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(54) **Laying system for making a wooden floor, wall or false ceiling**

(57) A laying system for a flooring, a wood lining or a wood false ceiling, for exteriors or interiors, comprises three basic elements, namely a base framework (a), a plastic clasp slider (b) and a reversible plank. The base framework (a) is run across by a groove or rail. The plastic slider (b) is adapted to move along this groove or

rail while its head, standing above the rail, enables the clasp of the plank. The plank has symmetrical U-shaped edges and is reversible. The head of the plastic slider (b) fits perfectly within a U-shaped edge of the plank. The system provides laying rapidity, flooring resistance and stability.

TABLE V

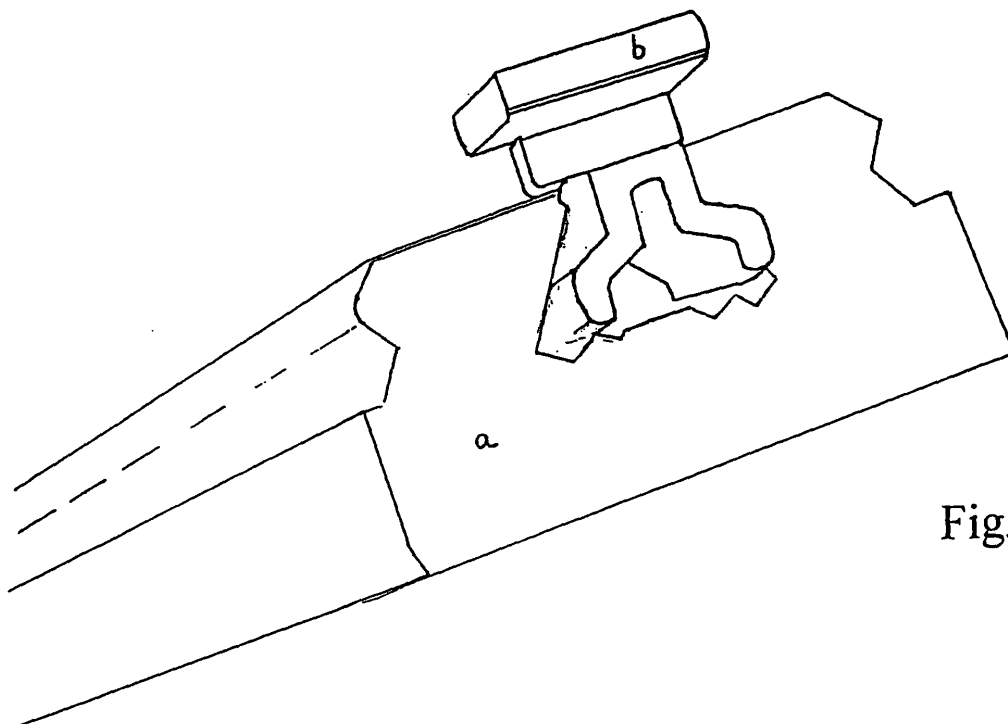


Fig. 1

Description

[0001] Today there are various wood floor or parquet laying techniques. Along with the traditional assembly techniques, systems designed to simplify the floor layer's work are now being developed. Their aim is the prompt and simple laying of a floor without compromising its quality, resistance and durability.

[0002] Among the assembly facilitating laying systems, wood flooring jointed by pressure to an expressly designed firm structure is beginning to be offered on the market. The jointed assembly is possible thanks to the particular form and structure of the base frame and that of the floor planks. A series of plastic supports are fixed on each board of the wooden base, forming the jointing base for the floor planks. Such supports actually require the use of special sliding-tongues to be clasped into the grooves of the plank.

[0003] In particular, the plastic supports are fixed on the wooden board at a variable distance, or rather they are adjustable within certain limits depending on the width of the plank, and are so designed that the plank is jointed by exerting a considerable downwards pressure.

[0004] Once the wooden boards are positioned side by side, the floor planks are joined perpendicularly to them by pressure, each plank covering two or more boards of the wooden base frame. The floor planks have a series of grooves that enable their jointing by pressure to the sliding tongues of the plastic support, thus giving stability to the system.

[0005] This is clearly a rapid flooring assembly system, but it presents certain setbacks: the pressure exerted in the jointing may, in fact, damage the planks, thus limiting the system's application exclusively to hardwood planks, which are resistant and therefore heavy. Moreover, the plank cannot be reversed.

[0006] The invention for which we require the industrial protection can be seen in Table I et seq., and consists in an innovative laying system for flooring, wood lining and wood false ceiling for exteriors and interiors.

