Nov. 10, 1931. R. W. STEWART 1,831,581

GAME OF SKILL

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FIG. 1

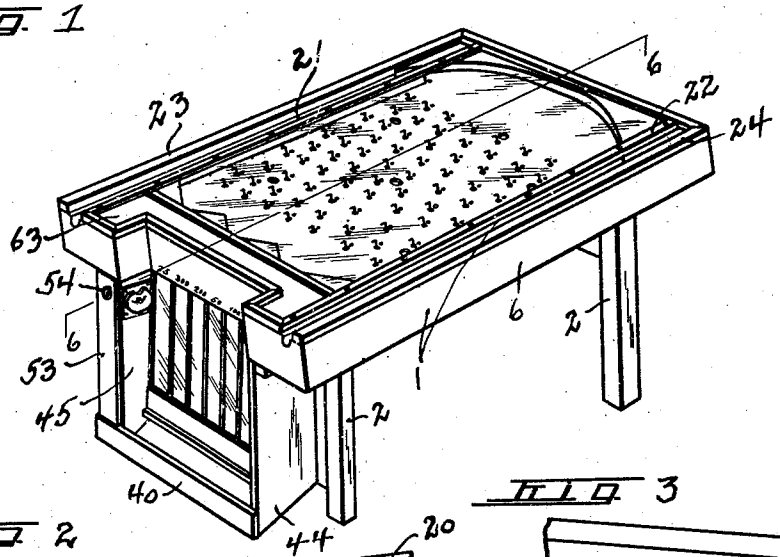


FIG. 2

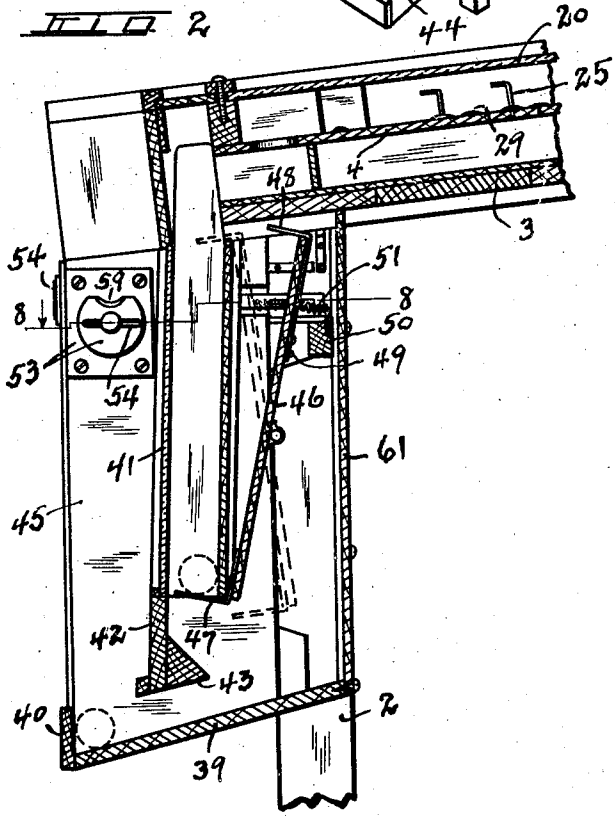
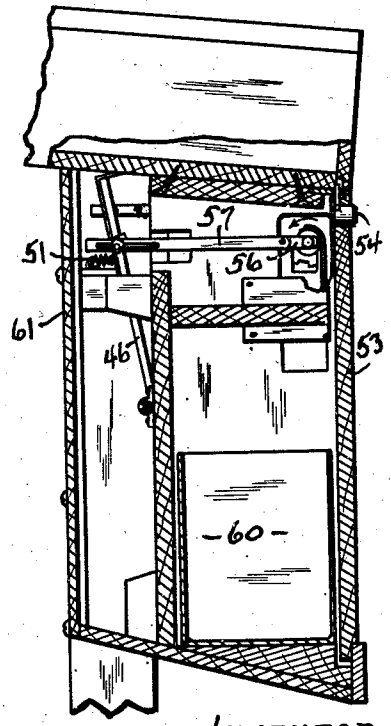


