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BASEBALL GAME APPARATUS INCLUDING MOVABLE TARGET PANELS
AT WHICH A BASEBALL IS THROWN BY THE PLAYER
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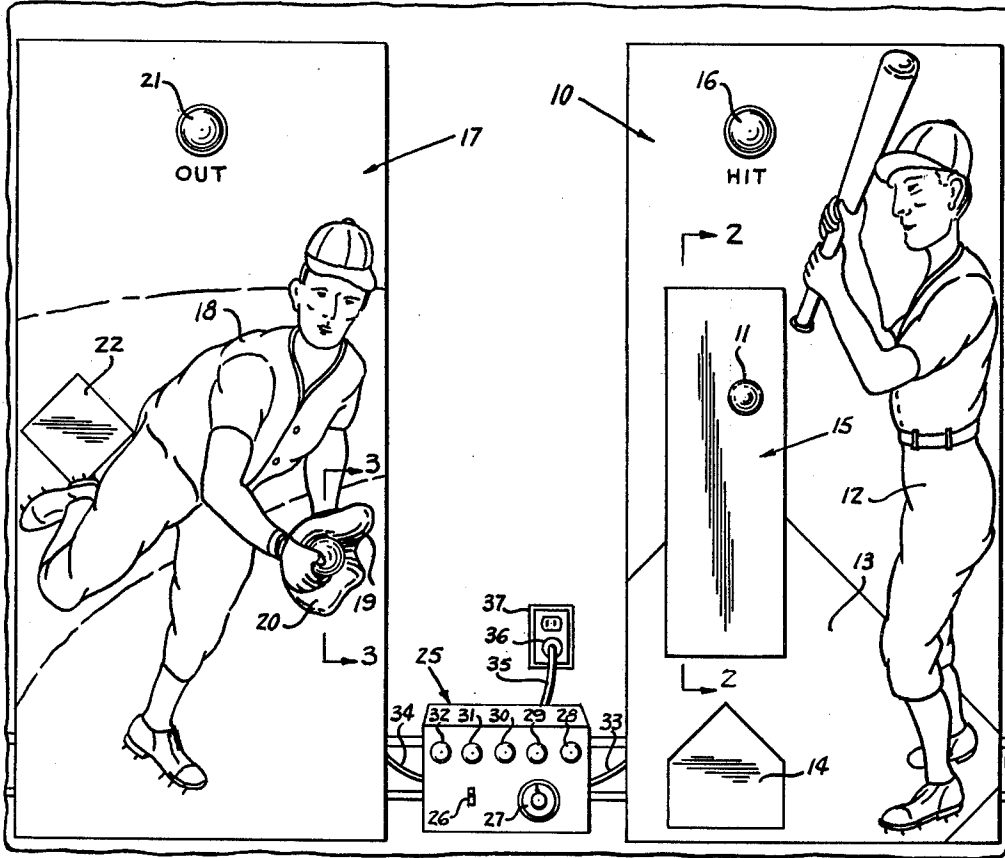


