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(54) **COMBINABLE FLOOR BOARD**

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(57) **ABSTRACT**

A combinable floor board includes a square body made of plastic. The body is provided with an L-shaped upper connecting side extending from an upper section of two adjacent sides, and an L-shaped lower connecting side extending from a lower section of other two adjacent sides. The upper and the lower connecting side have the same width. The upper connecting side has a plurality of female fitting members, and the lower connecting side has a plurality of male fitting members to correspond to the female fitting members. Thus, one floor board can be assembled with another floor board by fitting together the upper connecting side with the lower connecting side. So a large number of the floor boards can be assembled on a large area of the ground with fastness, convenience and a decent appearance.

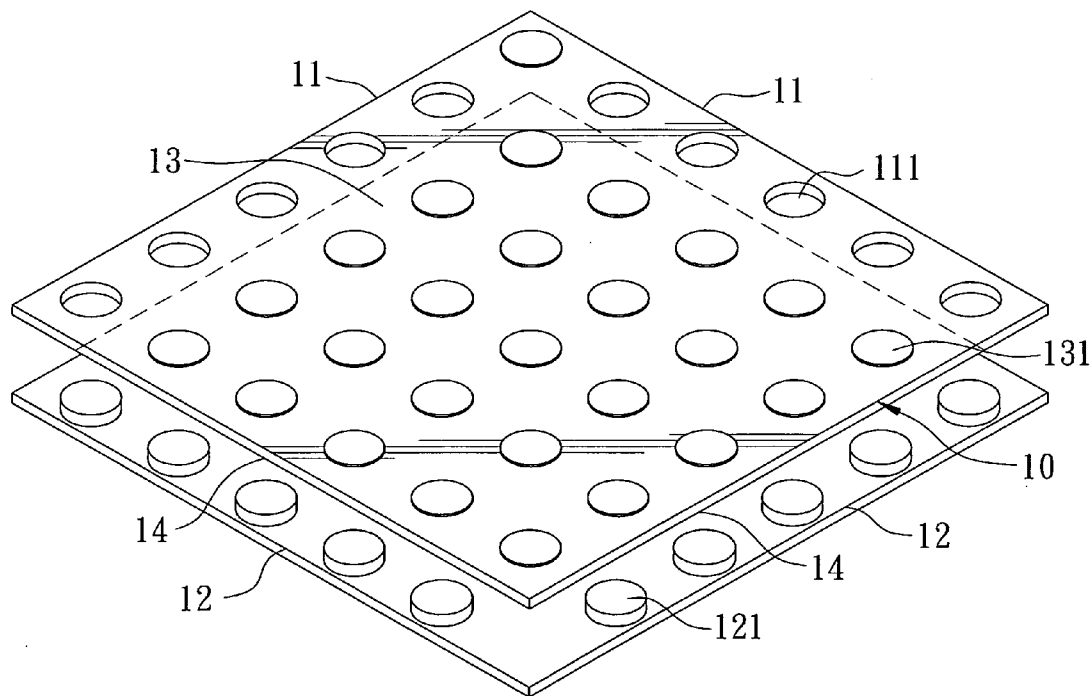
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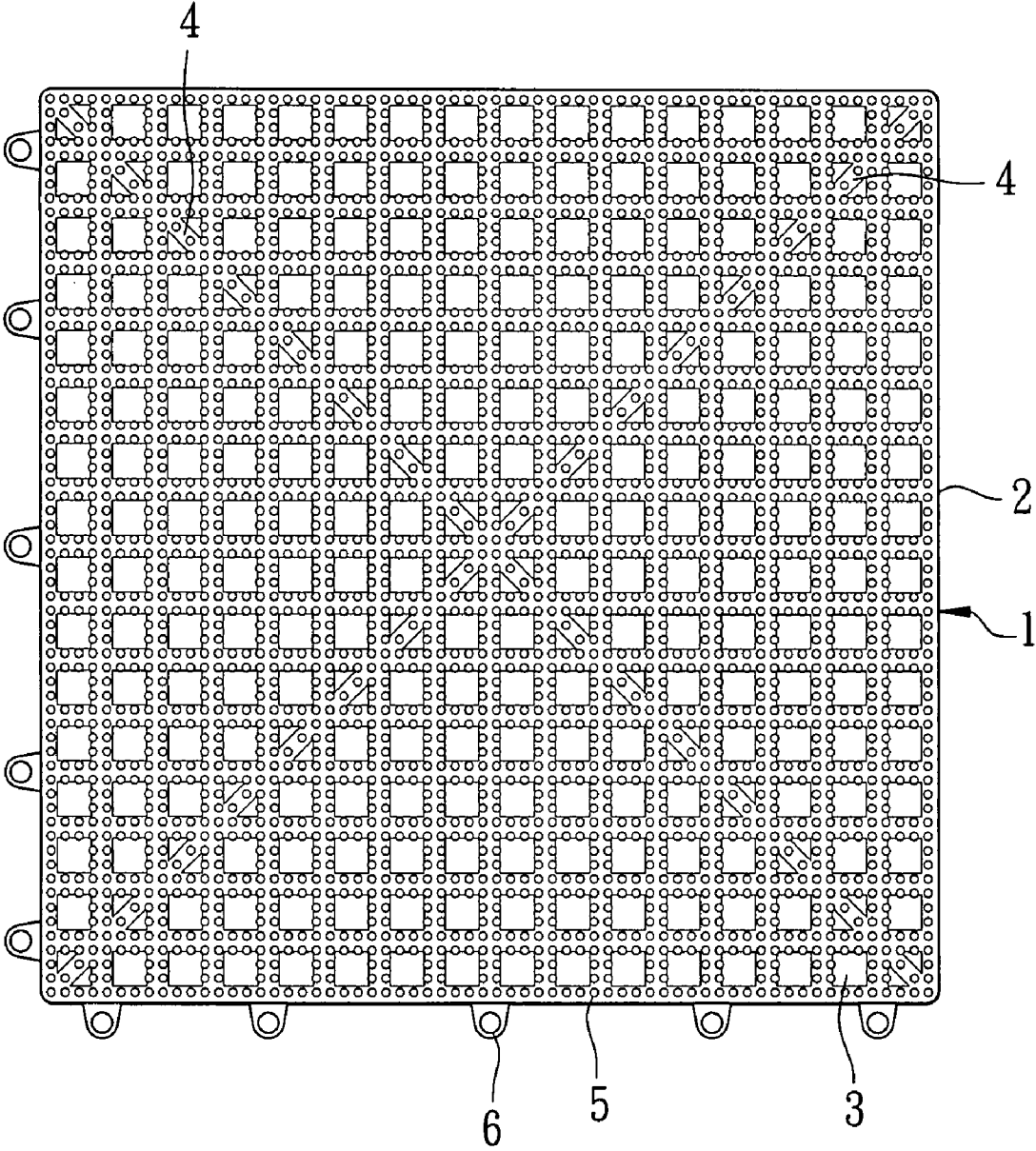


