Nov. 9, 1937. H. G. TRAVER 2,098,320

GAME APPARATUS

Filed July 5, 1934 4 Sheets-Sheet 1

Fig. 1.

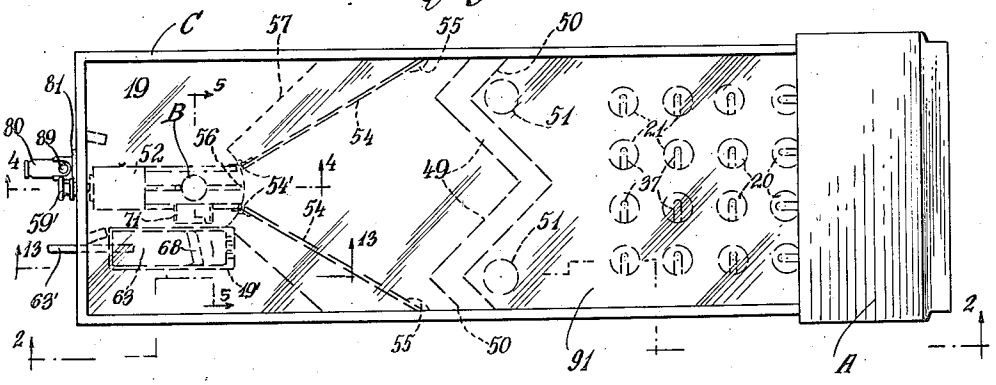


Fig. 3.

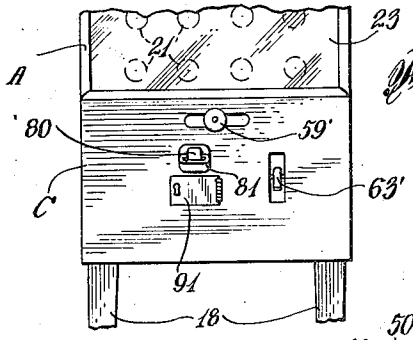


Fig. 2.

Fig. 5.

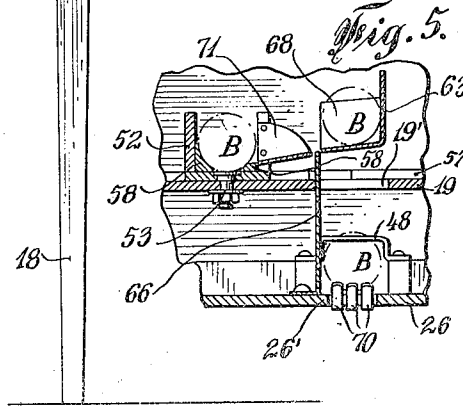
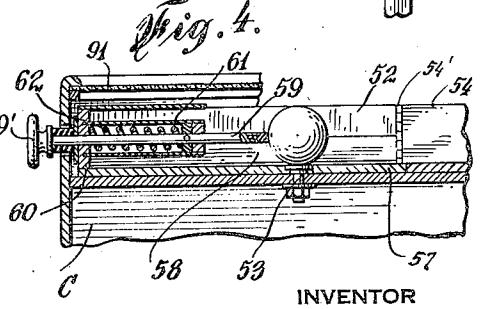


Fig. 4.



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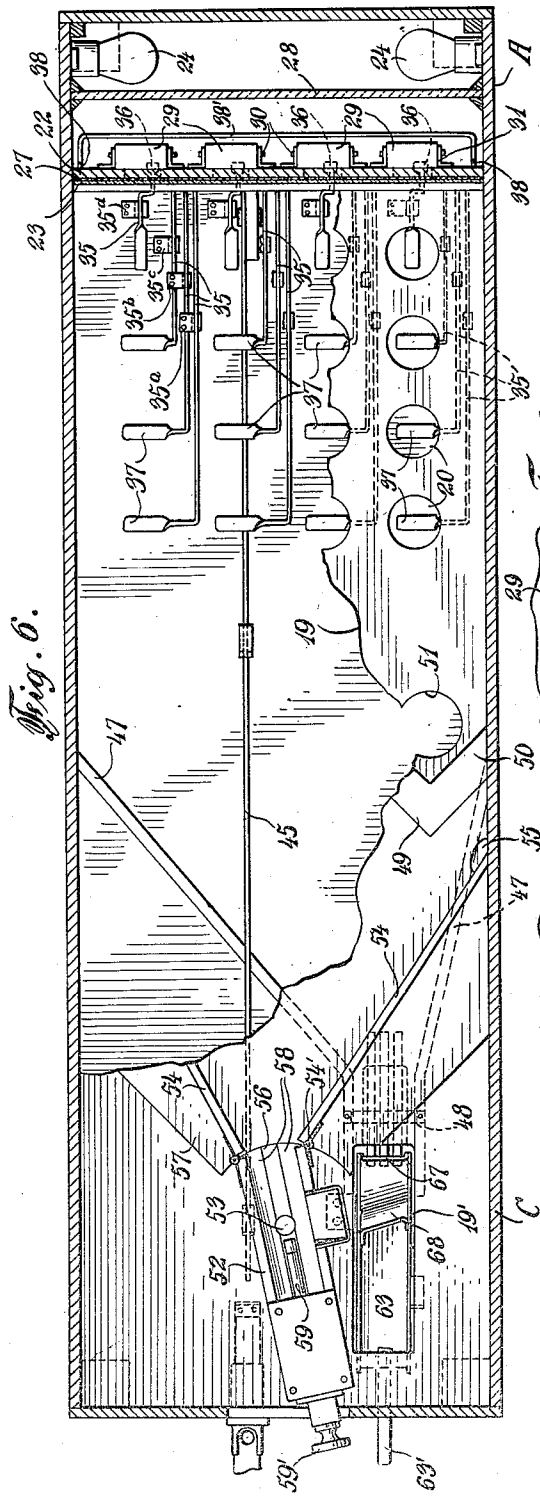


Fig. 6.

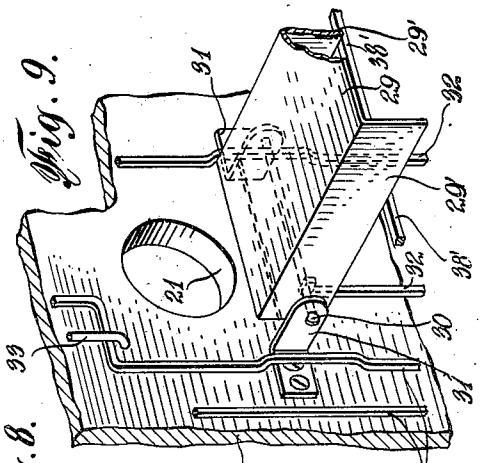


Fig. 9.

