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(54) MODULAR FLOORING AND MODULAR FLOORING SYSTEM

(57) The invention is related to a modular flooring (1) configured for the assembly of modular flooring systems comprising a modular flooring component (2), which preferably comprises at least one cavity (6) arranged on the lower portion thereof, and a flexible base component (3) having preferably at least one vertical fastening protuberance (4) arranged on the upper face thereof, wherein each vertical fastening protuberance (4) connects in a detachable way with a cavity (6). Additionally, each cavity (6) comprises a vertical pin and second male and female connection elements, which are configured to connect with, respectively, a vertical hole and first male and female connection elements incorporated in each vertical fastening protuberance (4).

The modular floorings present a firmer and detachable connection among the components thereof, making the interconnection activity between adj acent modular floorings more efficient and practical.

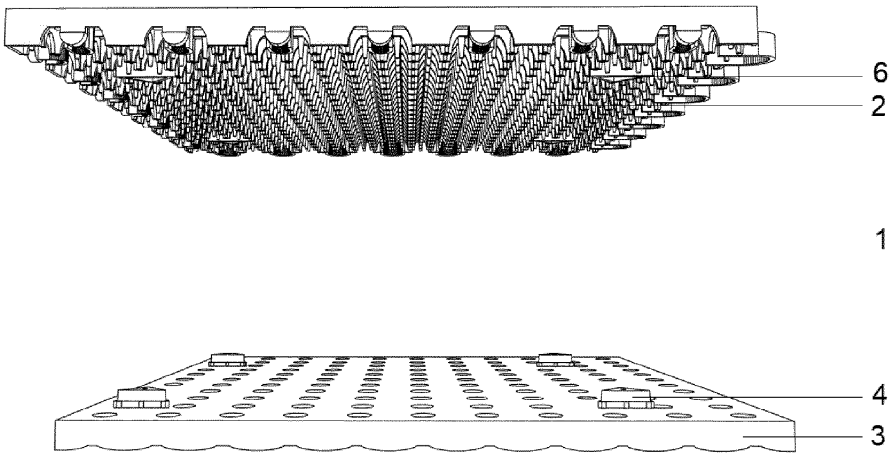

Fig. 1

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Description

TECHNICAL DOMAIN

[0001] The present invention is related to modular floorings and modular flooring systems comprising the interconnection of a plurality of modular floorings, whereby said systems are used in flooring, for example, of sports pavilions.

PRIOR ART

[0002] Modular floorings are widely used for installing interconnected modular floorings, which are frequently used for the assembly of sports pavilions.

[0003] The modular floorings of the state of the art comprise a modular flooring component, which comprises side fastening spigots which allow the interconnection between adjacent modular floorings by means of tongue and groove connectors, which are arranged on the edges of the side walls of the modular floorings. Installing floors in sports pavilions requires incorporating elements in the modular flooring system which absorb impacts resulting from sporting activities, contribute to the lessening of noise and further allow the adequate draining of water through the modular flooring.

[0004] Portuguese patent application PT 110620 A of Rui Pedro Simões Vicente, published on September 12, 2019, discloses a modular flooring which comprises a modular floor section, interior or exterior, which is fitted and connected to a detachable base, whereby said detachable base is encased into and fixed on the bottom part of the section of the modular floor tile. The detachable base comprises a plurality of holes along the length of the surface thereof, which cross it transversely and contribute to the drainage of water through the modular flooring, which is particularly useful for the removal of water resulting from the weather in case the modular floors are exposed to the outdoors, or even for the removal of water resulting from cleaning of the modular floor tile system.

[0005] The detachable base, disclosed in Portuguese patent application PT 110620 A, further comprises a plurality of protrusions and concavities arranged on the lower surface thereof, which contribute to the absorption of impacts and to the acoustic insulation or attenuation of noise during the use of the modular flooring. In the modular flooring described in Portuguese patent application PT 110620 A, the connection between the modular flooring and the detachable base is carried out by means of the encasing into and fastening of upright spigots, arranged on the upper face of the detachable base, with cavities, arranged on the lower face of the section of the modular flooring.

LIMITATIONS OF THE PRIOR ART

[0006] The modular flooring, described in Portuguese patent application PT 110620 A, presents limitations as regards the adequate connection between the section of the modular flooring and the detachable base, since the connection between the upright fastening spigots and the cavities is made by a simple fitting.

[0007] The selection of the materials for the manufacture of the detachable base, namely, a flexible material, and of the section of the modular flooring, namely a rigid polymeric material, was carried out based on the premise of meeting the purpose of having an easy encasing into and fastening between the vertical fastening spigots, arranged on the upper face of the detachable base, and the cavities, arranged on the lower face of the section of the modular flooring.

[0008] On the other hand, the easy and practical fitting among the vertical fastening spigots and the cavities presents as a disadvantage the fact that detaching the parts is also usually possible in normal conditions, which frequently causes a detachment between the detachable base and the section of the modular flooring in the course of the installation activities of the modular floorings.

[0009] In this way, during the installation of the modular flooring systems, disclosed in patent application PT 110620 A, wherein the installation comprises the interconnection of a plurality of modular floorings, there is the disadvantage of the frequent occurrence of detachment between the detachable base and the section of the modular flooring, which extends the installation works of the modular floorings and causes them to be costly in terms of the need for manpower.

[0010] In order to have some idea of the necessary workload for installing a venue with modular floorings for a sporting event, there is presented in table 1 the number of modules that are necessary for installing the sports venues for the practice of several sports.

Table 1

Sport	Area of the venue including safety areas (m^2)	Number of modular floorings
Futsal	968	15.488
Volleyball	646	10.336
Basketball	608	9.728

(continued)

Sport	Area of the venue including safety areas (m^2)	Number of modular floorings
Handball	968	15.488

[0011] In this way, it is concluded that the number of modules that are necessary for installing the sports venues is relatively high, which causes the workload to be significant, particularly in the context of what is expected in terms of reworking when installing the modules, when there occurs the detachment between the detachable base and the section of the modular flooring.

[0012] In this way, the state of the art requires modular floorings which comprise firmer, and more stable connection means between the detachable base and the section of the modular flooring, which allow a more rapid and efficient installation of the modular floorings. Consequently, the state of the art demands modular floorings which contribute with the reduction of the workforce throughout the installation thereof, both in the assembly of a venue as in the re-assembly thereof after performing the maintenance activity.

SOLUTION OF THE STATE OF THE ART LIMITATIONS

[0013] The present invention presents connection means which exceed the limitations of the connection between a vertical fastening protuberance, arranged on the upper face of the flexible base component, and a cavity, arranged on the lower face of the component of the modular flooring, as disclosed in patent application PT 110620 A.

[0014] The present invention solves the limitations of the state of the art by incorporating a vertical pin on the lower face of a component of the modular flooring and a vertical hole on the upper face of a flexible base component, wherein the vertical pin is configured to connect in a detachable way to the vertical hole. Preferably, the present invention solves the limitations of the state of the art by incorporating a vertical pin at the base of each cavity and a vertical hole on the upper wall of each vertical fastening protuberance, wherein the vertical pin is configured to connect in a detachable manner to the vertical hole in a second connection mechanism among said components. In a complementary manner, the present invention provides a third connection mechanism between a vertical fastening protuberance and a cavity based on the connection between a first male and female connection element, arranged on a side wall of a vertical connection protuberance and a second male and female connection element, arranged on a side wall of a cavity, whereby both of said male and female connection elements are aligned in the same vertical plane.

ADVANTAGEOUS EFFECTS OF THE INVENTION

[0015] The modular floorings according to the invention present a firmer connection between a modular floor tile component and a flexible base component, without the connection ceasing to display the detachable characteristics thereof.

[0016] In this way, the time required for installing a modular flooring system according to the present invention is significantly reduced, making the interconnection activity between adjacent modular floorings more efficient and practical, since it is possible to mitigate the undesired detaching between the modular flooring floor component and the flexible base component.

