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(71) Applicant: **Golden Decking, S.L.**
50018 Zaragoza (ES)

(72) Inventor: **RODRÍGUEZ ALCÁINE, Critóbal**
E-50015 Zaragoza (ES)

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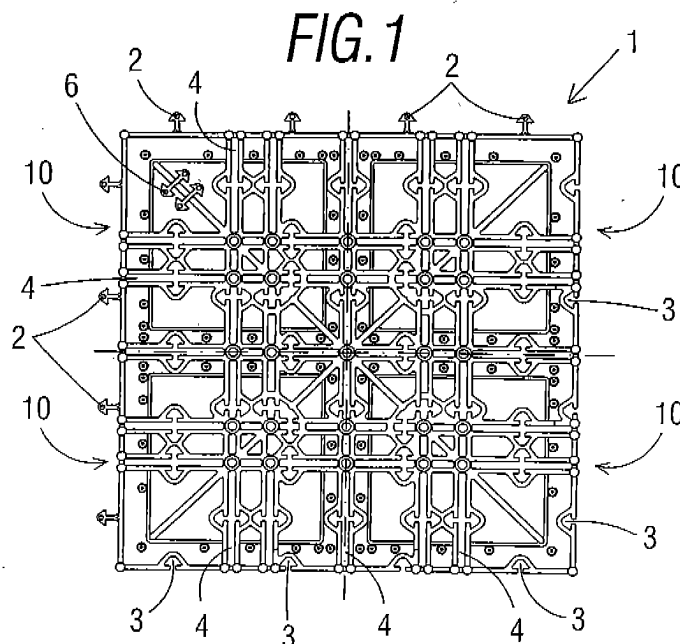
(74) Representative: **Isern-Jara, Nuria**
Avda. Diagonal, 463 Bis 2°
08036 Barcelona (ES)

(54) **IMPROVED TILE FOR FORMING FLOORS**

(57) Improved panel (1) for flooring comprising a laminar body that has means of connection and fitting together made of tongues (2) and grooves (3) on at least one side of the laminar body so as to fit to another panel that is the same or similar by complementary connection and fitting means to cover the floor, **characterised in that** in addition it has means of cutting so as to form at least two independent panel portions (10), each one of

the portions having been provided with means of connection and fitting for fixing and coupling with the means for connecting and fitting placed on the outer side of the panel (1).

In this way, the panel (1) can be divided in a quick and easy way into differing portions with differing dimensions, being very useful for end sections or corners during the assembly of floating floors, where the last piece usually has some smaller dimensions.



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DescriptionFIELD OF THE INVENTION

[0001] The invention refers to an improved panel for flooring that brings significant innovations and advantages compared to other panels with the same purpose.

[0002] More specifically it relates to an improved panel for flooring that has a laminar body with a generally rectangular or square shape that has means of connection and fitting together made by sections of tongues and grooves on at least one of the outer sides of the laminar body so as to fit into another similar or equal panel with complementary means of connection and fitting together.

BACKGROUND TO THE INVENTION

[0003] Rectangular panels are widely known that can be connected to each other for the formation of floating floors in internal or external areas such as swimming pools, terraces, etc., which have means for their connection and fitting together, such as, for example, a linking system of tongues and grooves on the outer edges of the panel so as to fit into complementary panels by any of the four sides.

[0004] However, during the fitting of floating floors by means of these panels, it is usual in the final stage of fitting that the last part to be covered with the floating floor has some dimensions that are smaller than the size of the panel, hence the fitter must cut the panel in the best way possible, on the majority of the occasions this producing an irregular shaped cut.

DESCRIPTION OF THE INVENTION

[0005] The present invention has been developed for the purpose of providing an improved panel aimed at solving the previously stated disadvantages, in addition bringing other advantages that will be evident from the description that is attached below.

[0006] The improved panel of the invention is intended for the arrangement of floors known as floating floors, being of the type that is made up of an essentially laminar body with a rectangular or square shape that has means of connection and fitting together made of sections of tongues and grooves on at least one side of the laminar body so as to fit to another panel that has the same or similar shape by some complementary means for connecting and fitting together to cover the floor, and characterised in that in addition it has means of separation so as to form at least two independent panel portions, each one of the portions having been provided with means of connection and fitting together for fixing and connecting with the connection and fitting means placed on the outer side of the panel.

[0007] By preference, the separation means are made up with a plurality of grooves for cutting arranged in one or more directions that partially or completely cross the

panel.

[0008] Thanks to these characteristics, a panel is obtained of the previous type that can be divided in a simple and quick manner into various portions with differing dimensions, making it very useful for the final sections or corners during the fitting of floating floors where normally the last panel to be fitted is smaller than the size of the panel, and in turn retaining the same type of internal fixing as the outer areas of the panel hence making the assembly almost immediate.

