June 8, 1965 J. A. ODELL ETAL 3,188,089

GAME INCLUDING TILTABLE GAME BOARD AND GAME PIECES OF DIFFERENT WEIGHTS

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FIG. 1

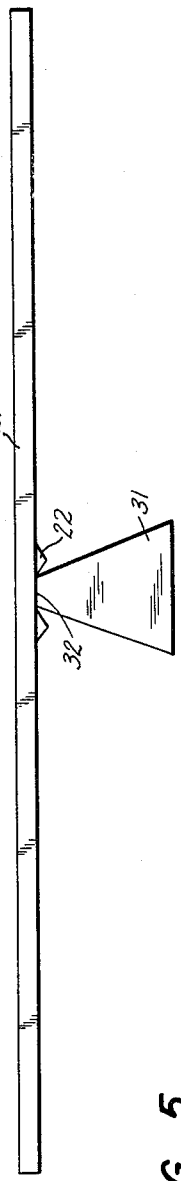


FIG. 2

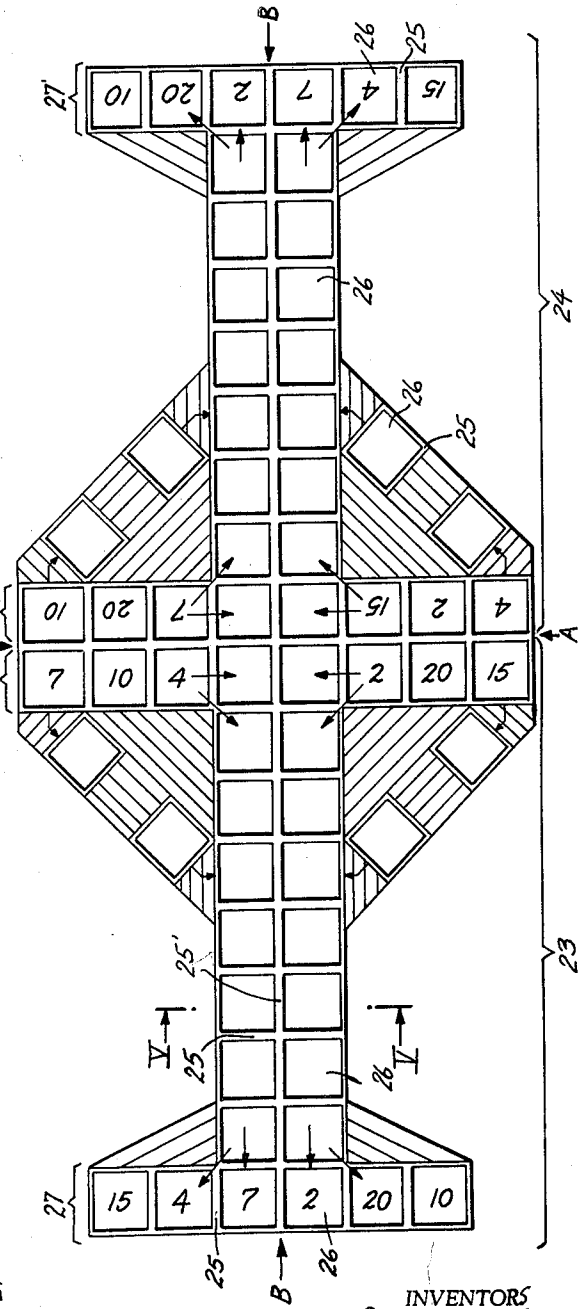
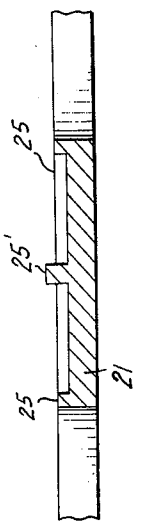


