Jan. 15, 1935. J. W. PATTISON 1,988,251

GAME MECHANISM

Filed Oct. 7, 1929 5 Sheets-Sheet 1

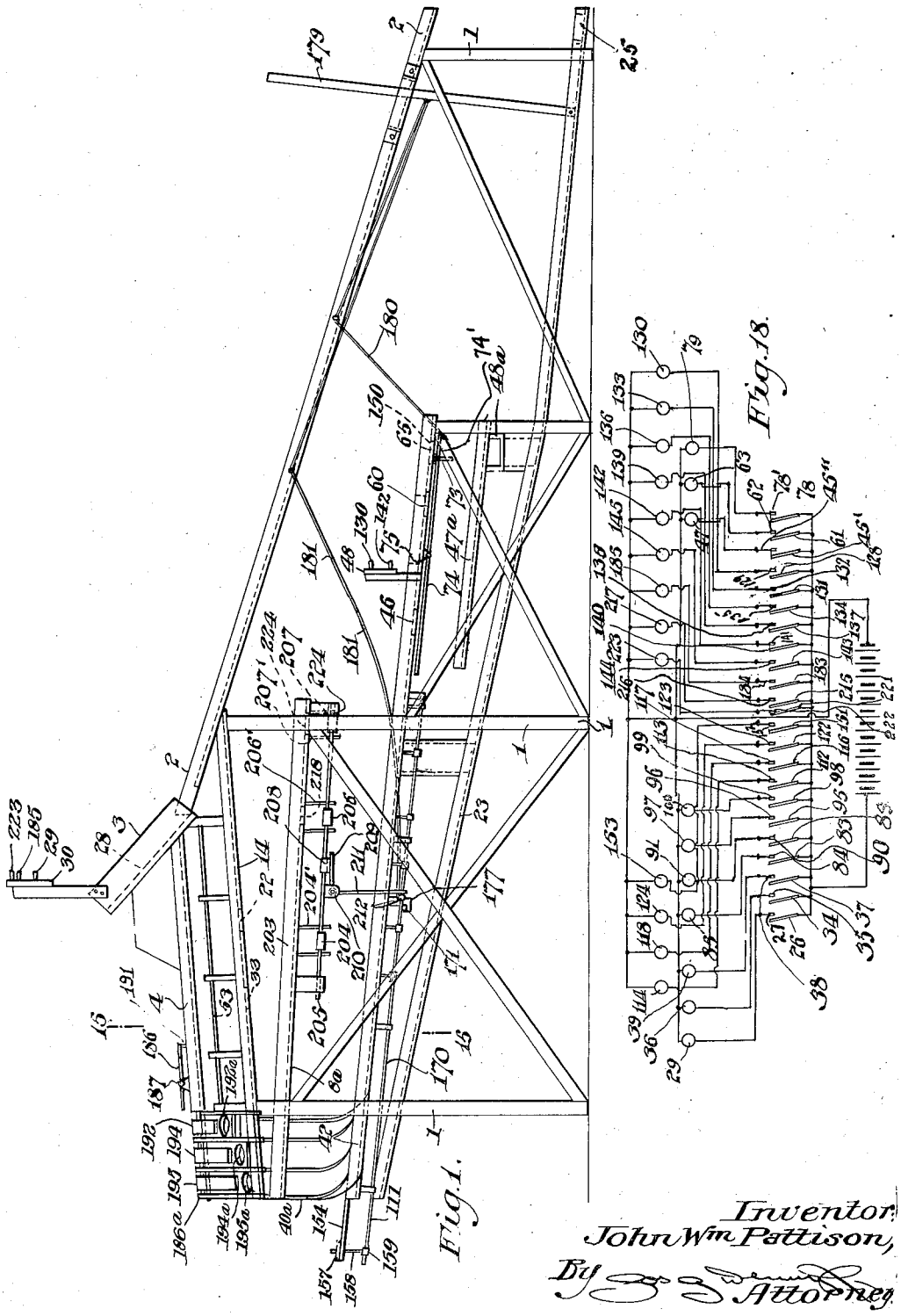


Fig. 1.

Fig. 18.

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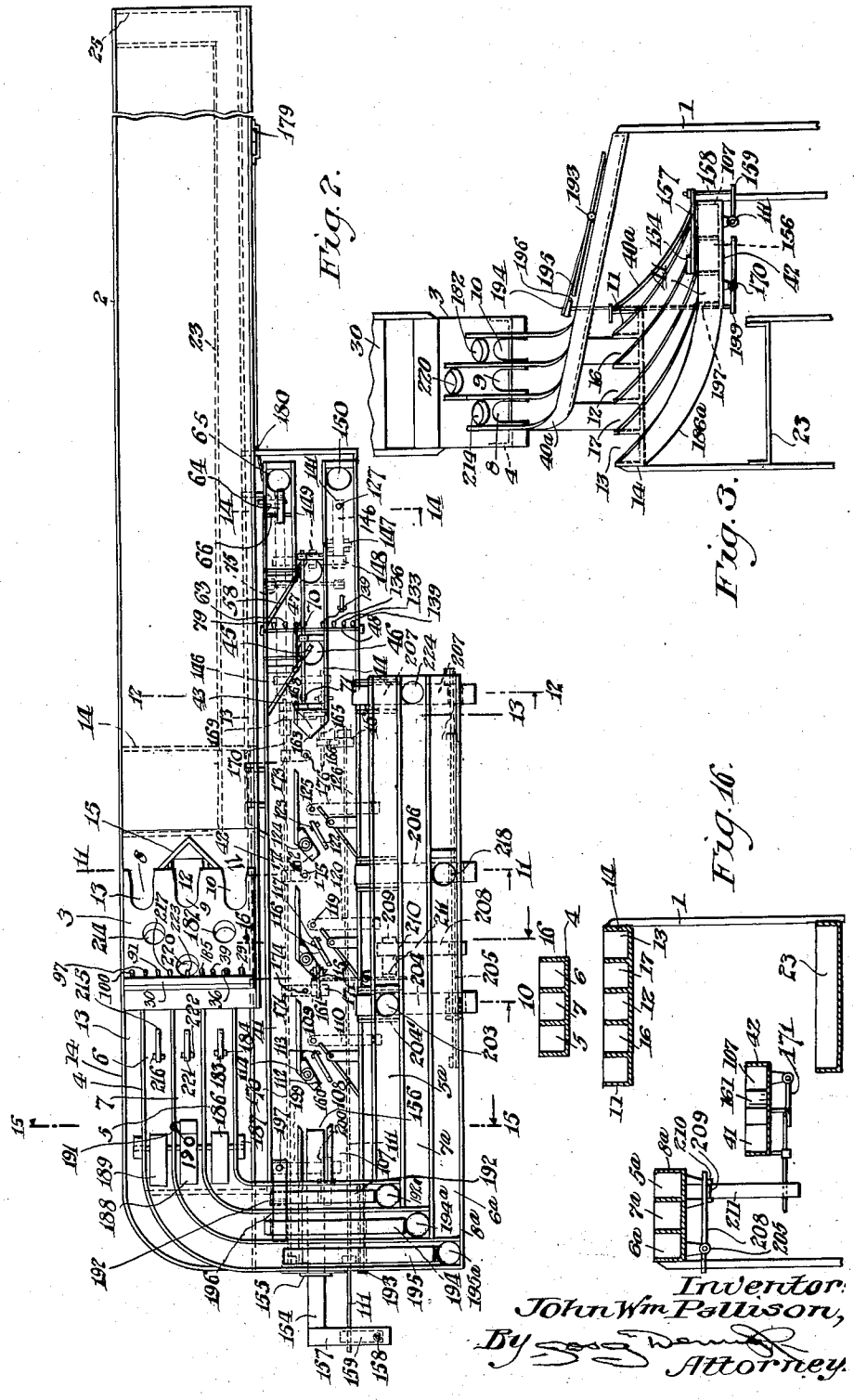