FIG. 3



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GAME OF SKILL

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FIG. 4

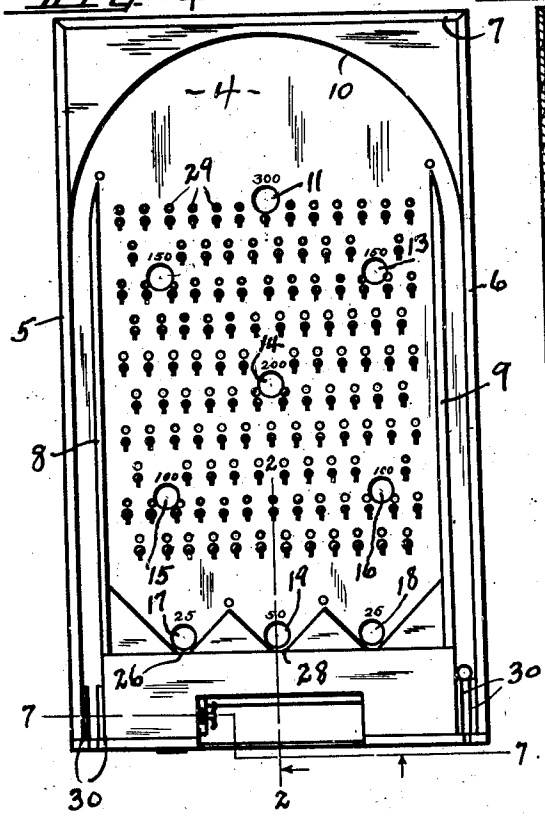


FIG. 5

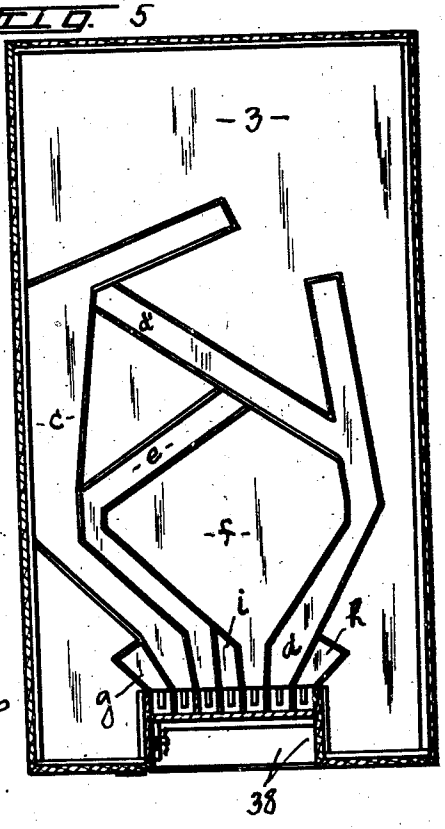
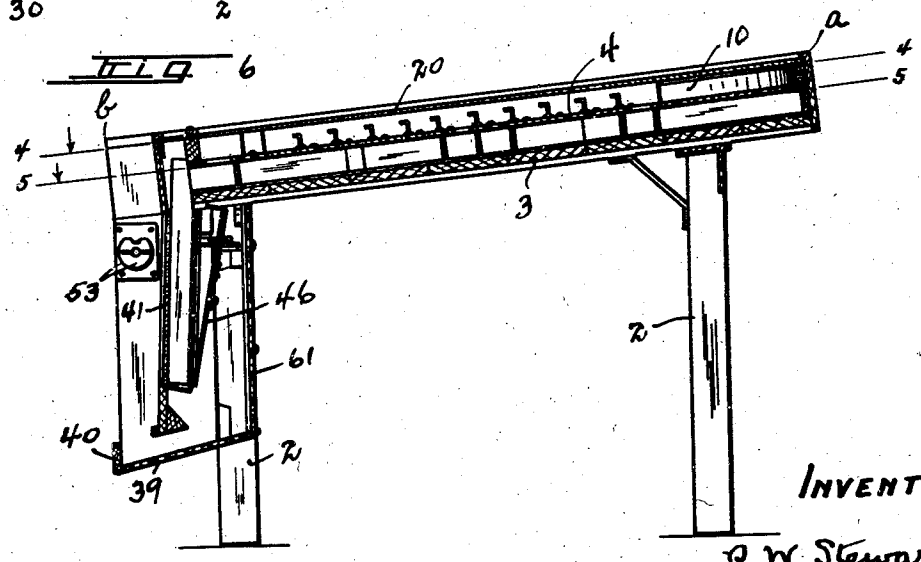