FIG. 1  
PRIOR ART

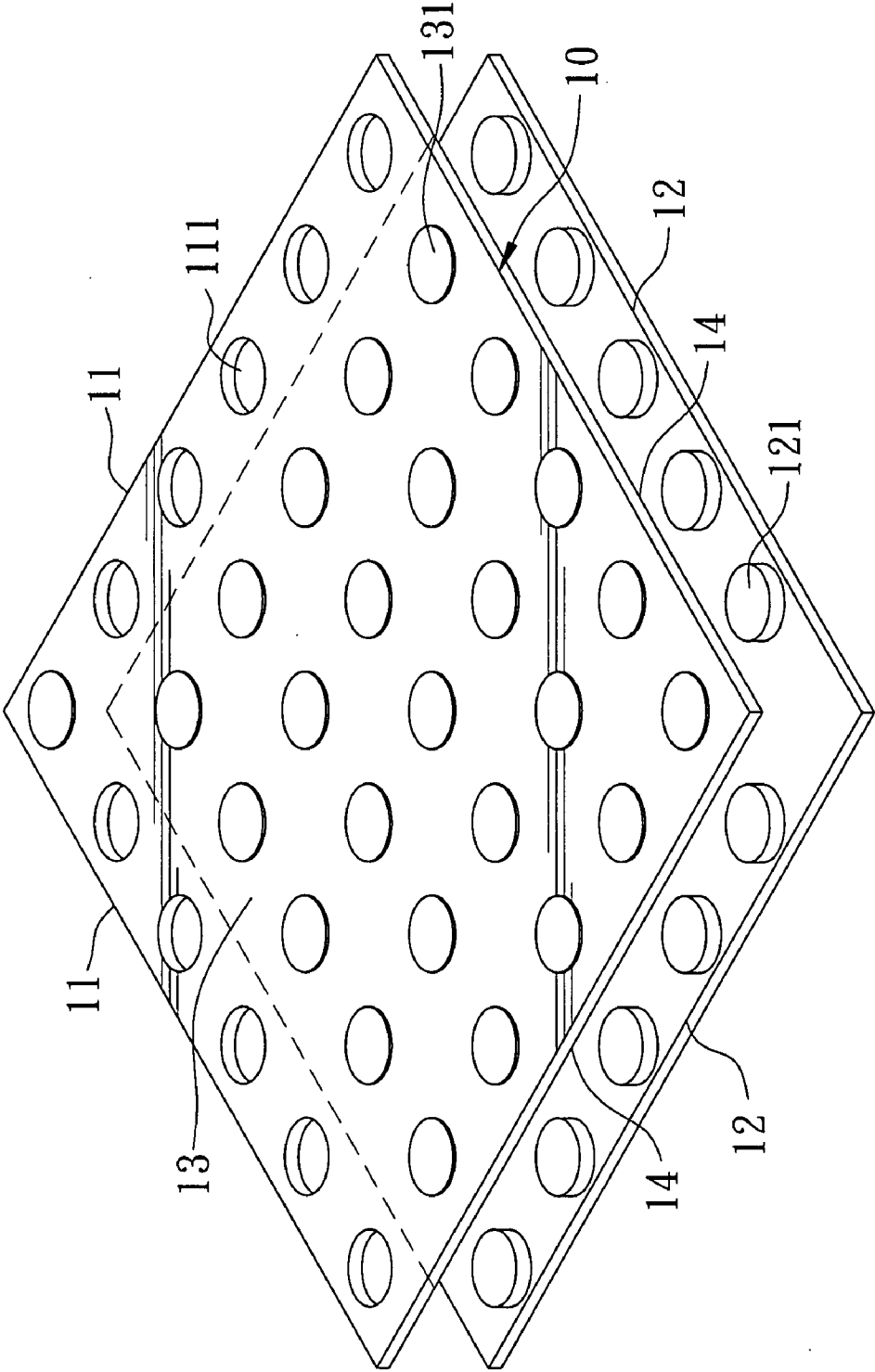


FIG. 2



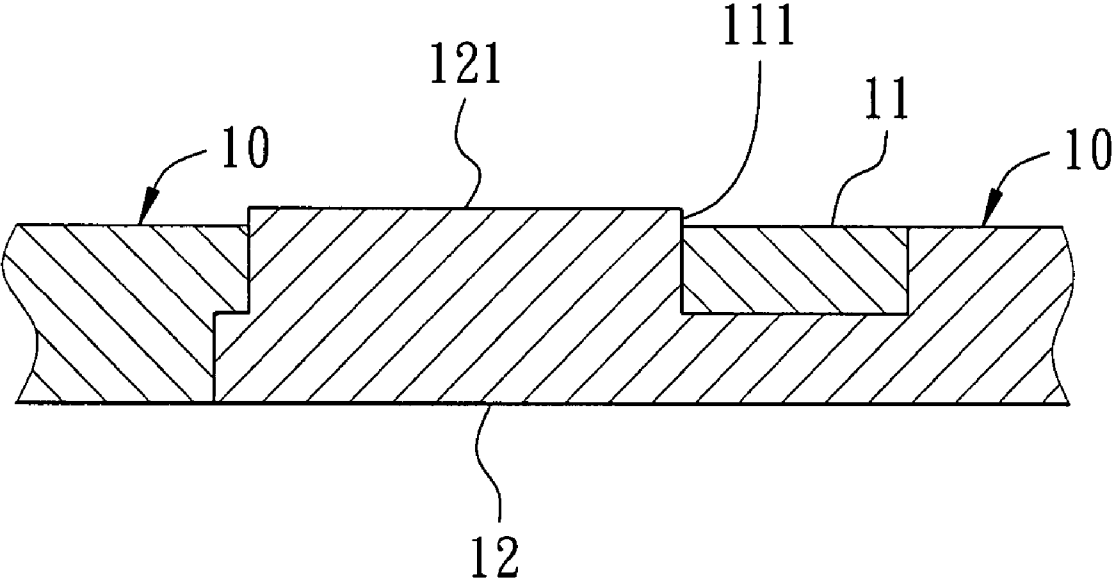


FIG. 4

