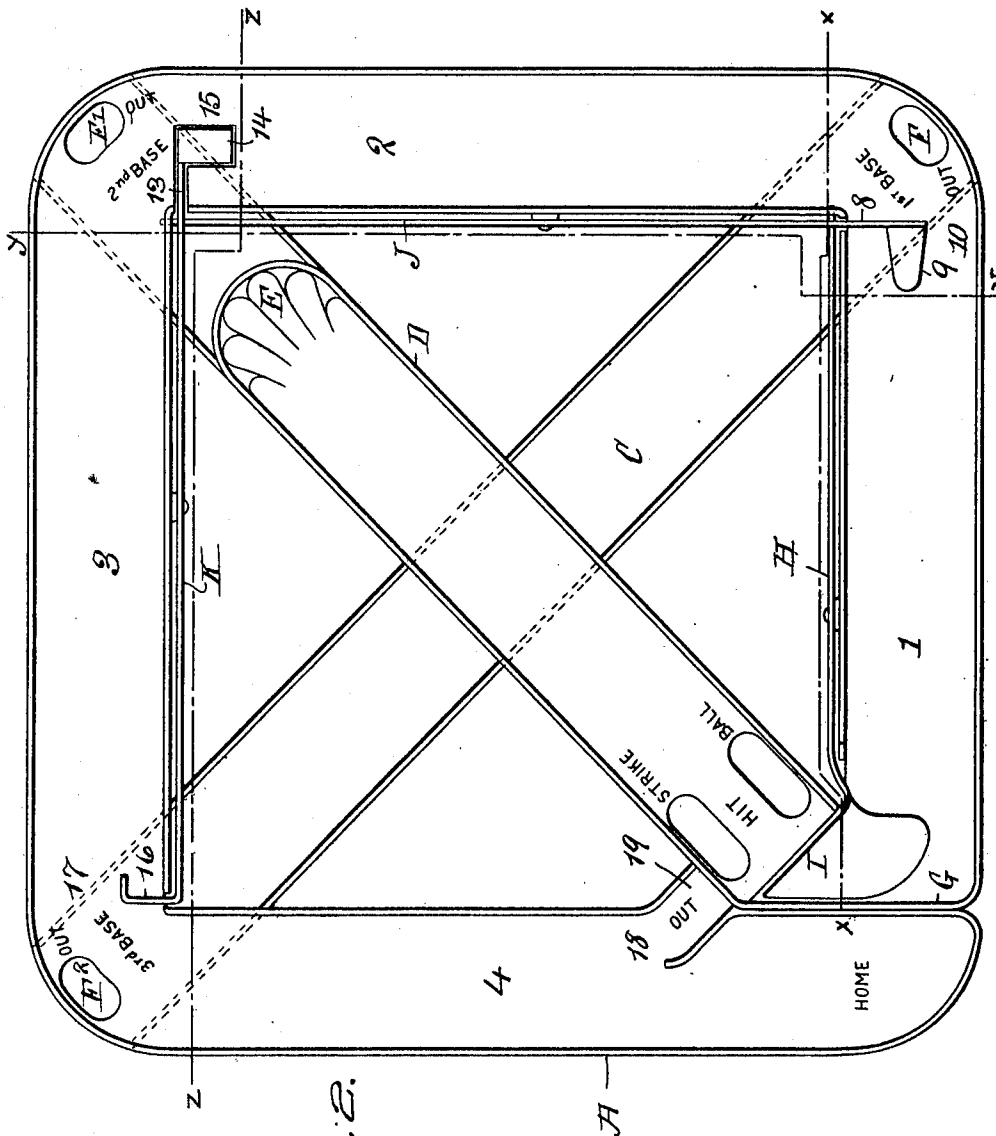


T. E. MURRAY,
 BASE BALL GAME APPARATUS.
 APPLICATION FILED FEB. 23, 1910.

970,086.

Patented Sept. 13, 1910.

3 SHEETS—SHEET 2.



WITNESSES:
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INVENTOR
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 HIS ATTORNEY

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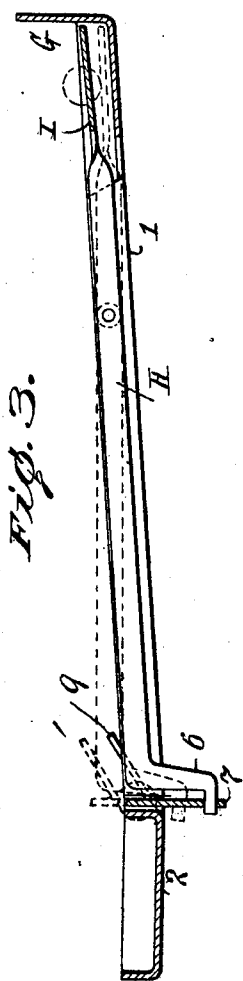


Fig. 3.