FIG. 6



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GAME OF SKILL

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FIG. 7

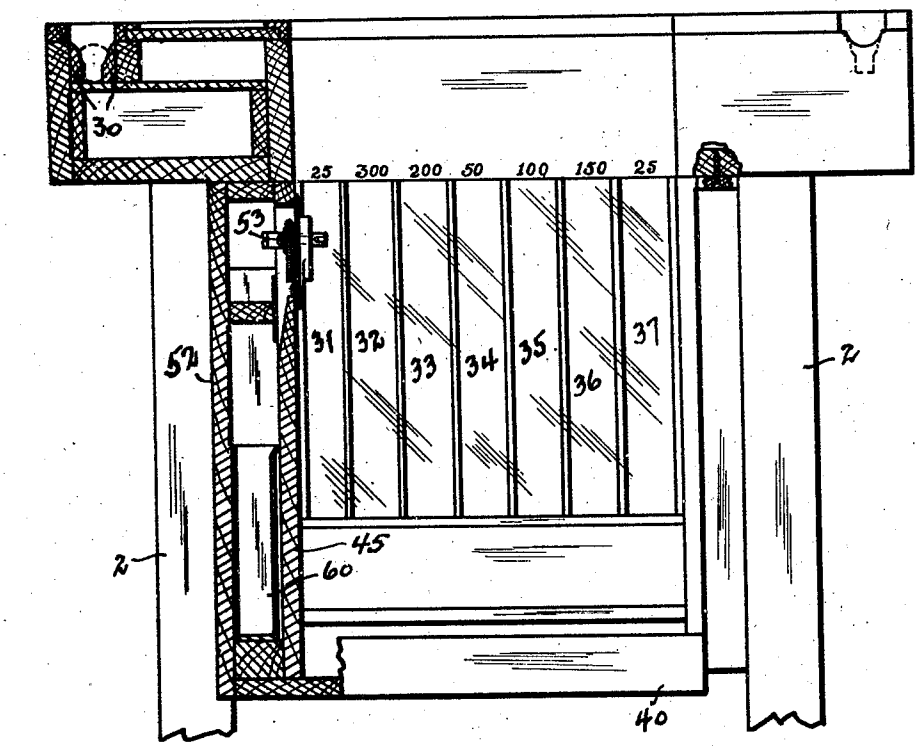
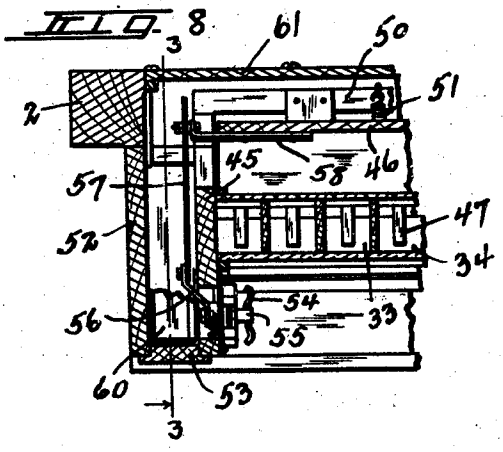


FIG. 8



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Patented Nov. 10, 1931

1,831,581

UNITED STATES PATENT OFFICE

RICHARD W. STEWART, OF AUBURN, NEW YORK, ASSIGNOR TO KAROM GOLF TABLE CORPORATION

GAME OF SKILL

Application filed March 7, 1931. Serial No. 520,824.

This invention relates to a new improved game of skill.

In games of the class described which have been hitherto known, in which a ball is manually propelled on to an inclined surface or playing field to pass downwardly thereon by gravity into or past apertures denoting different values for the shot, and which surface is provided with a plurality of vertically extending pins to deflect the ball in its movement, it frequently happens that the ball will lodge against one of the pins and come to rest. When this occurs, it is necessary to tilt or tip the apparatus in order to dislodge the ball, and this is a cause of annoyance to the players and also entails wear and tear on the apparatus.