FIG. 5



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FIG. 3

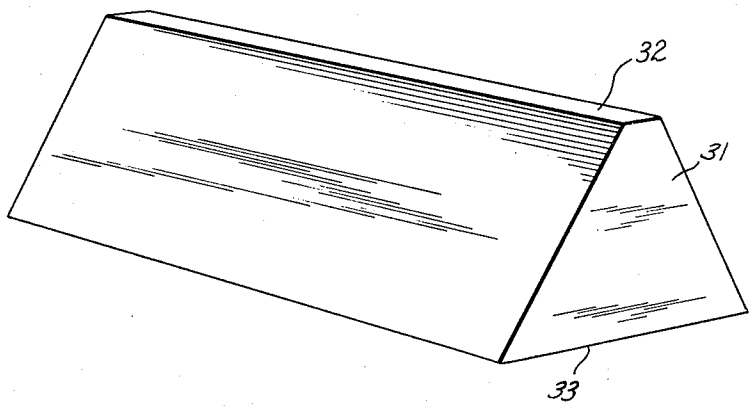
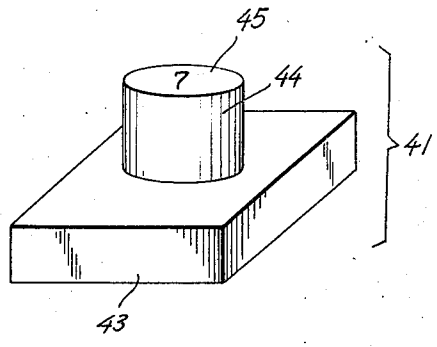


FIG. 4



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GAME INCLUDING TILTABLE GAME BOARD AND GAME PIECES OF DIFFERENT WEIGHTS

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8 Claims. (Cl. 273—131)

The present invention relates to a game and, more particularly, to a game apparatus which is primarily controlled by the skill of the players.

It is an object of the present invention to provide a novel game device which may be operated for the enjoyment of the players as well as to test their logic and skill.

Other objects and advantages of the present invention will become apparent from a further reading of the description and of the appended claims.

With the above and other objects in view, the present invention includes a game device, comprising, in combination, a substantially flat game board having an axis, the game board consisting essentially of two portions integral with each other and extending in opposite directions from the axis, the portions being of equal weight and having points of gravity equidistant from the axis, the flat game board having a top surface, indicia on the top surface arranged on both sides of the axis and designating subdivisions of the top surface, support means for pivotally supporting the game board along the axis so that the two portions thereof are in equilibrium when supported by the support means, a first plurality of weighted game pieces adapted to be arranged in a first position on one of the two portions of the game board in the vicinity of the axis and each of the weighted game pieces of the first plurality adapted to move along step by step on the subdivisions of the one game board portion into a second position located distant from the axis, and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of the two portions of said game board in the vicinity of the axis and each of the weighted game pieces of the second plurality adapted to move along step by step on the subdivisions of the other game board portion into a second position located distant from the axis.

According to a preferred embodiment, the game device of the present invention comprises, in combination, a substantially flat game board having two axes of symmetry perpendicular to each other, the game board being of elongated shape in the direction of one of the two axes and consisting of two portions extending in opposite directions from the other of the axes, each of the two opposite portions including a first portion adjacent the other of the axes, an end portion spaced from the other of the axes and a relatively narrow stem portion interposed between and contacting the first and the end portions, the opposite portions of the game board including indicia on their upper faces subdividing the surfaces of the opposite portions into a plurality of subdivisions, support means for pivotally supporting the game board along the other of the axes, a first plurality of weighted members adapted to be arranged on the first portion of one of the opposite portions of the game board, and a second plurality of weighted members identical with the weighted members of the first plurality and adapted to be arranged on the first portion of the other of the opposite portions of the game board, the weighted members of the two pluralities, respectively, being adapted to be moved stepwise in accordance with the subdivisions from the first portions on the opposite portions and along the stem portions, respectively, to the end portions thereof, the end portions being so arranged that the game board will be in equilibrium on the support when the pluralities

of weighted members are respectively located at the end portions.

