the rooms, and the second, finished surface 414 on the legs are flush i.e. lie in the same plane. The latter is described in more detail in the above-described embodiments.

**[0073]** The thickness of the legs 406, 408 of the finish-

ing means may correspond with typical thicknesses of commercially available plasterboard plates 117, such as e.g. 9.5 mm and 12.5 mm, such that if plasterboard material 117 is used, the front surface of the plasterboard material 117 is flush, i.e. lie in the same plane with the second, finished surface 414 on the legs 406, 408.

**[0074]** The U-shaped element 402 may consist of a single piece, such as e.g. a single moulded or casted piece. A single U-shaped element 402 then typically is suited for application for doorways in walls having a standard thickness, as the distance between the legs of the U-shaped element is fixed. Applying the finishing means for thinner walls also is possible by providing additional construction material thereby thickening the wall surrounding the doorway, although the amount of covering material 116, 117 applied to the remaining part of the wall then also needs to be increased. Applying the finishing means for thicker walls is not possible and therefore typically several U-shaped elements, each having a specific distance between the legs 406, 408 of the element 400, can be provided to fulfil the needs on the customer market.

**[0075]** In a second embodiment of the third aspect of the invention, a U-shaped element 450 is similar to the U-shaped element 402 described in the previous embodiment, comprising the same features such as e.g. the guiding surface, but it furthermore has an extensible base portion created by building the U-shaped element 450 from two separate profile elements 452, 454, that are adapted to cooperate with each other. The latter is shown in Fig. 15 to Fig. 16. In Fig. 15 it can be seen that each profile element 452, 454 comprises a leg 406, 408 and creates part of the base 404 of the U-shaped element 450.

**[0076]** The end portions 416, 418 of the legs 406, 408 of the profile elements 452, 454 may have the same features as in the previous embodiment. The end portions thus may have a slanted part and may comprise a tooth-like structure (not shown in Fig. 15). At their other end, i.e. the end of the profile element 452, 454 positioned in the base 404, each of the profile elements 452, 454 has an end portion that is suited for co-operation with the corresponding other profile element. By way of example profile element 452 is illustrated having a protrusion 456 at the front side of the profile element 452, i.e. the side carrying part of the second, finished surface 414, and profile element 454 is illustrated having a recess 458 at the front of the profile element, i.e. the side carrying part of the second, finished surface, such that in position, i.e. when abutted against the wall 108 or the additional construction material, the two separate profile elements 452, 454 co-operate whereby the protrusion 456 of the first profile element 452 is able to slideably fit in the recess 458 of the second profile element 454. More in general, the two separate profile elements 452, 454 have end portions with a peculiar shape so that the two separate profile elements 452, 454 fit to each other by virtue of their shape, whereby once in position, the front side, i.e. the

second, finished surface 414 of the first profile element 452 is flush, i.e. lies in the same plane, with the second, finished surface 414 of the second profile element 454. In one embodiment, the protrusion 456 and the recess 458 are such that, when the U-shaped element is positioned at the wall, the protrusion 456 exactly fills the recess 458, leaving no spacing in between.

**[0077]** In a preferred embodiment, moving the two separate profile elements 452, 454 relative to each other creates a smaller or larger groove 460 in the front side of the U-shaped element 450, whereby the groove 460 is determined by two side walls and a back wall, determined by end portion surfaces 462 and 464 and 466 of the two profile elements 452, 454. Shifting the profile elements 452, 454 with respect to each other thus allows to change the distance between the legs 406, 408 of the created U-shaped element 450 and thus to adjust the U-shaped element 450 to the wall thickness. The groove 460 created by shifting the two profile elements 452, 454 with respect to each other can be filled with covering material 116, preferably spreadable covering material like e.g. plaster, stucco or cement. The material wherein the profile elements 452, 454 are made preferably is such that spreadable covering material, like e.g. plaster, stucco or cement, has a good sticking behaviour to the two profile elements 452, 454. The filled groove 460 is illustrated in Fig. 15.

**[0078]** An illustration of the two separate profile elements 452, 454 is shown in Fig. 16. Besides the different components as described above, Fig. 16 also illustrates the optional feature of a small groove 470 in the profile elements 452, 454, which may be incorporated as a small decorative effect in the minimalistic design. It is an advantage of this embodiment that the U-shaped element 450 is adjustable to the thickness of the wall, such that there is no need for different U-shaped elements 450 for different wall thicknesses.

**[0079]** In a further embodiment of the framework related aspect of the invention, the finishing means 400, i.e. comprising the U-shaped element 402, 450, is adapted for receiving part of a door or a window such that the door fits in the framework created by the finishing means. In this way, if the door is closed, the surface of the door, the surface of the finished wall and the second, finished surface of the finishing means oriented to the room are flush, i.e. lie in the same plane, or in other words the wall, the finishing means and the door surface are level. This supports a modern minimalistic look. In order to obtain this, the U-shaped element 450 may be provided with a recess 480, wherein the edge of the door fits. Furthermore, as shown in Fig. 17 and Fig. 18, regions 482, 484 may be provided which can be removed as to provide space for a means for receiving the door cam or for the hinges of the door respectively. These regions 482, 484 may be determined by breaking lines such that they can be easily removed under e.g. pressure. The recesses 480 may be provided both at the side where the door is to be rotatably connected to the wall and at the side where

the cam of the door lock clicks into the corresponding plate, when the door is closed. The recesses 480 thereby can act as a draught-stopper to prevent draught in the rooms. Alternatively, if no recesses are present in the framework, the door is adjusted to fit between the base portions of the U-shaped element on either side of the door if it would be closed. The hinges that are used can be any type of hinges suitable for rotatably connecting a door to a framework such as butterfly hinges, flush hinges, barrel hinges, piano hinges, etc.

**[0080]** The system is illustrated in Fig. 19 whereby a horizontal cross-section of a doorway based on two U-shaped elements 450 with a rotatably connected door 490 is shown.

**[0081]** Similar to the previous aspects of the invention, a third aspect of the invention also relates to a method for finishing i.e. in particular a method for finishing an open end of a free standing wall or a hole such as a doorway, whereby the U-shaped elements 400, 450 first are connected to the wall 108 or the corresponding construction material 312, the wall 108 and the end portions of the U-shaped element subsequently are covered with covering material which may be spreadable covering material 116 such as plaster, stucco, cement or a combination of plate like material 117 such as plasterboard and spreadable material 116 such as joint filler, and whereby, if present, the groove between the two elements of the U-shaped element 450 is filled with filling material, like spreadable covering material 116 such as for example plaster. Application of the spreadable covering material 116 is assisted by using the guiding surface, which typically is part of the finished surface and is positioned adjacent the region where the covering material 116 needs to be applied. The guiding surface extends over at least 5 mm, preferably over at least 1 cm, more preferably over at least 2 cm in the direction of the region where covering material 116 needs to be applied. If a door needs to be provided, the hinges and door lock plate can be subsequently provided in the recesses 480 in the U-shaped element, after the removable regions 482 and 484 have been removed. The door can then be mounted.

**[0082]** The finishing means of the embodiments of the present aspect may comprise additional features such as small decorative features having a minimalistic look or the possibility to incorporate lighting means. Furthermore, the degree of finishing of the second, finished surface may already be high, i.e. the surface may already be provided with the final surface pattern and colour during fabrication.

**[0083]** A fourth aspect of the present invention relates to a finishing means 500 for finishing a utility access point in a wall 108 to be finished by plastering, stuccoing, cementing or finishing using plate like material 117 and joint filler 116. The utility access point may for example be, but is not limited to, an electrical socket, a switch, a socket for telephone connection, a socket for cable connection, a socket for speaker connection, a socket for internet connection, a socket for optical receivers, such as IR and

RF transmitters/receivers, etc.

**[0084]** Fig. 20 illustrates finishing means 500 for the utility access point, so that the utility access point can be integrated nearly completely in the wall or its covering material. The finishing means 500 comprises at least a first element that has a first surface 502 adapted for abutting at least partly against a wall 108 or additional construction material, a second, finished surface 504, that is oriented towards the room, and legs 506 with end portions 508 that are adapted to be covered with covering material 116, 117 used for finishing the wall 108. The covering material may be spreadable covering material 116 like e.g. plaster, stucco or cement or may be filling material 116 which is used in combination with plate like material 117 such as e.g. plasterboard material.