[0007] There are three basic elements of the system that, when properly coordinated, guarantee the simplicity and rapidity of floor laying, with reduction of assembly time, plank reversibility, flooring stability and resistance.

[0008] These three elements are: a board framework in wood - Table V Fig.1(a), a plastic clasping slider - Table V Fig.1(b) and a reversible plank - Table III Fig.1 (a) & Fig. 2 (a).

[0009] A specific groove, or rail wherein the clasping slider moves, passes through the centre and all along the wooden base frame - Table I Fig.1 & Table IV Fig. 1.

[0010] The plastic (or nylon) slider has various functions: on the one hand the specific form of the base allows its movement along the rail - Table IV Fig.1, and on the other hand, thanks to a particular slider head that stand above the rail, each plank can be clasped on - Table III Fig.1 & 2. The plank, in fact, has the two symmetric "U-shaped" edges, which fit in perfectly with the plastic slider

head standing above the rail - Table III Fig.2. The plank is reversible, which means that it has two treadable surfaces.

[0011] The other function of the plastic slider is to fix the distance between the planks - Table III Fig.2, for it is placed between two adjacent planks; in fact, every single slider head, except those fixed on the extremes of the wooden boards, houses and clasps two edges of two different planks. Thus, the distance between the two adjacent planks is predetermined by the slider.

[0012] The slider, made of nylon or another material, has a particular form adapted to the above described function; its dimensions may vary, but this does not change the basic idea of the invention.

[0013] Thus, the three above described features constitute the primary elements of this innovative laying system. Their number and combination varies according to the surface to be wood-lined or paved but does not modify the process of the invention. In fact, the layer positions, at his discretion and side by side, the board framework - Table I Fig.1. Successively he inserts the first series of plastic sliders in each rail, one by one or all together - Table V Fig.1, reaching the most external edge of the wooden board - Table I fig.1. At this point, the first series of planks are placed perpendicularly to the boards; one of the two sides of each plank can be chosen thanks to their reversibility. The jointing occurs between the U-shaped edge of the plank and the slider head that stands above the rail - Table III Fig.2. Then a second series of sliders, which block the planks of the first series, is inserted on the "U-shaped" side opposite the first, using the same clasping technique between the plank edge and the slider head. The other planks are positioned following the same procedure and the same technique, until the entire surface to be wood lined or paved has been covered - Table II Fig.1.

[0014] The laying mode and sequence can be chosen at the layer's discretion. He could even choose to proceed differently from the way described above, which is simply an example, without modifying the invention procedure, the aim of which is to speed up the floor laying process and simplify the work of the layers, as well as to guarantee the resistance and stability of the flooring.

[0015] The beneficial effects of the system with respect to the traditional methods are the rapidity of laying flooring, wooden lining or false ceilings for both exteriors and interiors, reducing laying time by 70-80%.

[0016] Another characteristic of the system is the assembly and disassembly facility.

[0017] Another characteristic is the resistance and stability of the flooring.

[0018] Another characteristic is its adaptability to the laying of planks of any length or width.

[0019] Another characteristic is that it employs almost entirely ecological materials, in fact the plastic slider represents just a tiny percentage with respect to the rest of the materials used, so a low environmental impact is guaranteed.

[0020] Another characteristic of the system is the plank reversibility, that enables to have a new surface each time the old one is used up, worn out or no longer appreciated.

[0021] The invention presents numerous advantages with respect to the present day state of the art in this field and offers a new and rapid way of laying wood floors, wood lining and false ceilings both for interiors and exteriors.

[0022] The discovery is not limited to the data shown in the tables, that should be considered solely as an example, but instead it could be modified by a professional worker, staying within the conceptual frame of the invention.

false ceilings for exteriors and interiors as claimed in claim 1, 2, 3 and 4 **characterised by** a reversible wooden plank with two treadable surfaces, either smooth or nonslip.

6. Laying system for flooring, wood lining and wood false ceilings for exteriors and interiors as claimed in claim 1, 2, 3, 4 and 5 **characterised by** very low environmental impact as a consequence of its employing almost entirely ecological materials.

