May 6, 1941. E. E. STARK 2,240,871

GAME APPARATUS

Filed April 10, 1940 2 Sheets-Sheet 1

Fig. 1

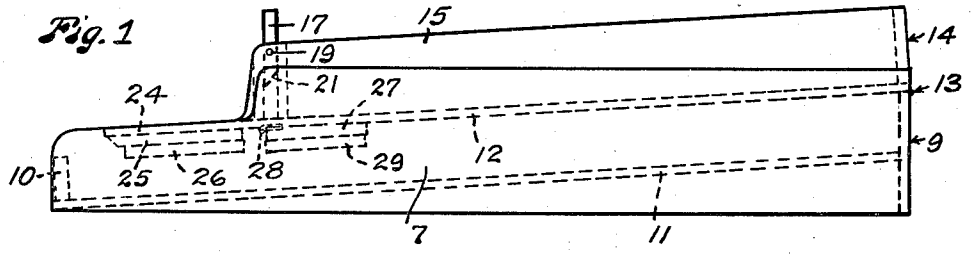


Fig. 2

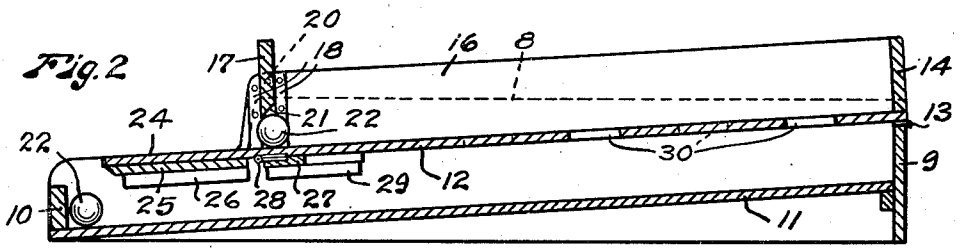
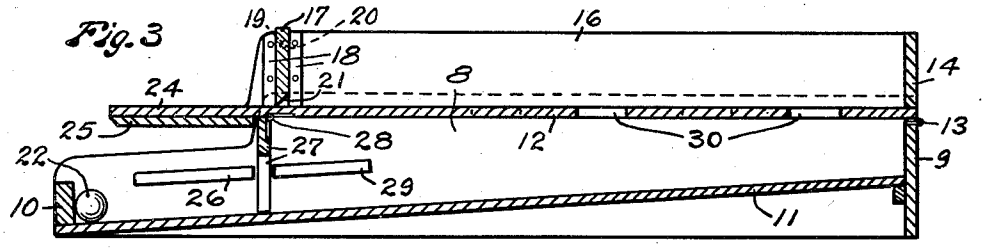