**[0085]** The end portions 508 may be adjusted such that they have a large degree of interaction with the covering material 116, i.e. for example comprise a slanted surface or a tooth-like structure. These features are described in more detail in the previous embodiments. The installation of the finishing means is such that the second finished surface 504 of the finishing means for the utility access point is, after finishing, flush, i.e. in the same plane, with the front surface of the covering material 116, 117 on the surrounding wall 108 or construction material where no finishing means is present and that the transition from finishing means 500 to covering material 116 is fluently and without additional curvature or cracks near the joint. The finishing means 500 therefore comprises a guiding means or guiding surface 509 as an aiding means for the craftsman applying the covering material 116. This guiding surface 509 is part of the second finished surface 504 and is positioned adjacent the region where covering material 116 needs to be applied. It is a guiding surface 509 or area extending over at least 5 mm, preferably at least 1 cm, more preferably at least 2 cm in the direction of the region where covering material 116 needs to be applied. The finishing means 500 is adapted to comprise an accessing region, which can be used to obtain access to the utility appliance, such as the power network, the cable network, the telephone network, etc.

**[0086]** In a further embodiment, the fourth aspect of the invention also relates to a method of finishing a utility access point, whereby the position of a utility access box is determined; the appropriate wiring is led to that position and a hole is provided for the electrical part of the utility access box in the wall or the construction material. The first element of the finishing means 500 then is positioned such that the accessing region 510 will be positioned on top of the hole, and the legs 506 at least partly are abutted against the wall 108 or additional construction material. Then the wall 108 is covered with covering material 116, 117, thereby creating a surface of the covering material 116 which is flush, i.e. lies in the same plane, with the second, finished surface 504 of the first element of the finishing means 500. The finishing means then is further finished by providing an accessing region for access to

a utility appliance, such as the power network, the cable network, the telephone network, etc.

**[0087]** The finishing means 500 of the embodiments of the present aspect may comprise additional features such as small decorative features having a minimalistic look or the possibility to incorporate lighting means. Furthermore, the degree of finishing of the second, finished surface 504 may already be high, i.e. the surface may already be provided with the final surface pattern and colour during fabrication.

**[0088]** Whereas the finishing means for a utility access point has been described as a separate finishing means 500, it also can be combined with any of the finishing means described in the previous aspects. The skirting board finishing means, the outside corner finishing means or the framework finishing means may comprise a part that can be removed, e.g. under pressure, and wherein e.g. the second element, as described in the above embodiment for the finishing means for a utility access point, fits.

**[0089]** The invention furthermore also relates to the aspect of a finishing means for neatly finishing an inside corner between two walls. Two examples of finishing means are shown in Fig. 21 to Fig. 22. In Fig. 21 a finishing means for obtaining a rounded corner is shown, whereas in Fig. 22, a finishing means for obtaining a right corner is shown.

**[0090]** The finishing elements 600 shown comprise a first surface 602, which is adapted for being at least partly abutted against a wall 108 or construction material such as e.g. wooden beams or metal profiles at the ceiling, and a second, finished surface 604 which is typically oriented towards the room. The shape of this second surface 604 may be curved or making a right angle or may have any other suitable shape.

**[0091]** The finishing elements 600 furthermore comprise end portions 606, which are adapted for being covered with covering material 116 (not shown in Fig. 22). Similar to the embodiments described above, the end portions 606 may be adapted for improved interaction with the covering material 116, i.e. these may be slanted or comprise a tooth-like structure.

**[0092]** At the front side, i.e. the side oriented towards the room, a guiding surface 608 may be provided that helps the craftsman for plastering, such that there is no additional curvature in the region where the front surface of the covering material 116 and the front surface of the finishing means 600 touch each other. The guiding surface 608 is positioned adjacent the region where covering material 116 needs to be applied and extends in the direction of that region over at least 5 mm, preferably at least 1 cm, even more preferably at least 2 cm.

**[0093]** The finishing means 600 allows to create a fluent transition between the second, finished surface 604 of the finishing means 600 and the front surface of the covering material 116.

**[0094]** In a further embodiment of the present aspect of the invention (not illustrated in the drawings), the fin-

ishing means 600 may be adapted to incorporate lighting means, preferably providing indirect lighting, or may comprise an additional feature to have a small decorative effect.

5 **[0095]** It is an advantage of the present invention that the finishing means of the above described embodiments allow an easy and fast installation whereby the time to dry is significantly reduced as the finishing of edges, corners, etc. is done in one plastering movement, whereas  
10 in prior art systems, typically a number of plastering movements and sanding movements are necessary to obtain a neat finishing.

**[0096]** In a first embodiment of a further aspect of the present invention, finishing means are provided according to any of the above described device embodiments,  
15 wherein the different finishing means 700 are clickable, shiftable, clippable or in other words connectable by clicking, shifting, clipping etc.. The finishing means 700 as described in any of the previous embodiments are provided at the edges with connection features 702 of specific shape, such that two or more finishing means 700  
20 can be connected or can be aligned by shifting or clicking or clipping such connection features 702 with respect to each other. The finishing means 700 thus fit to each other  
25 by virtue of their shape. Different types of finishing means 700, such as flat profiles, corner profiles, U-profiles, profiles for finishing a utility access point, etc, may be all clickable, shiftable, clippable with one another. By way of example, the connection features 702 with specific  
30 shape may be shaped such that, for providing a finishing at an edge where the connection feature 702 is not used, the finishing means 700 still comprises at least one end portion having a finished surface such that when mounted the at least part of said finished surface lies in the  
35 same plane as and is adjacent to at least part of a front surface of applied covering material. The connection features 702 may allow supporting the craftsman in aligning the structure, e.g. by shaping the connection features 702 such that by clicking, shifting or clipping an appropriate alignment is obtained. By way of example, two different finishing means 700 having connection features  
40 702 for connection to other finishing means are shown in Fig. 23a, Fig. 23b.

**[0097]** In a second embodiment of the further aspect of the present invention, a method 250 for obtaining a neat finishing of a transition between a first and a second area of a room is described according to any of the above described method embodiments. The method of the present embodiment differs in that after connecting a first  
45 finishing means against a wall, other finishing means may be positioned and or aligned by clicking them to the first finishing means, positioning a first finishing means. Typically edges where no use is made of the clicking systems are finished as described in any of the previous method  
50 embodiments, whereas edges where two or more finishing means are connected to each other, positioned or aligned are finished by providing a filling material. The filling material may be a glue to improve the connection

between different profiles. Gluing then can be performed rather easily as alignment is not an issue anymore because of the alignment action performed by connecting the profiles to each other. Examples of connected finishing means 700 with connection features 702 are shown in Fig. 24a and Fig. 24b. Finishing means 700 are applied to cover construction material 710, such as bricks, metal studs, wooden constructions, etc. In Fig. 24a, an example is provided wherein a finishing means 700 being a corner profile is used for finishing a corner. At one side the corner is finished using spreadable covering material 714 such as plaster. At the other side the corner is finished using plasterboard, whereby the edge is finished using a filling material 712. In order to align the plasterboard, a distance keeper 716 may be used. In Fig. 24a, a corner profile and an elongate profile are connected to each other. The space left in between the connection features 702, typically is filled with filling material 712. This may be e.g. a glue or plaster material. At the other edge of the corner profile, a plasterboard 718 finishing is illustrated, using a filling material 712.

**[0098]** Other arrangements for accomplishing the objectives of the aiding means for plastering and finishing a minimalistic room embodying the invention will be obvious for those skilled in the art.

**[0099]** It is to be understood that although preferred embodiments, specific constructions and configurations, as well as materials, have been discussed herein for devices according to the present invention, various changes or modifications in form and detail may be made without departing from the scope and spirit of this invention. In particular, whereas the invention has been described by means of different separate aspects, the invention also relates to the finishing of a room comprising a combination of several of the above-described aspects. For example, the invention also relates to a method for finishing a room or a part thereof, wherein at least one of, and preferably a plurality of, a skirting board, an outside corner a framework or a utility access point need to be finished. The method for finishing a room or a part thereof, may be e.g. a method for finishing a room or a part thereof with at least a skirting board and a wall end, e.g. being part of a framework. Thereby use is made of any of the finishing means as described above. The method comprises the steps of positioning and mounting of at least part of the finishing means, subsequently covering the walls with covering material, thereby also covering the end portions of the finishing means which are adapted to be covered with covering material, and if necessary further finishing the finishing means, i.e. for example mounting a second element of the finishing means. Covering thereby is assisted by a guiding surface which extends at least over 5 mm, preferably over 1 cm, more preferably over 2 cm in the direction of the region to be covered and is adjacent that region. This allows that the finished surface of the profiles lie in the same plane as the front surface of the covering material. It thereby is an advantage that different types of finishing of the room

can be done with a similar type of finishing means, thus supporting a neat finish. The neat finish is also obtained by the different finishing means all interacting in the same way with the covering material. It thus is an advantage that different aspects of the room can be finished with finishing means based on the same concept. All finishing means furthermore support the minimalistic look as they do not have protruding parts extending outside the surfaces of the finished areas.