The main object of my invention is to provide a game of the class described which is so constructed that, under no circumstances, can a ball become lodged against a pin.

Another object is to provide a device in which the opening of the ball magazines is coin-controlled in such a manner that the magazines having been opened must be allowed to close before the game may be again played.

Another object is to provide a control device for the ball magazines which may be actuated at any time without any possibility of its becoming jammed even though the player should operate this device before all of the balls from the playing field had reached a magazine.

Another object is to provide a device which is so constructed that the amount of initial velocity given a ball will determine whether or not the ball will move down the playing field or will move past the same into a penalty receptacle.

Another object is to provide a device of such a design that balls entering certain different apertures will be deposited in the same magazine.

Other objects and advantages relate to the size, shape and arrangement of parts, all as will more fully appear from the following description taken in connection with the accompanying drawings in which:—

Figure 1 is a perspective view of my improved game.

Figure 2 is a section on line 2—2 of Figure 4.

Figure 3 is a section on line 3—3 of Figure 8.

Figure 4 is a top plan view on line 4—4 of Figure 6, showing the device with the protective glass removed.

Figure 5 is a section on line 5—5 of Figure 6.

Figure 6 is a section on line 6—6 of Figure 1.

Figure 7 is a section on line 7—7 of Figure 4.

Figure 8 is a section on line 8—8 of Figure 2.

My device comprises a main frame 1 supported in spaced relation to the floor as by legs 2.

As perhaps may best be seen from Figure 6, the rear end —*a*— of main frame 1 is higher than the front end —*b*—, and I have found that to have the upper face of main frame at an angle of six degrees with the floor gives a satisfactory playing surface.

The main frame 1 comprises a flat bottom member 3 shown here as made of wood.

A playing surface 4, also here shown as made of wood, is secured in spaced relation to the bottom member 2, the distance between them being sufficient to permit the movement therein of the balls used in employing the device.

Side boards 5 and 6, referring to Figure 4, extend upwardly above the playing surface 4, a rear end board 7 connecting side boards 5 and 6. In parallel relation to side boards 5 and 6, I provide vertically extending strips 8 and 9 spaced sufficiently from side boards 5 and 6 to permit the passage therebetween of the balls used with the device.

At the rear end of the device, I provide a curved vertically extending strip 10 substantially semi-circular in form and having its opposite ends merging into side boards 5 and 6, and in spaced relation to the rear ends of strips 8 and 9 which terminate some distance from the rear end —*a*—.

The playing surface 4 is provided with a

plurality, in this case shown as nine, of apertures sufficiently large to permit the passage therethrough of the balls used with the device.

The apertures just referred to carry indicia of different denominations, the aperture 11 carrying the indicium 300, apertures 12 and 13 carrying the indicium 150, aperture 14 carrying the indicium 200, apertures 15 and 16 carrying the indicium 100, apertures 17 and 18 carrying the indicium 25, and aperture 19 carrying the indicium 50.

For the purpose of rendering more difficult the movement of a ball to any given aperture, I provide on the playing surface 4 a plurality, in this case shown as one hundred and twenty, vertically extending posts 25 arranged in spaced lines parallel with the end board 7, the posts in any given line being in staggered relation to the posts in the adjacent line or lines.

The distance between adjacent posts is sufficient to permit the passage therebetween of a ball used with the device.

Aperture 11 is positioned centrally of the playing surface 4, and adjacent the rear end of the device, and beyond the first of the posts 25. Apertures 12 and 13 are disposed in spaced relation downwardly from aperture 11 and in approximately the same spaced relation thereto. Aperture 14 is positioned at approximately the central point of playing surface 4. Apertures 15 and 16 are positioned in spaced relation below aperture 14 and in approximately the same spaced relation thereto.

Aperture 17 is positioned in a V-shaped recess 26 at the lower end of the playing surface 4, and aperture 18 is positioned in a similar V-shaped recess 27 also at the lower end of playing surface, recesses 26 and 27 being disposed adjacent opposite sides of the lower end of playing surface 4.