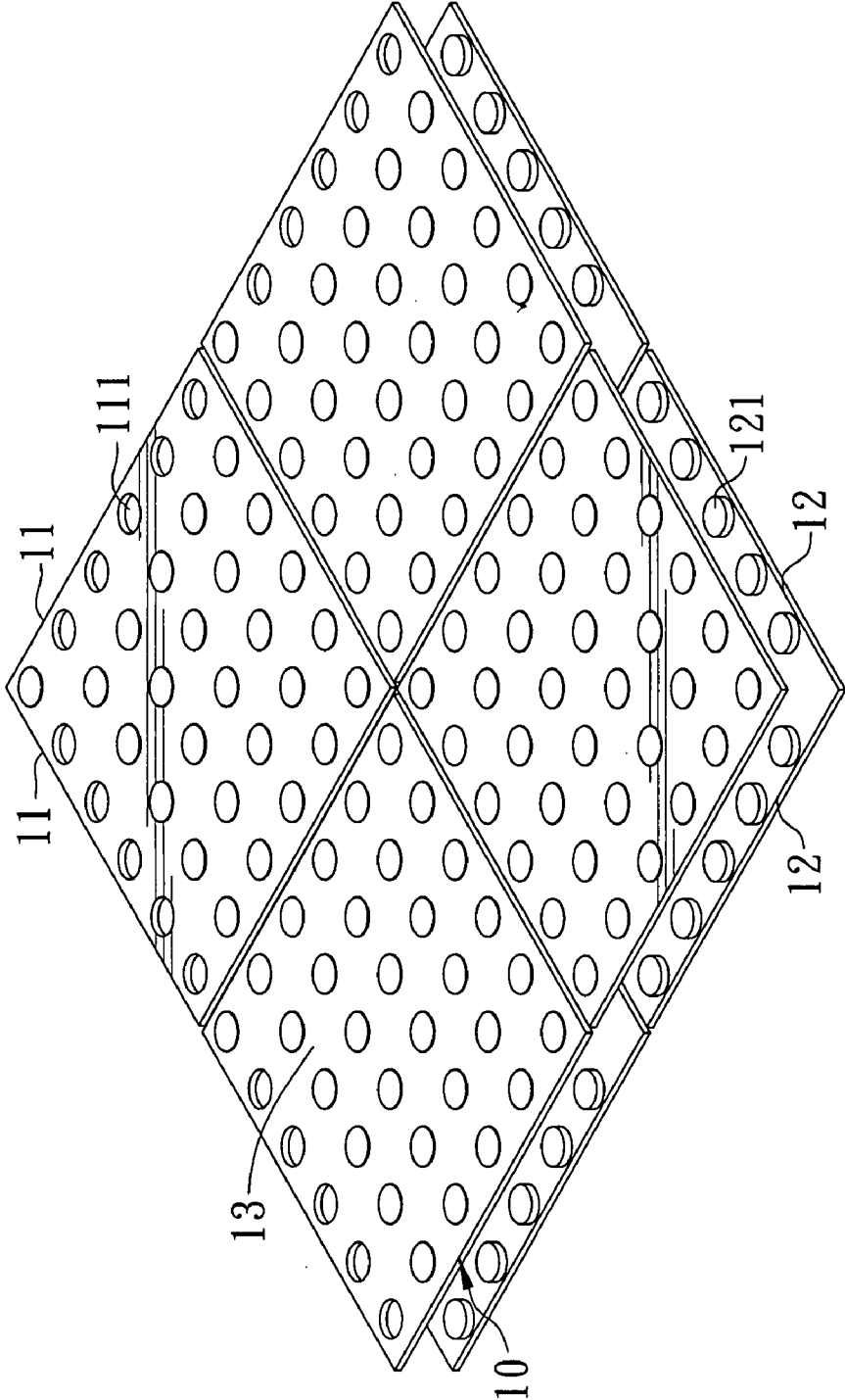


FIG. 5

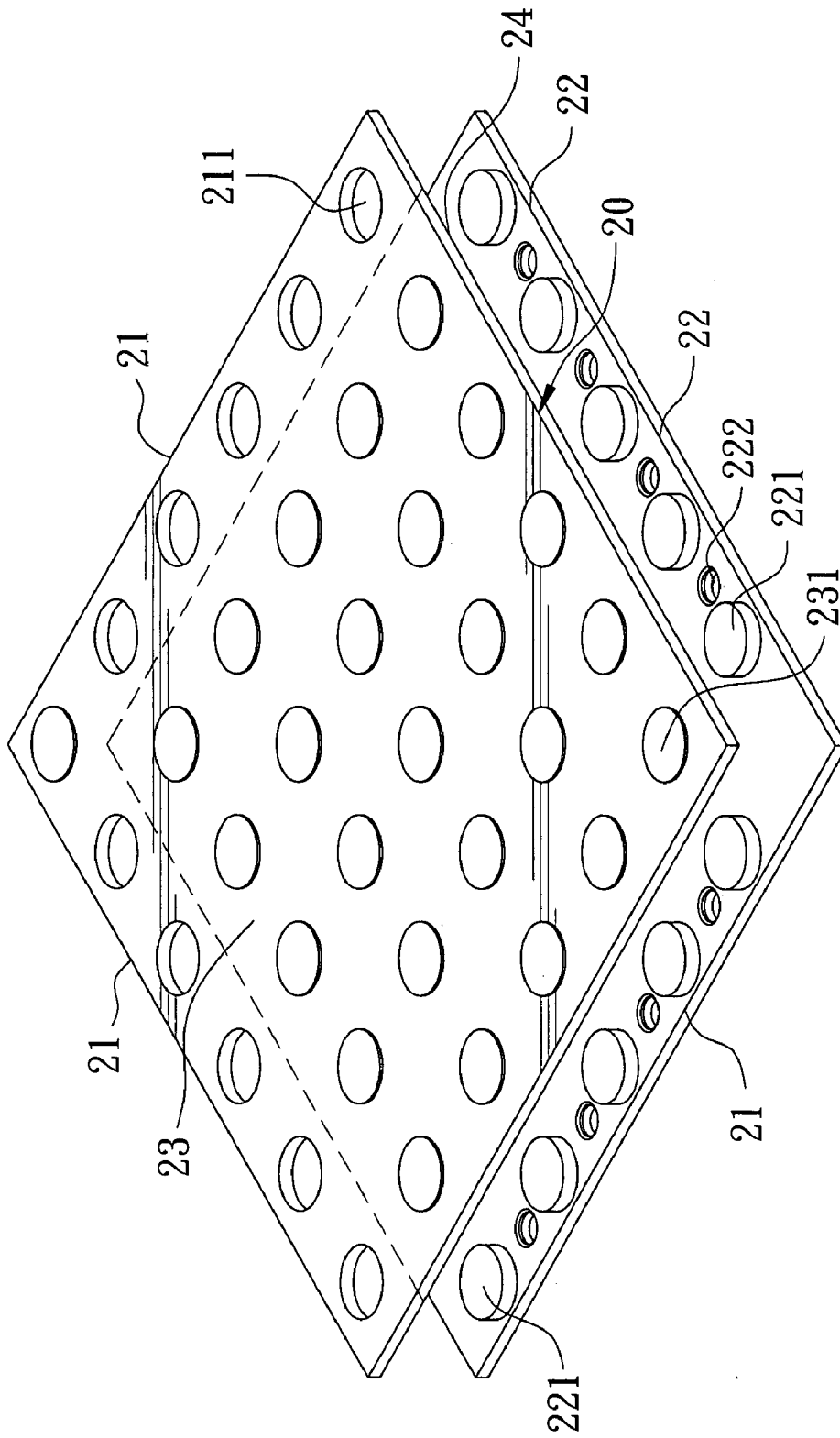


FIG. 6

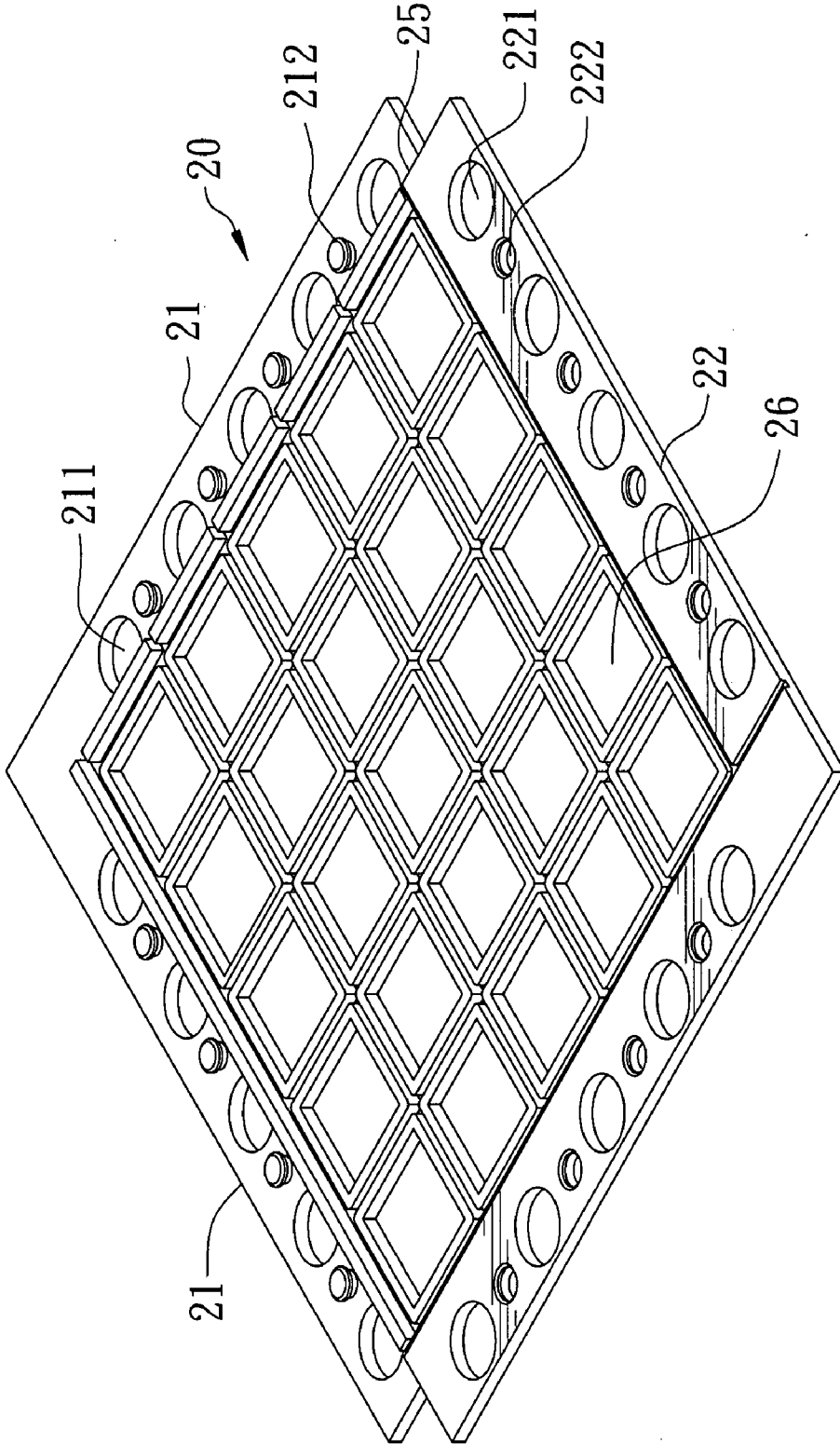


