US 20160317907A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2016/0317907 A1**

VANDOREN (43) **Pub. Date: Nov. 3, 2016**

(54) **GAMEBOARD PART WITH COUPLING MEANS, VARIABLE GAMEBOARD COMPRISING SUCH PARTS AND GAME COMPRISING SUCH A GAMEBOARD**

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(21) Appl. No.: **15/108,652**

(22) PCT Filed: **Dec. 24, 2014**

(86) PCT No.: **PCT/BE2014/000071**

§ 371 (c)(1),
(2) Date: **Jun. 28, 2016**

(30) **Foreign Application Priority Data**

Dec. 30, 2013 (BE) 2013/0877

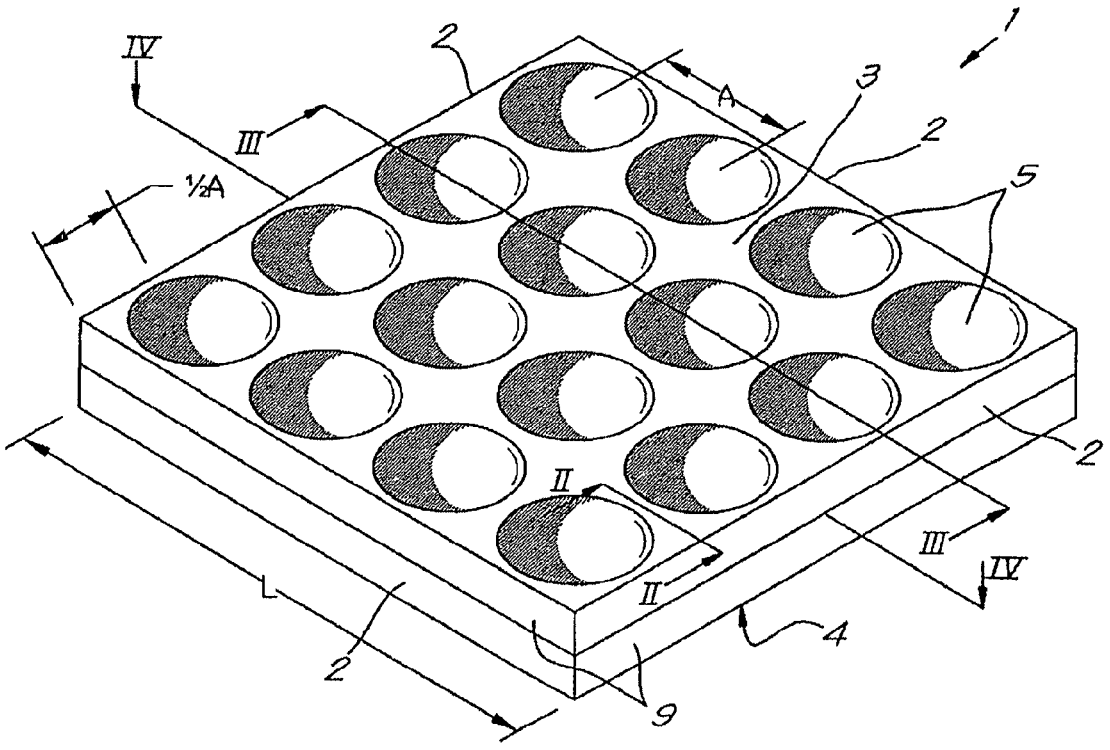
Publication Classification

(51) **Int. Cl.**
A63F 3/00 (2006.01)

(52) **U.S. Cl.**
CPC ***A63F 3/00261*** (2013.01); ***A63F 3/00176*** (2013.01); ***A63F 3/0052*** (2013.01); ***A63F 3/00694*** (2013.01); *A63F 2003/00182* (2013.01); *A63F 2003/00186* (2013.01); *A63F 2003/00391* (2013.01); *A63F 2003/00365* (2013.01)

(57) **ABSTRACT**

Gameboard part (**1**) with sides (**2**), that is provided with at least one coupling elements (**6**,**8**) on at least one of the sides (**2**) to enable the reverse coupling of the gameboard part (**1**) to another gameboard part (**1**) with identical coupling elements (**6**,**8**) to thereby enable the formation, together with the other gameboard part (**1**), of different variants of a partial or complete gameboard (10).