BRIEF DESCRIPTION OF THE FIGURES

[0017] With the purpose of providing an understanding of the principles according to the embodiments of the present invention, reference will be made to the embodiments illustrated in the figures and to the terminology used to describe them. In any case, it should be understood that there is no intention of limiting the scope of the present invention to the contents of the figures. Any subsequent alterations or modifications of the inventive characteristics illustrated herein, as well as any additional applications of the principles and embodiments of the invention illustrated, which would normally occur to a person skilled in the art having the knowledge of this specification, are considered as being within the scope of the claimed invention.

Figure 1 - illustrates a perspective view of a modular flooring according to the invention;
Figure 2 - illustrates a perspective view of a modular flooring with the fastening between the modular flooring component and the flexible base component;
Figure 3 - illustrates a side view of a flexible base component;
Figure 4 - illustrates a view of the upper face of a flexible base component;
Figure 5 - illustrates a view of the lower face of a flexible base component;

Figure 6 - illustrates a perspective view of a flexible base component;
Figure 7 - illustrates a view of the top face of an exterior modular floor component;
Figure 8 - illustrates a view of the top face of an interior modular floor component;
Figure 9 - illustrates a perspective view of a cavity of an exterior modular flooring component;
Figure 10 - illustrates a perspective view of a cavity of an interior modular flooring component;
Figure 11 - illustrates a perspective view of a fastening protuberance of a flexible base component;
Figure 12 - illustrates a top view of an embodiment of a cavity of an interior modular flooring component;
Figure 13 - illustrates a top view of a fastening protuberance of a flexible base component;
Figure 14 - illustrates a top view of another embodiment of a cavity of an interior modular flooring component.

DESCRIPTION OF THE EMBODIMENTS

[0018] The present invention refers, in a first aspect, to a modular flooring (1) configured for assembly of modular flooring systems comprising:

a modular flooring component (2), which is selected from the group consisting of an interior modular flooring component or an exterior modular flooring component; and
a flexible base component (3), which is configured to connect in a detachable manner to the lower portion of the modular flooring component (2);
wherein
said modular flooring component (2) comprises at least one vertical pin (16), which is arranged on the lower portion thereof; and
said flexible base component (3) comprises at least one vertical hole (11), which is arranged on the upper face thereof; wherein
the vertical pin (16) is configured to connect in a detachable manner to the vertical hole (11).

[0019] In the preferred embodiments of the present invention, the modular flooring floor component (2) comprises at least one cavity (6), which is arranged on the lower portion thereof; and said flexible base component (3) comprises at least one vertical fastening protuberance (4), which is arranged on the upper face thereof; and each vertical fastening protuberance (4) is configured to connect in a detachable manner with a cavity (6); and the vertical fastening protuberance (4) comprises an upper wall (9) and at least two side walls (10); wherein

the vertical pin (11) crosses the upper wall (9); and each side wall (10) comprises at least a first male and female connection element orthogonally arranged relative to said side wall (10); and
the cavity (6) comprises an interior base area (14) and at least two side walls (15); wherein the vertical pin (16) is connected to the interior base area (14); and wherein each side wall (15) comprises at least one second male and female connection element orthogonally arranged relative to said side wall (15); and the vertical pin (16) is configured to connect in a detachable manner to the vertical pin (11); and the first male and female connection element is configured to connect in a detachable manner with the second male and female connection element, whereby both said male and female connection elements are aligned on the same vertical plane.

[0020] In the preferred embodiments of the present invention, the first male and female connection element and the second male and female connection element are tongue and groove connection elements.

[0021] In the preferred embodiments of the present invention, the flexible base component (3) additionally comprises a plurality of vertical holes (5) which cross said flexible base component (3).

[0022] In the preferred embodiments of the present invention, the flexible base component (3) additionally comprises a plurality of recesses (7) and protuberances (8), which are aligned on the lower face thereof.

[0023] In the preferred embodiments of the present invention, the modular flooring component (2) comprises 4 to 6 cavities (6) arranged on the lower portion thereof and said flexible base component (3) comprises 4 to 6 vertical fastening protuberances (4), arranged on the upper face thereof.

[0024] As illustrated in figure 1, preferably, the flexible base component (3) comprises at least four vertical fastening protuberances (4), which are arranged on the upper face thereof, and the modular flooring component (2) comprises at least four cavities (6) arranged on the lower portion thereof, wherein each vertical fastening protuberance (4) is configured to connect in a detachable manner with a cavity (6).

[0025] As illustrated in figures 2 to 8, as soon as a modular flooring (1) is assembled by means of the connection of the flexible base component (3) with the modular flooring component (2), the male side fitting spigots (19) are used for fitting with female side spigots, arranged on the edge of at least one side wall of an adjacent modular flooring component (2). Preferably, the male side fastening spigots (19) are arranged on the two edges of two adjacent side walls of a

modular flooring component (2). Similarly, as illustrated in figure 7, the female side fastening spigots (20) are arranged in a similar manner on the edges of two adjacent side walls of a modular flooring component (2).

[0026] As illustrated in figures 3 and 5, preferably, the flexible base component (3) comprises a plurality of recesses (7) and protuberances (8), which are arranged on the lower face thereof, whereby said recesses (7) and protuberances (8) contribute with the technical effect of providing an air box for the modular flooring (1), apart from exerting a self-leveling effect of said modular flooring (1).

[0027] The technical effects cited in the previous paragraph and the adequate connection between the vertical fastening protuberances (4) and the cavities (6) are emphasized in the preferred embodiments wherein the flexible base component (3) is produced from an elastomeric, rubberized or flexible material, preferably selected from the group consisting of natural rubber, styrene-ethylene-butylene-styrene rubber, polyurethane, polyester, polyolefins, styrene-butadiene rubber, ethylene-vinyl-acetate rubber, mixtures thereof and their copolymers. Alternatively, the flexible base component (3) is produced from a material selected from the group consisting of cork and composites or mixtures of cork with said elastomeric materials.

[0028] As illustrated in figures 1, 4 and 6, preferably, the flexible base component (3) comprises at least four vertical fastening protuberances (4) which are arranged on the upper face thereof, and additionally comprises a plurality of vertical holes (5), which cross said flexible base component (3). The vertical holes (5) contribute to the technical effect of providing a quick water drainage, which eventually reaches the modular flooring as a result of the weather or cleaning processes for modular floorings. Additionally, the vertical holes (5) further contribute to the continuous and uniform cushioning throughout the flooring, for acoustic insulation and the elimination and/or reduction of noise resulting from sports in the embodiments wherein the modular floorings are used as a modular flooring system for sports venues. Another particularly advantageous technical effect resulting from the presence of vertical holes (5) is related to the possibility of these elements providing the effective drainage of water through the flexible base component (3).

[0029] In the preferred embodiments of the present invention, as illustrated in figures 11 and 13, each side wall (10) of the vertical fastening protuberance (4) comprises in the exterior portion thereof at least one first male and female connection element selected from the group consisting of a first side connection protuberance (12) or a first side connection recess (13); and, as illustrated in figures 9, 10 and 12, each side wall (15) of the cavity (6) comprises in the interior portion thereof at least one second male and female connection element selected from the group consisting of a second side connection protuberance (17) or a second side connection recess (18).

[0030] Alternatively, as illustrated in figure 14, each side wall (15) of the cavity (6) comprises in the exterior portion thereof at least one second male and female connection element selected from the group consisting of a second side connection protuberance (17) or a second side connection recess (18).

[0031] As illustrated in figures 3 and 11, in the preferred embodiments, the first side connection protuberance (12) or the first side connection recess (13) occupy a part of each side wall (10) of the vertical fastening protuberance (4), however, it must be interpreted within the scope of this invention that the first side connection protuberance (12) or the first side connection recess (13) can be vertically arranged along all or part of each side wall (10) of the vertical fastening protuberance (4).

[0032] In other preferred embodiments according to the present invention, the plurality of side walls (10) of the vertical fastening device (4) and the plurality of side walls (15) of the cavity (6) present straight horizontal sections, preferably in the form of a polygon selected from the group consisting of a triangle, a quadrilateral, a pentagon, a hexagon, an heptagon or an octagon, wherein the straight horizontal section of the plurality of side walls (10) presents the same polygonal shape as the horizontal straight section of the plurality of side walls (15).

