May 29, 1934. F. C. ROJAHN 1,960,829

BASEBALL GAME DEVICE

Filed Jan. 27, 1932 3 Sheets-Sheet 1

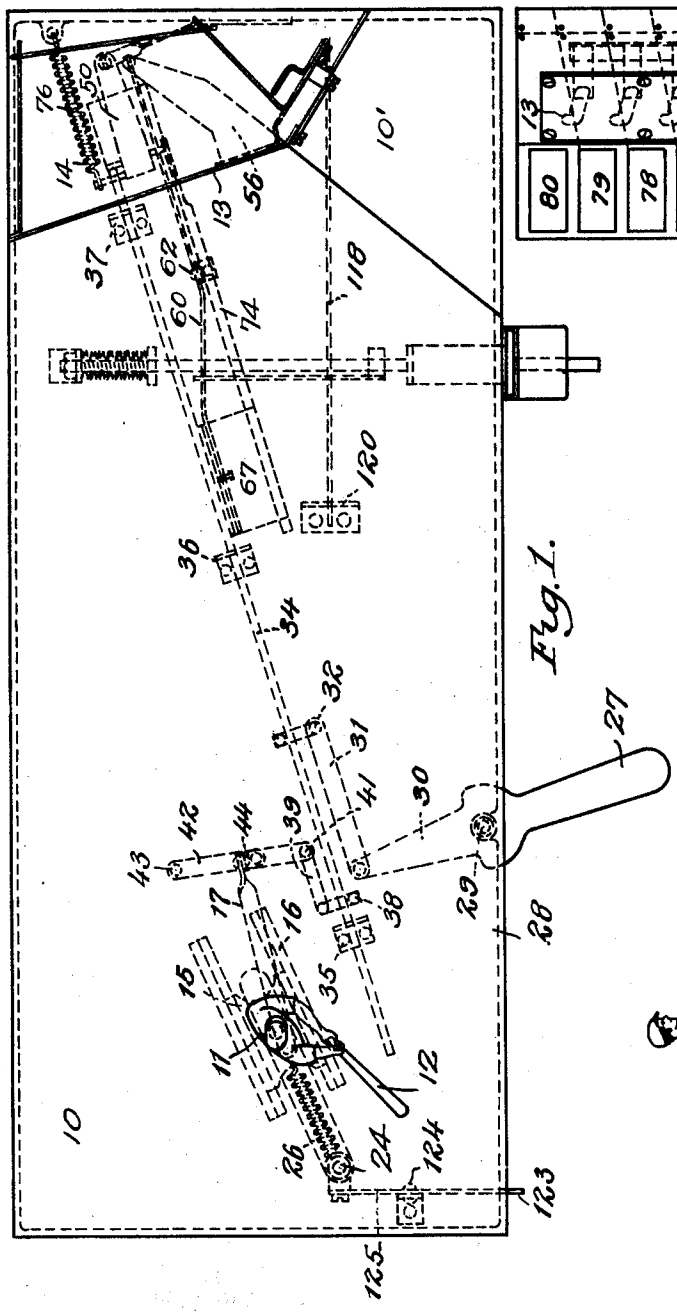


Fig. 1.

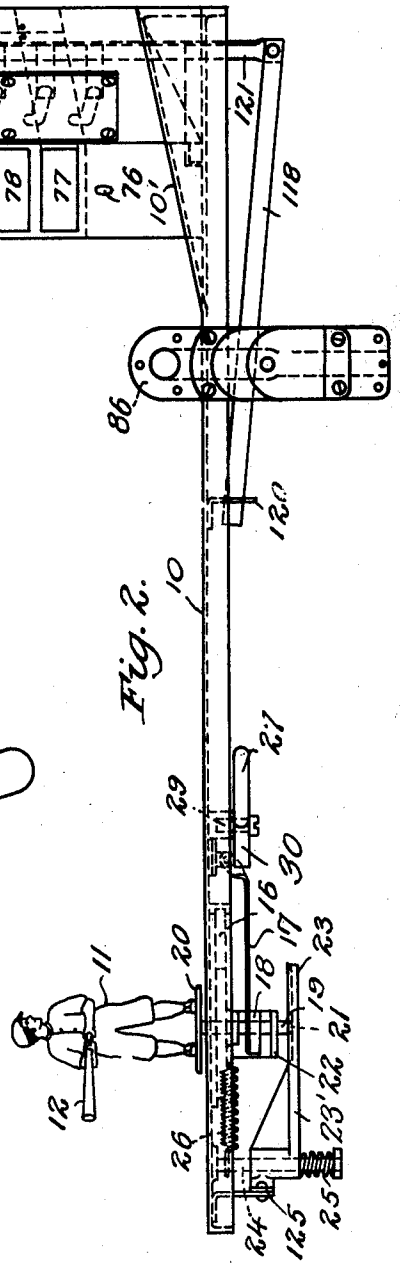


Fig. 2.

