United States Patent

Gribbon, Jr.

[15] **3,656,756**

[45] ***Apr. 18, 1972**

[54] THREE-DIMENSIONAL CHESS GAME

[72] Inventor: **Edwin F. Gribbon, Jr.**, 457 Central Avenue, Cedarhurst, N.Y. 11516

[*] Notice: The portion of the term of this patent subsequent to Nov. 10, 1984, has been disclaimed.

[22] Filed: **Sept. 18, 1969**

[21] Appl. No.: **859,023**

[52] **U.S. Cl.** ..... **273/131 B**

[51] **Int. Cl.** **A63f 3/02**

[58] **Field of Search** ..... 273/130 R, 130 A, 130 AB, 130 B, 273/130 D, 131 R, 131 A, 131 B, 131 BA, 131 BB, 136 R, 136 H

[56] **References Cited**

UNITED STATES PATENTS

D200,109	1/1965	Hirsch	273/131 B UX
D219,155	11/1970	Gribbon, Jr.	D34/5
2,313,473	3/1943	Heacock et al.	273/130 B
2,880,001	3/1959	Rosenzweig	273/130 B
3,399,895	9/1968	Beach	273/131 B

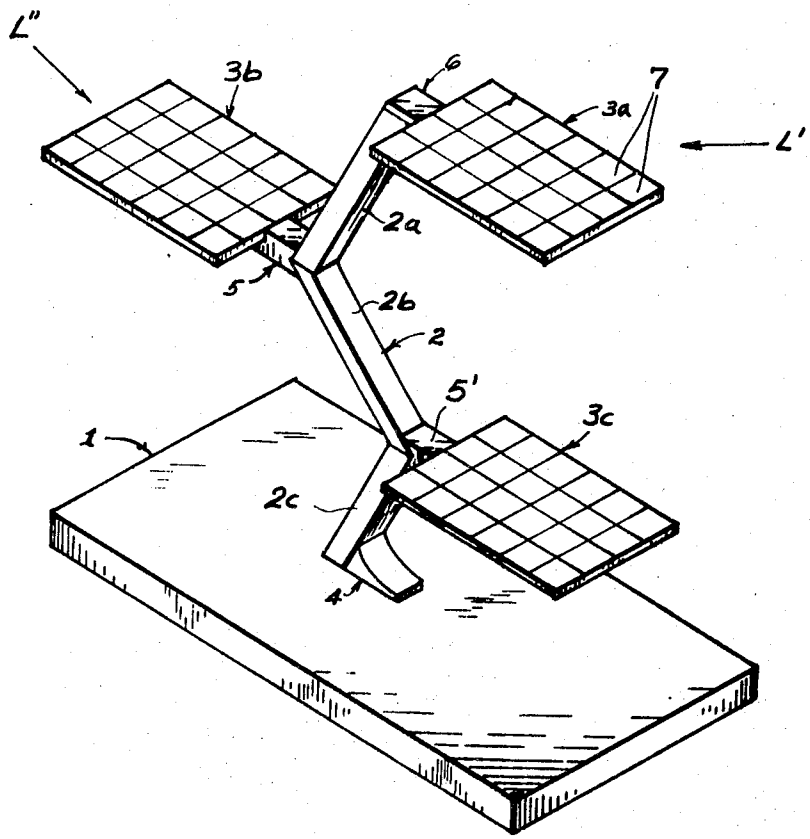
Primary Examiner—Anton O. Oechsle

Attorney—Karl F. Ross

[57] **ABSTRACT**

Two sets of conventional chess men (eight pawns and eight pieces per side) confront each other on three vertically spaced boards of four by six squares each, with the middle board offset from the substantially aligned top and bottom boards to provide three freely accessible playing surfaces on which the men may move longitudinally, laterally or vertically (from one board to another) according to predetermined rules.

