May 8, 1962 A. ACHTERBERG 3,033,568

MECHANICAL GAME

Filed March 3, 1960

Fig. 1

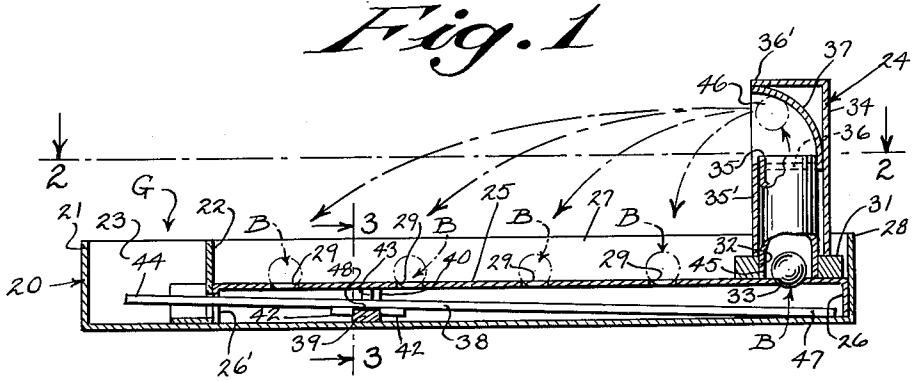


Fig. 2

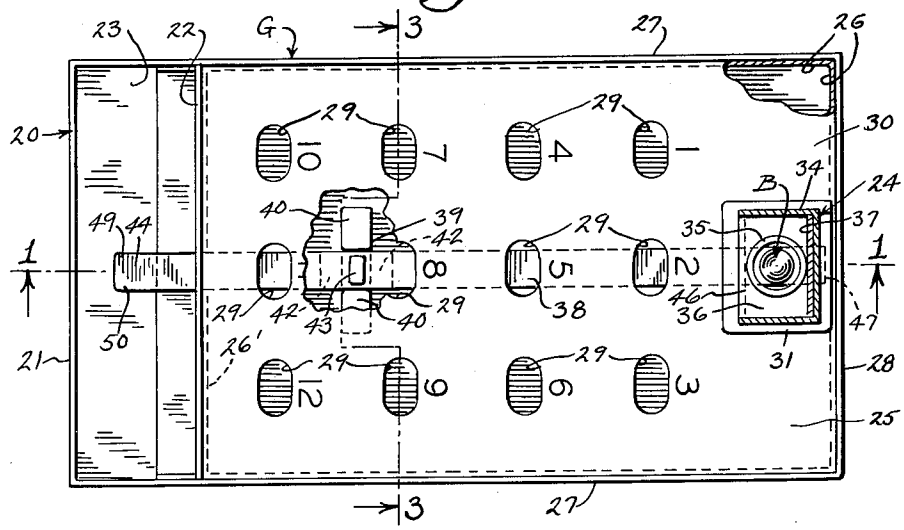


Fig. 3

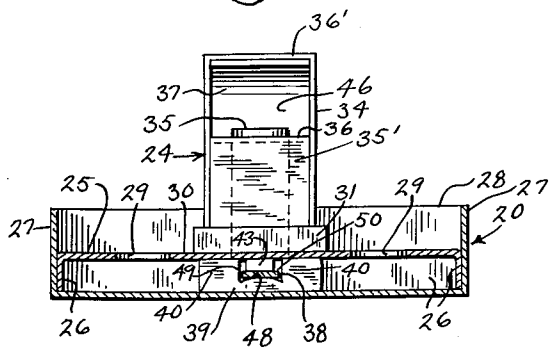
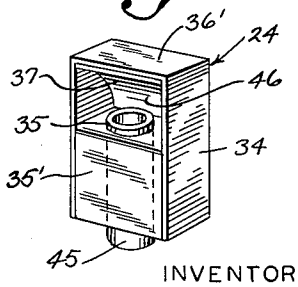


Fig. 4



INVENTOR
ALFRED ACHTERBERG

BY Wright and Wright

ATTORNEYS

United States Patent Office

3,033,568
Patented May 8, 1962

3,033,568

MECHANICAL GAME

Alfred Achterberg, Conover, Wis.

Filed Mar. 3, 1960, Ser. No. 12,561
2 Claims. (Cl. 273—101)

This invention pertains generally to mechanical games, and more particularly to a game of chance and skill incidental to placing a manually projected ball or marble into one of a plurality of receiving pockets arbitrarily spaced on a playing field.

A primary object of my present invention is to provide an exceedingly simple and inexpensive game of the foregoing character, which can be produced from a few parts of cardboard and wood with a minimum number of dies, and forming and assembling operations.