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BASEBALL GAME DEVICE

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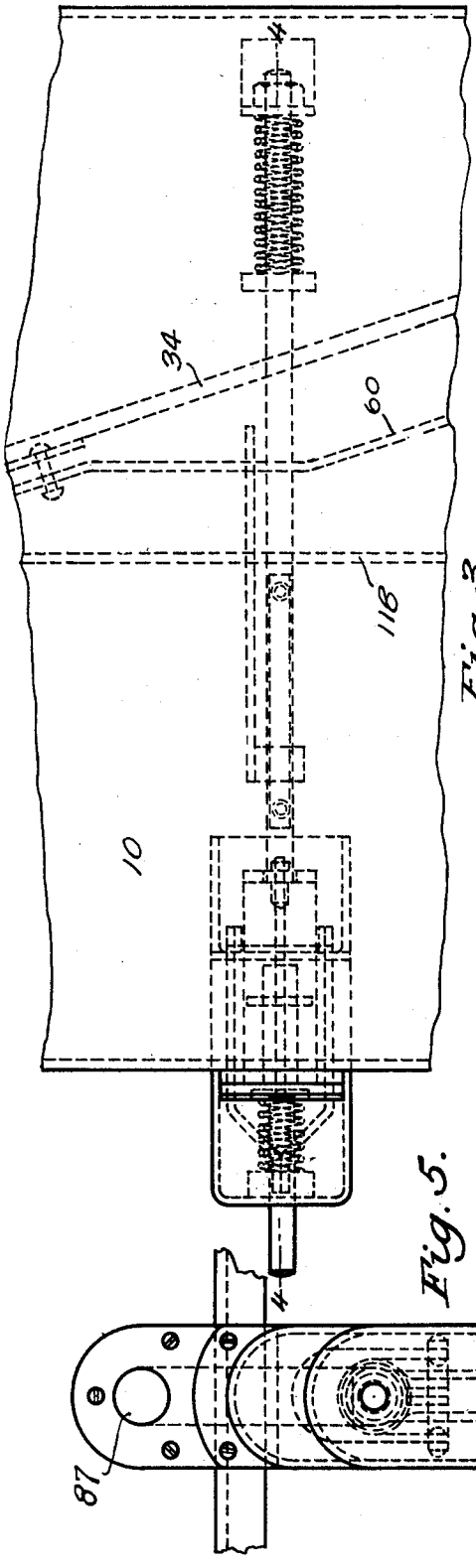


Fig. 3.