## Claims

1. A method for finishing a room, the room comprising a transition region between a first area and a second area, the method comprising
  - connecting a finishing means comprising foamed thermoplastic material or wood plastic composite on said transition region, the finishing means comprising at least one end portion extending onto said first area and at least a finished surface, and
  - covering said first area and said at least one end portion with covering material, such that at least part of said finished surface lies in the same plane as and is adjacent to at least part of a front surface of said applied covering material.
2. A method for finishing a room according to claim 1, wherein said finishing means consist of foamed thermoplastic material or wood plastic composite.
3. A method for finishing a room according to any of the previous claims, said foamed thermoplastic material or wood plastic composite being foamed material.
4. A method for finishing a room according to any of the previous claims, said foamed thermoplastic material having a density between 330kg/m<sup>3</sup> and 570kg/m<sup>3</sup>.
5. A method for finishing a room according to any of the previous claims, wherein said at least part of said finished surface extends over at least 0.5 cm, preferably over at least 1 cm, more preferably over at least 2 cm in the direction of said first area.
6. A method for finishing a room according to any of the previous claims, wherein covering said first area and said at least one end portion comprises
  - applying covering material on said first surface and on said end portion of said finishing means, and
  - making a fluent transition between said finished surface and said covering material by gliding

- with a linear aiding means from said at least part of said finished surface towards said covering material.
7. A method for finishing according to any of the previous claims, wherein said finishing means is any of a skirting board, a finishing means for an outside corner between two walls, a framework for a hole in a wall or a finishing means for a utility access point. 5
8. A method for finishing according to any of the previous claims, said finishing means comprising two elements, wherein, before connecting the finishing means on said transition region, the finishing means are adjusted to a characteristic dimension of the second area by shifting the two elements with respect to each other. 10
9. A method for finishing according to any of the previous claims, the finishing means furthermore comprising lighting means, wherein, before covering, said lighting means are provided with a connection to a power source. 15
10. A finishing means for finishing a transition region between a first area and a second area of a room, said first area being intended to be covered with spreadable covering material, said finishing means comprising a first surface a second, finished surface opposite said first surface and at least one end portion, whereby 20
- said first surface is adapted for at least partial abutment against said transition region, and
  - said end portion is adapted to be covered with said covering material such that at least part of said second, finished surface of said finishing means lies in the same a plane of and is adjacent to a top surface of said spreadable covering material, 25
  - said finishing means comprises foamed thermoplastic material or wood plastic composite. 30
11. A finishing means according to claim 10, wherein said finishing means consist of foamed thermoplastic material or wood plastic composite. 35
12. A finishing means according to any of claims 10 to 11, said foamed thermoplastic material or wood plastic composite being foamed material. 40
13. A finishing means according to any of claims 10 to 12, said foamed thermoplastic material having a density between 330kg/m<sup>3</sup> and 570kg/m<sup>3</sup>. 45
14. A finishing means according to any of claims 10 to 13, wherein said at least part of said second, finished surface extends over at least 0.5 cm, preferably over 50
- at least 1 cm, more preferably over at least 2 cm in the direction said first surface.
15. A finishing means according to any of claims 10 to 14, wherein said end portion has a slanted surface oriented towards the room, which slanted surface slopes from said first surface to said second surface. 55
16. A finishing means according to any of claims 10 to 15, wherein said end portion has a surface roughness or a surface structure on its surface oriented towards the room.
17. A finishing means according to any of claims 10 to 16, wherein said finishing means is a U-shaped element having a base portion and two legs to form a framework for an opening in construction material.
18. A finishing means according to claim 17, wherein said U-shaped element comprises two elements, shiftable with respect to each other in order to adapt the width of the base.
19. A finishing means according to claim 18, wherein said two elements at least partly fit together by virtue of their shape.
20. A finishing means according to any of claims 10 to 19, wherein said finishing means is a finishing means for a utility access point being any of an electrical socket, a switch, a socket for telephone connection, a socket for internet connection, a socket for cable connection, a socket for speaker connections, an electromagnetic radiation receiving device.
21. A finishing means according to any of claims 10 to 16, wherein said finishing means is a finishing means for an outside corner between two walls.
22. A finishing means according to any of claims 10 to 16, wherein said finishing means is a skirting board comprising two elements, said elements at least partly fitting together by virtue of their shape.
23. A finishing means according to any of claims 10 to 22, wherein said finishing means furthermore comprises a means for receiving a lighting means.
24. A finishing means according to any of claims 10 to 19 and claims 21 to 23, wherein a region is provided, adapted to be replaced with a utility access point means.
25. A method for finishing a room the method comprising 55
- connecting finishing means comprising foamed thermoplastic material or wood plastic composite to a wall, said connecting comprising

connecting a first profile for finishing a wall end,  
to an end portion of said wall, and connecting a  
second profile, being a first part of a skirting  
board, to said wall, adjacent to said first profile,  
and  
- after connecting finishing means to a wall,

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covering said wall and at least one end portion of  
each of said first and second profiles with covering  
material such that at least part of a finished front  
surface of each of said finishing means lies in the  
same plane as and is adjacent to at least part of a  
front surface of said applied covering material.

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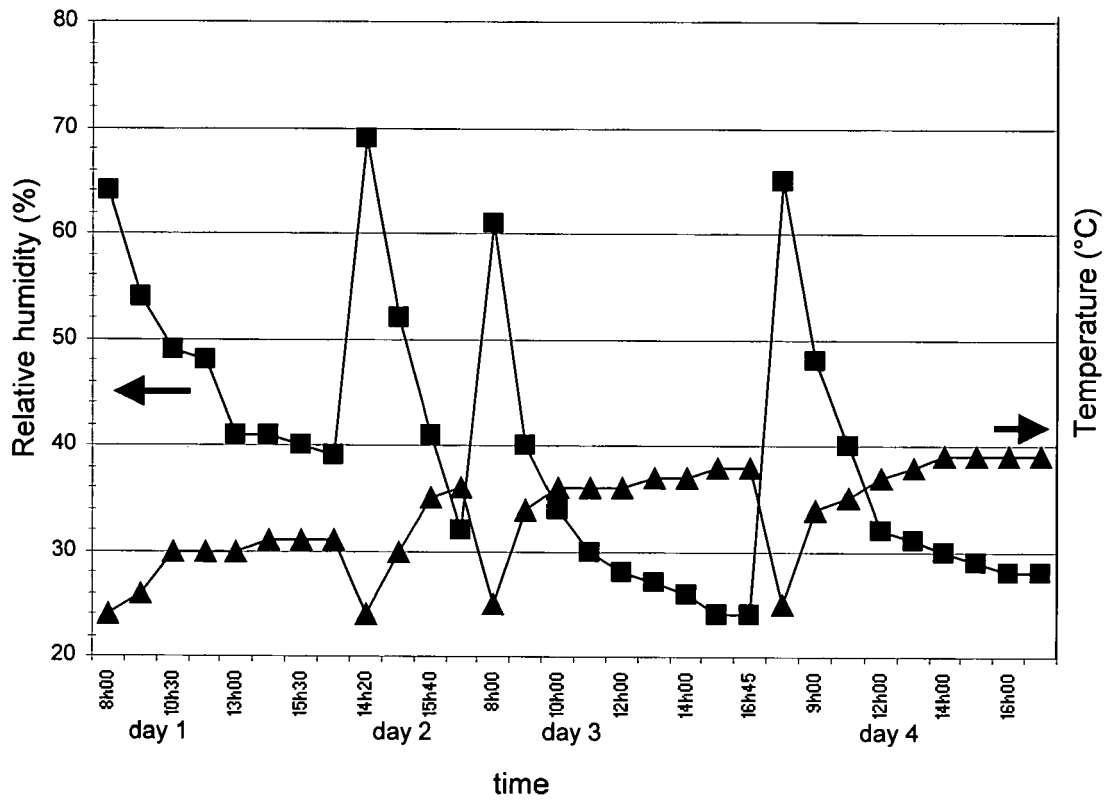
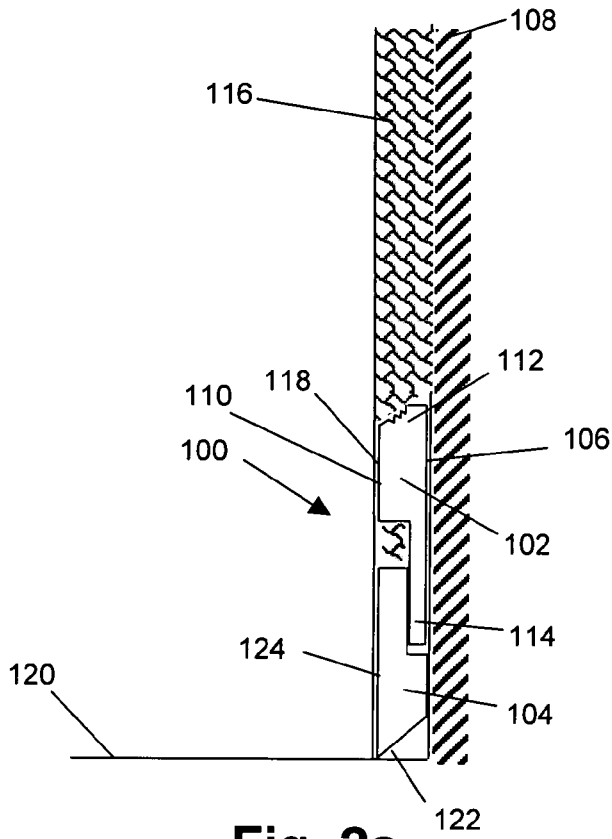
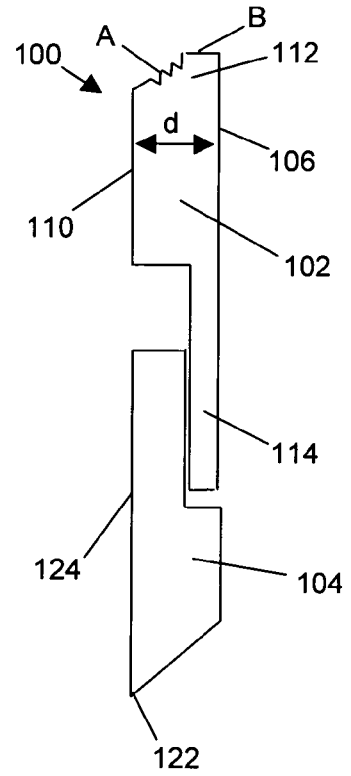


