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(54) **MEMORIAL STRUCTURE FOR FUNERARY URNS**

(57) Memorial structure for cinerary urns, said structure (1) being constituted by an encasing block (2) which houses several columbaria (3), which delimit spaces (4) for the housing of the cinerary urns, closed by individual covers (9) on which a plurality of front pieces (5) are fixed, made of ceramic, natural or synthetic stone, plastic or similar, which constitute, as a whole, an artistic-ornamental motif related to the memorial, these front pieces (5) being likewise formed, in one variant of embodiment, by screens, suitable for receiving and showing images, made in plasma, sets of LEDs and similar, connected by means of the corresponding connector (37) with a computer (38) programmed to offer through the pieces (5) of the plates or covers (9) individual or group sequences, on all of the pieces (5) or in groups, related to the sense of the memorial, the surface finish of the pieces (5) being suitable for receiving and showing images projected from an external digital projection lens (40) which will be combined with the images of the front pieces (5).

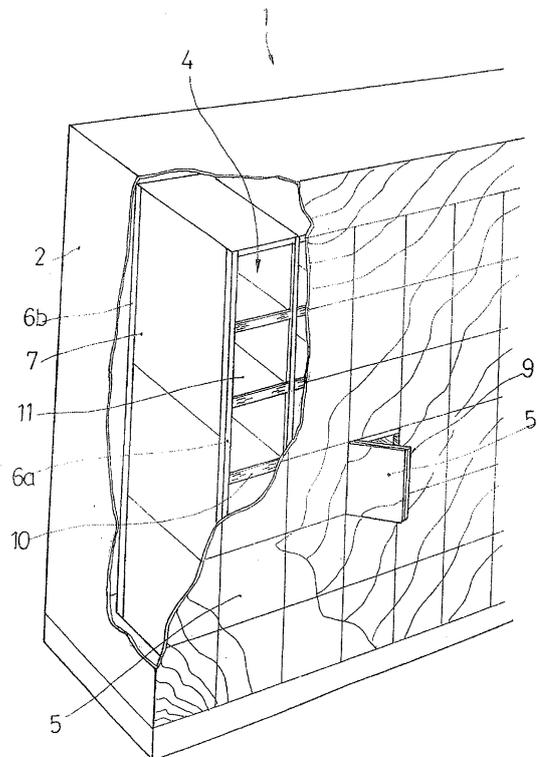


FIG. 1

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Description

[0001] The object of the present invention is a memorial structure designed for placing cinerary urns in appropriate spaces, configuring an artistic-decorative assembly representative of the memorial for the deceased persons whose ashes, placed in the respective urns, are deposited therein, attending to their personal desire to rest in a determined memorial space, this structure being constituted by a plurality of modular columbaria, conveniently placed and joined together, to form an assembly that will be located inside an encasing supporting block and on whose front adequate images are shown, the characteristics thereof being detailed in the description that follows.

Sector of the Art

[0002] The invention relates to the field of the preservation of cinerary urns, in columbaria and in appropriate spaces both closed and covered and always in a respectful and decorative manner.

State of the prior art

[0003] It is now very frequent to fulfil the will of deceased persons stated in life referring to proceeding at their funeral to incinerate or cremate their remains, giving a special and specific destination to the ashes.

[0004] One of the destinations of these ashes is to place them in an urn that will be, subsequently, deposited in a columbarium, along with the urns that contain the ashes of other deceased persons. Columbaria, with different capacities, based on needs, are situated in cemeteries or in especially significant places, such as for example, among others, religious enclosures, gardens or parks, as well as sports enclosures, etc., all of which are places of the deceased's devotion and preference.

[0005] With regards to columbaria, different types are known, citing among them those which are the object of Spanish patent documents ES 1053739U and ES 200800506U, of the same applicant, which describe columbaria formed by modular structures consisting of risers, crossbars, side and rear panels, all joined to each other by conventional means.

[0006] The structure of these columbaria makes it possible to configure, by means of the appropriate planks, the floors and ceilings of a series of identical and regular spaces, superimposed in columns, for the housing of the cinerary urns. However, and in spite of the benefits claimed at the time, these columbaria present, in the first instance, the drawback of being constituted by a high number of different parts, which increases the cost of manufacture and storage, all of this directly affecting assembly times, moreover requiring the work of specialised personnel.

[0007] They likewise present the drawback of it being impossible to locate them rationally in encasing blocks

which allow for the presentation of information or graphic-artistic decoration of the memorial which the deceased has chosen for the final destination of the cinerary urn.

5 Description of the invention

[0008] The memorial structure for cinerary urns which is the object of the present invention, offers the manufacturer and installer benefits which make it possible to configure a select and exclusive zone in accordance with the reference memorial at the same time as - given the characteristics of the modular elements which constitute the columbaria - to directly affect manufacturing and assembly costs, making it possible to have an assembly which, in one practical variant of embodiment, can be installed without an encasing block, fixed or not to a rear wall or partition, while at the same time being, expandable in its capacity and easy to maintain and to repair.

[0009] The encasing supporting block is constituted by prefabricated elements of a material that is resistant to inclement weather and with the sufficient hardness and stability to be able to house the set of unitary modular columbaria which, conveniently adjoining each other, will form a structure leaving their front face visible, face on which the closing front covers will be located, on which decorated front pieces will be fixed which, as an assembly, will form an artistic-decorative panel which is totally related to the object of the memorial, as in the case of religious, family, social, work or leisure-sports-related motifs.

[0010] These decorated front pieces consist of plates which can be, generally, made of ceramic, natural or synthetic stone, photo-printed plastic, or any other rigid material capable of being engraved on or printed, or even of reflecting images, allowing the assembly of all the plates to compose or create an artistic-decorative mural alluding to the memorial required by the deceased, each plate being duly identified for the immediate location of the space situated behind it.

[0011] As regards the structures which constitute the modular columbaria, prepared with materials resistant to deformation by weight and other structural stresses, these are formed by side panels, joined to risers, two of them frontal and two of them rear, joined by known conventional means. The assembly is completed with rear panels while the front or forward-facing part of the structure remains closed by the covers of the spaces intended for the cinerary urns.

