Nov. 16, 1948. W. A. JOHNSON 2,454,065

SIMULATED BASEBALL PLAYING MACHINE

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Fig. 1

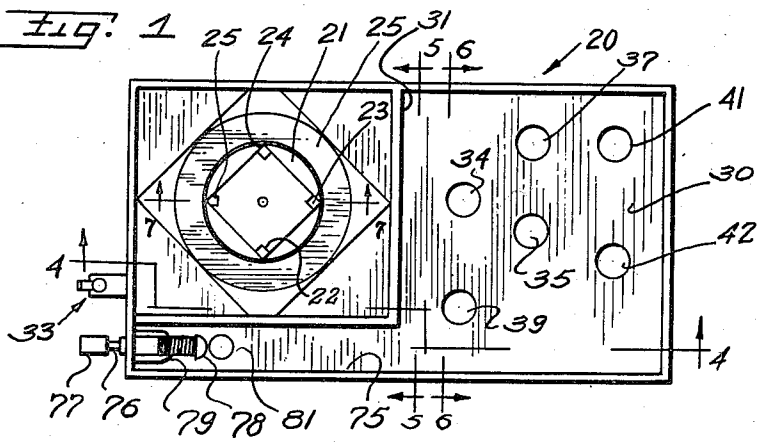


Fig. 2

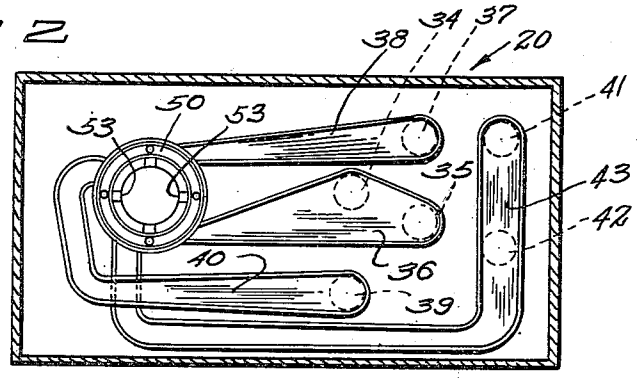
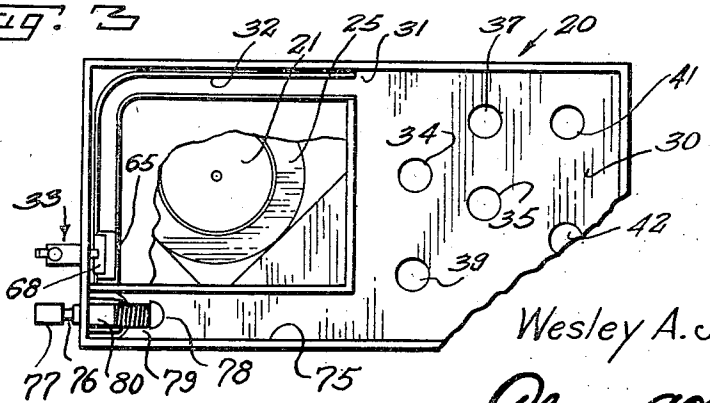


