

US 20070114719A1

(19) United States

(12) **Patent Application Publication** (10) **Pub. No.: US 2007/0114719 A1** Floden (43) **Pub. Date:** May 24, 2007

(54) BOARD GAME ASSEMBLY AND PLAYING TECHNIQUES

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(21) Appl. No.: 11/284,645

(22) Filed: Nov. 22, 2005

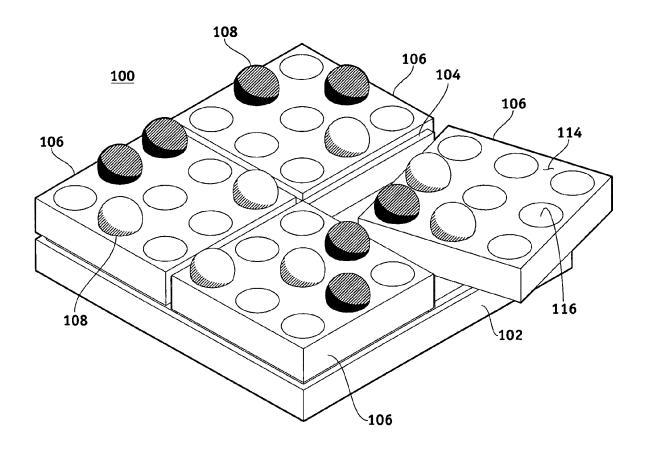
Publication Classification

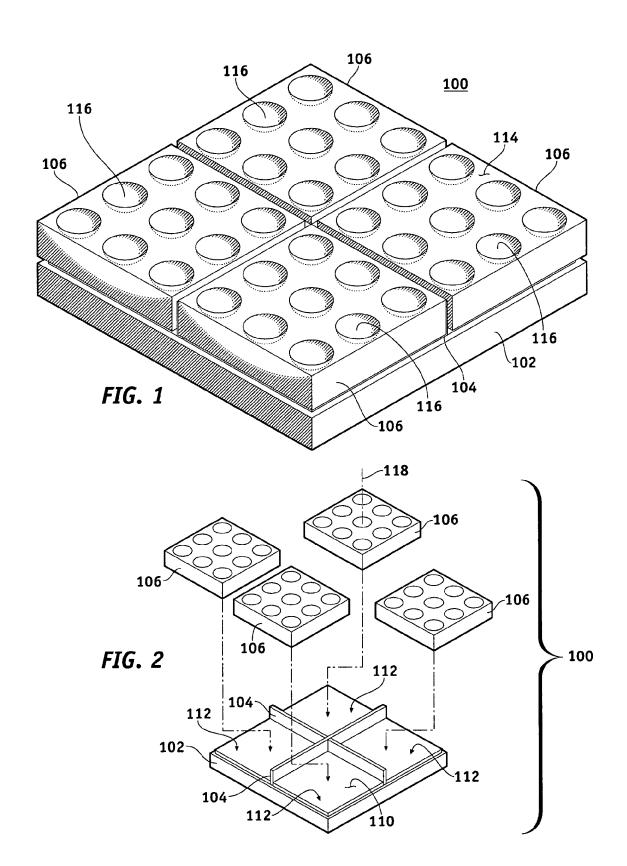
(51) **Int. Cl.**

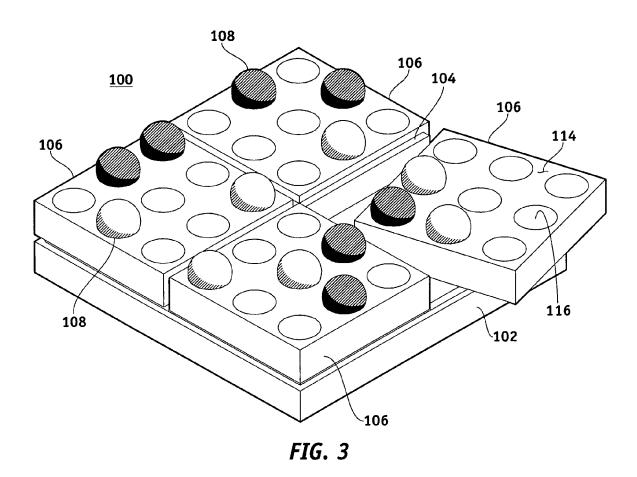
A63F 3/02 (2006.01)

