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(54) **Case for counterframe for disappearing sliding door and counterframe with case of the door panel provided with a side for supporting hanging objects**

Kasten für den Gegenrahmen einer einfahrbaren Schiebetür und Gegenrahmen mit Kasten des Türblatts mit einer Seite zum Halten von hängenden Objekten

Profilé de dormant pour porte coulissante dissimulée et dormant avec profilé du panneau de porte fourni avec un côté permettant de supporter des objets suspendus

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Description

[0001] This invention relates to a case for counterframe for disappearing sliding door, and counterframe with case having a space that houses the door panel, provided with at least one side which allows the robust fixing of plugs for the support of hanging objects.

Field of the invention

[0002] At present, there is a wide spread of doors and windows of the sliding type, a solution that can be used in many architectural solutions, especially in those where the reduction of interior spaces together with a minimalist trend are relevant elements in the design of the building. By using these types of doors and windows, it is also possible to use those spaces that on the other hand should be kept free to allow a conventional opening of doors on hinges.

[0003] In principle, the sliding doors of the disappearing type are structured in such a way as to comprise a series of fixed elements, intended to be integrated in the wall structure or even to constitute, being coated, a wall, and a series of movable elements, which are intended to be used during the installation phase of the door, to be removed afterwards. In substance, for example a counterframe is integrated as a fixed element in the wall structure. The conventional counterframe is made up of at least one large case, that defines a space, and houses the door panel once it is slid into the opening position. There is also a rabbet jamb intended to be anchored to the wall in correspondence of the vertical profile of the doorcase, opposite to that of positioning of said large case, in such a way as to allow, once closed, that the door panel itself abuts against it. Furthermore, above the large case an upper crosspiece is engaged, being joined to said load bearing structure, which supports a longitudinal guide track. It is necessary to provide a guide track in order to allow the effective opening and closing movement of the sliding door that is hanging by means of conventional means, usually of the trolley type.

[0004] In conclusion, the counterframe only replaces a portion of wall, in such a way as to be able to contain the door. Once plastered, in fact, it becomes absolutely uniform with the wall portion that it has replaced, with a thickness that is equal to that of the boardings, in such a way as to obtain completely planar partitions. However, as the structure of these counterframes is made up, in general, of zinc-coated steel plates, stiffened by ribbings, coated with metal meshes to bond the plaster, it is not possible to anchor by means of conventional fixing techniques sanitary equipment or electrical sockets, unless one uses a model specific to the passage of pipes and electrical wires. In the same way one cannot hang pieces of furniture to be fixed with plugs, such as kitchen wall units, small cabinets and others, which are essential furniture elements.

Prior art

[0005] In order to solve some of these problems, the same applicant in IT1334627 (De Faveri) describes a counterframe for a disappearing door with a case for supporting components for electrical connections, comprising:

(a) a case obtained by coupling pre-shaped metal sheets joined to one another at least in correspondence of an end along the vertical profile, which case at the opposite end is provided with an opening through which said door slides;

(b) means which allow the anchorage in correspondence of at least one of the two side definition walls of the case, along the external face, of a mesh or alternatively stretched to engage a coating layer of finishing panels;

(c) an upper crosspiece holding the longitudinal guide, on the one hand engaged along the top edge of the so obtained case, on the other side,

at the overhanging end, supported by at least one perpendicular jamb; wherein said case provides, located in correspondence of at least one of the two side definition walls, some tear-off portions, each of which perimetricaly is partially pre-cut with a groove whose course recalls a quadrilateral. In this case it is possible to prearrange, in correspondence of the side of the case, electrical boxes for the plugs and the buttons of the electrical services.

[0006] In the same way in ITTV2008A000023 (De Faveri) a counterframe for a disappearing sliding door for exteriors and interiors is further described, comprising a large case arranged to receive the plaster or plaster-board coating, an upper crosspiece holding the guide track, a rabbet jamb profile that houses the doorpost, wherein at least the rabbet jamb profile is the fairlead technical profile with, on the side facing the large case, a continuous and rectilinear deep U-shaped seat, inside which at least one tubular duct is longitudinally received, held inside said U-shaped seat by clips and with, along the base of the U-shaped seat, removable perforated sheet-metal portions. In another version of the counterframe for sliding door, the upper crosspiece holding the guide track supports the supporting box with or without internal split box, the box being obtained by coupling two sheet-metal panels closed at the two ends by bases to which the upper fixing ends of the box on the one hand and of the rabbet jamb profile on the other hand are joined.

