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(54) **Ball or rounded surface playing piece supported rotating device for board games**

(57) Ball or rounded surface playing piece supported rotating device for board games to move simultaneously even more than one balls or rounded surface playing pieces (6) easily. Fields (2) are configured on game board (1) for storing balls or rounded surface playing pieces (6). Fields (2) constitute a pattern. Any ball or rounded surface playing pieces (6) on the game board (1) may serve as rotation support for rotating device (4). The ball (61) operating as rotation axis and support is fitted in at least one of the openings (3), e.g. in the centre of rotating device (4). There formed openings (3) in rotating device (4) arranged in a pattern corresponding to the pattern of fields (2). The rotated balls or rounded surface playing pieces (62) are fitted in openings (3) of rotating device (4) and ball or rounded surface playing piece (62) moves from one field (21) to another field (22) by the rotation of rotating device (4). For convenient rotation, rotating device (4) comprises a rotating knob (9). Fields (2) are configured so that balls (6) take a centre position in a field (2) by themselves.

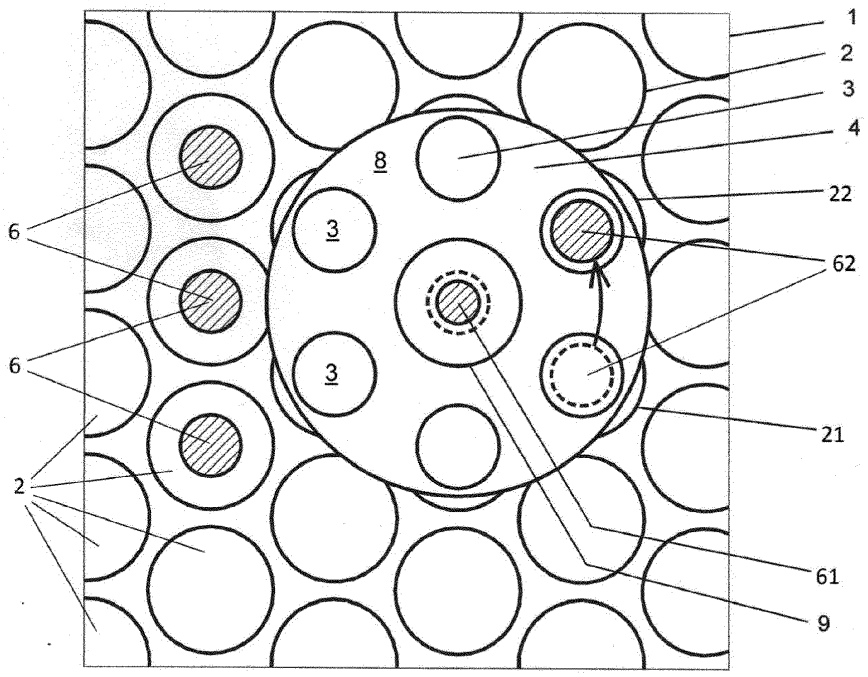

Figure 2

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Description

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The subject-matter of the invention is a rotating device for a board game, which board game has fields on the surface of its game board, the fields form a pattern and some of the fields contain balls or rounded surface playing pieces to be relocated from one field to another.

Description of the Prior Art

[0002] It is well known in the art the board game, wherein the game board is divided into four parts and each board part can be rotated separately. Balls in the fields on the surface of the board change their position by rotating the board part.

[0003] DE 298 13 573 U1 discloses a board game having a circular board comprising concentric circular segments, which can be rotated relative to each other. Fields as ball nests are configured in the segments, which are rearranged by rotating the segments.

[0004] GB 2 203 659 A shows a board game having ball nest like fields in the surface of its game board. A circular board segment is configured in the board, which can be rotated whereby the position of the fields are rearranged.

[0005] At GB 2 362 330 A the game board is partitioned into a plurality of segments, which can be rotated rearranging thereby the pattern over the board.

[0006] US 4,348,027 A displays a board game comprising a board divided into areas containing different number of fields, which are bilaterally coloured light and dark squares as those of a chess board. The areas are supported by shafts and can be rotated around them.

[0007] The above documents disclose all such solutions wherein the game board is divided into segments and the segments can be rotated relative to each other, whereby the pattern of the fields is rearranged. The figures and balls, etc. working as playing pieces can therefore be moved only by rotating the segments or freely manually by the players, while it is not possible to move the playing pieces in a way defined and limited by the game apparatus without rotating the board segments.