Fig. 2.

Fig. 3.

Fig. 16.

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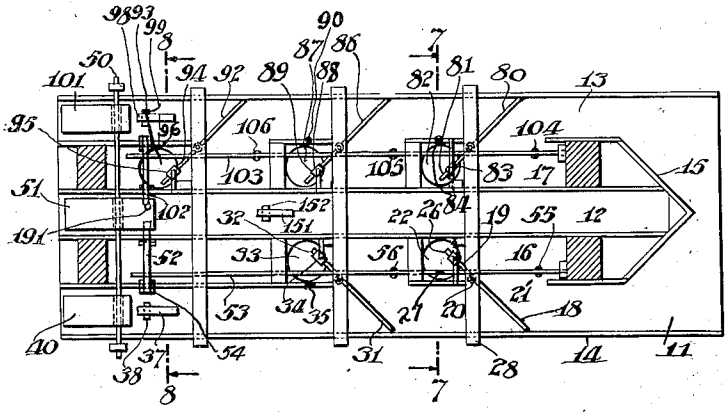


Fig. 4

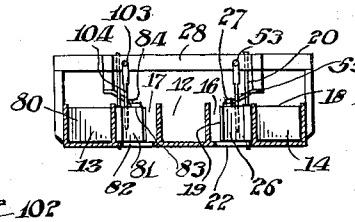


Fig. 7.

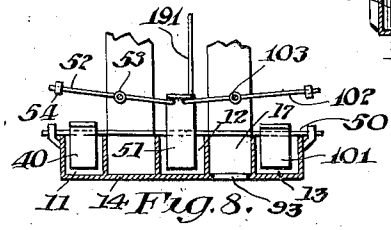


Fig. 8.

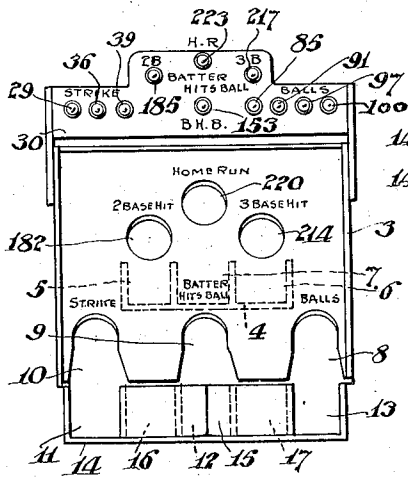


Fig. 5.

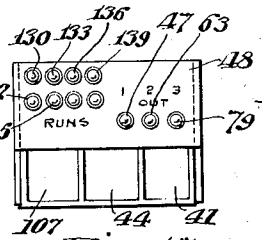


Fig. 17.

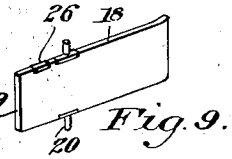


Fig. 9.

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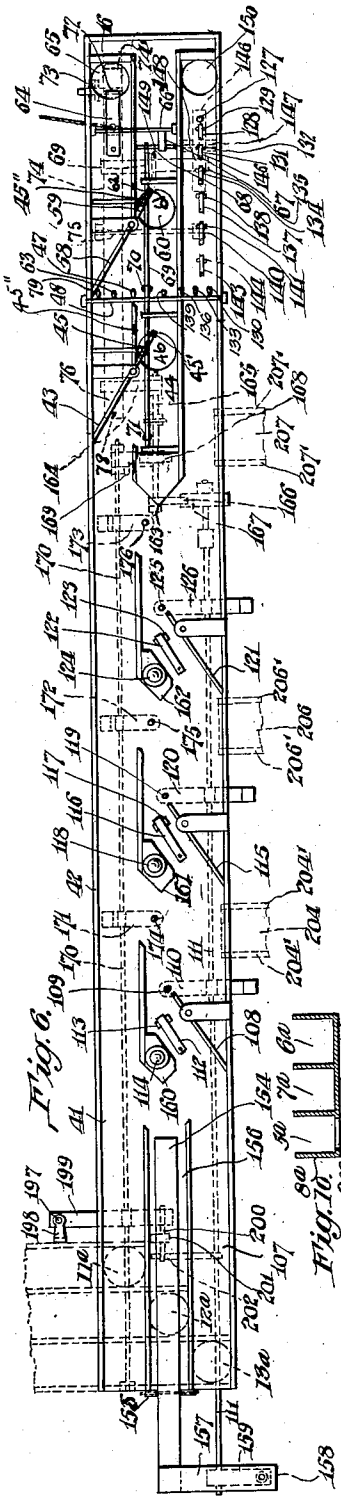


Fig. 6.

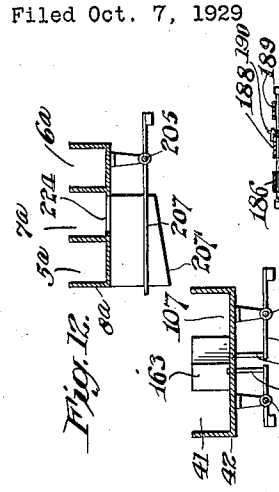


Fig. 12.

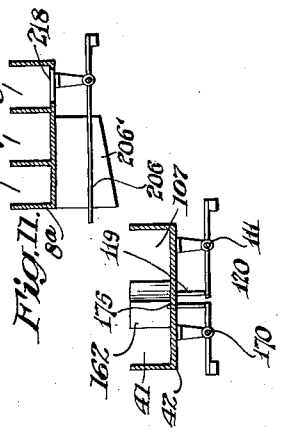


Fig. 11.