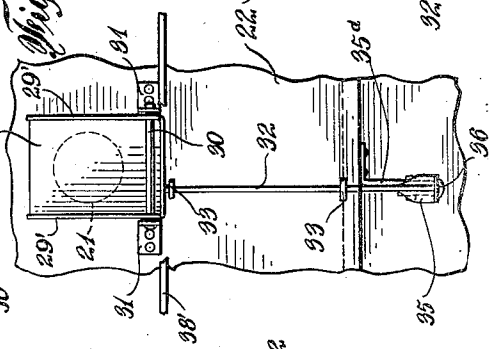


Fig. 8.

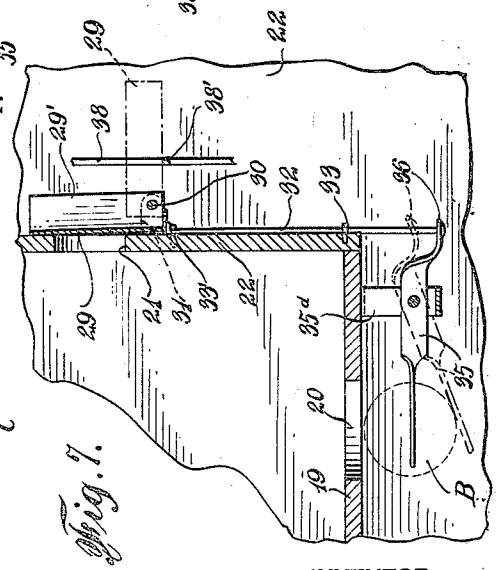


Fig. 7.

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Fig. 11.

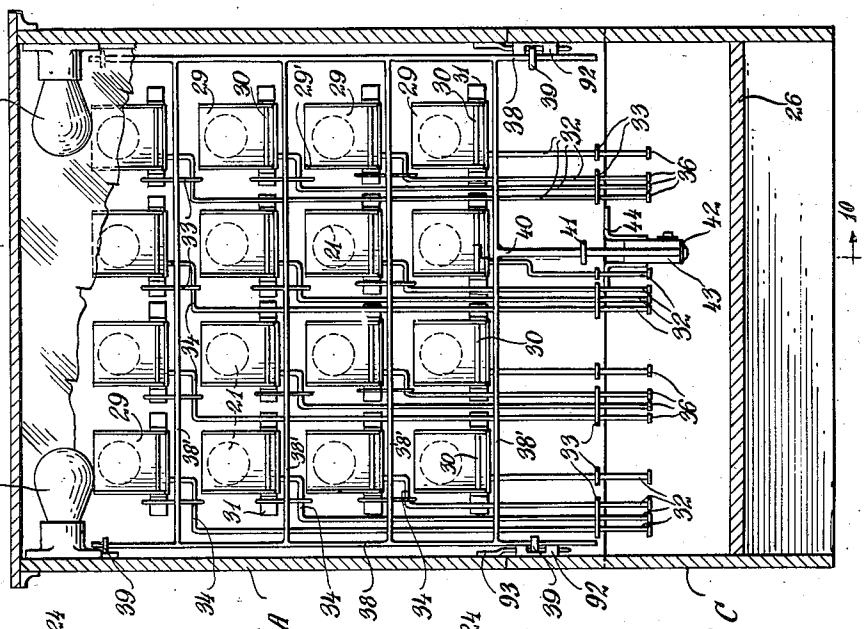


Fig. 10.

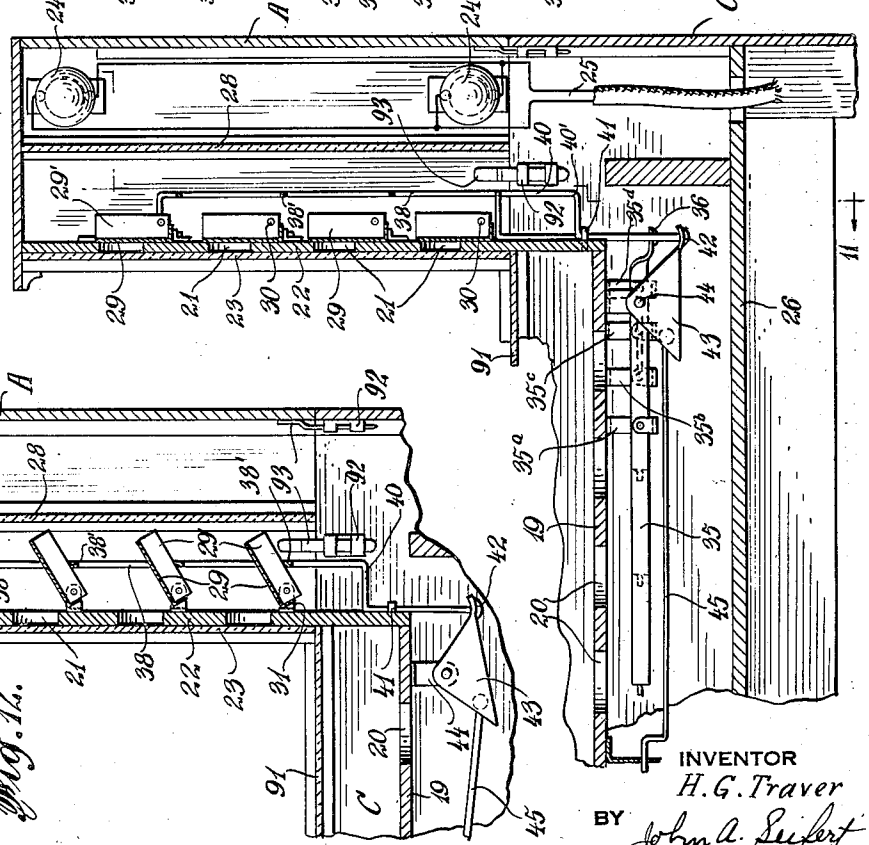


Fig. 12.