[0007] From what has been stated above, one should consider as known:

□ A counterframe for disappearing sliding door, which consists of a case obtained by coupling pre-shaped metal-sheets; means which allow the anchorage in correspondence of at least one of the two side definition walls of the case, along the external

face, of a mesh or alternatively stretched to engage a coating layer of finishing panels; an upper longitudinal guide-holder crosspiece, on the one side engaged along the top edge of the so obtained case, on the other side, at the overhanging end, supported by at least one perpendicular jamb;

□ Wherein said case and the rabbet jamb are pre-arranged to support the electrical boxes and the respective wirings;

□ Wherein said crosspiece supports the supporting box with or without internal split box of the air-conditioning system.

[0008] FR2834750 discloses a case for a counterframe for a disappearing sliding door having a combination of elements as recited in the pre-characterizing portion of the appended claim 1. In particular a fitted unit is disclosed which includes tear-off parts in at least one of its two metal sheet walls. The tear-off parts are defined by an area within a perforation line. The fitted unit comprises a pair of pre-formed sheet metal walls which are joined together along their vertical edges at one end. The opposite end is open and the door frame can slide inside it.

[0009] DE 299 12 367 U1 discloses a panel with a first layer of semi-soft material and a second layer of rigid material providing a mechanical stability equivalent to the stability of the adjacent wall, wherein plaster is applied immediately on the panel which is a finishing supporting element.

Drawbacks

[0010] Therefore, one may agree on the fact that the counterframes for sliding door currently on the market solve the problem of the electrical wiring, having sides that are prearranged for the support of the electrical boxes, as well as on the fact that the counterframes always offer the possibility to advantageously support the supporting box with or without internal split box, nevertheless at present the problem of the fixing along the side of the space for housing the door panel, wall units, small furniture and other hanging objects is not solved, it being a significant problem in the context of an objective demand for functional furnishing.

[0011] Considering all this, the companies of this sector reasonably need to find innovative solutions able to overcome at least the just mentioned problem.

Summary of the invention

[0012] In accordance with the invention, there is provided a case for counterframe for disappearing sliding door provided with a side for supporting hanging objects, the case being of the type comprising:

- a rigid shell obtained by coupling pro-shaped metal or plastic sheets and comprising two side definition

walls having an external face each;

- a finishing supporting element; and
- cross beams which allow the anchorage of the finishing supporting element in correspondence with at least one of the two side definition walls of the rigid shell; characterized in that said case further comprises:
 - a first layer of semi-soft material; and
 - a second layer of rigid material;

the first layer of semi-soft material being placed against one external face of one side definition wall in the space between said side definition wall and the finishing supporting element, the second layer of rigid material being superimposed on the first layer in such a way as to serve for clamping the gripping part of the fixing plugs, and the cross beams being superimposed on said second layer.

Aims

[0013] In this way, by means of the considerable creative contribution, the effect of which constitutes immediate and non-negligible technical progress, various and important aims are achieved.

[0014] A first aim consists in allowing, behind the side definition wall of the counterframe inside which the space for housing the door panel of the disappearing sliding door is obtained, therefore with very reduced thicknesses useful for support, the support by drilling of the side, of wall units, shelves, and anyhow of any other hanging object, ensuring their good capacity and stability over time.

[0015] A second advantage can be referred to the fact that this operation of fixing by means of plugs can be carried out, not only localised, but in any point of the surface of the side of the counterframe. Therefore, it can be pointed out that the so obtained and described counterframe substantially overcomes those architectural barriers that until today have prevented its use in furnishing contexts or by necessity, as in the latter case where one must fasten for example a security handrail.

[0016] Furthermore, it can be seen that this particular layered structure allows the housing and the passage of water pipes and electrical cables, in any point of the wall.

Where this function is required, one can provide panels with suitable seats or alternatively processing can be carried out at the company, upon customer request, to create the seat in correspondence of the side of said counterframe for disappearing sliding door.

Said advantages can therefore be conveniently integrated in a more complex counterframe for disappearing sliding door, provided with the advantages typical of the solutions that use a case and rabbet jamb to support the electrical boxes, the respective wirings and water pipes. And still in those counterframes in which said crosspiece supports the supporting box with or without internal split box of the air-conditioning system.

