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(72) Inventors:
• **ZAPATA MORCILLO, Edurne**
31080 Pamplona (ES)
• **MARTINEZ CACHO, Carlos**
31080 Pamplona (ES)

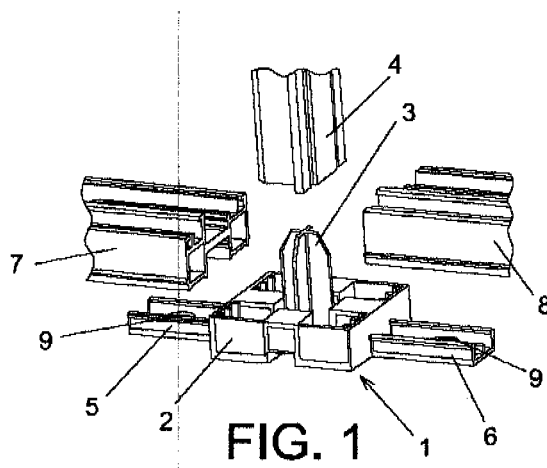
(71) Applicant: **Movinord, S.A.**
31080 Pamplona, Navarra (ES)

(74) Representative: **Molina Garcia, Julia**
Moratin, 11 - 19^a
46002 Valencia (ES)

(54) **PARTITION SYSTEM**

(57) The invention relates to a system by means of which it is possible to construct a partition between a floor and a ceiling, based on transparent elements comprising preferably glass panels and connecting parts or nodes also made from a preferably transparent material of the high-impact polymethacrylate type (HI PMMA). The design of the different constituent parts or nodes of the sys-

tem is based on: compartmented hollowed-out bodies that are shaped to facilitate the different mounting operations used to form right angle corners, the provision of fixed and moving parts at the lower or upper hinges of hinged doors, the fitting and fixing of frame or pre-frame sections in the doors, the application to sliding doors or the provision of individual electrical distribution modules. The system can be dismantled and reused.



Description

Object of the Invention

[0001] The present invention relates to a partition system providing essential novelty features and considerable advantages with respect to the means known and used for the same purposes in the current state of the art.

[0002] More specifically, the invention proposes the development of a system by means of which it is possible to make the division with the use of preferably transparent panels made of glass, plastic or another similar material, with the use of fixing parts for fixing the different components which are specifically designed depending on the position and mission which they must fulfill in the assembly of the installation, which are likewise manufactured with preferably transparent materials, and which have furthermore been configured such that they allow connections by clipping, insertion or any other method. The system has the feature of being able to be dismantled and reused.

[0003] The field of application of the invention is comprised within the industrial sector dedicated to carrying out and performing design, decoration, interior design jobs and the like.

Background and Summary of the Invention

[0004] The need to construct partitions or divisions for the purpose of dividing a With predetermined dimensions into multiple sub-spaces with more reduced dimensions is generally known. This is the case, for example, of certain workplaces in which the available space must be divided into multiple compartments for the different persons occupying it, and for the purpose of providing each of them with a certain intimacy and isolation in order to carry out the functions assigned to them.

[0005] To solve the problem of the partition, panels constructed from metal structures with opaque or transparent materials have been used for many years, which panels, arranged vertically and secured by means of metal section elements, form walls dividing each compartment.

[0006] However, in the last few years, the concepts of partition and division are being substituted by other more modern and current trends, based on minimalist definitions in which there is a trend to drastically/reduce the diversity of materials used, for the purpose of providing the finished assembly with a more uniform and homogeneous appearance.

[0007] By following these principles associated to more current trends, the main objective of the present invention is to develop a system by means of which it is possible to construct partitions with a perfect homogenization of results based on a preferred use of transparent materials, and therefore with a minimization of the presence of metal or opaque elements. The indicated objective has been fully reached by means of the system which

will be the object of the description below, the main features of which are included in the characterizing part of claim 1 and the dependent claims of which contain the preferred embodiments of the invention.

[0008] According to the proposal of the system developed by the invention, the division of the space is preferably carried out based on panels made of transparent materials, such as transparent plastic or glass panels, for which a plurality of parts has been designed which, located on the floor or the ceiling and fixed in their position with the aid of fixing elements, for example screws, allow such division to be effectively carried out. The mentioned parts, which will hereinafter be referred to as "nodes" as a result of the functions of meeting points and securing of panels and sections that they carry out, are also constructed in a preferably transparent material, preferably based on high-impact polymethacrylate (abbreviated as HI PMMA), and each of them consists of a suitable configuration for the function for which they are intended. This concept of nodes allows considerably simplifying the design of the partition, as they allow being used both in floors and in ceilings, which in turn allows a unique design for a kickplate element and upper crown element, giving as a result a greater transparency to the entire assembly, as well as a better integration of all the elements as the manufacturing materials have very similar characteristics.

[0009] The mentioned fixing parts or nodes admit designs with which the different mounting needs are solved, and for that purpose they can adopt configurations adapted for meeting points with the wall, square meeting points, electrical distribution needs, adaptation of hinged doors, installation of sliding doors, etc.

[0010] As it will be understood, a design of the type proposed above based on parts configured according to the functions for which they are only obtains the aesthetic and finish effects inherent to the uniformity and homogenization provided by the materials used but also provides practical advantages directly related with comfortable operative conditions of quick and easy installation and mounting, together with the possibility that, if necessary, parts can be dismantled and reused where appropriate. This partition wall furthermore technically improves the traditional system of hinged doors as it includes a preframe framing the glass of the door leaf. All of this with the additional feature of using identical parts for their positioning in a floor or a ceiling, with the subsequent reduction of different stored parts.