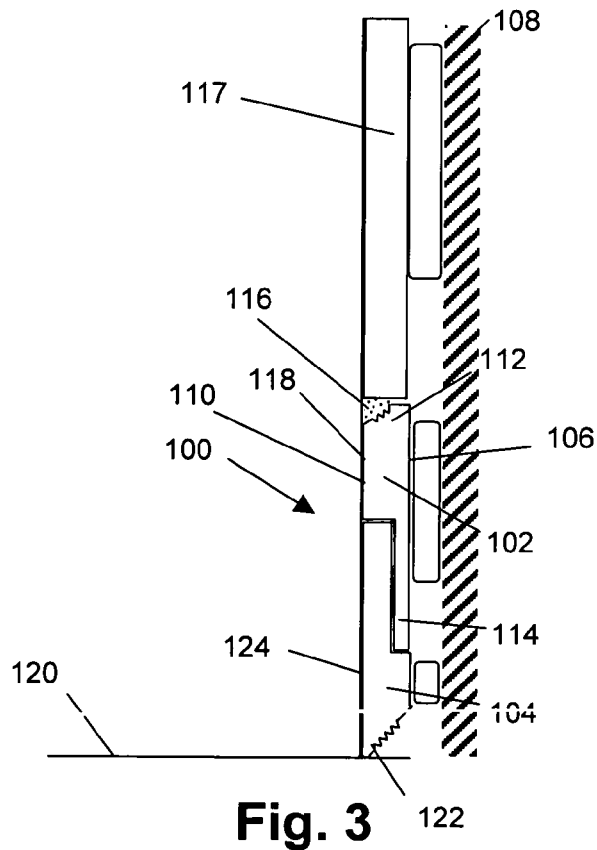
Fig. 1



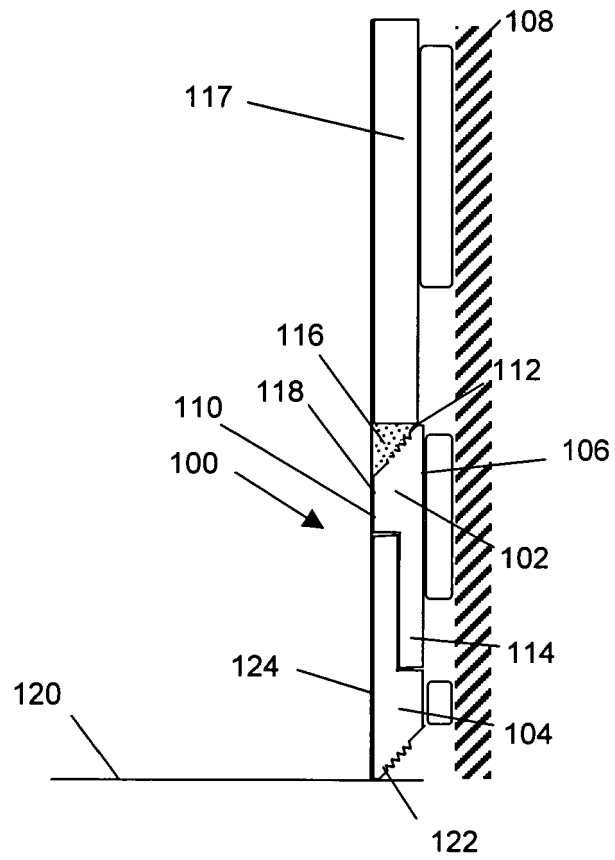
**Fig. 2a**



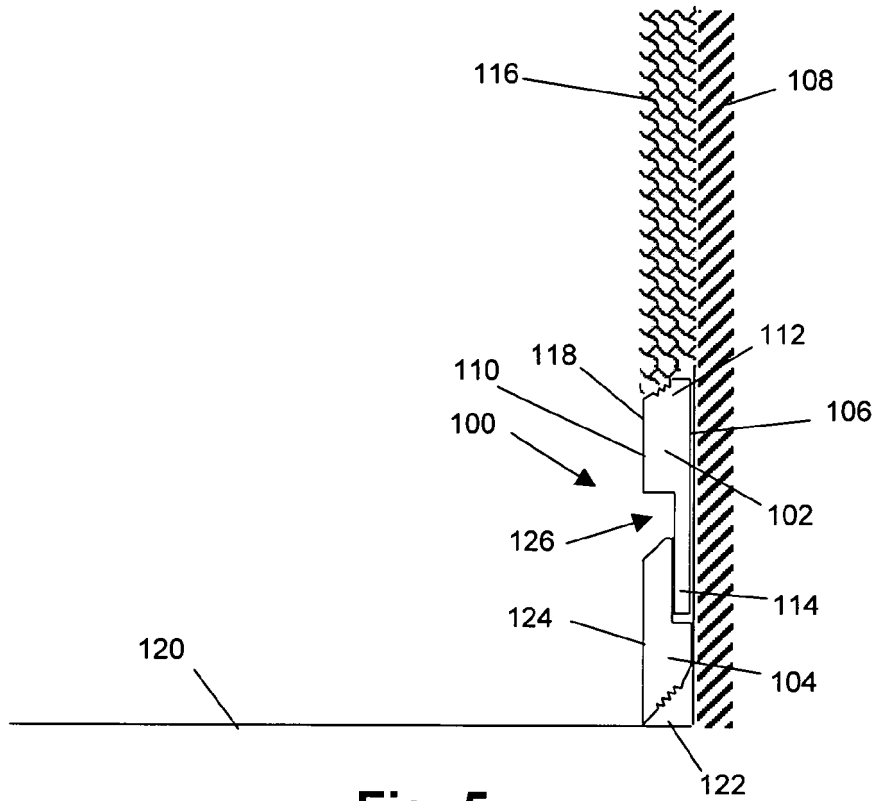
**Fig. 2b**



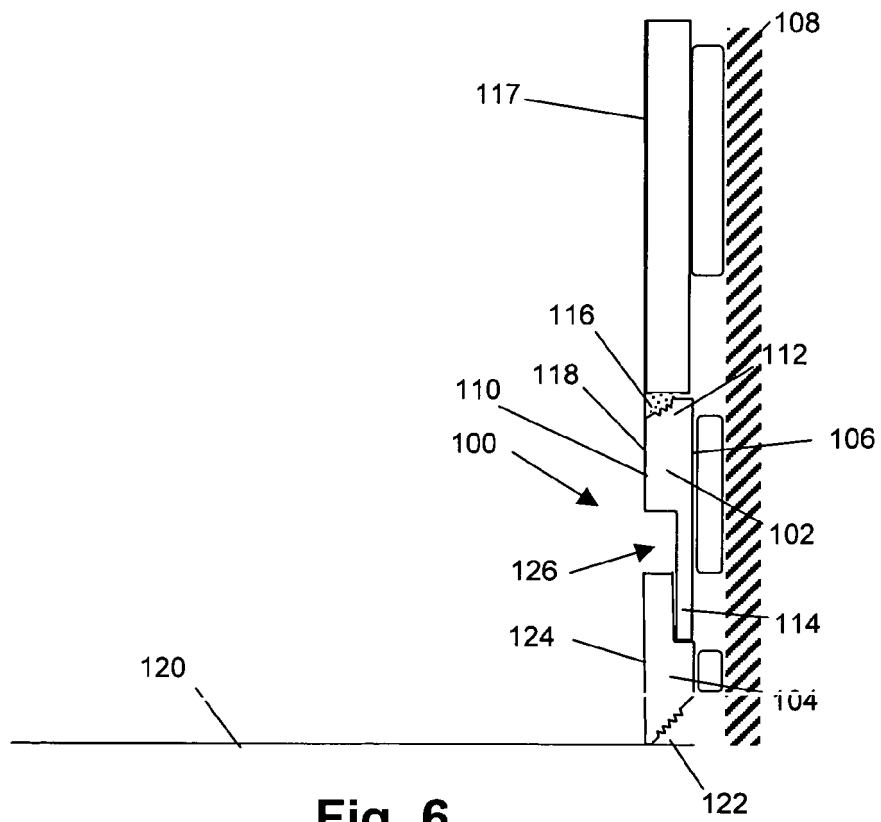
**Fig. 3**



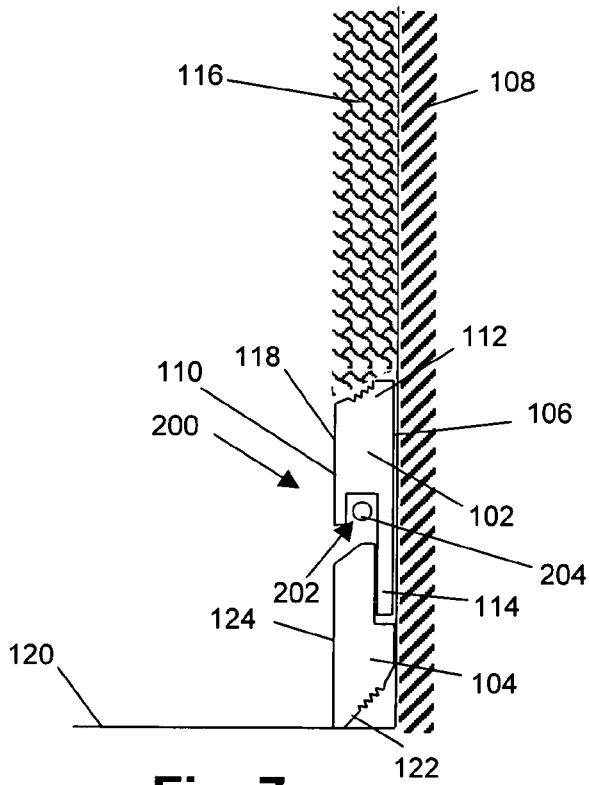