[0018] In conclusion, these advantages have the non-

negligible value of obtaining a counterframe for disappearing sliding door with a good technological content, that allows excellent integration in an aesthetic environment without setting architectural limits from the point of view of the possibility to install equipment on the surfaces that delimit it.

[0019] These and other advantages will appear from the following detailed description of at least one preferred solution with the aid of the enclosed schematic drawings whose details of execution are not to be considered limitative but only illustrative.

Content of the drawings

[0020]

- Figure 1 is a sectional view on the horizontal plane only of the case of the counterframe for disappearing sliding door according to the invention;
- Figure 2 is a whole view of the counterframe for disappearing sliding door with the case of Figure 1, shown in an installation condition.

Practical embodiment of the invention

[0021] This invention relates to a case (10) (Fig. 1) with a right side (a) and a left side (b) for a counterframe for disappearing sliding door (100) (Fig. 2) which is functional to the prearrangement of the stationary works for the following installation of a door panel (20), of the sliding door type.

[0022] The case (10) (Fig. 1) comprises a rigid shell, made of ferrous, plastic or similar material, joined at the back part (11) by means of suitable processing that ensures its perfect connection and seal, bent at the front in such a way as to form the two front jambs or small abutments (12), providing the space (13) suitable for housing a disappearing sliding door panel (20) (Fig. 2). At the front of the case (10) (Fig. 1), on the side of access and exit of the door panel (20) (Fig. 2), the two front small abutments (12) (Fig. 1) are shaped in such a way as to provide a step-structure that includes a first portion orthogonal with respect to the side definition wall (120) of the case (10), followed by a second portion parallel to said wall (120) with a third portion orthogonal with respect to said second portion, which third portion constitutes the cornerite (121) and guide for the plastering. The particular fin (122) bent at about 45 sexagesimal degrees that originates from the cornerite (121) has the aim of preventing the detachment from the plaster (130).

[0023] On each side (a, b) of the case (10), in correspondence of the face (123) facing outwards of each of the side definition walls (120) of the case (10), in the space interposed between said side definition wall (120) and the finishing supporting element such as the plaster mesh (17) that is supported by cross beams (16), a first layer of semi-soft material (14) is placed, consisting of plastic or similar material, that serves as an expansion

chamber for the final part of the fixing plugs and as a limit warning (stop) for the wall drilling phase. On said first layer of semi-soft material (14), a second layer of rigid material is superimposed (15), of woody, plastic or similar material, in such a way as to serve for the clamping of the gripping part of the fixing plugs.

[0024] A series of cross beams (16) are interposed at a determined distance from one another, of rigid ferrous, plastic or similar material, that are used to space out the plaster (130) mesh (17) of rigid ferrous, plastic or similar material and to fix the same by means of suitable processing. In this case, there is an exceeding part (170) of the mesh (17) that protrudes beyond the back part (11) of the case (10) which has the aim of preventing the formation of cracks between the counterframe for disappearing sliding door (100) (Fig. 2) and the back masonry (110) (Fig. 1) at the connection point. An exceeding part (170) of the mesh (17) is also provided at the top of the counterframe for disappearing sliding door (100) (Fig. 2).

[0025] As far as the back part (11) (Fig. 1) of the case (10) is concerned, there are fins (111) bent outwards which are suitable for fixing by screwing in the suitable processing obtained (160) the cross beams (16), both from the front part (161) and back part (162), in such a way as to form a single body with the various superimposed layers (120, 14, 15, 16) and the plaster (130) reinforced by the plaster mesh (17).

[0026] In a second hypothesis it is also possible to make the version of the counterframe for disappearing sliding door for plasterboard walls. In this case, the finishing supporting element such as the plaster mesh (17) is replaced and the plasterboard sheets are laid directly on the cross beams (16) of ferrous, plastic or similar material, to which they are then fixed by screwing with suitable commercial screws and following finishing plastering. In this case, too, the support, for example of the wall units (200) (Fig. 2), is ensured by the particular layered structure of the side of the counterframe for disappearing sliding door (100).