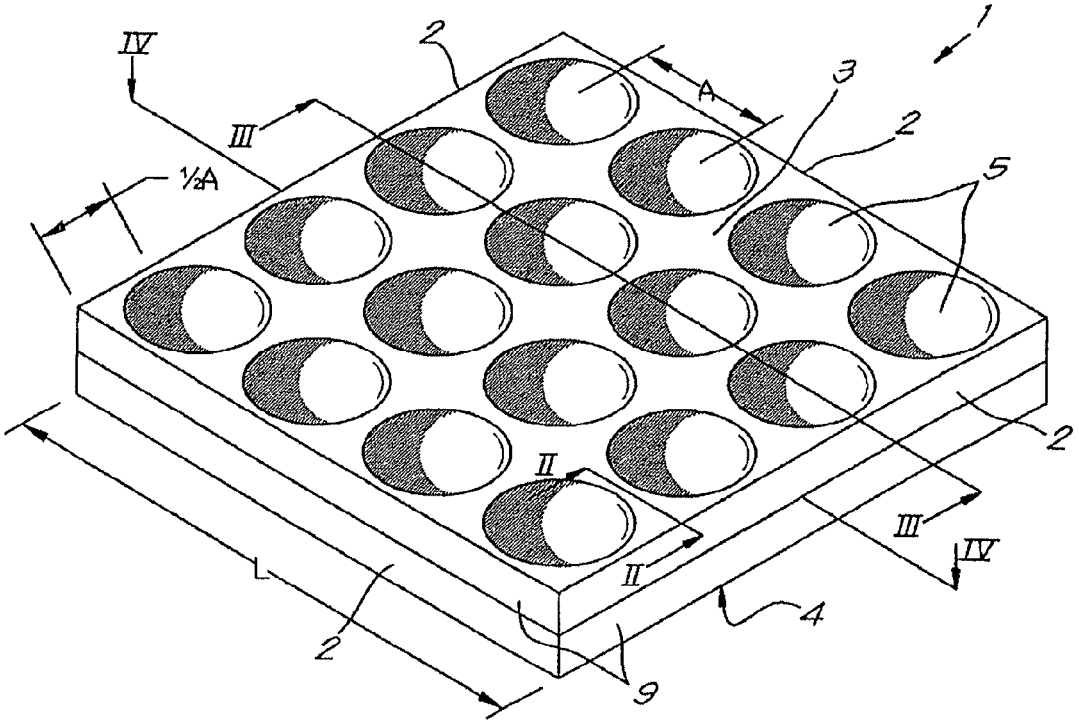


Fig. 1

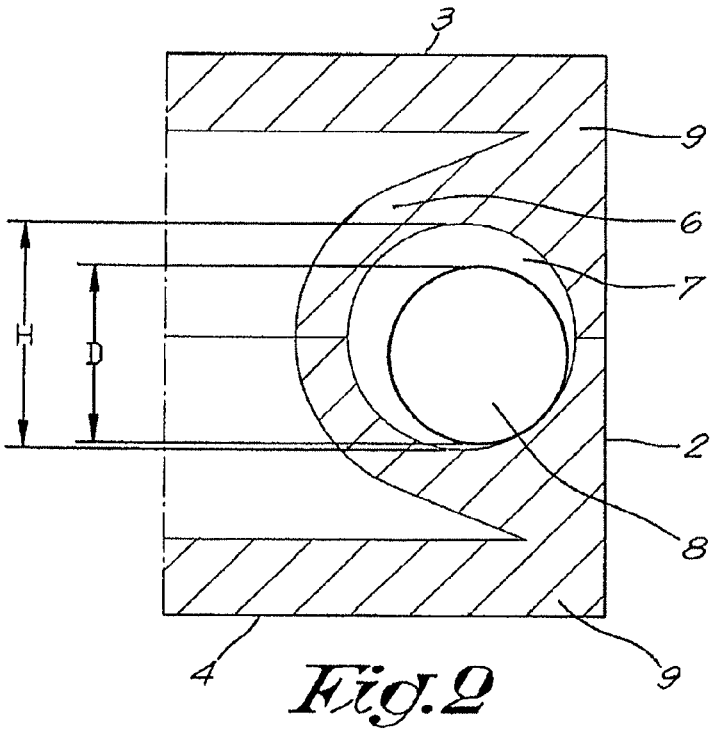


Fig. 2

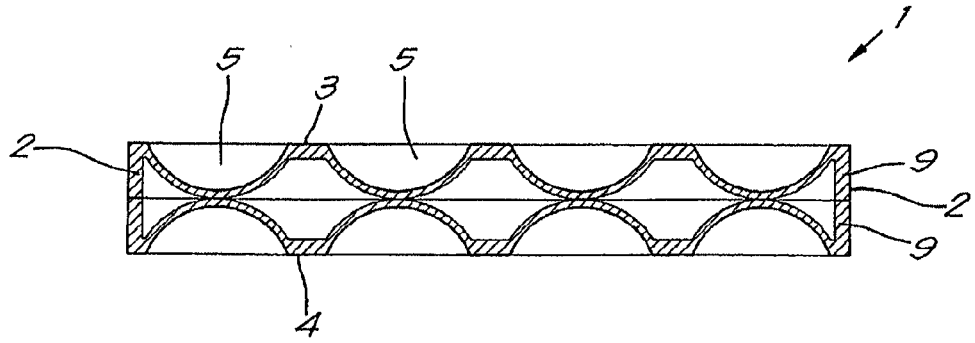


Fig.3

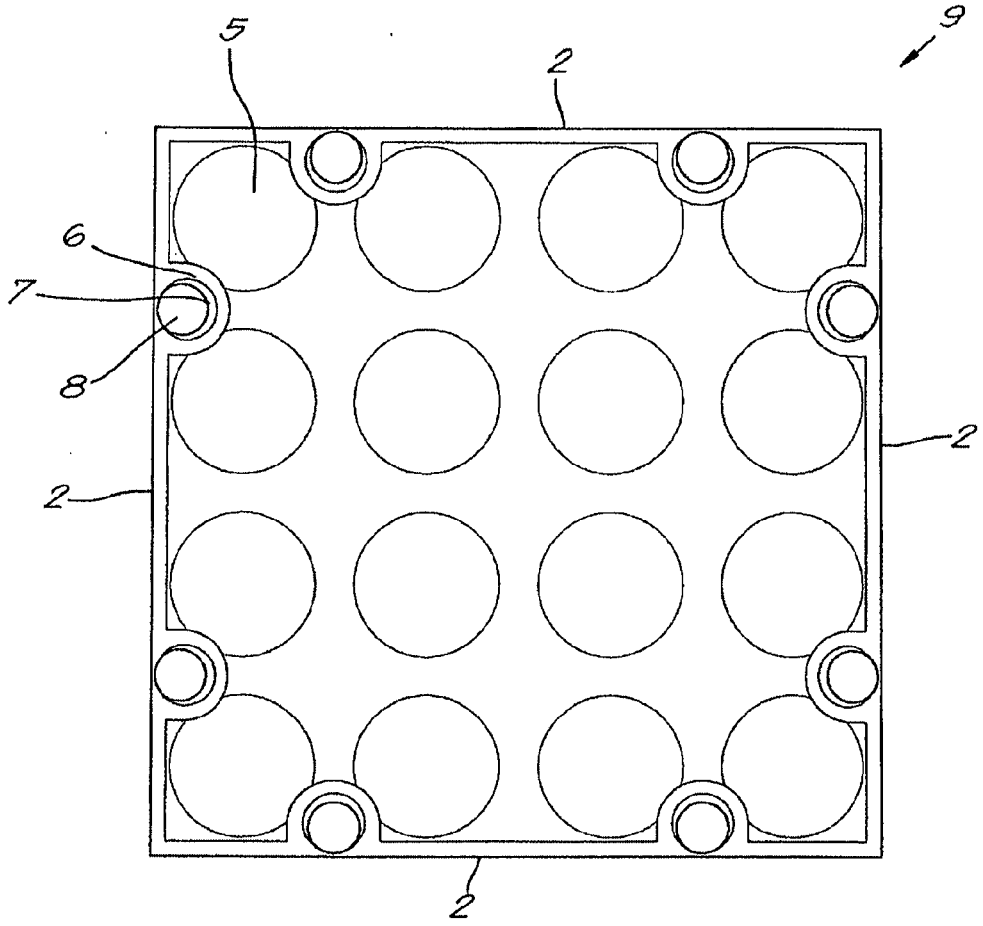


Fig.4

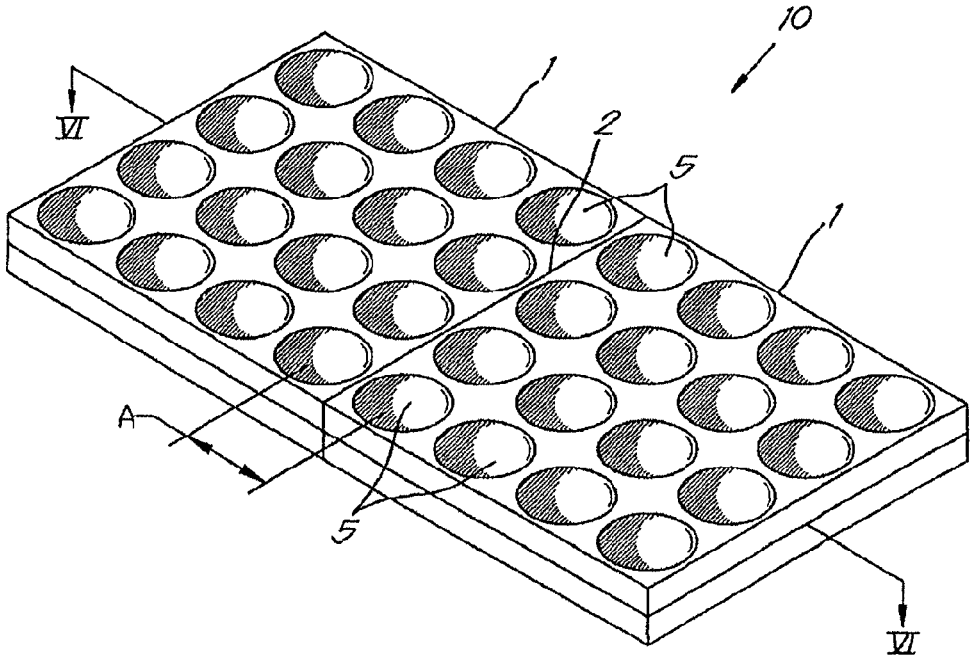


Fig.5

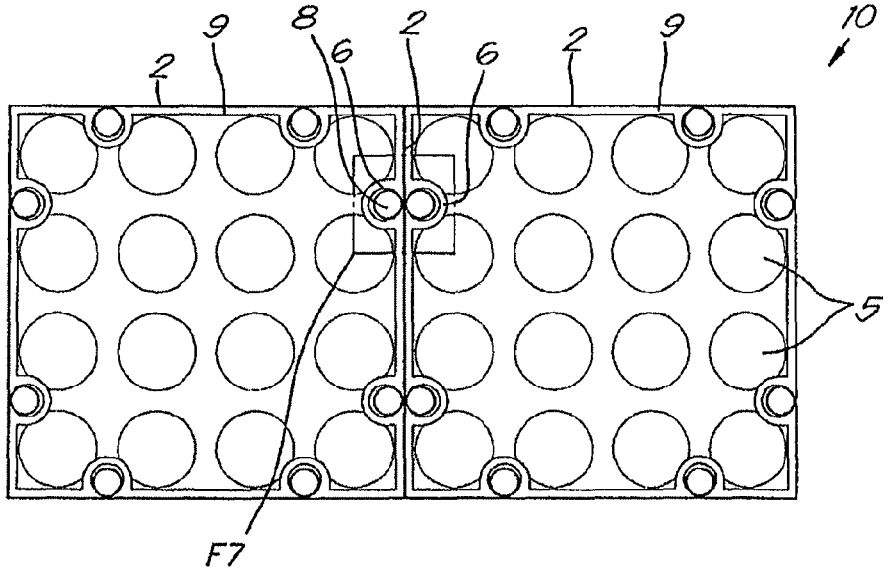


Fig.6

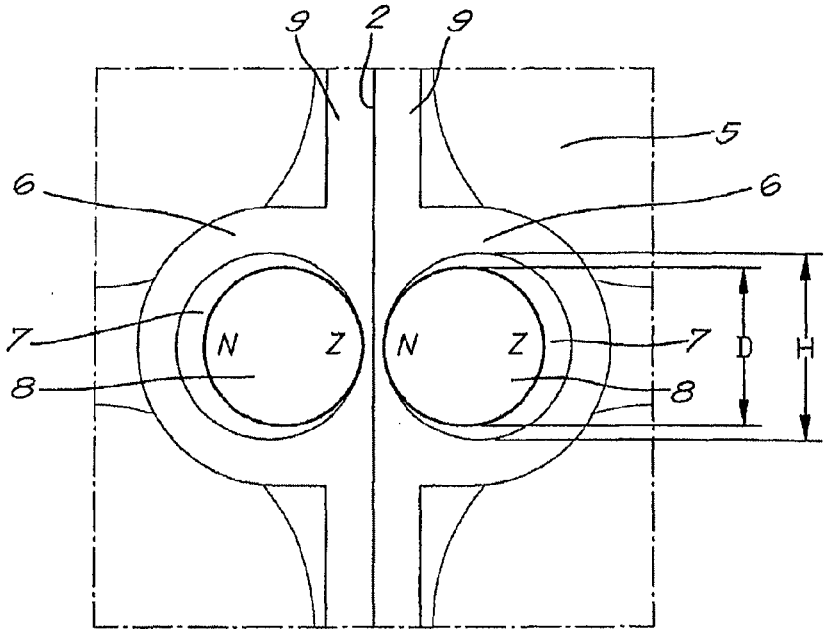


Fig.7

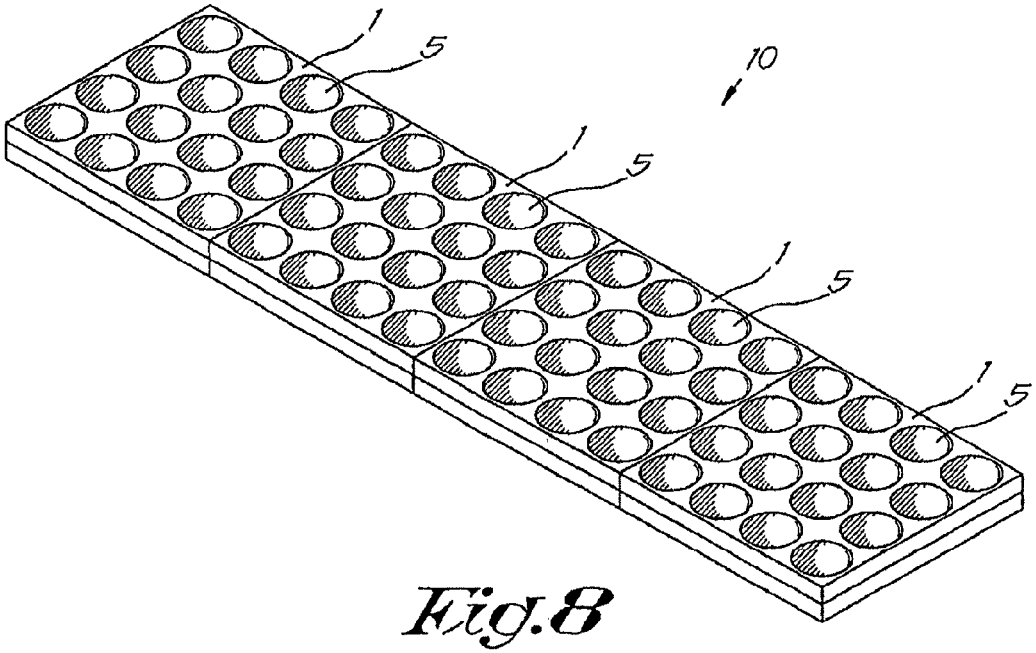


Fig.8

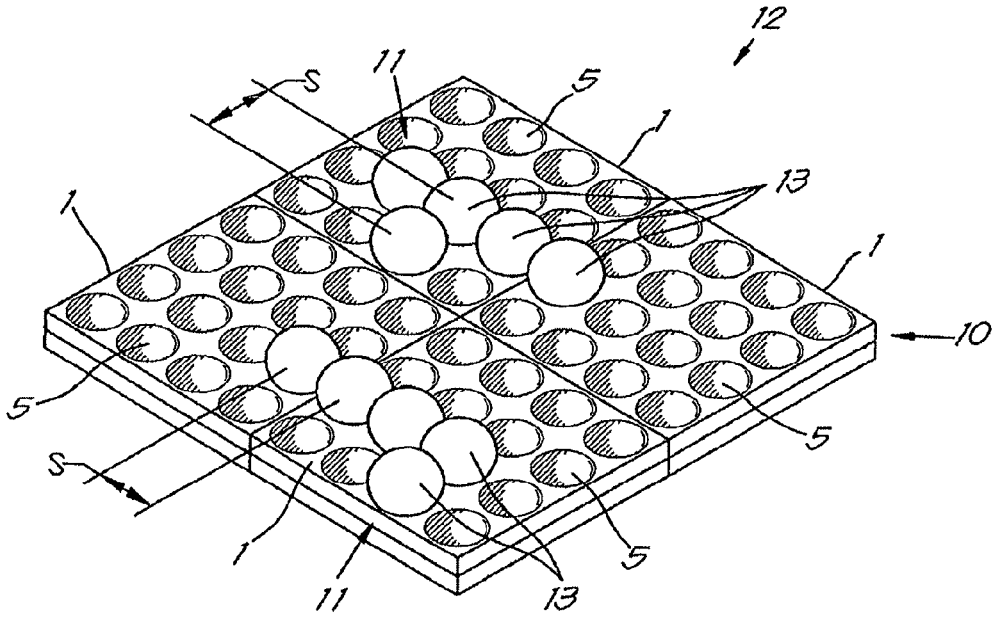


Fig.9

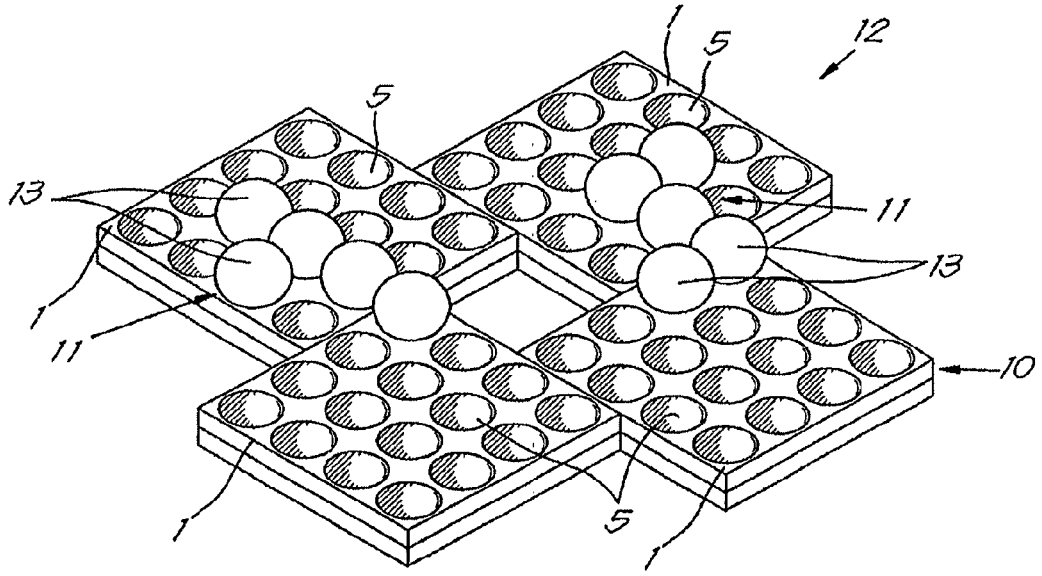


Fig.10

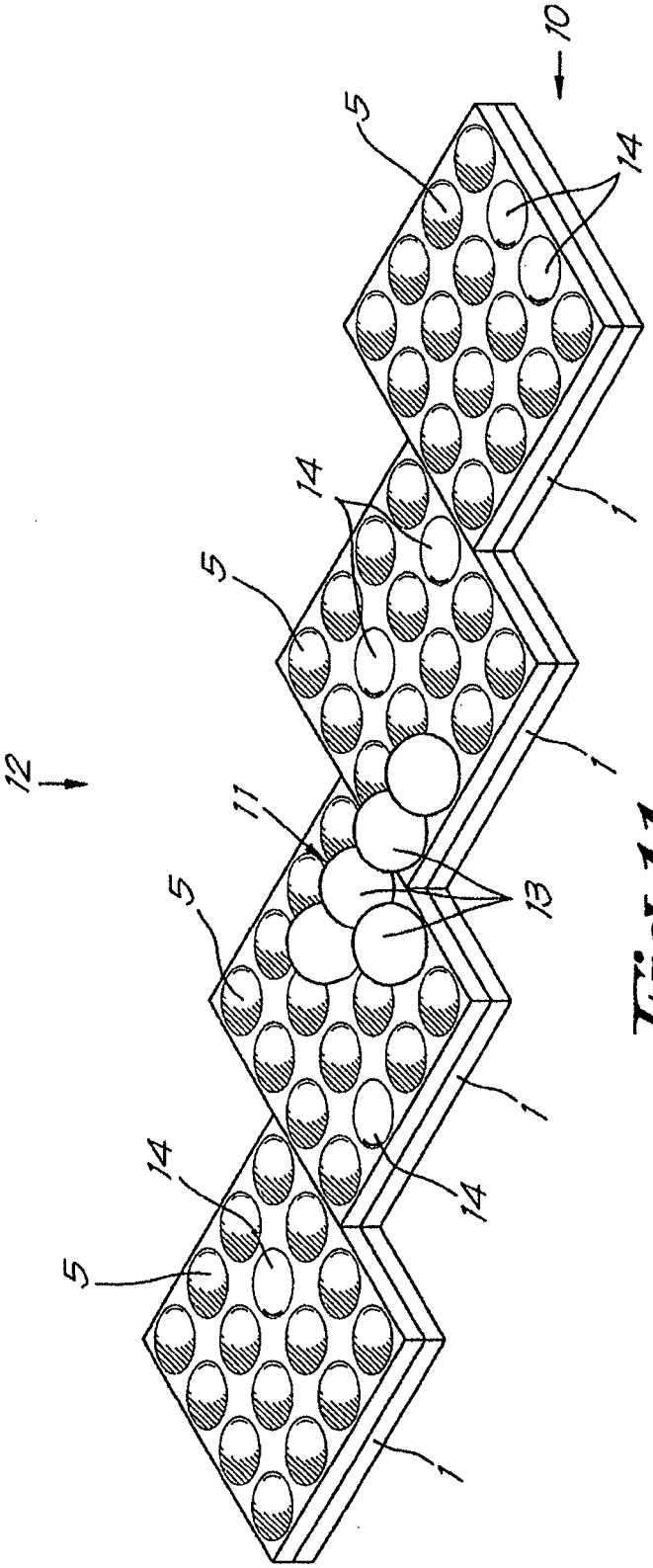


Fig.11

GAMEBOARD PART WITH COUPLING MEANS, VARIABLE GAMEBOARD COMPRISING SUCH PARTS AND GAME COMPRISING SUCH A GAMEBOARD

[0001] The invention concerns a gameboard part, a gameboard that comprises such gameboard parts and a game that comprises such a gameboard.

[0002] Many games with a gameboard are known and can be devised, whereby the possibility to divide the gameboard into gameboard parts and to adapt the mutual orientation of these gameboard parts before or during play into another variant of the gameboard is desirable. As a result the game can offer more variety, be made more complex or challenging for longer for an experienced player.