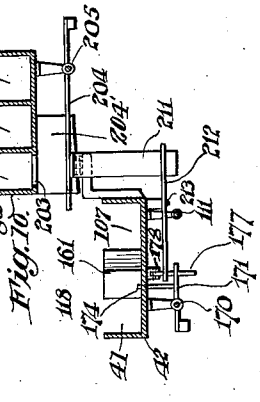


Fig. 10.

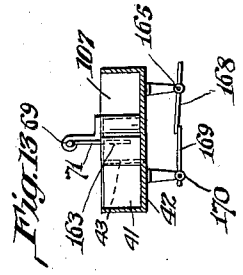


Fig. 13.

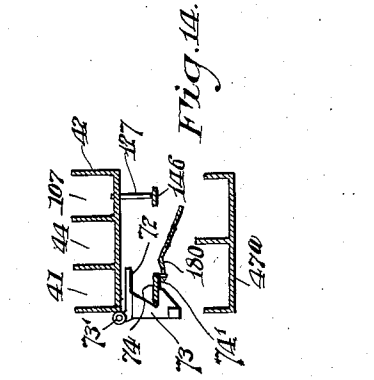


Fig. 14.

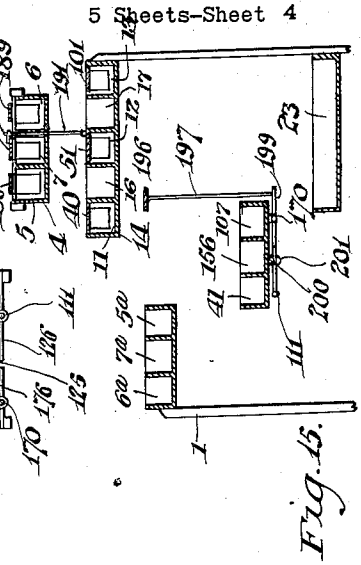


Fig. 15.

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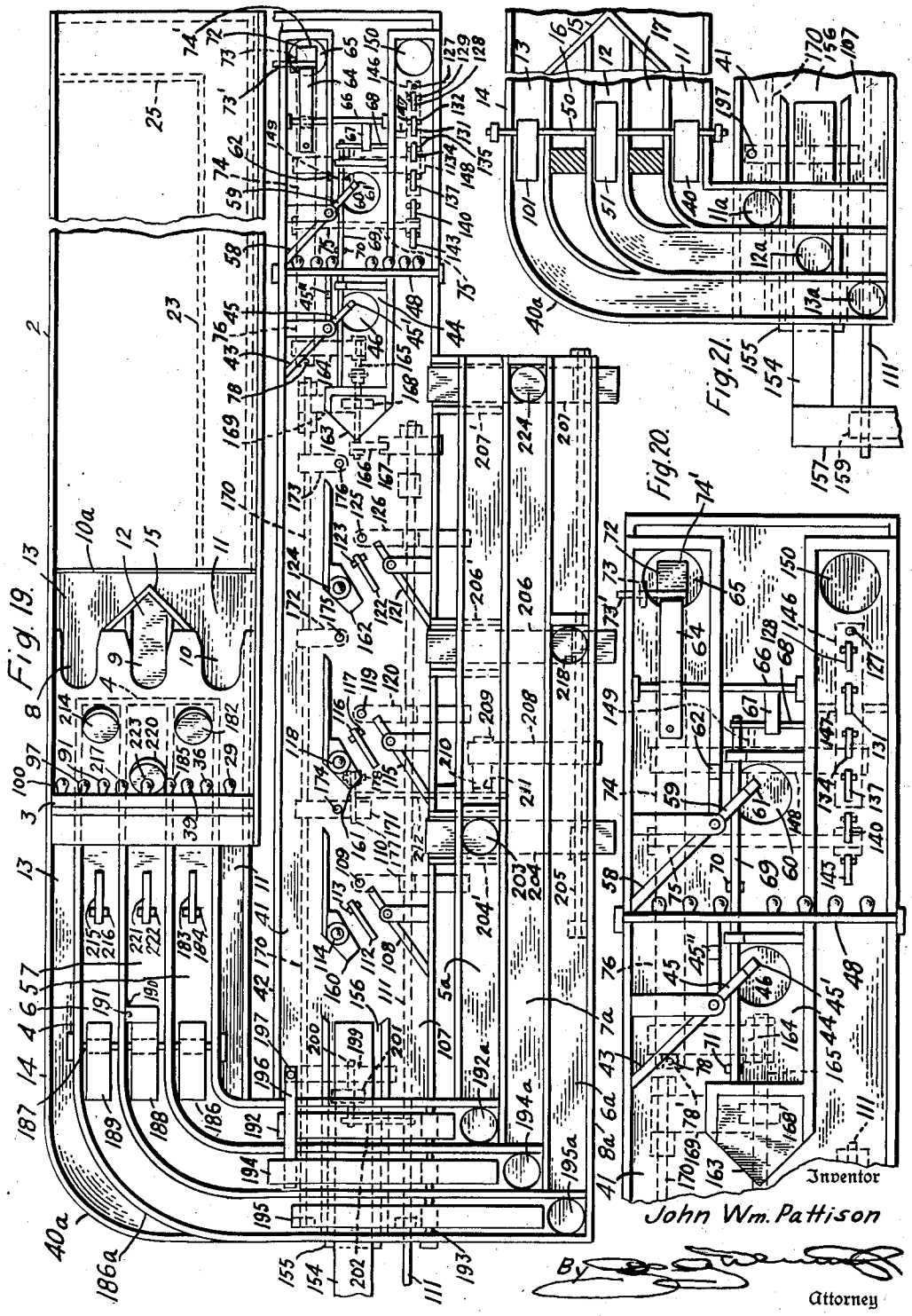


Fig. 19.

Fig. 20.

Fig. 21.

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Patented Jan. 15, 1935 1,988,251

UNITED STATES PATENT OFFICE

1,988,251

GAME MECHANISM

John W. Pattison, Absecon, N. J., assignor of one-half to Irwin J. Rider, Absecon, N. J.

Application October 7, 1929, Serial No. 397,864

20 Claims. (Cl. 273—88)

My invention is an improved game mechanism which may be played by one or more persons, and which is particularly designed to permit play which will closely simulate the plays of a regularly organized baseball game, and wherein skill and chance both contribute to the results of the various plays, and each play may affect and be affected by the previous and subsequent plays.