Brief Description of the Drawings

[0011] These and other features and advantages of the invention will be more clearly shown from the following detailed description of a preferred embodiment, given only by way of a non-limiting illustrative embodiment, with reference to the attached drawings, in which:

Figure 1 shows a schematic perspective represen-

tation of an illustrative view of a generic node part, and

Figure 2 shows a schematic perspective representation corresponding to a square meeting point node according to the invention;

Figures 3 to 6 show schematic perspective illustrations of nodes used for constructing the fixed and moving parts of the lower and upper hinges, respectively, for their use with a hinged door;

Figure 7 is a schematic perspective representation of an applicative example for forming an upper hinge which can be used in the case of a hinged door;

Figures 8 and 9 show schematic perspective views of parts or nodes of the type of those used in the invention for the lower and upper connection, respectively, of the door frame;

Figures 10 to 13 show schematic perspective views of embodiments of parts designed and configured for their use with sliding doors, and

Figure 14 finally shows a schematic perspective view of an electrical distribution node according to the invention.

Figure 15 is a schematic perspective view of an embodiment of a node designed for its meeting point with a wall to which the dividing partition wall is applied, and

Figure 16 finally shows an embodiment of a node intended as a reinforcing element in connections extended in two or more directions.

Description of a Preferred Embodiment

[0012] As has been indicated above, the detailed description of the preferred embodiments is carried out with the aid of the figures of the attached drawings, through which the same reference numbers are used to designate identical or similar parts. In this sense, considering first the representation shown in Figure 1, a schematic perspective view can be seen of a part which has been designed according to the concepts of node parts on which the system of the invention is based. The node part has generally been designated with reference number 1, which can be constructed with any material and can adopt any shape which allows connecting sections intended to form the structure which must support the different stresses derived from a partition which can be dismantled, a screen or partition wall. The part can be a visible part of the structure and can further have an aesthetic function, or it can be intended for the purely mechanical function defined above.

[0013] In the case of the invention, as has been previously stated, the material used will preferably be a HI PMMA type transparent material and the configuration adopted will depend on the specific location which it must occupy inside the installation, and on the elements which it must connect or support.

[0014] Continuing with the illustrative example intended to clarify the definition of node, it can be observed that

the part comprises a compartmented body 2 forming the essence of the part, from which there emerges upwardly (according to the position of the part in the drawing) a portion 3 intended to form a coupling element for introducing a section 4 that is positioned vertically above said emergence 3, whereas at the sides, the example of the part shown has two portions 5, 6 coplanar with the lower plane, in this case extended in diametrically opposite directions and forming receiving, coupling and retaining clips for receiving, coupling and retaining respective sections 7, 8. The mentioned sections 4, 7, 8, form the elements in charge of providing the suitable support to the effective partition panels, together with the corresponding battens accompanying such panels at their inserted edges. The node part 1 can additionally be provided with holes 9, partially visible in the figure, by means of which the part can be fixed to any support base, for example the floor or the ceiling, with the aid of screws.

[0015] It will be understood that the fixing system can be integrated in the actual node, or it can consist of a detachable part which can be added to the latter. In any case, the advantages of using a part such as the one proposed can be easily deduced, and as has been stated, they are associated to the ease and quickness in mounting and dismantling, as well as to the substitution of any loose element or segment due to a breakage; in addition, the sections are always cut at 90°, without the need for more complex cuts which will need a better precision in the cut and a higher time investment.

[0016] Once the basic principles distinguishing a node part 1 have been described, several parts configured depending on the different practical needs according to their location in the system and the mission which they must fulfill will be described below. In this sense, first considering Figure 2 of the drawings, an example of part 10 can be observed, designed to carry out a square meeting point between two dividing panels (not shown). The body of the part 10 shows a recessed portion with a lower compartmentalization 11 forming gaps admitting the introduction of the section which will run through the connecting edge between the two glass panels at 90° forming the meeting point, whereas a plug 12 adapted for its insertion in a gap 13 once both glass panels (not shown) have been suitably positioned has been provided. The clips 14, 15 allow coupling the kickplate in the case of the part located on the floor, and of the crown element in the case of the part located in the ceiling. As has been stated, the fixing to the floor or to the ceiling can be carried out with the aid of screws (not shown) through the holes 9 of the respective retaining clips.

[0017] Figure 3 shows a representation of a construction element for constructing a node part intended, in this case, for forming a hinge for a hinged door. The element of Figure 3, generally designated with reference number 16, as a result of the position in which it appears, forms the lower hinge part which is connected to the door frame (fixed part) and which has been configured to receive the coupling of the moving part of the hinge. The fixed ele-

ment 16 consists of a body from which prismatic formations 17 protect orthogonally to the plane of the part, which formations are intended to form means for fitting and fixing the section of the door frame, whereas a clip 18 is projected coplanarly with the plane of the base for fixing the kickplate (or crown, as appropriate) section, which clip is provided with holes 9 for the passage of anchoring screws. Inserts 19, designed in accordance with the aesthetic and ornamental aspects of the parts, have been provided for their coupling in the side cavities 19' for the closure of such cavities.

[0018] The coupling and rotation area of the hinged door has been shaped at the opposite part of the mentioned portion of clip 18 by means of providing a wide stepped area 20 with a height considerably smaller than the rest of the body of the part for the purpose of forming a seat for the moving part of the hinge, this seat area being formed by two portions, one of which is integral with the body of the part and the other portion, designated with 20a, is constructed as an independent portion, complementary with the first portion, and susceptible of being fixed thereto by means of screws, for which purpose it incorporates through holes 21. Each of the portions of this stepped area integrates a semi-hole 22 in correspondingly opposite positions, such that when the portion 20a is attached to the rest of the element 16, both semi-holes 22 together form the housing for the rotation shaft of the moving part of the hinge and therefore the rotation shaft of the hinged door.

