(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 764 458 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
21.03.2007 Bulletin 2007/12

(51) Int Cl.:
E04H 4/14 *(2006.01)* ***E04H 4/12*** *(2006.01)*

(21) Application number: **06380245.8**

(22) Date of filing: **14.09.2006**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(30) Priority: **14.09.2005 ES 200502237**

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(54) System for construction of swimming pool edges

(57) System for construction of swimming pool edges, being of use in the construction of swimming pools, both those which are overflowing and non-overflowing with skimmers (figure 5 of the designs), the top of which is finished in accordance with any of the known systems, in such a manner that the system comprises at least two backed pieces (A) and (B) of porcelain material, a first piece (A) of porcelain material of parallelepiped general shape defining the perimetric end of the swimming pool and the second piece (B) of porcelain material and of U-shaped cross-section defining the outlet channel (2), such that the first piece (A) has its upper exposed surface (3) grooved, while the flanges (4) of the second piece (B) with a U-shaped cross-section display a lower height on the internal side of the backed piece, the pieces (A) and (B) constituting with their exposed surfaces, preferably enamelled, the frame and the lining.

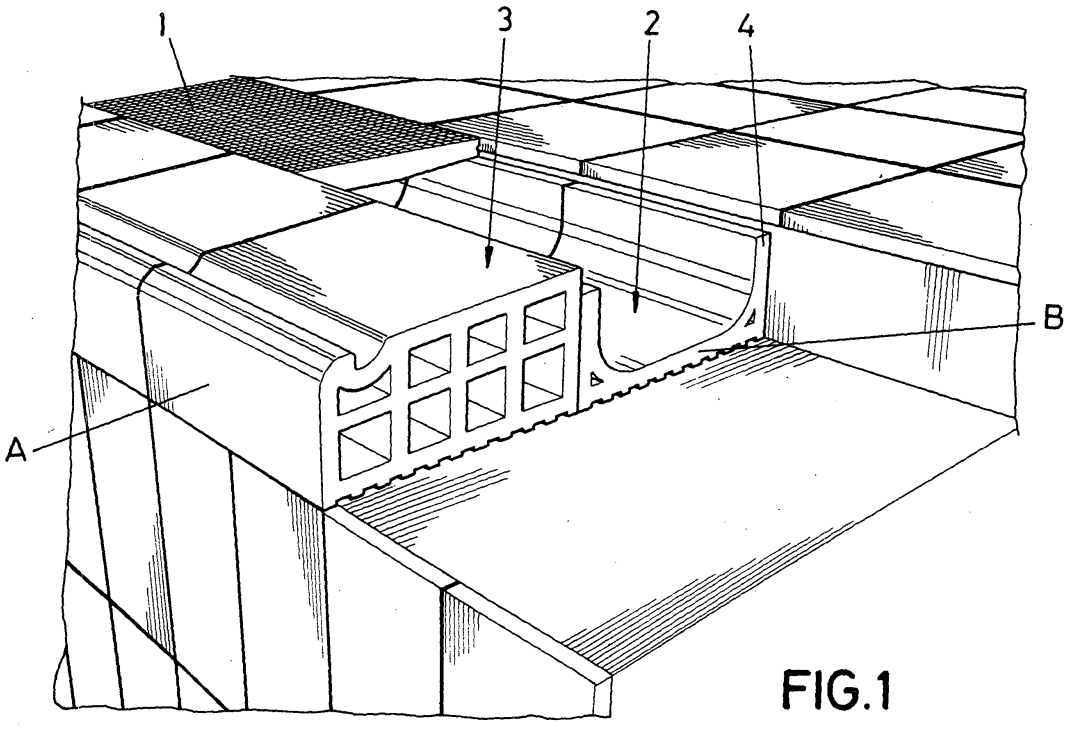

FIG.1

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Description

OBJECT OF THE INVENTION

[0001] As stated in the title of this specification, the following invention relates to a system for the construction of swimming pool edges, being of use in the construction of both overflowing and non-overflowing swimming pools, the top of which is finished in accordance with any of the known systems, having as its primary and essential object that the two or three finishing pieces making up the perimetric edge of the pool and the channel, respectively, are made of a porcelain material, preferably enamelled on their exposed surfaces, permitting them to act in turn as frame and embellishing element, thereby avoiding the laying of ceramic lining tiles.

[0002] So, not having to lay the conventional ceramic tiles on the perimetric frame of the swimming pool leads to a reduction in costs and a reduction in assembly time, a reduction in materials used, and, in short, a lower economic cost, in addition to greater security with regard to loose pieces possibly coming away and greater consistency in the perimeter of the pool.