By the utilization of my novel apparatus the pitching or rolling of a missile toward an objective may produce a variety of results comparable to the results of a strike, ball, hit, two-bagger, three-bagger, or home run, and the effects of each ball pitched or rolled upon previously uncompleted plays, as well as the result of the play represented by the ball being pitched or rolled, is automatically indicated and recorded. Plays may be made continuously until the occurrence of three plays simulating "outs", and the end of a half inning, when the apparatus must be reset to permit the playing of a new half inning.

While my invention is susceptible of embodiment in various forms, it preferably comprises a plurality of runways to which missiles such as balls are selectively admitted in accordance with the position occupied by the ball on approaching an objective, and the several runways contain movable devices whereby the courses of the balls are deflected and indicated.

The characteristic features and operations incident to my improvements will more fully appear from the following description and the accompanying drawings of an illustrative embodiment of my invention.

In the drawings Fig. 1 is a side elevation of a preferred embodiment of my invention; Fig. 2 is a top plan view thereof; Fig. 3 is an end view, taken from the left hand end of Fig. 3, with parts omitted for the sake of clearer illustration; Fig. 4 is an enlarged top plan view of a portion of the apparatus as shown in Fig. 2, with parts removed; Fig. 5 is a front elevation of the target exemplifying the batter's box; Fig. 6 is a top plan view of the fourth chute from the top shown in Fig. 1; Fig. 7 is a transverse sectional view on the line 7—7 of Fig. 4; Fig. 8 is a transverse sectional view taken on the line 8—8 of Fig. 4; Fig. 9 is a detached perspective view of one of the pivoted gates or deflectors; Fig. 10 is a transverse sectional view taken on the line 10—10 of Fig. 2; Fig. 11 is a transverse sectional view taken on the line 11—11 of Fig. 2; Fig. 12 is a transverse sectional view taken on the line 12—12 of Fig. 2; Fig. 13 is a transverse sectional view taken on the line 13—13 of Fig. 2; Fig. 14 is a transverse sectional view taken on the line 14—14 of Fig. 2; Fig. 15 is a transverse sectional view taken on the line 15—15 of Fig. 2; Fig. 16 is a sectional view on line 16—16 of Fig. 2; Fig. 17 is a front elevation of the scoring board for the runs and outs; Fig. 18 is a diagrammatic layout of the electric wiring; Fig. 19 is similar to Fig. 2, on an enlarged scale; Fig. 20 is a view of the right-hand end of Fig. 6, on an enlarged scale; and Fig. 21 is a top-plan view of the apparatus near the top, as viewed at the upper left-hand end of Fig. 19.

As illustrated in the drawings, (Fig. 1) a frame 1 supports an inclined alley 2 up which balls are pitched or rolled at the target 3, (Fig. 5). The board 3 is disposed in an inclined position above a chute 4 (Figs. 1, 2 and 5) divided into runways 5, 6 and 7, leading to runways 5*a*, 6*a*, and 7*a*, respectively, in a chute 8*a*. The lower edge of the target board 3 contains recesses 8, 9 and 10 registering with runways 11, 12 and 13 of a chute 14 (Figs. 1, 4 and 5). A V-shaped deflector 15 (Figs. 2, 4 and 5) is fixed to the chute 14 with its nose in front of runway 12. The deflector projects across the front of runways 16 and 17, so that balls rolling upon the surface of the alley 2 and lacking sufficient impetus to ride up upon the target board 3 are deflected into either the runway 11 or the runway 13. (Figs. 2, 4 and 5.)

The upper edge 10*a* of the bottom of the alley 2 is spaced from the forward edge of target plate 3 (Fig. 2), so that a ball which falls back from the target plate 3 drops into the runway 11 or the runway 13.

When a ball is tossed or rolled up the alley 2 and enters the runway 11 of the chute 14 it is deflected by a pivoted gate 18 (Figs. 4, 7 and 9) into the runway 16 where it strikes the tail 19 of the gate and rocks the latter upon its pivot 20 so as to close the opening 21 in the wall of the runway (Fig. 4). The gate 18 is so mounted as to stay "put" in its opened and closed positions. The ball then drops through the aperture 22 (Figs. 4 and 7) into the return chute 23 (Fig. 1) which delivers the ball to a storage space 25 below, at the front end of the alley (Figs. 1 and 2). The operation of the gate causes a contact 26 (Figs. 4 and 9) to engage a contact 27 carried by a cross member 28 and

closing a circuit which lights the light 29 on the score board 30 (Figs. 1, 2, 5 and 18).

Should a second ball enter the runway 11, either immediately after the first ball or after balls have entered other runways, such second ball entering the runway 11 passes the closed gate 18 and is deflected by a similar second gate 31 into the runway 16 where it operates the tail 32 of the gate, and drops through the aperture 33 into the return chute 23. The rocking of the gate 31 causes the contact 34 thereon to engage with the contact 35 which closes a circuit illuminating a second light 36 on the score board 30.

When a third ball enters the runway 11, either immediately after the ball last above described or at a later period in the playing of a game, it passes the closed gates 18 and 31 and depresses a contact 37 (Figs. 4 and 18) against a contact 38 which closes a circuit illuminating a third light 39 on the score board 3.

The ball then strikes the depending rocker finger 40 and passes around a curved chute portion 40*a* (Fig. 3) and drops through an opening 11*a* into a runway 41 of the return chute 42 (Figs. 1, 2 and 6). The third strike ball passes down the runway 41 until it strikes and is deflected by a gate 43 which diverts the ball into a runway 44, where it strikes the tail 45 of the gate 43, similar to the gates 18 and 31, and drops through the aperture 46 into a chute 47*a* (Fig. 1) connected by a return chute 48*a* with the return chute 23. The tail 45 carries a contact 45′ similar to the contact 26 which is moved by the rocking of the gate into engagement with a contact 45″ similar to the contact 27 and which closes a circuit and lights a lamp 47 on the supplemental score board 48 (Figs. 1, 2, 6 and 17) to indicate one man out.

The rocker finger 40 is fixed to a shaft 50 (Figs. 4 and 8) which has depending therefrom a rocker finger 51 which engages and rocks the lever 52 fixed on a rocking shaft 53 mounted in suitable bearings carried by the frame, the lever being counterbalanced by a weight 54 (Fig. 8). The shaft 53 has fixed thereon the depending fingers 55 and 56 which normally hang beside the closed gates and, when rocked or turned about the axis of the shaft 53, engage and turn the gates 18 and 31 (Fig. 4) about their upright pivots 20 to open position.