[0019] Figure 4 shows a part or node forming the moving part of the lower hinge, complementary with the part of Figure 3, and prepared to be coupled in the lower corner of the door preframe. This node, generally designated with reference number 23, consists of a body including a lower stepped portion 23a for its rotating coupling in the seat area of the fixed hinge part 20, and prepared to receive a downward projecting rotation shaft, not visible in the figure, which is coupled in the hole 22 of said fixed part. The node 23 forming the rotating part of the lower hinge rises with a predetermined shape to allow fitting the section applied to the inner edge of the door, the fixing of which is carried out with the aid of a pin or screw (not shown), whereas formations 24 are orthogonally projected coplanarly with the lower surface for fixing the sections which will form the lower part of the door placed against the lower edge of the door. The figure also shows trim parts 25, one on each side of the lower base of the part.

[0020] As regards Figure 5, it shows a schematic bottom perspective representation of a node 26 forming the fixed part of the upper hinge of the hinged door. This fixed upper hinge part has a body in which a step portion 26a has been formed, which portion is complemented with a separate and independent portion 27 which, as in the case of the lower hinge, contributes to forming a housing for the rotation of the hinge shaft (not shown), and thus allow the hinged door to be lowered during the opening and closing movements. As occurs with other already described nodes, that shown in Figure 5 shows portions

28, projected at both sides according to opposite directions, and each of them provided with a hole 9 for its fixing to the ceiling of the place in which it is located and to the crown section and crown of the door. A downward projection 29 can be used for fixing the section forming the door frame, whereas the fixing between the separate portion 27 and the stepped area is carried out with the aid of screw, once the assembly of the door has been mounted from this side by means of a simple and quick coupling operation. The part also includes trim elements 30 shown on each side of the body of the part 26.

[0021] Considering now the representation of Figure 6, it shows a schematic perspective representation of a part generally designated with reference number 31, and forming the moving portion of the upper hinge of the hinged door. Its location corresponds to the upper corner of the door in the rotation edge, as part of the door preframe, and for the purpose of coupling with the fixed hinge part of Figure 5, this part has been configured such that it has a stepped area 31a for its corresponding coupling with the seat area 26a of said fixed part 26 of the upper hinge. As will be understood, the body of the part shows a configuration of downward walls for fitting the vertical section of the door preframe (not shown), whereas projected from the upper edge there exists an extension 32 designed for placing the upper section of the door preframe. The fixing between the sections and the moving upper hinge part 31 can be carried out with the aid of pins, screws or the like. The figure also shows trims 33 in relation to each side of the part.

[0022] Figure 7 shows a representation by way of an illustrative example of the formation of the upper hinge of the hinged door which has just been described, by means of the coupling of both hinge parts, the fixed hinge part 26 and the moving hinge part 31. In such conditions, with the sections of the door fitted to the moving part 31 and with the fixed hinge part anchored in the ceiling, the door can be lowered in the opening direction, whereas the assembly, with the respective trims 30, 33 coupled to the fixed and moving parts, make it appear very decoratively attractive, and completely closed on the outside.

[0023] Figures 8 and 9 show other parts which are complementarily used with those described in relation to the previous figures, and which in this case respectively consist of nodes which can be positioned at the lower and upper part for forming the door frame. In the figures, the parts have been generally designated with reference numbers 34 for the case of the lower node and 35 for the case of the upper node, and are complementarily configured with one another depending on the respectively reversed positions which they must occupy. Each part comprises a compartmented body from which elements are projected, which elements, in the case of the lower part 34, consist of two elements 34a, 34b forming a 90° angle with one another for the purpose of forming the lower corner of the door frame, each of these formations having a respective hole 9 which will allow fixing the part to the floor on one hand, and fitting and securing the

frame and kickplate sections on the other hand. The part additionally consists of a side cover indicated with reference number 36.

[0024] The part 35 for connecting and forming the upper corner of the door frame also shows a clip formation 35a provided with a hole 9 for fixing the part to the ceiling, and a formation 35b fitted in the crown of the door and provided with a hole 9 for fixing the part to the ceiling and a downward projection 37, such that the projections 35a and 35b and the downward projection 37, as appropriate, form at the same time the means for fitting the crown sections of the ceiling and door, respectively. A cover 38 has also been provided for its coupling to the body of the part as a trim element.

[0025] Now considering Figures 10 to 13, schematic views of parts or nodes can be seen, designed according to the invention, for their use in relation to sliding doors. In the case of the part 39 of Figure 10, it is slide-crown connecting node, designed so that it is useful as an interference in the step occurring between the crown element of the frame and the crown element of the sliding door. The node is constructed such that on one side it has a clip formation 40 for fitting the crown section, whereas on the other side it has a dual formation 41 for clipping the crown element of the sliding door and the connecting section between two glasses.

[0026] Figure 11 shows a node 42 with a design very similar to the previous one, in which in addition to having formations 40, 41 for the same purposes as in the former, it further has a downward orthogonal projection 43 for its fitting with the vertical section of the door frame. There is a trim cover 44 shaped to be laterally fitted in the body of the part.

[0027] Figure 12 in turn shows a perspective view of a part 45 which has been designed as a kickplate cover, the main mission of which is to be useful as a trim rather than as a node, due to the fact that it can only be used as a means for covering the cut of the kickplate, for which purpose it incorporates a coupling element 46, and allows the movement of the glass of the sliding door.

[0028] As regards the part shown in Figure 13 of the drawings, generally indicated with reference number 47, it consists of a connecting node between the kickplate and the preframe of a sliding door, and is intended to provide a connecting element between the usual section of the kickplate and the section of the sliding door frame, for which purpose it incorporates projections 47a, 47b which are projected from the body of the part according to mutually perpendicular directions in correspondence with both edges of the door. A trim cover 48 forms an element which can be coupled to the body of the part for laterally closing the latter.