**Fig. 4**



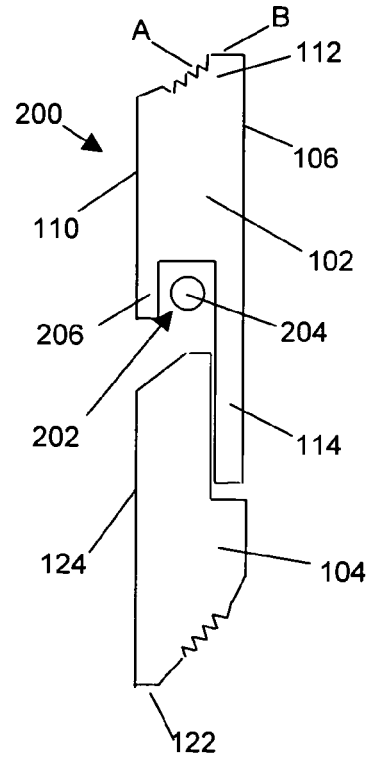
**Fig. 5**



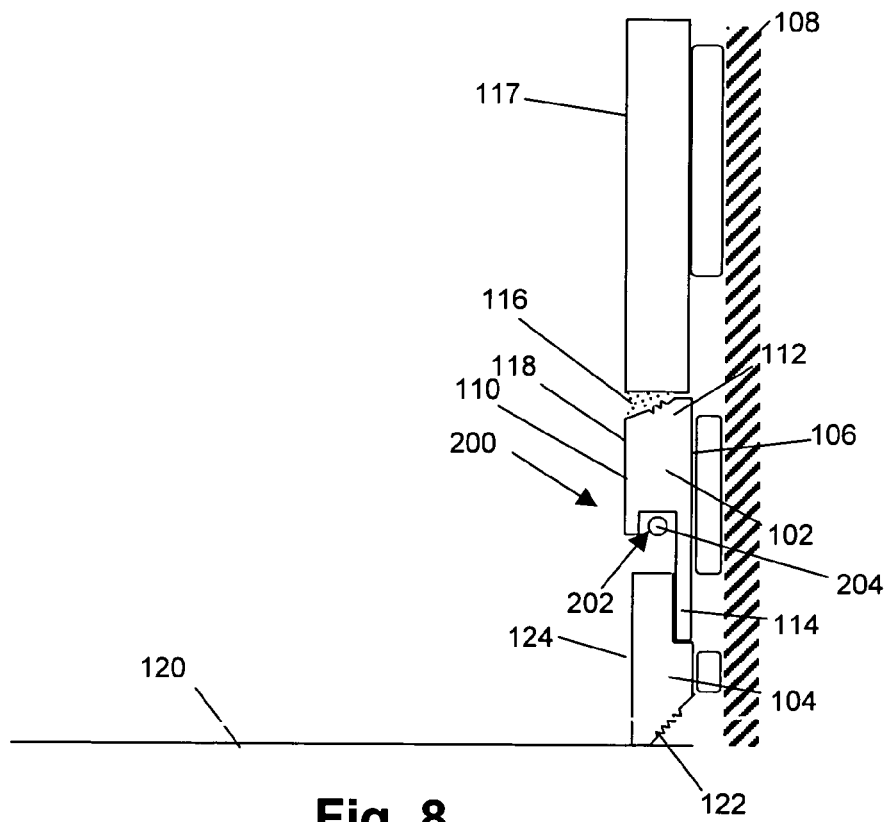
**Fig. 6**



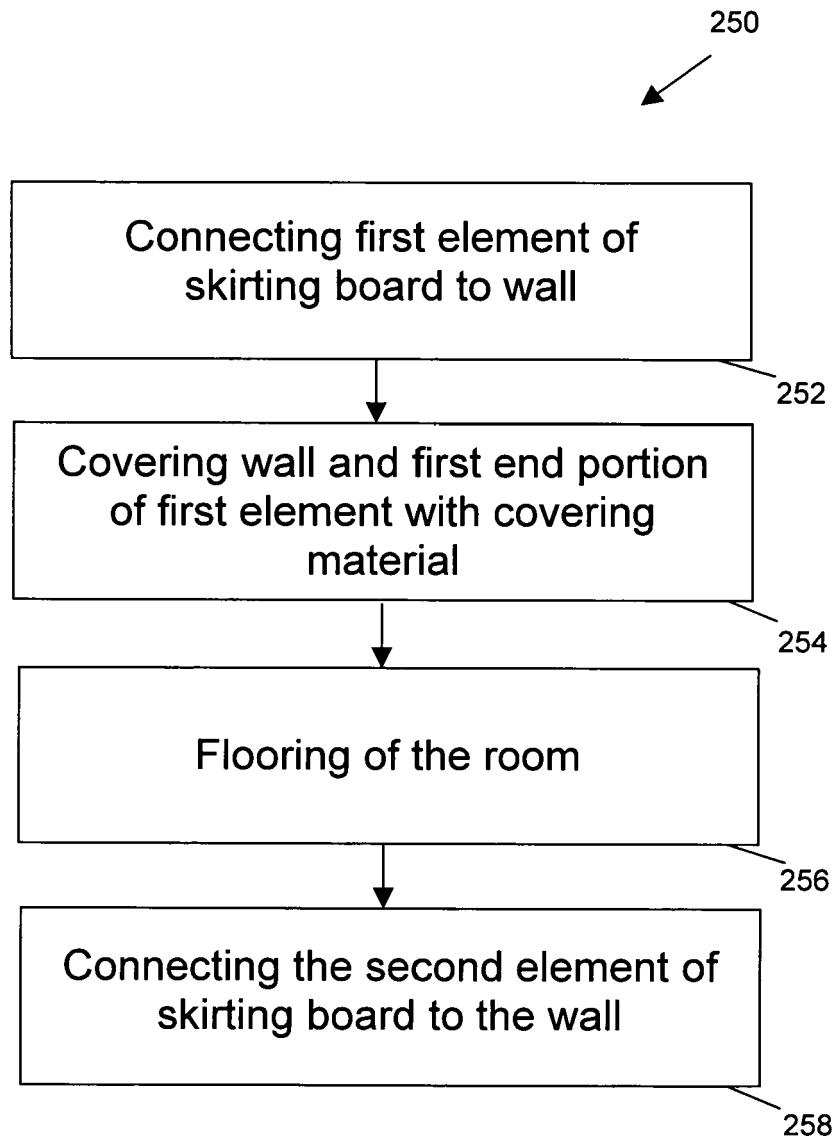
**Fig. 7a**



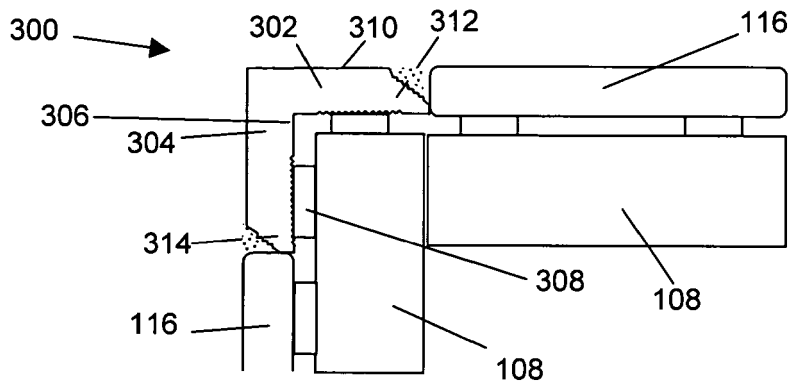
**Fig. 7b**



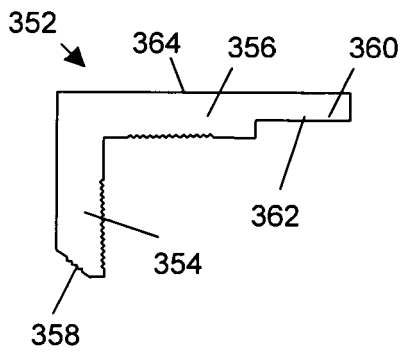