FIELD OF APPLICATION

[0003] This specification describes a system for construction of swimming pool edges, both overflowing and non-overflowing, having application in all kinds of swimming pool construction.

PRIOR ART OF THE INVENTION

[0004] Conventionally, in the construction of swimming pools, the perimetric edge thereof can in theory be configured according to two possible variants, these two possible variants being known as the "Finnish system" and the "Zurich system".

[0005] By means of the cited systems, at the moment of construction of the swimming pool some formwork needs to be created, close to the edge, in order to produce a outletoutlet channel.

[0006] Likewise, in the two systems that are cited, the concrete perimetric edge or frame have to be lined by means of some ceramic tiles, and the cost of these tiles themselves and of the labour required for their laying therefore have to be borne in mind.

[0007] Entering into the details of these two said systems, we can state that in the "Finnish system" the perimeter (beach) of the swimming pool basin is provided with a slight inclination, causing the water to overflow and being provided with a small undercut in proximity to its internal end.

[0008] In the "Zurich system" the perimeter of the swimming pool basin is horizontal and the element or tile of its internal end presents a small lip, in such a way that no overflow of water takes place on that perimeter.

[0009] Moreover, we can consider a third system, known as the "natural system", in which the basin of the swimming pool is likewise horizontal and the element or tile of its internal end presents a small lip in such a way that no overflow of water takes place over that perimeter and, moreover, the outlet channel can be absent.

[0010] We can also consider the document of Invention Patent P200302354 which claims a "set of pieces for the construction of the upper edge and drainpipe in overflowing swimming pools", whose set of pieces embrace a diversity of concrete unitary pieces for a specific assembly (straight pieces, corner pieces, embedded stairs or outlet) and which presents as the basic piece a single concrete piece which will shape the perimeter on which the water of the swimming pool will overflow and the channel with a U-shaped cross-section, in such a way that the corresponding ceramic tiles are laid on the perimeter on which the water overflows.

DESCRIPTION OF THE INVENTION

[0011] The present invention describes a system for construction of the edges of swimming pools, both overflowing and non-overflowing, the top of which is finished in accordance with any of the known systems, in such a manner that the system comprises at least two backed pieces of porcelain material, such that a first piece of porcelain material and of parallelepiped general shape defines the perimetric end of the swimming pool and the second piece of porcelain material and of U-shaped cross-section defines the outlet channel.

[0012] The first piece, which defines the perimetric edge of the swimming pool, has its upper exposed surface grooved, while the flanges of the second piece with a U-shaped cross-section display a lower height on the internal side of the first piece.

[0013] Moreover, the exposed upper grooved surface can present a slight descending inclination, of approximately 4°, towards the basin of the pool, with the water from the pool overflowing on top of it.

[0014] Likewise, the exposed upper grooved surface of the first piece made of porcelain material can be presented according to a horizontal plane, without the water from the swimming pool overflowing on top of it.

[0015] In accordance with the configuration of the second piece of porcelain material which defines the outlet channel, positioned directly above it is a grille which is flush with the innermost side of the piece backed onto it.

[0016] Between the two pieces of porcelain material described, the system is able to incorporate a third piece, likewise of porcelain material, of parallelepiped general shape, with its upper surface grooved as an extension of the upper surface of the first piece.

[0017] This embodiment permits the most complex needs to be met, obtaining an overflowing edge of greater length, with the channel remaining in a more internal position.

[0018] Moreover, the pieces of porcelain material shaping the edge of the swimming pool with their exposed

enamelled surfaces constitute the frame and the lining, in other words, by means of using the pieces of porcelain material with their exposed enamelled surfaces acting as a lining one avoids having to lay ceramic tiles for embellishment, which represents a major saving.

[0019] In a practical embodiment of the invention, the pieces shaping the edge of the pool can be of natural flagstone, enamelled or otherwise, thereby having application in the construction of swimming pools by the "natural system" which generally lack a channel.

[0020] In a new practical embodiment of the invention, the pieces shaping the swimming pool edge can be of any polymer material, having application in the construction of any kind of swimming pool.

[0021] Moreover, the inner face of the first piece which defines the perimetric edge of the pool can be extended from the upper rounded edge in a manner that is flat or, starting from the rounded edge, it can present an offset towards the inside in relation to which the upper tiles relative to the basin of the swimming pool will be laid.