[0003] The mutual orientation hereby comprises the following aspects: the position that the gameboard parts occupy with respect to one another, thus the total form that they have together; and the rotation position of each gameboard part at a given place, thus with which side or sides each piece stands against one or more other pieces.

[0004] However, the problem arises here that mutual coupling of the gameboard parts is required to counteract the mutual movement of the gameboard parts. To this end, either a holder for the gameboard parts has to be provided that keeps the gameboard parts in place, or the gameboard parts have to be provided with coupling means for mutual coupling.

[0005] However, a holder has the disadvantage that the gameboard parts can perhaps change places and/or be rotated individually, but that they can only occupy the places with respect to one another defined by the holder. Moreover, a holder takes up space and brings about costs.

[0006] Coupling means also have the disadvantage that they constitute limitations on the numbers of orientations that can be obtained, because one coupling means must always be coupled to a complementary coupling means. Therefore, the coupling means cannot be coupled to identical coupling means such that a large number of orientations of the gameboard parts, i.e. those in which identical coupling means are placed opposite one another, are excluded.

[0007] The purpose of the present invention is to provide a solution to the aforementioned and other disadvantages, by providing a gameboard part with sides, that is provided with coupling means on at least one of the sides to enable the reverse coupling of the gameboard part to another gameboard part with an identical coupling means to thereby enable the formation, together with the other gameboard part, of different variants of a partial or complete gameboard.

[0008] Such a coupling means can be, for example:

- **[0009]** bifunctional hook and loop tape, or mushroom tape, that can form a strong connection with itself;
- **[0010]** pressure-sensitive adhesive;
- **[0011]** an electronic coupling means that, after communication with an identical coupling means, can generate a magnetic field that has the same direction as a magnetic field of the identical coupling means.
- **[0012]** a magnetic coupling means such as will be further elaborated in this document.

[0013] In a preferred embodiment the coupling means is arranged to exert a coupling force on the identical coupling means of the other gameboard part, whereby this coupling force becomes greater as the