**Fig. 8**



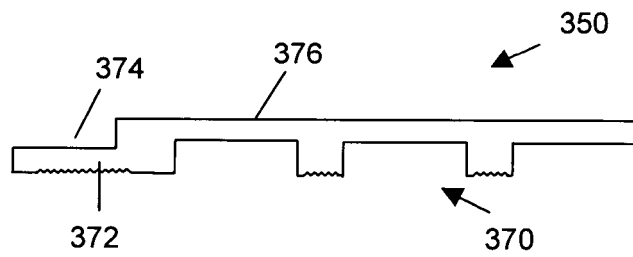
**Fig. 9**



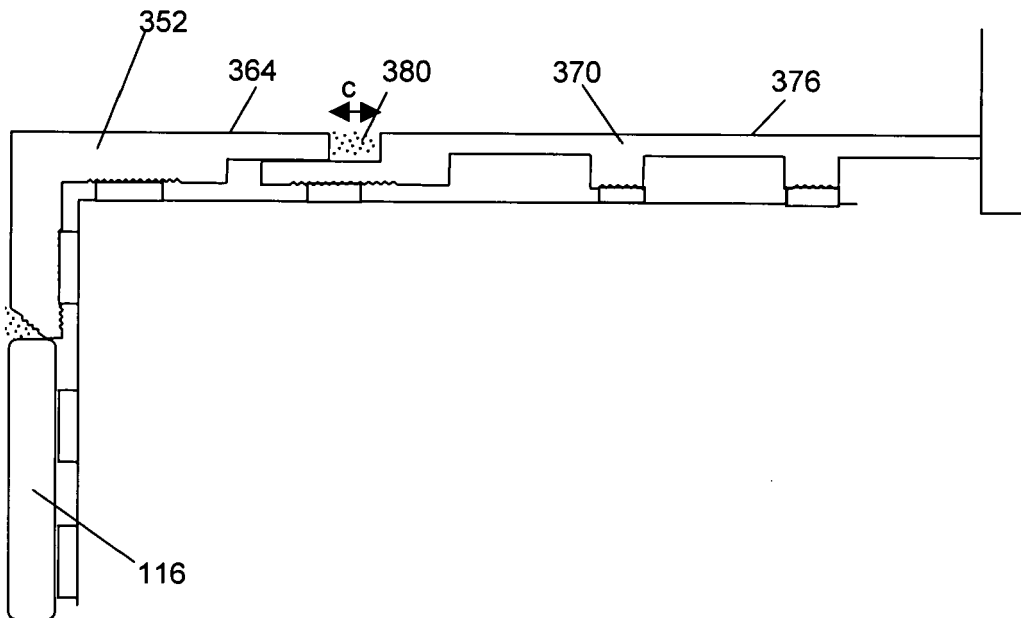
**Fig. 10**



**Fig. 11a**

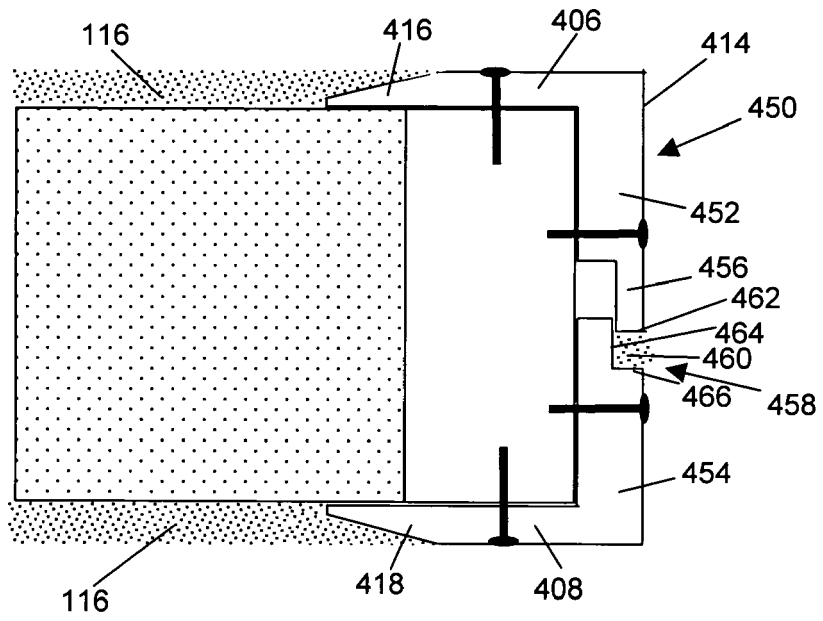


**Fig. 11b**

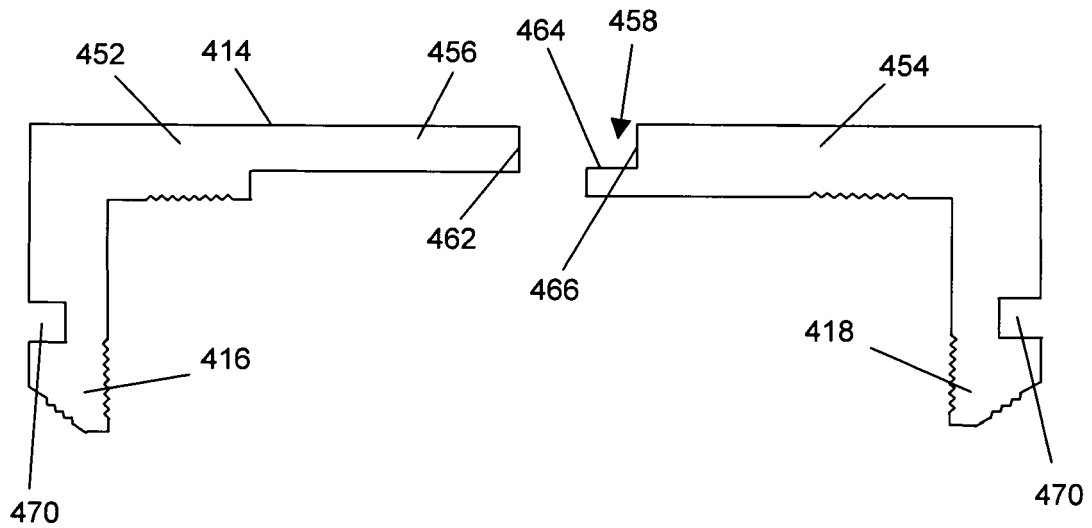