FIG. 1

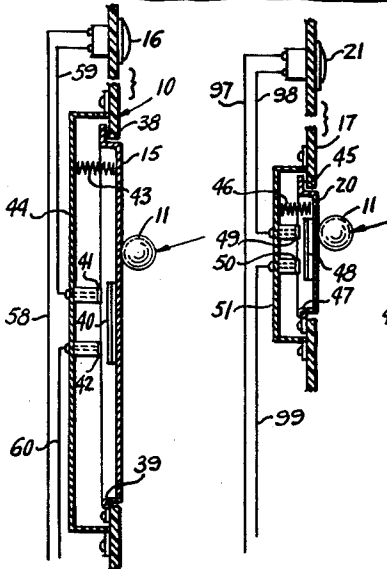


FIG. 2 FIG. 3

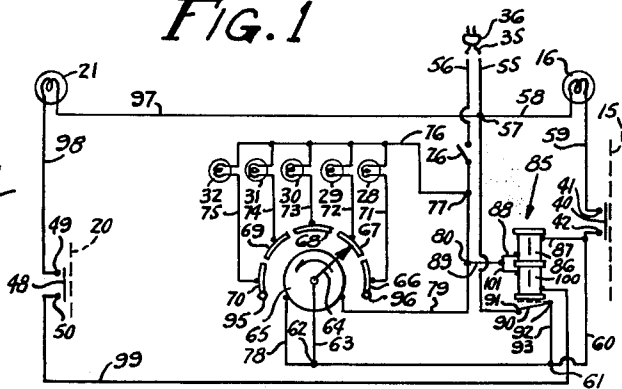


FIG. 4

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1

3,133,733
BASEBALL GAME APPARATUS INCLUDING MOVABLE TARGET PANELS AT WHICH A BASEBALL IS THROWN BY THE PLAYER

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This invention relates to an amusement device, and more particularly a device for simulating certain elements of the game of baseball in order to amuse a small child, to provide a target at which to throw a ball, and to inculcate in the child's mind at a very early age some of the fundamental principles of the game of baseball.

A more specific object of the invention is the provision of an amusement device comprising two targets, one in simulation of the strike zone for batter, at which a rubber ball may be thrown, and the other in simulation of the first baseman, to whom the ball is thrown after it is hit.

A further object of the invention is the provision of the device of this character having an impact plate in simulation of the strike zone which, when struck by the ball, will light a light indicating that the ball has been hit, and at the same time initiate the action of the timer which will sequentially illuminate a series of light bulbs indicating the travel of the runner along the base path towards first base.

A further object of the invention is the provision of a similar impact plate in conjunction with the first baseman's glove which, if hit by the ball after retrieval by the player will cause stoppage of the timer and the illumination of a light indicating that an out has been made.

Still another object of the invention is the provision of a device of this character which may be played indoors with the two target panels positioned either adjacent each other against one wall of the room, or at right angles, comparable to the relative position of home plate and first base of the pitcher's mound, or, which, by simple modification may be played out of doors.

Still another object of the invention is the provision of a device of this character which is relatively sturdy and durable in construction, reliable and efficient in operation, simple and inexpensive to make and which further provides a relatively high entertainment value in addition to teaching the fundamental principles of baseball to a small child.

Other objects will in part be obvious and in part be pointed out hereinafter as the description of the invention proceeds and shown in the accompanying drawing, wherein:

FIGURE 1 is an elevational view of the assembled game, including the two target panels and the control box carrying a sequence of lights;

FIGURE 2 is an enlarged sectional view taken substantially along the line 2—2 of FIGURE 1 as viewed in the direction indicated by the arrows;

FIGURE 3 is an enlarged sectional view taken substantially along the line 3—3 of FIGURE 1 as viewed in the direction indicated by the arrows; and

FIGURE 4 is a schematic wiring diagram disclosing one form of control apparatus for the game.

Similar reference characters refer to similar parts throughout the several views of the drawing.

Having reference now to the drawings in detail, there is generally indicated at 10 a first panel, which is adapted to be positioned in upright position to provide a target at which a ball 11 may be thrown. The panel 10 may be of any desired material, such as fibreboard, light sheet metal, plastic, or the like, and may be of any desired size, although preferably it has been found that a target

2

of three to four feet in height simulates the height of the child for which the device is particularly adapted. Target panel 10 is provided with a simulated figure of a batter 12, standing in the batter's box 13 adjacent home plate 14. The strike zone comprises a movable panel generally indicated at 15 which will be more fully described hereinafter. Adjacent the top of the panel is a light 16 which designates a theoretical hit, and which is illuminated, in a manner to be described hereinafter when a ball strikes the target panel 15.

A second panel 17 is also provided similar in size and configuration to the panel 10, and includes a representation of the figure of a first baseman 18 wearing a glove 19 which contains a target zone 20 formed of a panel similar to the panel 15. When target zone 20 is hit, a light 21 indicating an "out" is illuminated. The light is positioned adjacent to the top of the panel above a representation of first base indicated at 22.

A control box generally indicated at 25 is adapted to be positioned in a suitable location preferably between the two panels, and carries on its face an "on" and "off" switch 26 and a timer setting switch 27 as well as a plurality of light sockets containing bulbs 28, 29, 30, 31 and 32.

Electrical conduits 33 and 34 lead from the box 25 to the panels 10 and 17, respectively, while an electrical cable 35 terminates in a plug 36 which is adapted to be plugged in a conventional wall outlet 37 to supply a source of electricity.