FIG. 7



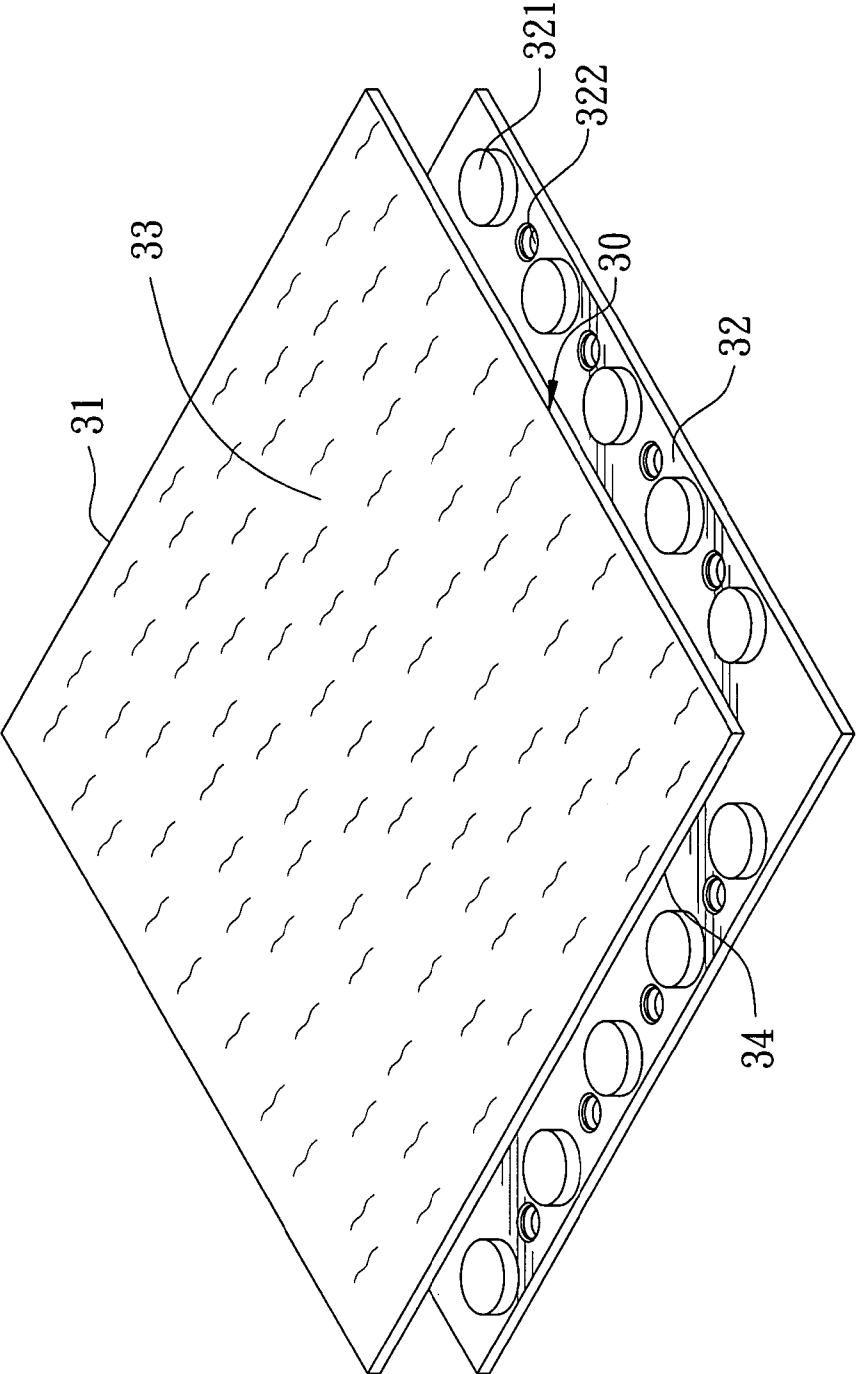


FIG. 8

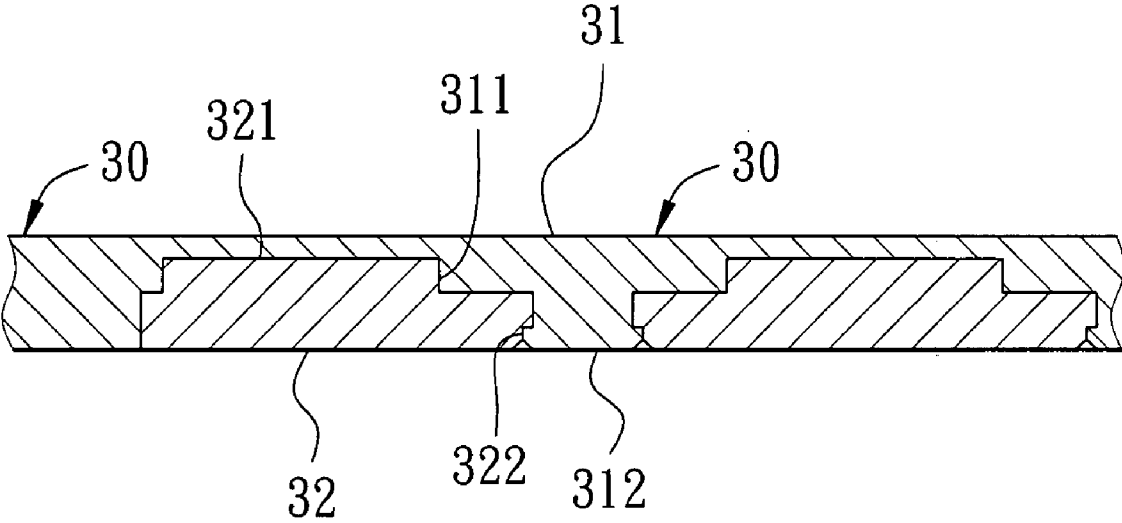


FIG. 9

**COMBINABLE FLOOR BOARD**

**BACKGROUND OF THE INVENTION**

[0001] 1. Field of the Invention

[0002] This invention relates to a combinable floor board, particularly to one easily assemblable and disassemblable and having multi-function.