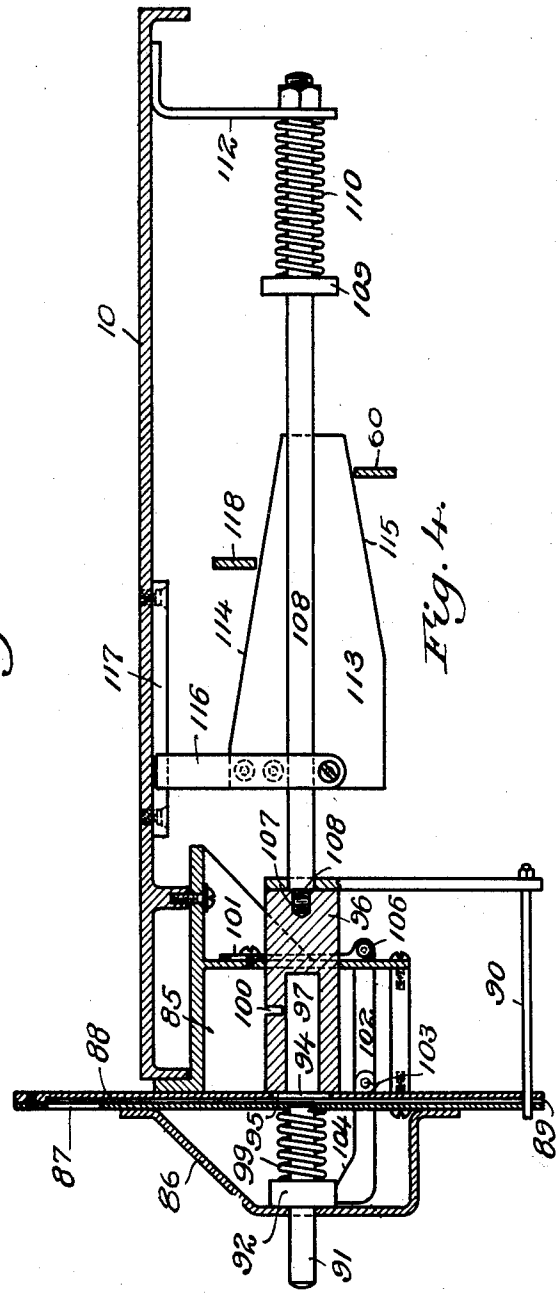


Fig. 4.

Fig. 5.

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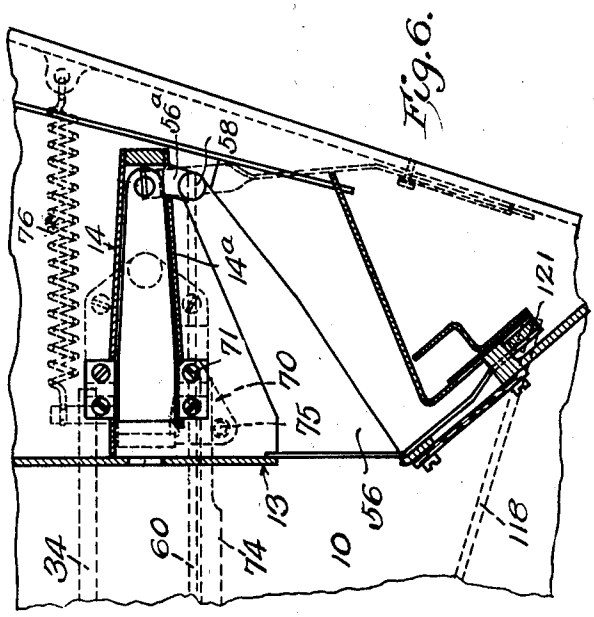


Fig. 6.

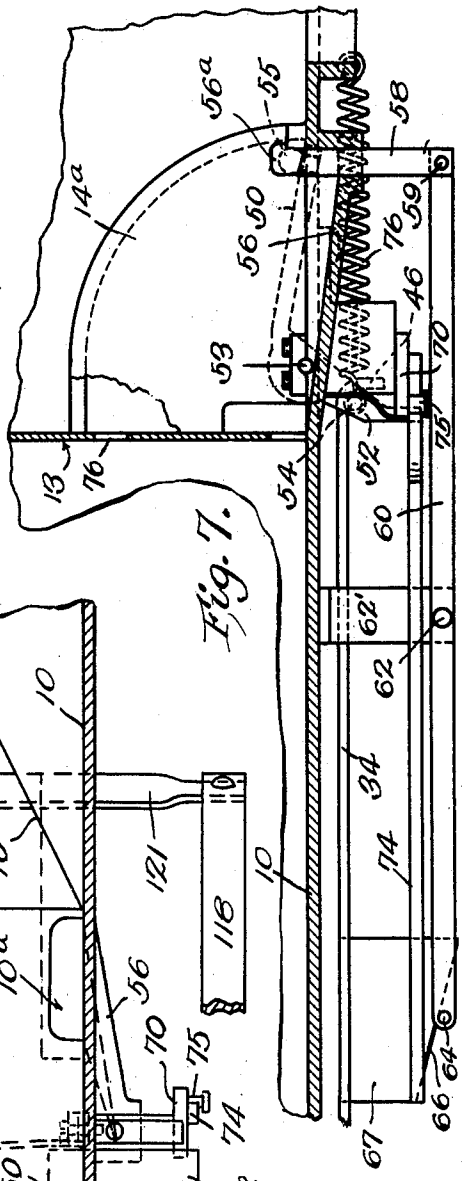


Fig. 7.