7 Claims, 7 Drawing Figures



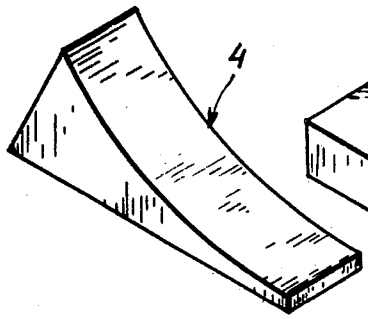


FIG.2

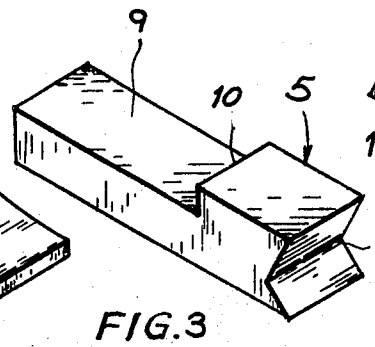


FIG.3

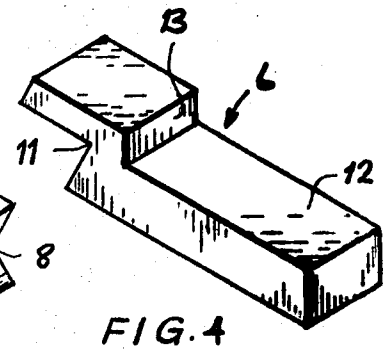


FIG.4

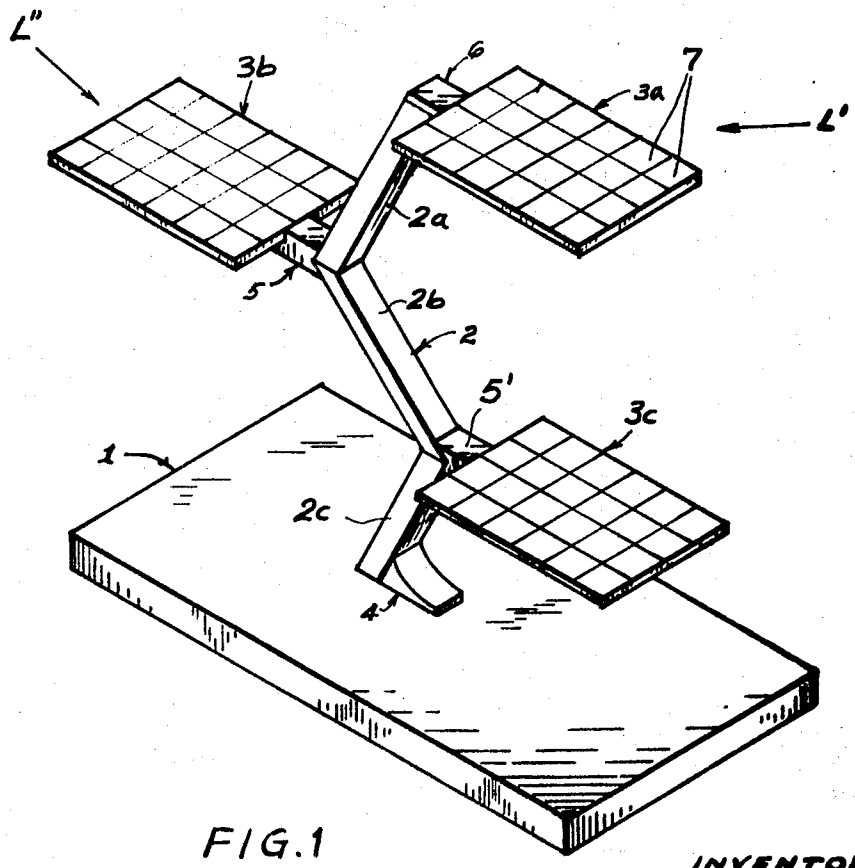


FIG.1

INVENTOR:
Edwin F. Gibbon, Jr.

By: Karl G. Ross
Attorney

B	K	N	R
	P	P	
	P	P	
P	N	Q	P

3a

FIG. 5

FIG. 6

	B	R	
	P	P	
	P	P	
	R	B	

3b

P	Q	N	P
	P	P	
	P	P	
R	N	K	B

3c

FIG. 7

Edwin F. Gribbon Jr
INVENTOR.

BY Karl F. Ross

Attorney

THREE-DIMENSIONAL CHESS GAME

My present invention relates to a three-dimensional chess game.

Board games are known (e.g. as per U.S. Pat. No. 3,399,895)wherein several boards are vertically superposed, with mutual separation, to allow a movement of checker pieces or the like both across a board and from one board to another.