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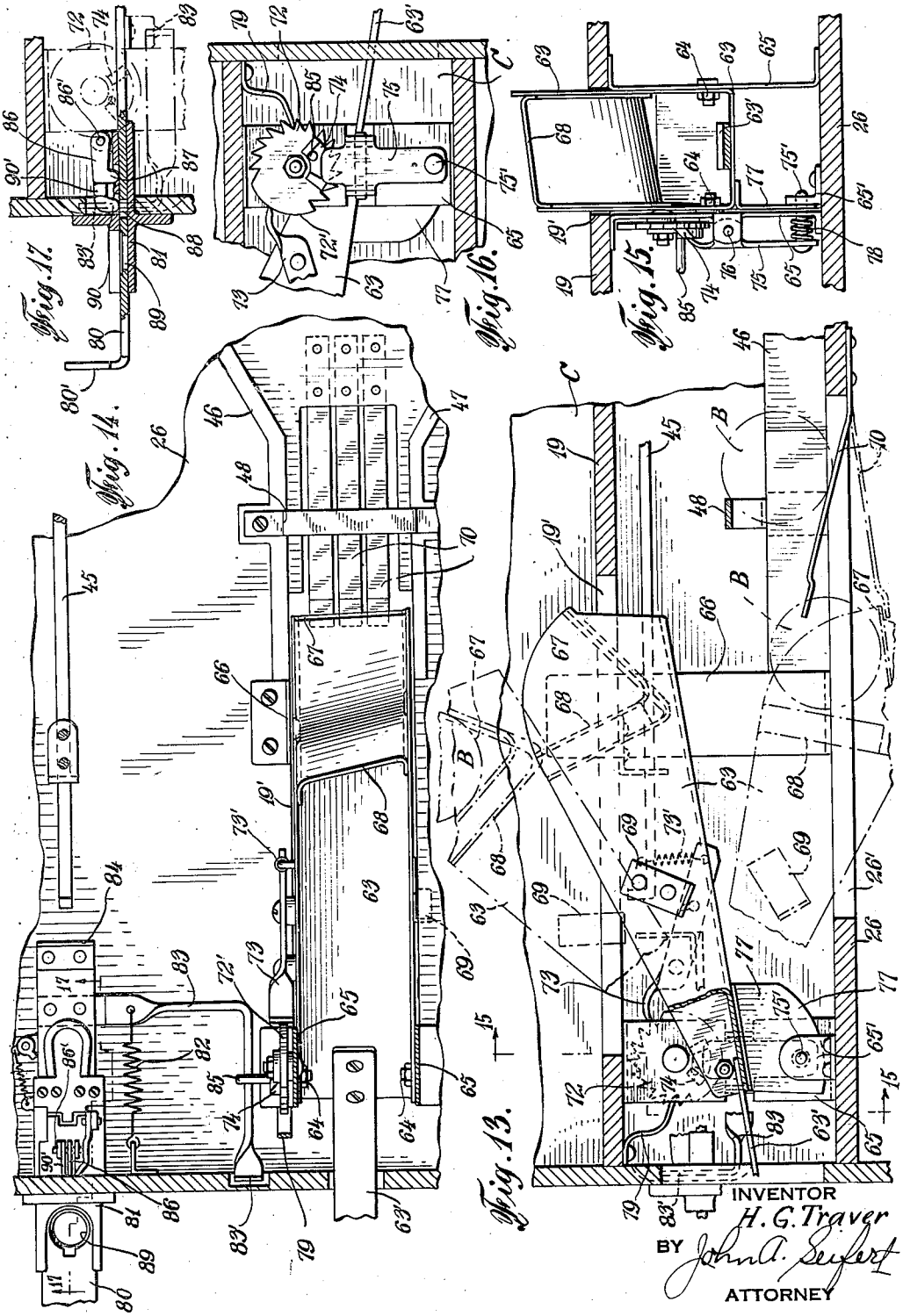


Fig. 17.

Fig. 16.

Fig. 15.

Fig. 14.

Fig. 13.

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Patented Nov. 9, 1937 2,098,320

UNITED STATES PATENT OFFICE

2,098,320

GAME APPARATUS

Harry G. Traver, Beaver Falls, Pa., assignor to International Mutoscope Reel Co., Inc., New York, N. Y., a corporation of New York

Application July 5, 1934, Serial No. 733,779

11 Claims. (Cl. 273—122)

This invention relates to games, and particularly to bowling games comprising a board having pockets or openings at one end arranged in a predetermined group or sets composed of individual groups or sets of alined or rows of openings and into which pockets or openings the player tries to cause a ball or balls to fall or drop projected by the player along the board from the end opposite the openings, an annunciator being provided and adapted to be operated by means actuated by a ball dropping into the pockets or openings and indicating into which one of the pockets or openings a ball has entered, and it is the principal object of the invention to provide an improved constructed and arranged bowling game of this character which is novel, simple and cheap in construction and arrangement of parts and efficient in use.

It is another object of the invention to provide in bowling games of this character improved annunciator means to indicate the pocket or opening into which a ball projected along the bowling board has dropped or entered, and comprising an interiorly illuminated casing extended upward from the bowling board at the rear of the pockets or openings, the front wall of which casing is provided with a plurality of indicators in the form of openings or transparent portions grouped to correspond with the group of pockets or openings in the bowling board through which openings the light from within the casing is normally shut off or excluded by a shutter for each individual opening or transparent portion retained in opening covering position and releasable means for each individual shutter adapted to automatically move a shutter to position to uncover and effect illumination of the opening or transparent portion by the operation of said means to release the shutter, and said means for an individual shutter actuated to release the shutter by a ball dropped into its associated opening or pocket in the bowling board, and the provision of means to simultaneously move all of the shutters assuming their opening uncovering position to opening covering position.

Another object of the invention is to provide means to project a ball to the end of the board relative to the pockets or openings adjustable to permit of projecting of a ball in different directions angularly of the board from opposite sides of the longitudinal center of the board.

A further object of the invention is to provide means below the bowling board to receive a ball dropped through a pocket or opening arranged to cause the ball to return to predetermined position of rest at the player's end of the board, and the provision of means to release and receive such a ball from its rest and position the same relative to the ball projecting means on the bowling board.

Another object of the invention is to provide a coin controlled bowling game of this character wherein the means to position the returned balls to playing position is automatically rendered inactive after a predetermined number of balls have been returned, and adapted to be released and rendered active by a manually operated coin controlled actuated means and which means is also operative to actuate means to simultaneously move such shutters as may have been released and moved to position to uncover an indicator opening to position to cover and exclude the light from the enunciator casing to such opening.