[0022] In order to complement the description that is going to be made, and with the aim of aiding a better understanding of the characteristics of the invention, this specification is accompanied by a set of drawings containing figures which, on an illustrative rather than limiting basis, the most characteristic details of the invention are represented.

BRIEF DESCRIPTION OF THE DESIGNS

[0023]

Figure 1. Shows a perspective view of a detail of the system for construction of swimming pool edges, according to a practical embodiment of overflow, where it can be seen how, basically, it is created by the backing of a pair of pieces of a porcelain material which define the perimetric edge and the outlet channel.

Figure 2. Shows a lateral elevation view of a practical embodiment according to the previous figure, in which the construction system for edges of overflowing swimming pool is based on two pieces of porcelain material.

Figure 3. Shows a lateral elevation view of a second practical embodiment in which the construction system for edges of overflowing swimming pool is based on three pieces of porcelain material.

Figure 4. Shows a view in cross-section, according to a diagrammatic detail, of the top of a conventional overflowing swimming pool, wherein can be seen the channel materialised by some formwork and the lining tiles.

Figure 5. Shows a view in cross-section, according to a diagrammatic detail, of the top of a non-overflowing swimming pool with skimmer.

Figure 6. Shows a view in perspective of a detail of the system for construction of swimming pool edges, according to a second practical embodiment of the first finishing piece for the perimetric edge of the pool.

Figure 7. Shows a detail view of the upper internal rounded edge of the first finishing piece for the swimming pool, according to a second variant of practical embodiment, in which the offset made in its internal face can be seen.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0024] With the commented figures in view and in accordance with the numbering adopted, we can see how in figure 4 of the designs, for a better understanding of the object of the patent, a conventional embodiment of the top for an overflowing swimming pool has been represented, where it can be seen how, in proximity to the perimetric brickwork edge 6 of the swimming pool, the channel 9 has been produced by means of some formwork and later on the ceramic lining tiles 7 have to be laid along with the grille 8 over the channel 9.

[0025] Likewise, represented in figure 5 of the designs is a conventional embodiment of a non-overflowing swimming pool with skimmer.

[0026] Moreover, in figure 1 of the designs we can see how the system for the construction of swimming pool edges that is proposed comprises at least two pieces A and B of porcelain material which are backed in their mounting, a first piece A of porcelain material of parallelepiped general shape defining the perimetric end of the swimming pool, while the second piece B of porcelain material and of U-shaped cross-section defines the outlet channel 2.

[0027] The first piece A has its upper exposed surface 3 grooved, while the flanges 4 of the second piece B with a U-shaped cross-section display a lower height on the internal side of the backed piece, in such a way that when the corresponding grille 1 is positioned directly on the flanges 4 of the second piece B, said grille remains flush with the innermost side of the piece backed onto it.

[0028] The exposed upper grooved surface 3 of the first piece A of porcelain material can display a slight descending inclination of approximately 4° towards the basin of the pool, or it can be presented according to a horizontal plane.

[0029] So, the proposed system is adapted to both the "Finnish system" and to the "Zurich system" of conventional top for swimming pools, in other words, for overflowing and non-overflowing pools.

[0030] Likewise, in accordance with figure 3 of the designs, we can see how the proposed system is able to incorporate, between pieces A and B of porcelain material as described, a third piece C, likewise of porcelain material, of parallelepiped general shape, with its upper surface 5 grooved as an extension of the upper surface 3 of the first piece A.

[0031] With this practical embodiment, the outlet channel is permitted to remain more internal to the edge of the pool, obtaining an overflow perimeter (beach) of

greater width.

[0032] Logically, in this practical embodiment, given that the piece C remains mounted with its upper surface 5 as an extension of the upper surface 3 of the piece A, the flanges 4 of the piece B of U-shaped cross-section which defines the channel will present a greater height so that, when the grille 1 is positioned, it is flush with the innermost side of the piece 5.

[0033] In short, the pieces of porcelain material shaping the edge of the swimming pool will preferably be enamelled on their exposed surfaces and at the same time they constitute the frame and the lining, in such a way that as there is no need to lay ceramic lining tiles, so less time is required for their mounting, in other words, there is less labour and therefore an economic saving, in addition to greater security with regard to loose pieces possibly coming away and greater consistency in the perimeter of the pool.

[0034] Similarly, with the aim of adapting the proposed system to the familiar "natural system" in swimming pool construction, the piece 4 shaping the edge of the pool will be able to be of natural flagstone, enamelled or otherwise, for the shaping thereof, with this material being able to be used in other conventional systems for swimming pool construction.