When, in the progress of the game, a player representing a second batter makes three strikes, either in sequence or at various times interspersed with other plays, the third strike missile of the person representing second batter follows the course above described of the third strike missile of the person representing the first batter into the runway 41 of the chute 42. This third strike missile of the second simulated batter passes the closed gate 43 (Figs. 2 and 6), but is deflected by a second gate 58 into an extension of the runway 44. The ball strikes the tail 59 of the gate 58 before dropping into an opening 60 through which it passes into the return chute 47*a* and rolls through the cross chute 48*a* and chute 23 to the box 25 as previously described. The rocking of the gate 58 causes the contact 61, corresponding to the contact 45′ to be brought into engagement with the contact 62, corresponding to the contact 45″. This closes the circuit through the second "out" light 63 (Fig. 17) on the score board 48 to indicate a second man out.

If a third player makes three strikes, by rolling three missiles into the runway 11 either in sequence or interspersed with other plays, the third ball of the third player, thus resulting in a strike after reaching the runway 41 passes both the closed gates 43 and 58 and passes under and rocks a depending rocker finger or hanger 64 (Figs. 2 and 6) and drops through the aperture 65 (Figs. 1, 2 and 6). The depending rocker finger 64 is fixed to a journalled shaft 66 which has projecting therefrom an arm or lever 67 which depresses an arm or lever 68 fixed to a shaft 69 journalled in suitable bearings and having thereon a finger 70 for opening the gate 58 and a depending finger 71 for opening the gate 43 (Figs. 2, 6 and 13).

Upon dropping through the opening 65, the ball engages and rocks an arm 72 of a trigger 73 (Figs. 6 and 14) pivoted on a bearing 73′ on the side of the chute 42. This trigger has a toothed end normally supporting the counterweighted end 74′ of a lever 74. The action of the counterweighted end 74′ in rocking the lever 74 is supplemented by the impact of the descending ball with the end 74′ after having rocked the trigger arm 72. The lever 74 is pivotally supported by the pivot 75 (Figs. 2 and 6). The end 76 of the lever 74 also has thereon a contact 78 which is moved by the elevation of the end 76 into engagement with a contact 78′ for closing the circuit of a lamp 79 on the score board 48 to indicate that the third player is out and the first half of the inning ended. The ball has meanwhile dropped into the cross chute 48*a* (Fig. 1) and passed through the chute 23 into the storage space 25.

It will, of course, be unusual for three batters to each make three strikes in sequence, and the foregoing description is given to afford a complete understanding of the mechanism actuated by balls entering the runway 11, regardless of whether the strikes are in sequence or interspersed with balls or hits.

If a pitched or rebounding ball, impelled up the chute or alley 2 instead of entering the runway 11, enters the runway 13 provided for the reception of missiles representing "balls" (Figs. 4 and 5), the first ball is deflected by the gate 80 into the runway 17. The ball rocks the tail 81 of the gate before dropping through the opening 82, and thereby closes the gate 80. The closure of the gate moves the contact 83 into engagement with the contact 84 and closes the circuit of the lamp 85 on the score board 30 to indicate "one ball". The ball passing through the aperture 82 drops into the return chute 23 and returns to the storage box 25.

A second ball pitched or rebounding into the runway 13 passes the closed gate 80 and is deflected by the open gate 86 into the runway 17 and drops through the aperture 87 into the return runway 23 and back to the box 25. In passing to the aperture 87 the ball rocks the tail 88 of the gate 86 so as to close this gate and bring the contact 89 thereon into engagement with the contact 90 to close the circuit of the light 91 on the score board 30 to indicate a second "ball".

The third ball pitched or rebounding into the runway 13 passes the closed gates 80 and 86 and is deflected by the open gate 92 into the runway 17 where it drops through the aperture 93 into the return runway 23 after rocking the tail 94 of the gate 92 to close the latter and bring the contact 95 into engagement with the contact 96

thereby closing the circuit of the lamp 97 on the score board to indicate a third "ball".

The fourth ball pitched or rebounding into the runway 13 passes the closed gates 80, 86 and 92, depresses the contact 98 against the contact 99 to close the circuit of the lamp 100 on the score board 30 to indicate a fourth ball entitling the batter to his "base on balls." After closing this circuit, the fourth ball passes under the depending finger 101 fixed to the shaft 50. (Figs. 4 and 8.) The rocking of the shaft 50 acts through the member 51 to depress the lever 102 as well as the lever 52. The lever 52 acts as heretofore described to open the gates 18 and 31, and the lever 102 acts through the journalled shaft 103 and the pins 104, 105 and 106 depending therefrom to similarly open the gates 80, 86 and 92 (Figs. 4, 7 and 8).

When the fourth ball entering the runway 13 has passed the rocker finger 101, it rolls around the curved runway portion 40*a* and drops through an opening 13*a* into the runway 107 of the chute 42 (Figs. 2 and 6). The ball rolls down the runway 107 until it is deflected by a pivoted gate 108 and stopped by a projecting pin 109 mounted upon a counterbalanced lever 110 carried by a journalled shaft 111. In this stopped position, the ball rests upon a spring contact 112 which it depresses into engagement with a contact 113, thereby closing the circuit of a light 114 representing first base and indicating that there is now a man on first base.

When the ball strikes the tail of the gate 108, the latter is deflected into closed position, so that a second ball passing down the runway 107 at the end of a second group of four "balls" passes the gate 108 and is deflected by a second pivoted gate 115. A ball deflected by the gate 115 causes the contact 116 to engage the contact 117 and illuminates the light 118 to indicate that a man is on second base. The ball which is deflected by the gate 115 closes this gate by engagement with its tail and is stopped by the pin 119 which is movable up and down by a counterbalanced lever 120 fixed to the shaft 111.

Should there be a third group of four balls enter the runway 13, the fourth ball of such third group will roll down the runway 107 and pass both of the closed gates 108 and 115. Such ball will, however, be deflected by the gate 121 to cause the contact 122 to engage the contact 123, thereby closing the circuit of the lamp 124, which is thus illuminated to indicate that there are men on all three bases. The gate 121 is closed by the contact of the ball with the tail of the gate, and this ball is stopped by the pin 125 movable vertically by a counterbalanced lever or arm 126 fixed on the shaft 111.