[0029] With reference now to Figure 14 of the drawings, it shows a schematic top perspective representation of a node 49 constructed as an example of a part which can be used for the purpose of forming the electrical distribution module. The part forms an open body with an easy access, the inner space of which has been com-

partmented in order to couple the elements that it must contain, further being laterally closed by means of a trim cover 50 provided at both ends with projecting formations 50a extended orthogonally to the wall cover, parallel to one another, and designed for their snap-fitting in other complementary formations of the actual body 49 of the part.

[0030] As will be understood, the connection between the partition wall with which the partition is constructed and the wall of the enclosure to which it is applied must be firm and secure. To that end, the invention has provided the design of a type of node specifically shown in Figure 15, and which is formed by a body generally indicated with reference number 51, prepared to admit the positioning both of the glass sheet with which the division is made and of the corresponding battens for securing the mentioned dividing glass sheet. Respective clip formations 51a and 51b are projected from the body, which formations are projected orthogonally to one another in correspondence with the respective faces of the body, and intended to be useful as clipping means for clipping the kickplate and crown elements, as they are positioned in relation to the floor or in relation to the ceiling. Each of them includes a through hole 9 to allow the passage of respective screws with which the part is fixed in the floor or the ceiling, as appropriate, in its meeting point with the adjacent wall. The assembly is complemented with a cover 52 configured such that it has a formation which can be coupled by pressure in relation to a cavity 51c with a side access shaped in the actual body of the part.

[0031] Finally, considering the representation which is shown in Figure 16 of the drawings, a perspective view is shown which depicts a preferred embodiment of a node conceived and designed for its use as a reinforcing element which can be positioned every certain predetermined number of modules. The configuration is such that from the body 53 of the part, the dividing panels can be placed either in two aligned positions, according to one and the same direction, or in more than two positions mutually forming right angles, for which purpose, the body has a central elevation 54 with a cross-shaped cross-section to determine four quadrants at 90°; said central elevation forms the support for mounting the section forming the core of the partition wall, as well as the clipping means for clipping the battens which secure the glass extending in the corresponding direction. The main body already has two clip formations 53a and 53b integral therewith, extending according to one and the same direction but in diametrically opposite senses of direction, and forming the clipping means for clipping the kickplate or crown sections, as appropriate. The body additionally has respective lower recesses 53c formed in diametrically opposite positions of its base and configured to admit the coupling of one or two clip elements 55 (only one of which is shown in the figure), which is or are extended according to a direction forming an angle with the other clip formations 53a, 53b integral with the body. The kickplate or crown sections coupled to the clips 55 will thus

meet those coupled to the integral clips 53a, 53b, forming 90° corners. These nodes, suitably positioned every certain number of modules, provide a high degree of stability to the assembly.

[0032] As can be seen in the same Figure 16, plugs 56, 57 have also been provided, which plugs are prepared for their snap-fitting in the complementary compartments formed inside the body 53 of the part, and which, depending on the number of dividing partition walls in the part, can adopt different configurations to close half the part (plug 56) or to only close a quarter of the part (plug 57).

[0033] The different types of parts or nodes involved as components in the partition system proposed by the invention have been described above. All these parts generally have bodies which are internally hollow, with the subsequent saving of materials, but which are ribbed and compartmented such that they provide sufficient structural resistance for the application for which they are intended. The trim parts associated to the different parts provide the closure of the side cavities and furthermore form decorative elements providing such parts with a degree of finish according to the aesthetic requirements inherent to the concepts associated to the types of installations defined in the invention.

[0034] In addition, it must be understood that the proposed system is especially applicable to the division between a floor and a ceiling, with separating elements or panels made of preferably transparent material, extended in height to the overall dimension for the division of the different heated areas, and with the parts or nodes made of also preferably transparent material. The sections are also preferably transparent, and the wiring system is integrated in the latter, allowing the electrifiable module to house the electric control devices: switches, plugs, TV sockets, different sensors, USB connectors, ..., etc.

[0035] It is not considered necessary to extend the content of this description for a person skilled in the art to understand its scope and the advantages derived from the invention, as well to develop and put the object thereof into practice.

[0036] Nevertheless, it must be understood that the invention has been described according to a preferred embodiment thereof, therefore it can undergo modifications without this involving any alteration of the essence of said invention, such modifications especially being able to affect the shape, the size and/or the materials for manufacturing the assembly or its parts, provided that such modifications respect the properties imposed on the materials for manufacturing the parts.

Claims

1. A partition system for dividing a space with any dimensions into several more reduced sub-spaces with predetermined dimensions, the division being

made from panels constructed preferably based on transparent materials such as glass, plastic or the like, and the system being such that the divisions made extend between the floor and the ceiling of the room to which it is applied, the system being designed such that it can be easily dismantled and its components can be reused, **characterized in that** it comprises the provision of multiple anchoring and movements parts or nodes, such as:

- square or right angle meeting point parts (10) for forming corners;
- parts (16) forming fixed parts for lower hinges of hinged doors;
- parts (23) for forming the moving part of the lower hinge in relation to hinged doors;
- parts (26) configured to form the fixed part of the upper hinge in hinged doors;
- parts (31) configured to form the moving part of the upper hinge in relation to hinged doors;
- parts (34, 35) forming the lower and upper connecting nodes, respectively of a door frame;
- parts (39, 42) applicable to sliding doors and respectively forming a connecting node between the slide and the crown element of the sliding door, and a connecting node between the slide, the crown element of the door and the side vertical section of the frame of the latter;
- parts (45) forming kickplate covers in sliding doors;
- parts (47) forming connecting nodes between the kickplate and the preframe of a sliding door, and
- parts (49) shaped as individual electrical distribution nodes.
- parts (51) forming the meeting point nodes between the dividing partition wall and the wall, and
- reinforcing parts (53) in intermediate partition positions.