[0012] In the variant of the embodiment wherein the structure of modular columbaria of the invention is placed outside of an encasing block fixed or not to a rear wall or partition, the front risers extend along their bottom part into height-adjustable feet, whose purpose is to absorb the irregularities of the ground, paved or not, on which the assembly is to be installed. Between each foot and the next one, a lower panel is fixed optionally, in the form of a plinth.

[0013] Likewise, upper panels optionally extend along

the top part in the form of a lintel, which are fastened slotted into groves situated in the upper part of the front risers. These lintel panels, along with the plinth panels make it possible to provide a homogeneous finish to the front forward-facing assembly constituted by the totality of the plates fixed on the covers of the spaces in which the cinerary urns will be deposited.

[0014] The front risers are joined to each other by means of horizontal crossbars, each one of which is provided with a longitudinal guide in which there are respective blocking elements for the closing covers, which can be actuated through openings situated to this effect in the central part of the guides, by means of an appropriate tool or utensil.

[0015] The characteristics of the structure allow the modular columbarium to be, whether installed in an encasing block or whether installed fixed to a wall or partition, or situated isolated in a self-supporting manner, easily scalable in the lateral direction, according to the needs of assembly, by means of the simple adjoining of new columbaria, constituting a sufficiently resistant and stable assembly thanks to its interconnection. This extension in scale may likewise be carried out in height.

[0016] In line with that described above, in each anterior crossbar the blocking element of the covers which close the spaces for the cinerary urns is located, constituted by a U-shaped laminated profile body, which allows for easy displacement inside the longitudinal guide, having on its front part an opening for access of the handling utensil.

[0017] Each front cover is constituted preferably by a smooth and rectangular rigid plate provided on its upper and lower sides with appendices bent backwards and in an opposite direction, for fastening by the blocking elements of the adjoining crossbar on which it is coupled. In this way, this front cover, coupled on the crossbars, is retained by the two blocking elements, being secured by elastic elements between the tabs of the longitudinal guide and the tabs of the blocking elements when in the resting position.

[0018] The sides of each columbarium, in accordance with that described above, are constituted by one or more rigid and superimposed side panels. These panels have in their upper and lower sides several folded tabs, alternating on one side and on the other, constituting side channels for support of the planks.

[0019] Said side panels present, at different height, means for configuring the different points or levels of support of the successive planks. Hence, they have in their surface sets of windows aligned from front to back, provided with folded tabs, alternating towards one side and the other, in which the intermediate planks will be positioned on which the cinerary urns will rest.

[0020] These planks, which configure the floor and ceiling of each one of the interior spaces or cavities, are formed by a smooth, rectangular, rigid plate provided in both longitudinal sides with tabs for supporting on the channels constituted by the tabs of the side panels.

[0021] The height-adjustable feet which the front risers have in the embodiments of the columbarium not situated in an encasing block, are constituted by a U-shaped metal profile body with its end closed, wherein a screw adjustable in height in an axial direction is situated, assuring a firm and level support on the ground.

Brief explanation of the drawings

[0022] For the purpose of completing the description of the modular columbarium which is the object of the present invention, a set of drawings is attached wherein, by way of a non-limiting example, a practical embodiment of the aforementioned columbarium has been represented.

[0023] In said drawings

fig. 1 is a front view in perspective of a memorial structure object of the invention, drawing the encasing block partially sectioned in one of its corners to show the location of one of the modular columbaria, with open spaces;

fig. 2 represents in perspective the layout of the front pieces which are fixed on the covers of the spaces;

fig. 3 is a front view in perspective of the structure of the invention, constituted by a set of modular columbaria, and specifically in an optional embodiment, adjoined and fixed to a wall or partition, showing, schematically, decorative graphics disposed on the very forward-facing visible front pieces;

fig. 4 is a view in perspective of a column of a modular columbarium, according to the preceding drawing, seen from the front.

fig. 5 complements the preceding drawing, with a view in perspective from behind the column of the modular columbarium of the invention;

fig. 6 represents, to a larger scale and in perspective, a front vertical riser;

fig. 7 is a perspective view, also to a larger scale, of a rear vertical riser;

fig. 8 also represents in perspective and to a larger scale, a height-adjustable foot, which can be coupled to the front riser in the embodiment of the assembly fixed to a wall or partition;

fig. 9 shows an exploded view of a crossbar, differentiating between the longitudinal guide and the blocking element of a crossbar;

fig. 10 is a view in perspective of a side panel with multiple heights;

fig. 11 shows a view from beneath a plank, to make it possible to observe the longitudinal support tabs;

fig. 12 represents in perspective, a rear panel;

fig. 13 is a perspective view of a structure whose front pieces, some of which are open, are plasma screens; and finally

fig. 14 represents a structure with front pieces suitable for receiving projected images.

Mode of embodiment of the invention with reference to the drawings

[0024] In accordance with these drawings, the memorial structure for cinerary urns (1) is constituted by a regular prismatic encasing block (2) in the inside of which various modular columbaria (3) are located, each one of which is formed by a succession of compositions of a rigid, resistant material which cannot be deformed, which form a column and which can be adjoined laterally, defining and delimiting a series of spaces (4) useful for housing the cinerary urns (not represented), the assembly being provided with a plurality of front pieces (5) made of a rigid material and capable of being decorated, such as ceramic, natural or synthetic stone, plastic, etc., which constitute a decorative and ornamental motif, as represented in figure 1, totally related to the memorial chosen for each structure.

[0025] The rigid elements which constitute each one of the modular columbaria (3) are formed, each one, by two pairs of front risers (6a) and rear risers (6b), side panels (7), situated between the front and rear risers on each side; rear panels (8), fixed to the rear risers (6b) and practicable front covers or doors (9), installed on transversal crossbars (10) and placed between the two front risers (6a). The material with which all of these elements will be made is characterised by its dimensional stability and rigidity, as well as by its resistance to the action of external elements.