[0027] The counterframe for disappearing sliding door (100) with case (10) (Fig. 1) comprises an upper guide-holding crosspiece (101), and a rabbet jamb profile (102) that houses the doorpost. At least the rabbet jamb profile (102) is the fairlead technical profile with, on the side facing the case (10), a continuous and rectilinear deep "U"-shaped seat, inside which at least one cable or tubular duct is longitudinally received, held inside the "U"-shaped seat by anchorage means. Along the rabbet jamb profile (102) (Fig. 2) facing outwards at least one bracket (103) is joined for the support of the switch and socket box (104), which bracket (103) is engaged perpendicularly to the rabbet jamb profile (102). In another version of the counterframe for sliding door, the upper guide-track-holder crosspiece (101) also supports the supporting box (30) with or without internal split box for the air-conditioning system (40).

Reference

[0028]

(10) case	5
(a) right side of the case	
(b) left side of the case	
(11) back part of the case	
(12) front jambs or small abutments	
(13) housing space	10
(14) first layer of semi-soft material	
(15) second layer of rigid material	
(16) cross beams	
(17) mesh	
(20) door panel	15
(30) box	
(40) air-conditioning system	
(100) counterframe for disappearing sliding door	
(101) upper guide-track-holder crosspiece	
(102) rabbet jamb profile	20
(103) bracket	
(104) switch and socket box	
(110) back masonry	
(111) back fins	
(120) side definition wall of the case	25
(121) cornerite	
(122) fin	
(123) face	
(130) plaster	
(160) obtained processing	30
(161) front part of the beam	
(162) back part of the beam	
(170) exceeding part	
(200) wall units	35

Claims

1. Case (10) for counterframe for disappearing sliding door provided with a side (a, b) for supporting hanging objects (200), the case (10) being of the type comprising
 - a rigid shell obtained by coupling pre-shaped metal or plastic sheets and comprising two side definition walls (120) having an external face (123) each;
 - a finishing supporting element; and
 - cross beams (16) which allow the anchorage of the finishing supporting element in correspondence with at least one of the two side definition walls (120) of the rigid shell;**characterized in that** said case (10) further comprises:
 - a first layer of semi-soft material (14); and
 - a second layer (15) of rigid material;
 the first layer (14) of semi-soft material being placed against one external face (123) of one

side definition wall (120) in the space between said side definition wall (120) and the finishing supporting element, the second layer (15) of rigid material being superimposed on the first layer (14) in such a way as to serve for clamping the gripping part of the fixing plugs, and the cross beams (16) being superimposed on said second layer (15).

2. Case (10) for counterframe for disappearing sliding door, according to claim 1, **characterized in that** the cross beams (16) that are on the second layer (15) of rigid material space out and bear the finishing supporting element, said finishing supporting element being a plaster mesh (17).
3. Case (10) for counterframe for disappearing sliding door, according to claim 1, **characterized in that** said rigid shell is joined at the back part (11), bent at the front in such a way as to form the small abutments (12), leaving suitable space (13) for receiving a disappearing sliding door panel (20), wherein at the front of the rigid shell, on the side of access and exit of the door panel (20), the structure of said two front small abutments (12) is shaped in such a way as to provide a step structure that includes a first portion orthogonal with respect to the side definition wall (120) of the rigid shell, followed by a second portion parallel to said wall (120) with a third portion orthogonal with respect to said second portion, which third portion constitutes the cornerite (121) and guide for the plastering, from which the fin (122) originates, bent at about 45 sexagesimal degrees in such a way as to prevent the detachment from the plaster (130).
4. Case (10) for counterframe for disappearing sliding door, according to claim 2, **characterized in that** the mesh (17) has an exceeding part (170) that protrudes beyond the back part (11) and the upper part of the rigid shell in such a way as to prevent the formation of cracks between the counterframe for disappearing sliding door (100) and the back masonry (110) at the connection point.
5. Case (10) for counterframe for disappearing sliding door, according to claims 2 and 3, **characterized in that** the back part (11) of the rigid shell includes fins (111) bent outwards, suitable for the fixing by screwing of the cross beams (16), both from the front part (161) and back part (162), in such a way as to form a single body with the various superimposed layers (120, 14, 15, 16) and the plaster (130) reinforced by the plaster mesh (17).
6. Case (10) for counterframe for disappearing sliding door, according to claim 1, **characterized in that** the cross beams (16), that are on the second layer (15) of rigid material, space out and support the fin-

ishing supporting element, said finishing supporting element being a plasterboard panel sheet.