Other objects and advantages will hereinafter appear.

In the drawings accompanying and forming a part of this application, Figure 1 is a plan view of a table showing an embodiment of the invention.

Figure 2 is a sectional side elevation taken on the line 2—2 of Figure 1 looking in the direction of the arrows and showing the arrangement of the bowling board, the ball return and ball projecting means.

Figure 3 is an end elevation, partly broken away, looking at the left of Figure 1.

Figure 4 is a sectional view of the ball projecting means taken on the line 4—4 of Figure 1 looking in the direction of the arrows.

Figure 5 is a sectional view of the means to receive a ball from the ball return means and position the same relative to the ball projecting means, the section being taken on the line 5—5 of Figure 1 looking in the direction of the arrows.

Figure 6 is a sectional view taken on the line 6—6 of Figure 2 looking in the direction of the arrows.

Figure 7 is a sectional detailed view, on an enlarged scale, of means operative by a ball dropping through an opening in the bowling board to actuate the shutter to position to uncover the indicator opening.

Figure 8 is a view looking at the right of Figure 7.

Fig. 9 is a perspective view of a shutter for an indicator opening showing the same in position to uncover the opening.

Figure 10 is a sectional view taken on the line 10—10 of Figure 11 looking in the direction of the arrows and showing means to actuate the

shutters for the indicator openings of the annunciator to position to uncover said openings by balls falling through the bowling board openings and the means to simultaneously move the shutters to position to cover the indicator openings.

Figure 11 is a sectional view taken on the line 11—11 of Figure 10 looking in the direction of the arrows.

Figure 12 is a view similar to Figure 10, but showing the shutters in position to uncover the indicator openings and supported by the means to move the shutters to position to cover said openings.

Figure 13 is a sectional view, on an enlarged scale, taken on the line 13—13 of Figure 1 looking in the direction of the arrows and showing in side elevation the means to receive a ball from the ball rest of the ball return means and position the same relative to the ball projecting means and the means to render the same active.

Figure 14 is a view looking at the top of Figure 13 and in addition showing in plan the coin controlled means for rendering active the means to receive a ball from the ball rest and position the same relative to the ball projecting means.

Figure 15 is a sectional view taken on the line 15—15 of Figure 13 looking in the direction of the arrows.

Figure 16 is a sectional view looking at the left of Figure 15; and

Figure 17 is a sectional view of the coin controlled means taken on the line 17—17 of Figure 14 looking in the direction of the arrows.

In carrying out the embodiment of the invention illustrated in the drawings, there is provided a table in the form of an elongated rectangular casing, (designated in a general way by C), supported at the corners by legs 18 with the rear end as viewed from the right in Figure 2 at a somewhat higher elevation than the other or forward end so that the table will slightly decline to the horizontal from the rear to the forward end.

An annunciator casing (designated in a general way by A) is mounted upon and extends upward from the rear end portion of the table, said casing being of integral structure to be removably mounted as a unit upon the table. A bowling board 19 is fixed on the table below the top of the sides and end to incline at the inclination of the table, or if desired, the table may be supported by the legs in horizontal position and the bowling board mounted to decline relative to the horizontal from the rear toward the front end. This board is provided at the rear end with pockets or openings 20, shown as sixteen in number, although a greater or less number may be utilized, said openings being arranged in a predetermined group composed of individual groups by arranging the openings in rows extending longitudinally and transversely of the bowling board with the openings of each row equidistantly spaced apart and into which openings or pockets a body, such as a ball or the like projected along the table from the opposite or player's end of the board is adapted to drop or enter.

The front wall of the annunciator casing is provided with windows grouped to conform with the arrangement of the layout of the pockets or openings in the bowling board; that is, they are arranged in vertical and transverse rows. These windows in the embodiment shown are in the form of openings 21 in the front wall 22 of the casing with a glass plate 23 juxtaposed to the front of said wall, the interior of the casing being illuminated and the light transmitted through the windows, as by electric lamps 24 electrically connected with a source of electricity by conductors 25 extended through an opening in a plate or board 26 mounted in the table casing C below and spaced from the bowling board 19. To effect an illumination of the windows which may be readily observed the glass plate 22 may be colored, or a plate of transparent material of the desired color, such as celluloid or cellophane, may be interposed between the glass plate 23 and the front wall of the casing, as shown at 27 in Figure 6. To effect an even illumination of the windows a transparent plate, such as frosted glass or what is known as Florentine glass, is mounted in the annunciator casing in interposed relation to the lamps 24 and the front wall of the casing, as shown in Figures 6, 10 and 12.

Each window is provided with a shutter 29 adapted to be moved to position to cover the openings 22 to shut out or exclude the light from the casing through the windows and to position to uncover said windows. These shutters comprise a plate of suitable material having the opposite marginal portions flanged laterally to extend in parallel relation, as at 29', and pivotally supported below the openings by a pintle 30 extended through the plate flanges adjacent one end of the plate and pivotally engaged at the opposite ends in openings in brackets 31 fixed to the rear of the front casing wall. The pivot pintle is arranged off center whereby as the shutter is moved slightly beyond the vertical in one direction it will automatically move to position to engage the casing wall and cover the opening, as shown in Figures 8, 10 and 11, and when moved beyond the vertical in the opposite direction it will assume a position to uncover the opening, as shown in Figures 9 and 12.

The shutters are normally positioned to cover the windows and retained in said position by the pivotal mounting of the shutters off center as set forth, and are adapted to be moved to position to uncover the window by a ball projected along the bowling board dropping through an opening 20 therein. For this purpose there is provided operating means associated with each shutter actuated by a ball dropping through an opening 20 and comprising slides or rods 32 mounted by supports 33 on the front wall of and within the casing to have vertical sliding movement, the slides being arranged in groups in relation to a vertical row of windows, in the present instance four in number. The slide at the right of each group as viewed in Figure 11 is straight and extends directly below the lowermost shutter of a vertical row, while the other slides of each group are supported at one side of the shutters and the upper end offset, as at 34, with the ends arranged below the shutters, the slides normally assuming a predetermined position by gravity with the upper ends below and contiguous to the shutters offset laterally of the slides and supported in such position by the slide supports.