Fig. 3



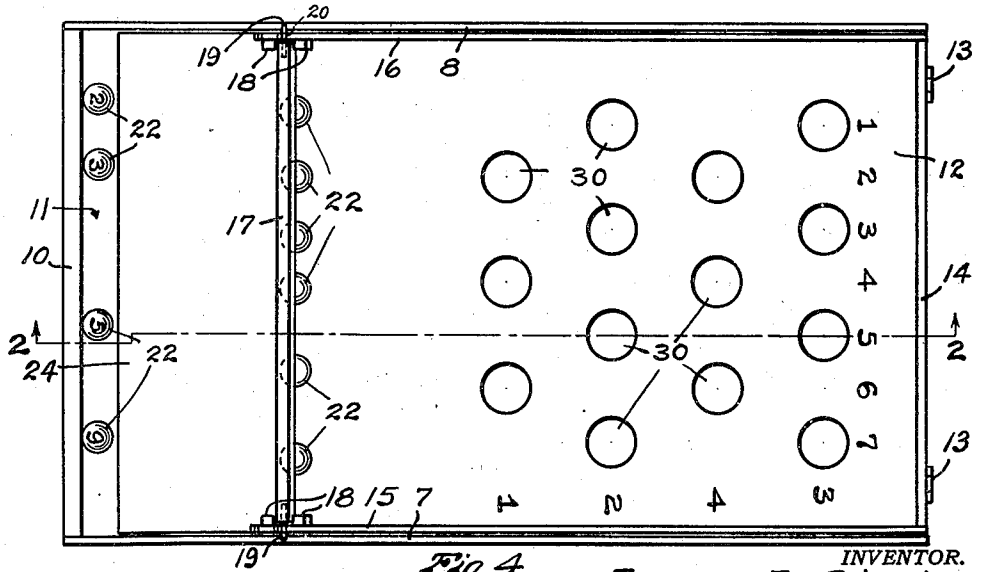


Fig. 4

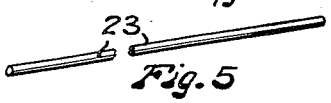


Fig. 5

INVENTOR.
BY Eugene E. Stark
Fred C. Mathews
ATTORNEY.