[0026] Inside each columbarium a series of horizontal planks (11) are positioned, which configure the floor and ceiling of the spaces (4) regular and superimposed on columns, for the housing of the cinerary urns.

[0027] Each front riser (6a) is constituted by a laminated profile with a U-section, provided, in its side wings, with a series of holes (12) for the installation of fixing screws of the side panels (7) in so far as on the front face of said front riser (6a) groups of holes (13) are situated for the coupling, on each side, of the crossbars (10).

[0028] In the variant of the embodiment wherein the structure of the invention is installed outside of an encasing block (2), which may be optionally fixed or not fixed to a wall or partition, each front riser (6a) is extended along its lower part with a foot (14) adjustable in height, represented in fig. 8, this foot being constituted by a laminated profile with a U-section, of identical characteristics to that of the profile which constitutes the front riser (6a), said foot (14) being closed on its lower end and leaving disposed therein a screw (15) which allows for the adjustment in height by means of its axial displacement. The anterior face of the height-adjustable foot (14) has holes (16) with fixing nuts on the adjacent side panel (7). In the event that the structure is not placed fixed to a wall or partition, and is placed in a self-supporting manner, it will also have the adjustable feet (14).

[0029] Between the front risers (6a) the crossbars (10) which join them are situated, defining the upper and lower limits of each space (4), together with the planks (11). Each crossbar (10) is constituted by a longitudinal guide (17) in which blocking elements (18) are situated, laterally displaceable throughout the same. This guide (17) is constituted by a U-section laminated profile provided at each end with a projecting tab (19) with holes (20) for screws to pass through them for fixing in the holes (13) of the front riser (6a).

[0030] The blocking elements (18) are made of a U-section laminated profile, which allows for their disposition displaceable along the inside of the longitudinal guide (17) forced for their displacement by elastic elements, not represented in the drawings. The blocking element (18) presents, in its anterior face, an opening (21) which allows for the access of a tool for handling said element, and also two parallel grooves (22) for inlet and outlet of appendices (23) in the upper and lower adjacent front covers (9). This longitudinal guide (17) also has an opening (24) for access of the handling utensil and a pair of parallel grooves (25) for each blocking element (18), grooves in which the front covers (9) engage, helped also by the opening (21) and the grooves (22) of the aforementioned blocking elements (18).

[0031] The closing front covers (9) are constituted by a smooth rectangular plate provided on its lower and upper sides with appendices for the blocking (23) on the crossbars (10), said appendices having a shape that bends inwards and in a position opposite each other.

[0032] On the outer face of each cover (9), respective pieces (5) are fixed, consisting in general of a plate of a rigid material, which can be decorated, which by means of photo-printing reproduces part of the front or forward-facing mural, final artistic and decorative object of the memorial assembly (1) once put in its place, each piece (5) being duly marked and referenced for its identification, placement and maintenance.

[0033] In the variant of the embodiment wherein the columbarium modules are optionally fixed directly to a wall or partition, disposed on the upper part of the front risers (6a) a series of panels (26) are optionally situated, in the form of upper lintels, slotted in the grooves (27) disposed on the upper end of said front risers (6a) while in the lower part of the repeated risers the plinth panels (28) are optionally situated.

[0034] The lintel panel (26) and the plinth panel (28c) are constituted by smooth rectangular plates provided on their sides with L-shaped appendices (29) which allow them to fasten on the front riser (6a) and the height-adjustable foot (14). The placement of the lintel (26) is optional, in the case of not having it, the upper part will be left open.

[0035] The rear riser (6b) is formed by a U-section laminated profile, provided in its central part with a series of aligned notches (30) for the coupling of the rear panels (8) and the side panels (7) while on its side wings there are holes (31) for fixing the assembly to the wall or par-

tition using conventional means.

[0036] The side panels (7) can have different heights, for the purpose of making it possible to constitute spaces (4) of different dimensions, for the housing of the corresponding cinerary urns. Each one of the side panels (7) is formed by a smooth rectangular rigid plate provided on its sides with front tabs (32) and holes (33) with nuts for fixing them on the side wings of the front risers (6a) while on the rear side it has L-shaped appendices (34) for fastening them in the front notches (30) of the rear riser (6b).

[0037] Likewise, each side panel has on its upper and lower sides a plurality of tabs (35) folded in an alternating manner on one side and the other, for the purpose of delimiting and creating two lateral channels, together with the corresponding tabs (35) of the adjoining upper and lower side panels (7c) said channels constituting the supporting space for the planks (11). Each plank (11) is constituted by a smooth rectangular rigid plate provided on each one of its longitudinal sides with respective tabs (36) folded in the shape of a "U" on its side for supporting in the channels delimited by the tabs (35) of the sides (7).

[0038] The rear part of each columbarium is constituted by the rear panels (8) with a rectangular shape, which are provided with appendices (37) folded towards one side, which allow for their fixing in the notches (30) of the rear risers (6b).

[0039] As a variant of embodiment one would mention in the structures, the placing of front pieces (5) constituted by screens for receiving and visualising images, made of plasma, a set of LEDs or similar, connected from the connector 38 to a digital computer (39) programmed to offer, on all of the front pieces (5) either individually or by groups, related images that are related in the sense of the memorial.

[0040] These front pieces (5) may also have an adequate surface for receiving and showing images sent from a projector or digital projection lens (40) which can be combined with the images of the very front pieces (5).

[0041] Having sufficiently described the essential characteristics of the memorial structure object of this invention, it must be pointed out that any variation in dimensions, shape, finish and type of materials used to embody the described elements, shall in no way alter the essentiality of the invention, which is claimed hereinafter.

Claims

1. Memorial structure for cinerary urns, designed for the rational placement of cinerary urns in housings which configure an artistic-decorative assembly related to the sense of the memorial, constituted by various modular columbaria (3), which define a series of spaces (4) on which the cinerary urns will be disposed, **characterised in that** on the closing covers (9) of the spaces (4) a plurality of decorated front pieces (5) are placed, preferably made of ceramic,

natural or synthetic stone, plastic or similar rigid materials, which constitute, overall, an artistic-ornamental motif related to the memorial.