7. Counterframe (100) for disappearing sliding door, for supporting hanging objects (200), comprising

- a case (10) according to any previous claim;
- a longitudinal upper guide-holding crosspiece (101); and
- at least one rabbet jamb (102);

on one side of the cross-piece (101) being engaged along the upper edge of the case (10), the other side being supported at the overhanging end by the at least one perpendicularly placed rabbet jamb (102), the counterframe (100) further being configured in such a way that:

- (a) said case (10) and the rabbet jamb (102) are arranged to support the electrical boxes, the relative wirings and the water pipes; and
- (b) said crosspiece (101) holds a supporting box (30) with or without internal split box of the air-conditioning system (40).

Patentansprüche

1. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür, ausgestattet mit einer Seite (a, b) zum Halten von hängenden Objekten (200), wobei der Kasten (10) von der Art ist, der Folgendes umfasst:

- eine starre Schale, hergestellt durch Kopplung vorgeformter Metall- oder Kunststoffbleche, die zwei Seitenbestimmungswände (120) mit jeweils einer Außenfläche (123) umfasst,
- ein Fertigstellungs-Trageelement und
- Querträger (16), die die Verankerung des Fertigstellungs-Trageelements in Übereinstimmung mit mindestens einer der zwei Seitenbestimmungswänden (120) der starren Schale ermöglichen, **dadurch gekennzeichnet, dass** der Kasten (10) weiter Folgendes umfasst:
- eine erste Schicht aus halbweichem Material (14) und
- eine zweite Schicht (15) aus starrem Material, wobei die erste Schicht (14) aus halbweichem Material gegen eine äußere Fläche (123) einer Seitenbestimmungswand (120) in den Raum zwischen der Seitenbestimmungswand (120) und dem Fertigstellungs-Trageelement platziert wird und die zweite Schicht (15) aus starrem Material auf die erste Schicht (14) derart gelegt wird, dass sie zum Klemmen des greifenden Teils der Befestigungsbolzen dient, und wobei die Querträger (16) auf die zweite Schicht (15)

gelegt sind.

2. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Querträger (16), die auf der zweiten Schicht (15) aus starrem Material liegen, das Fertigstellungs-Trageelement sperrt und trägt, wobei das Fertigstellungs-Trageelement ein Verputzgeflecht (17) ist.
3. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die starre Schale am hinteren Teil (11) verbunden ist, vorne gebogen, um die kleinen Widerlager (12) zu bilden, wobei geeigneter Raum (13) gelassen wird, um ein einfahrbares Schiebetürblatt (20) aufzunehmen, wobei an der Vorderseite der starren Schale, auf der Seite von Zugang und Ausgang des Türblatts (20), die Struktur der zwei vorderen kleinen Widerlager (12) so geformt ist, um eine Stufenstruktur zu bilden, die einen ersten Abschnitt, rechtwinklig zur Seitenbestimmungswand (120) der starren Schale, einschließt, gefolgt von einem zweiten Abschnitt, der parallel zu der Wand (120) ist, mit einem dritten Abschnitt, rechtwinklig zu dem zweiten Abschnitt, wobei der dritte Abschnitt das Cornerite (121) und die Führung für das Verputzen bildet, aus der die Rippe (122) hervorgeht, gebogen in ungefähr 45 sexagesimalen Graden auf solche Art, dass das Lösen vom Verputz (130) verhindert wird.
4. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür gemäß Anspruch 2, **dadurch gekennzeichnet, dass** das Geflecht (17) einen vorstehenden Teil (170) hat, der über den hinteren Teil (11) und den oberen Teil der starren Schale derart hinausragt, dass die Bildung von Rissen zwischen dem Gegenrahmen für die einfahrbare Schiebetür (100) und dem hinteren Mauerwerk (110) am Verbindungspunkt vermieden wird.
5. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür gemäß den Ansprüchen 2 und 3, **dadurch gekennzeichnet, dass** der hintere Teil (11) der starren Schale nach außen gebogene Rippen (111) einschließt, geeignet zur Verschraubung der Querträger (16), sowohl vom vorderen Teil (161) als auch vom hinteren Teil (162), derart, dass ein einziger Körper mit den verschiedenen übereinandergelegten Schichten (120, 14, 15, 16) und dem durch das Verputzgeflecht (17) verstärkten Verputzes (130) gebildet wird.
6. Kasten (10) für den Gegenrahmen einer einfahrbaren Schiebetür gemäß Anspruch 1, **dadurch gekennzeichnet, dass** die Querträger (16), die sich auf der zweiten Schicht (15) von starrem Material

befinden, das Fertigstellungs-Trageelement aus-sperren und tragen, wobei das Fertigstellungs-Tra-geelement eine Verputzkartonplattentafel ist.