Aperture 19 is positioned in a V-shaped recess 28 at the lower end of playing surface 4 intermediate recesses 26 and 27.

It has been found in games of the kind here described that frequently a ball in its passage down the playing surface would become lodged against one of the posts on the playing surface and it would then be necessary to jar or tilt the device in order to dislodge the ball. To obviate the possibility of any such lodgment of a ball in my device, I provide adjacent each post 25 and above the same, a rounded disk 29 which is so disposed as to divert a ball from a path which would permit it to contact a post from a direction which would cause the ball to be lodged against the post to prevent its further gravitational movement.

I also provide similar disks as 29 at the upper end of the strips 8 and 9 so that a ball cannot become lodged against the ends of such strips 8 and 9.

At the lower ends of the trough formed by side board 5 and strip 8, and also the trough formed by side board 6 and the strip 9, I provide short spaced strips 30 which are so disposed that the space between them will not permit the passage of a ball but will permit the passage of a cue or stick used in giving the initial impulse to a ball when the apparatus is being used.

For the purpose of protecting the playing surface from dirt and wear, and for preventing any manual interference with the travel of a ball on such surface, I prefer to provide a glass cover for the playing surface between the strips 8 and 9 and the curved strip 10, such glass 20 being secured in position by moldings 21 and 22, see Figure 1, the upper edges of side boards 5 and 6 being provided with moldings 23 and 24 to make them the same height as the strips 8 and 9 with their superimposed moldings 21 and 22.

At the front or lower end of my device, I provide a plurality, in this case shown as seven, of vertically extending ball magazines 31, 32, 33, 34, 35, 36 and 37. These ball magazines are open at each end with their upper ends terminating at the edge of the front end of bottom member 3, bottom member 3 being cut away at its central portion, as shown in Figure 5, so that the magazines 31 to 37 may be positioned in a recess in the front end of the device.

The recess 38 is deeper than the width of the magazines 31 to 37 and is provided at its lower end with a bottom board 39, see Figures 2 and 6, having a lip 40 on its outer end.

The front sides of the magazines 31 to 37 are formed by a glass 41 which extends from side to side of the recess 38 so that it is possible to see how many balls are in each of the magazines 31 to 37.

The lower edge of glass 41 is supported by a cross piece 42 which extends from side to side of recess 38. Cross piece 42 has its lower edge in spaced relation to bottom board 39, a sufficient distance to permit the passage therebeneath of balls released from the magazines 31 to 37 so that the same may roll downwardly on bottom board 39, which is slanted downwardly, to come to rest against lip 40 so that they may be conveniently picked up by the operator of the device.

So that there may be no chance for a ball dropping from a magazine to pass forwardly with sufficient force to jump over lip 40, I prefer to provide on the rear face of cross piece 42, a rearwardly extending baffle 43 which will deflect balls rearwardly of recess 38 before they start forwardly by gravity.

Referring to Figure 5, I provide on bottom member 3, a means for directing balls passing through the apertures in the playing surface 4 to a selected one of the magazines 31 to 37.

These directing means consist of spaced

strips secured in position between bottom member 3 and playing surface 4 forming tunnels through which a ball may move by gravity.

Tunnel —*c*— has its upper end directly beneath aperture 11 which carries indicium 300, and is so formed and positioned that it will lead a ball dropping through aperture 11 towards and into magazine 32, which carries indicium 300, and it is so positioned that it does not pass beneath any other aperture in playing surface 4.

Tunnel —*d*— has its upper end positioned beneath aperture 13 carrying indicium 150, and has a branch —*d'*—, the upper end of which is positioned beneath the aperture 12 carrying indicium 150 so that the tunnel —*d*— may direct balls dropping through either aperture 12 or aperture 13 towards and into magazine 36, which also carries indicium 150. Tunnel —*d*— is so positioned that it does not pass beneath any aperture except apertures 12 and 13.

Tunnel —*e*— has its upper end positioned beneath aperture 14 which carries indicium 200, and is so formed as to direct a ball dropping through aperture 14 towards and into magazine 33, which also carries indicium 200.

Tunnel —*e*— does not pass beneath any aperture other than aperture 14.