2. Memorial structure for cinerary urns, according to the preceding claim, **characterised in that** the rigid structural elements, which constitute each modular columbarium (3) are formed by front risers (6a) and rear risers (6b) which sustain side panels (7) rear panels (8) and the front covers or doors (9) practicable on front crossbars (10) and placed between the front risers (6a) leaving positioned inside the columbarium a plurality of planks (11) which, situated horizontally configure the floor and ceiling of the spaces (4), regular and superimposed in columns.
3. Memorial structure for cinerary urns, according to claims 1 and 2, **characterised in that** the front covers (9) are formed by smooth and rectangular rigid plates provided with appendices (23) for their blocking on the crossbars (10) leaving fixed on the outer face of each cover (9) respective decorated pieces (5) for the creation of an artistic-decorative mosaic or mural, final object of the memorial assembly (1), each piece (5) being marked for its identification.
4. Memorial structure for cinerary urns, according to claims 1 and 2, **characterised in that** each front riser (6a) is constituted by a U-shaped laminated profile with holes (12) in its side wings for the placement of fixing screws of the side panels (7) and having disposed on its front face groups of holes (13) for the coupling of the front crossbars (10).
5. Memorial structure for cinerary urns, according to claims 1, 2 and 4, **characterised in that** the crossbars (10) which join the front risers (6a) define, together with the planks (11), the upper and lower limits of each space (4) each crossbar being constituted by a longitudinal guide (17) on which there are respective blocking elements (18) longitudinally displaceable, said guide (17) having on each end a projecting tab (19) with holes (20) for the passage of screws for fixing on the front risers (6a).
6. Memorial structure for cinerary urns, according to claims 1 and 2, **characterised in that** the rear risers (6b) are constituted by a U-section laminated profile, on the central face of which there are notches (30) situated and aligned for the coupling to the side panels (7) and to the rear panels (8).
7. Memorial structure for cinerary urns, according to claims 1 and 2, **characterised in that** the side panels (7) present differences in height for the purpose of constituting spaces (4) of different height for the housing of the cinerary urns, said side panels (7) being constituted by smooth, rectangular rigid plates

- provided in their front sides with tabs (32) with holes with screws (33) for their fixing on the front risers (6a), and in their rear sides with appendices (34) for their fixing on the rear risers (6b), each side panel (7) being provided with a plurality of tabs (35) which form and delimit the side channels for supporting the planks (11).
8. Memorial structure for cinerary urns, according to claims 1, 2 and 7, **characterised in that** the planks (11) which constitute the floor and ceiling of each one of the spaces (4) are constituted by a smooth and rectangular rigid plate which has in both longitudinal sides respective tabs (36) folded in a U-shape on its side, for supporting thereof in the channels defined by the tabs (35) of the side panels (7).
9. Memorial structure for cinerary urns, according to claims 1 and 2, **characterised in that** the rear part of the columbarium is constituted by the rear panels (8) constituted by smooth and rectangular rigid plates, provided with appendices 37 for fixing thereof in the rear risers (6b).
10. Memorial structure for cinerary urns, according to claims 1, 2 and 5, **characterised in that** the blocking elements (18) are of a U-shaped laminated profile, allowing for its positioning and displacement along the inside of the longitudinal guide (17), presenting on its anterior face an opening (21) for access of the handling utensil of said element (18), and also two parallel grooves (22) for inlet and outlet of the appendices (23) of the closing covers (9) the longitudinal guide (17) presenting a pair of parallel grooves (25) for each blocking element (18) and an opening (24) for access of the handling utensil.
11. Memorial structure for cinerary urns, according to claims 1, 2 and 4, **characterised in that** in the variant of embodiment of the structure wherein it can be fixed to a wall or partition, or be isolated, fully self-supporting, each front riser (6a) extends along the lower part with a height-adjustable foot (14) closed on its lower end, where a screw (15) appears disposed adjustable in height through axial displacement for levelling of the assembly, leaving each foot (14) fixed to the adjoining side panel (7).
12. Memorial structure for cinerary urns, according to claims 1, 2 and 11, **characterised in that** in the variants of embodiment according to the preceding claim, in the upper part of the front risers (6a) optionally, panels (26) are disposed in the form of lintels, slotted in grooves (27) in the upper end of said front risers (6a) while in the lower part of these front risers there are plinth panels (28) optionally fixed, said lintel panels (26) and plinth panels (28) being constituted by rectangular and smooth metal plates, being provided in their sides with appendices (29) for fixing to the front riser (6a) and to the adjustable foot (14).
13. Memorial structure for cinerary urns, according to claims 1, 2 and 11, **characterised in that** in one of the embodiments according to claim 11, the rear risers (6b) are provided with holes (31) for the fixing of the assembly to a rear wall or partition.
14. Memorial structure for cinerary urns, according to claims 1, 2 and 3, **characterised in that** in one variant of a practical embodiment, the front pieces (5) are constituted by screens suitable for receiving and showing images, made of plasma, sets of LEDs or similar, joined from the corresponding connector (38) to a digital computer (39) programmed to offer, through the set of front plates (9) different individual or joint sequences, both on the overall set of plates (9) or in groups, related to the sense of the memorial.
15. Memorial structure for cinerary urns, according to claims 1, 2 and 3, **characterised in that** in one variant of embodiment, the front pieces (5) will have their surface provided with an appropriate finish for receiving and showing the image or images sent from a projector or digital projection lens (40) provided with the appropriate programmer, which will be combined with the images on the front pieces (9).