7. Gegenrahmen (100) einer einfahrbaren Schiebetür zum Halten von hängenden Objekten (200), der Fol-gendes umfasst:

- einen Kasten (10) gemäß einem beliebigen obigen Anspruch;
- ein längliches oberes die Führung haltendes Querstück (101) und
- mindestens eine Anschlagleiste (102);

die auf der einen Seite des Querstücks (101) entlang der Oberkante des Kastens (10) gehalten wird und auf der anderen Seite am überhän-genden Ende von der mindestens einen senk-recht platzierten Anschlagleiste (102) getragen wird,

wobei der Gegenrahmen (100) weiter so aus-gebildet ist, dass

(a) der Kasten (10) und die Anschlagleiste (102) angeordnet sind, um die Elektrokäs-ten, die dazugehörigen Verdrahtungen und die Wasserrohre zu tragen; und

(b) das Querstück (101) einen Tragekasten (30) mit oder ohne internes Split-Gerät der Klimaanlage (40) hält.

Revendications

1. Enceinte (10) pour contre-cadre pour porte coulissante à galandage munie d'un côté (a, b) pour sup-porter des objets suspendus (200), l'enceinte (10) étant du type comprenant :
- une coque rigide réalisée par couplage de feuilles métalliques ou en matière plastique pré-formées, et comprenant deux parois de défini-tion de côtés (120) comportant chacune une fa-ce extérieure (123) ;
 - un élément de support de finition ; et
 - des entretoises (16) permettant l'ancrage de l'élément de support de finition en correspon-dance avec au moins l'une des deux parois de définition de côtés (120) de la coque rigide ;
- caractérisée en ce que** ladite enceinte (10) comprend de plus :
- une première couche de matériau semi-mou (14) ; et
 - une deuxième couche (15) de matériau rigide ;
- la première couche (14) de matériau semi-mou étant disposée contre une face extérieure (123) d'une paroi de définition de côté (120) dans l'es-pace entre ladite paroi de définition de côté (120) et l'élément de support de finition, la deuxième

couche (15) de matériau rigide étant superpo-sée sur la première couche (14) de façon à servir à serrer la partie de préhension des fiches de fixation, et les entretoises (16) étant superpo-sées sur ladite deuxième couche (15).

2. Enceinte (10) pour contre-cadre pour porte coulissante à galandage selon la revendication 1, **carac-térisée en ce que** les entretoises (16) qui se trouvent sur la deuxième couche (15) de matériau rigide es-pacent et portent l'élément de support de finition, ledit élément de support de finition étant un treillis de plâtre (17).
3. Enceinte (10) pour contre-cadre pour porte coulissante à galandage selon la revendication 1, **carac-térisée en ce que** ladite coque rigide est jointe au niveau de la partie arrière (11), incurvée à l'avant de façon à former les petites butées (12), laissant un espace approprié (13) pour recevoir un panneau de porte coulissante à galandage (20), dans laquelle, à l'avant de la coque rigide, sur le côté d'accès et de sortie du panneau de porte (20), la structure desdites deux petites butées avant (12) est formée de façon à constituer une structure en épaulement qui comprend une première partie orthogonale par rapport à la paroi de définition de côté (120) de la coque rigide, suivie par une deuxième partie parallèle à la-dite paroi (120), avec une troisième partie orthogo-nale par rapport à ladite deuxième partie, cette troi-sième partie constituant la cornière d'angle (121) et le guide pour le plâtrage, à partir d'où l'aillette (122) a son origine, incurvée d'environ 45 degrés sexagé-simaux de façon à empêcher le détachement à partir du plâtre (130).
4. Enceinte (10) pour contre-cadre pour porte coulissante à galandage selon la revendication 2, **carac-térisée en ce que** le treillis (17) comporte une partie de dépassement (170), qui fait saillie au-delà de la partie arrière (11) et de la partie supérieure de la coque rigide, de façon à empêcher la formation de fissures entre le contre-cadre pour porte coulissante à galandage (100) et la maçonnerie arrière (110) au point de liaison.
5. Enceinte (10) pour contre-cadre pour porte coulissante à galandage selon les revendications 2 et 3, **caractérisée en ce que** la partie arrière (11) de la coque rigide comprend des ailettes (111) incurvées vers l'extérieur, appropriées pour la fixation par vis-sage des entretoises (16), aussi bien à partir de la partie avant (161) que de la partie arrière (162), de façon à former un corps unique avec les différentes couches superposées (120, 14, 15, 16) et le plâtre (130) renforcé par le treillis de plâtre (17).
6. Enceinte (10) pour contre-cadre pour porte coul-