Should a fourth group of four balls enter the runway 13, either in sequence or interspersed with other plays of the game, the fourth ball of the fourth group will roll down the runway 107 past the closed gates 108, 115 and 121, until it is stopped by the pin 127. The first ball resting against the pin 127 presses the contact 128 against a contact 129 and closes a circuit to the lamp 130 on the score board 48 (Figs. 17 and 18) to indicate that the person or persons simulating the side at bat has scored one run. As additional runs are scored by the side playing, the additional ball representing each run accumulates behind the first ball and close in sequence the contacts 131 and 132 to close the circuit of and light the lamp 133 on the score board 48; the contacts 134 and 135 to close the circuit of and illuminate the light 136 on the score board 48; the contacts 137 and 138 to close the circuit of and illuminate the light 139 on the score board 48; the contact 140 and 141 to close the circuit of and illuminate the light 142 on the scoreboard 48; the contacts 143 and 144 to close the circuit of and illuminate the light 145 on the score board 48, and such additional number of contacts as may be desired to close the circuit of and illuminate any additional lamps which may be provided upon the score board 48 to indicate additional runs.

The pin 127, by which the balls are retained in position during a half inning, is mounted upon a lever 146 (Figs. 2, 6 and 14) pivoted on the shaft 147 and having its opposite end loosely coupled with or operated by a lever 148 pivoted on a pintle 149. The further end of the lever 148 is coupled with or operated by the lever 74 when the latter is depressed by the fall of a ball representing a third man out. Consequently when the third man has been put out on a side, the pin 127 is depressed and the accumulated balls fall through an aperture 150 into the chute 48*a* from which they return through the chute 23 to the storage box 25 for the beginning of a new half of an inning.

It will of course be understood that the bases on balls need not result from sequential plays, but that "balls" may be interspersed between strikes.

If instead of entering the runways 11 or 13, the ball is thrown through the opening 9 into the runway 12, it rolls over the contact 151 which is pressed into engagement with the contact 152 and closes the circuit of the lamp 153 on the scoreboard 30 to indicate that the batter has hit the ball. The ball then passes under the lever 51, which is rocked thereby to operate the levers 52 and 102, which act, through the mechanism described, to open the gates 18, 31, 80, 86, and 92 if any of these gates representing "balls" and "strikes" are closed. The ball continues down the runway 12 and around the curve 40*a* at the end thereof and drops through an opening 12*a* onto the lever 154 (Figs. 1, 2 and 6) pivoted on the pintle 155 and disposed in the runway 156 between the runways 41 and 107 (Figs. 2, 6 and 15). The impact of the ball on the lever 154 rocks the latter upon its fulcrum 155 and elevates the arm 157 which acts through the link 158 (Figs. 1, 2, 3 and 6) upon the arm 159 fixed to the shaft 111 journalled in suitable bearings on the bottom of the chute 42. The rocking of the shaft 111 acts through the arms 110, 120 and 126 to depress the pins 109, 119 and 125 and permits the passage of any balls which may have been resting against these pins.

The depression of the lever 154 by a ball representing a fair ball, if a hit thus clears each base of the ball previously stopped there, and advances each ball one base, or permits the deflection of such ball into the runway 41 to indicate a man put "out", as follows:

The ball passing from the lever 154 strikes the point of the deflector 160 by which it may be deflected toward the right (Figs. 2 and 6), or downwardly, as shown in these figures, and stop against the pin 109 representing first base, or toward the left, or downwardly, as viewed in the drawings, and permitted to roll down the runway 41 toward the "out" gates 43 and 58 and apertures 46, 60 and 65. The second and third base stop pins 119 and 125 likewise have pointed deflectors 161 and 162 adjacent thereto, respec-

tively, and the home plate pin 127 is also provided with a deflector 163 in advance thereof by which balls rolling toward these bases may be either stopped at these pins or deflected into the runway 41 and thereby transmitted to the "out" gates or aperture. A ball striking the deflector 163 at the home plate may be deflected either down into the "run" section of the runway 107 and stopped by the pin 127 or balls bearing against such pin, or may be deflected into the runway 41 and then through one of the "out" gates or aperture.

It will be understood that a ball engaging any one of the pins 109, 119 and 125 either from the runway 107, the runway 156, or after release from a previous one of these pins closes the gate adjacent to such pin, thereby permitting a ball representing a "batted ball" or "walk" to roll down the runway 107 until such ball reaches the first of the gates 108, 115 and 121 which is open, when it will be deflected by the open gate against the corresponding pin. Should there be a ball or balls against one or more of the pins 109, 119 and 125 at the time when a third man is put out by the passage of a third ball through the opening 65, the bases are vacated by the rocking of the lever 74 which elevates the arm 164 of a journalled shaft 165 journalled in suitable bearings. The shaft 165 has fixed thereon an arm 166 which engages and depresses the end of an arm 167 on the end of the shaft 111 to rock such shaft and act through the arms 110, 120 and 126 to depress the pins 109, 119 and 125 to permit the balls on the bases to roll downward.

The shaft 165 also has thereon an arm 168 which engages the top of and depresses the arm 169 fixed on a shaft 170 journalled in suitable bearings and having thereon arms 171, 172 and 173 respectively provided with pins 174, 175 and 176 which are movable upward through apertures in the bottom of the chute 42 to prevent the passage of balls into the runway 41.

When the shaft 170 has been rocked to elevate the pins as above described, it is latched in position by the engagement of the arm 171 by a latch 177 (Figs. 6 and 10) depending from a pintle 178 on the bottom of the chute 42. Consequently the pins 174, 175 and 176 are held elevated until a ball or balls have been released from the base pins 109, 119 and 125 and the apparatus is manually set for the renewal of play. This resetting is effected by means of a pivoted lever 179 (Figs. 1 and 2) having fixed thereto a tension member 180 connected with the end 74' of the lever 74, by which this lever is lifted into latching engagement with the hook 73 (Figs. 2, 6 and 14). The lever 179 is also provided with a tension member 181 which is connected with the latch 177 to retract the latch from the lever 171 and permit the descent of the pins 174, 175 and 176. When the lever 74 has been latched by the latch 73 and the arm 171 has been unlatched from the latch 177, the game is again ready to play.

If a person playing the game is successful in throwing or bouncing a ball into the opening 182 (Figs. 2 and 5) for a two base hit, the ball falls into the runway 5 and causes the contact 183 to engage the contact 184 and close the circuit of, and illuminate, the light 185 to indicate a two base hit. The ball then proceeds along the runway and passes under the rocker 186, (Figs. 2 and 15) which is fixed to a shaft 187 journalled in suitable bearings. The shaft 187 has fixed thereto additional rockers 188 and 189. The rocker 188 has an offset 190 to which is fixed a coupling rod 191 (Figs. 2, 8 and 15, respectively) connected with the rocker finger 51. The rocking of the shaft 187 by any of the rockers 186, 188 or 189 acts through the coupling 191 to rock the rocker 51 and therethrough turn the shaft 50 which acts through the mechanism described to open the "ball" and "strike" gates in the lower chute 14.