The novel features which are considered as characteristic for the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings, in which:

FIG. 1 is an elevational view of the game device according to the present invention;

FIG. 2 is a plan view of the same;

FIG. 3 is a perspective view of the support forming part of the game device;

FIG. 4 is a perspective view of one of the game pieces used in the game of the present invention; and

FIG. 5 is a cross sectional view on a somewhat enlarged scale taken along line V—V of FIG. 2.

Referring now to the drawing, and particularly to FIG. 1, the game board 21 will be seen supported by and in equilibrium on the upper face 32 of support 31.

Upper face 32 of support 31 is of limited width so that an imbalance between the two halves of game board 21 must exceed a certain minimum value in order to cause tilting of the game board.

Projections 22 are arranged on the underside of game board 21 in order to facilitate positioning of game board 21 on support 31 so that the game board will be in equilibrium on the support.

Support 31 is shown on an enlarged scale in FIG. 3 of the drawing.

Preferably, the total length of support 31 will be about 8 inches the width at the base about 2½ inches and the width of upper face 32 about ¼ inch. The length of the inclined lateral planes from base 33 to upper face 32, preferably will be about 2 and ¾ inches.

Corresponding to the above described preferred size of the support, the length of game board 21 will be about 18 inches and the thickness thereof about $\frac{3}{32}$ of an inch. Of course, these dimensions of the game device are given herein by way of example only and it is entirely within the scope of the present invention to deviate from the above described preferred dimensions and dimensional relationships.

As shown in FIG. 2, the game board 21 comprises two portions 23 and 24, extending in opposite direction from the axis of symmetry of the game board which is located in the center of the area thereof which is supported by upper face 32 of support 31 and extends in the direction of elongation of upper face 32.

Indicia 25 are arranged on the top surface of game board 21, symmetrically with respect to the axis of symmetry indicated by arrows A.

These indicia preferably denote squares 26 on the top surface of the game board 21 and may be printed thereon, or may consist of walls extending upwardly from the top face of game board 21. However, it is of course also possible to denote by the indicia plan configurations of a shape which differs from that of a square.

Several rows of squares denoted by the indicia, namely the end rows 27 and 27′ and the center rows 28 and 28′ carry numerals which, as will be described in more detail further below, correspond to the numerals and relative weight of the game pieces 41 (note FIG. 4) which are to be moved along the squares or areas indicated by the indicia on the surface of game board 21.

Game pieces 41 preferably comprise a support plate 43 corresponding in shape and size to the areas, respectively, denoted by the indicia 25 on the top surface of game board 21, so that each game piece 41 may be placed onto any one of these areas, and of a top portion, for in-

stance a cylindrical top portion 44, which will serve for holding and moving the game piece and also for giving each of the game pieces 41 the weight assigned thereto. The weight of the individual game pieces preferably is indicated by a numeral or other symbol appearing on top face 45 thereof. These numerals correspond to the numerals which appear in rows 27, 27', 28 and 28' on the top surface of game board 21. The numerals on the game pieces and on the top surface of the game board indicate the weight relationship between the individual game pieces, so that, for instance, a game piece carrying the numeral 10 is five times as heavy as a game piece carrying the numeral 2.

It will be noted that in the illustrated embodiment, the game board 21 is also formed with a second axis of symmetry indicated by arrows B.

The indicia-forming walls on the surface of game board 21 are shown in more detail in FIG. 5 of the drawing, and it will be seen that preferably the center walls 25' are of somewhat greater height than side walls 25. For instance, the indicia-forming walls may denote squares the sides of which have a length of 1", outer walls 25 may have a height of 1/32 of an inch and center walls 25' a height of 1/16 of an inch, while the thickness of the flat game board may be 3/32 of an inch, these dimensions being given by way of example only.