sante à galandage selon la revendication 1, **caractérisée en ce que** les entretoises (16), qui se trouvent sur la deuxième couche (15) de matériau rigide, espacent et supportent l'élément de support de finition, ledit élément de support de finition étant une feuille de panneau de plaque de plâtre.

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7. Contre-cadre (100) pour porte coulissante à galandage, pour supporter des objets suspendus (200), comprenant :

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- une enceinte (10) selon l'une quelconque des revendications précédentes ;
- une entretoise de support de guide supérieure longitudinale (101) ; et
- au moins un montant de feuillure (102) ;

un côté de l'entretoise (101) venant en prise le long du bord supérieur de l'enceinte (10), l'autre côté étant supporté au niveau de l'extrémité en surplomb par le montant de feuillure disposé de façon perpendiculaire au nombre d'au moins un (102),

le contre-cadre (100) étant de plus configuré de telle sorte que :

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(a) ladite enceinte (10) et le montant de feuillure (102) sont agencés de façon à supporter les boîtiers électriques, les câblages associés et les tuyaux d'eau ; et

(b) ladite entretoise (101) supporte une boîte de support (30) avec ou sans boîte intérieurement divisée du système de climatisation (40).

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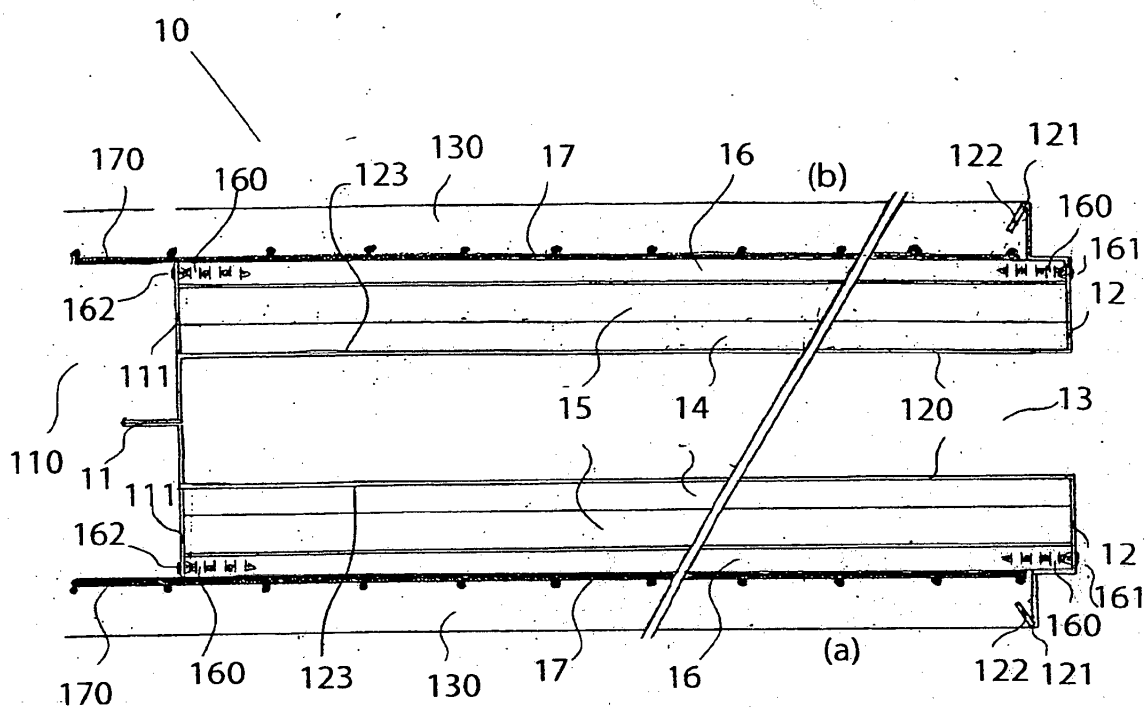