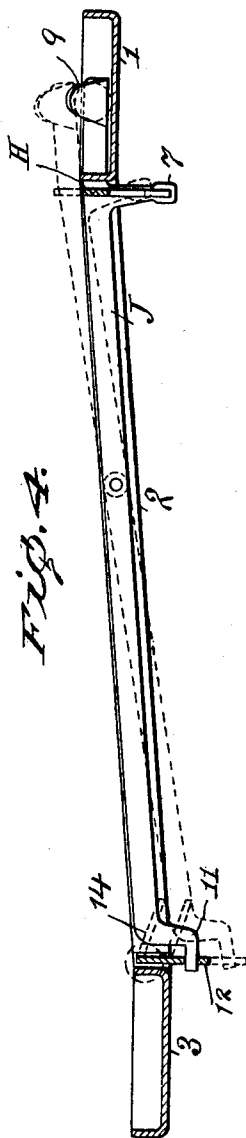


Fig. 4.

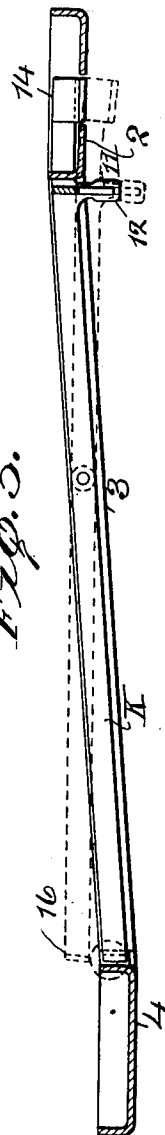


Fig. 5.

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THOMAS E. MURRAY, OF NEW YORK, N. Y.

BASE-BALL-GAME APPARATUS.

970,086.

Specification of Letters Patent. Patented Sept. 13, 1910.

Application filed February 23, 1910. Serial No. 545,292.

To all whom it may concern:

Be it known that I, THOMAS E. MURRAY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Base-Ball-Game Apparatus, of which the following is a specification.

The invention relates to base-ball game apparatus of the type in which a continuously inclined diamond-shaped runway is traversed from base to base, in the usual order, by successive balls representing players.

My present invention eliminates the tilting tables, or troughs, usually disposed in the members of the runway, controls the ball releasing gates at the bases by a simple system of linked levers, prevents the possibility of two players holding a base at the same time, and simplifies and cheapens the construction.

In the accompanying drawings—Figure 1 is a perspective view of my base-ball game apparatus. Fig. 2 is a plan view. Fig. 3 is a section on the line x, x , Fig. 4, on the line y, y , and Fig. 5, on the line z, z , of Fig. 2.

Similar numbers and letters of reference indicate like parts.

The diamond-shaped continuous runway A, for the balls, is preferably formed from a single piece of sheet metal and is substantially trough-shaped. It is supported at proper inclination by standards B, which may be formed integrally with the cross arms forming the supporting frame C. Said arms are flanged at their edges, so that they constitute a tray to retain balls dropping upon it through the runway openings. Preferably integral with the runway A, I provide another inclined trough-shaped runway D which serves to direct the balls to the upper end of the first member 1 of the diamond-shaped runway, and which represents the space traversed by the ball when thrown by the pitcher to the batsman. At the lower end of the runway D are two openings marked respectively "Strike" and "Ball" in Fig. 2, and at the upper end of said runway may be formed channels E which serve to direct the ball away from the side of the trough. A ball passing through either of said openings falls upon and is retained on the frame C, as already de-

scribed. When the ball passes between said openings a "hit" is supposed to have been made, and the ball then represents a player beginning a run. The positions of the bases are, as usual, at the angles of the diamond-shaped runway, and that of home base—marked "Home" in the drawings—is at the end of said runway. At each angle of the runway is an opening F, F¹, F². A ball passing through any one of these openings is received and retained upon the frame C, as already described, and represents a player who is "out." The trough flange G at the upper end of runway member 1 is made sufficiently high to unite with the trough flange of runway D so as to prevent escape of balls in passing from runway D to member 1.

Upon the inner side of runway member 1 is pivoted a lever H. The upper end of said lever extends through an opening in the flange of member 1 and in front of the lower end of runway D, so that a ball in running from runway D strikes said lever end and depresses it (see dotted lines Fig. 3) before passing on member 1. Preferably, I provide on said lever a table I which is downwardly inclined, over which table the ball runs while simultaneously depressing lever H. At the other extremity of lever H is a depending arm 6, a pin on which enters an opening in a depending arm 7 on the lower edge of a lever J which is pivoted on the inner flange of the second runway member 2. The lever J at one end extends through a recess in the inner flange of member 1 and forms a gate 8 extending partly across said member. At the end of the gate is a laterally extending upwardly bent cam arm 9. A ball descending member 1 may, if near the outer flange, proceed through the passage 10 left between the end of gate 8 and said flange to the next runway member 2; or, it may strike the under side of the cam arm 9, and so itself lift the gate (see dotted lines at left of Fig. 3) and pass on to the next runway member 2; or, if near the inner flange, it may be stopped and retained by the gate 8. The lever J at its opposite extremity has a depending arm 11 which is turned horizontally at its extremity to enter an opening in an arm 12 depending from the lever K which is pivoted on the inner flange of the third runway member 3. The lever K at one end extends through and into a recess formed in