Alternatively, the control box may be battery powered, if desired, any suitable supplemental receptacle being provided for the battery, or the lights 28 to 32 instead of being arranged in sockets in the control box may be strung on an elongated wire so that the device may be employed out of doors with the target panels at a relatively greater distance from each other.

Referring now particularly to FIGURE 2, the target panel 15 comprises a light-weight sheet of any desired material which is provided at its upper end with an off-set flange 38 which engages behind the rim of the opening in which the panel is seated. The panel is hinged at 39 at its lower end, so that a slight impact will cause the panel to swing inwardly bringing a central metallic portion 40 into bridging contact with a pair of contact members 41 and 42. A relatively light coil spring 43 biases panel 15 back to circuit breaking position after impact by the ball 11. A housing 44 may be provided interiorly of the opening containing panel 15, to provide a mounting for the contact 41 and 42, and to protect the interior mechanism as well as to restrict inward movement of the panel 15.

Panel 20 is substantially identical in construction and is positioned in a relatively small opening in the simulated first baseman's glove 19 and panel 17. Panel 20 is also provided with an off-set flange 45 which limits the outward movement of panel 20 when biased by a spring 46 to flush relationship to the face of the panel 17. The panel 20 is similarly hinged as at 47, and carries on its inside a conductive member 48 which is adapted when impacted by the ball 11 to bridge contacts 49 and 50 for a purpose to be described in more detail hereinafter. Such closure obviously illuminates the "out" light 21. A housing 51 similar to the housing 54 is positioned on the rear of panel 17 and contains the operating parts of the mechanism.

One form of circuitry which has been found advantageous in use with this device is disclosed in FIGURE 4. Here the table 35, comprising the main source of power, contains a first line 55 and the second line 56.

Line 55 extends to a terminal 57 from which one wire 58 leads to the light 16 from which in turn a wire 59 leads to contact 41. From contact 42 a wire 60 extends

through a terminal 61 to a terminal 62 from which a line 63 extends to a movable arm 64 which is actuated by the timer motor 65. Arm 64 successively contacts contact members 66, 67, 68, 69 and 70 from which wires 71, 72, 73, 74 and 75 extend to light bulbs 28 to 32, inclusive. The opposite sides of all the light bulbs are connected to a common line 76 which extends to a juncture 77 with the line 56.

From terminal 62 a wire 78 leads to one side of timer motor 65, from the other terminal of which a wire 75 extends to a junction 80 with the wire 56.

It will thus be seen that after manual switch 26 is closed, and assuming that a source of current is present, the impact of the ball 11 against target 15 will bridge contacts 41 and 42 which will establish a circuit illuminating light 16 and energizing timer motor 65 which will rotate arm or indicator 64, which as it successively engages contact members 66 to 75 will successively illuminate lights 28 to 32. Since the impact of ball 11 against panel 15 will bridge contacts 41 and 42 only momentarily to illuminate light 16 indicating an initial hit, means are provided for maintaining a circuit through timer motor 65 into the several lights 28 to 32 until the last light 32 is illuminated, indicating that the runner has safely reached first base, or alternatively, contacts 49 and 50 are bridged by the retrieved and thrown ball impacting the target plate 20 and first baseman's glove 19.

Such means include a differential relay generally indicated at 85, which includes a first coil 86 which is connected by means of a wire 87 to the line 60, the other side of the coil being connected by line 88 to a common line 89 which extends to the line 56. Thus when target plate 15 is struck and contacts 41 and 42 are bridged by the member 40, the relay coil 86 is energized, which moves a contact member 90 into engagement with the contact 91, which is connected directly to the line 55. From the switch terminal 92, a line 93 leads to juncture 61 and line 60 so that the circuit is established which continues the energization of timer motors 65 and provides current for the lights 28 to 32 after the spring 43 has moved plate 15 and contacting bridging member 40 out of engagement with contacts 41 and 42.

In the event that no throw is made to first base or the throw misses target plate 20, lights 28 and 29, 30, 31 and 32 light sequentially, with light 32 remaining lit and indicating that the runner has reached first base safely until the timer switch 27 is reset so that pointer 64 engages first contact 66. A stop pin 95 limits the movement of contact arm 64 in one direction, while a similar stop pin 96 limits the return movement when the device is reset.