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Claims

1. Laying system for flooring, wood lining and wood false ceilings for exteriors and interiors through the use of the three basic elements, that, when properly coordinated, provide laying rapidity, flooring resistance and stability. The three primary elements are the board framework, the plastic clasping slider and the reversible plank. The base is run across by a special rail along which the clasping slider moves. The plastic slider moves along the rail while its head, standing above the rail, enables the clasping of the plank. The plank with symmetrical U-shaped edges fits in perfectly with the plastic slider head and is reversible. 20
2. Laying system for flooring, wood lining and wood false ceilings for exteriors and interiors as claimed in claim 1, **characterised by** the variable number of elements used, suitably jointed by the technical process, and that depends on the type of surface to be lined or paved. 25
3. Laying system for flooring, wood lining and wood false ceilings for exteriors and interiors as claimed in claim 1 and 2, **characterised by** a slider of nylon or another material (aluminium), that has the function of fixing the distance between adjacent planks and the particular form of which guarantees both the movement along the rail on the board framework and the jointing of its head in the U-shaped edge of a plank; its dimensions may vary but this does not effect the base idea of the invention. 30
4. Laying system for flooring, wood lining and wood false ceilings for exteriors and interiors as claimed in claim 1, 2 and 3 **characterised by** a simple, flexible and prompt assembly technique with consequent reduction of laying time, easy assembling and disassembling. 35
5. Laying system for flooring, wood lining and wood 40

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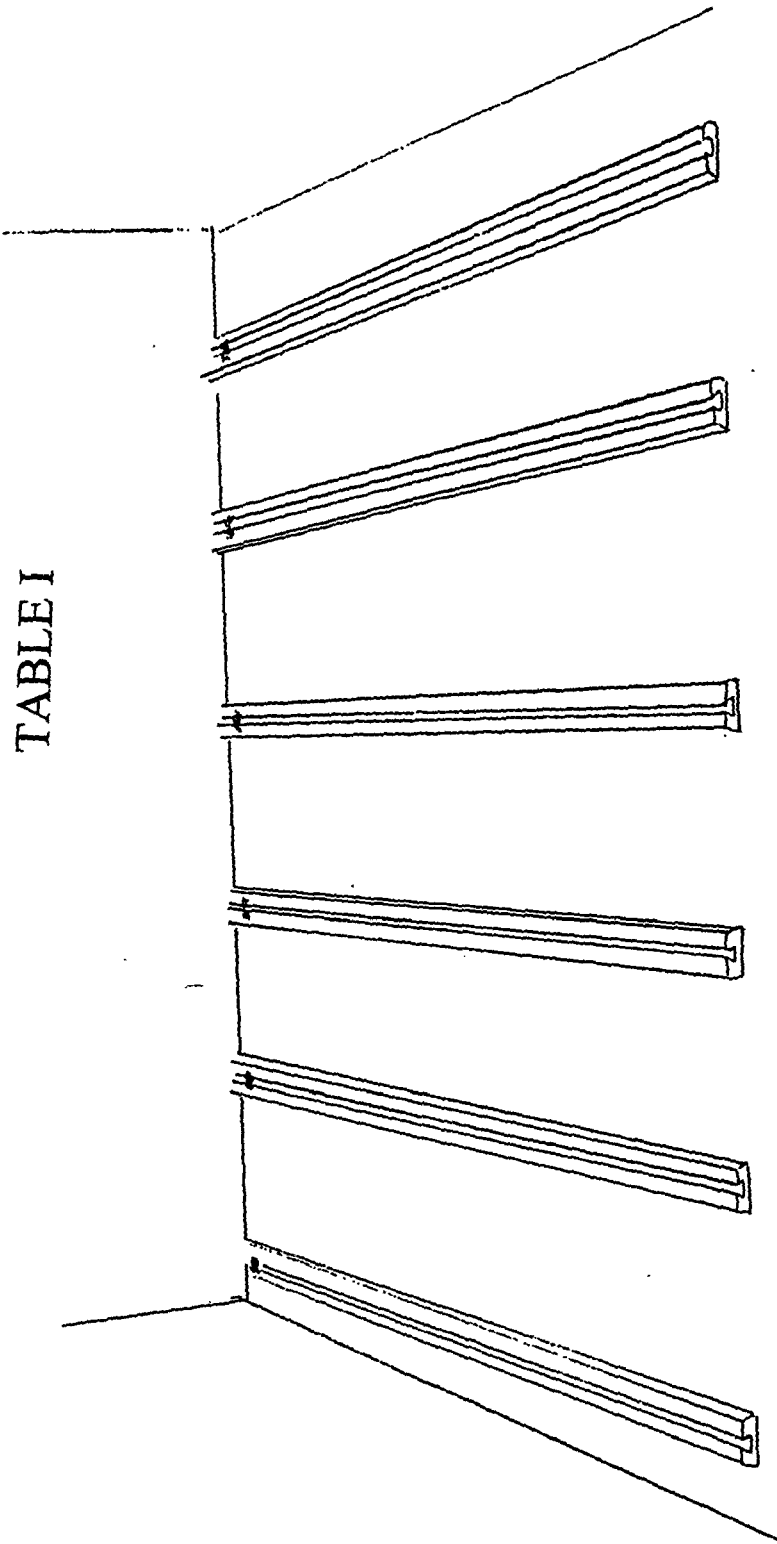