[0033] As will be evident to a person skilled in the art, the number of vertical fastening protuberances (4) corresponds to the number of cavities (6) in the preferred embodiments, whereby the vertical fastening devices (4), the cavities (6) and the respective male and female connection elements are aligned on the same vertical plane.

[0034] Preferably, as illustrated in figure 2, the width and length of the flexible base component (3) are substantially the same as, respectively, the width and length of the modular flooring component (2).

[0035] In other preferred embodiments according to the present invention, the flexible base component (3) and the modular flooring component (2) present straight horizontal sections in polygonal form, preferably in the form of a polygon selected from the group consisting of a triangle, a quadrilateral, or a hexagon.

[0036] In one of the preferred embodiments of the present invention, the modular flooring component (2) has rigid constructive characteristics and is manufactured from a polymeric material, preferably selected from the group consisting of polypropylene, vinyl polychloride, polyethylene, mixtures thereof and their copolymers.

[0037] In another of the embodiments of the present invention, the modular flooring floor component (2) has flexible constructive characteristics and is manufactured from a polymeric material, preferably selected from the group consisting of low-density polypropylene, low-density polyethylene, natural rubber, styrene-ethylene-butylene-styrene rubber, polyurethane, polyester, polyolefins, styrene-butadiene rubber, vinyl ethylene-acetate rubber, mixtures thereof and their copolymers.

[0038] The modular flooring component (2) can be suitable for exterior modular flooring as illustrated in figure 7 or

suitable for interior modular floorings, as illustrated in figure 8. Similarly, the cavity (6) can be suitable for exterior modular flooring systems, as illustrated in figure 9, or suitable for interior modular flooring systems, as illustrated in figure 10.

[0039] As will be understood by a person skilled in the art, the modular flooring component (2), illustrated in figure 7, is suitable for exterior modular flooring floor components and is preferably manufactured incorporating a plurality of beams or joists which cross orthogonally and a plurality of girders which connect simultaneously with said beams or joists and between each other in 45° or 135° angles relative to a horizontally arranged beam or joist.

[0040] As visualized in figures 8 and 10, the modular flooring component (2) suitable for interior modular flooring systems is also preferably manufactured incorporating a plurality of beams or joists which cross orthogonally and a plurality of girders which connect simultaneously with said beams or joists and between each other in 45° or 135° angles relative to a horizontally arranged beam or joist, whereby a flat plate is fixed on the upper face thereof, so as not to allow exposed passages through the set of girders, beams and joists.

[0041] The present invention is related, in a second aspect, to a modular flooring system comprising a plurality of modular floorings (1), as defined in the first aspect of the invention, interconnected through the connection between side fastening male spigots (19), arranged on the edge of at least one side wall of a modular flooring component (2), and side female fastening spigots (20), arranged on the edge of at least one side wall of an adjacent modular flooring component (2).

[0042] As illustrated in figures 7 and 8, the side male fastening spigots (19) are connected to at least one edge of the side wall of the modular flooring component (2) and include a terminal fastening portion, for example, in semicircle or arc shape. In the same figures there are illustrated female side fastening spigots (20), which are connected to at least one other edge of the side wall of the modular flooring component (2) and have an area delimited by vertical walls, for example similarly semicircle or arc shaped, which is configured to accommodate the terminal fastening portion of a male side fastening spigot (19). Anyway, as will be understood by a person skilled in the art, other embodiments of male side fastening spigots (19) and female side fastening spigots (20) are capable of being used in the modular flooring system (2) included in the modular flooring (1) according to the invention.

[0043] As used throughout this description, the expression "modular flooring" refers to a unit of a module comprising a modular flooring component (2) and a flexible base component (3).

[0044] As used throughout this description, the expression "modular flooring systems" refers to a plurality of interconnected modular floorings.

[0045] As used throughout this description, the expressions "around" and "approximately" refer to a value range of more or less 10% the specified number.

[0046] As used throughout this patent application, the expression "or" is used in the inclusive sense instead of the exclusive sense, unless the exclusive sense is clearly defined in a specific situation. In this context, a sentence of the type "X uses A or B" must be interpreted as including all the pertinent inclusive combinations, for example "X uses A", "X uses B" and "X uses A and B".

[0047] As used throughout this patent application, the indefinite article "one" must be interpreted generally as "one or more", unless the sense of a singular embodiment is clearly defined in a specific situation.

[0048] As presented in this specification, the expressions related to examples must be interpreted with the purpose of illustrating an example and not indicating a preference.

[0049] As used in this specification, the expression "substantially" means that the real value is within the range of values of about 10% the desired value, variable, or related threshold, particularly within about 5% of the desired value, variable, or related threshold or particularly within about 1% of the desired value, variable, or related threshold.

[0050] The subject matter described above is provided as an illustration of the present invention and must not be interpreted so as to limit it. The terminology used with the purpose of describing specific embodiments, according to the present invention, must not be interpreted to limit the invention. As used in the specification, the definite and indefinite articles, in their singular form, aim at the interpretation of also including the plural forms, unless the context of the description indicates, explicitly, the contrary. It will be understood that the expressions "comprise" and "include", when used in this description, specify the presence of the characteristics, the elements, the components, the steps, and the related operations, however, they do not exclude the possibility of other characteristics, elements, components, steps, and operations also being contemplated.

[0051] All the alterations, providing that they do not modify the essential characteristics of the claims that follow, must be considered as being within the scope of protection of the present invention.

LIST OF REFERENCE INDICATIONS

[0052]

1. A modular flooring
2. A modular flooring component

3. A flexible base component
4. A vertical fastening protuberance
5. A vertical hole
6. A cavity
7. A recess
8. A protuberance
9. An upper wall of a vertical fastening protuberance
10. A side wall of a vertical fastening protuberance
11. A vertical hole
12. A first side connection protuberance
13. A first side connection recess
14. An interior base area
15. A side wall of a cavity
16. A vertical pin
17. A second side connection protuberance
18. A second side connection recess
19. A male side fastening spigot
20. A female side fastening spigot

List of citations

Patent documents

[0053] Portuguese patent application PT 110620 A of Rui Pedro Simões Vicente, published on September 12, 2019.

Claims

1. A modular flooring (1) configured for assembly of modular flooring systems comprising:

a modular flooring component (2), which is selected from the group consisting of an interior modular flooring component or an exterior modular flooring component; and
a flexible base component (3), which is configured to connect in a detachable manner to the lower portion of the modular flooring component (2);
characterized by
said modular flooring component (2) comprising at least one vertical pin (16), which is arranged on the lower portion thereof; and
said flexible base component (3) comprising at least one vertical hole (11), which is arranged on the upper face thereof; wherein
the vertical pin (16) is configured to connect in a detachable manner to the vertical hole (11).

2. The modular flooring (1), according to the preceding claim, **characterized by:**

said modular flooring component (2) comprising at least one cavity (6), which is arranged on the lower portion thereof; and **by**
said flexible base component (3) comprising at least one vertical fastening protuberance (4), which is arranged on the upper face thereof; **and by**
each vertical fastening device (4) being configured to connect in a detachable manner with a cavity (6); **and by**
the vertical fastening protuberance (4) comprising an upper wall (9) and at least two side walls (10); wherein
the vertical hole (11) crosses said upper wall (9); **and by**
each side wall (10) comprising at least one first male and female connection element orthogonally arranged relative to said side wall (10); **and by**
the cavity (6) comprising an interior base area (14) and at least two side walls (15); wherein
the vertical pin (16) is connected to the interior base area (14); and wherein
each side wall (15) comprises at least one second male and female connection element orthogonally arranged relative to said side wall (15); **and by**
the vertical pin (16) being configured to connect in a detachable manner to the vertical hole (11); **and by**
the first male and female connection element being configured to connect in a detachable manner with the

second male and female connection element, whereby both of said male and female connection elements are aligned on the same vertical plane.

3. The modular flooring (1), according to any of the preceding claims, **characterized by** said flexible base component (3) additionally comprising a plurality of vertical holes (5), which cross said flexible base component (3).

4. The modular flooring (1), according to any of the preceding claims, **characterized by** said flexible base component (3) additionally comprising a plurality of recesses (7) and protuberances (8), which are arranged on the lower face thereof.