[0003] 2. Description of the Prior Art

[0004] A layer of plastic assemblable floor boards are often laid on the ground for protecting the ground from wetting or being scarred, and as shown in FIG. 1, a conventional combinable floor board includes a rectangular body 1 provided with a tread upper surface 2, numerous rectangular holes 3 densely formed in the tread surface 2, two diagonal ribs 4 intercrossing with each other on the tread surface 2 for reinforcing the tread surface 2, a plurality of low projecting posts (not shown) formed spaced apart on the bottom of two adjacent sides of the tread surface 2, and a plurality of fit ears 5 formed spaced apart on the other two adjacent sides. Then the conventional floor boards are assembled with one another by fitting the posts with the ears 5 together. However, the moisture in a room laid with the conventional floor boards easily evaporates through the numerous holes 3, and the combination by means of the ears 5 is not so convenient for disassembling, impossible to resist high pressure, and easily cracking and splitting. Moreover, unused ears 5 are difficult to cut off, affecting the appearance after assembled.

**SUMMARY OF THE INVENTION**

[0005] This invention has been devised to offer a combinable floor board, which includes a body made of soft plastic and shaped square, an L-shaped upper connecting side extending out from two adjacent sides of the body, and an L-shaped lower side extending out from the other two adjacent sides. The upper connecting side is provided with a plurality of female fitting members spaced apart equidistantly, and the lower connecting side is provided with a plurality of male fitting members spaced apart equidistantly to correspond to the female fitting members. Then the floor boards can be assembled together, by fitting the female fitting members of the upper connecting side with the male fitting members of the lower connecting side. Moreover, the upper and the lower connecting sides can be assembled together quite closely, and small projecting grains formed on the tread surface enable persons walking thereon to be prevented from sliding or slipping. In addition, the floor boards are easy to cut, enabling the appearance look decent and good looking with redundant upper and lower connecting sides cut off after assembled.

**BRIEF DESCRIPTION OF DRAWINGS**

[0006] This invention will be better understood by referring to the accompanying drawings, wherein:

[0007] FIG. 1 is an upper view of a conventional combinable floor board;

[0008] FIG. 2 is a perspective view of a first preferred embodiment of a combinable floor board in the present invention;

[0009] FIG. 3 is another perspective view of the first preferred embodiment of a combinable floor board in the present invention;

[0010] FIG. 4 is a partial cross-sectional view of two combined floor-boards of the first preferred embodiment in the present invention;

[0011] FIG. 5 is a perspective view of four combined floor boards of the first preferred embodiment in the present invention;

[0012] FIG. 6 is a perspective view of a second preferred embodiment of a combinable floor board in the present invention;

[0013] FIG. 7 is another perspective view of the second preferred embodiment of a combinable floor board in the present invention;

[0014] FIG. 8 is a perspective view of a third preferred embodiment of a combinable floor board in the present invention; and,

[0015] FIG. 9 is a partial cross-sectional view of the third preferred embodiment of a combinable floor board in the present invention.

**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

[0016] As shown in FIGS. 2 and 3, a first preferred embodiment of a combinable floor board in the present invention includes a body 10, which is made integral of soft plastic easy to be cut. The body 10 is provided with an L-shaped upper connectable side 11 extending out from an upper section of two adjacent sides of the body 10, and an L-shaped lower connectable side 12 extending out from the lower section of the other two adjacent sides of the body 10. The upper connectable side 11 is provided with a plurality of female fitting members 111 spaced apart equidistantly thereon, and the lower connectable side 12 is provided with a plurality of male fitting members 121 spaced apart equidistantly thereon to correspond to the female fitting members 111. In this embodiment, the female fitting members 111 are round holes, and the male fitting members 121 are round projections possible to fit with the female fitting members 111. Further, the width of the upper connectable side 11 is the same as that of the lower connectable side 12, with the thickness of the upper and the lower connectable side 11 and 12 being half the thickness of the body 10. In addition, the body 10 has an upper tread surface 13, and a plurality of small projecting grains 131 regularly spaced apart on the tread surface 13, with a cutting line 14, 15 formed respectively at the connecting line of the body 1 with the upper connecting side 11 and the lower connecting line 12 for easy cutting, and with plural rectangular recesses 16 formed in the bottom side of the body 10.

[0017] Next, as shown in FIGS. 4 and 5, when the floor boards in the invention are to be combined with each other, the upper connectable side 11 of one floor board is overlapped on the lower connectable side 12 of another floor board, letting the female fitting members 111 fitted with the male fitting members 121, finishing the two floor boards. In this way a certain area of the floor boards can be assembled, and redundant upper connectable sides 11 and redundant lower connectable sides 12 can be easily cut off at the cutting lines 14 and 15, making the whole floor boards look decent and beautiful.

[0018] It is important to mention that if a very large area of the ground is to be laid with the floor boards, a number of the floor boards can be assembled together as a module by fusing or adhering the upper connectable sides 11 with the lower connectable sides 12 by means of high frequency or glue. Thus this kind of module formation of the floor boards can

benefit for laying floor boards on a considerable large area of the ground, and upgrading anti-tension force and weight-enduring strength.