After passing under the rocker 186, the ball passes around a curve 186*a* of the runway and under the rocker 192 (Figs. 2 and 15) which is fixed on a shaft 193 and through an opening 192*a* to the runway 5*a* of the chute 8*a*. Similarly, balls passing under the rockers 194 and 195 drop through openings 194*a* and 195*a* to the runways 7*a* and 6*a*, respectively. The shaft 193 has fixed thereto the rockers 194 and 195. The rocker 194 has an end 196 bent at right angles to the length thereof. The end of the transverse member 196 has adjustably fixed thereto a link 197, (Figs. 2, 3, 6 and 15) supported in the guide bearing 198 (Fig. 6) and connected with the lever 199 fixed to the shaft 170. The opposite end of the lever 199 (Figs. 6 and 15) engages the end of a fulcrumed lever 200 which is fulcrumed on the bearing 201 and engages the top of the lever 202 fixed to the shaft 111.

It will thus be seen that when the shaft 193 is rocked by the engagement of a ball with any of the rockers 192, 194 or 195 the shaft 170 is rocked to elevate the pins 174, 175 and 176 and the shaft 111 is rocked to depress the base pins 109, 119 and 125. Consequently any balls that are against the base pins are prevented from passing into the runway 41 and are permitted to pass from one base to the next. Owing to the engagement of the latch 177 with the arm 171 (Fig. 10), the shafts 111 and 170 are held in position to retain the pins as described until released by the batted ball.

This release is effected when the batted ball drops through the aperture 203, (Figs. 2 and 10) and strikes the counterweighted lever 204 (Figs. 1, 2, 6 and 10) fixed on the shaft 205 journalled in suitable bearings. The shaft 205 has also fixed thereto the arms 206, 207 and 208 (Figs. 2 and 16). The free end of the arm 208 engages and depresses one arm 209 of a bell crank which is fulcrumed on the pintle 210 and has its depending arm 211 engaging the lever 212 (Fig. 10) fulcrumed on the pintle 213. The end of the lever 212 opposite the bell crank 211 engages the latch 177 to disengage it from the lever 171, thereby permitting the rocking of the shafts 111 and 170 and the retraction of the pins 174, 175 and 176 and the elevation of the pins 109, 119, and 125.

The ball then passes along the lever 204 between the guideways 204' and drops into the runway 107 between the pins 109 and 119 representing first and second base, and is stopped by the second base pin 119, with consequent operation of the gate 115, to clear the way for a succeeding ball, and operation of the contact 116 to close the circuit and light the lamp 118.

Should a ball enter the three-base hit aperture 214, it enters the runway 6 and presses the contact 215 against a contact 216 to close the circuit of and light the lamp 217. It then passes under and rocks the rocker finger 189 which acts through the mechanisms described to open any gates 18, 31, 80, 86 and 92 which

may have been closed by previous balls representing "strikes" and "balls". The three-base hit ball then passes under the lever 195, and, through the mechanisms described, retracts the pins 109, 119 and 125 and elevates the pins 174, 175 and 176. The ball then passes around the runway and drops through the aperture 218 on to the lever 206, which, through the mechanisms described, actuates the pins 109, 119 and 125, and 174, 175 and 176 in reverse directions. The ball then rolls along the lever 206 between the guides 206' and drops into the runway 107 between the second and third base pins 119 and 125, and is stopped by the pin 125, having meanwhile closed the gate 121 and depressed the contact 122 against the contact 123 to illuminate the lamp 124.

Should a ball enter the home run opening 220, it drops into the runway 7 (Figs. 2 and 5) and depresses the contact 221 into engagement with a contact 222 to close the circuit of and illuminate the home run light 223 (Fig. 5).

The ball then rolls under the rocker 188 which is rocked to actuate the mechanism described for opening any closed "ball" and "strike" gates in the chute 14. It then passes under the rocker 194 and acts, through the mechanisms described, to depress the pins 109, 119 and 125, and elevate the pins 174, 175 and 176 to permit the movement of any balls which may have been on bases. These pins are latched in position as above described while the ball is proceeding around the runway to the aperture 224, through which the ball drops and engages and rocks the lever 207. The rocking of the lever 207 acts through the mechanisms described to elevate the pins 109, 119 and 125, and retract the pins 174, 175 and 176. The ball rolls down the lever 207 between the guideways 207', and is discharged into the runway 107 below the deflector 163 and closes one of the contacts adjacent to the pin 127.

It will be observed that when a two-base hit is made, the balls which may have been on bases are advanced by the depression of the pins 109, 119 and 125, and the elevation of the pins 174, 175 and 176, and the number of bases that such balls are advanced is dependent primarily upon the interval between the actuation of such pins by the movement of the rocker 192 and their release by the actuation of the rocker 204. This interval is dependent upon the speed of the ball, and, by controlling such speed, it is possible that the balls previously on base may be advanced one or more bases by a two-base hit.

When a three-base hit is made, the interval between the operation of the pins through the rocker 195 and their second actuation by the movement of the rocker 206 is ordinarily longer because the ball has a further distance to travel, and consequently the probability is greater of advancing more than one base the balls previously on bases.

When a home run play is made, the interval between the operation of the pins through the lever 194 and the operation of the pins through the lever 224 is still longer, and consequently the probability is that all the balls previously on bases will have completed their runs past the deflector 163 and into the home run compartment before the lever 224 is operated by the home run ball to release the shafts 170 and 111 and operate the pins.

By my improved apparatus a large variety of plays of a regular ball game may be simulated and the consequences of such play are reproduced in the scoring and in the condition of the balls representing players and teams as in a regular game.

It will be understood that while I have described the plays in a specific sequence, the sequence described will not ordinarily occur, but plays of different kinds will be interspersed with one another. For instance, a batter on one team may make two strikes and three balls and then make a home run and thereby clear the machine for the next batter. The next batter may make initially a three-base hit and be left on base as a result of three succeeding batters making three strikes each, or being otherwise put out. That is, a ball will be left against the pin 125 for return to the storage bin 25 when the machine is reset for the next "batter". Instead of the second player being put out by the ending of his side's half of the game, he may be put out by a player who makes the play "batter hits ball", as in such event the pin 176 is not elevated when the pin 125 is depressed, and the ball at the third base pin 125 may be deflected by the point 163 adjacent to home base into the runway 41 instead of into the runway for recording runs.