**Fig. 12**

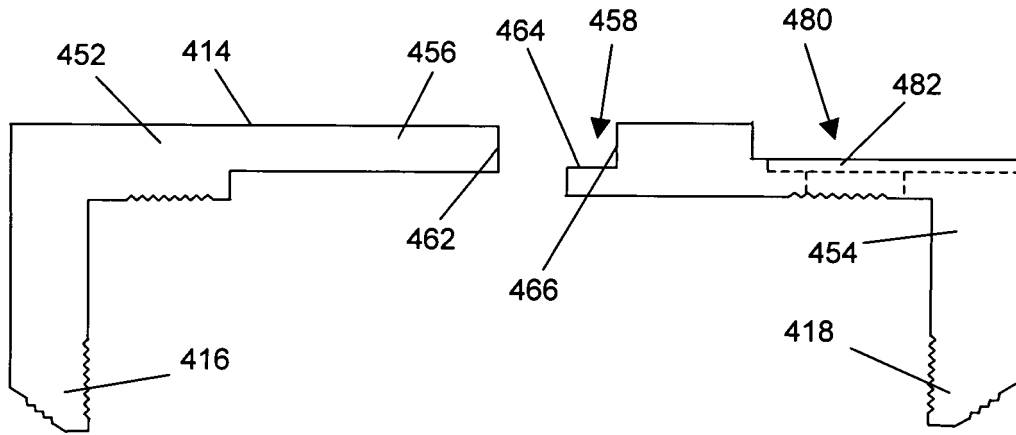




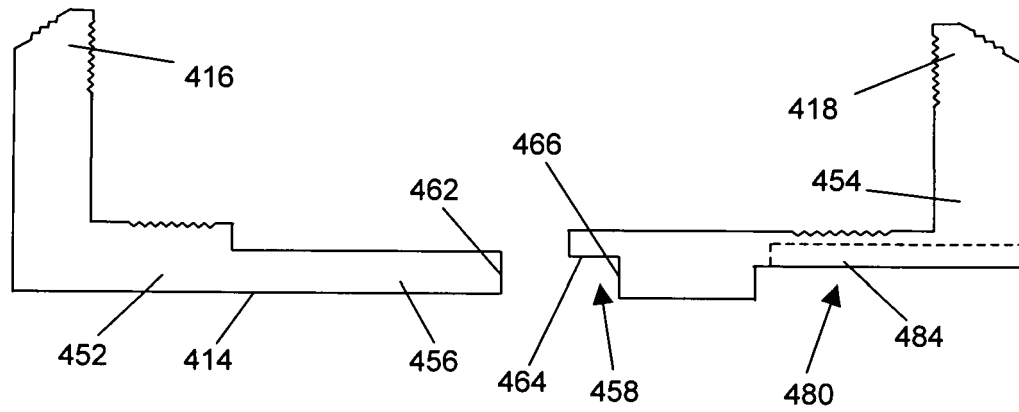
**Fig. 15**



**Fig. 16**



**Fig. 17**



**Fig. 18**

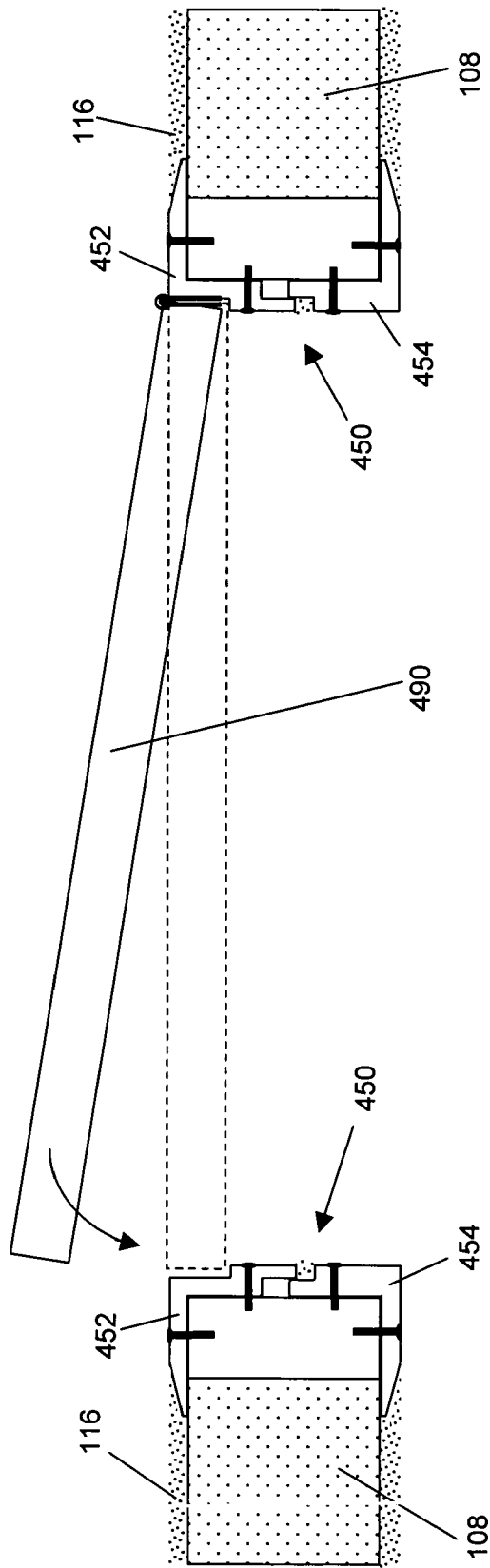
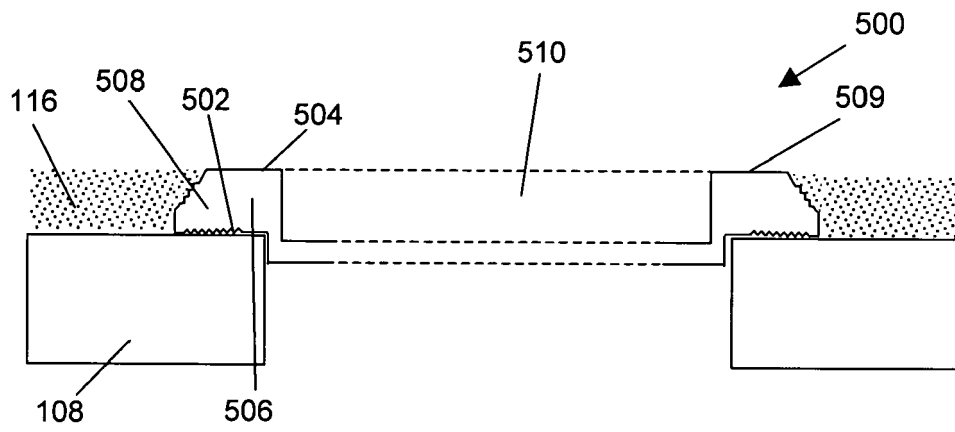
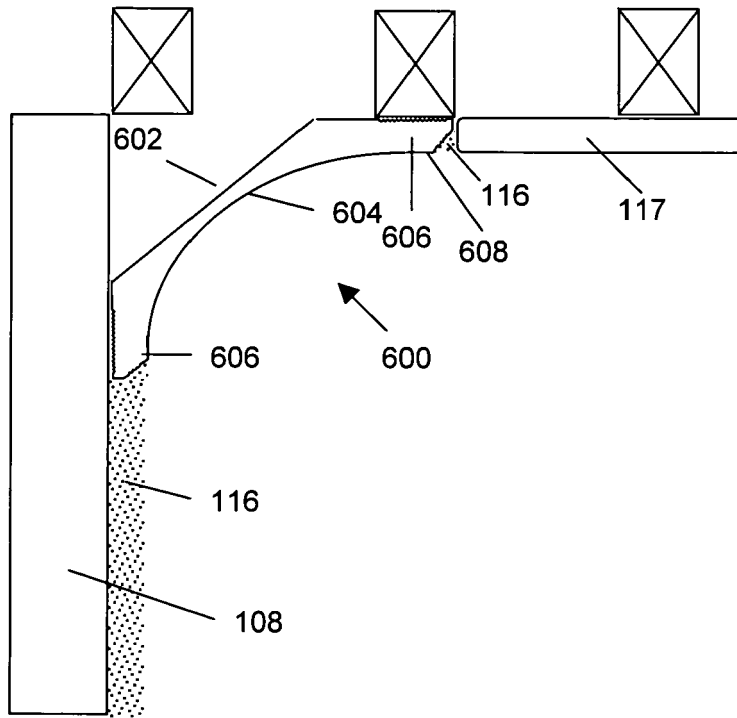