Incidental to the foregoing, a more specific object of my present invention resides in the provision of a ball discharging trap mounted on a playing field and a finger actuated striking lever for projecting the ball from the trap to various locations on the playing field for deposit in one of a plurality of pockets formed in the field.

Another object of my invention is to provide a detachable discharge trap which can be readily removed from its operative position for nesting within a compartment in a box forming part of the game assembly.

Another object of my present invention is to provide a ball projecting lever assembly that requires no pintels or fastening devices for retaining the lever on its fulcrum.

A still further object is to provide a crowned fulcrum to permit slight transverse tilting of the projecting lever when striking force is exerted upon one side of its longitudinal axes, whereby the horizontal direction of projection of the playing ball is varied to enable a skilled player to more accurately determine the zone of reception.

In addition to the foregoing, other objects will appear as the description proceeds, and while the accompanying drawing illustrates one complete physical form of the invention constructed in accordance with the best mode so far devised, it is to be understood that changes in the precise embodiment of the invention are contemplated within the scope of the appended claims.

A preferred and practical embodiment of my invention is shown in the accompanying drawing, in which:

FIGURE 1 is a longitudinal vertical sectional view of a game incorporating the principles of my present invention, the section being taken on the line 1—1 of FIGURE 2 of the drawings, looking in the direction of the arrows, with certain other parts being broken away and in section to illustrate more clearly certain structural details;

FIGURE 2 is a top plan view of the game board with a horizontal section being taken through the discharge trap, the section being represented by the line 2—2 of FIGURE 1 of the drawings, looking in the direction of the arrows and with certain other parts being broken away and in section to further illustrate certain structural details;

FIGURE 3 is a transverse vertical section taken on the line 3—3 of FIGURE 2 of the drawings, looking in the direction of the arrows; and

FIGURE 4 is a perspective view of my novel detachable ball discharge trap.

Referring now to the drawings in particular wherein certain reference characters designate corresponding parts throughout the several views, the letter G generally indicates my novel game and the same includes, broadly, a substantially rectangular box 20 formed of cardboard in any convenient manner, a vertically and transversely extending partition 22 which forms, in conjunction with end wall 21, a storage compartment 23 for balls or

marbles B used in playing, and a detachable discharge trap 24 which will be later described in detail.

Secured within the box 20 between the partition 22 and box walls is an elongated horizontally disposed field board 25, provided with a depending peripheral flange 26 which supports the field board in spaced relation to the bottom of the box and below the upper edges of the partition 22 and its side and end walls, 27 and 28, respectively. The flanges 26 can be secured to the partitions and box walls by adhesive, staples or in any other suitable manner and serve not only to support the field board but add rigidity to the same to prevent objectionable warping of both the field board and box. The field board 25 is provided with a plurality of pocket openings 29, arbitrarily spaced on the board and slightly elongated in shape to facilitate entrance and retention of the playing balls. Obviously, these openings or pockets 29 may be given different point values, as desired, in playing the game.

Rigidly mounted on the field board 25 adjacent one end 30 is a block 31 provided with a circular opening 32 which surrounds a ball receiving opening 33 formed in the playing board. Detachably mounted on the block 31 is my discharge trap 24 and the same consists of a rectangular box-like structure 34, within which a tube 35 is secured for extension into the opening 32 formed in the block 31. The tube 35 terminates below the upper edge of the box structure 34, while a strip 35' forms a closure for the lower front portion of the box and extends rearwardly at 36 below the top of the tube 35 to rigidly secure the tube within the box structure. At its rear end, the strip portion 36 is bent to extend upwardly in an arc 37 terminating within the mouth 46 of the box structure 34, for the purpose of projecting the playing ball B deposited in the receiving opening 33 from the trap 24. This arcuate portion 37 of strip 36 is secured to the top wall 36' of the box-like structure 34 by any desired means, such as adhesive or stapling. As previously set forth, this box-like structure forms the outer casing or walls for my novel discharge trap 24.

A lever 38 is loosely seated upon a fulcrum piece 39 secured to the bottom of the box 20 by adhesive or other means, and this fulcrum piece is provided with upwardly extended side arms 40 which serve to prevent transverse shifting of the lever 38 on the fulcrum 39 and also provides an additional support for the field board intermediate the peripheral supporting flanges 26. Small positioning lugs 42 attached to the underside of the lever 38 prevent longitudinal shifting of the lever on the fulcrum piece 39, and a block 43 fastened on the top of the lever above the fulcrum piece 39 engages the underside of the field board to prevent vertical displacement of the lever from its fulcrum. One end of the lever 38 extends through the partition 22 and one of the end flanges 26' of the field board to provide a finger piece 44 which is struck by the player to actuate the lever.