[0008] Regarding the present invention, closer solutions are known from JP 2007160063 A and JP 2007160064 A, wherein the game board comprises playing fields and holes between the fields. The playing fields store balls. The holes work as bearing sockets for a cursor device. The nests of the cursor device contain balls, which can be guided from one field to another by rotating the cursor device. In JP 2007160063 A, the fields are triangle-shape arranged hexagonally and the cursor device is also hexagon shaped. In JP 2007160064 A, the fields are square shaped arranged in a square grid and the cursor device is also square shaped. By these solutions, the balls can be rearranged in a manner defined and limited by the playing apparatus, as the balls can move only in such a way, which is allowed by the rotation of the cursor device. However, in these solutions, the rotating mechanism is composed of a shaft and its bearing sockets Therefore, the rotation is a bit difficult and not so effective, because the shaft of the rotating device has to be removed from the previous hole and fitted in the next hole for each rotation. Further, the appearance of the game board is inhomogeneous and fragmented due to the holes. Holes and playing fields alternate in difficult arrangement demanding unnecessarily high concentration from the players. Additionally, reduces the useful playing area for the fields and the balls.

SUMMARY OF THE INVENTION

[0009] Accordingly, the present invention has been developed in view of the aforementioned problems and the objective thereof is to eliminate the drawbacks of the prior art solutions and to provide a rotating device, which does not require a separate shaft and holes in the board to hold the shaft, while this rotating device is still suitable for moving even more than one balls or rounded surface playing pieces in a more easier and effective manner by rotation; to simplify the appearance of the board and eliminate the fragmented character, and to expediently optimize the number of playing fields.

[0010] It has been recognized that this objective can be reached by applying a rotating device, whose rotation axis is provided by the balls or rounded surface playing pieces themselves operating as playing pieces at the same time, since an expediently configured rotating device can be seated on and rotated around any of the balls or rounded surface playing pieces.

[0011] To accomplish the above objects, there is provided a rotating device for a board game, which board game has fields on the surface of its game board, the fields form a pattern and some of the fields contain balls or rounded surface playing pieces to be relocated from one field to another. The rotating device of the present invention is characterized in that it has a plate covering a plurality of fields, the plate contains openings arranged in a pattern corresponding with the pattern of the fields, the openings has a dimension letting the balls or rounded surface playing pieces pass through, a rotating knob is fastened onto the plate above one of the openings and the bottom surface of the rotating knob matches and sits on the surface of the ball or rounded surface playing piece.

[0012] It is preferable to use such a rotating device that allows all the playing pieces to be seen even during rotation.

[0013] At a particular embodiment of the invention, the plate is a round thin disk, and one of the openings is situated in the centre of the disk, while the rest of the openings are placed around this central opening in correspondence with the pattern of the fields.

[0014] It is expedient that the lower edge and surface of the plate and the knob are provided with a rounding of at radius corresponding at least with the radius of the balls or rounded surface playing pieces.

[0015] Regarding the fields, each field is preferably circular and is formed as a concave surface recess, e.g. a spherical segment or spherical cap in the surface of the game board to store the balls, or the fields follow the shape of the rounded surface playing pieces and are recessed in the surface as above, or they are formed as plane surface to store the rounded surface playing pieces.

[0016] The pattern of the fields is preferably such that the fields form columns and the fields of a column are spaced by the same unit distance, the fields of the neighbouring columns are shifted by half a unit distance in a way that six fields around a field are in the vertices of a regular hexagon. In the same way, the openings of the plate around the central opening are in the vertices of a regular hexagon.

[0017] To receive the balls easily but firmly enough in the openings and to seat properly the rotating knob on the ball or rounded surface playing piece, the diameter of the openings is larger than the diameter of the balls or rounded surface playing pieces.

[0018] As it is usual with board games, the game board, the fields, the balls or rounded surface playing pieces and the rotating device are provided with signs of colours and/or pictures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] The above and other objects, features and advantages of the present invention will be apparent from the following detailed description of the preferred embodiment of the present invention in conjunction with the accompanying drawings, in which

Figure 1 is a side view of the present invention, and
Figure 2 is a front view of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0020] Referring to the drawings by numerals of reference and more particularly to Figures 1 and 2, there shown a rotating device 4 situated on a game board 1 provided with a simple pattern of fields. The pattern of fields 2 is such that fields 2 form columns and fields 2 of a column are spaced by the same unit distance, fields 2 of the neighbouring columns are shifted by half a unit distance in a way that six fields 2 around a field 2 are in the vertices of a regular hexagon. Fields 2 are concave recesses in the surface of game board 1, expediently have spherical segment or spherical cap shape. Fields 2 stores balls or rounded surface playing pieces 6.