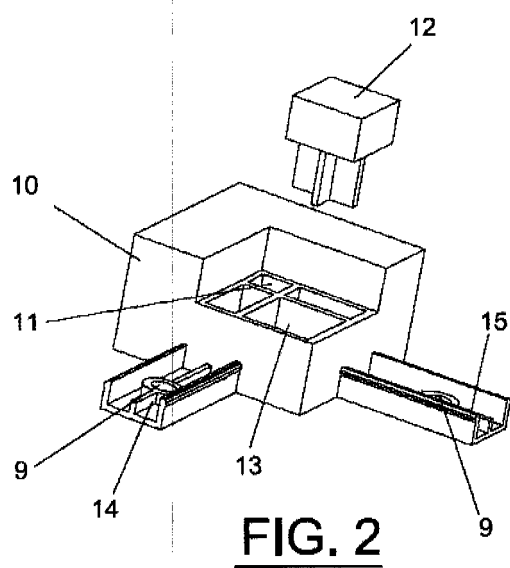
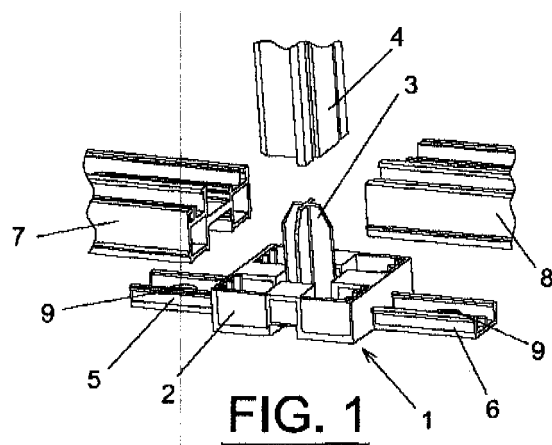
2. The system according to claim 1, **characterized in that** the body of each of the parts (10, 16, 23, 26, 31, 34, 35, 39, 42, 45, 47, 49, 51, 53) forming the anchoring and connecting nodes consist of hollowed-out bodies, structured in compartments with sufficient structural resistance for the application for which it is intended, and provided with trim covers (12, 19, 25, 30, 33, 36, 38, 44, 48, 50, 52, 56, 57) shaped for their insertion and the lateral closure of the open cavities in the respective bodies of the parts.
3. The system according to claim 1, **characterized in that** the square meeting point node (10) has a stepped recessed area (11) allowing the meeting point of two glass panels forming a right angle, corresponding to adjacent walls for forming a corner in a floor or a ceiling, the connection being favored by

the insertion of a plug (12) in a cavity (13) made for that purpose in the stepped area (11) of the body of the part (10), and **in that** respective clip elements (14, 15) are projected in mutually perpendicular directions from said body in a coplanarity relation with the base thereof, which clip elements form anchoring elements for the kickplate sections in the case of a floor part, or for the crown element sections in the case of a ceiling part, each of said clips (14, 15) having a hole for fixing the part in the corresponding floor or ceiling position with the aid of screws or the like.

4. The system according to claims 1 and 2, **characterized in that** the mentioned part or node (16) for forming the fixed lower hinge part in hinged doors comprises a body from which there emerge upwardly prismatic formations (17) for anchoring the section of the door frame, a coplanar clip element (18) with the lower support base of the part provided for anchoring the kickplate section and provided with the corresponding holes (9) for the fixing to the floor, and in which there has been formed a recessed area portion (20) integral with the body of the part, projected opposite to the mentioned clip element (18), which is complemented with another separate independent portion (20a) which can be coupled to that mentioned first and which can be fixed thereto by means of screws passing through holes (21), and both portions (20, 20a) being provided with a respective semi-hole (22) in correspondingly opposite positions, such that once coupled, both semi-holes form a housing for the rotation shaft of the hinged door.
5. The system according to claims 1, 2 and 4, **characterized in that** the part or node (23) forming the moving part of the lower hinge for a hinged door comprises a body having a portion (23a) that is complementarily recessed with the recessed portion in the fixed part (16), has formations (23b) for anchoring the corresponding section of the door preframe, and further has elements (24) forming means for anchoring the kickplate of the actual hinged door.
6. The system according to claims 1 and 2, **characterized in that** the part (26) forming the fixed part of the upper hinge for hinged doors comprises a body configured such that it has a stepped portion (26a) which is complemented with an independent portion (27) which can be fixed to the former by means of screws and each of them has a semi-hole for providing a hole intended to house the upper rotation shaft of the hinged door, and **in that** the mentioned body of the part (26) comprises projections 28 from both opposite sides and extended coplanarly with the upper base of the part, provided with a hole 9 for its fixing to the ceiling of the place in which it is located and to the crown section and crown of the door, as well as a vertically downward projected formation (29) intended to be useful as means for anchoring and fixing the corresponding lateral section of the door frame.
7. The system according to claims 1, 2 and 6, **characterized in that** the part (31) forming the moving part of the upper hinge of the hinged door comprises a body stepped at its upper part for forming a seat area (31a), complementary with the stepped portion (26a) of the fixed part (26), and has downward formations for anchoring the corresponding section of the door preframe, as well as a formation (32) projected perpendicularly to the body and forming the means for anchoring and securing the upper section of the hinged door frame.
8. The system according to claims 1 and 2, **characterized in that** the connecting nodes in the lower and upper corners of the door frame consist of parts (34, 35), the lower part (34) of which has respective formations (34a, 34b), each of which formations is provided with a respective hole (9), projected from the body forming between both a right angle, forming means for anchoring and fixing the frame and kickplate sections, whereas the upper connecting part (35) comprises respective formations (35a, 35b) extending coplanarly with the base and in opposite directions from the body, forming means for anchoring the ceiling crown sections, and a projection (37) orthogonal to both mentioned formations and forming the means for anchoring and fixing the corresponding side section of the door frame.
9. The system according to claims 1 and 2, **characterized in that** the part (39) forms an interference node in the step occurring between the crown element and the crown element in sliding doors, and consist of a body provided with projections (40, 41) extending in opposite directions from both sides of the body, these clip elements forming clipping means (40) for the crown section and elements (41) for fitting the crown of the sliding door and of the connecting section between glasses.
10. The system according to claims 1, 2 and 9, **characterized in that** it comprises a node (42) shaped with formations (40, 41) projected from opposite sides of the body for anchoring the two crown sections in sliding doors, and further provided with a projection (43) extended according to a direction perpendicular to that of said formations, and configured for providing a means for fitting and fixing the vertical section of the sliding door frame.
11. The system according to claims 1, 2, 9 and 10, **characterized in that** it further comprises a cover part (45) for closing the cut of the kickplate of sliding doors, for which purpose it has clip projections (46)