To actuate the slides to cause the shutters to assume window uncovering position, the slides are adapted to be individually moved upward and such movement effected by a ball dropping through an opening 20 in the bowling board. To effect such actuation of the operating slides each group of slides associated with a vertical row of

windows is arranged with a group of co-operating levers 35 associated with each longitudinal row of openings 20 in the bowling board pivotally supported below the bowling board at one side of such row of openings, each lever having the rear end arranged to cup form for engagement of the lower end of the slides, as shown at 36 in Figures 7, 8 and 10, the opposite end of the lever of each group associated with the slide at the right of each group of slides extending substantially diametrically of the rear transverse row of openings 20, as shown at 35' in Figure 6, while the opposite ends of the remaining levers of each group are offset laterally to extend substantially diametrically of the openings 20, as shown at 37 in Figure 6. The levers of each group are of progressively increased length and to transmit corresponding slide actuating movement to each lever the lever of each group associated with the front transverse row of openings 20 in the bowling board and operative to actuate the shutters for the upper transverse row of windows of the annunciator is pivotally supported by brackets 35*a*, while the successive adjacent levers are supported by brackets 35*b*, 35*c* and 35*d*, as shown in Figures 6 and 10. As the ball drops through or enters an opening or pocket 20, it will engage the portion of the lever intersecting the opening and the weight of the ball as it drops will depress said end of the lever and raise the opposite end and through the cup connection with a slide will raise such slide and thereby tilt the associated shutter to cause it to move to position to uncover the window.

In playing the game, the player tries to cause a ball projected along the bowling board to enter an opening therein, the player projecting a predetermined number of balls and endeavors to cause the balls to enter an alined transverse or longitudinal row of openings, or a diagonally extended row of openings, which is indicated by the annunciator by the actuating of the shutters and uncovering of the indicator windows; or the game may be played in groups; that is, a series of tables being provided when the number of balls to be projected by the player is not limited, the first player causing an alined row of indicator openings to be uncovered being the winner. If desired, numbers of successive higher denominations may be arranged relative to the pockets or openings 20 in the bowling board and corresponding numbers arranged relative to the associated indicator windows of the annunciator, in which case the player having the highest score determined by adding into a total the numbers arranged relative to the indicator windows, the shutters of which have been actuated to uncover the same, is the winner.

To adjust such shutters which may have been moved to window uncovering position to window covering position, a frame is mounted on the front wall 22 within the annunciator casing to have vertical sliding movement and comprising a pair of bars 38 slidably mounted at the opposite ends in supports 39, said bars being connected by outwardly bowed bars 38' adapted in the normal position of the frame assumed by gravity to extend in a plane below the windows to be engaged by and support such shutters as may be moved to window uncovering position, as shown in Figure 9. The frame is supported in its normal position by a rod 40 fixed at one end intermediate the ends of the lowermost transverse bar 38' to extend downwardly therefrom and intermediate its ends offset at a right angle, as shown at 40' in Figures 10 and 12, and the lower portion slidably mounted in a support 41 and extended below the ends of the levers 35, the offset portion 40' engaging the support 41. To move the shutters to indicator window covering position, the frame 38, 38' is moved upward. To actuate the frame from the player's end of the bowling board, the lower end of the rod 40 engages a cup portion 42 at a corner of a member 43 of triangular shape in side elevation pivotally supported at an intermediate corner by brackets fixed to and extending downward from the bowling board, as at 44, a rod 45 slidably supported below and extending longitudinally of the bowling board to the player's end thereof being pivotally connected with the member 43 at the corner opposite the cup portion 42, said member being in the nature of a bell crank lever. In the normal position of the shutter closing frame 38, 38', the engagement of the rod 40 with the member 43 maintains said member in the position shown in Figure 10, and to impart movement to the frame to move the shutters to window closing position, the rod 45 is moved rearward thereby imparting movement to the frame through the member 43, as shown in Figure 12, return movement being imparted to member 43 by the gravity movement of the frame.

The balls that drop through the pockets or openings 20 are returned to the player's end of the table by dropping onto the plate or board 26 which declines toward the forward end and are directed by guides in the form of rails 46, 47 fixed to and extending upward from the plate 26, said rails converging toward each other from the sides of the casing C in a direction toward the player's end of the table, as clearly shown in Figure 6, with the front ends extending parallel and spaced apart a distance to permit of the passage of the ball therebetween to engage a stop 48 from which it is lifted to the bowling board through an opening 19' therein. To prevent a ball which has been projected relative to the pockets 20 from returning to the player's end on the bowling board and the replaying of the same, an obstruction is arranged upon the bowling board to extend transversely thereof intermediate the player's end and the openings 20, which obstruction is in the form of strips secured upon and projecting upward from the bowling board and arranged with portions to diverge from each other from the longitudinal center of the board toward the player's end, as at 49, and then diverging reversely to the rear end, as at 50, the board having openings 51 at the juncture of the portions 49, 50 for the passage of the balls to the ball returning board 26.

Means are provided at the player's end of the bowling board to project balls in different directions relative to the bowling board and the pockets therein, comprising a channel shaped member 52 (Figures 1, 4 and 6) supported intermediate the ends to have adjustment on the bowling board about a pivot intersecting the longitudinal center of the bowling board, as at 53, the channel member having guide rails 54 pivotally or hingedly connected at one end to the ends of the channel walls of said member, as at 54', and diverging toward the sides of the casing extended above the bowling board with the outer ends freely engaging abutments 55 whereby adjustment of said guide rails is effected simultaneously with the adjustment of the projector 52 about its pivot 53. The inner end of the projector is of arcuate form and is arranged contiguous to an arcuate end, as at 56, of a board 57 superposed to the bowling board with

the upper surface flush with the surface of the portion of the projector engaging the channel walls and substantially flush with the obstruction 49, 50, the forward end of which board 57 may be arranged to form said obstruction. The rails 54 are superposed to the surface of the board 57 to have movement over the same. To reduce to a minimum the contact of the ball with the projector and a consequent frictional resistance to the movement of the ball therefrom, and also to direct the ball in a straight path from the projector, fillets 58 of triangular shape in cross section are arranged in the corners formed by the side walls and bottom of the channel. To project the ball from the channel member, a plunger 59 is slidably mounted in a plate 60 secured at the outer end of the channel member and a tubular member 61 carried at one end by the plate 60, the plunger being urged in a direction into the channel by a spring 62 enclosed within the member 61 and confined between the plate 60 and a collar fixed upon the plunger, a manipulating hand grip 59' being secured to the outer end of the plunger extended through an elongated slot in the end wall of the casing C extending above the bowling board. To project a ball from the channel member, the plunger is drawn outward against the tension of the spring 62, the ball B engaging with a head at the end of the plunger and upon release of the plunger it is actuated by the spring to project the ball from the runway of the channel member.