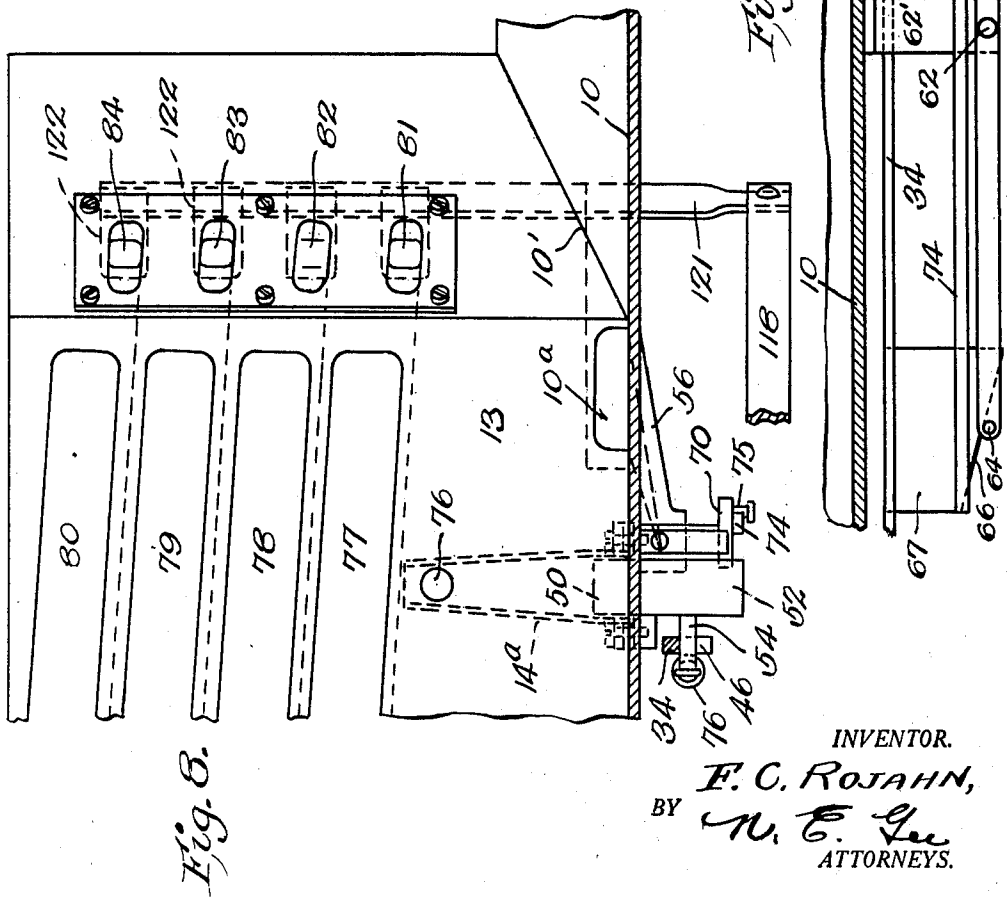


Fig. 8.

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UNITED STATES PATENT OFFICE

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BASEBALL GAME DEVICE

Frederick C. Rojahn, New York, N. Y.

Application January 27, 1932, Serial No. 589,250

5 Claims. (Cl. 273—89)

This invention relates to games of chance that are designed to entertain, and has for its primary object to provide a base ball game device which can be operated for purpose of entertainment and also as a test of skill, as considerable skill is required to actuate the device so that a projected ball may be struck in such manner as to register a score.

With the foregoing and other objects in view which will become more readily apparent as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, as will be hereinafter fully described, pointed out, illustrated and claimed.

It will be quite readily understood by those skilled in the art to which this invention belongs that the same is quite susceptible to being altered or changed without departing from the spirit or scope of the invention, but a preferred and practical embodiment of the invention is illustrated in the accompanying drawings in which—

Fig. 1 is a plan view of my improved base ball game device and shows in a general way the relative position of all the elements necessary for its successful operation.

Fig. 2 is a side elevational view of the game device shown in Fig. 1 of the drawings.

Fig. 3 is an enlarged plan view of the control mechanism which is designed to be actuated through the medium of a coin which is introduced by the operator.

Fig. 4 is a sectional view through the coin control mechanism.

Fig. 5 is an end view of the coin control mechanism.

Fig. 6 is an enlarged horizontal sectional view of a portion of the ball projecting mechanism.