Fig. 3



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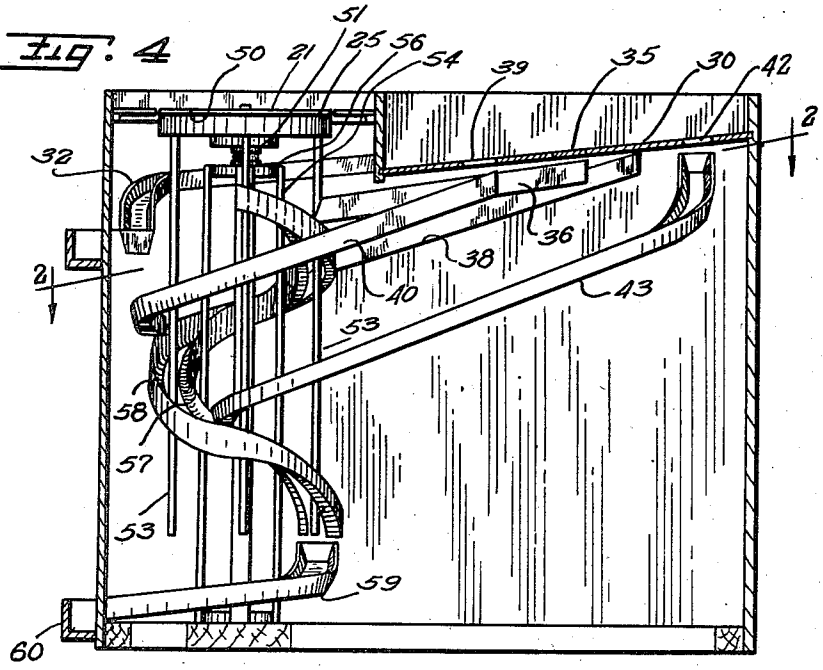
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Fig. 4



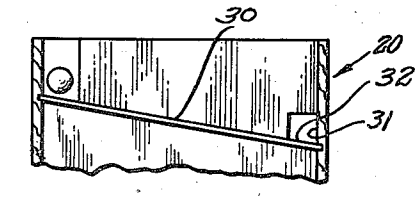


Fig. 5

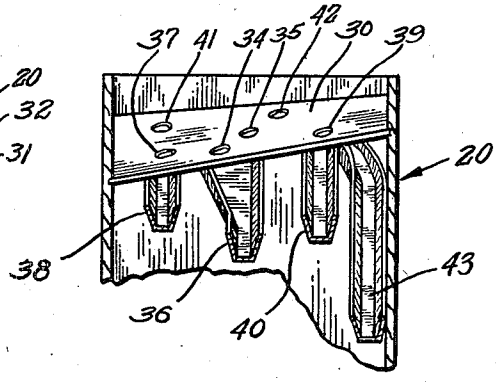


Fig. 6

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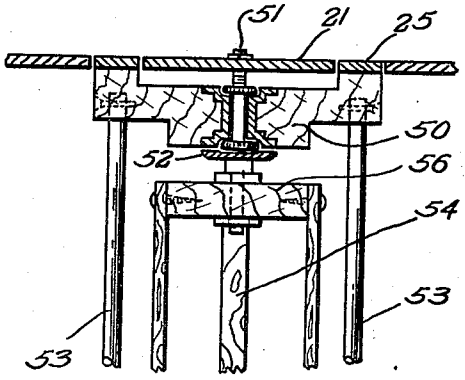
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SIMULATED BASEBALL PLAYING MACHINE

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Fig. 7



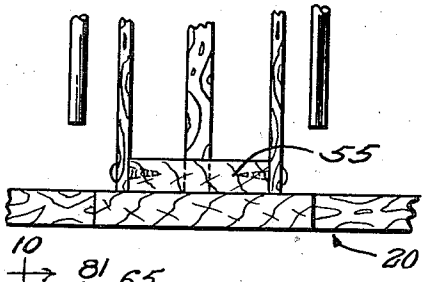


Fig. 8

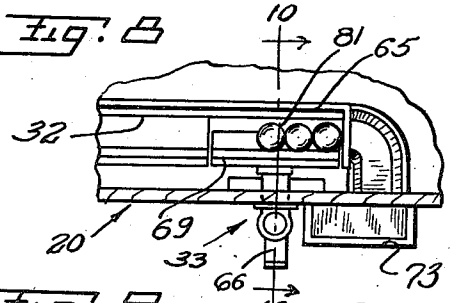
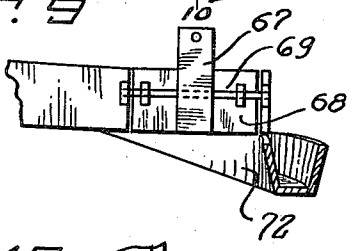