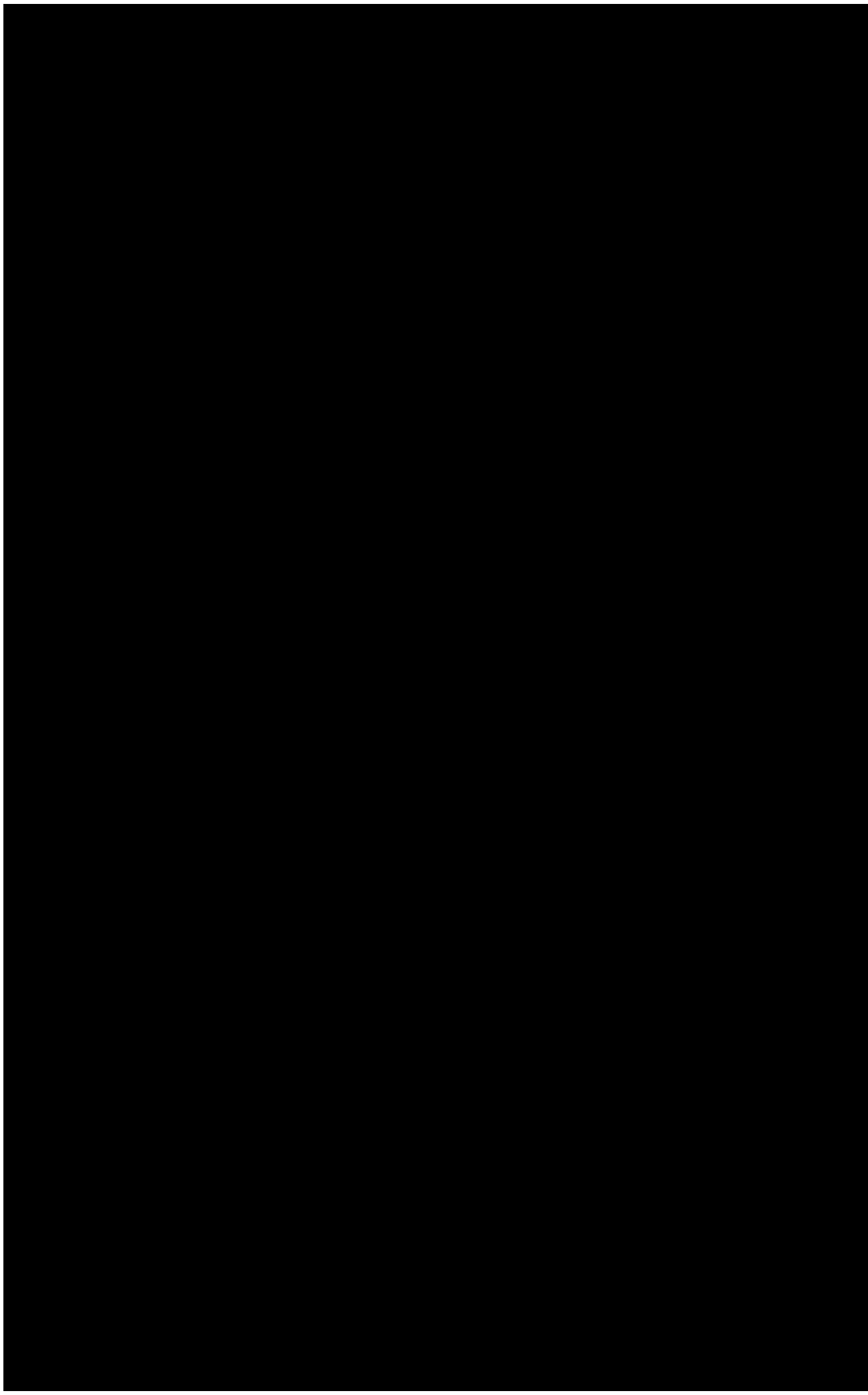
When three batters have been put out, one-half an inning has been finished, and the lever 179 is operated to release the latch 177 and to elevate the lever 74 into engagement with the latch 73. The next half of the inning may then be played and many plays occurring in a regular baseball game simulated and recorded.

Having described my invention I claim:—

1. An apparatus of the character described comprising a plurality of runways each provided with a plurality of gates operable by balls engaging therewith and deflected thereby, and a second set of runways each containing mechanism operable by a ball passing through the respective runways of the second set, said mechanisms being operatively connected with and operating the gates of the first named runways upon the actuation of any of said mechanisms.

2. An apparatus of the character described comprising a runway, a plurality of stops controlling passage through said runway, a second runway, a plurality of gates for diverting balls from second said runway into first named runway, a third runway having a plurality of gates for diverting balls therefrom, mechanism operable by a ball passing through said third named runway for actuating said gates last named, and ball operated mechanism for actuating the stops of said first named runway and the gates of said second named runway.

3. Apparatus of the character described comprising a runway, a plurality of movable stops controlling passage to said runway, mechanism operable by a ball passing through said runway for operating stops aforesaid, a second runway, mechanism operable by a ball passing through said second named runway for operating stops aforesaid, a third runway, gates controlling the passage of balls from said third named runway into the first named runway, a fourth runway, gates controlling the passage of balls through said fourth runway, mechanism operable by a ball for operating the gates of said fourth named runway, and ball-operable mechanism for actuating the gates of said third named runway and the stops of said first named runway.



a series of gates for successively deflecting balls and operable by the deflected balls, means operable by balls passing said gates for operating the gates, a passageway, means controlling the passage of balls through said passageway, and means operable by a ball, which has actuated said control means, for actuating said gate operating means.

16. Baseball game apparatus comprising a target including a runway for balls received by the target, movable elements for stopping balls at different positions along the runway, ball operated means controlling the movement of the balls to be stopped successively or selectively by said movable elements, and ball operated means for actuating said movable elements to release the balls.

17. Baseball game apparatus comprising a target including a runway for balls received by the target, movable elements for controlling the movement of balls to selectively pursue different courses through said runway and ball-operated means controlling said movable elements.

18. Baseball game apparatus comprising a target including a runway for balls received by the target, a series of movable elements for stopping balls at different positions along the runway, a series of ball-operable movable gates for directing the movement of the balls relative to said movable elements, and ball-operated mechanism for controlling said movable elements to stop and release the balls.

19. Baseball game apparatus comprising an alley constituting a ball path, a lower set of side and intermediate runways in said path at the alley head, a deflector in said path tending to direct balls from the intermediate runway toward the side runways, an upper set of runways in said path above said first set, and a target above said upper set having ball-receiving apertures in register with the runways of the upper set.

20. Baseball game apparatus comprising an alley constituting a ball path, a set of parallel runways including runways in said path at the alley head, a deflector for directing balls toward different runways of the set, ball-operable means in and controlling passage of the balls through certain runways of the set, and mechanism in another runway of the set and responsive to the operation of said ball-operable means for controlling the movement of said ball operable means.

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