To lift the returned balls from the guide rails 46, 47 and deliver them into the projector, a channel member 63 is pivotally supported adjacent one end, as at 64, between a pair of brackets 65 fixed to and extending upward from the board 26 (Figure 15) with the channel walls converging toward the pivot end of said member, the lifter being adapted to be rocked to move the front end downward through an opening 26' in the board 26 and upward through the opening 19' in the bowling board 19 and guided in such movement by a plate 66, as shown in full and dot and dash lines in Figure 13. Within the front end of the channel member there is secured a V-shaped member to extend transversely between the channel walls, the one wall 67 of which diverges from the outer end toward the connecting portion of the side walls of the channel member, and the other wall 68 diverging from the wall 67 outward from the channel walls and being inclined slightly to the rear, as clearly shown in Figure 14. The lifter is rocked by a hand grip 63' extended through an opening in the end wall of the casing C, the upward movement of the lifter being limited by an angle member 69 fixed at one angle portion to the side of the lifter with the other angle portion extending laterally therefrom and adapted to engage below the side wall of the opening 19'. Resilient fingers 70 are secured at one end to the bottom of the plate 26 at the forward end of the opening 26' to extend relative to said opening, as shown in Figure 13, the fingers being arranged to extend through said opening and project above the board 26 by the inherent tension thereof, as shown in full lines, for the engagement of a ball between the ball return guides 46, 47 to maintain the ball in engagement with the stop 48. As the lifter is moved downward, the wall 67 of the V-member extending between the side walls of the channel member engages the free ends of said fingers and moves them downward until said free ends decline slightly to the horizontal with the result that the ball B is released from the stop 48 and will roll over the wall 67 to be engaged between the walls 67, 68, as shown in the lower dot and dash line position in said Figure 13, and the ball will be retained therein during the upward movement of the lifter by the guide member 66 until the lifter assumes its uppermost dot and dash line position when the ball due to the lateral inclining of the wall 68 will roll from between the walls 67, 68 to a chute 71 arranged in the side wall of the projector 52 onto the runway therein, as shown in Figure 5.

As stated, it is an object to provide a coin controlled device wherein the game is adapted to be played upon the insertion of a coin and to be rendered inactive after a predetermined number of balls have been projected relative to the bowling board. For this purpose means are provided to prevent the lifting of returned balls to the projector, and shown as comprising means to lock the lifter against movement upon a predetermined number of oscillatory movements thereof and the lifting of a predetermined number of returned balls to the projector, and comprising, as shown in Figures 13 to 16, a mutilated gear or ratchet wheel 72 rotatably mounted on the side of a lifter support 65 adapted to be rotated a predetermined distance or one tooth space, and the number of tooth spaces controlling the number of returned balls to be lifted to the projector, upon which movement of the lifter to lift and deliver a ball to the ball projector by a pawl 73 pivotally carried by the lifter and urged into engagement with the gear by a spring 73'. The gear is rotated until an untoothed portion 72' is positioned relative to the pawl 73. As the gear is rotated to said position, a cam 74 on the side of the gear is moved relative to one arm of a lever 75 pivotally carried by ears extended laterally from a lifter supporting bracket 65, as at 76, to move a pin 75' carried at the opposite end of the lever into registering openings in said bracket 65, an angle member 65' and a perforation in a plate 77 fixed to and extended downward from the lifter 63 adapted to move between the brackets 65, 65' when the lifter is in the position shown in full lines in Figure 13, thereby locking the lifter against movement. A spring 78 confined between one arm of the lever 75 and its supporting bracket 65 urges said arm of the lever to position the pin 75' out of engagement with the perforations in the lever plate 77 and the bracket 65' and the other arm of the lever toward the gear 72. The gear is held against retrograde movement by a spring detent 79.

To release the plate lifter and actuate the frame 38, 38' to move the shutters to indicator window covering position, there is provided a slide 80 (Figures 14 and 17) mounted to have longitudinal sliding movement in the slideway of a bracket 81 mounted on the front wall of the casing C with a portion extended through an opening into the casing and a portion extended laterally from said casing wall. The slide has a finger engaging grip 81' at the outer end and is urged outward by a spring 82. An arm 83 of rectangular form is fixed to the end of the slide within the casing C extending beyond the bracket 81 to extend laterally toward the lifter 63 with one angle portion juxtaposed to and extending parallel of the lifter and slide and having an upturned portion 83' at the free end. As the slide is moved inward an upwardly turned portion 84 of the

slide engages the end of the rod 45 rocking the lever member 43 (Figures 10 and 12) on its support and through its connection 42 with the rod 40 of the frame 38, 38' moving the frame upward and such shutters as may have been moved to indicator window uncovering position and supported by the frame to window covering position. As the slide is continued to be moved inward, the upturned end 33' of the arm 33 engages a pin 85 extended laterally from the gear 72, which is in the position substantially as shown in Figure 16, and moving the gear to position the cam 74 out of engagement with the lever 75 to permit the spring 78 to move the lever 75 to position the pin 75' out of engagement with the perforations in the lifter plate 77 and bracket 65' freeing the lifter and positioning the first tooth space following the untoothed portion 72' of the gear for engagement by the lifter pawl 73 as the lifter is actuated.