Fig. 9



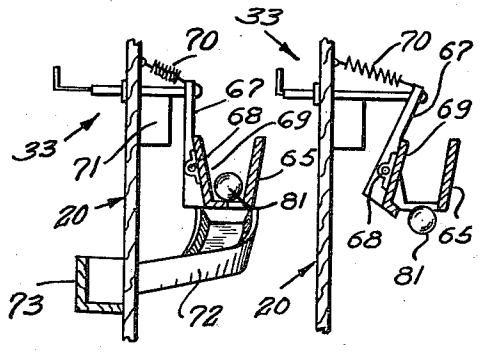
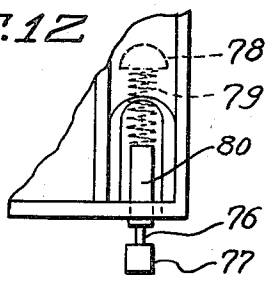


Fig. 10 Fig. 11

Fig. 12



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UNITED STATES PATENT OFFICE

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SIMULATED BASEBALL PLAYING MACHINE

Wesley A. Johnson, Augusta, Ga.

Application December 7, 1945, Serial No. 633,429

10 Claims. (Cl. 273—88)

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This invention relates to a baseball playing machine, and more particularly to an amusement device adapted to simulate the playing of the game of baseball.

A primary object of this invention is the provision of an improved device including a playing surface over which metal balls are adapted to be impelled by a spring impeller to fall in selected apertures, producing a result in simulation of the result of a hit in playing the game of baseball.

An additional object of the invention is the provision of such a device wherein various types of hits, such as a single, a double, a triple, or a home run may be readily simulated.

An additional object of the invention is the provision of such a device characterized by means whereby the relative advance of players on bases as a result of hits may be simulated.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and shown in the accompanying drawings wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a top plan view of one form of device embodying features of the instant invention.

Figure 2 is a sectional view taken substantially along the line 2—2 of Figure 4 as viewed in the direction indicated by the arrows.

Figure 3 is a fragmentary top plan view, certain portions thereof being broken away.

Figure 4 is a sectional view taken substantially along the line 4—4 of Figure 1, as viewed in the direction indicated by the arrows.

Figure 5 is a fragmentary sectional view taken substantially along the line 5—5 of Figure 1, as viewed in the direction indicated by the arrows.

Figure 6 is a fragmentary sectional view taken substantially along the line 6—6 of Figure 1, as viewed in the direction indicated by the arrows.

Figure 7 is a fragmentary transverse sectional view portions thereof being broken away, taken substantially along the line 7—7 of Figure 1.

Figure 8 is a fragmentary cut away plan view disclosing details of the operating mechanism.

Figure 9 is a fragmentary sectional detail view disclosing a further constructional detail.

Figure 10 is a sectional view taken substantially along the line 10—10 of Figure 8 as viewed in the direction indicated by the arrows.

Figure 11 is a view similar to Figure 10, but

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showing certain of the parts in different positions of adjustment.

Figure 12 is a fragmentary detail plan view showing still further portions of the operating mechanism.

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

Having reference now to the drawings, and more particularly to Figure 1, there is generally indicated at 20 a box-like frame or housing, one section of which is provided with a diamond 21 in simulation of the infield of a baseball diamond, and provided with indications 22, 23, 24 and 25 simulating first, second and third bases, and home plate. A rotatable ring 25, adapted to be rotated in a manner to be more fully described hereinafter is positioned about the periphery of the diamond 21, and is adapted to be rotated to indicate the position of men on the field in accordance with simulated hits. The outer portion of the field beyond the simulated diamond 21 includes a plate 30, which is angled transversely of the board as indicated in Figure 5 toward a corner 31 thereof, and correspondingly angled as best shown in Figure 6 longitudinally of the board toward the same corner. As best shown in Figure 3, the corner 31 beneath the surface formed by the diamond 21 is provided with an outlet channel 32, which leads to a point adjacent coin operated mechanism 33, to be more fully described hereinafter. The playing surface 30 of the board is provided with a plurality of apertures, in the illustrative example here given, six. Two of these apertures 34 and 35 overlie a channel 36, as best shown in Figure 2 and Figure 6, while another aperture 37 overlies a channel 38, a fourth aperture 39 overlies a channel 40, while the fifth and sixth apertures 41 and 42 overlie a channel 43.