To play the game, the discharge trap 24 normally nested within the compartment 23 is mounted on the block 31 with the end 45 of the tube 35 extending into the opening 32 to firmly hold the trap in operative position. Obviously the open end 46 of the discharge trap 24 is positioned toward the field board as shown. A ball is then dropped into the upper end of the tube 35 and deposited into the opening 33. The player then strikes the finger piece 44, causing the opposite end 47 of the lever to engage the ball B and project the same upwardly within the tube 35 until the same is engaged by the arcuate portion 37 of the strip which deflects the ball outwardly from the discharge open end 46 of my novel trap 24 onto the field board 25 in the direction of one of the arrows shown in FIGURE 1 of the drawings.

Obviously the striking force exerted on the finger piece **44** determines the distance of discharge of the ball B from the trap **24** so that skill may be used in selecting the longitudinal zone desired for placing the ball.

To control horizontal direction and transverse projection of the ball, the fulcrum piece **39** may be slightly crowned or rounded as at **48** and as best shown in FIGURE 3 to allow transverse tilting of the lever **38** on the furcrum. Consequently, by exerting striking force upon one side **49** or the other side **50** of the longitudinal axis of the lever, the same will be slightly tilted to vary the distance or projection of the ball within the tube in a vertical horizontal plane, with subsequent discharge of the ball from the trap **24** to zones on opposite sides of the longitudinal axis of the playing field. Naturally, after the ball is deposited on the field the same will roll into one of the pockets **29**, usually in the vicinity of the point at which the ball lands. The game described above can be designed to simulate the play of various sports, such as golf, trap shooting, baseball, football, etc., and the playing field can be decorated appropriately. Also, it is contemplated to provide a suitable decorated cover for the box **21**.

From the foregoing explanation considered in connection with the accompanying drawing, it will be apparent that a novel and inexpensive game has been devised to create suitable interest upon the part of both adults and youngsters, due to the skill required in actuating of the ball ejecting lever for discharging balls into desired zones and pockets on the playing field.

From the foregoing, it is believed that the features and advantages of my invention will be readily apparent to those skilled in the art and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to without departing from the spirit of the invention or the scope of the appended claims.

I claim:

1. In a mechanical game, a shallow rectangular box, a vertically positioned partition mounted in said box adjacent one of its ends, a horizontally positioned and longitudinally extending field board mounted within said box intermediate its bottom and the upper edge of its side walls, said partition abutting one end of said playing field and cooperating with the box walls to form a retaining wall surrounding the playing field to confine balls projected onto the field, said field being provided with a plurality of spaced ball receiving pockets, a manually actuated lever fulcrumed in said box below said field board and having a finger piece extending beyond said partition, a fulcrum bearing piece for said lever having a rounded or crowned portion extending transversely of the lever whereby said lever can be slightly tilted by striking to one side or the other of its longitudinal axis, and a detachable ball discharge trap mounted at one end of said field board from which balls are projected by said lever and directed to various zones on said field board, said detachable ball discharge trap including a rectangular outer box like structure open near one end and a vertically positioned tube held in said box like structure and having one end projected beyond a wall of said structure, and an arcuate partition positioned adjacent said other end of the tube upwardly toward said open box end.

2. In a mechanical game, a shallow rectangular box, a vertically positioned partition mounted in said box adjacent one of its ends, a horizontally positioned and longitudinally extending field board mounted within said box intermediate its bottom and the upper edge of its side walls, said partition abutting one end of said playing field and cooperating with the box walls to form a retaining wall surrounding the playing field to confine balls projected onto the field, said field being provided with a plurality of spaced ball receiving pockets, a manually actuated lever fulcrumed in said box below said field board and having a finger piece extending beyond said partition, a fulcrum bearing piece for said lever having a rounded or crowned portion extending transversely of the lever whereby said lever can be slightly tilted by striking to one side or the other of its longitudinal axis, a pair of positioning lugs on the under side of said lever, one lug being positioned adjacent one side of said fulcrum piece and the other lug being positioned adjacent the other side, a block having a central ball receiving opening mounted on one end of said playing board above and adjacent the end termination of the ball striking end of said lever, and a detachable ball discharge trap mounted over said block at one end of said field board from which balls are projected by said lever and directed to various zones on said field board, said detachable ball discharge trap including a rectangular outer box like structure open at one end and a vertically positioned tube held in said box like structure and having one end projecting beyond a wall of said structure and received in said block ball receiving opening, and an arcuate partition positioned adjacent said other end of the tube upwardly toward said open box end.

References Cited in the file of this patent

UNITED STATES PATENTS

1,428,054	Parker	Sept. 5, 1922
1,591,542	McGrath	July 6, 1926
2,167,847	Olken	Aug. 1, 1939

FOREIGN PATENTS

1,047,457	France	July 22, 1953