[0021] The means for relocating balls or rounded surface playing pieces 6 is rotating device 4. Rotating device 4 essentially comprises a plate 8 and a rotating knob 9. According to the described embodiment of the rotating device 4, plate 8 is a thin circular disk comprising an opening 3 in its centre and six other opening 3 around this central opening 3, which are arranged in the vertices of a regular hexagon. Rotating knob 9 is cylindrical and connected to disk shape plate 8 above central opening 3. Rotating knob 9 comprises a central hole 5 along its longitudinal axis, which hole 5 runs into central opening 3 of plate 8 and its lower edge 7 is rounded. The radius of the rounding corresponds to the radius of balls or rounded surface playing pieces 6, therefore, rotating device 4 can be exactly matched to the surface of balls or rounded surface playing pieces 6 by edge 7. Rotating device 4 may be implemented of course without a hole 5 in rotating knob 9; in this case the, for example, the lower surface of rotating knob 9 is a concave arched surface to seat properly over balls or rounded surface playing pieces 6.

[0022] The diameter of openings 3 is sized so that they can easily receive balls or rounded surface playing pieces 6, while they closely encircle balls or rounded surface playing pieces 6 at the same time. Thereby, when rotating device 4 is moved from one ball or rounded surface playing piece 6 over another, openings 3 can be easily fitted around balls or rounded surface playing pieces 6, while during rotation, rotating device 4 will safely moving away balls or rounded surface playing pieces 6 and the balls will not bob in openings 3.

[0023] The diameter of hole 5 is such that edge 7 and ball or rounded surface playing piece 6 can cooperate as a ball support. In order to achieve this, the diameter of hole 5 is less than the diameter of balls or rounded surface playing pieces 6. Naturally, the diameter ratios of other implemented embodiments may significantly differ from the above ratios, for example, when edge 7 is not rounded, but, for example, chamfered. In the same way, the features of a rotating device implemented in a slightly altered way may expediently be different from those of the described embodiment within the scope of the claimed invention; especially with regard to that rotating device 4 can be realized without hole 5.

[0024] The embodiment of rotating device 4 shown and described of above works as follows. To translocate ball or rounded surface playing piece 62, rotating device 4 is placed onto ball or rounded surface playing piece 61. Thereby, rounded edge 7 will seat on ball or rounded surface playing piece 61 and they act together like a ball-joint, providing a rotation axle for rotating device 4. Ball or rounded surface playing piece 62 to be rotated in field 21 is received by opening 3. Then rotating device 4 is turned by means of rotating knob 9 around ball or rounded surface playing piece 61, transposing thereby ball or rounded surface playing piece 62 in field 22.

[0025] At the displayed embodiment, only one ball or rounded surface playing piece 62 has been replaced, however, rotating device 4 can simultaneously relocate even more balls or rounded surface playing pieces 6 easily, since rotating device 4 can be easily fitted over more

than one rotated ball(s) or rounded surface playing piece (s) 62 and rotating axis ball or rounded surface playing piece 61 as well.

[0026] It is thus clearly shown, that balls or rounded surface playing pieces 6 in operation work both as relocated playing pieces of the game and as rotation axis for the rotating device 4. Consequently, it is not necessary to provide a separate rotation shaft for rotating device 4 and boreholes in the board for the shaft.

[0027] The displacement place of balls or rounded surface playing pieces 6 and goal of the displacement always depend on the rule of the game, especially, on the type of the game played on game board 1. The shown and described rotating device may be applied — depending also on the configuration of game board 1 — for playing, for example, draughts, go, gomoku and like strategic games. However, puzzles to be solved, scrabble, word-building, picture-building, skill-games or any mixture thereof may also be played by the rotating device of the invention. According to the type and rules of the game played, game board 1, fields 2, balls or rounded surface playing pieces 6 and even rotating device 4 are to be provided with distinguishing marks and signs of colours, pictures, graphics, numbers and the likes.

[0028] A gomoku game may be played as follows. There are two players, therefore, two initial sets of balls or rounded surface playing pieces 6 of different colour are placed in fields 2 of game board 1. The same plurality of balls or rounded surface playing pieces 6 belongs to both players. The initial position of balls or rounded surface playing pieces 6 is such that equal initial conditions are provided for each player to achieve the goal of the game. The players move balls or rounded surface playing pieces 6 from field 2 to field 2 by rotation device 4, while they make rotations in turn. Rules can be specified also for the manner of carrying out a rotation. The players hand rotating device 4 to the other player after each rotation. The goal of the game is that five or, depending on the level of difficulty, six, seven, etc. balls or rounded surface playing pieces 6 of the same colour be placed in five, six, seven, etc. neighbouring fields 2 so that the neighbouring fields 2 have to be in optional direction. The winner is the player who is the first to place five balls or rounded surface playing pieces 6 of his or her colour next to each other in line.