The general object of my present invention is to provide a more sophisticated game of this type in which pieces of different rank, as in chess, obey different laws of motion both on a board and in jumping between boards.

Another important object of this invention is to provide a compact physical arrangement in which a group of three boards are so deployed that their surfaces are freely accessible in a manner maintaining a visual correlation between corresponding squares on the several boards.

Thus, a feature of my present invention is the mounting of three vertically spaced boards on a common support by which the middle board is held offset from the top and bottom boards, the latter being substantially aligned with each other so that corresponding squares thereon are vertically superposed. The squares of the middle boards, which are arrayed in the same manner as on the other two boards, line up with corresponding squares on these other boards along downwardly slanting lines of sight so that their correlation can be easily ascertained by the players. In an advantageous arrangement, the boards are rectangular with their longitudinal edges disposed in a pair of common vertical planes to facilitate such sighting.

Thus, the preferred board in a game embodying my invention has an array of 4 × 6 squares so that the total number of squares is 72. This is somewhat greater than the number of squares (64) on a conventional chess board and easily accommodates two differently colored chess men each, i.e. eight pawns and eight pieces of five different ranks.

Because of the peculiarity of the new layout, including the reduced number of squares in a row or in a file, the moves of the men on a given board should differ from those of a conventional chess game, aside from their ability to jump from one board to another under specified conditions. Thus, I prefer to limit the extent of each move to no more than three squares even in the case of the most powerful piece, i.e. the queen. Any piece may jump one board if the square on an adjoining board corresponding to the terminal square of its move on its own board happens to be unoccupied; the queen may also be allowed to jump two boards (from top to bottom or vice versa) under similar conditions and, in so doing, to capture an enemy piece on the second board. Provision may further be made for the displacement, onto an adjoining square, of a friendly piece occupying a square onto which the king or the queen are otherwise free to jump. The laws of motion may also include instances, as in the case of the knight, where a piece landing on another board may advance to an adjoining square on that board in the same move.

The above and other features of my invention will be described in greater detail with reference to the accompanying drawing in which:

FIG. 1 is a perspective view of a board assembly for a three-dimensional chess game as per my invention;

FIGS. 2, 3 and 4 are perspective views showing, on a larger scale, certain elements of the board mounting of FIG. 1; and

FIGS. 5, 6 and 7 are diagrammatic face view of the top, middle and bottom boards, respectively, of the assembly of FIG. 1, with white and black chess men entered thereon in light and heavy characters, respectively.

In FIG. 1 I have shown the structure of a three-dimensional board game, specifically a chess game, embodying the features described above. This structure includes a base **1** and a general Z-shaped mounting arm **2** supporting three boards **3***a*, **3***b* and **3***c* at an upper level, an intermediate level and a lower level, respectively. Arm **2** consists of three angularly adjoining sections **2***a*, **2***b* and **2***c*, the latter section being rigid with a spur

4 bracing same against the base **1** in an inclined position. Three shelves **6**, **5** and **5'** extend horizontally from arm **2** to carry the top board **3***a*, the middle board **3***b* and the bottom board **3***c*, respectively. Shelf **6** extends from the top of the arm in one direction; shelf **5** extends from the upper bend of the "Z" beyond the vertex of the angle included between the sections **2***a* and **2***b*; and shelf **5'** extends from the lower bend, in the same direction as shelf **6**, beyond the vertex of the angle included between sections **2***b* and **2***c*.

As best seen in FIG. **2**, spur **4** is generally wedgeshaped with a concave upper surface. Shelf **5** has a wedgeshaped end **8**, designed to receive the junction of sections **2***a* and **2***b* of arm **2**, and a flat board-supporting surface **9** terminating at a vertical shoulder **10**. Shelf **5'** is identical with shelf **5** and has not been separately illustrated. Shelf **6**, FIG. **4**, has an undercut **11** to receive the upper end of arm section **2***a*, a flat supporting surface **12** and a vertical shoulder **13**. It will be noted from FIG. **1** that the board **3***a* rests with one of its shorter edges against this shoulder **13** and that the other two boards similarly come to rest against shoulder **10** of shelves **5** and **5'**. Although the bottom shelf **3***c* could also rest directly on base **1** or form part thereof, its illustrated elevated position above that base provides additional storage space for captured men.