for fitting and fixing the part.

12. The system according to claims 1, 2, 9, 10 and 11, **characterized in that** it additionally comprises a part (47) shaped as a connecting node between the kickplate and frame elements for sliding doors, provided with respective formations (47a, 47b) projected from the body of the part according to mutually orthogonal directions and configured for their insertion and anchoring in the mentioned elements.
13. The system according to claims 1 to 12, **characterized in that** it further includes parts (49), each of which is shaped as an individual electrical distribution node, with the inner space advantageously compartmented (49a) to admit the coupling of the different components, and provided with a cover (50) for lateral closure with projecting formations (50a) sized and configured for their coupling under pressure in corresponding complementary cavities of the body of the part (49).
14. The system according to claim 1, **characterized in that** the meeting point parts (51) with the wall are designed based on a body which can be couple between the floor or the ceiling and the adjacent wall, for which purpose this part has respective clip formations (51a, 51b) projected orthogonally to one another from the corresponding faces of the body, said formations providing the clipping means for the kickplate/crown sections, as appropriate, each of them further being provided with a through hole (9) for fixing the part to the floor or ceiling and to the wall with the use of screws, and a lateral trim cover (52) completing the assembly, which cover is shaped such that it has a projected portion (52a) for its coupling under pressure in a laterally open cavity (51c) of the body (51).
15. The system according to claim 1, **characterized in that** the reinforcing parts (53) which can be intermediately positioned consist of a body having a formation (54) emerging from a central position, configured such that in cross-section it has a cross-shaped section, this body this body (53) further being provided with two clip formations (53a, 53b) integral with the body and extended in diametrically opposite directions, intended to form the clipping means for clipping the kickplate or crown sections, as appropriate, whereas the base of the body has, at its lower face, one or two recesses (53c) in positions that are diametrically opposite and separated from the mentioned clip formations (53a, 53b) by angular distances of 90°, shaped such that they admit the coupling and fitting of other clip elements (55) for clipping other sections, forming right angles with the former, the assembly being complemented with one or more upper plugs (56, 57).
16. The system according to claim 15, **characterized in that** the mentioned plugs (56, 57) of the reinforcing node (53) are configured such that the coupling to said node is carried out by snap-fitting in compartments of the body of the part, further being designed and sized to cover a quadrant or half the part (53), as appropriate according to the number of dividing partition walls meeting in the node.
17. The system according to claims 1 to 16, **characterized in that** the transparent material for manufacturing the node parts preferably consist of high-impact polymethacrylate (HI PMMA).