Fig. 7 is a longitudinal section of the parts shown in Fig. 6, and illustrates the ball in position ready to be projected toward the batter.

Fig. 8 is an enlarged front view of the score board illustrated in a general way in Fig. 2 of the drawings.

Similar reference numerals refer to similar parts throughout the several figures of the drawings.

In carrying out this invention, I provide a field or platform designated by the numeral 10, near one end of which is movably positioned a manikin or batter designated by the numeral 11. The manikin 11 is provided with the usual bat 12. At the opposite end of the field there is positioned a score board, designated in its entirety by the numeral 13, and having means for registering a one base hit, a two base hit, a three base and a home run hit. In addition to the score board 13, there is positioned at this end of the field, a base ball projecting device, designated in its entirety by the numeral 14, and shown in detail Figs. 6, 7 and 8 of the drawings.

The above constitute the three primary elements of this new invention, and associated with each of the primary elements there are a number of new and novel combinations which enter into this invention such as to form a single unitary assembly all of the movable parts of which are co-ordinated.

On the under side of the board 10 are secured diagonal rails 16 between which is slidably mounted a block 15. Extending loosely through the block 15 for rotation relatively thereto is a vertical shaft 19 which projects at its upper end through a slot in the board 10 and above the board carries a platform or disk 20 on which the manikin 11 is mounted. Near its lower end said shaft is journaled for rotation and for vertical movement in a bracket 22 depending from the board 10, while at its lower end 21 said shaft rests on the horizontally disposed arm 23 of a bracket 23′ which is mounted for horizontal swinging movement and also for vertical sliding movement on a pin 24 depending from the board 10. Pivoted intermediate its ends, as at 124, to a bracket depending from the board 10 is a lever 125, one end of which is pivoted to the bracket 23′ and the other end 123 of which projects beyond the side of the board 10 for finger manipulation. Thus, by depressing the end 123 of the lever 125 the manikin may be elevated, while by elevating the end 123 of said lever the manikin may be lowered. Between the bottom of the bracket 23′ and a stop on the lower end of the pin 24 is interposed a coil spring 25 which serves to return the manikin to a normal position of vertical adjustment whenever the end 123 of the lever 125 is elevated and subsequently released. Connecting the pin 24 with the block 15 is a coil spring 26 which tends constantly to slide said block and consequently the manikin 11 towards the left hand end of the board 10 as viewed in Figs. 1 and 2.

Fixed to and extending from the shaft 19 is an arm 18, while pivoted at one end, as at 43, to the under side of the board 10 is a lever arm 42. Connecting the free end of said arm 18 with the lever arm 42 intermediate the end of the latter, as at 44, is a link 17.

Slidable in guides 35, 36 and 37 depending from the under side of the board 10 is a rod 34

which is connected by a clamp 38 and a link 39 with the free end 41 of the lever arm 42. At 30 is designated an operating lever which is pivoted intermediately, as at 29, to the board 10 and which has its outer end portion 27 projecting beyond the side of the board for finger manipulation. At its inner end this lever 30 is connected to the rod 34 by means of a link 31 and a clamp 32. Consequently, when the lever 30 is swung in a clockwise direction as viewed in Figs. 1 and 2 the rod 34 is shifted in a right hand direction and, through the link 39, lever arm 42 and the link 17, effects rotation of the shaft 19 in a counter-clockwise direction, thus rotating the manikin 11 and causing the bat 12 to be swung in a direction to strike a ball projected towards the manikin from the right hand end of the board. At the same time, depending upon the suddenness with which the lever 30 may be swung, the block 15 may be moved to the right in the guides 16. On the other hand, continued movement of the lever 30 after the arm 18 has been swung to a position in alinement with the link 17 will result in right hand movement of the block 15 in the guides 16, but in either event, upon release of the lever 30, the spring 26 obviously will function to return the block and the manikin to a normal position as regards horizontal sliding movement of those parts.

At the right hand end of the board 10 as viewed in Figs. 1 and 2 is a casing 14^a in which is arranged a ball projecting element in the form of an arm 50 which is pivoted at its forward end on a horizontal pin 53 for swinging movement between substantially horizontal and vertical positions. Rigid with and extending at substantially right angles to said arm 50 is another arm 52, and connecting this latter arm with a suitable part of the board 10 is a coil spring 76 which tends constantly to swing the arm 50 upwardly and forwardly to a substantially vertical position.