actual mutual orientation approaches a desired mutual orientation, thus an orientation in which the two gameboard parts form a variant of a partial or complete gameboard, so that the coupling means steer a mutual orientation of the gameboard parts into a desired mutual orientation.

[0014] This has the advantage that small deviations from the desired mutual orientation are automatically avoided, so that the mutual orientation is always exactly right, or in other words that an inaccurate positioning of the pieces with respect to one another is automatically corrected and that the coupling means generate a force that the user controls during the correct positioning of the gameboard parts.

[0015] In a further preferred variant, the coupling means comprise a spherical magnet that is rotatably attached in or on the gameboard part and which is preferably placed loosely in a housing next to the side, on the inside of a said side.

[0016] Because such a magnet can rotate, the magnets of two identical coupling means that are brought into the vicinity of one another turn towards one another so that they exert an attractive force on one another and thereby couple the gameboard parts in which they are located together.

[0017] In a further preferred embodiment the gameboard part has the form of a polygon with n sides, where n is greater than or equal to 3, and it has a top and bottom, whereby it is provided on the top and/or bottom with fields for placing game pieces, whereby these fields extend in two directions perpendicular to one another or in three directions at an angle of 60 degrees to one another, whereby the central points of the fields have a regular distance between them.

[0018] Hereby, for easy identification, the top and bottom can be made in different colours.

[0019] For completeness it is noted here that polygons whose sides are not completely straight, but for example are undulating or provided with small cutaways or bulges, are also considered as polygons, as long as they can be placed in a regular pattern, similar to mathematical polygons with straight sides.

[0020] Preferably the polygons are regular polygons.

[0021] In particular for games with a gameboard with such regular fields the possibility to adapt the gameboard is extremely advantageous, because the complexity of the game can be adapted and extended as a result.

[0022] Hereby the distance from the central points of the fields that are on the sides to the side is preferably half of the said regular distance between.