(57) ABSTRACT

A board game assembly and related game playing method is described herein. The board game assembly includes a base, a dividing wall structure extending from the base, and a plurality of removable polygonal blocks, each having a grid of holders for playing pieces. The base and dividing wall structure retain the blocks in an adjacent configuration such that the blocks combine to form an overall playing surface having an overall grid of holders. The objective of the game is to be the first to create a pattern of five playing pieces in a row. Players alternate turns, and each turn is initiated by moving a playing piece into an unoccupied holder on any of the blocks. The turn is completed by rotating any one of the blocks 90 degrees in a clockwise or counterclockwise direction. The dynamic nature of the board game assembly makes the game interesting, challenging, and difficult to master.







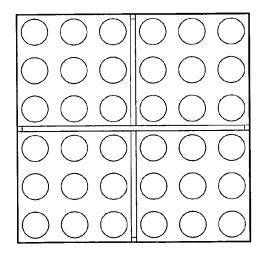
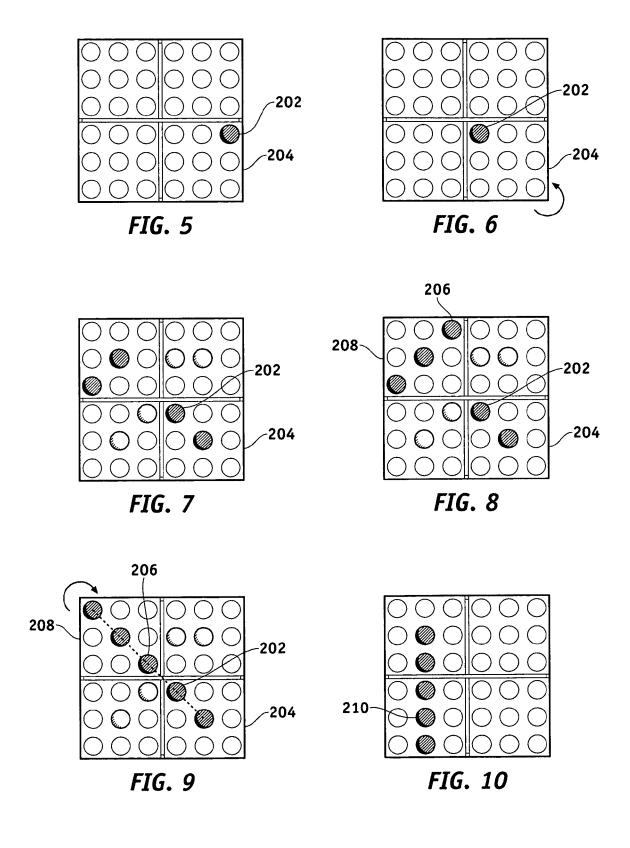


FIG. 4



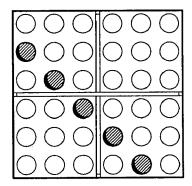


FIG. 11

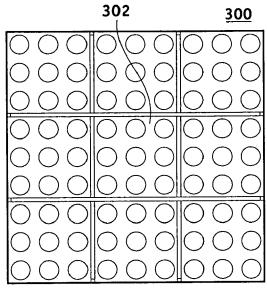


FIG. 12

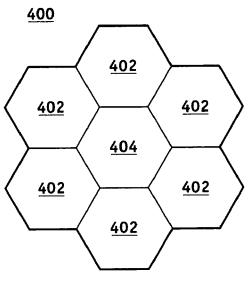


FIG. 13

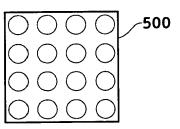


FIG. 14

BOARD GAME ASSEMBLY AND PLAYING TECHNIQUES

TECHNICAL FIELD

[0001] The present invention relates generally to board games. More particularly, the present invention relates to a board game assembly that facilitates play of a strategic board game.