[0035] Moreover, the inner face of the first piece A which defines the perimetric edge of the swimming pool can be extended from the upper rounded edge in a manner that is flat, as can be appreciated from figure 1 of the designs.

[0036] Likewise, in a variant of practical embodiment the first piece A which defines the perimetric edge of the swimming pool presents, starting from the rounded edge 10, an offset 11 towards the inside in such a way that when laying the upper tiles 12 relative to the basin of the swimming pool, they will be laid in relation to it, as can be appreciated from figure 6 of the designs.

Claims

1. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, being of use in the construction of swimming pools, both those which are overflowing and non-overflowing with skimmers (figure 5 of the designs), the top of which is finished in accordance with any of the known systems, **characterised in that** the system comprises at least two backed pieces (A) and (B) of porcelain material, a first piece (A) of porcelain material of parallelepiped general shape defining the perimetric end of the swimming pool and the second piece (B) of porcelain material and of U-shaped cross-section defining the outlet channel (2), such that the first piece (A) has its upper exposed surface (3) grooved, while the flanges (4) of the second piece (B) with a U-shaped cross-section display a lower height on the internal side of the backed piece, the pieces (A) and (B) constituting with their exposed surfaces, preferably enamelled, the frame and the lining.

2. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** the upper exposed grooved surface (3) of the first piece (A) of porcelain material displays a slight descending inclination, of approximately 4°, towards the basin of the swimming pool.

3. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** the upper exposed grooved surface (3) of the first piece (A) of porcelain material is presented according to a horizontal plane.

4. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** positioned directly above the flanges (4) of the second piece (B) of the channel is a grille (1) flush with the innermost side of the piece backed onto it.

5. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** the system is able to incorporate, between pieces (A) and (B) of porcelain material as described, a third piece (C), likewise of porcelain material, of parallelepiped general shape, with its upper surface (5) grooved as an extension of the upper surface (3) of the first piece (A).

6. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to the above claims, **characterised in that** the pieces (A) and (B) shaping the swimming pool edge can be of natural flagstones, enamelled or otherwise.

7. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to the above claims, **characterised in that** the pieces (A) and (B) shaping the swimming pool edge can be of a polymer material.

8. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** the inner face of the first piece (A) of porcelain material can be extended from the upper rounded edge (10) in a manner that is flat.

9. SYSTEM FOR CONSTRUCTION OF SWIMMING POOL EDGES, according to claim 1, **characterised in that** the inner face of the first piece (A) of porcelain material presents an offset (11) from the upper rounded edge (10) towards the inside.