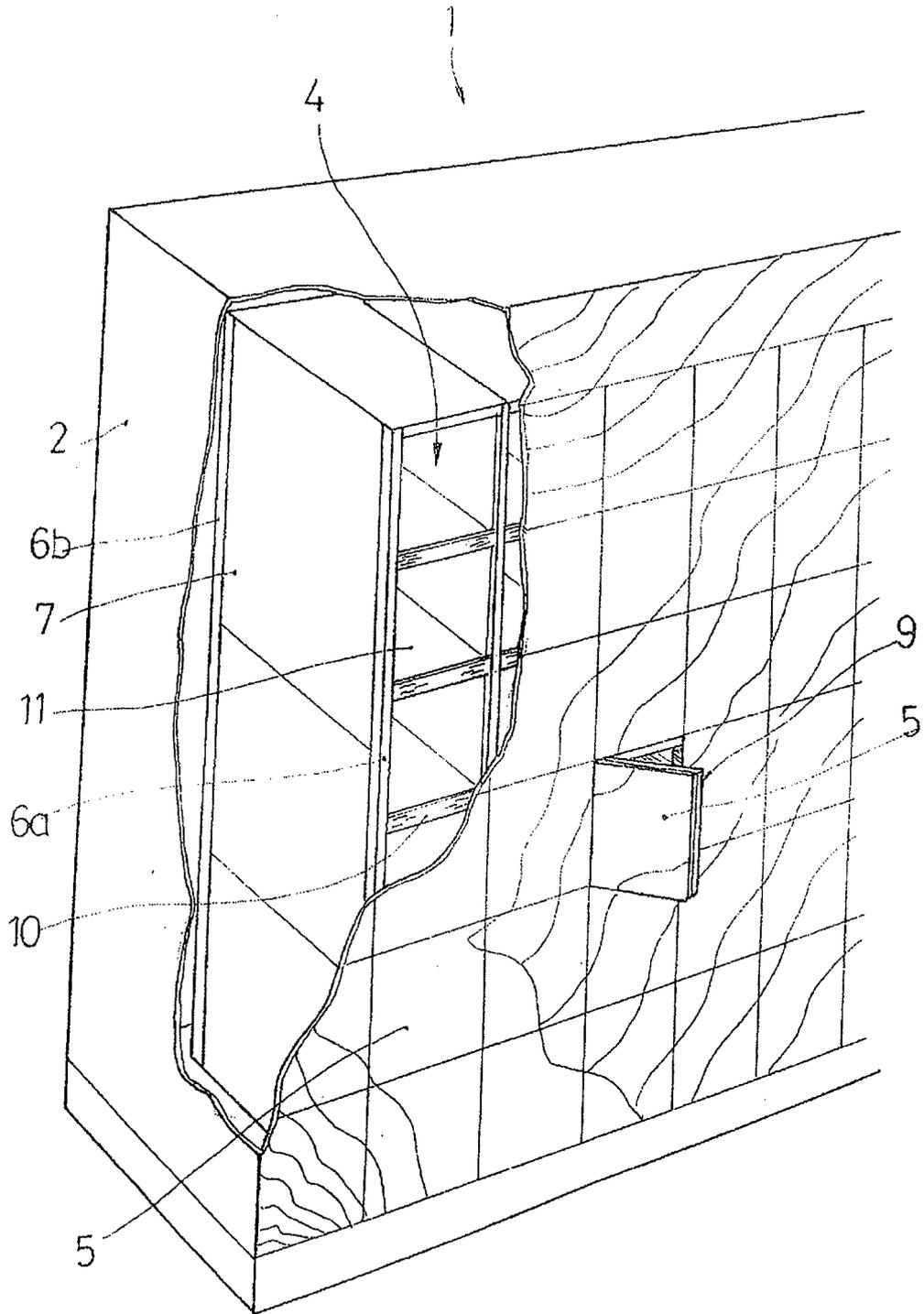
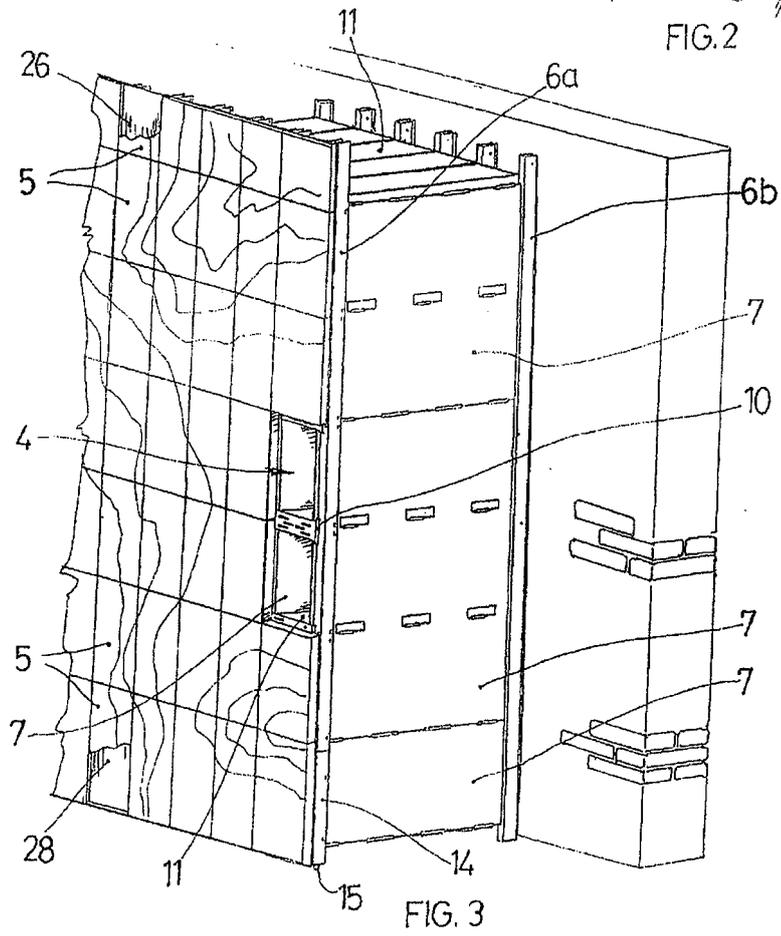
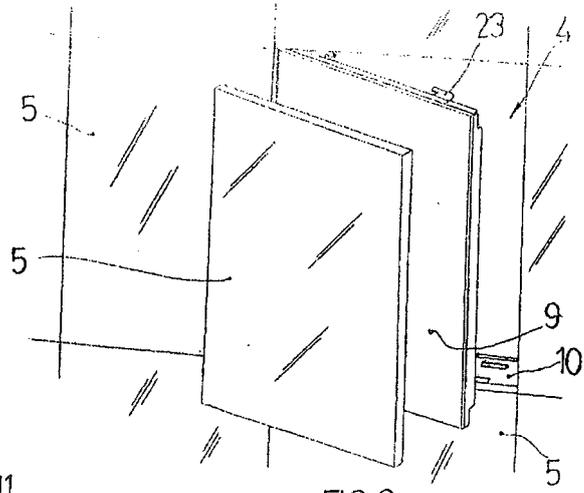