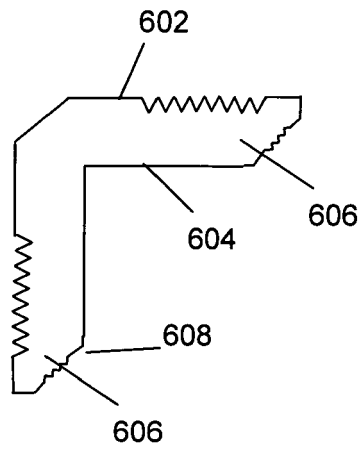
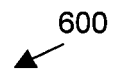
Fig. 19



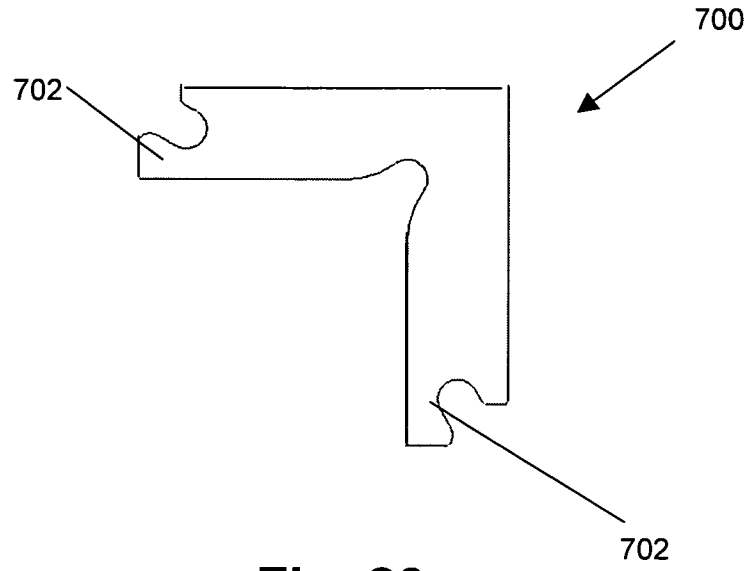
**Fig. 20**



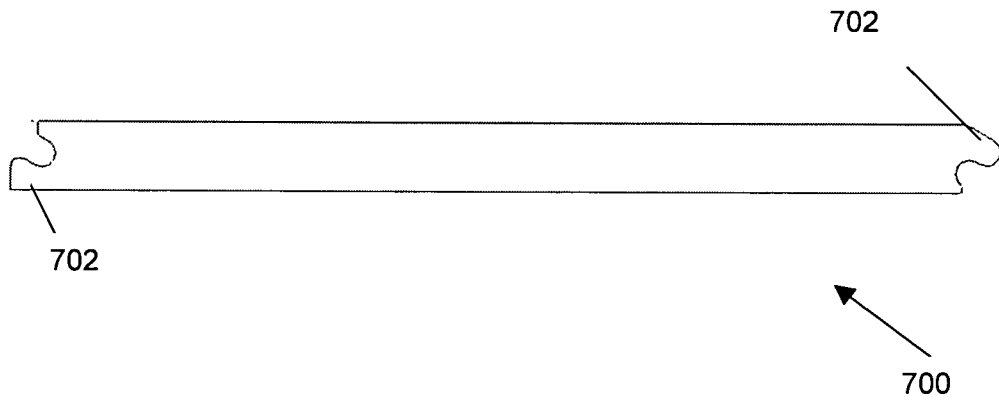
**Fig. 21**



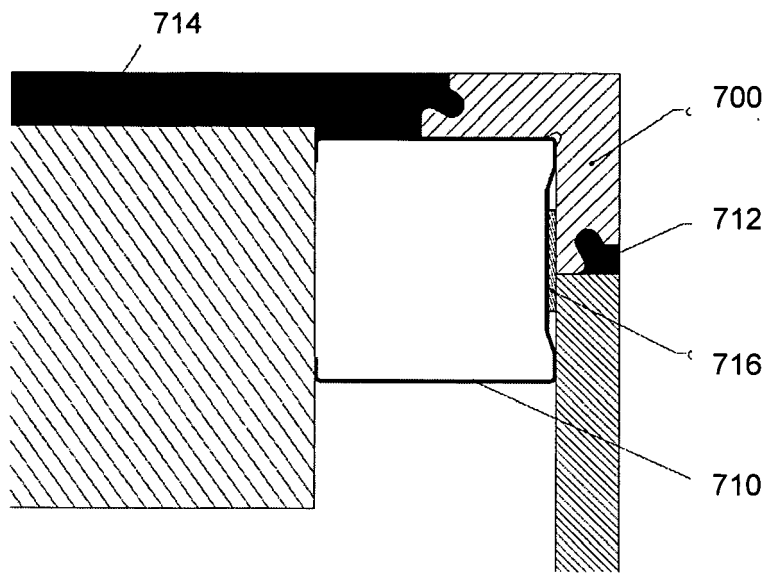
**Fig. 22**



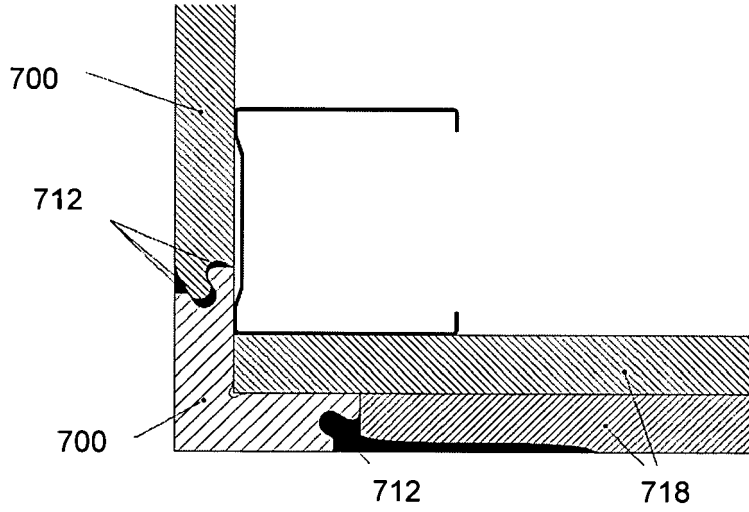
**Fig. 23a**



**Fig. 23b**



**Fig. 24a**



**Fig. 24b**



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 5 022 212 A (LIPPOLT ET AL) 11 June 1991 (1991-06-11)  * page 1, line 6 - line 12 * * page 2, line 49 - page 4, line 25 * * figures *	1,2,5-7, 10,11, 14-16,21	E04F19/02 E04F13/04 E06B1/62 E04F19/08
A	WO 00/78538 A (MAURER, SCOTT, D) 28 December 2000 (2000-12-28) * page 4, line 19 - line 25 * * page 5, line 20 - line 36 *	1,10,25	
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			E04F E06B
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 14 February 2006	Examiner Bouyssy, V
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