[0023] Preferably n is equal to four and each of the sides are provided with two identical coupling means with a mutual distance of half the length of a side. This enables each side to be placed in six different positions with respect to a side of another gameboard part, and thus to make 96 gameboard variants with only two gameboard parts (6 positions*4 sides*4 sides).

[0024] The invention also comprises a variable gameboard that comprises two or more gameboard parts with sides that can be positioned with respect one another in different orientations that form a variant of the gameboard, whereby the gameboard parts are each provided with coupling means on at least on one of their sides in order to enable the reverse coupling of the gameboard parts in the said orientations, whereby the coupling means of a said gameboard part are arranged such that they can form a coupling with identical coupling means of one or more other said gameboard parts.

[0025] The invention also comprises a game as defined in claim **15**.

[0026] With the intention of better showing the characteristics of the invention, a preferred embodiment of a gameboard part, a gameboard and a game according to the invention is described hereinafter by way of an example, without any limiting nature, with reference to the accompanying drawings, wherein:

[0027] FIG. **1** schematically shows a perspective view of a gameboard part according to the invention;

[0028] FIGS. **2**, **3** and **4** show cross-sections according to II-II, III-III, and IV-IV respectively of the gameboard part of FIG. **1**;

[0029] FIG. **5** shows a gameboard according to the invention;

[0030] FIG. **6** shows a cross-section according to VI-VI of the gameboard of FIG. **5**;

[0031] FIG. **7** shows the part of FIG. **6** indicated by F7 on a larger scale;

[0032] FIG. **8** shows an alternative gameboard according to the invention;

[0033] FIGS. **9** and **10** show two variants of the same game according to the invention; and

[0034] FIG. **11** shows an alternative game according to the invention.

[0035] The gameboard part **1** shown in FIGS. **1** to **4** has a square shape, with four sides **2** that each have a length L, which in this example but not necessarily is 7 cm.

[0036] Sixteen open cavities **5** are made on both on the top **3** and the bottom **4** of the gameboard part and these cavities **5** extend in a regular pattern in two directions perpendicular to one another. The central points of the open cavities **5** have a mutual distance A between them of 17.5 mm. The open cavities **5** that are the closest to the sides **2** have a distance A to the side **2** of 8.75 mm.

[0037] On the inside of each side **2**, at one quarter and three-quarters of the length L of the sides **2**, housings **6** are affixed with an approximately spherical cavity **7** with a diameter H of 4 mm. A spherical neodymium magnet **8** with a diameter D of 3 mm is placed in each of these spherical cavities **7**, which due to the relative sizes of the cavity **7** and the magnet **8** can rotate freely in the cavity concerned **7**.

[0038] The gameboard part **1** is composed of two identical plastic halves **9** that define the form described above and which are fastened to each other and the said magnets **8**.

[0039] The gameboard parts **1**, together with one or more similar or identical gameboard parts **1**, can form a gameboard **10**, as shown in FIGS. **5** to **11**.

[0040] To this end the gameboard parts **1** are placed in the same plane with their sides **2** against one another, for example, as shown in FIG. **5**, with a complete side **2** of a first gameboard part **1** against a complete side **2** of a second gameboard part **1**.

[0041] Hereby the series of open cavities **6** on the first gameboard part **1** continue in a straight line to the second gameboard part **1**, whereby the distance A between all open cavities **5** in a series is the same.

[0042] In this orientation, in each case two magnets **8** of the first gameboard part **1** are oriented towards two magnets **8** of the second gameboard part **1**.

[0043] Each pair of magnets **8** that are in each other's vicinity, thus per pair one magnet **8** of the first gameboard part **1** and one magnet **8** of the second gameboard part **1**, are now oriented towards one another, so that they attract one another and thereby form coupling means to couple both gameboard parts **1**. This is shown in FIG. **7**.

[0044] This is possible because the magnets **8** can rotate freely in the spherical cavity **7** in their housing **6**.

[0045] Because the magnetic attractive force is highly dependent on the distance between the two magnets **8**, the magnets **8** ensure that with a mutual orientation that somewhat deviates from a desired orientation, the desired orientation is nonetheless automatically adopted.

[0046] Because the coupling means, i.e. the magnets **8** in their housings **6**, are identical along each side **2** of each gameboard part **1**, the gameboard parts can be coupled in many different mutual orientations into variants of gameboards **10**, as is clear from FIGS. **8** to **11**, in which drawings the gameboard **10** comprises four gameboard parts **1**.

[0047] In particular it is noted that:

- **[0048]** the sides **2** located against one another of two gameboard parts **1** can also be placed against each other displaced by a half length L, whereby a coupling is always obtained by means of a pair of coupling means;
- **[0049]** tops **3** can be coupled next to bottoms **4** without any hindrance; and
- **[0050]** any side **2** of a gameboard part **1** can be placed against any side **2** of another gameboard part **1**.

[0051] FIGS. **9** to **11** also show game pieces **11** in addition to gameboard parts **10**, so that a game **12** is shown.

[0052] These game pieces **11** consist of mutually connected spherical elements **13** that are connected together in a straight or branched orientation, that each occupy a number of open cavities **5** on the gameboard **10**, whereby these game pieces **11** can bridge the transition between gameboard parts **1**.

[0053] The open cavities **5** hereby form a particular embodiment of fields for game pieces **11**.

[0054] The elements **13** of the game pieces have a mutual distance S, seen from core to core, that is equal to the said distance A between the open cavities **5** or the fields, on the top **3** and bottom **4**.