BACKGROUND

[0002] The prior art is replete with board games in which the objective is to create a specific pattern of consecutive playing pieces. Such games are derivative of the traditional tic-tac-toe game, in which each player attempts to string three Xs or three Os in a row before the other player. Modern and more complex variations of such games include CON-NECT FOUR, which features a vertical rack that holds playing pieces as they are inserted one by one by the players, and three-dimensional variations of tic-tac-toe. These types of games, while interesting at first, can become boring and repetitive due to their simplicity and the limited amount of strategic options available to the players.

[0003] A board game can be extremely successful if it is simple to learn, is suitable for players of all skill levels, requires strategic thinking, and game playing does not become repetitive or redundant. These types of successful games include OTHELLO, which features a simple checkerboard layout and playing chips having one white side and one black side. This game has been very popular since its introduction many years ago, and its popularity is due to the factors identified above.

[0004] Accordingly, it is desirable to have a simple, easy to learn, yet interesting board game that involves a measure of strategic thinking. Furthermore, other desirable features and characteristics of the present invention will become apparent from the subsequent detailed description and the appended claims, taken in conjunction with the accompanying drawings and the foregoing technical field and background.

BRIEF SUMMARY

[0005] A board game assembly and related game playing method is described herein. The board game is a simple, elegant, and interesting variation of existing board games in which the objective is to string a consecutive number of like colored playing pieces together. The board game includes movable (rotating) blocks that hold the playing pieces, which results in a dynamic playing field that continually changes during game play.

[0006] The above and other aspects of the invention may be carried out in one form by a board game assembly. The board game assembly includes a base having a support surface, a dividing wall structure coupled to the base and extending from the support surface, the dividing wall structure being configured to divide the support surface into N retaining areas, and N polygonal blocks, each shaped to fit within the retaining areas, and each having a playing surface configured to receive up to M playing pieces.

[0007] The above and other aspects of the invention may also be carried out in one form by a method of playing a game on a board game assembly having a plurality of

polygonal blocks that combine to form an overall playing surface when the polygonal blocks are placed into respective playing areas adjacent to one another, where each of the polygonal blocks includes a plurality of holders for playing pieces. The game playing method involves: (a) a first player placing one of a first group of playing pieces into any empty holder on one of the polygonal blocks; (b) the first player rotating one of the polygonal blocks to change its orientation within its respective playing area; (c) a second player placing one of a second group of playing pieces into any empty holder on one of the polygonal blocks; (d) the second player rotating one of the polygonal blocks to change its orientation within its respective playing area; and (e) repeating steps (a) through (d) as necessary until either n-in-a-row of the first group of playing pieces results, n-in-a-row of the second group of playing pieces results, or playing pieces occupy all of the holders, where n is an integer greater than two.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] A more complete understanding of the present invention may be derived by referring to the detailed description and claims when considered in conjunction with the following figures, wherein like reference numbers refer to similar elements throughout the figures.

[0009] FIG. 1 is a perspective view of a board game assembly configured in accordance with an example embodiment of the invention;

[0010] FIG. 2 is an exploded perspective view of the board game assembly;

[0011] FIG. 3 is a perspective view of the board game assembly, with playing pieces and one block shifted from its normal orientation;

[0012] FIGS. 4-9 are top views of the board game assembly at different stages during an example game between two players;

[0013] FIG. 10 is a top view of the board game assembly with an example winning pattern depicted;

[0014] FIG. 11 is a top view of the board game assembly with another example winning pattern depicted;

[0015] FIG. 12 is a top view of a board game assembly configured in accordance with an alternate embodiment of the invention;

[0016] FIG. 13 is a top view of a board game assembly configured in accordance with another alternate embodiment of the invention; and

[0017] FIG. 14 is a top view of a square block suitable for use with a board game assembly configured in accordance with an alternate embodiment of the invention.

DETAILED DESCRIPTION

[0018] The following detailed description is merely illustrative in nature and is not intended to limit the invention or the application and uses of the invention. Furthermore, there is no intention to be bound by any expressed or implied theory presented in the preceding technical field, background, brief summary or the following detailed description.