May 6, 1941. E. E. STARK 2,240,871

GAME APPARATUS

Filed April 10, 1940 2 Sheets-Sheet 2

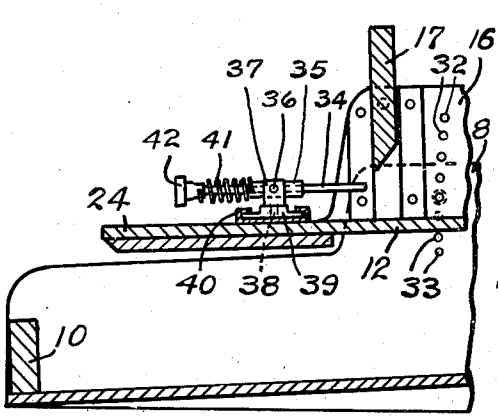


Fig. 7

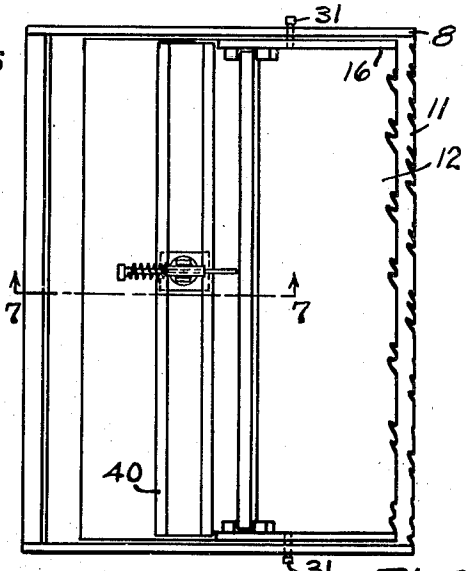


Fig. 6

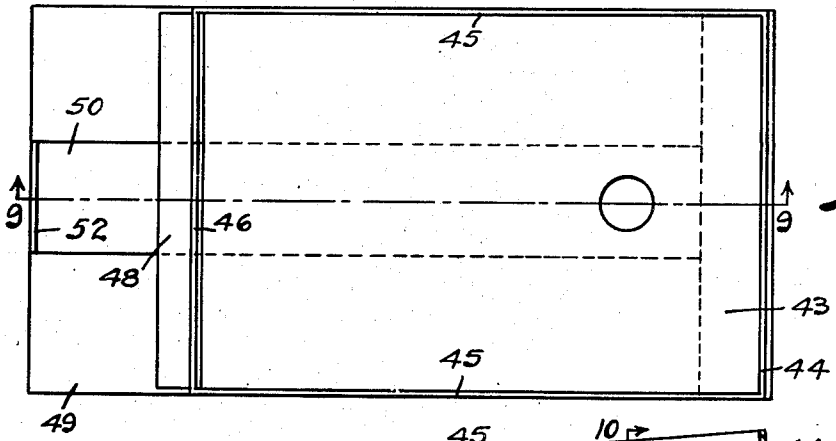


Fig. 8

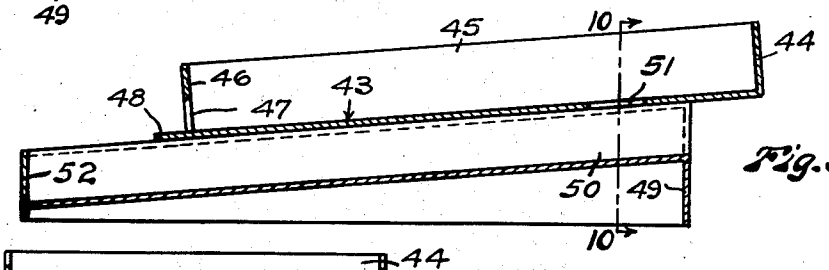


Fig. 9

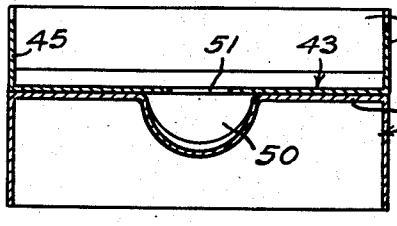


Fig. 10

INVENTOR.
Eugene E. Stark
BY
Fred C. Matheny
ATTORNEY.

Patented May 6, 1941 2,240,871

UNITED STATES PATENT OFFICE

2,240,871

GAME APPARATUS

Eugene E. Stark, Olympia, Wash.

Application April 10, 1940, Serial No. 328,392

8 Claims. (Cl. 273—125)

This invention relates to game boards whereon games may be played by the use of balls.

An object of this invention is to provide a game board of simple and inexpensive construction for either commercial or home use whereon an interesting game of skill may be played by the use of balls.

Another object is to provide a portable game board of compact construction that is readily moved from place to place, that may be used on any ordinary table or on a card table and that is especially well adapted for home or other uses where the space available for playing games is limited.

Another object is to provide a game board that is adjustable so that it may be placed either in a horizontal position or in variable positions slightly inclined relative to the horizontal to thereby provide for playing some games in which the balls that do not drop through holes in the board will always tend to roll to one end of the board where they are accessible for shooting and some games in which the balls that do not drop through holes in the board will come to rest on the playing field of the board where they may be hit by other balls or may be shot or played by the use of cues or shooters or even by hand.

Another object is to provide a game board that is adapted to be used in a position slightly inclined relative to the horizontal and that is provided at the lowermost end with a stop member that extends entirely across the end of the board and has its lower edge positioned above the plane of the board a substantial distance but less than the diameter of one of the balls used in playing the game whereby the balls will roll down against the stop member and may come to rest in various positions across the end of the board and enough of each ball will be exposed below the stop member so that a cue or shooter or the finger of the player may be directed against the ball below the stop member in shooting the ball.

Another object is to provide a game board having a mechanical ball shooting device that is pivotally mounted on a carriage which is guided for movement transversely of the board.

Another object is to provide a game board of this nature which may be made of cardboard to provide a very inexpensive and easily manufactured device.

Other objects of the invention will be apparent from the following description taken in connection with the accompanying drawings.

In the drawings

Fig. 1 is a side elevation of a game board constructed in accordance with my invention showing the board in an inclined position.

Fig. 2 is a longitudinal sectional view of said board also showing the board in an inclined position, and taken on broken lines 2—2 of Fig. 4.

Fig. 3 is a sectional view similar to Fig. 2, showing the board in a horizontal position.

Fig. 4 is a plan view of my game board.

Fig. 5 is a fragmentary perspective view of a cue member.

Fig. 6 is a fragmentary plan view of the front end portion of a board of this type showing alternative adjustable means for supporting the board at variable angles relative to the horizontal and showing a mechanically actuated ball shooting device adjustably connected therewith.

Fig. 7 is a fragmentary sectional view taken substantially on broken line 7—7 of Fig. 6 and on a somewhat larger scale than Fig. 6.

Fig. 8 is a plan view of a game board of modified form made of cardboard and constructed in accordance with this invention.

Fig. 9 is a sectional view on broken line 9—9 of Fig. 8.

Fig. 10 is a sectional view on broken line 10—10 of Fig. 8.

Like reference numerals designate like parts throughout the several views.

The device shown in Figs. 1 to 5, comprises a supporting frame formed of two upright side portions 7 and 8, a rear end portion 9, a front end portion 10 and a bottom 11. The bottom 11 is inclined downwardly from the rear to the forward end thereof to provide ball return means.