5. The modular flooring (1), according to any of claims 2 to 4, **characterized by** said modular flooring component (2) comprising 4 to 6 cavities (6) arranged on the lower portion thereof; and said flexible base component (3) comprising 4 to 6 vertical fastening protuberances (4) arranged on the upper face thereof.

6. The modular flooring (1), according to any of claims 2 to 5, **characterized by** each side wall (10) of the vertical fastening protuberance (4) comprising at least one first male and female connection element selected from the group consisting of a first side connection protuberance (12) or a first side connection recess (13); **and by**
each side wall (15) of the cavity (6) comprising in the interior portion thereof at least one second male and female connection element selected from the group consisting of a second side connection protuberance (17) or a second side connection recess (18).

7. The modular flooring (1), according to any of claims 2 to 6, **characterized by** the plurality of side walls (10) of the vertical fastening device (4) and the plurality of side walls (15) of the cavity (6) presenting straight horizontal sections, preferably polygonal shaped, selected from the group consisting of a triangle, a quadrilateral, a pentagon, a hexagon, a heptagon or an octagon, wherein the straight horizontal section of the plurality of side walls (10) presents the same polygonal shape as the horizontal straight section of the plurality of side walls (15).

8. The modular flooring (1), according to any of the preceding claims, **characterized by** the width and length of the flexible base component (3) being substantially the same as, respectively, the width and length of the modular flooring component (2).

9. The modular flooring (1), according to any of the preceding claims, **characterized by** the modular flooring component (2) being manufactured from a polymeric material, preferably selected from the group consisting of polypropylene, vinyl polychloride, polyethylene, natural rubber, styrene-ethylene-butylene-styrene rubber, polyurethane, polyester, polyolefins, styrene-butadiene rubber, vinyl ethylene-acetate rubber, mixtures thereof and their copolymers.

10. The modular flooring (1), according to any of the preceding claims, **characterized by** the flexible base component (3) being manufactured from an elastomeric, rubberized, or flexible material, preferably selected from the group consisting of natural rubber, styrene-ethylene-butylene-styrene rubber, polyurethane, polyester, polyolefins, styrene-butadiene rubber, vinyl ethylene-acetate rubber, cork, mixtures thereof and their copolymers.

11. A modular flooring system **characterized by** comprising a plurality of modular floorings (1), as defined in any of the preceding claims, interconnected through the connection between side fastening male spigots (19), arranged on the edge of at least one side wall of a modular flooring component (2), and side female fastening spigots (20), arranged on the edge of at least one side wall of an adjacent modular flooring component (2).