[0019] FIG. 1 is a perspective view of a board game assembly 100 configured in accordance with an example embodiment of the invention and FIG. 2 is an exploded perspective view of board game assembly 100. FIG. 3 is another perspective view of board game assembly 100; FIG. 3 depicts example playing pieces and one block shifted from its normal orientation. Board game assembly 100 generally includes a base 102, a dividing wall structure 104 coupled to base 102, a number (N) of polygonal blocks 106, and suitably colored, marked, shaped, or otherwise distinguishable playing pieces 108 (shown in FIG. 3).

[0020] Base 102, which may be formed from any suitable material (such as wood, metal, plastic, glass, or the like), includes a support surface 110 that is configured to support polygonal blocks 106 during play. In the practical embodiment, support surface 110 is smooth, flat, and planar as depicted in FIG. 2. Dividing wall structure 104 extends from support surface 110 such that it divides support surface into a number (N) of retaining areas 112. Dividing wall structure 104 may be formed from any suitable material (such as wood, metal, plastic, glass, or the like). In this example embodiment, dividing wall structure 104 is orthogonal to support surface 110, and dividing wall structure 104 extends to a height that is slightly below the playing surface 114 of polygonal blocks 106 (see FIG. 1). The height of dividing wall structure 104 relative to polygonal blocks 106 makes it easy for the players to grasp, remove, and replace polygonal blocks 106 as described in more detail herein. The height of dividing wall structure 104 relative to polygonal blocks 106 also creates a pleasing aesthetic appearance for board game assembly 100.

[0021] Each polygonal block 106 is shaped to fit within retaining areas 112. In the practical embodiment, each polygonal block 106 is substantially identical, and each polygonal block 106 is configured to mate with upper surface 110 and the respective sidewalls of dividing wall structure 104 (see FIG. 1). The close fit between polygonal blocks 106, base 102, and dividing wall structure 104 results in a clean and symmetrical appearance for board game assembly 100. Moreover, when properly placed in retaining areas 112, polygonal blocks 106 become adjacent to one another and combine to form an overall playing surface for board game assembly 100.

[0022] Each polygonal block 106 has a playing surface 114 that is configured to receive up to a designated number (M) of playing pieces 108. In the illustrated embodiment, each playing surface 114 includes M holders 116 configured to hold playing pieces 108. In practice, each holder 116 may be realized as a depression formed in base 102. In alternate embodiments, each holder 116 may be realized as any suitable feature, component, or element that serves to temporarily secure, retain, support, or hold a playing piece 108 in the designated location on polygonal block 106. In other embodiments, playing surface 114 may simply be patterned with indicia of the desired locations for playing pieces 108.

[0023] As suggested by FIG. 2, and as shown in FIG. 3, each polygonal block 106 is removable from its respective retaining area 112 (in alternate embodiments, at least one polygonal block 106 may be attached, in a fixed position, to support surface 110 and/or to dividing wall structure 104). In the example embodiment, each polygonal block 106 is loose and completely free to move relative to base 102. In other

words, polygonal blocks 106 need not be attached, secured, adhered to, or otherwise maintained on support surface 110. The removable nature of polygonal blocks 106 facilitates game play as described below, i.e., the players can easily remove, rotate, and replace polygonal blocks 106 in the manner dictated by the game rules. Notably, each polygonal block 106 has rotational symmetry about an axis 118 orthogonal to playing surface 114 (axis 118 is shown in FIG. 2). As used herein, "rotational symmetry" means that the polygonal block 106 can be rotated a certain amount while maintaining the topology and layout orientation of its holders 116. In practice, the amount of rotation needed to achieve such symmetry will depend upon the particular shape of polygonal blocks 106.

[0024] Generally, each polygonal block 106 has a number (S) of equal-length sides, and each side corresponds to a like number of playing pieces 108. In this regard, the example embodiment utilizes square blocks having four equal-length sides, and each side corresponds to three playing pieces 108. In other words, each side accommodates up to three playing pieces 108. In preferred embodiments, each polygonal block 106 is square shaped, and the playing surface 114 of each polygonal block 106 represents an m-by-m grid for playing pieces 108, where $m=\sqrt{M}$. The rotational symmetry of a square block can be easily conceptualized: each square block can be removed from its respective retaining area 112, rotated 90 degrees, 180 degrees, or 270 degrees clockwise or counterclockwise and replaced into its respective retaining area 112. In this example embodiment, N=4 (i.e., there are four polygonal blocks 106 and four retaining areas 112), M=9 (i.e., each polygonal block 106 can hold up to nine playing pieces 108), and m=3 (i.e., each polygonal block 106 represents a three-by-three grid for playing pieces 108.