Tunnel —*f*— is sufficiently wide so that it is positioned beneath apertures 15 and 16, each of which carry indicium 100, and is so positioned as to direct balls dropping through apertues 15 and 16 towards and into magazine 35, which also carries indicium 100. Tunnel —*f*— does not pass beneath any aperture except apertures 15 and 16.

Tunnel —*g*— is positioned beneath aperture 17 carrying indicium 25, and directs any ball dropping through aperture 17 towards and into magazine 31, which also carries indicium 25 and does not pass beneath any other aperture.

Tunnel —*h*— is positioned beneath aperture 18 carrying indicium 25, and directs the ball dropping through aperture 18 towards and into magazine 37, which also carries indicium 25, and does not pass beneath and other aperture.

Tunnel —*i*— is positioned beneath aperture 19 carrying indicium 50 and directs a ball dropping through aperture 19 towards and into magazine 34, which also carries indicium 50 without passing beneath any other aperture.

The recess 38 has opposed side boards 44 and 45 which extend rearwardly beneath bottom member 3 a short distance rearwardly of the rear faces of the magazines 31 to 37. Adjacent the rear face of magazines 31 to 37, and in spaced relation to permit pivotal movement thereof, is a cross member 46 having one end pivoted to side board 44 and having the other end pivoted to side board 45.

The lower end of member 46 is provided with a plurality of forwardly extending fingers 47 in spaced relation, a finger 47 being adapted to extend across the open bottom of each of the magazines 31 to 37 when in one position of member 46 to prevent the dropping therefrom of any ball or balls which may be in the magazines 31 to 37.

The upper end of member 46 is provided with forwardly extending fingers 48 adapted to overlie the open upper end of each of the magazines 31 and 37 when member 26 is in another position to prevent any balls which may be in any of the tunnels —*c*—, —*d*—, —*e*—, —*f*—, —*g*—, —*h*— and —*i*— from being deposited into such magazines 31 to 37. Otherwise it would be possible for a player to hold the coin-controlled device in the open position and use the balls continuously without being obliged to place another coin in such device after all of the balls have been played.

The fingers 48 are composed of spring metal with their lower ends secured some distance downwardly on the member 46 as by screws 49 so that in case the member 46 is manipulated to close the upper ends of magazines 31 to 37 at a moment when a ball or balls are about to be deposited in the magazines, such member or members 48 contacting with such balls may spring backwardly so that there may be no possibility of the device becoming jammed.

To the rear ends of side boards 44 and 45 is secured a cross bar 50. A coil spring 51 has one end secured to member 46 above its pivots and has the other end secured to cross bar 50 to normally hold the upper end of member 46 rearwardly and the lower end forwardly with the fingers 47 across the lower open ends of the magazines 31 to 37.

Adjacent the side board 45 and in spaced relation thereto, I provide an auxiliary side board 52 which extends from the front edge of recess 38 backwardly to a leg 2 to form a compartment.

A door 53 having a lock 54 is provided to close the front end of the compartment formed between side board 45 and auxiliary side board 52.

On the upper end of side board 45 is positioned a coin-controlled device 53 having its operating mechanism in the compartment formed by side board 45 and auxiliary side board 52, and having on its outer end an operating wing nut 54.

The coin-controlled device may be of any desired type, but I have found that a satisfactory one is that described in re-issue Patent No. 14,905 dated July 6, 1920 and issued to Alfred D. Antoine et al, assignors to Advance Machine Co., Chicago, Ill., for Detector for check-actuated machines.

The coin-controlled device is provided with

a rock shaft 55 having on its inner end a crank arm 56.

Crank arm 56 is connected by a link 57 to a bar 58 secured adjacent the upper end of member 46 so that the rocking of shaft 55 will, through crank arm 56 and link 57, cause member 46 to be moved about its pivots to bring the fingers 48 across the open upper ends of magazines 31 to 37, and to bring the fingers 47 rearwardly away from the lower ends of magazines 31 to 37 to allow any balls which may be in such magazines to drop downwardly on to bottom board 38 and thence forwardly against lip 40.

It will be understood that the device 53 may be manipulated only when a coin has been placed therein through a slot 59.