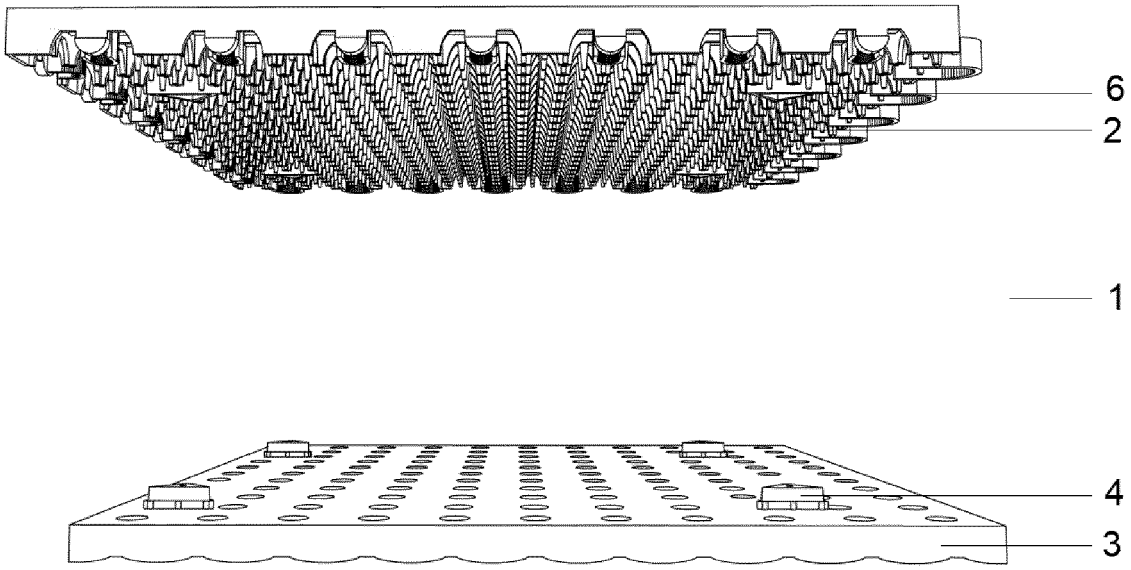


Fig. 1

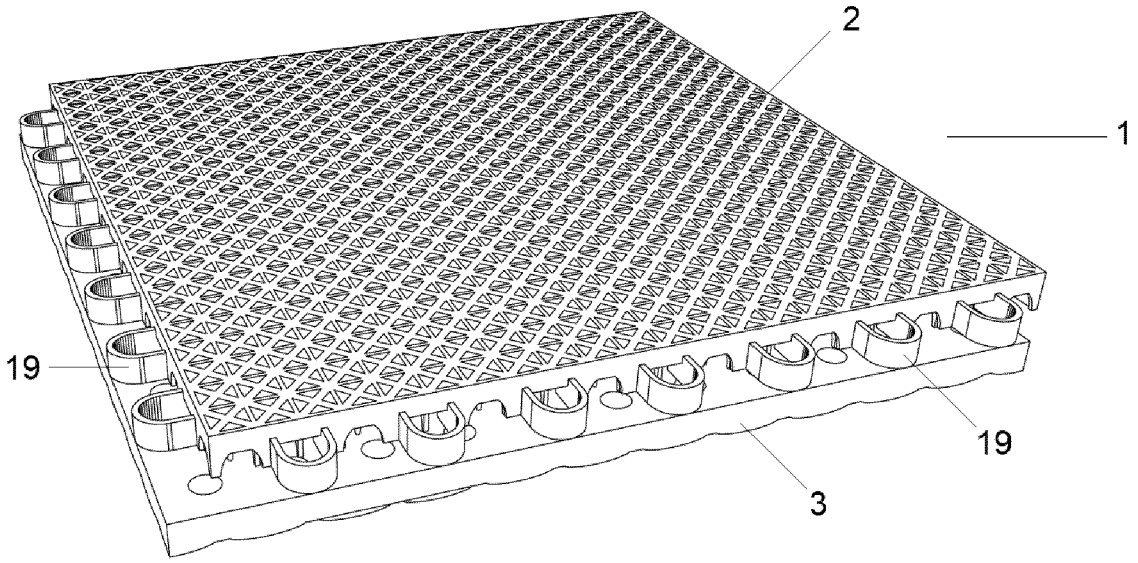


Fig. 2

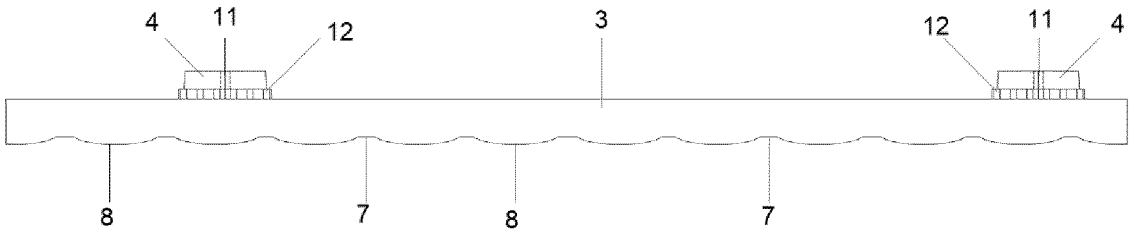
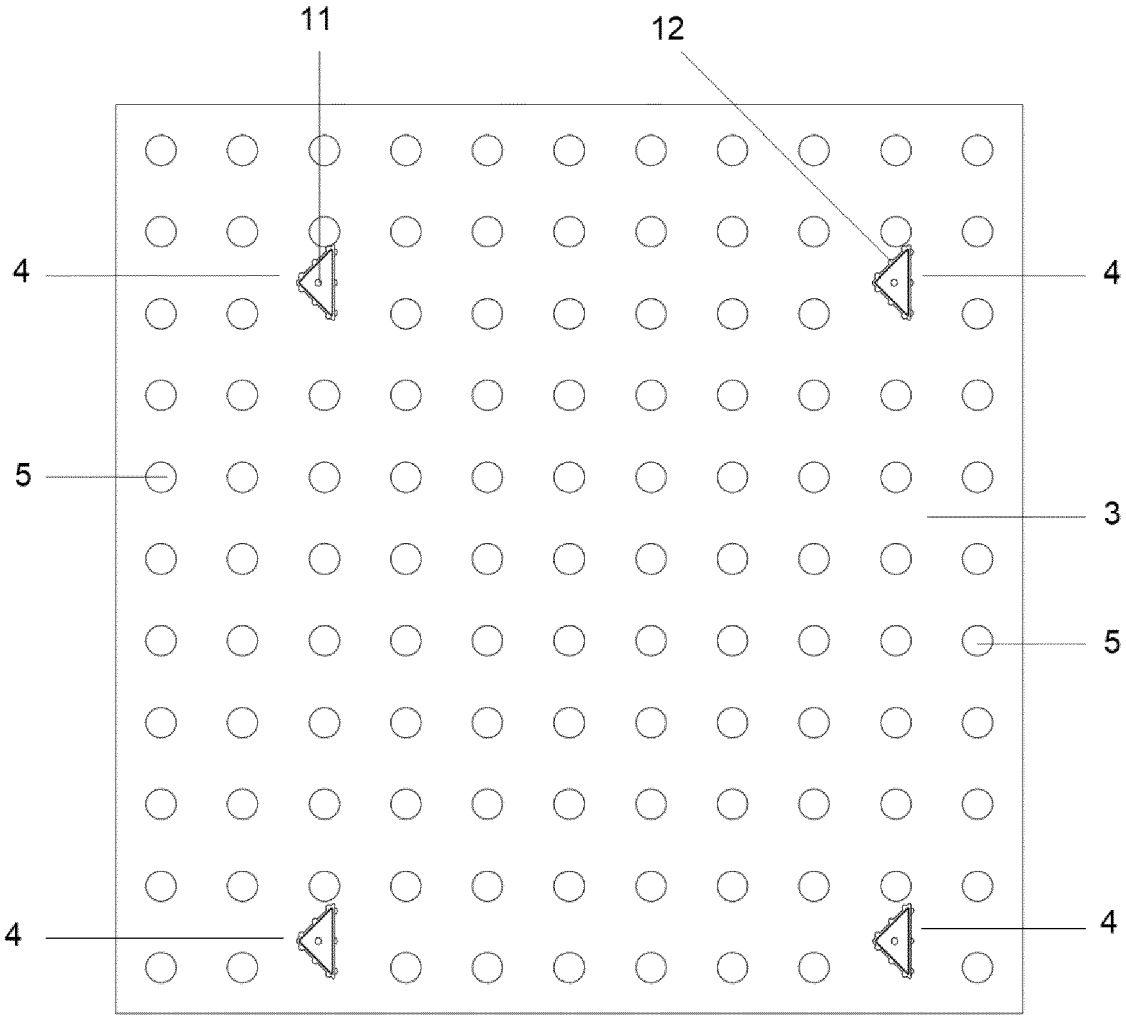


Fig. 3



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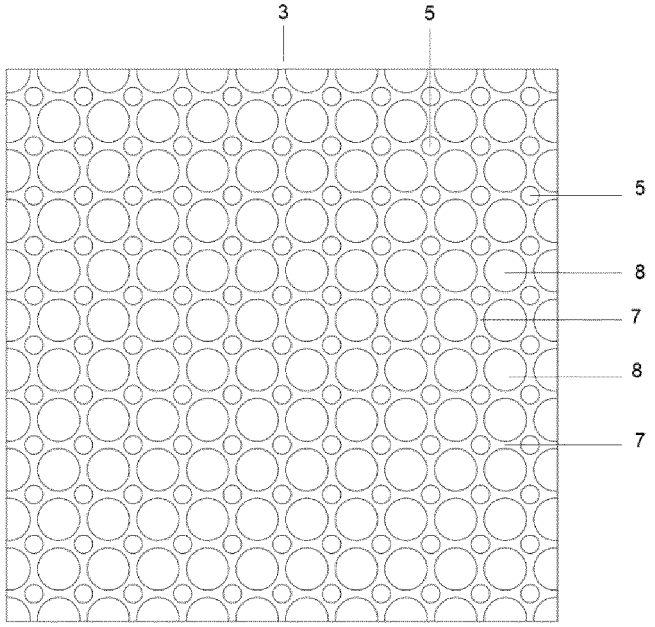

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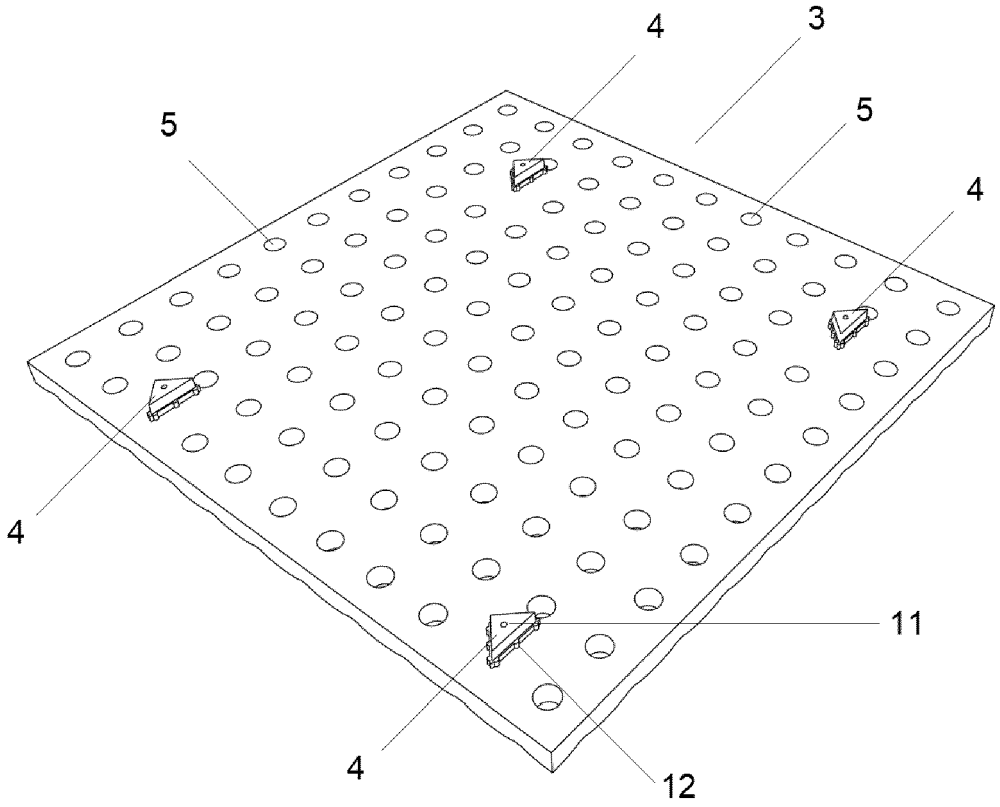