[0025] The example embodiment shown in FIGS. 1-3 is suitable for two-player use. Accordingly, playing pieces 108 include a plurality of first playing pieces (for one of the players) and a plurality of second playing pieces (for the other player), where the two groups of playing pieces are distinguishable from one another. For example, one group of playing pieces 108 may be realized as black marbles, and the other group of playing pieces 108 may be realized as white marbles. Alternatively, different sizes, shapes, textures, and/or other distinguishing characteristics may be employed to ensure that the different playing pieces 108 can be easily assigned to the players. Furthermore, more than two different types of playing pieces 108 can be employed as necessary for more than two players.

[0026] Board game assembly 100 is suitably configured to facilitate game play by two players. Briefly, the object of the game is to establish a pattern of five-in-a-row before your opponent does the same. The playing rules are very simple and easy to learn: the first player places one of his playing pieces into an available holder, then rotates a square block to complete his turn. The players alternate in this manner until one of them creates five-in-a-row. FIGS. 4-9 are top views of the board game assembly at different stages during an example game between two players. A two-player game will be described in more detail with reference to FIGS. 4-9, where one player uses dark colored marbles for playing pieces and the other player uses light colored marbles for playing pieces. Of course, actual game play, strategies, and player moves will vary due to the dynamic nature of the game, and may vary depending upon the particular configuration of the board game assembly in use (e.g., the number of polygonal blocks, the number of holders on each polygonal block, the shape of each polygonal block, etc.).

[0027] The game begins with an empty playing grid, as shown in FIG. 4. Accordingly, the players may need to initialize the board game assembly by emptying all of the holders on the blocks. The top view of FIG. 4 illustrates the manner in which the four square blocks are positioned adjacent to one another to form the overall playing surface (a nine-by-nine grid of holders) for the game board assembly. The two players determine who will move first using any suitable technique, then the first player places one of his playing pieces into any empty holder on any one of the square blocks (in this example, the first player is using dark colored playing pieces and the second player is using light colored playing pieces). FIG. 5 depicts the placement of a dark playing piece 202 into a holder on the lower right block 204. In the example embodiment, once a playing piece is placed into a holder, it remains in that holder for the duration of the game.

[0028] After the first player places dark playing piece 202 into a holder, he then rotates any one of the four blocks to change its orientation within its respective retaining area. According to the game rules in this example embodiment, block rotation must be either 90 degrees clockwise or 90 degrees counterclockwise relative to its original orientation. In this regard, FIG. 6 depicts the counterclockwise rotation of block 204. Notably, rotation of block 204 results in movement of dark playing piece 202 on the overall playing surface. In practice, the first player can simply lift and remove block 204, rotate it, and return it to its respective retaining area to reestablish the overall playing surface as shown in FIG. 6.

[0029] During the early stages of the game, a player may choose to rotate an empty block or a block having a pattern of playing pieces that is "immune" to any 90 degree rotation. For example, rotation of a block having only one playing piece that is located in the center holder will not result in any change of the overall playing surface pattern. In such situations, the player may either rotate an immune block or simply announce his intent to rotate an immune block without physically doing so. Eventually, enough playing pieces will occupy all of the blocks such that no immune blocks remain.

[0030] The first player's turn is complete after he rotates one of the blocks. Thereafter, the second player places a light colored playing piece into any available holder on one of the blocks, then rotates one of the four blocks to change its orientation as described previously. The players alternate turns in this manner until either five-in-a-row of dark playing pieces results, five-in-a-row of light playing pieces results, or playing pieces occupy all of the holders. Since five-in-a-row is the objective of the game, the first player is declared a winner when five-in-a-row of dark playing pieces occurs before five-in-a-row of light playing pieces. In contrast, the second player is declared a winner when five-ina-row of light playing pieces occurs before five-in-a-row of dark playing pieces. In alternate embodiments having different overall playing surface layouts, the object of the game will be to establish n-in-a-row of the same playing pieces, where n is any integer greater than two.