Fig. 1

TABLE II

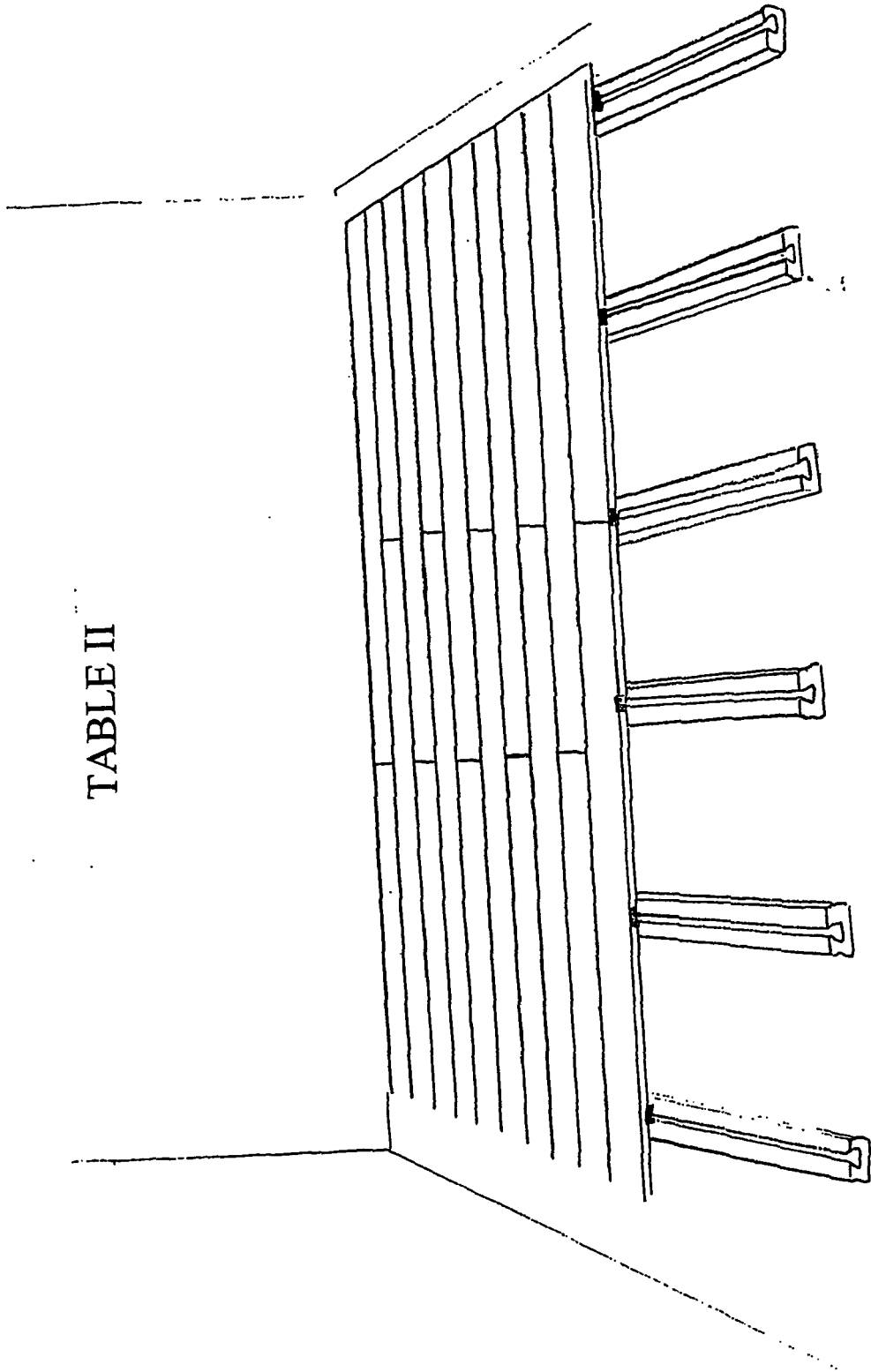


Fig. 1

TABLE III

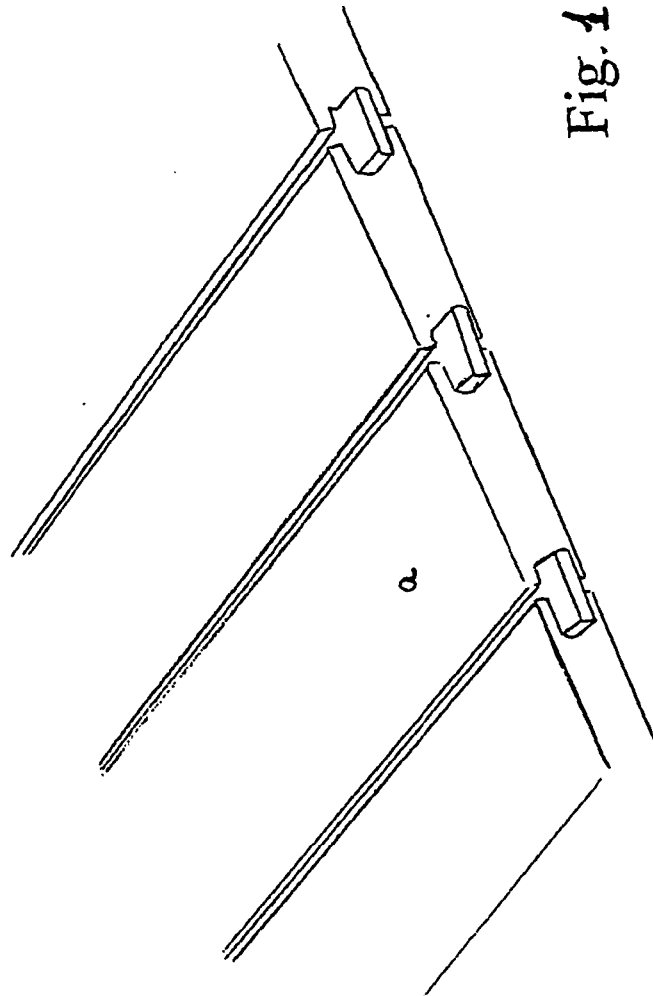