Referring back now to the rotating ring 25 it will be seen that the same comprises a portion of a wheel 50, as best shown in Figures 4 and 7, mounted for rotation on an axle 51, a suitable ball bearing mounting 52 being provided. Depending from the underside of the wheel 50 at spaced points, corresponding to the relative position of first, second, third base, and home plate are rods 53. The axle 51 is suitably secured in a supporting frame comprised of uprights 54 secured to a base plate 55 secured to the face of the frame 20 and an upper supporting plate 56 within which the lower extremity of the axle 51 is secured.

The rods 53 depend downwardly through a slot

57 positioned along the center of a trough or channel 58 in the form of a helix positioned directly beneath the rotatable member 25. The helix 58 is of a diameter substantially equal to that of the wheel 50 whereby the depending rods 53 may rotate freely within the groove 57, it being noted that the ends of the groove are open in such manner as to permit the free passage of rod 53 therein.

The lower end of the helical channel or chute 58 overlies an inclined channel 59, which communicates with an outlet in the base of the frame 20 exterior of which is positioned a trough 60.

Referring back now to the troughs or channels 36, 38, 40 and 43, it will be seen that each is curved, and that each intersects the helical channel at a different point about its periphery as shown in Figure 2, and at a different point in the height thereof, as best shown in Figure 4. The purpose of this arrangement will be more fully discussed hereinafter.

Referring back now to the trough 32, and the coin controlled mechanism 33, it will be seen that one side of the trough 32 extends to a point opposite portion 65, directly in front of a coin controlled plunger 66, which plunger engages an arm 67 pivotally mounted in the casing as on a pivot 68, the lower portion of which arm has secured thereto a member 69 corresponding in configuration to the opposite side of the portion 65, it being noted that the side of the trough 32 opposite 65 is suitably cut away. A spring 70 secures the upper end of the arm 67 to the inner side of the front wall of the casing 20, and a coin box 71 is positioned directly beneath the coin operated slide.

A plurality, illustratively three, of spherical balls 81 are adapted to seat within the trough formed by the portion 69 and the portion 65, and when the coin operated plunger 66 is pressed inwardly to the position shown in Figure 11, pivoting the section 69 away from the section 65, the balls are adapted to drop out of this portion of the trough, into a chute 72, and then pass through an aperture in the front wall of the casing 20 into an exteriorly positioned receptacle 73, to be available for use in a manner to be more fully described hereinafter.

As best shown in Figures 1 and 3, a channel 75 extends along one side of the diamond playing field 21, and has positioned at one end thereof a plunger 76 provided with a handle 77 and a striking head 78, a spring 79 being positioned between the head 78 and a bushing 80 within which the plunger is slidable. It will thus be seen that when the handle 77 is withdrawn and released, the spring 79 will bias the plunger head 78 outwardly, to impact a ball 81 and force the same outwardly through channel 75 onto the playing surface 30.

From the foregoing the operation of the device should now be readily understandable. When the device is ready for play three balls 81 of steel or any other desired material, are contained in the receptacle formed of the members 69 and 65. The insertion of a coin and the pressing inwardly of the coin controlled plunger 66 causes pivotal movement of the arm 67 which permits the balls 81 to fall into the trough 72 and thence into the receptacle 73. A ball is selected from the receptacle 73 and placed in front of the plunger 78, whereupon the handle 77 is drawn backwardly against the bias of the spring 79 and released to impel the ball onto the playing surface 30. The ball in rolling over the inclined surface may land in anyone of the apertures 34, 35, 37, 39, 41 or 42.