Fig. 1

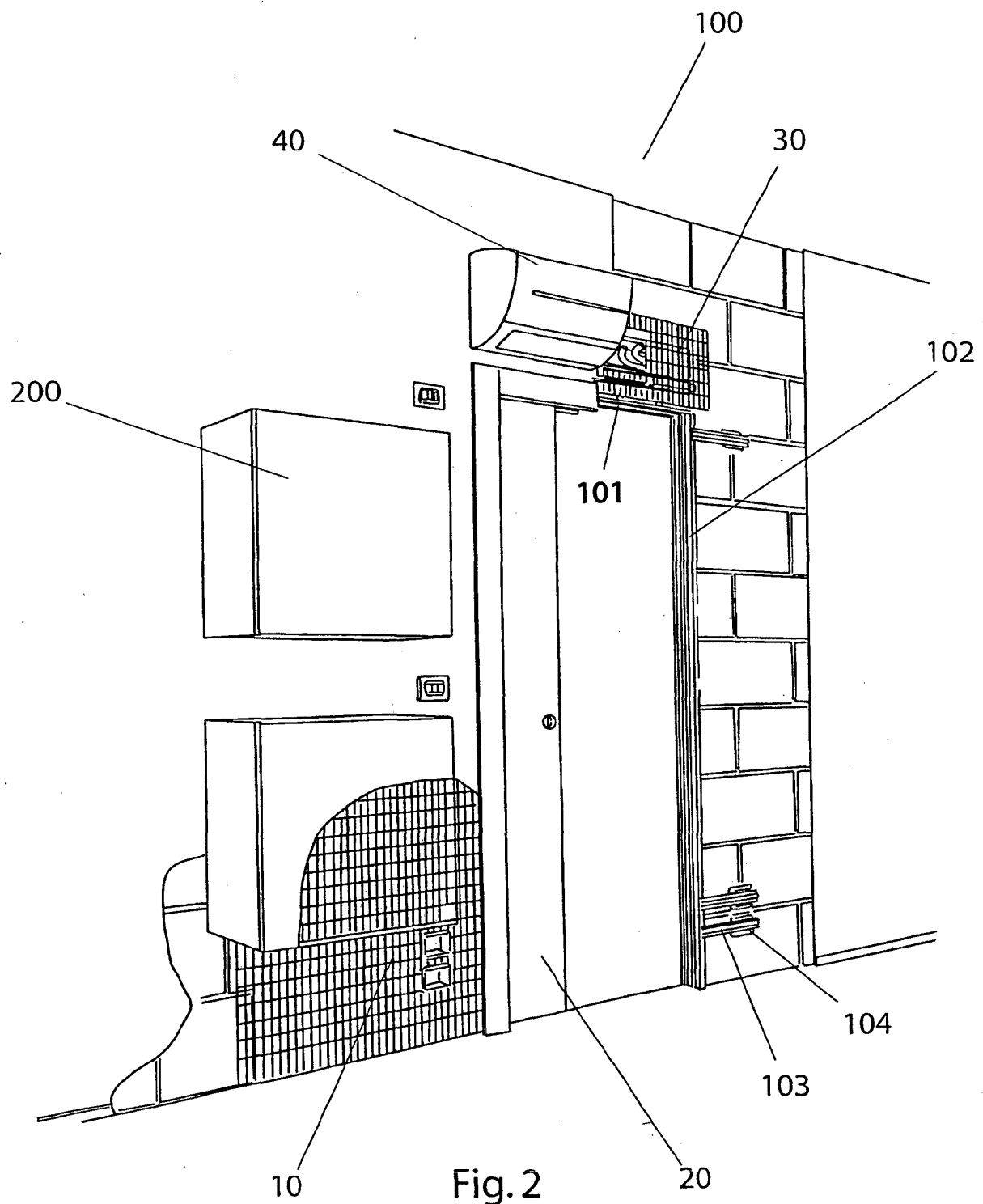


Fig. 2

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

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