[0019] Next, a second preferred embodiment of a combinable floor board is shown in FIGS. 6 and 7, including a body 2, which is provided with an L-shaped upper connecting side 21 extending from an upper section of two adjacent sides of the body 20, and an L-shaped lower connecting side 22 extending from the lower section of the other two adjacent sides of the body 20. The upper connecting side 21 is provided with a plurality of female fitting members 211 spaced apart equidistantly and a plurality of projecting tenons 212 respectively located alternately between every two adjacent female fitting members 211. The lower connecting side 22 is provided with a plurality of male fitting members 221 respectively corresponding to the female fitting members 211 and a plurality of round mortises 222 respectively corresponding to the round tenons 212. Then the male fitting members 221 of one floor board can fit with the female fitting members 211 of another floor board and the round mortises 222 of the first floor board can be inserted by the round tenons 212 of the second floor board. Further, the body 20 has an upper tread surface 23, which is provided with a plurality of projecting grains 231, and cutting lines 24 and 25 are formed between the upper section of the two adjacent sides of the body 20 and the upper connecting side 21 and between the lower section of the other two adjacent sides of the body 20 and the lower connecting side 22, for easy cutting. Moreover, the bottom surface of the body 20 is provided with a plurality of rectangular recesses spaced apart.

[0020] Next, FIGS. 8 and 9 show a third preferred embodiment of a combinable floor board, which includes a body 30, which is provided with an L-shaped upper connecting side 31, an L-shaped lower connecting side 32, a plurality of female fitting members 311 on the upper connecting side 31, a plurality of round tenons 312 extending downward from the bottom of the upper connecting side 31, a plurality of male fitting members 321 corresponding to the female fitting members 311, and a plurality of round mortises 322 corresponding to the round tenons 312. So the male fitting members 321 of one floor board fit with the female fitting members 311 of another floor board, and the round tenons 312 of the former floor fit in the round mortises 322 of the latter floor board. Further, the body 30 has an upper tread surface 33, which is printed with a pattern thereon. So the floor boards have a flat upper surface before assembly, and are tightly stabilized after assembly.

[0021] The invention has the following advantages, as can be understood from the above description.

[0022] 1. The floor boards can be assembled quickly and conveniently, only by overlapping the upper connecting side of one floor board on the lower connecting side of another floor board and then the male fitting members fitted with the female fitting members.

[0023] 2. The assembled floor boards laid on the ground can completely seal up the ground, having an advantage of blocking the moisture or dirty water of the ground.

[0024] 3. The round tenons and the round mortises added on the upper connecting side and the lower connecting side can upgrade the force of resisting tension.

[0025] 4. The recesses formed in the bottom of the floor board function as hollow spaces, enabling the floor board to have elastic buffer so that a person may feel comfortable in treading the floor boards, which then have the effect of enduring shocks and heavy weight.

[0026] 5. The material of the floor board is soft plastic easily cut, so the whole appearance of the floor boards assembled may look decent and beautiful after the redundant outermost upper and lower connecting sides are cut off.

[0027] 6. The floor boards can be made into modules, which can be formed by fusing together the upper and the lower connecting side by means of high frequency or adhered by glue, so a large area of the ground can be quickly laid with the modules of floor boards at the building site, speeding building process, reinforcing anti-tension strength and weight-enduring force.

[0028] 7. The projecting grains provided on the upper surface of the floor board can function to resist slippery, and heighten visual appearance.

[0029] While the preferred embodiments of the invention has been described above, it will be recognized that various modifications may be made therein and the appended claimed are intended to cover all such modifications that may fall within the spirit and scope of the invention.

What is claimed is:

- 1. A combinable floor board comprising:
  - a body made integral of plastic, shaped square, provided with an L-shaped connecting side extending from an upper section of two adjacent sides and an L-shaped lower connecting side extending from a lower section of two other adjacent sides, the width of said upper connecting side and said lower connecting side being the same, said upper connecting side provided with a plurality of female fitting members spaced apart equidistantly, said lower connecting side provided with a plurality of male fitting members spaced a part equidistantly to correspond said female fitting members of said upper connecting side, one said floor board possible to be assembled with another said floor board by fitting together said female fitting members with said male fitting members.
  - 2. The combinable floor board as claimed in claim 1, wherein said female fitting members of said upper connecting side are through round holes, and said male fitting members of said lower connecting side are round projections.
  - 3. The combinable floor board as claimed in claim 1, wherein said female fitting members of said upper connecting side are recesses, and said male fitting members of said lower connecting side are round projections.
  - 4. The combinable floor board as claimed in claim 1, wherein said upper connecting side is provided with a plurality of round tenons on its bottom surface, with each said round tenon located between two adjacent said female fitting members, and said lower connecting side is provided with a plurality of round mortises corresponding to said round tenons.
  - 5. The combinable floor board as claimed in claim 1, wherein said body is soft and easily cut, provided with a cutting line formed between said body and said upper connecting side and said lower connecting side for cutting.
  - 6. The combinable floor board as claimed in claim 1, wherein said body is provided with a plurality of projecting round grains spaced apart equidistantly on said upper surface.
  - 7. The combinable floor board as claimed in claim 1, wherein said upper and said lower connecting side have a thickness half that of said body.

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