FIG. 1



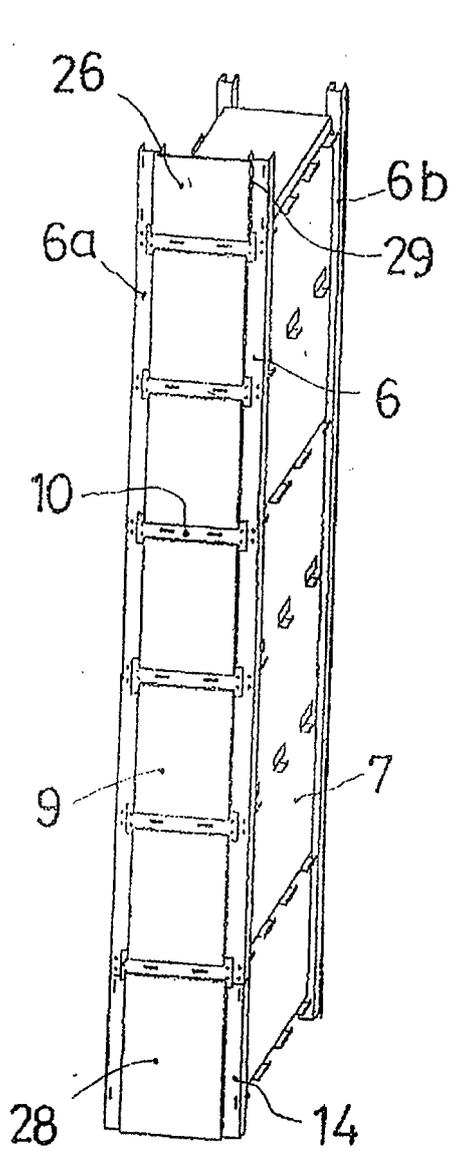


FIG. 4

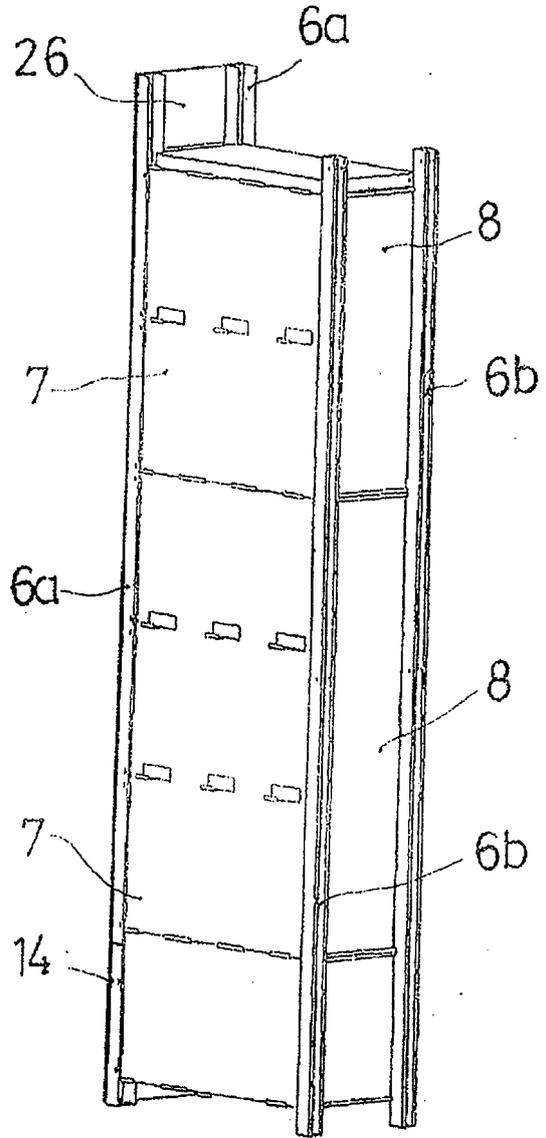
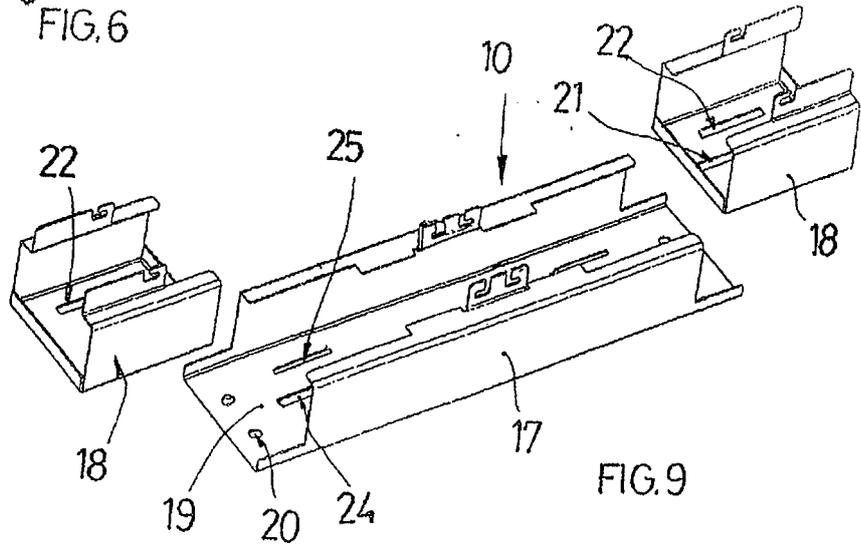
