ABSTRACT

A combination structure of a quick assembly Do-It-Yourself (DIY) wood flooring each unit of which having a plastic base and a wood panel. Both of them are fitted together to form a whole. Two adjacent sides of the plastic base include a plurality of female portions while the other two adjacent sides thereof contain a plurality of male portions for fitting into the corresponding female portions thereof. By taking advantage of the flexibility of the plastic material and the tight connection between the concave portion and the convex portion of the wood panel, the invention may achieve a stable configuration without using nails for fixing purpose, ensure a quick and convenient assembly, and is especially applicable for DIY assembly.
FIG. 1
(PRIOR ART)
COMBINATION STRUCTURE OF A QUICK ASSEMBLY DO-IT-YOURSELF (DIY) WOOD FLOORING

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The invention relates to an improved structure of a solid wood flooring, and more particularly, to a combination structure of a quick assembly Do-it-Yourself (DIY) wood flooring each unit of which includes a solid wood panel and a plastic base so as to have the advantage of quality of the actual solid wood and the advantages of moisture-resistance, anti-deformation and rapid assembly of plastics.

[0003] 2. Description of the Related Art

[0004] Wood flooring, including solid wood flooring, combination type wood and composite type wood, provides a durable surface that is widely received by house owners for its natural warmth, beauty and protection of children against injuries in falling over to the ground.

[0005] As shown in FIG. 1, solid wood flooring is, however, made up of separate wood panels 10 laid side-by-side. The connection between the separate wood panels 10 requires nails. Otherwise, an unstable connection will easily cause deformation or detachment of the wood panels 10. However, nailing must rely on the craft and skill of the floor panel layer. Because of this, labor costs are often much higher than the cost of the wood material, resulting in higher overall construction costs and additional financial burden to the user. Furthermore, floor panel layers are often hard to hire if the construction project is small or for only partial interior decoration. Moreover, the floor is easily moistened so that a moisture-resistant layer 13 has to be interposed between the wood panels 10 and the floor 12. This increases, however, the construction cost and duration.

[0006] In US and Canada, many houses are made up of a lot of wood beam-column and have wooden floor so that nails 11 are often required to fix the wood panels 10 to the beam-column and floor. Once replacing the wood panels 10 is required, material of the house itself may be damaged. In addition, if the nails are used for fixing purpose, the wood panels will be fixed side by side so that the local replacement is not possible, but an overall dismantling is required even for a small-area replacement. This may bring difficulties and cause waste. Also, as a result of overcoming the inconvenience brought by the above mentioned wood floor installation, a kind of wood floor known as DIY arise. For some of the DIY wood floors, people shall make use of a lot of clamps to clip two adjacent wood panels together. This kind of clamp is scattered at the lower edges of the wood panels, and represents the following deficiencies: Wasting the construction time, failure to guarantee the grip of the assembled flooring to the ground, bringing people walking on it an unstable feeling and making noises caused by walking on the uneven surface from time to time.

[0007] Referring to FIG. 2, a conventional floor with clamp rails is shown. For this kind of flooring, a predetermined number of parallel clamp rails 20 shall be laid on the floor, on which exist a lot of clamp hooks 21. Thereafter, wood panels 22 are gradually clamped with the hook 21 together. However, the disadvantage of this kind of clamp rails lies in the following aspects: 1) laying in parallel must be guaranteed; 2) only suitable for the floor in shape of square or rectangle other than those with irregular shape edges such as round and inclined edges; 3) in addition, what the clamp rails 20 provides to the wood floor 22 is only the linear support so that a gap S between two clamp tracks 20 exists, thereby bringing an unstable feeling to people and causing fracture at the gap S.

[0008] In light of these problems, I, the inventor, have completed this invention after constant study and modifications to the commonly used DIY solid wood flooring.

SUMMARY OF THE INVENTION

[0009] It is a primary object of the invention to provide an improved structure of a DIY wood flooring each unit of which a plastic base and a wood panel. Both of them are fitted together to form a whole. Two adjacent sides of the plastic base include a plurality of female portions while the other two adjacent sides thereof contain a plurality of male portions for fitting into the corresponding female portions thereof. By taking advantage of the flexibility of the plastic material and the tight connection between the concave portion and the convex portion of the wood panel, the invention may achieve a stable configuration without using nails for fixing purpose, ensure a quick and convenient assembly, and is especially applicable for DIY assembly.

[0010] It is another object of the invention to provide an improved structure of a DIY wood flooring under which a plurality of legs are positioned for supporting the wood flooring on the ground. In this way, an automatic adjustment can be done when the surface of the ground is uneven, thereby avoiding noise caused. Meanwhile, the plastic base is water-repellent and directly serves as moisture separator without use of foreign matters like corner blocks and moisture proof cloth installed underneath. Accordingly, the construction cost shall be correspondingly reduced.

[0011] It is a further object of the invention to provide an improved structure of DIY wood flooring in which the bottom side of the plastic base includes a plurality of laterally and longitudinally extending grooves for receiving and handing cable so as to have an aesthetically pleasing contour for the whole flooring.

[0012] It is still another object of the invention to provide an improved structure of DIY solid wood flooring that is secured to the ground without nails or glued joint. When locally damaged, the flooring can be easily replaced without destroying the original material of the ground.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The accomplishment of this and other objects of the invention will become apparent from the following descriptions and its accompanying drawings of which:

[0014] FIG. 1 is a cutaway view of a conventional solid wood floor;

[0015] FIG. 2 is a cutaway view of another conventional solid wood floor;

[0016] FIG. 3 is an exploded view of the invention;
What is claimed is:

1. A combination structure of a quick assembly Do-It-Yourself (DIY) wood flooring, each unit of the wood flooring comprising:

   a) a plastic base made of plastics by an injection molding process, the plastic base having hooks facing each other on both of the longer sides of an upper surface thereof with their ends directed inwardly, the bottom side of the plastic base being hollowed out and having a plurality of legs for supporting the plastic base on the ground, two adjacent sides of the plastic base each having a plurality of female portions with the opening directed upwards while the other two adjacent sides of the plastic base each includes a plurality of male portions extending downwards for fitting into the corresponding female portions, the male portions at the longer sides having a smaller length than the supporting legs so as to create a gap to allow the attachment of the female
portions of one wood flooring in an inclined position to the male portions of another wood flooring in place; and

b) a wood panel having two parallel grooves formed at both longer sides of the wood panel and left to match the hooks of the plastic base, thereby permitting a smooth insertion of the wood panel into the upper surface of the plastic base to form a whole, a concave portion and a convex portion being correspondingly formed above the two grooves of the wood panel, respectively.

2. The combination structure of a quick assembly Do-It-Yourself (DIY) wood flooring as recited in claim 1 wherein the bottom side of the plastic base includes a plurality of laterally and longitudinally extending grooves for receiving cables.

3. The combination structure of a quick assembly Do-It-Yourself (DIY) wood flooring as recited in claim 1 wherein the female portions are disposed at the left and the front side of the plastic base while the male portions are positioned at the right and rear side thereof.

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