Each board is divided into **24** squares **7** forming four files and six rows. Corresponding squares of boards **3***a* and **3***c* are directly superimposed, with sufficient spacing to give free access to the surface of the lower board **3***c*. Corresponding squares of boards **3***a* and **3***b* lie on a line of sight indicated by an arrow L'; an analogous line of sight for boards **3***b* and **3***c* is represented by an arrow L''.

FIGS. **5** – **7** illustrate diagrammatically the starting position of the two 16-men armies facing each other on the three boards. As shown in FIG. **5**, the top board **3***a* carries the black king (K), one black knight (N), one black rook (R) and one black bishop (B) along with two black pawns (P), as well as the white queen (Q), one white king and four white pawns. The middle board **3***b* (FIG. **6**) accommodates one bishop, one rook and two pawns of each side. The bottom board **3***c* (FIG. **7**) has the same lineup as the top board **3***a*, with the white and black pieces interchanged. All the whites are on one side and all the blacks on the opposite side of the set of boards.

According to a preferred but nonlimitative example, the laws of motion of the six types of chess men shown in FIGS. **5** – **7** are as follows:

The king (K) can move one square in any direction and may also jump one board with ensuing capture or displacement of an enemy or friendly piece on the board jumped to. The queen (Q) may move up to three squares in any direction and jump one or two boards, again with possible capture or displacement. The rook (R) can move two squares in any direction (including diagonally) but may jump one board only if the space aimed for is free. The knight (N) makes an L-shaped move to an adjoining square in the same file (or row) and thence to an adjoining square in the same row (or file). Contrary to conventional chess, the knight cannot jump over other pieces and is free to move only when the square to be traversed is unoccupied and the terminal square does not hold a friendly man (an enemy man on such square being captured, as with any other piece); the knight may also jump one board (if the corresponding square there is empty) and may then immediately move to another square in the same row or file. The bishop (B) moves in a generally Z-shaped pattern which parallels the knight' s move but includes an additional diagonally adjoining square. Thus, the bishop's move is similar to that of the knight in conventional chess but can be performed only if the intervening squares are unoccupied. The pawn (P) can move one square in a file or in a row, forward or backward. The pawn can neither queen nor capture diagonally, as in ordinary chess, but may jump to another board when the original board is cleared of all opposing men and the corresponding square on the other board is unoccupied.

The aim of the game, as in conventional chess, is to checkmate the king by inescapably threatening the capture of

that piece. This means, of course, the ability to control also the possible escape routes to the other boards which are open to the king under the rules postulated above.

I claim:

1. A three-dimensional board game comprising a top board, a middle board and a bottom board, said boards being of identical configuration with a like number of squares arrayed in columns and rows; and mounting means for supporting said top board at an upper level, said middle board at an intermediate level and said bottom board at a lower level, with said middle board offset from said top and bottom boards to expose all three board surfaces; said mounting means comprising a base, a generally Z-shaped arm rising from said base and having three angularly adjoining sections forming two vertically spaced bends horizontally offset from each other, a first shelf supporting said bottom board and extending from the lower bend of said arm beyond the vertex of the angle thereat, a second shelf supporting said intermediate board and extending from the upper bend of said arm beyond the vertex of the angle thereat in the direction opposite that of said first shelf, and a third shelf supporting said top board and extending from the top of said arm in the same direction as said first shelf.

2. A game as defined in claim 1 wherein said boards are of rectangular configuration and are disposed with their longitudinal edges in a pair of common vertical planes.

3. A game as defined in claim 2 wherein each of said board surfaces is divided into 24 squares forming four files and six rows.

4. A game as defined in claim 3, further including two differently colored sets of chess men distributed over said boards.

5. A game as defined in claim 4 wherein each of said sets consists of sixteen men including eight pawns and eight pieces of five different ranks.

6. A game as defined in claim 1 wherein said shelves are formed with vertical shoulders proximal to said arm, said boards abutting said shoulders.

7. A game as defined in claim 1 wherein said top and bottom shelves are in substantial vertical alignment with each other.

* * * * *