However, when the throw is accurate and in time, target plate 20 is impacted by the ball 11 which bridges the circuit between the contacts 49 and 50. From terminal 57 a wire 97 extends to bulb 21, and the return wire 98 extends to contact 49. A wire 99 extends from contact 50 to one side of the other relay coil 100 of differential relay 85, the other end of the coil being connected by means of a wire 101 to wire 89 and thence through terminal 80 to lead 56. It will thus be seen that bridging of the contacts 49 and 50 breaks the circuit between the contact arm 90 and its associated contact 91 and thus immediately deenergizes timer motor 65 and breaks the circuit to which ever one of the lights 28 to 32 is then illuminated by the contact of arm 44 with its associated contact member 66 to 70. The extinguishing of all of the lights will thus indicate that the batter has been thrown out, and the device may be reset by means of the operating handle 27 to be ready for the next play.

Obviously, other forms of circuitry may be employed to achieve the same result, yet the above has been found to operate successfully.

From the foregoing it will now be seen that there is herein provided an improved amusement device which will entertain a relatively small child, or even an older child, and which will at the same time permit him to

develop an instinctive reaction which upon fielding a ball from the batter's box will cause him to turn instantly and throw to first base, a habit which frequently is not sufficiently inculcated in more advanced baseball players. The ball 11 is preferably small of a size to be handled by a small child and of a sufficiently resilient material so that after impacting either the plate 15 or the panel 10 it will rebound to a distance equal to that to which it is thrown, or relatively close thereto, so that it may be immediately retrieved and thrown toward the target panel 20 on the panel 17 so as to enable the child to throw the batter out. The visual indication achieved by the arrangements of the lights 21 and 16 will readily indicate when the strike zone has been achieved and the ball hit and when the runner has been thrown out similarly, the successive illumination of the lights 28 to 32 will enable the child to determine the relative progress of the runner towards first base, theoretically, and to speed up his throw in order to catch the runner. The timing device may be of any standard type, and the duration of time between the illumination of the first light 28 and the last light 32 should be set to equal the approximate time it will take a child of a given age group to cover the distance between home plate and first base.

From the foregoing it will now be seen that there is herein provided an improved amusement device which accomplishes all the objects of this invention, and others, including many advantages of great practical utility and high entertainment and instructive potential.

As many embodiments may be made of this inventive concept, and as many modifications may be made in the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. In an amusement device, a first panel bearing a simulated representation of a batter and a first movable target panel representative of a strike zone, circuit closing means adjacent said target panel, means carried by said target panel for actuating said circuit closing means when said target panel is impacted by a thrown ball, a light indicating a hit carried by said first panel illuminated by said circuit closing means, an electric timer, means energizing said timer when said circuit is closed, a plurality of lights simulating the movement of a base runner sequentially illuminated by said timer, a second panel bearing a simulated representation of a first baseman and a second movable target panel representative of a first baseman's glove, second circuit closing means adjacent said second panel, means for actuating said second closing means when said second target panel is impacted, a light indicating an out carried by said second panel illuminated when said second target panel is impacted by a thrown ball, and means actuated by said second circuit closing means for de-energizing said timer and extinguishing said lights simulating the movement of a base runner, electrical circuits connecting all of said lights and said circuit closing means, and a source of electricity for said circuits.

2. The structure of claim 1 wherein said panels are constructed of light-weight material and provided with openings, said target panels comprise plates of insulating material hinged in said openings, said circuit closing means comprise conductive contact bridging strips secured to the rear side of said target panels and movable into engagement with spaced pairs of contacts, and spring means bias said target panel to circuit opening position after impact by a thrown ball.

3. The structure of claim 2 wherein means are provided for maintaining an electrical circuit to said timer and said lights simulating the movement of a base runner after said first circuit closing means has been broken and said light indicating a hit has been extinguished.

4. The structure of claim 3 wherein said last mentioned means include a relay actuated by said first circuit closing means and an auxiliary circuit closed by said relay.

3,133,733

5

5. The structure of claim 4 wherein said relay is a differential relay and closure of said second circuit closing means breaks said auxiliary circuit.

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