Projecting laterally from the arm 52 is a pin or projection 54 over which extends the right hand end of the rod 34, which end of said rod is hooked downwardly as indicated at 46.

As illustrated in Fig. 6 of the drawings, a latch plate 70 is pivoted as at 71 for horizontal swinging movement, and by suitable spring means (not shown) is urged constantly in a direction to engage behind the arm 52 when the arm 50 is swung to a horizontal position, thus to hold said arm 50 against being projected upwardly and forwardly by the energized spring 76.

Projecting downwardly from the latch plate 70 is a pin 75 with which cooperates the end of a cam bar 74 which is affixed to and moves with the rod 34, the arrangement in this respect being such that upon rearward or right hand movement of the rod 34, and assuming the arm 50 to be latched in a horizontal position by the plate 70, the hook 46 first is moved rearwardly away from the pin 54 an appreciable amount before the cam shaped end portion of the bar 74 by engagement with the pin 75, swings the latch plate 70 to release the arm 50. Thus, upon release of the arm 50 the same is capable of being swung by the spring 76 freely and quickly in an upward and forward direction, and when said arm is so swung the arm 52 manifestly is swung rearwardly. Consequently, when the rod 34 subsequently is moved forwardly the hook 46 engages the pin 54 and effects forward swinging movement of the arm 52 and return swinging movement of the arm 50 to a substantially horizontal position as illustrated in Fig. 7.

At the rear or right hand end of the board 10 rises the front wall of the score board 13, and in said wall are formed four openings 77, 78, 79 and 80. Below each opening, rearwardly of said wall, is a floor and, as shown, said floors are inclined towards ball exit openings 81, 82, 83 and 84 formed in another portion of the front wall of the score board. Directly below the openings 81—84 the board 10 is provided with an inclined top surface 10′ which slopes towards a ball entrance opening 10^a in the front wall of the score board at the bottom thereof, so that balls dropping from the openings 81—84 roll to and through said opening. From the opening 10^a a ball chute or gutter 56 leads to a point adjacent to the rear end and bottom of the casing 14 as where a vertical pin 58 is mounted for vertical sliding movement through an opening in the board 10. When the pin 58 is in a lowered position its upper, inclined end is disposed flush with or slightly below the bottom of the trough or gutter 56 so that a ball contained in said trough or gutter will roll onto the top of said pin to be elevated by said pin when the same is raised. During raising of the pin a ball carried on the upper end thereof is prevented from rolling off by the rear vertical wall of the trough or gutter 56, but when the pin reaches a predetermined elevation said wall no longer is effective to hold the ball and the same then rolls off of the inclined upper end of the pin onto a short trough 56^a which leads at a slight downward inclination to an opening in the side of the casing 14^a, this opening being positioned slightly above the rear end of the arm 50 when the same is in its substantially horizontal position shown in Fig. 7 so that a ball rolling through said opening comes to rest in a slight depression in the upper face of said arm 50 near the free end thereof to be projected by said arm through an opening 76 in the front wall of the score board when the arm 50 is released as heretofore explained.

The pin 58 is pivotally connected at its lower end, as at 59, to the rear end of a lever 60, and said lever is pivoted intermediate its ends, as at 62, to a bracket 62 depending from the board 10. Carried by the rod 34 is a block 67 having a lower, upwardly and forwardly inclined face 66, while carried at the forward end of the lever 60 is a pin 64 which engages said inclined face. Consequently, when the rod 34 is moved rearwardly the pin 58 is permitted to gravitate to its lowered position to receive a ball 55 on the upper end thereof, and when the rod 34 is moved forwardly the cam action of the face 66 of the block 67 against the pin 64 results in depression of the forward end of the lever 60 with consequent elevation of the pin 58 to deliver a ball onto the arm 50.

Normally the ball exit openings 81—84 in the front wall of the score board are covered by plates 122 which are mounted on a vertically disposed, vertically movable rod 121. To the lower end of this rod is pivoted one end of a horizontally disposed bar 118, the other end of which is pivoted to a bracket 120 depending from the board 10. Thus, by raising said rod 118 the plates 122 are elevated to uncover the openings 81—84 to permit balls which may have been delivered through the openings 77—80 and which may have gravitated to positions behind the plates 122, to roll through said openings and drop onto the upper inclined face of the board 10 to roll through the opening 10^a into the trough or gutter 56.