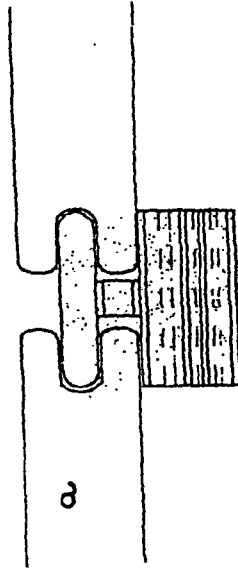


TABLE IV

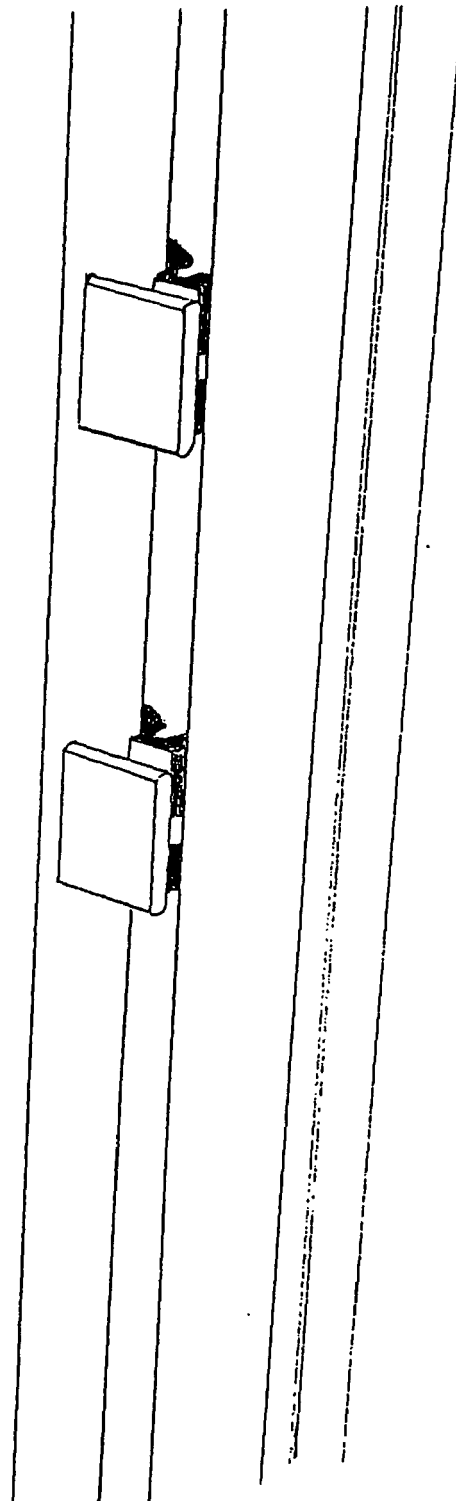


Fig. 1

TABLE V