The game device of the present invention is preferably used by two players who alternatingly move game pieces from the center spaces, i.e. from rows 28 and 28', on which the game pieces are arranged according to their weights as indicated, towards rows 27 and 27' respectively whereon the game pieces are again to be arranged in accordance with their indicated weights. Each of the two players tries to be the first to have his game pieces moved from row 28 to row 27 or from row 28' to row 27'. The game is finished when one of the players has moved all of his game pieces 41 to the end row nearer to him which may be row 27 or 27', and arranged the game pieces thereon in accordance with the weights indicated in the respective end row. Pieces left outside their assigned spaces or areas in the respective end row are not counted as credit points.

The game board is in equilibrium on support 31 and will also be in equilibrium when the game pieces are arranged in rows 28 and 28' in accordance with their indicated weights. However, upon moving of the game pieces from their assigned areas in rows 28 and 28', the equilibrium of the game board may be disturbed and game board 21 may start to tilt. Due to the width of upper face 32 of support 31, the degree of tilting will be controlled so that only when the equilibrium is disturbed by more than a predetermined minimum degree, the game board will tilt completely. The player whose movement of one of his game pieces has caused complete tilting of the game board will be penalized, by, for instance, having 3 points subtracted from his total score. Obviously, a player who is not careful in deciding the movement of his game pieces might tilt the game board a considerable number of times before the game is ended. Thus, in order to win, the players must be alert to consider the best possible moves of his game pieces so as to reach quickly the final position of the game pieces while avoiding complete tilting of the game board or having the game board tilted as rarely as possible. Thereby, of course, the individual player must also consider the position of the game pieces of his opponent.

While the number of game pieces of each of the two sets of game pieces alloted to the players, respectively, may vary, as well as the relative weights thereof, preferably, each player will be assigned 6 game pieces having relative weights of 2, 4, 7, 10, 15 and 20 respectively. The set of game pieces of each player has the same total weight and the weight of each game piece of one set corresponds to the weight of one of the game pieces of the other set.

In playing the game, preferably each player will announce which game piece he intends to move and into what position he intends to move it. It is recommended that during the movement of the game piece the game board be held by the player in order to avoid tilting. However, after the game piece has been placed in its new position, the player must release the game board so that it can be determined whether the same will remain in substantial equilibrium or will be tilted to such an extent that for instance one end portion of the game board would reach the plane in which the base of support 31 is located, for instance the table top on which the game is arranged.

If it is found that the game board does not tilt severely, the opponent will have his move, however, if one of the players tips the board severely, as described above, then he is penalized three points and must return the game piece which caused the tilting to its previous position.

It is suggested that each player may move only one game piece and only to the adjacent square on his side of the board, i.e. on his side of axis A. No pieces may be jumped. However, apart from the above restriction, the individual game pieces may be moved in any direction, even backwards (of course only on the players side of axis A). It may be necessary from time to time to move pieces backwards, so that heavier game pieces may be moved ahead without tipping the board. As the game proceeds, it depends more and more on the player's skill to move his game pieces without tipping the board. It is always possible to finish the game, i.e. for one player to have all his game pieces reach row 27 or 27' respectively and to have the game pieces arranged thereon in accordance with the indicated weights, however, frequently it will require that the player moves one or the other of his game pieces backwards or sideways. The game pieces may be moved in accordance with the arrows indicated on the top face of game board 21.

As soon as one of the players has positioned all of his game pieces in the indicated squares of either row 27 or 27', the game is finished.

Upon finishing of the game, both players add up the weights of their pieces which are located in row 27 ar 27', respectively. The game pieces of a player which have not reached row 27 or 27' are not counted. Thereafter, each player subtracts from his total three points for each time he has caused tipping of the game board. The player which then has the highest score is the winner.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of games, differing from the types described above.

While the invention has been illustrated and described as embodied in a game device including a game board having two axes of symmetry arranged perpendicular to each other, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention.