A game board 12 has its rear end portion pivotally connected by hinge means 13 with the rear wall 9 of the supporting frame. This game board 12 is provided with an upright rear wall 14 and two upright side walls 15 and 16. A stop member 17 extends crosswise of the board 12 between the forward end portions of the side members 15 and 16. This stop member 17 is preferably adjustably supported in grooves formed between spaced apart strips 18 on each side member 15 and 16. A pin or bolt 19 is provided at each end of the stop member 17 for holding said stop member 17 in a raised position, as shown in Figs. 1 and 2 when the board 12 is supported at an incline. The pins 19 may extend through the side members 15 and 16 and into suitable holes 20 in the stop member 17, the holes 20 being shown by dotted lines in Fig. 4. When the board is horizontal the stop member 17 is preferably lowered into the position shown

in Fig. 3. The bottom edge of the stop member 17 is preferably, provided with a bevel 21 so that balls 22 which come to rest against said stop member will be easy to contact from the exterior of the board by a cue 23 of the form shown in Fig. 5, or a shooter of the form shown in Figs. 6 and 7 or by the fingers if it is desired to snap the balls with the fingers in playing the game.

The forward end portion of the board 12 extends a substantial distance beyond the stop member 17 and beyond the ends of the side members 15 and 16 to provide a hand rest 24 on which the player may rest his hand while shooting the balls. In the drawings I have shown a reinforcing member 25 secured to the bottom side of this hand rest 24 to reinforce and strengthen the same. When the board 12 is in the inclined position shown in Figs. 1 and 2, this reinforcing member may rest on suitable cleats 26 that are fixedly secured to the sides 7 and 8 of the supporting frame. This provides a solid and substantial hand rest for use by the player when the shooting of the balls is done while said balls rest against the stop member 17.

To support the board 12 in a horizontal position I preferably, provide a folding support 27 that is secured to the board by hinge means 28 and is movable between the folded position shown in Figs. 1 and 2, and the upright position shown in Fig. 3. When this support 27 is folded it rests on cleats 29 that are secured to the sides 7 and 8 of the base portion of the device. When this support 27 is in use, as shown in Fig. 3, it rests on the bottom member 11 and is held in an upright position by the spaced apart end portions of the cleats 26 and 29 between which it is positioned. The support 27 may be a plane flat piece of material, such as a piece of plywood, with its central portion cut away to leave clearance for the balls 22 to roll under it when it is in the position shown in Fig. 3. Obviously other means may be used for supporting the board 12 in a horizontal or inclined position.

The board 12 is provided with holes 30 of larger diameter than the balls 22 so that the balls 22 may drop through these holes one or more holes 30 may be provided, a plurality of said holes being shown in Fig. 4. The holes 30 are preferably positioned in spaced apart offset relation substantially as shown in Fig. 4. Preferably the rows of perforations 30 are numbered both longitudinally and transversely of the board. Also, if desired, each perforation 30 may have an individual number.

It will be understood that the proportions and the size of this game board and parts connected therewith may be varied. A board that is highly satisfactory for home use is provided if it is made approximately twenty inches wide and twenty-seven inches long with a hand rest about six inches wide. Preferably standard table tennis balls of about one and one-half inch diameter are used. These balls are light in weight and are highly resilient. The holes 30 are preferably about two inches in diameter with distances of six to seven inches between centers. The cues 23 may be straight pieces of wood round in cross section and about thirty-six inches long. Also preferably the balls are numbered, or they may be otherwise distinctively marked, as by coloring or lettering.

In Figs. 6 and 7, I have shown a modified form of game board provided with movable ball shooting means and with means for supporting the board at different inclines relative to the horizontal. The means herein disclosed for supporting the board at different inclines comprises pin members 31 insertable in registering holes 32 and 33 provided respectively in the sides of the board and in the sides of the frame that supports the board. By selectively positioning these pins in different holes it is possible to support the board at any desired angle, within the limited range provided for, or to support said board in a horizontal position. This provides a desirable adjustment for the board, as best results are obtained by playing the balls differently for different angles of the board.