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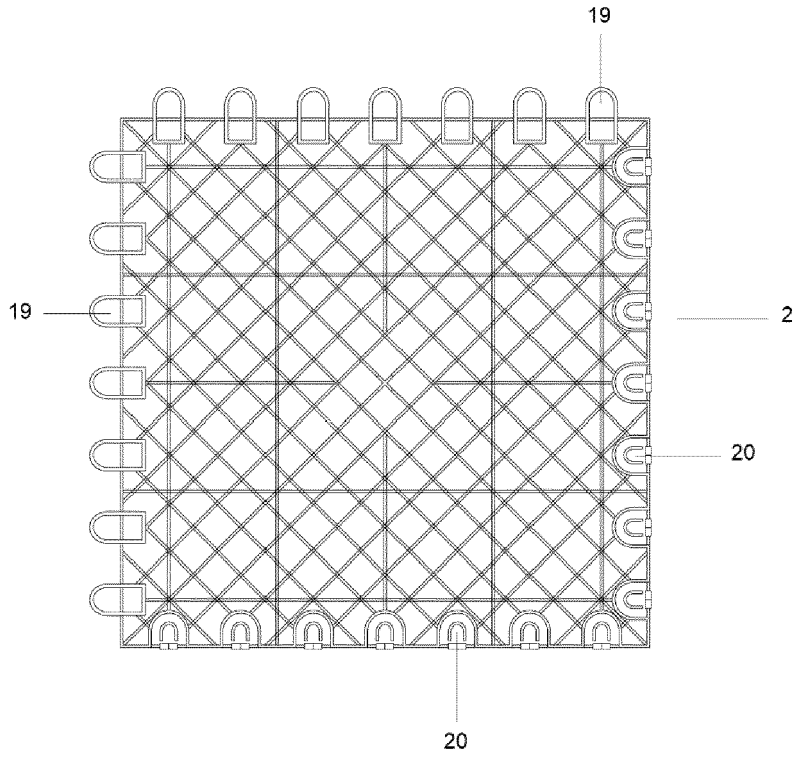

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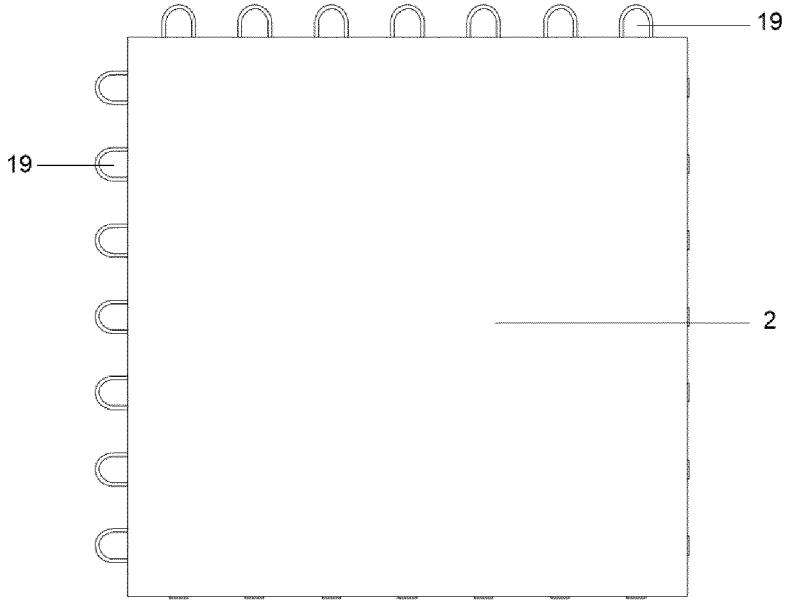

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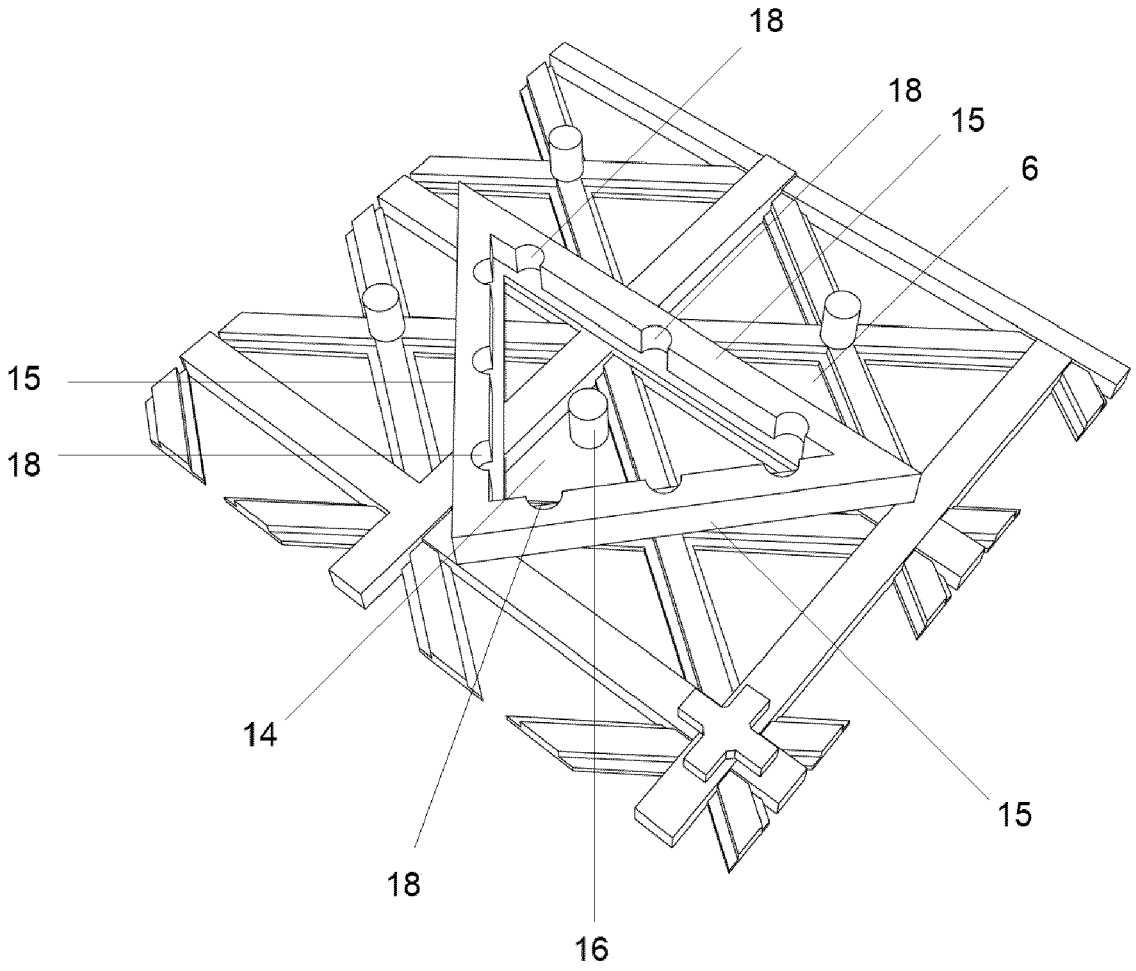

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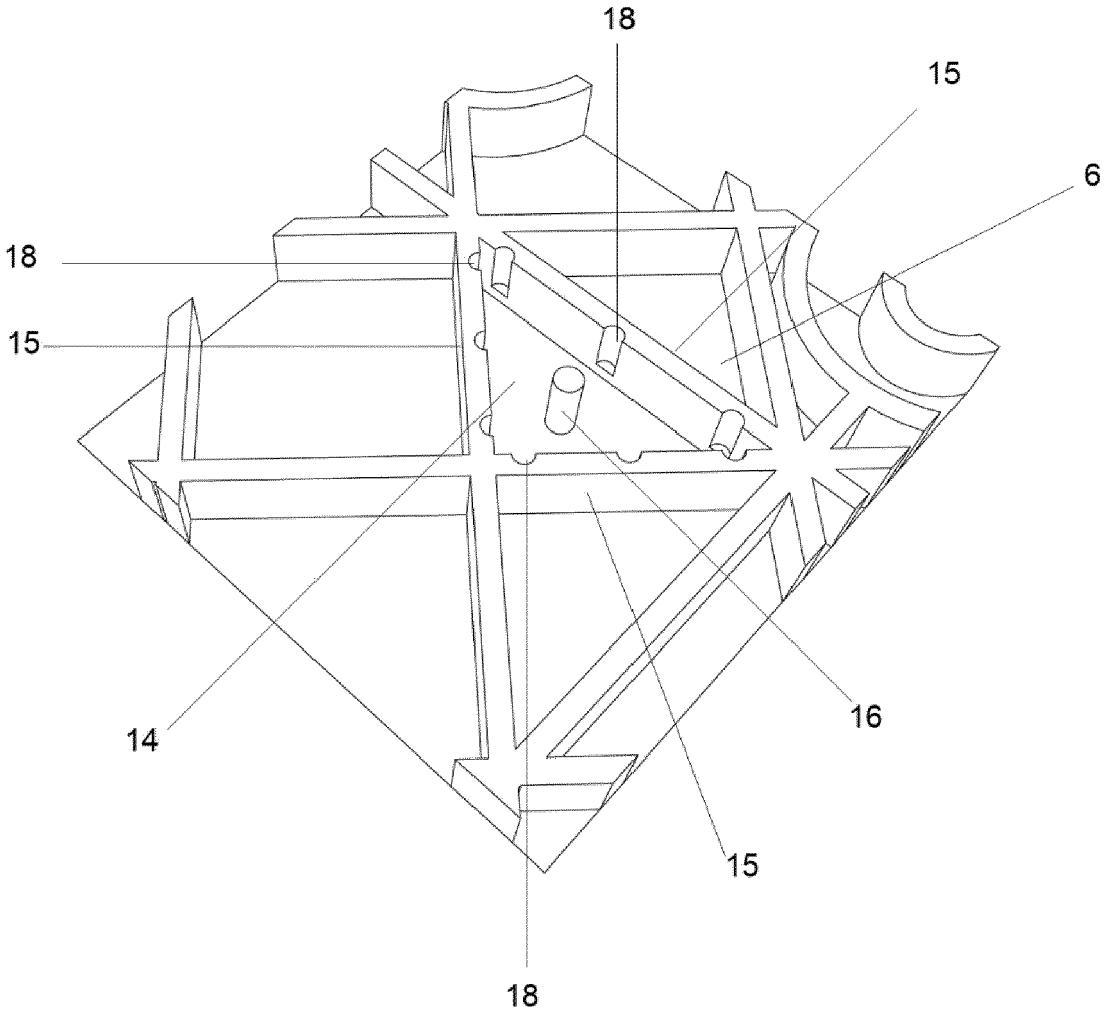