Referring now particularly to the coin control

mechanism illustrated in detail in Figs. 4 and 5 of the drawings, it will be observed that a bracket 85 is secured to the board 10 at one side thereof and that carried by this bracket is a vertically disposed coin chute 88 having in the front wall near the top thereof a coin entrance opening 87. Near the lower end of said coin chute a coin stop pin 90 extends normally thereacross, and as will soon appear, this pin is retractible to permit coins to drop through said chute. In the rear wall of the chute, suitably below the opening 87 and suitably above the pin 90, is an opening 94 of a size to accommodate a coin, while in line with this opening 94 there is provided in the front wall of the chute a somewhat smaller opening through which is slidable the inner end of a pin 91. The outer end portion of this pin projects through a guide element 86, and inwardly of said guide element said pin is equipped with a collar 92 which is engageable with the guide element to limit outward movement of the pin under the influence of a spring 99 which is interposed between the collar and the outer face of the chute.

At the inner side of the coin chute and also in alinement with the coin opening 94 is slidably mounted in the bracket 85 a horizontally disposed cylinder 96 to the inner end of which is secured the adjacent end of a rod 108 which extends transversely of the board 10 beneath the same and at its opposite end is slidably guided in a bracket 112 depending from said board. On the rod 108 is a collar 109, and between this collar and the bracket 112 is interposed a coil spring 110 which tends constantly to move the cylinder 96 towards the coin chute. Normally the spring 110 holds the outer end of the cylinder 96 against the inner face of the coin chute. Extending into the outer end of the cylinder 96 is an opening 97 of less diameter than the coin opening 94 but of ample diameter to accommodate the inner end of the pin 91. Thus, if the coin opening 94 is vacant, inward movement of the pin 91 results simply in the inner end of said pin entering the opening 97, while on the other hand, if a coin is alined with the opening 94, inward movement of the pin 91 effects inward movement of the coin through the opening 94 against the inner end of the cylinder and consequent inward movement of the cylinder. The pin 90 is carried by the cylinder 96 and extends across the lower end of the coin chute when the outer end of the cylinder 96 is disposed against the chute, but is retracted when the cylinder is moved inwardly. In the upper side of the cylinder 96 is provided a notch 100, and when the cylinder is moved inwardly a predetermined amount this notch alines with a latch bar 101 which is slidably mounted on the bracket 85 so as to gravitate into said notch thus to latch the cylinder against outward movement. Pivoted intermediately as at 103 to the coin chute or to another suitable part of the apparatus is a lever 102, one end of which is pivotally connected to the latch bar 101 as at 106 and the other end of which is provided with a cam formation 104 underlying the pin 91. When the pin 91 is in its outermost position the cam formation is engaged by the collar 92 and the lever 102 thereby is held depressed at its forward end, thus holding the latch bar in an elevated inoperative position. On the other hand, when the pin 91 is pressed inwardly the collar 92 rides off of the cam formation and the latch bar is permitted to drop.

The rod 108 and the cylinder 96 are held against rotation by means of an arm 116 which is affixed to said rod and which rides between guide elements 117 carried by the under side of the board 10. In addition, said rod 108 carries an upwardly directed cam plate 114 the upper edge of which is inclined downwardly and inwardly and underlies the aforementioned bar 118 so that when the rod 108 is moved inwardly said cam plate engages and elevates said bar, thus lifting the bar 121 and the plates 122 carried thereby so that any balls which may be held in the scoring compartments may roll therefrom through the openings 81—84 and drop onto the surface 10' for delivery to the trough or gutter 56.

The rod 108 also carries a downwardly extending cam plate 113 having its bottom edge 115 inclined upwardly and inwardly and overlying the lever 60 so that when the rod 108 is moved inwardly said lever 60 is actuated to elevate the pin 58 to deliver a ball to the arm 50.