In the event that the ball lands in either aperture 41 or 42, it falls into the channel 43 and rolls downwardly therealong to the end of channel 43 to a point where it meets the channel 58, whereupon the ball falls into the channel 58 and striking one of the arms 53, which depends through the groove 57, moves the same and causes rotation of the plate 50. Due to the fact that the channel 43 is positioned toward the base of the helical groove 58, the impact of a ball at this point causes only quarter rotation of the plate, since after a quarter rotation the member 53 impacted by the ball is rotated past the end of the groove, and the ball falls into the trough or channel 59 and thence outwardly into the exterior receptacle 60. In the event that the ball falls into the aperture 39 it travels along the channel 40, which terminates at a point substantially halfway up the helical channel 58, and falling behind one of the members 53 causes the same to be rotated substantially half the distance of the helix, thus rotating the plate 25 a distance equivalent to half its complete cycle of rotation, or corresponding to a two base hit.

Again, should the ball land in the aperture 37 and roll along the channel 38, a three-quarter revolution of the plate is effected corresponding to a three-base hit, while in the event that the ball lands in either aperture 34 or 35 and falls through the channel 36 to the uppermost portion of the helix, a complete rotation of the plate corresponding to a home run is effected.

In the event that the ball fails to strike in any of the above mentioned apertures, it falls to the lowermost corner 31 of the playing board, and thence through channel 32 back into the space between the members 65 and 69, where it remains inaccessible until such time as the coin actuated mechanism is operated again to permit same to roll into receptacle 72. Obviously, a ball in such position corresponds to an out. Thus it will be seen that with the three balls originally furnished the player he may continue to play as long as he makes hits, the rotating disc 25 being suitably provided with indicia to represent players, which indicia may be removable as desired, the extent of rotation of the disk indicating thereby the relative advance of the base runners, and that accurate score of hits and runs may thus be kept. When three outs have been made it will be apparent that all the balls are inaccessible until the coin actuated mechanism is operated again for another half inning.

From the foregoing it will be seen that there is herein provided an improved amusement device accomplishing all the objects of this invention and others, including many advantages of great practical utility and commercial importance.

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 a simulated baseball machine including an inclined playing board, apertures in one portion of the machine to receive a projectile, a diamond secured to another portion of said machine, indicia to indicate the relative advance of base runners; the improvement which consists of a stationary elongated trough forming a closed curved inclined path, means at a plurality of levels along said trough to admit a projectile thereto, said means communicating with said

apertures, a rotatable table containing said indicia positioned above said trough, a slot in said trough, and means depending from the table through said slot to rotate said table a predetermined distance.

2. The combination of claim 1 wherein said means includes rods depending from said table and through said slot whereby the table is rotated a predetermined distance when urged by a missile striking said rods.

3. In a simulated baseball machine including an inclined playing surface, apertures in one portion of the machine to receive a ball, a diamond secured to another portion of said machine, indicia to show the relative advance of base runners; the improvement which consists of a stationary helical trough channeled along its length, means communicating with said apertures to permit a ball to enter at predetermined points along the channel, a rotatable table containing said indicia positioned above said trough, said table being of a diameter equal to that of the helical trough, a slot in said trough, rods depending from said turntable and extending through said slot whereby the table is rotated a predetermined distance when urged by a ball striking said rods.

4. In a simulated baseball machine including a playing surface having a plurality of apertures for receiving projectiles moving over said surface, a projectile operating indicating device and a plurality of conduits each communicating with one of said apertures for delivering projectiles from said playing surface to said indicating device; said indicating device comprising a stationary inclined trough for receiving and lowering projectiles and having a discharge portion, said conduits having exits for discharging projectiles upon said trough at a plurality of levels, a rotatable table and impact members carried by said table and extending through said trough into the path of movement of projectiles descending said trough, said table being rotatable a distance proportional to the elevation of said conduit exits above said discharge portion.

5. The combination of claim 4 wherein said trough has a bottom wall with a slot therein, said rods extending through and being movable in said slot.

6. The combination of claim 5 wherein said table is positioned above said trough.

7. The combination of claim 5 wherein said table is positioned above said trough.

8. The combination of claim 5 wherein said trough is of spiral shape and said conduit exits are positioned at intervals about the periphery of the trough.

9. The combination of claim 8 wherein said trough has a bottom wall with a slot therein, said rods extending through and being movable in said slot.

10. The combination of claim 9 wherein said table is positioned above said trough.

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