Fig. 10

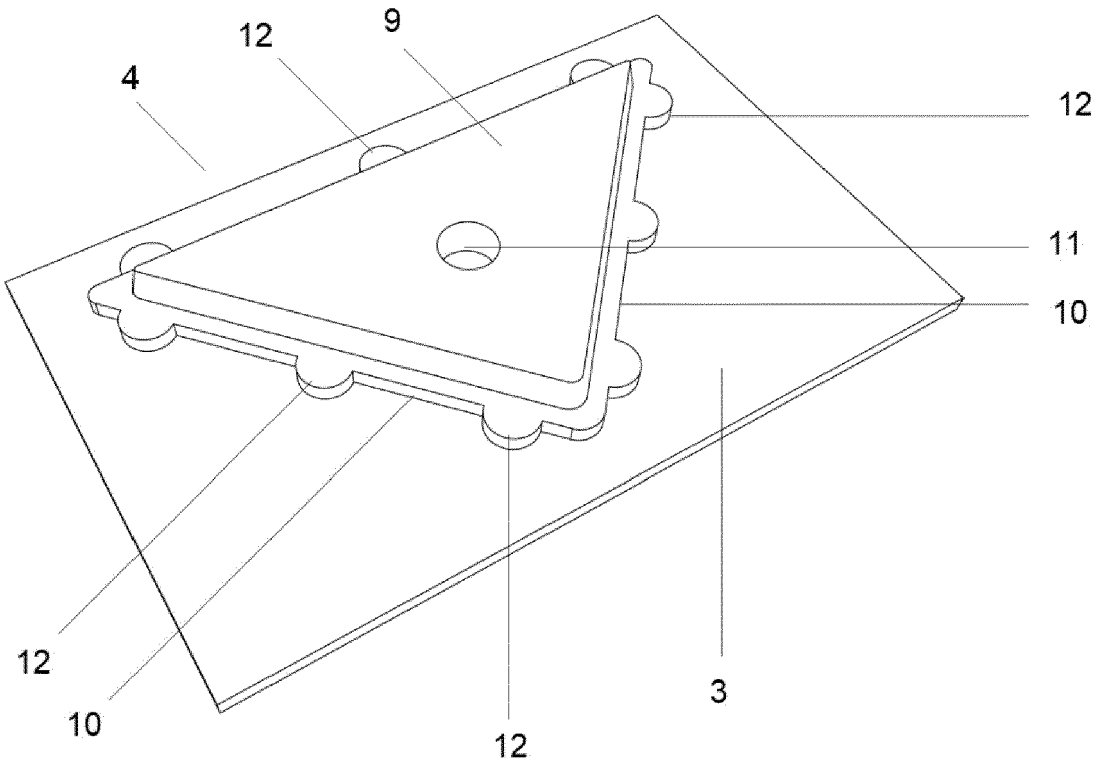

Fig. 11

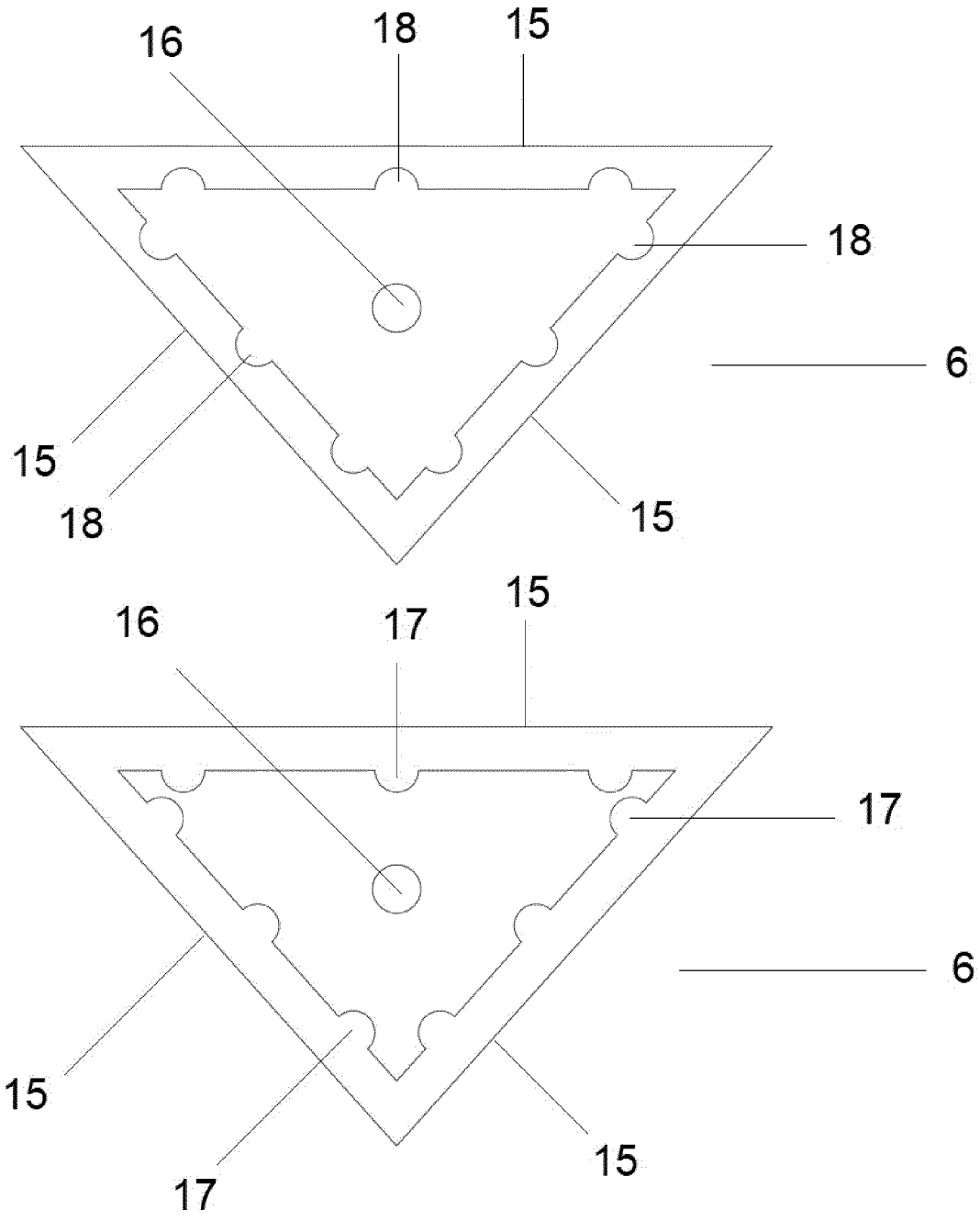

Fig. 12

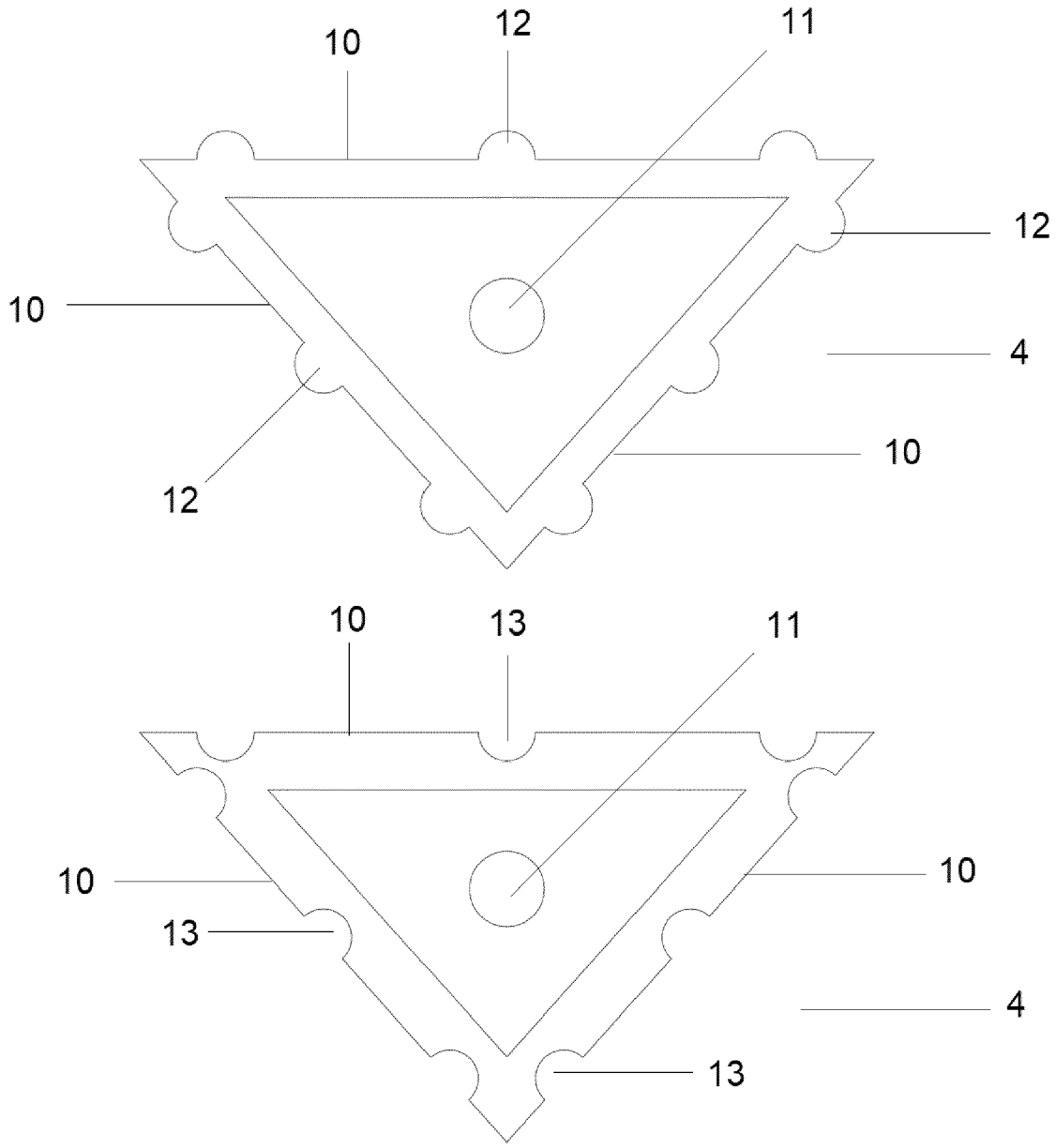

Fig. 13

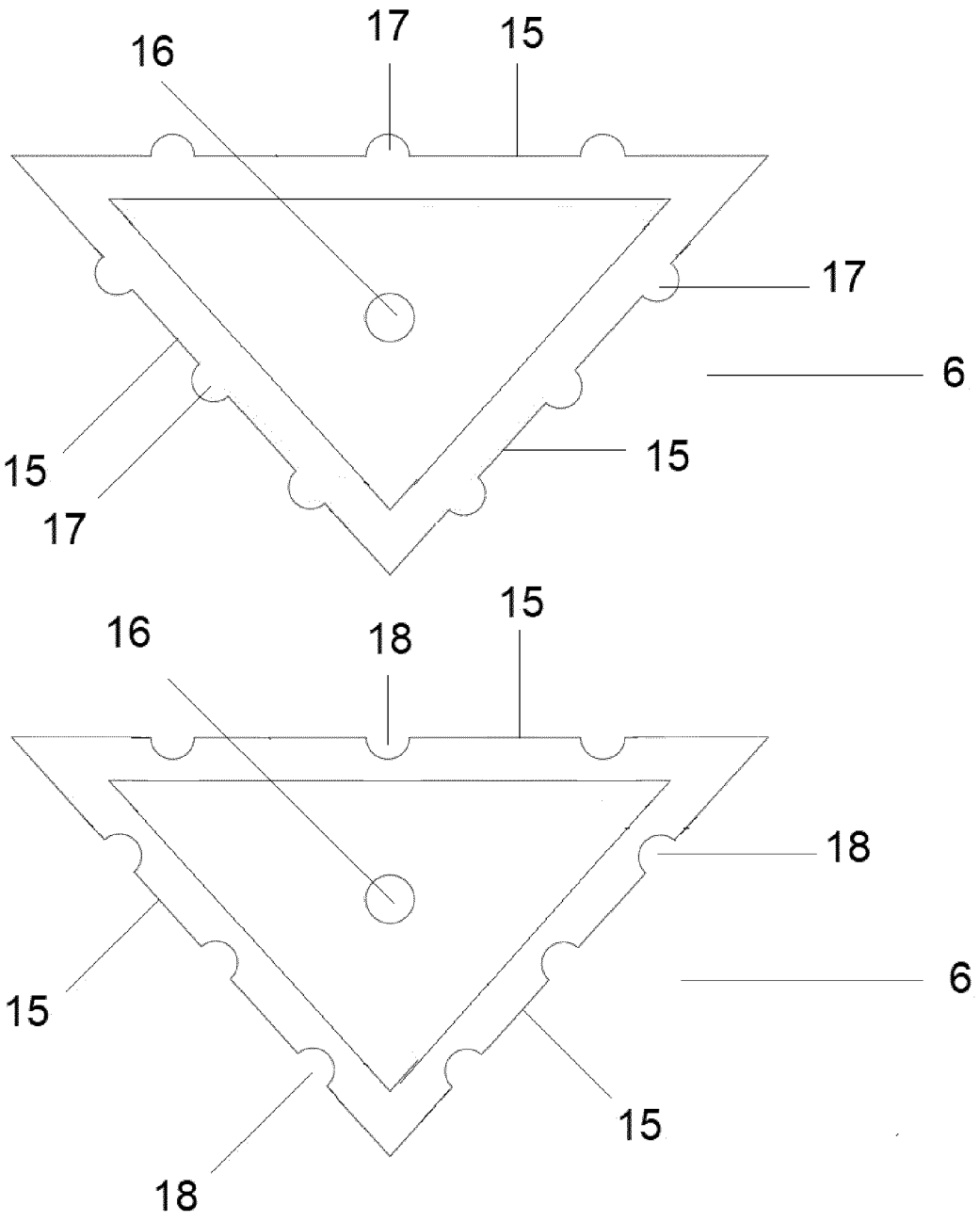

Fig. 14

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EUROPEAN SEARCH REPORT

Application Number
EP 24 15 7693

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	27 June 2024	Movadat, Robin

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