The ball shooting device shown in Figs. 6 and 7 comprises a plunger 34 slidable in a guide 35 that is mounted by horizontal pivot members 36 in a U shaped bracket 37. The bracket 37 is connected by a vertical pivot 38 with a base block 39. The base block 39 is slidable in a transversal guide member 40 that is secured to the hand rest portion 24 of the board 12 just in front of the stop member 17. A helical tension spring 41 on the plunger 34 has one end connected with the guide 35 and the other end connected with the plunger 34 to snap the plunger forwardly after it has been retracted by manually grasping a knob 42, exerting a pull on such knob and then releasing the same. The ball shooting device shown in Figs. 6 and 7 can be moved transversely of the board and the plunger 34 can be angularly positioned both vertically and horizontally so as to strike a ball at any desired angle and in any position between the two sides of the game board. Obviously many changes may be made in this ball shooting device, such for instance, as the use of a compression spring or an elastic rubber member for actuating the plunger 34. The two pivots 36 and 38 at right angles to each other provide a substantially universal pivotal movement for the plunger 34.

In playing games on the board shown in Figs. 1 to 7 inclusive, many variations of the rules for playing and scoring are possible. In all instances the playing or shooting of the balls causes them to roll over the board and re-bound from the sides of the board. The balls may be played with a cue or with a mechanical ball shooter or may be snapped with the finger. The object is to cause the balls to drop through the holes. Any number of balls may be used. I find ten balls a satisfactory number. The balls may be played in rotation or otherwise and the games may be scored from the markings on the balls or from the markings on the rows of holes or from a combination of both. The game is entertaining and admits of the development of considerable skill in playing. The balls may be played from the location at which they come to rest against the stop 17 and this may be any location across the entire width of the board. Figs. 8, 9 and 10 show a modified and simplified game apparatus of this type which preferably is made of card-board to provide a very inexpensive construction. The game apparatus shown in these figures comprises a board 43 having a rear end wall 44, two side walls 45, and a stop member 46 extending across the front end portion of the board 43 and spaced above the board 43 to serve as a stop for the balls and to provide an open space 47 below the stop 46 through which a ball shooting device or the finger of a player may be applied to the balls to shoot them across the board. A hand rest 48 is provided in front of the stop member 46. A base or support 49 is

provided for the board 43. This base or support 49 is preferably shaped like an inverted box except that it is higher at the rear end than it is at the front end to provide an incline for the board and is provided with a medially disposed trough 50 forming a runway into which balls may drop and roll to the front end of the board. The hand rest 48 extends across the trough 50. I have shown a single hole 51 in the board 43 near the rear end 44 thereof and medially between the two sides 45 directly over the trough 50. The object of the game is to cause the balls to drop through this hole 51. Obviously the position of this hole 51 may be varied or more holes may be provided. The balls used for playing the game on the board shown in Figs. 8, 9 and 10 preferably are table tennis balls like those shown in Figs. 2, 3 and 4 and these balls may be played with a cue or with the fingers or a ball shooting device similar to that shown in Figs. 6 and 7 may be provided in connection with the game board shown in Figs. 8, 9 and 10. A wall 52 is provided at the forward end of the trough shaped runway 50. The provision of this runway 50 adds strength to the cardboard base as well as providing for the return of the balls.

Obviously changes may be made in any of the devices herein described within the scope and spirit of the appended claims.

I claim:

1. A game board whereon a game may be played with one or more balls, comprising a board member having at least one hole therein through which a ball will drop and supported with one end portion thereof slightly higher than the other end portion whereby a ball will roll toward the lower end portion; upright side members provided at the higher end portion and at the two sides of said game board; and a stop member extending across the lowermost end portion of said game board cooperating with said side members to provide an enclosure for the ball on said board, the lowermost edge of said stop member being spaced above the plane of the top surface of the game board a distance less than the diameter of the ball whereby the ball may come to rest against the stop member at any position between the two sides of the board with a substantial portion of the ball exposed below the stop member and may be played by applying a driving force to the exposed portion of the ball below the stop member.

2. A game board whereon a game may be played with balls, comprising a board member having a plurality of holes therein through which the balls will drop and supported with one end portion thereof slightly higher than the other end portion whereby balls will roll toward the lower end portion; upright side members provided at the higher end portion and at the two sides of said board; and a stop member extending across the lowermost end portion of said game board cooperating with said side members to provide an enclosure for the balls on said board, the lowermost edge of said stop member being spaced above the plane of the top surface of the game board a distance less than the diameter of one of the balls whereby the balls come to rest against said stop member with a substantial portion of each ball exposed below the stop member and may be played by applying a driving force to the exposed portions of the balls below the stop member.