[0031] FIGS. 7-9 depict a winning move sequence that results in a win by the first player. FIG. 7 shows the overall

playing surface layout after the second player has completed his turn. FIG. **8** shows the overall playing surface layout following the first player's placement of a dark playing piece **206** into a holder on the upper left block **208**. FIG. **9** shows the overall playing surface layout following rotation of block **208** by 90 degrees in the clockwise direction. Rotation of block **208** in this manner results in a win by the first player because the overall playing surface layout now includes a pattern of five dark playing pieces in a row identified by the dashed line in FIG. **9**).

[0032] FIG. 10 and FIG. 11 depict other winning patterns that may be achieved during game play. Using this example game board assembly, a winning pattern of five-in-a-row will span at least two, and possibly three, blocks. A winning pattern may be horizontal, vertical, or diagonal. As described above in connection with FIGS. 7-9, a winner is declared when the rotation of a block results in five-in-a-row for that player. According to the rules of this particular game, a winner is also declared when the mere placement of a playing piece results in five-in-a-row for that player. For example, assume that the dark playing piece 210 in FIG. 10 has not yet been placed, and that the respective holder was left unoccupied at the completion of the previous turn by the second player. The first player is declared a winner once he moves dark playing piece 210 into the position shown in FIG. 10. In other words, the first player need not rotate a block in this situation.

[0033] A game may also result in a tie according to the rules of the example game described herein. In this regard, a tie is declared when playing pieces occupy all of the holders and neither player has made five-in-a-row. This may occur when both players are defensive-minded. Moreover, a tie may be declared when rotation of one of the blocks creates five-in-a-row of the dark playing pieces and five-in-a-row of the light playing pieces.

[0034] As mentioned previously, the specific topology and layout of a board game assembly according to the invention need not be configured as shown in FIGS. 1-11. For example, FIG. 12 is a top view of a board game assembly 300 configured in accordance with an alternate embodiment of the invention. Board game assembly 300 includes nine, rather than four, square blocks. This configuration may be suitable for use with more than two players and/or for use with advanced games that require more than five-in-a-row to win. In one practical embodiment, at least one block of board game assembly 300 is in a fixed position, i.e., it cannot be rotated. For example, a center block 302 may be fixed while all remaining blocks are free to rotate.

[0035] FIG. 13 is a top view of a board game assembly 400 configured in accordance with another alternate embodiment of the invention. Board game assembly 400 includes hexagonal blocks 402 rather than square blocks. A center block 404 may, but need not be, fixed to prevent rotation thereof. Although not shown in FIG. 13, blocks 402 and block 404 preferably have an identical layout of holders for a like number of playing pieces.

[0036] FIG. 14 is a top view of a square block 500 suitable for use with a board game assembly configured in accordance with an alternate embodiment of the invention. Square block 500 includes a four-by-four grid of 16 holders rather than a three-by-three grid of nine holders. As described above, such a board game assembly may use any number of

blocks 500 to form the overall playing surface. A simple example embodiment may utilize four blocks 500 arranged to form an overall square layout (an eight-by-eight grid of holders).

[0037] In summary, a board game assembly and game playing method according to the invention is simple and stylistic, yet very intelligent and deep with strategy and logic. The dynamic nature of the playing field makes the game challenging and interesting for all skill levels.

[0038] While at least one example embodiment has been presented in the foregoing detailed description, it should be appreciated that a vast number of variations exist. Moreover, the game methodology described above may also be implemented in a software version suitable for a video game, a portable computing device, a cellular telephone, or the like. It should also be appreciated that the example embodiment or embodiments described herein are not intended to limit the scope, applicability, or configuration of the invention in any way. Rather, the foregoing detailed description will provide those skilled in the art with a convenient road map for implementing the described embodiment or embodiments. It should be understood that various changes can be made in the function and arrangement of elements without departing from the scope of the invention as set forth in the appended claims and the legal equivalents thereof.