[0055] Hereby the game **12** is provided with such a set of game pieces **11**, that in all possible configurations of the gameboard parts **1**, thus in all possible variants of the gameboard **10**, there is at least one solution in which all fields **5** are covered by elements **13** of a game piece **11**.

[0056] The variants shown in FIGS. **9** and **10** of a gameboard **10** have four identical gameboard parts **1**, that are also identical on the top **3** and bottom **4** and have sixteen open cavities **5**.

[0057] This means that only the mutual position of the gameboard parts **1** determines the form and playing characteristics of the gameboard **10**.

[0058] FIG. **11** on the other hand shows gameboard parts **1** in which a number of open cavities **5** are blocked, in this specific case by providing a filling element **14** in the cavities **5**, whereby various cavities **5** are blocked on each side **3**,**4** of each gameboard part **1**.

[0059] The consequence of this is that the rotation position of each gameboard part **1** in its own plane, and the use of either the top **3** or bottom **4** of a gameboard part **1**, yields a different variant of a gameboard **10**.

[0060] The present invention is by no means limited to the embodiments described as an example and shown in the drawings, but a gameboard part, a gameboard and game according to the invention can be realised in all kinds of forms and dimensions, without departing from the scope of the invention.

1. Gameboard part (1) with sides (2), that is provided with at least one coupling means (6,8) on at least one of the sides (2) to enable the reverse coupling of the gameboard part (1) to another gameboard part (1) with identical coupling means (6,8) to thereby enable the formation, together with the other gameboard part (1), of different variants of a partial or complete gameboard (10).

2. Gameboard part according to claim 1, wherein the coupling means (6,8) are arranged to exert a coupling force on the identical coupling means (6,8) of the other gameboard part (1), that becomes greater as the actual mutual orientation approaches a mutual orientation in which two gameboard parts (1) form a variant of a partial or complete gameboard (10), so that the coupling means (6,8) steer a mutual orientation of the gameboard parts (1) towards a mutual orientation in which the gameboard parts (1) form a variant of a partial or complete gameboard (10).

3. Gameboard part according to claim 1, wherein the coupling means (6,8) are arranged to exert a magnetic force.

4. Gameboard part according to claim 1, wherein the coupling means comprise a spherical or cylindrical magnet (8) that is rotatably attached in or on the gameboard part (1).

5. Gameboard part according to claim 4, wherein the coupling means comprise a spherical magnet (8) that is placed loosely in a housing (6) next to the side (2), on the inside of a side (2).

6. Gameboard part according to claim 1, wherein the gameboard part has the form of a polygon with n sides, whereby n is greater than or equal to three, and has a top (3) and a bottom (4) and is provided on the top (3) and/or bottom (4) with fields (5) for placing game pieces (11), whereby these fields (5) extend in two directions perpendicular to one another or in three directions at an angle of 60 degrees, whereby the central points of the fields (5) have a regular distance (A) between them.

7. Gameboard part according to claim 6, wherein the distance (½A) from the central points of the fields (5) that are next to a side (2) to the side (2) is half of the regular distance (A) between them.

8. Gameboard part according to claim 6, wherein the gameboard part is provided at the top (3) and bottom (4) with such fields (5), whereby the regular distance (A) between them is the same on the top (3) and the bottom (4).

9. Gameboard part according to claim 6, wherein the fields are formed by open cavities (5) in the surface of the side (3,4) concerned.

10. Gameboard part according to claim 6, wherein each of the sides (2) are provided with identical coupling means (6,8).

11. Gameboard part according to claim 6, wherein n is equal to four and each of the sides (2) are provided with two identical coupling means (6,8) with a mutual distance of half of the length (L) of a side (2).

12. Variable gameboard (10), that comprises two or more gameboard parts (1) with sides (4) that can be positioned with respect one another in different orientations that form a variant of the gameboard (10), whereby the gameboard parts (1) are each provided with at least one coupling means (6,8) on at least on one of their sides (2) in order to enable the reverse coupling of the gameboard parts (1) in the orientations, whereby the at least one coupling means (6,8) of an above-mentioned gameboard part (1) are arranged such that they can form a coupling with identical coupling means (6,8) of one or more other gameboard parts (1).

13. Gameboard according to claim 12, wherein at least two of the gameboard parts are gameboard parts (1) provided with at least one coupling means on at least one of the sides to enable the reverse coupling of the gameboard part (1) to another gameboard part (1) with identical coupling means (6,8) to thereby enable the formation, together with the other gameboard part (1), of different variants of a partial or complete gameboard.

14. Gameboard according to claim 13, wherein the gameboard (10) only has gameboard parts (1) provided with at least one coupling means on at least one of the sides to enable the reverse coupling of the gameboard part (1) to another gameboard part (1) with identical coupling means (6,8) to thereby enable the formation, together with the other gameboard part (1), of different variants of a partial or complete gameboard.

15. Game (12), that comprises a gameboard (10) according to claim 12, with gameboard parts (1) having the form of a polygon with n sides, whereby n is greater than or equal to three, a top (3) and a bottom (4) and being provided on the top (3) and/or bottom (4) with fields (5) for placing game pieces (11), whereby these fields (5) extend in two directions perpendicular to one another or in three directions at an angle of 60 degrees, whereby the central points of the fields (5) have a regular distance (A) between them and that comprises game pieces (11) that consist of more than one element (13), whereby each element (13) is complementary in dimensions and/or form to a field (5), and whereby the mutual core distance (S) of the elements (13) is equal to the regular distance (A) between the fields (5).

* * * * *