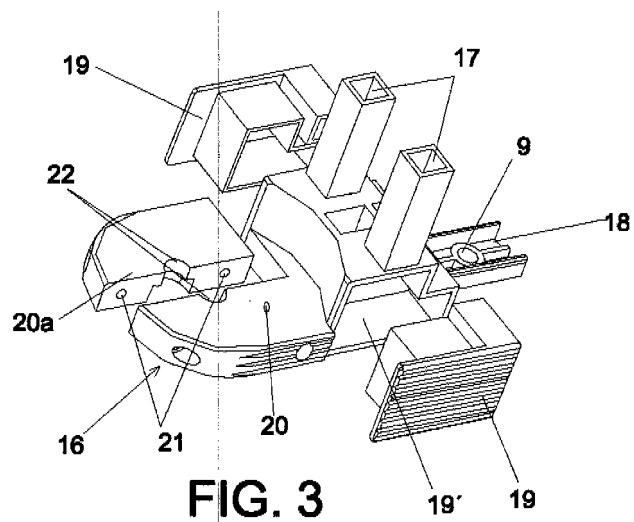


FIG. 3

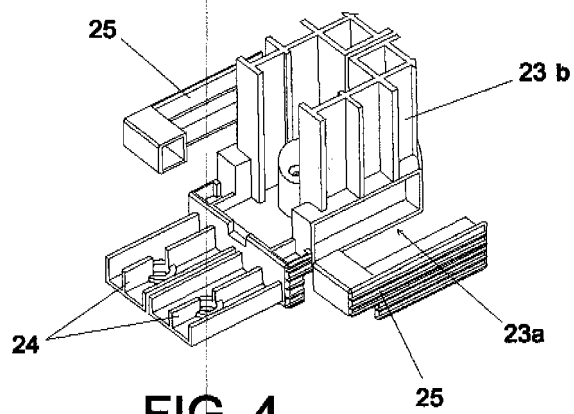


FIG. 4

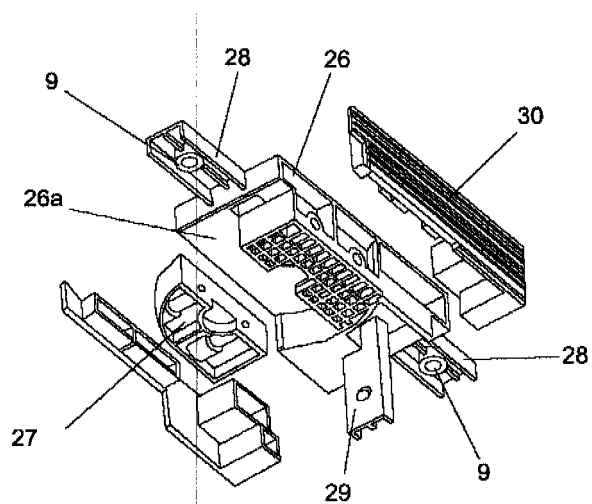


FIG. 5

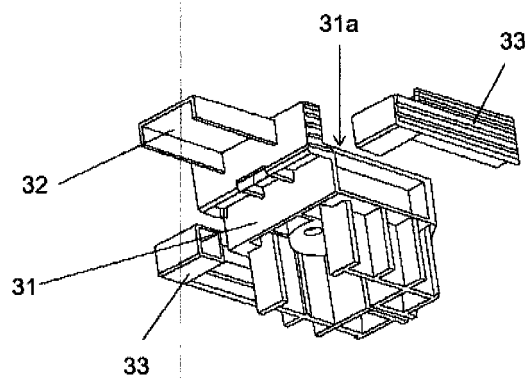


FIG. 6

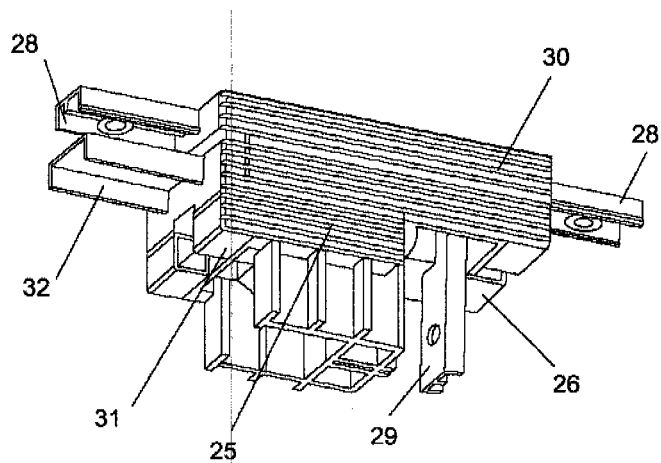


FIG. 7

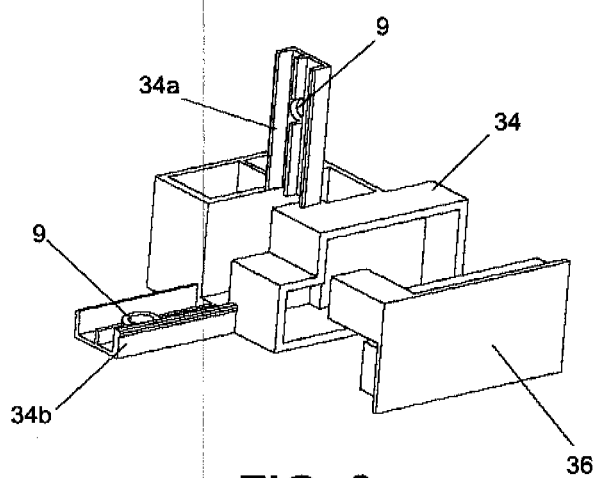


FIG. 8

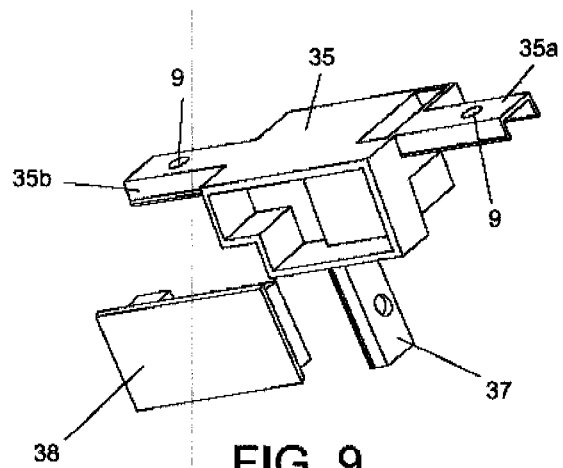


FIG. 9

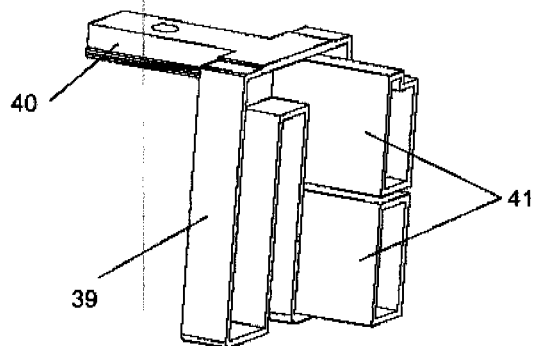
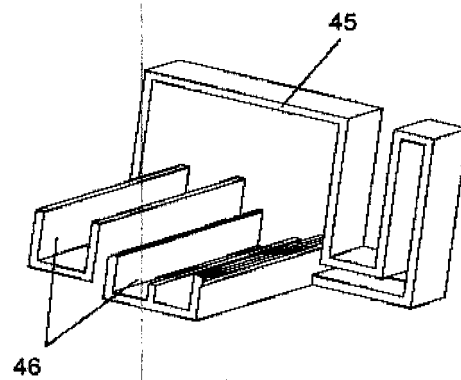
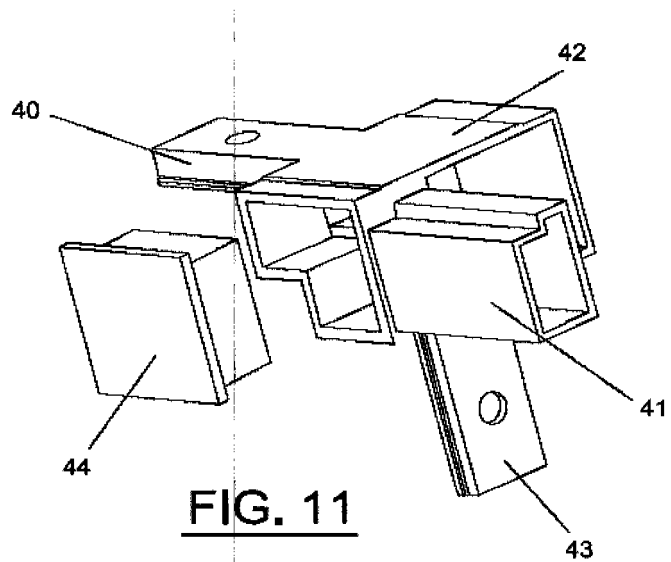
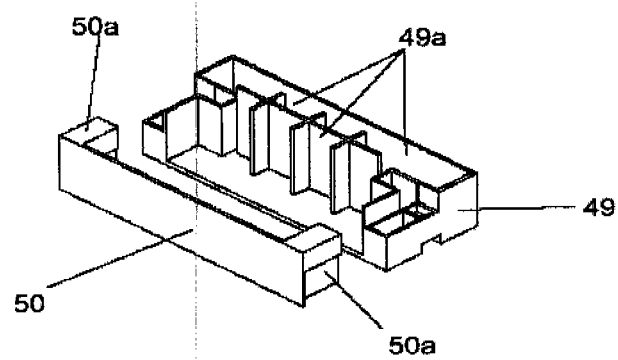
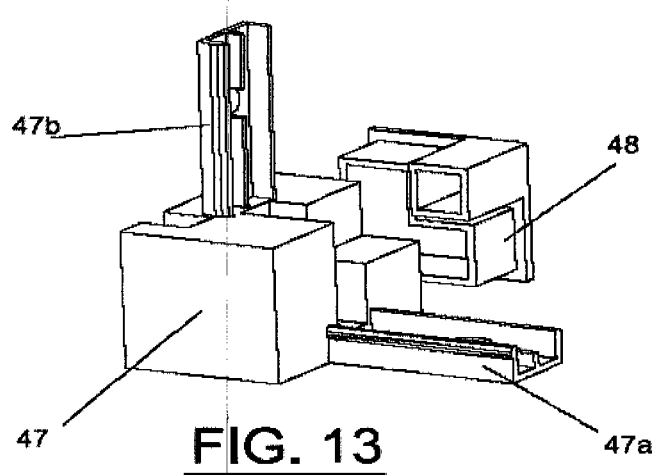


FIG. 10





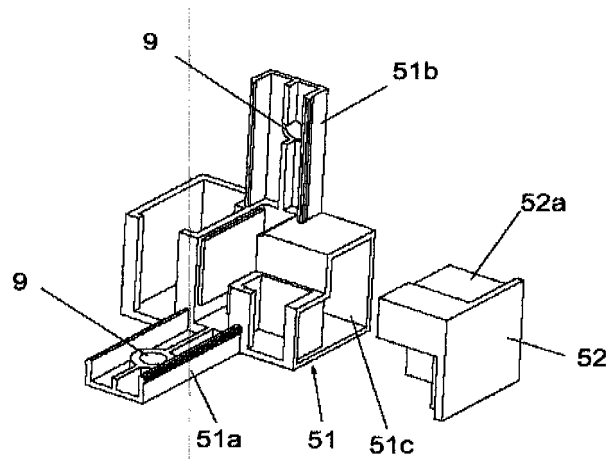


FIG. 15

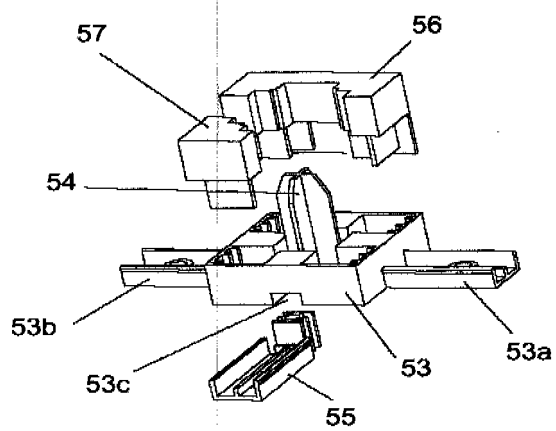


FIG. 16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ ES 2006/000043

A. CLASSIFICATION OF SUBJECT MATTER		
<i>E04B 2/74</i> (2006.01)		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
E04B+		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
CIBEPAT,EPODOC		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 9958780 A1 (TETRAD MARKETING SALES LTD) 18.11.1999, abstract; page 6, lines 27-30; figures.	1,2
X	EP 0598549 A1 (WILSON CHRISTOPHER H C) 25.05.1994, column 1, line 27 - column 4, line 19; figures.	1
A	JP 9328846 A (FUJI SOGYO KK) 22.12.1997, (resumen) [en línea] Recuperado de: EPOQUE & JP 9328846 A (FUJI SOGYO KK) 22.12.1997, figures.	1,17
A	DE 8101485 U1 (BOUS) 27.08.1981, the whole document.	1,3
A	US 4235495 A (PROPST ROBERT L ; WODKA MICHAEL A) 25.11.1980, the whole document.	13
☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search (13.06.2006)		Date of mailing of the international search report (27-06-2006)
Name and mailing address of the ISA/ Facsimile No.		Authorized officer Telephone No.

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EP 1 980 680 A1

INTERNATIONAL SEARCH REPORT Information on patent family members

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