The slide 80 is normally rendered inactive by a latch 86 (Figures 14 and 17) fixed to shaft 86' pivotally carried by and extending between ears extended upward from the portion of the slide carrying bracket 81 within the casing C, said latch having a pallet 87 engaging an opening in the upper wall of the bracket, as shown in Figure 17, and resting upon the slide in the outer position thereof, said pallet being adapted to engage an opening 88 in the slide when the slide is moved inward to a predetermined extent, but not sufficient to permit of engagement of the slide with the actuating rod 45 for the shutter operating frame 38, 38', or to actuate the gear 72 to position the cam 74 carried thereby out of engagement with the lever 75, and to permit of said actuation of the slide it is provided with an opening or pocket 89 for the engagement of a coin exterior of the casing C. As the slide is moved inward with a coin in said coin pocket prior to the slide opening 88 coming opposite the latch pallet 87, a pallet 90 on a second latch 90' fixed on the shaft 86' will ride upon the coin in the coin pocket and thus maintain latch carrying shaft 86' in position to support the latch 86 so that the pallet 87 thereof will not engage in the slide opening 88 and permit actuation of the slide inward to its full extent and transmit shutter actuating movement to the frame 38, 38' and lifter releasing movement to the gear 72. When the slide has been moved inward to its full extent the coin will drop from the slide pocket into a receptacle within the casing C to which access may be had through an opening having a closure 91, as shown in Figure 3. In the use of the game as a coin controlled device to prevent surreptitious manipulation of the levers 35 or other parts of the apparatus, while permitting observation of the direction of projection of a ball along the bowling board 90 and relative to the openings 20 therein, there is superposed and spaced from the bowling board a transparent plate 91 of suitable material, such as glass.

It will be noted from Figures 10 and 11 that the shutter actuating rods 32, as well as the offset end of the rod 40 of the shutter actuating frame 38, 38', are all arranged in alinement and contiguous relation to the inner surface of the front or indicator window wall of the annunciator casing and are supported with the lower ends terminating in alinement in relation to the cup ends of the levers 35 and 43. To facilitate the ready assembling and dissembling of the annunciator casing upon the casing table C with the rods in superposed and alined relation to the ends of the levers 35 and 43, bolts 92 in the form of rods having one end flattened and whereby they are secured to the inside of the side walls of the annunciator casing, as at 93, are adapted to be slidably engaged in openings in ears of cleats 94 mounted upon the side wall of the table casing C. By thus removably mounting the annunciator casing, it may be arranged in superposed relation to the table casing and facilitate shipping of the apparatus.

It will be obvious that various modifications may be made in the construction and arrangement of parts, and that parts may be used without others and come within the scope of the invention.

Having thus described my invention, I claim:

1. In a game apparatus, a board having openings at one end into one of which openings a ball projected from the opposite end of the board is adapted to enter, means to receive a ball entered into and passing through an opening in the board and operative to return the ball to the board, means to releasably hold said ball return means against movement after a predetermined number of balls have been received thereby, and coin controlled means to release the holding means from said ball return means.

2. In a game apparatus, a casing having a top of transparent material, a board in the casing spaced below the top having a series of predetermined grouped openings at one end and a pair of openings at each side of its longitudinal center and forward of the group of openings and into one of which grouped openings a ball projected along the board is adapted to enter and the board declining to the horizontal from said end with the grouped openings and having an obstruction extending transversely of the surface forward of the pair of openings for engagement of balls projected relative to the grouped openings and returned on the board and arranged to guide said balls to one of said pair of openings, means at the end of the board opposite the openings operative to project balls along the board relative to the openings therein, a plate disposed vertically of the board rearward of the grouped openings having indicator openings therein corresponding in number and arrangement to the grouped openings in the board, shutters mounted on the plate for said indicator openings normally assuming a position in predetermined relation to said indicator openings, means to cause said shutters to assume another position relative to said indicator openings including members to intersect each grouped opening in the board adapted by engagement therewith of a ball entered into one of said grouped openings and cause the shutter of the indicator opening associated with the opening in the board into which a ball entered to move away from said opening, means engaged by the shutters in said latter position operative to move the shutters to their first position relative to the indicator openings in the plate, means below the board adapted to receive balls entered into and passing through the board openings and operative to return said balls to the ball projecting means, and means operative after a predetermined number of actuations of said ball return means to releasably hold the same against movement.

3. In a game apparatus, a board inclined from the forward end to the rear end thereof having openings in the rear end grouped in predetermined arrangement and into one of which

openings a ball projected along the board from the end opposite the end with the openings may enter, a plate extended upward from the board in the rear of the openings therein, said plate having transparent portions corresponding in number and arrangement to the openings in the board and each transparent portion operatively associated with an opening in the board, shutters one for each transparent portion pivotally mounted on the plate, said shutters being individually movable and adapted in one position thereof to cover the transparent portions and retained in said position by gravity and in another position to uncover the transparent portions, and means arranged relative to each opening in the board and the shutter of each associated transparent portion in the plate adapted to be actuated by engagement therewith of a ball entering an opening in the board to move the shutter for the transparent portion associated with said opening and cause the shutter to move to position to uncover said transparent portion.

4. In a game apparatus, a board inclined from the forward end to the rear end thereof having openings in the rear end grouped in predetermined arrangement and into one of which openings a ball projected along the board from the end opposite the end with the openings may enter, a plate extended upward from the board in the rear of the openings therein, said plate having transparent portions corresponding in number and arrangement to the openings in the board and each transparent portion operatively associated with an opening in the board, means to illuminate said plate, a shutter for each transparent portion pivotally mounted on the plate below each transparent portion to extend upward and normally positioned to cover and exclude the illumination through the transparent portions of the plate and retained in said position by gravity, and said shutters adapted to assume a position to uncover and expose the illumination through the transparent portions, and means arranged relative to each opening in the board and the shutter of its associated transparent portion in the plate adapted to be actuated by the engagement therewith of a ball entered into an opening in the board to move and cause the shutter of its associated transparent portion in the plate to assume a position to uncover the transparent portion.

5. In a game apparatus as claimed in claim 4, means mounted on the plate and normally positioned to be engaged by and support the shutters moved to position to uncover the transparent portions in the plate, and means operative from the end of the board opposite the openings therein to actuate said shutter support and move the shutters supported thereby to position to cover the transparent portions.

6. In a game apparatus, a board having predetermined grouped openings in one end into one of which openings a ball projected along the board from the end opposite the end with the openings is adapted to enter, an interiorly illuminated casing extended upward from the board at the rear of the openings therein, said casing having indicator openings in the front wall thereof corresponding in number and arrangement to the openings in the board and each of said indicator openings operatively associated with an opening in the board, a pivotally supported shutter for each indicator opening in the casing adapted to be moved to position to cover the indicator openings to exclude illumination from the casing through said indicator openings and to position to uncover and effect illumination of the indicator openings, and said shutters being normally positioned to cover the indicator openings and retained in said position by gravity, means adapted to be engaged by and support the shutters in position to uncover the indicator openings and operative to move the shutters to position to cover the indicator openings, means arranged relative to each opening in the board and its associated indicator opening in the casing operative by a ball entered into a board opening to move the shutter of its associated indicator opening to position to uncover said indicator opening, means to receive balls entered into and passing through the board openings operative to return said balls to the board, means to render the ball return means inactive after a predetermined number of ball returning movements have been imparted thereto, and means to actuate the means to move the shutters to position to cover the indicator openings and render the ball return means active.