When the wing nut 54 has been released after manipulating the coin controlled device 53, the spring 51 will cause the member 46 to be moved about its pivots in the reverse direction to bring the fingers 47 into registration with the lower ends of magazines 31 to 37, and to bring the fingers out of registration with the upper ends of magazines 31 to 37. This action of spring 51 will also, through link 57 and crank arm 56, cause the rocking of rock arm 55 in the reverse direction to place the coin-controlled device 53 in the normal position ready for the insertion of an additional coin and further manipulation.

After the coin-controlled device 53 has been manipulated and released, the coin which was inserted therein will drop downwardly therefrom and for convenience, I prefer to provide in the bottom of the compartment formed between side board 45 and auxiliary side board 52, a receptacle as 60 which may be removed and emptied when the door 45 has been opened.

For the purpose of completely inclosing the movable parts of the device, I provide a closure 61 which extends from a leg 2 on one side of the device to an opposite leg 2 on the other side of the device, the closure 61 being positioned immediately in the rear of the cross bar 50.

For the purpose of providing a convenient storage place for balls, I prefer to provide a recess 63 around the recess 38 above the upper ends of magazines 31 to 37.

In playing the game, the player is provided with a plurality of balls, and I have found the ordinary golf ball to be a convenient size. The player places the balls in turn in the lower end of the slot formed by side board 6 and strip 9, or in the lower end of the slot formed by side board 5 and strip 8. By means of a billard cue or other stick, he propels the ball upwardly on to the playing surface 4. When moving down the playing surface 4, the ball will enter some one of the apertures in such playing surface, and will be deposited in a magazine carrying indicium which corresponds to the indicium on the aperture through which the ball drops.

When all of the balls have been used and deposited in the magazines, the number of balls in each magazine is multiplied by the indicium on such magazine and the amounts so obtained are added together to determine the player's total score.

Although not essential, I prefer that a player be penalized a certain amount for each ball which he propels with such force that it moves past the playing field into the slot which is opposite that from which it was started.

When one player has used all the balls allotted to him, and I have found ten is a good number to use, the coin-controlled mechanism 53 may be actuated to release the balls from the magazines 31 to 37 and make them available for use of the next player.

It will be understood that the materials of which my device is constructed may be varied, as may be the size, shape and dimensions of the various parts of the device, for although I have shown and described a specific structure and form and relation of parts as an exemplification of an embodiment of my invention, I do not desire to restrict myself to the exact size, shape or relation of parts, as various changes may be made within the scope of the appended claims.

I claim:

1. In a device of the class described, a main frame, an inclined playing surface having a plurality of apertures, a plurality of upwardly extending spaced posts intermediate the apertures, rounded disks on the playing surface adjacent the posts, ball magazines below the playing surface, tunnels leading from the apertures to the ball magazines, and spring fingers adapted to be moved to and from positions across the upper ends of the magazines.

2. In a device of the class described, a main frame, an inclined playing surface having a plurality of apertures, a plurality of upwardly extending spaced posts intermediate the apertures, rounded disks on the playing surface adjacent the posts, ball magazines below the playing surface, tunnels leading from the apertures to the ball magazines, movable means for closing the lower ends of the magazines, and spring fingers adapted to be moved to and from positions across the upper ends of the magazines.

3. In a device of the class described, a main frame, an inclined playing surface having a plurality of apertures, a plurality of upwardly extending spaced posts intermediate the apertures, rounded disks on the playing surface adjacent the posts, ball magazines below the playing surface, tunnels leading from the apertures to the ball magazines, a pivoted member having a plurality of fingers on its lower end and a plurality of spring fingers

on its upper end, and means for pivoting said member to bring said fingers alternately across opposite ends of the magazines.

4. In a device of the class described, a main frame, an inclined playing surface having a plurality of apertures, a plurality of upwardly extending spaced posts intermediate the apertures, ball magazines below the playing surface, tunnels leading from the apertures to the ball magazines, a pivoted member having a plurality of spaced fingers on its lower end and a plurality of spaced resilient fingers yieldingly secured to its upper end, and means for pivoting said member to bring said fingers alternately across opposite ends of magazines.

In witness whereof I have hereunto set my hand this 26th day of February, 1931.

RICHARD W. STEWART.