What is claimed is:

- 1. A method of playing a game on a board game assembly comprising a base having a support surface, a dividing wall structure configured to divide said support surface into four square retaining areas, and four square blocks shaped to fit within the retaining areas, each of the square blocks having a three-by-three grid of holders for playing pieces, said method comprising:
 - (a) a first player placing one of a first group of playing pieces into any empty holder on one of the square blocks;
 - (b) thereafter, said first player rotating one of the square blocks to change its orientation within its respective retaining area;
 - (c) thereafter, a second player placing one of a second group of playing pieces into any empty holder on one of the square blocks;
 - (d) thereafter, said second player rotating one of the square blocks to change its orientation within its respective retaining area; and
 - (e) repeating steps (a) through (d) as necessary until either five-in-a-row of said first group of playing pieces results, five-in-a-row of said second group of playing pieces results, or playing pieces occupy all of the holders.
- **2**. A method according to claim 1, further comprising initializing the board game assembly prior to step (a) by emptying all of the holders on the square blocks.
 - 3. A method according to claim 1, wherein:
 - said step (b) comprises said first player rotating one of the square blocks 90 degrees clockwise or counterclockwise relative to its original orientation; and

- said step (d) comprises said second player rotating one of the square blocks 90 degrees clockwise or counterclockwise relative to its original orientation.
- **4**. A method according to claim 1, further comprising declaring said first player a winner when any iteration of step (a) results in five-in-a-row of said first group of playing pieces.
- **5**. A method according to claim 1, further comprising declaring said second player a winner when any iteration of step (c) results in five-in-a-row of said second group of playing pieces.
- **6**. A method according to claim 1, further comprising declaring said first player a winner when any iteration of step (b) creates five-in-a-row of said first group of playing pieces.
- 7. A method according to claim 1, further comprising declaring said second player a winner when any iteration of step (d) creates five-in-a-row of said second group of playing pieces.
- **8**. A method according to claim 1, further comprising declaring a tie when playing pieces occupy all of the holders.
- **9.** A method according to claim 1, further comprising declaring a tie when rotation of one of the square blocks creates five-in-a-row of said first group of playing pieces and five-in-a-row of said second group of playing pieces.
- 10. A method of playing a game on a board game assembly comprising a plurality of polygonal blocks that combine to form an overall playing surface when the polygonal blocks are placed into respective playing areas adjacent to one another, each of the polygonal blocks comprising a plurality of holders for playing pieces, said method comprising:
 - (a) a first player placing one of a first group of playing pieces into any empty holder on one of the polygonal blocks;
 - (b) thereafter, said first player rotating one of the polygonal blocks to change its orientation within its respective playing area;
 - (c) thereafter, a second player placing one of a second group of playing pieces into any empty holder on one of the polygonal blocks;
 - (d) thereafter, said second player rotating one of the polygonal blocks to change its orientation within its respective playing area; and
 - (e) repeating steps (a) through (d) as necessary until either n-in-a-row of said first group of playing pieces results, n-in-a-row of said second group of playing pieces results, or playing pieces occupy all of the holders, where n is an integer greater than two.
 - 11. A method according to claim 10, wherein:
 - the board game assembly includes four square blocks, each having a three-by-three grid of holders for playing pieces; and
 - said step (e) is performed until either five-in-a-row of said first group of playing pieces results, five-in-a-row of said second group of playing pieces results, or playing pieces occupy all of the holders.
- 12. A method according to claim 10, further comprising initializing the board game assembly prior to step (a) by emptying all of the holders on the polygonal blocks.

- 13. A method according to claim 10, further comprising declaring said first player a winner when any iteration of step (a) results in n-in-a-row of said first group of playing pieces.
- **14.** A method according to claim 10, further comprising declaring said second player a winner when any iteration of step (c) results in n-in-a-row of said second group of playing pieces.
- **15**. A method according to claim 10, further comprising declaring said first player a winner when any iteration of step (b) creates n-in-a-row of said first group of playing pieces.
- **16**. A method according to claim 10, further comprising declaring said second player a winner when any iteration of step (d) creates n-in-a-row of said second group of playing pieces.
- 17. A method according to claim 10, further comprising declaring a tie when playing pieces occupy all of the holders.
- 18. A method according to claim 10, further comprising declaring a tie when rotation of one of the polygonal blocks creates n-in-a-row of said first group of playing pieces and n-in-a-row of said second group of playing pieces.

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