7. In a game apparatus, an elongated rectangular casing, a board mounted in the casing having predetermined grouped openings therein adjacent one end and into one of which openings a ball projected along the board from the opposite end with the openings is adapted to enter, means mounted above the board at the end opposite the end with the openings adapted to receive and project a ball along the board relative to the openings therein, a transparent plate carried by the casing in superposed and spaced relation to the board and arranging the casing with a compartment above the board, a second plate mounted in the casing spaced below the board arranging the casing with a compartment below the board and adapted to receive balls entered into and passing through the openings in the board, a ball stop mounted on said second plate in relation to an opening in the board at a side of the ball projecting means, means on said second plate to direct balls to the ball stop, means to yieldingly hold the ball relative to said stop, means movable through the opening in the board at the side of the ball projecting means operative to release and receive a ball from the ball stop and deliver the ball to the ball receiving and projecting means, means to render the ball delivery means inactive upon a predetermined number of ball delivery movements thereof, an interiorly illuminated casing removably mounted as a unit on the first casing to extend upwardly therefrom at the rear of the openings in the board, said casing having indicator openings in the front wall corresponding in number and arrangement to the openings in the board and each of the indicator openings operatively associated with an opening in the board, shutters normally covering and excluding the illumination from the illuminated casing through said indicator openings and adapted to be moved to position to uncover and illuminate the openings, means adapted to be engaged by and support the shutters in position to uncover the indicator openings and operative to move the shutters to position to cover the indicator openings, means arranged relative to each opening in the board and the shutter of its associated indicator opening in the illuminated casing and actuated by engagement therewith of a ball entered into and passing through an opening in the board to move the shutter and cause it to assume a position to uncover and cause its associated indi-

cator opening to be illuminated and indicate the board opening into which the ball entered, and means operative to actuate the means to support the shutters in position to uncover the indicator openings and move the shutters to position to cover said indicator openings and render the ball delivery means active.

8. In a game apparatus, a board inclining from the forward to the rear end and having openings in the raised end portion grouped in predetermined arrangement and into one of which openings a ball projected from the opposite end of the board may enter, an interiorly illuminated casing extended upwardly from the board rearwardly of the openings therein and having indicator openings in the front wall corresponding in number and arrangement to the openings in the board and each indicator opening operatively associated with an opening in the board, shutters pivotally mounted on the front wall of and within the casing adapted to be adjusted and retained in position to cover the indicator openings and to position to uncover the indicator openings and adapted to be normally positioned to cover the indicator openings, means actuated by a ball entering into an opening in the board to engage and move the shutter of its associated indicator opening to cause it to move to position to uncover the indicator opening, means movably mounted in the casing and normally assuming a position to be engaged by and support the shutters moved to position to uncover the indicator openings, and means operative to actuate said latter means to move the shutters supported thereby to position to cover the indicator openings.

9. A game apparatus as claimed in claim 8, wherein the shutters are pivotally supported on the front wall of the casing below the indicator openings, and the means actuated by the engagement of a ball entering an opening in the board to move the shutters to cause them to assume a position to uncover the indicator openings comprises rods mounted on the front wall of and within the casing below the shutters to have vertical sliding movement in a direction transversely of the shutters, said rods normally assuming a position by gravity with the upper ends below the shutters, and levers pivotally mounted below the board with one end of each lever engaged by an end of and supporting a rod and operative to impart upward sliding movement to the rods, and the opposite end of the levers arranged to intersect the board openings and adapted to be engaged and depressed by a ball entering the opening and thereby raise the opposite end of the lever and transmit said movement of the lever to upward movement of the rods and engage the rods with and move the shutters to cause them to assume a position to uncover the indicator openings.

10. A game apparatus as claimed in claim 8, wherein the shutters are pivotally mounted at one end on the front wall of the casing below the indicator openings, and the means to support the shutters moved to position to uncover the indicator openings and operative to move said shutters to position to cover the indicator openings, comprises a frame embodying side bars mounted on the front wall of and within the casing at opposite sides of the indicator openings to have vertical sliding movement and transverse bowed bars connecting the side bars, said frame normally assuming a position by gravity with the transverse bars extending in a plane below the indicator openings rearwardly of the shutters, a lever member pivotally supported below the board having an operative connection with said frame, and a rod slidable longitudinally of the board connected at one end to said lever member operative to actuate said lever member to transmit upward movement to the frame and move the shutters supported thereby to cause the shutters to assume a position to cover the indicator openings.

11. In a game apparatus, an elongated rectangular casing, a board mounted in the casing having predetermined grouped openings adjacent one end and into one of which openings a ball projected from the opposite end of the board is adapted to enter, means mounted above the board at the end opposite the openings to receive and project balls along the board relative to the openings therein, a transparent plate carried by the casing in superposed and spaced relation to the board and arrange the casing with a compartment above the board, a second plate mounted in the casing spaced below the board and arranging the casing with a compartment below the board adapted to receive balls entered into and passing through the openings in the board, a ball stop mounted on said second plate in relation to an opening in the board at the side of the ball projecting means, means on said second plate to direct balls to the ball stop, means to yieldingly hold the ball relative to the stop, means movable through the opening in the board at the side of the ball projecting means operative to release and receive a ball from the ball stop and deliver the ball to the ball receiving and projecting means, means to render the ball delivery means inactive upon a predetermined number of ball delivery movements thereof, an interiorly illuminated casing removably mounted as a unit on the first casing to extend upwardly from the rear of the openings in the board and having indicator openings in the front wall corresponding in number and arrangement to the openings in the board and each of the indicator openings operatively associated with an opening in the board, shutters normally covering said indicator openings adapted to be moved to position to uncover the indicator openings, a series of slidably supported parallelly extending rods normally assuming a position with the lower ends terminating in the same plane and adapted to be moved upward and the upper ends engaged with and cause the shutters to move to position to uncover the indicator openings, and parallelly extending levers below the board with one end of the respective levers arranged to intersect an opening in the board and the opposite ends arranged in a parallel row and adapted for the engagement of the lower ends of and support the shutter actuating rods as the illuminated casing is mounted on the first casing.

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