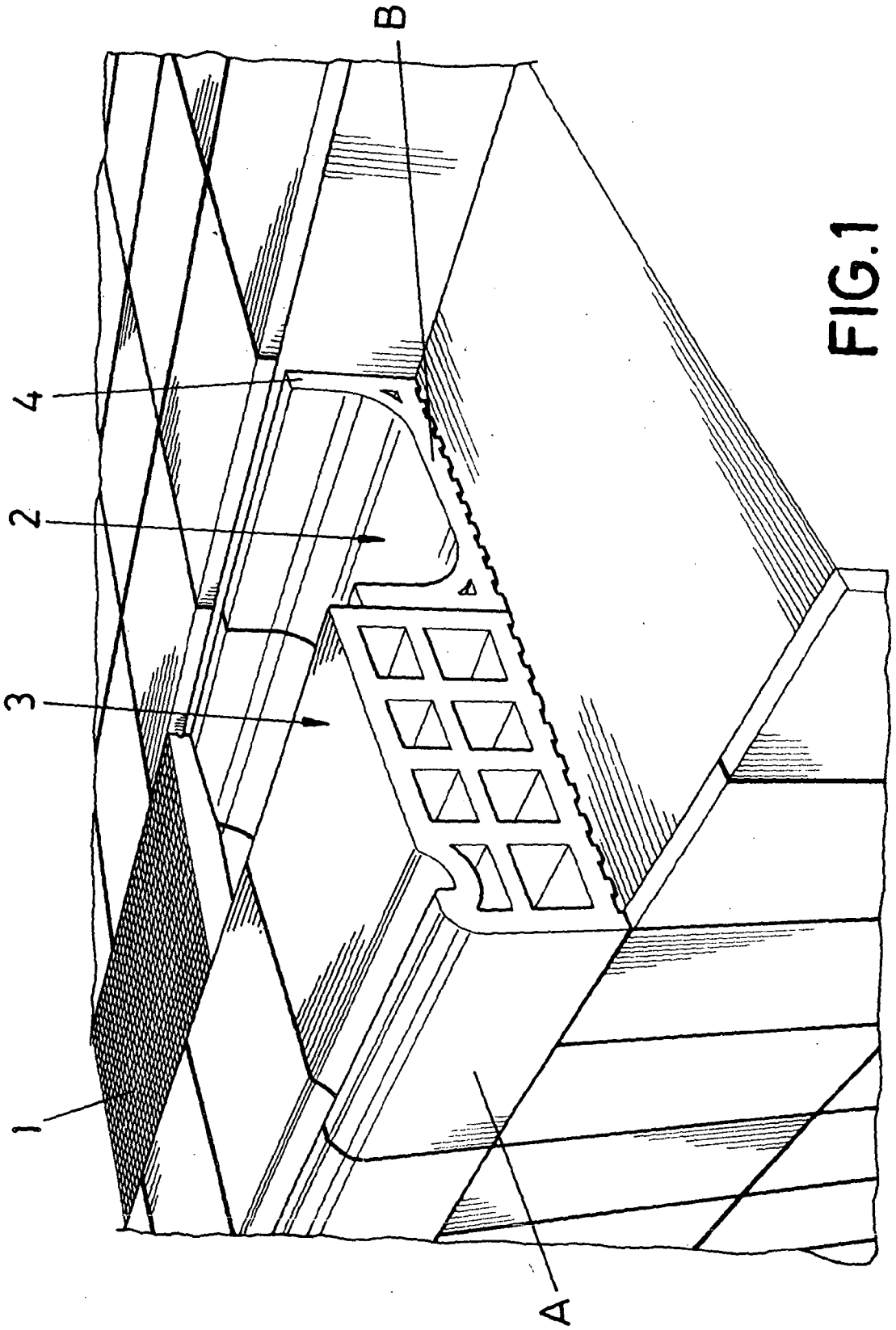

FIG.1

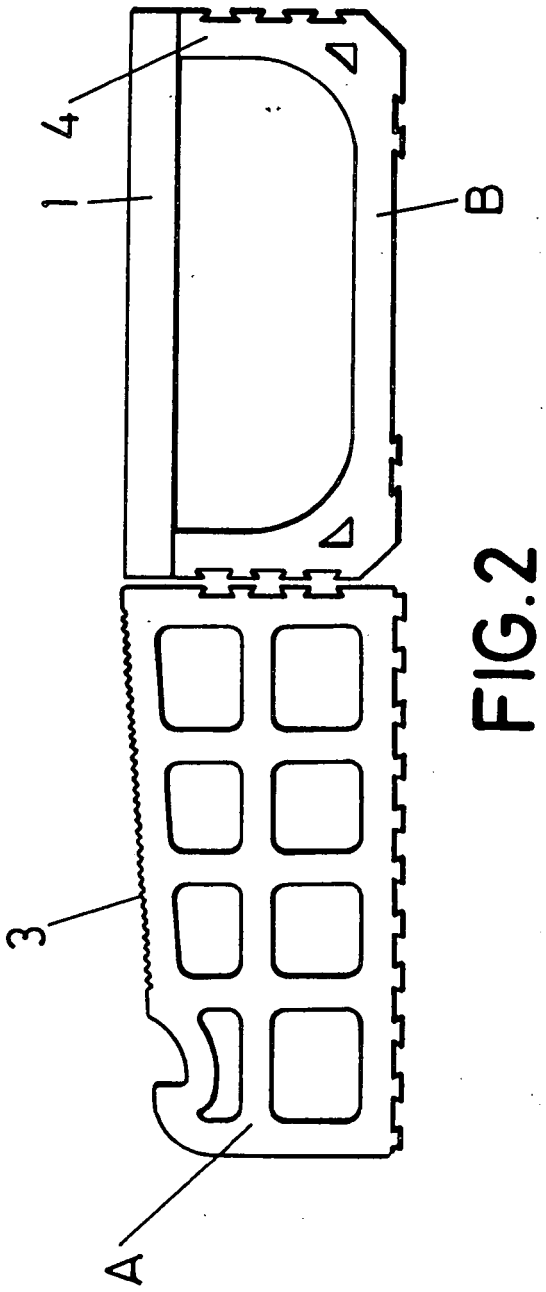

FIG.2

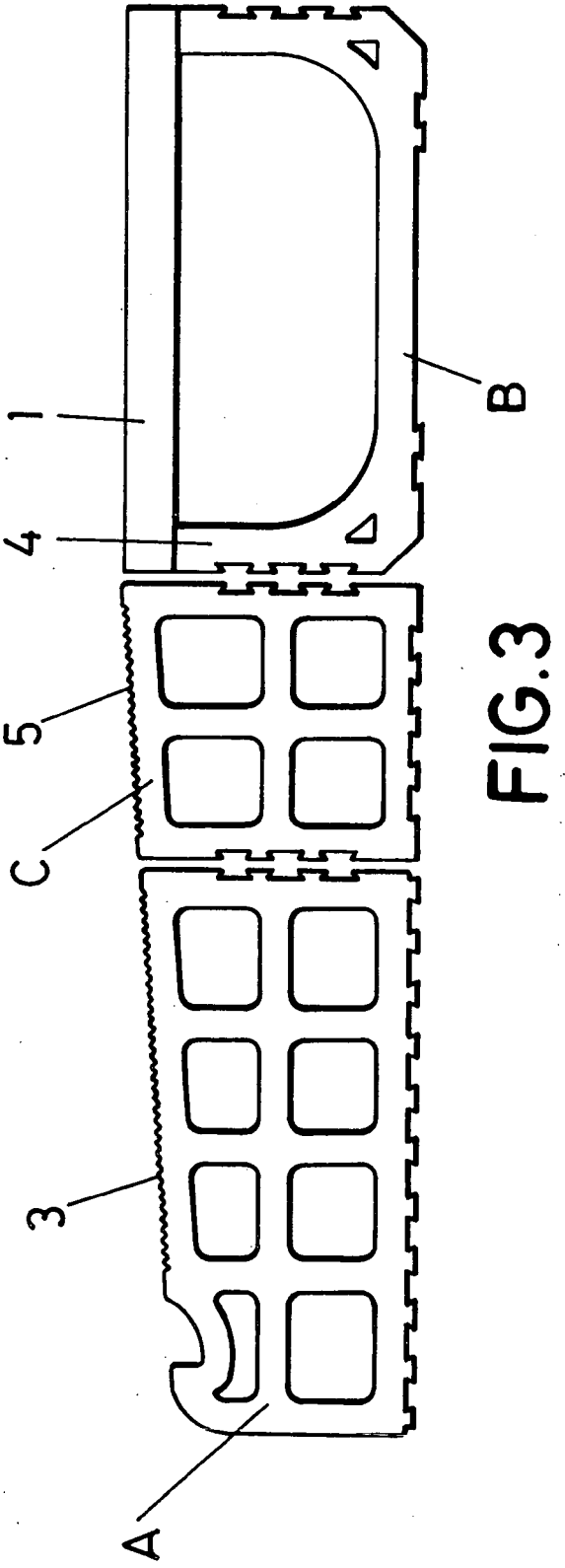

FIG.3

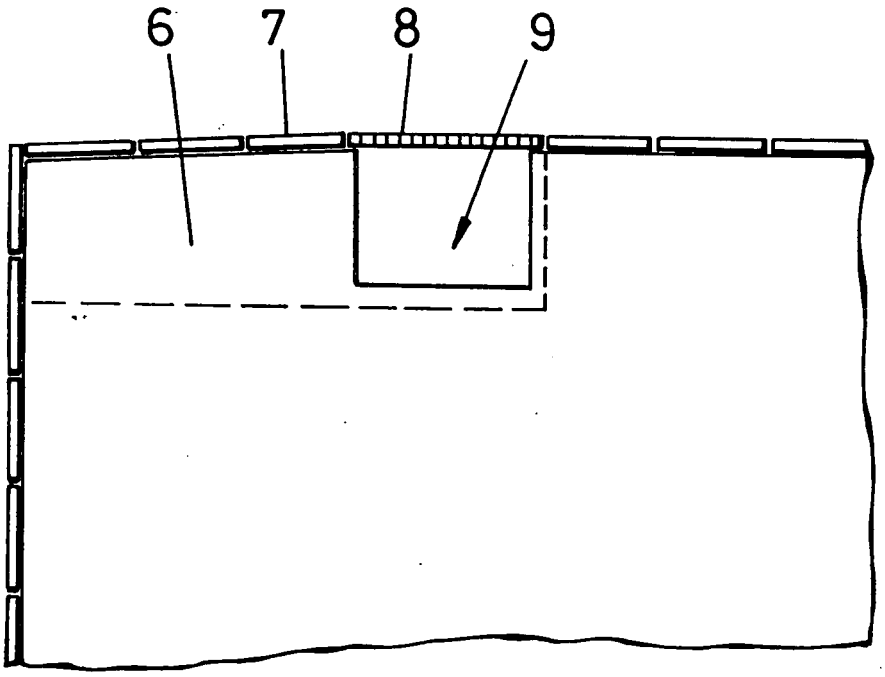

FIG.4

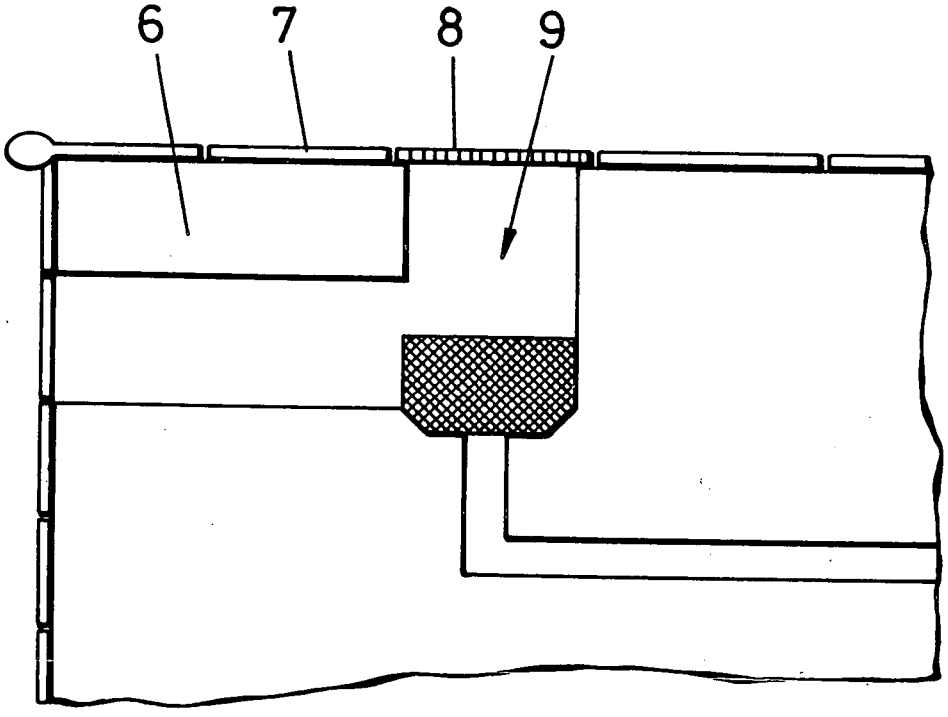

FIG.5

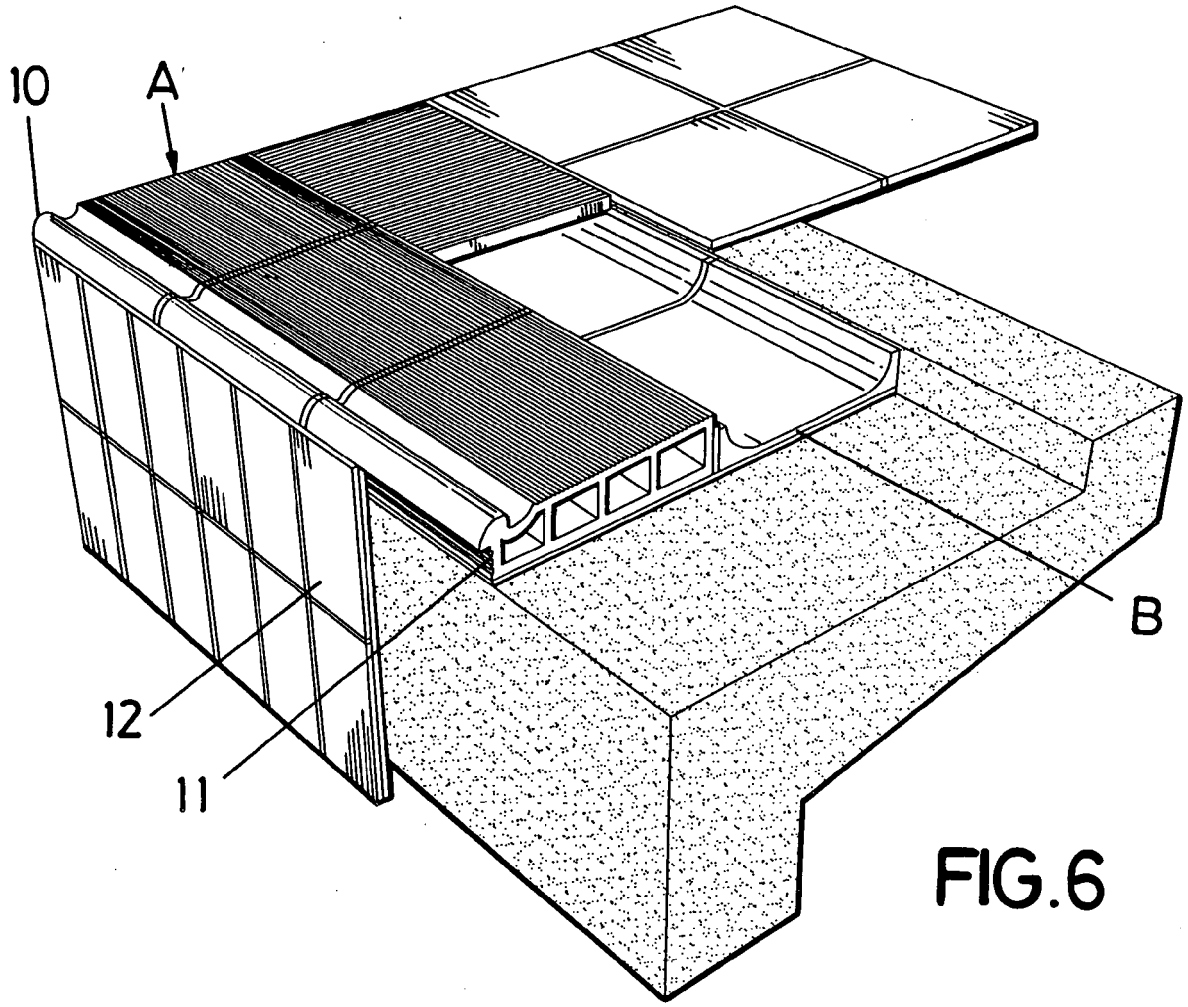

FIG.6