[0029] The rotating device of the invention has the advantages that it can be supported by a ball or rounded surface playing piece, it is easy to handle, more than one balls or rounded surface playing pieces can easily be rotated at the same time, the game board contains only fields; a wide variety of game boards with simple to complex patterns may be accompanied with the rotating device, while the appearance of the game board gets simpler and its fragmented character is eliminated. At optional computerized applications, the displayed picture is simpler; as an impact of the new rotating device, new games and rules may be inspired.

[0030] The invention has been described above by way of embodiments. Several other variants of the invention, however, are conceivable. Other obvious variants are considered to be comprised by the invention as defined by the appended claims.

List of the Reference Signs:

[0031]

1	game board
2	field
21	field
22	field
3	opening
4	rotating device
5	hole
6	ball or rounded surface playing piece
61	ball or rounded surface playing piece
62	ball or rounded surface playing piece
7	(rounded) edge
8	plate
9	rotating knob

Claims

1. Rotating device for board games, which board game has fields (2) on the surface of its game board (1), fields (2) form pattern and some of fields (2) contain balls or rounded surface playing pieces (6) to be relocated from one field (2) to another (2) ***characterized in that*** rotating device (4) has a plate (8) covering a plurality of fields (4), plate (8) contains openings (3) arranged in a pattern corresponding with the pattern of fields (2), openings (3) have a dimension letting balls or rounded surface playing pieces (6) pass through, and the bottom surface of at least one of the openings (3) matches and sits on the surface of ball or rounded surface playing piece (6).

2. The rotating device according to claim 1 ***characterized in that*** a rotating knob (9) is fastened onto plate (8) above at least one of openings (3), where the bottom surface of the plate (8) and the rotating knob (9) have a rounding of a radius equal to or greater than the radius of the balls or rounded surface playing pieces (6).

3. The rotating device according to claim 2 ***characterized in that*** rotating knob (9) comprises a hole.

4. The rotating device according to any one of claims 1-3 ***characterized in that*** plate (8) is a round disk.

5. The rotating device according to claim 4 ***characterized in that*** one of openings (3) is situated in the centre of the disk, while the rest of openings (3) are placed around this central opening (3) in correspond-

ence with the pattern of fields (2).

6. The rotating device according to any one of claims 1 to 5 ***characterized in that*** each field (2) is circular and is formed as a concave surface recess, e.g. spherical segment or spherical cap in the surface of board game (1).

7. The rotating device according to any one of claims 1 to 5 ***characterized in that*** each field (2) has a shape corresponding to the characteristic shape of rounded surface playing piece (6) and the surface of game board (1) is plane.

8. The rotating device according to any one of claims 1 to 7 ***characterized in that*** the pattern of fields (2) is such that fields (2) form columns and fields (2) of a column are spaced by the same unit distance, fields (2) of the neighbouring columns are shifted by half a unit distance in a way that six fields (2) around a field (2) are in the vertices of a regular hexagon.

9. The rotating device according to any one of claims 1 to 7 ***characterized in that*** the pattern of fields (2) is such that fields (2) form columns and fields (2) of a column are spaced by the same unit distance, fields (2) of the neighbouring columns are shifted by a unit distance in a way that four fields (2) around a field (2) are in the vertices of a regular quadrangle.

10. The rotating device according to any one of claims 1 to 9 ***characterized in that*** openings (3) around central opening (3) are in the vertices of a regular hexagon or a regular quadrangle.

11. The rotating device according to any one of claims 1 to 9 ***characterized in that*** game board (1), fields (2), balls or rounded surface playing pieces (6) and rotating device (4) are provided with signs of colours and/or pictures.