3. A game board whereon a game may be played with balls, comprising a supporting frame; a board hinged to said frame and having a plurality of holes in spaced apart relation and of larger diameter than the balls used on the board and through which the balls will drop; adjustable means supporting said board with one end portion thereof slightly higher than the other end portion whereby balls will roll toward the lower end portion, said adjustable supporting means providing for adjusting the incline of the board; upright side members provided at the higher end portions and at the two sides of said board; and a stop member extending across the lowermost end portion of said game board cooperating with said side members to provide an enclosure for the balls on said board, the lowermost edge of said stop member being spaced above the plane of the top surface of the game board a distance less than the diameter of one of the balls whereby the balls will come to rest against said stop member with their major portions exposed below the stop member and may be played by the application of a driving force to the exposed portions of the balls below the stop member.

4. A game board whereon a game may be played with balls comprising a supporting frame; a board hinged to said frame and having a plurality of spaced apart holes therein of larger diameter than the balls used on the board and through which the balls will drop; means supporting said board with one end portion thereof slightly higher than the other end portion whereby balls will roll toward the lower end portion; a flat bottom member in said supporting frame positioned at an incline corresponding to the incline of said board and extending beyond the forward end portion of said board and adapted to return balls that drop through the holes in said board to the forward end portion of said frame; upright side members provided at the higher end portion and the sides of said board; and a stop member extending across the lowermost end portion of said board, the lowermost edge portion of said stop member being spaced above the plane of said board whereby balls that come to rest against said stop member may be actuated by means applied to portions of said balls underneath the lowermost edge portion of said stop member.

5. A game board whereon a game may be played with balls, comprising a board member having a plurality of holes therein through which the balls will drop and supported with one end portion thereof slightly higher than the other end portion whereby balls will roll toward the lower end portion; upright side members provided at the higher end portion and at the two sides of said board; a stop member extending across the lowermost end portion of said game board cooperating with said side members to provide an enclosure for the balls on said board, the lowermost edge of said stop member being spaced above the plane of the top surface of the game board a distance less than the diameter of one of the balls whereby the balls come to rest against said stop member in a position to be actuated by a blow struck against said ball under said stop member; and a rest portion rigid with the board and extending beyond the stop member facilitating the playing of the balls resting against said stop member.

6. A game board whereon a game may be played with balls comprising a supporting frame; a board hinged to said frame and having a plu-

rality of holes therein in spaced apart relation and of larger diameter than the balls used on the board and through which the balls will drop; adjustable supporting means for said board whereby said board may be supported in a horizontal position or in an inclined position with one end portion thereof slightly higher than the other end portion; side members provided on the sides of said board and on the end thereof that is highest when said board is supported in an inclined position; and an adjustable stop member extending across the other end portion of said board cooperating with said side members to prevent the escape of balls from said board, said stop member being movable from a position in which the lowermost edge thereof rests on said board to a position in which the lowermost edge thereof is spaced a substantial distance above said board and permits the application of a driving force to the balls below the lower edge of the stop member.

7. A game board whereon a game may be played with balls comprising a supporting frame; a board hinged to said frame and having a plurality of holes therein in spaced apart relation and of larger diameter than the balls used on the board and through which the balls will drop; adjustable supporting means for said board whereby said board may be supported in a horizontal position or in an inclined position with one end thereof slightly higher than the other end; and upwardly extending side members on four sides of said board providing a rectangular enclosure, one of said side members being vertically adjustable whereby it may be elevated to permit the use of ball shooting means thereunder.

8. In a game of the class described a cardboard base of inverted box shape deeper at one end than the other to provide for inclining the top portion of said base when said base rests on a horizontal surface; a longitudinally extending trough formed in said base; and a cardboard box member supported in an inclined position on said base portion, the bottom of said box member forming a playing board on which balls may roll said bottom having a hole therein near the highest end thereof registering with the trough in said base portion and a portion of the end wall at the lowest end of said box member being removed leaving a ball stop member spaced above the playing surface of the board.

EUGENE E. STARK.