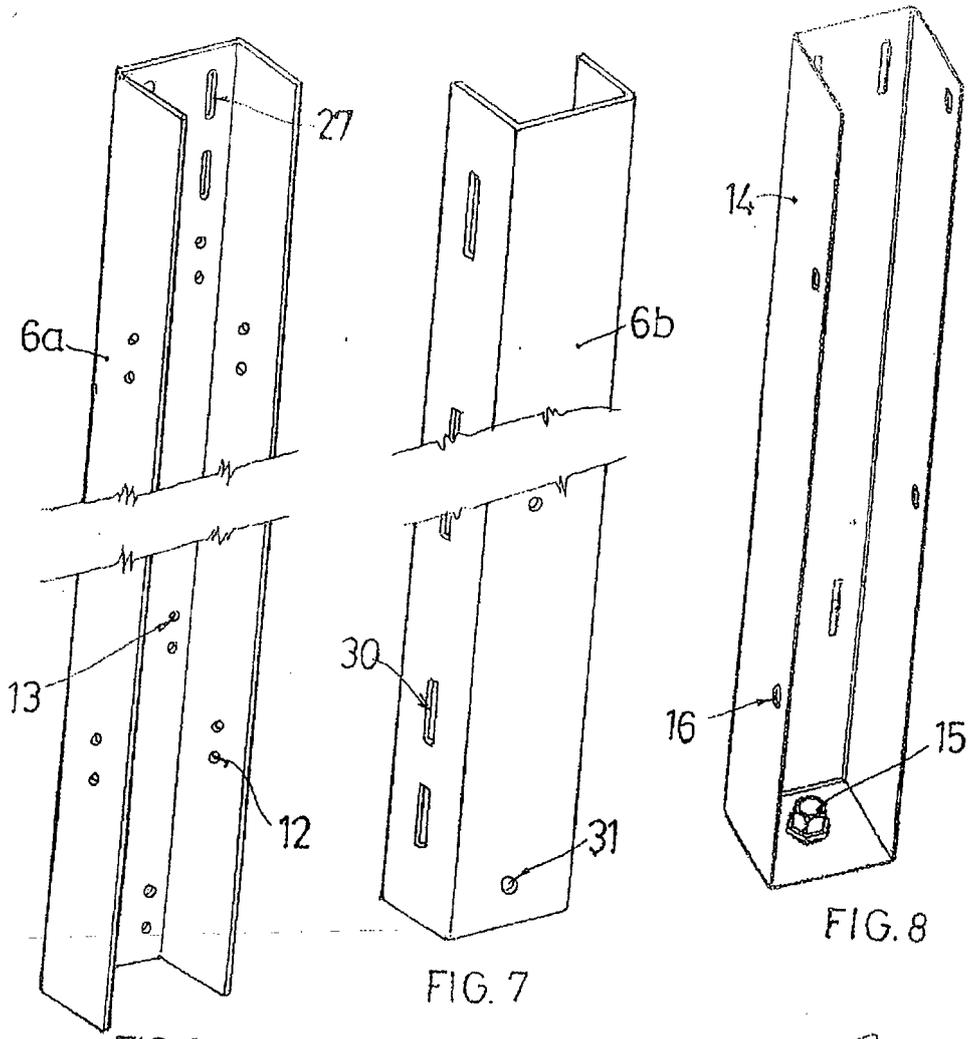
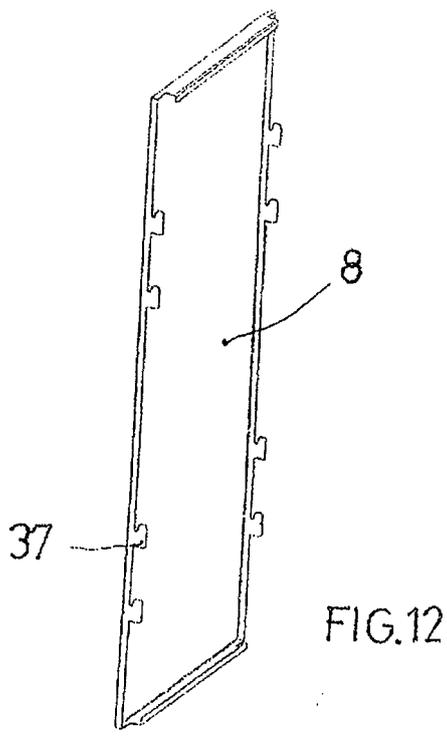
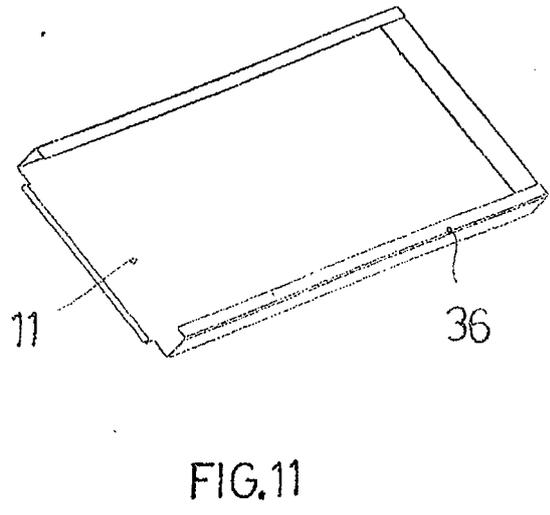
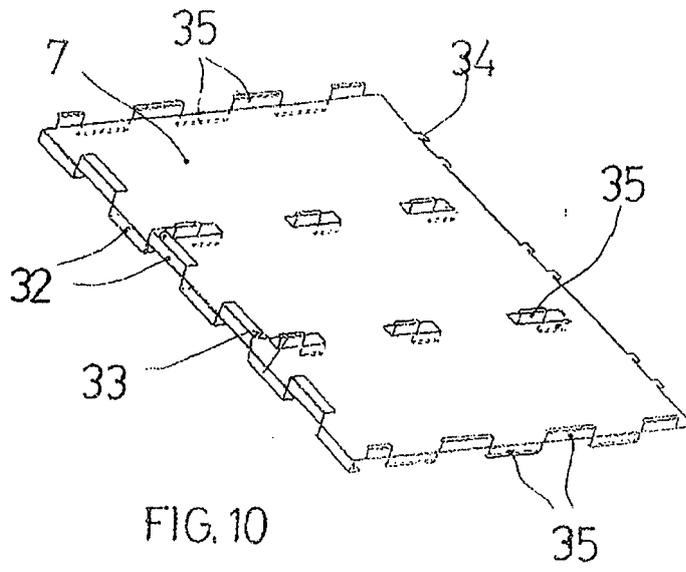