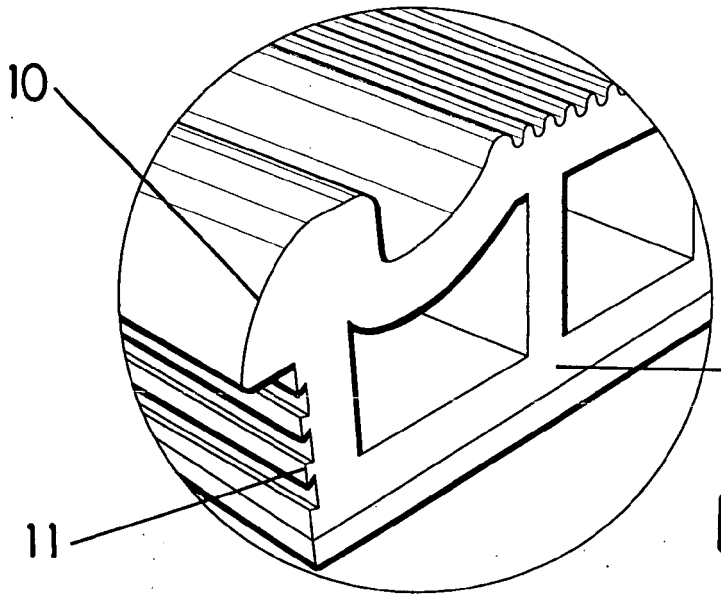

FIG.7

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 06 38 0245

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FR 2 860 822 A (CERAMICA SUGRANES [ES]) 15 April 2005 (2005-04-15) * page 4, line 6 - page 5, line 27; claims 1,4; figures 1-8 *	1-4,6-8	INV. E04H4/14 E04H4/12
A	GB 1 174 063 A (BELL BROS MANCHESTER LTD) 10 December 1969 (1969-12-10) * page 1, line 70 - page 2, line 123; figures 1,2,4 *	1,3,6-9	
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A	US 3 452 495 A (SCHROEDER MARTIN H) 1 July 1969 (1969-07-01) * column 2, line 5 - line 28; figure 1 *	1,6	

TECHNICAL FIELDS SEARCHED (IPC)

E04H

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	31 January 2007	Stefanescu, Radu

CATEGORY OF CITED DOCUMENTS

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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