We claim:

1. The combination with a support, of a game board having an axis, said game board mounted along said axis on said support to rock thereon and comprising two portions extending in opposite directions from said axis, said portions of said game board being in equilibrium when supported by said support, said game board having a top surface; indicia on said top surface arranged on both sides of said axis and designating subdivisions of said top surface; a first plurality of weighted game pieces adapted to be arranged in a first position on one of said two portions of said game board in the vicinity of said axis and each adapted to be moved along step by step on said subdivisions of said one game board portion into a position located distant from said axis; and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of said two portions of said game board in the vicinity of said axis and each adapted

to be moved along step by step on said subdivisions of said other game board portion into a position located distant from said axis, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

2. A game device, comprising, in combination, a substantially flat game board having an axis, said game board consisting essentially of two portions integral with each other and extending in opposite directions from said axis, said portions being of equal weight and having points of gravity equidistant from said axis, said flat game board having a top surface; indicia on said top surface arranged on both sides of said axis and designating subdivisions of said top surface; support means for pivotally supporting said game board along said axis so that said two portions thereof are in equilibrium when supported by said support means; a first plurality of weighted game pieces adapted to be arranged in a first position on one of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said first plurality adapted to move along step by step on said subdivisions of said one game board portion into a second position located distant from said axis; and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said second plurality adapted to move along step by step on said subdivisions of said other game board portion into a second position located distant from said axis, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

3. A game device, comprising, in combination, a substantially flat game board having an axis, said game board consisting essentially of two portions integral with each other and extending in opposite directions from said axis, said portions being of equal weight and having points of gravity equidistant from said axis, said flat game board having a top surface; indicia on said top surface arranged on both sides of said axis and designating subdivisions of said top surface arranged at least substantially symmetrically with respect to said axis; support means for pivotally supporting said game board along said axis so that said two portions thereof are in equilibrium when supported by said support means; a first plurality of weighted game pieces adapted to be arranged in a first position on one of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said first plurality adapted to move along step by step on said subdivisions of said one game board portion into a second position located distant from said axis; and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said second plurality adapted to move along step by step on said subdivisions of said other game board portion into a second position located distant from said axis, said second positions on said two portions of said game board being so arranged that said game board will be substantially in equilibrium when said first and second pluralities of weighted game pieces are respectively located at said second positions, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

4. A game device, comprising, in combination, a substantially flat game board having an axis, said game board consisting essentially of two portions integral with each other and extending in opposite directions from said axis, said portions being of equal weight and having points of gravity equidistant from said axis, said flat game board having a top surface; wall means on said top surface arranged on both sides of said axis and defining subdivisions of said top surface; support means for pivotally supporting said game board along said axis so that said two portions thereof are in equilibrium when supported by said support means; a first plurality of weighted game pieces adapted to be arranged in a first position on one of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said first plurality adapted to move along step by step on said subdivisions of said one game board portion into a second position located distant from said axis; and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of said two portions of said game board in the vicinity of said axis and each of said weighted game pieces of said second plurality adapted to move along step by step on said subdivisions of said other game board portion into a second position located distant from said axis, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

5. A game device, comprising, in combination, a substantially flat game board having two axes cross-secting each other, said game board being of elongated shape in the direction of one of said two axes and consisting of two portions extending in opposite directions from the other of said axes, each of said two opposite portions including an end portion spaced from said other of said axes, said opposite portions of said game board including indicia on their upper faces subdividing the surfaces of said opposite portions into a plurality of subdivisions; support means for pivotally supporting said game board along said other of said axes; a first plurality of weighted members adapted to be arranged in a first position on one of said opposite portions of said game board adjacent said other axis; and a second plurality of weighted members identical with the weighted members of said first plurality and adapted to be arranged in a first position on the other of said opposite portions of said game board adjacent said other axis, said weighted members of said two pluralities, respectively, being adapted to be moved stepwise in accordance with said subdivisions from

said first positions on said opposite portions, respectively, to said end portions thereof, said end portions being so arranged that said game board will be in equilibrium on said support when said pluralities of weighted members are respectively located at said end portions, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