FIG. 5





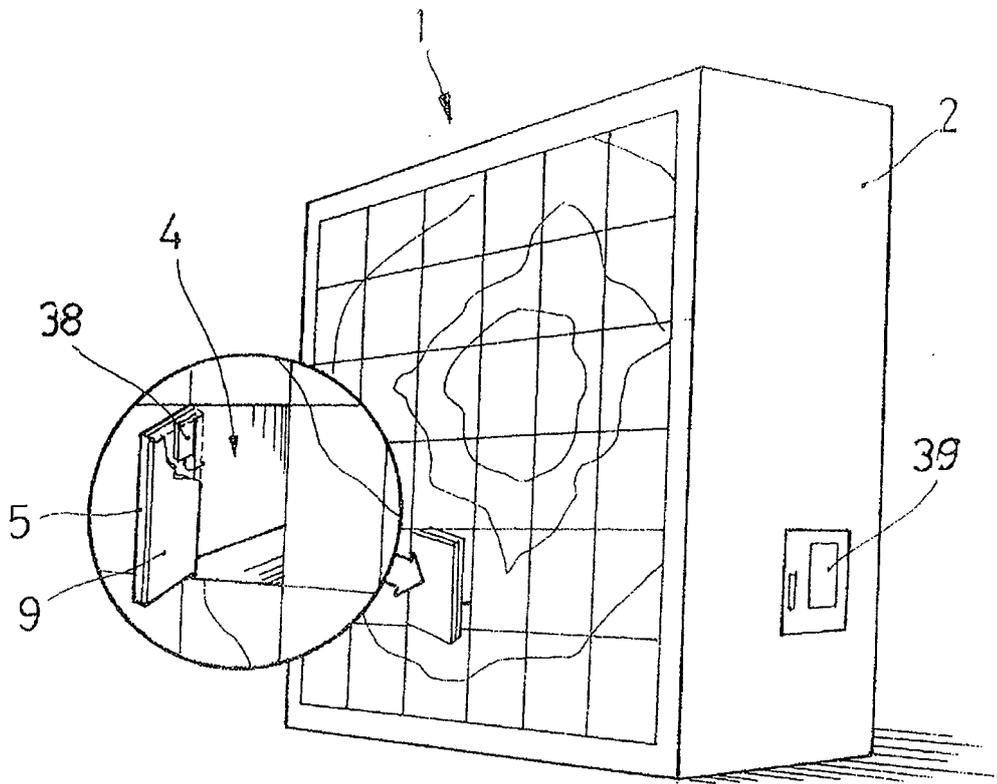


FIG. 13

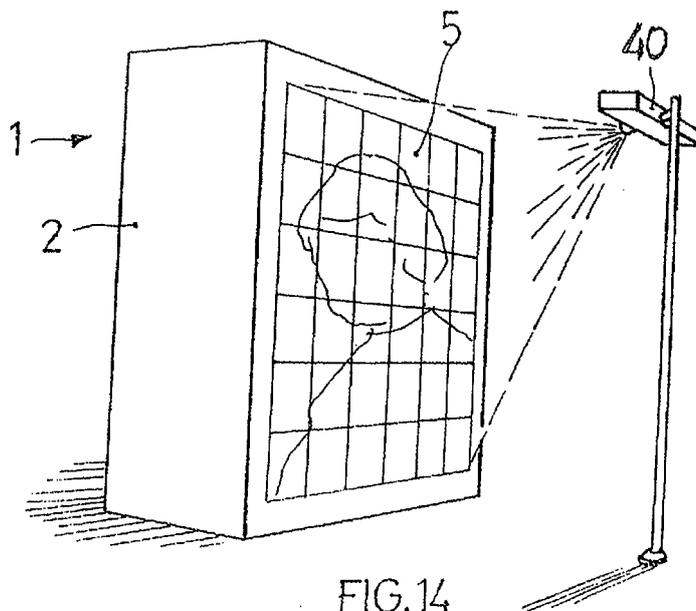


FIG. 14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/ES2013/000163

5	A. CLASSIFICATION OF SUBJECT MATTER	
	<i>E04H13/00</i> (2006.01)	
	According to International Patent Classification (IPC) or to both national classification and IPC	
10	B. FIELDS SEARCHED	
	Minimum documentation searched (classification system followed by classification symbols) E04H	
	Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched	
15	Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)	
	EPODOC, INVENES	
	C. DOCUMENTS CONSIDERED TO BE RELEVANT	
20	Category*	Citation of document, with indication, where appropriate, of the relevant passages
		Relevant to claim No.
25	X	ES 1067502U U (MARCS URNAS BACH S L) 16/05/2008, the whole document.
	Y	
	Y	US 20080078074 A1 (MC CABELL) 16.05.2008, the whole document.
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40	<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.	
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55	Name and mailing address of the ISA/ OFICINA ESPAÑOLA DE PATENTES Y MARCAS Paseo de la Castellana, 75 - 28071 Madrid (España) Facsimile No.: 91 349 53 04	Authorized officer M. Hernández Agusti Telephone No. 91 3495553

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