[0009] Also, preferably, the connecting and fitting means of the portions have grooves placed along the grooves for cutting on one or both sides of said grooves for cutting.

[0010] Other characteristics and advantages of the improved panel object of this present invention will become clear from a description of a preferred embodiment, but it is not exclusive, the drawings that are attached are by way of illustration but without being in any way limiting.

BRIEF DESCRIPTION OF THE DESIGNS**[0011]**

Figure 1. - It is a plan view of an improved panel for flooring according to the invention;

Figure 2. - It is a plan view of a quadrangular portion of a panel of the invention appearing in the previous figure;

Figure 3. - It is a plan view of a rectangular portion of a panel of the invention; and

Figure 4. - It is a perspective view corresponding to an improved panel with strips attached above.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0012] Figure 1 shows an embodiment of an improved panel for flooring that includes a laminar body (1) of an injection mouldable plastic material with a square shape, having means of connection and fitting made by tongues (2) and grooves sections (3) on the four sides of the laminar body (1) in order to fit it to another panel that is the same or similar with complementary connection and fitting means so as to cover the floor, in addition having means of separation so as to form at least two independent portions of the panel, each one of the portions being provided with means of connection and fitting so as to connect and fit to a panel.

[0013] The means of separation consist of a plurality of grooves for cutting (4) arranged in one or more directions, this means, diagonally or perpendicularly to them, that partially or completely cross the laminar body (1).

[0014] In regard to the connecting and fitting means of the portions there are grooves (5) located along the various grooves for cutting (4) on one or both sides of each groove for cutting as in a system of tongues and grooves.

[0015] As can be seen in the attached figure, the laminar body can be divided, for example, into four equal

quadrangles (10) (shown by broken lines) or multiple rectangular portions and at the same time, each portion (10) can be sub-divided into other rectangular portions. Figure 2 shows one of the portions (10) cut whilst in figure 3 a rectangular cut portion of the portion (10) can be seen, in this way showing that a variety of arrangements can be made by means of a simple cut that the panel of the invention allows.

[0016] The panel has been thought out basically for receiving on top, for example, some wooden strips (7). Due to the structure of the panel described there is also the possibility of modifying the direction of the wooden strips (7), in order to make the re-installation of the wooden strips easier and in a quick and simple manner and thus allowing the cutting of the panel in a new direction if so required, being able to assemble the floor with wooden strips (7) in two perpendicular directions. On the other hand, as can be seen from upper left part on the inside of the laminar body (1) of figure 1 there are some changeable protrusions or tongues (6) that can be used in the event of breakage of any of the protruding tongues (2) or to make pre-determined designs and finishes easier.

[0017] The details, shapes, sizes and other accessory elements, likewise the materials used in the manufacture of the improved panel of the invention can be appropriately substituted by others that are technically equivalent and do not stray away from the essentiality of the invention or the scope defined by the claims that are included below.

Claims

1. Improved panel (1) for flooring, comprising a laminar body with a rectangular or square shape that has means of connection and fitting made of tongues (2) and grooves (3) on at least one side of the laminar body so as to fit to another panel that is the same or similar, having complementary means of connection and fitting to cover the floor, **characterised in that** in addition it has means of cutting so as to form at least two independent panel portions (10), each one of the portions having been provided with means of connection and fitting for connecting and coupling with the connection and fitting means on the outer side of a panel (1).
2. Improved panel (1) according to Claim 1, **characterised in that** the means of separation consist of a plurality of grooves for cutting (4) arranged in one or more directions that partially or completely cross the panel.
3. Improved panel (1) according to Claims 1 and 2 **characterised in that** the means for connection and fitting of the portions are grooves along the grooves for cutting(4) on one or both sides of each groove for cutting.