Assuming that any predetermined number of balls are disposed in the scoring compartments and that the arm 50 is in a substantially horizontal position and is held by the latch 70, the operation of the apparatus is as follows: Coins are deposited through the coin opening 87 into the coin chute 88, the coin first introduced coming to rest against the pin 90 and the other coins coming to rest upon each other until the coin last deposited alines with the opening 94. In this connection the arrangement may be such that the deposit of one or any desired number of coins renders the apparatus operative, but it may be assumed in the present instance that the deposit of five pennies is necessary to bring the fifth penny into alinement with the opening 95. Accordingly, when five pennies have been deposited and the uppermost penny thus is alined with the opening 94, inward pressure exerted on the pin 91 will result in the uppermost penny being pressed against the end of the cylinder 94 with consequent inward movement of said cylinder. When the cylinder is moved inwardly a predetermined amount the stop pin 90 is retracted and the four pennies first introduced are permitted to gravitate from the coin chute into any suitable receptacle. At the same time, the cam plates 114 and 113 respectively engage the bars 118 and 60, releasing the balls from the scoring compartments so that they may collect in the trough or gutter 56 and at the same time elevating the pin 58 to deliver a ball to the arm 50. During inward movement of the cylinder 96 the latch bar drops into the notch 100 so that when the pin 91 is subsequently released the cylinder is held temporarily against outward movement whereby the coin last deposited is released. When, however, the pin 91 reaches its outermost position the lever 102 is actuated to lift the latch bar 101 and the cylinder 96 is released to be returned to its normal position by the spring 110. With a ball positioned on the arm 50 the apparatus now is ready for play. With one hand the player grasps the projecting end 123 of the lever 125 to control the up and down movement of the manikin 11 and with the other hand grasps the projecting end 27 of the lever 30. The lever 30 then is swung in a clockwise direction to move the rod 34 rearwardly which results in the hook 46 moving away from the pin 54 and eventual release of the latch 70 by the cam formation of the rod 74. At the same time the cam face 66 of the plate 67 permits the forward end of the bar 60 to rise with consequent lowering of the pin 58 to a position to receive another ball. Upon release of the latch 70 the spring 76 operates to swing the arm 50 upwardly and forwardly to project the ball to-

wards the manikin 11, whereupon the levers 125 and 130 must quickly be manipulated to bring the manikin to a proper elevation and to rotate the same to cause the bat 12 to strike the ball and drive the same towards the score board, the object being to so manipulate the manikin as to drive the ball into one or another of the openings 77—80 which have different scoring valves. Any balls that are delivered through said openings are retained in the scoring compartments by the plates 122 which were returned to normal position closing the exit openings 81—84 upon release of the pin 91. Any other balls may roll into the trough or gutter 56 to be again projected. Following projection of each ball the lever 30 is swung in a counter-clockwise direction to return the manikin to its normal position of rotation and to cause the hooked end 46 of the rod 34 to engage the pin 54 and again swing the arm 50 to a horizontal position, whereupon the latch 70 operates to latch the arm in this position as the cam bar 74 is simultaneously moved forwardly. At the same time the cam plate 67 operates to depress the forward end of the lever 60 to raise the pin 58 and thus deposit another ball on the arm 50, and the operation of releasing said arm to project the ball and to attempt to so manipulate the manikin as to cause the bat 12 to strike the ball and drive same into one of the openings 77—80 is repeated. When finally all of the balls have been driven into one or more of the scoring compartments coins again must be introduced to permit release of the balls for further play.

I claim:—

1. A game apparatus of the character described comprising a board, a bat carrying member mounted on said board for rotation, vertical movement and for lateral shifting movement, means for rotating, vertically moving and laterally shifting said member, and means for projecting a ball towards said member.

2. In a game apparatus of the character described, a board, a bat carrying member mounted on said board for rotation, vertical movement and lateral shifting movement, and means for projecting a ball towards said member.

3. In a game apparatus of the character described, a board, a bat carrying member mounted on said board for rotation, vertical movement and lateral shifting movement, a finger manipulatable element for rotating and laterally shifting said member, a separate finger manipulatable element for vertically moving said member, and means for projecting a ball towards said member.

4. In a game apparatus of the character described, a board, a bat carrying member mounted on said board for rotation, vertical movement and lateral shifting movement, spring means tending constantly to elevate said member, a finger manipulatable element for depressing said member, a second finger manipulatable element for rotating and laterally shifting said member, and means for projecting a ball towards said member.

5. In a game apparatus of the character described, a board, a bat carrying member mounted on said board for rotation, vertical movement and lateral shifting movement, spring means tending constantly to laterally shift said member to a retracted normal position, a finger manipulatable element for vertically moving said member, a second finger manipulatable element for rotating said member and also for laterally shifting the same against the action of its spring retracting means, and means for projecting a ball towards said member.

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