6. A game device, comprising, in combination, a substantially flat game board having two axes of symmetry perpendicular to each other, said game board being of elongated shape in the direction of one of said two axes and consisting of two portions extending in opposite directions from the other of said axes, each of said two opposite portions including an end portion spaced from said other of said axes, said opposite portions of said game board including indicia on their upper faces subdividing the surfaces of said opposite portions into a plurality of subdivisions; support means for pivotally supporting said game board along said other of said axes; a first plurality of weighted members adapted to be arranged in a first position on one of said opposite portions of said game board adjacent said other axis; and a second plurality of weighted members identical with the weighted members of said first plurality and adapted to be arranged in a first position on the other of said opposite portions of said game board adjacent said other axis, said weighted members of said two pluralities, respectively, being adapted to be moved stepwise in accordance with said subdivisions from said first positions on said opposite portions, respectively, to said end portions thereof, said end portions being so arranged that said game board will be in equilibrium on said support when said pluralities of weighted members are respectively located at said end portions, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

7. A game device, comprising, in combination, a substantially flat game board having two axes of symmetry perpendicular to each other, said game board being of elongated shape in the direction of one of said two axes and consisting of two portions extending in opposite directions from the other of said axes, each of said two opposite portions including a first portion adjacent said other of said axes, an end portion spaced from said other of said axes and a relatively narrow stem portion interposed between and contacting the first and the end portions of, respectively, each of said opposite portion, said opposite portions of said game board including indicia on their upper faces subdividing the surfaces of said opposite portions into a plurality of subdivisions; support means for pivotally supporting said game board along said other of said axes; a first plurality of weighted members adapted to be arranged on said first portion of one of said opposite portions of said game board; and a second plurality of weighted members identical with the weighted members of said first plurality and adapted to be arranged on said first portion of the other of said opposite portions of said game board, said weighted members of said two pluralities, respectively, being adapted to be moved stepwise in accordance with said subdivisions from said first portions on said opposite portions and along said stem portions, respectively, to said end portions thereof, said end portions being so arranged that said game board will be in equilibrium on said support when said pluralities of weighted members are respectively located at said end portions, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

8. A game device, comprising, in combination, a substantially flat game board having two axes of symmetry, said game board consisting essentially of two portions integral with each other and extending in opposite directions from one of said axes, said portions being of substantially equal thickness and specific gravity, said flat game board having a top surface; indicia on said top surface arranged on both sides of said one axis and designating subdivisions of said top surface arranged at least substantially symmetrically with respect to said axes; support means for pivotally supporting said game board along said one axis so that said two portions thereof are in equilibrium when supported by said support means; a first plurality of weighted game pieces adapted to be arranged in a first position on one of said two portions of said game board in the vicinity of said one axis forming a row of game pieces extending substantially parallel to said one axis and each of said weighted game pieces of said first plurality adapted to move along step by step on said subdivisions of said one game board portion into a second position located distant from said one axis forming in said second position a row of game pieces extending substantially parallel to said one axis; and a second plurality of weighted game pieces adapted to be arranged in a first position on the other of said two portions of said game board in the vicinity of said one axis arranged at least substantially symmetrically with respect to said axes and each of said weighted game pieces of said second plurality adapted to move along step by step on said subdivisions of said other game board portion into a second position located distant from said one axis forming in said second position a row of game pieces extending substantially parallel to said one axis, each of said first and second plurality of weighted game pieces comprising differently weighted game pieces, the difference in weighting of each being such that movement of one game piece between predetermined subdivisions will produce tilting of said game board whereas movement of another game piece between said predetermined subdivisions will not cause such tilting and said differently weighted game pieces being shaped so that after movement of any one of said game pieces onto any one of said subdivisions the moved game piece will stay on the respective subdivision despite tilting of said game board.

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