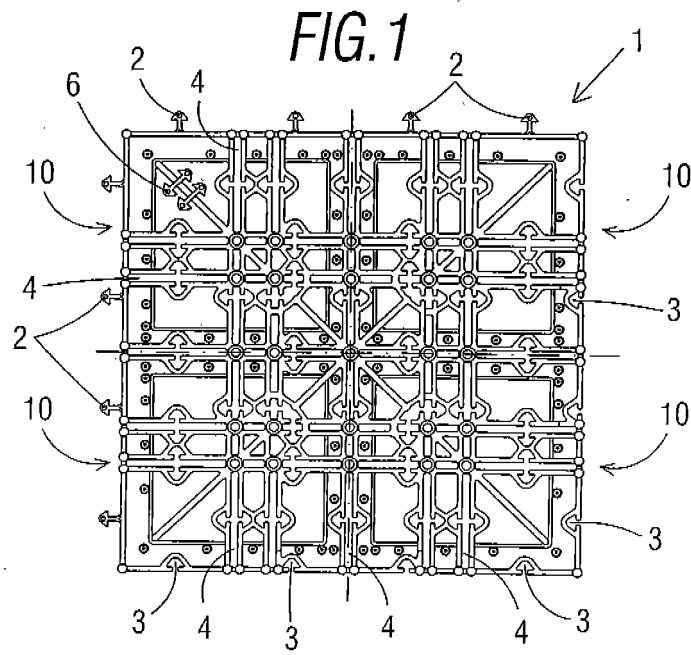


FIG.2

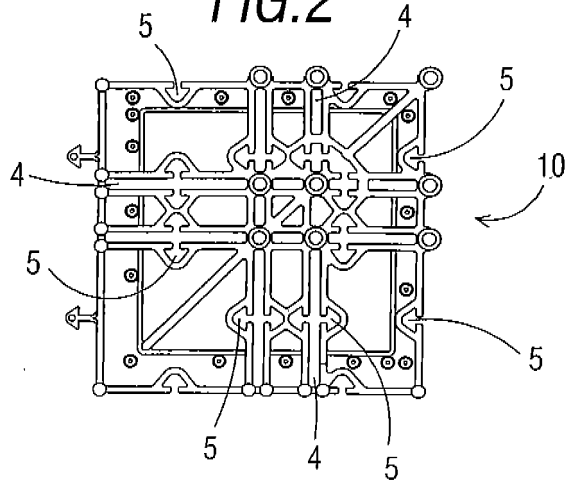


FIG.3

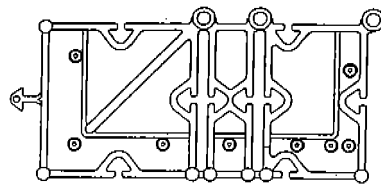
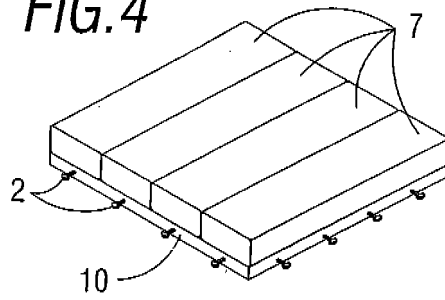


FIG. 4



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INTERNATIONAL SEARCH REPORT

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PCT/ ES 2007/000198

A. CLASSIFICATION OF SUBJECT MATTER		
see extra sheet		
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) E04F15/022, E04F15/10, E04F15+		
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, WEB, BASE+, UNDER+, MODULAR, POLY+, PLASTIC, JOINT, TILE....		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 202005013553 U1 (FLICKER VERENA) 07.09.2006, abstract; figures.	1
A	EP 0816592 A1 (CINCLA SRL) 07.01.1998, the whole document.	1
A	US 4436779 A (GRIBAUSKAS) 13.03.1984, the whole document.	1
A	JP 9041641 A (TERAMOTO KENJIRO) 10.02.1997, abstract; figures.	1
A	US 6098354 A (SKANDIS) 08.08.2000, the whole document.	1
A	JP 2006028752 A (SEKISUI CHEMICAL) 02.02.2006, abstract; figures.	1
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance.		
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"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)	"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
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"P" document published prior to the international filing date but later than the priority date claimed	"&"	document member of the same patent family
Date of the actual completion of the international search 22.June.2007 (22.06.2007)	Date of mailing of the international search report (22/08/2007)	
Name and mailing address of the ISA/ O.E.P.M. Paseo de la Castellana, 75 28071 Madrid, España. Facsimile No. 34 91 3495304	Authorized officer B. Hernández Agustí Telephone No. +34 91 349 55 53	

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/ ES 2007/000198

Patent document cited in the search report	Publication date	Patent family member(s)	Publication date
DE202005013553U U U	07.09.2006	NONE	-----
EP 0816592 AB	07.01.1998	ITMI 960478U IT 240768 Y DE 69706483 D DE 69706483 T	05.01.1998 11.04.2001 11.10.2001 25.04.2002 25.04.2002
US4436779 9 A	13.03.1984	NONE	-----
JP9041641 1 A	10.02.1997	NONE	-----
US6098354 4 A	08.08.2000	NONE	-----
JP2006028752 2 A	02.02.2006	NONE	-----

Form PCT/ISA/210 (patent family annex) (April 2007)

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CLASSIFICATION OF SUBJECT MATTER

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