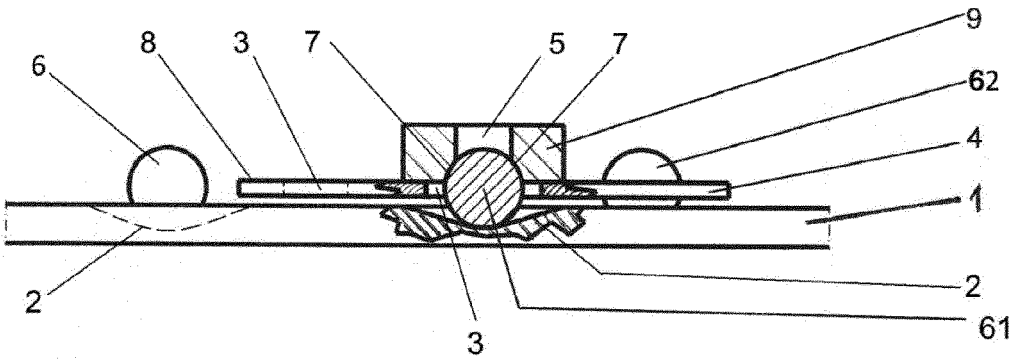

Figure 1

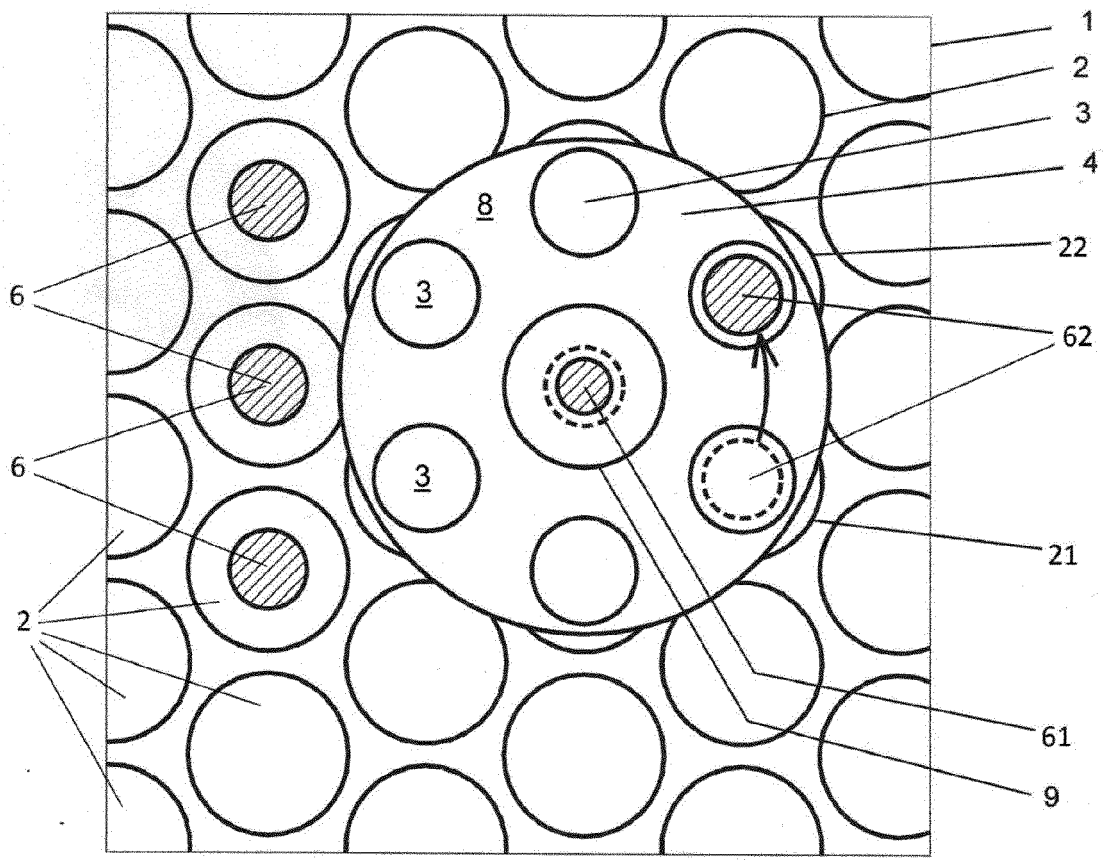

Figure 2

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EUROPEAN SEARCH REPORT

Application Number
EP 12 16 9404

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A,D	JP 2007 160063 A (WAKUI TOMOHIRO) 28 June 2007 (2007-06-28) * figures *	1-11	INV. A63F3/00
A,D	JP 2007 160064 A (WAKUI TOMOHIRO) 28 June 2007 (2007-06-28) * figures *	1-11	
A	FR 2 848 467 A1 (FERMANIAN PASCALE GINIE [FR]) 18 June 2004 (2004-06-18) * the whole document *	1-11	

TECHNICAL FIELDS SEARCHED (IPC)

A63F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	19 September 2012	Turmo, Robert

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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1

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 12 16 9404

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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19-09-2012

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 2007160063 A	28-06-2007	NONE	
JP 2007160064 A	28-06-2007	NONE	
FR 2848467 A1	18-06-2004	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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- GB 2203659 A **[0004]**
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- US 4348027 A **[0006]**
- JP 2007160063 A **[0008]**
- JP 2007160064 A **[0008]**