the inner flange and in the floor plate of member 2, and forms a gate 13 extending partly across said member. At the end of gate 13 is a laterally projecting downwardly bent cam arm 14. A ball descending runway member 2 may, if near the outer flange, proceed through the passage 15 left between the end of gate 13 and said flange to the next runway member 3: or, it may run upon the cam arm 14, thus depressing the gate 13 and lever J, (see dotted lines Fig. 4) and so passing to runway member 3: or, if near the inner flange, it may be stopped and retained by gate 13. The lever K at its other end is simply bent twice to form a gate 16 which is received in a recess in the inner flange of runway member 3, and extends partly across said member. A ball descending member 3 is, therefore, either stopped and held by said gate 16, or else passes through the passage 17 between said gate and the outer flange, and so directly to runway member 4 which, at its end, representing "home", finally retains the ball: or said ball may escape through a passage 18 formed in the inner flange of member 4 and down an incline 19, and so into the frame or tray C.

The operation of the apparatus in playing the game is as follows: The playing balls are preferably placed successively in the channels E of runway D. If three balls fall through the opening marked "Strike" or four balls fall through the opening marked "Ball," the player, in accordance with the rules of the regular game, is considered out on "strikes" or free to take his base on "balls." In the latter case, one of the balls is placed in position on runway member 1 to be retained by the gate 8. If a ball, however, avoids both openings "Strike" and "Ball" and passes over the intervening solid portion of runway marked "Hit," it then immediately runs upon table I, thus by its weight depressing the end of lever H carrying said table, and from table I it runs upon runway member 1. On reaching the lower end of member 1 the ball may escape through the opening F and so fall into the frame or tray C, in which case the player is considered "out:" or it may run under the cam arm 9, thus lifting lever J, and upon the next runway member 2, in which case the player is supposed to have run on immediately from first base to second: or it may be stopped by gate 8, in which event the player is supposed to hold first base. The next following ball which passes upon table I and so depressing lever H, as already explained, causes said lever, by its linkage to lever J, to raise gate 8, and the condition is simulated of a player on first base beginning his run to second, as soon as the player at the bat starts his run from home base to first base. The first ball running down the

member 2, on arriving at the end thereof, either drops through the opening F¹, and so is "out," or runs over the cam arm 14, so depressing lever K and thus passing at once to member 3, or is stopped by gate 13. Assuming this ball to proceed to member 3, it either escapes through opening F² and, as before, is "out," or passes to member 4 through open passage 17, or is caught by gate 16. Assuming the ball to pass on to member 4, it either escapes by passage 18 and is so "out," or else is finally retained by the flange at the extremity of said member.

By reason of the linkage of the levers, it will be obvious that the depression of the upper end of lever J simultaneously operates all three gates 8, 13 and 16 to release balls which may be retained by them, thus simulating the running of all the players holding bases when the batsman begins his run. It will also be observed, that the ball which runs under cam arm 9 operates the lever J to lower the gate 13, while when it runs over cam arm 14 it raises the gate 16, in both instances releasing the ball or balls held by said gates in advance of it. This makes it impossible for two successive balls to remain held at the same time by either gate; or, in other words, prevents two runners holding the same base at the same time.

I claim:

1. A base-ball game apparatus of the type set forth, comprising a continuous diamond-shaped runway trough, a gate at the lower end of a member of said runway, and a lever arm controlling said gate and pivoted on one wall of said member.

2. A base-ball game apparatus of the type set forth, comprising a continuous diamond-shaped runway trough, a gate at the lower end of a member of said runway, a delivery trough communicating at its lower end with the upper end of said member, and a lever arm controlling said gate pivoted on one wall of said member and having its upper extremity extending over said member and receiving the ball from said delivery trough.

3. A base-ball game apparatus of the type set forth, comprising a continuous diamond-shaped runway trough, gates at the angles of said runway, and levers for controlling said gates: said levers being pivoted on said runway and engaging one with the other.

4. A base-ball game apparatus of the type set forth, comprising a continuous diamond-shaped runway trough, gates at the angles of said runway, and levers for controlling said gates: said levers engaging one with the other and each pivoted to the inner wall of said runway.

5. A base-ball game apparatus of the type set forth, comprising a continuous inclined diamond-shaped runway, a movable gate

normally closed at the lower end thereof, and on said gate an inclined cam arm operable by a descending ball to open said gate.

5 6. A base-ball game apparatus of the type set forth, comprising a continuous inclined diamond-shaped runway, a movable gate normally closed and disposed at the lower end of a member of said runway, a pivoted
10 lever carrying said gate, and an inclined cam arm on said lever disposed in the next preceding member of said runway and operable by a ball descending said last named member to actuate said lever to open said
15 gate.

7. A base-ball game apparatus of the type set forth, comprising a continuous inclined diamond-shaped runway, a lever pivoted on the third member of said runway and
20 extending into and partly across the second member to form a gate, a lever pivoted on the second member of said runway and extending into and partly across the first member, and an inclined cam arm on said second
25 lever constructed to be operated by a ball descending said first member to vibrate said second lever to open said gate.

8. A base-ball game apparatus of the type set forth, comprising a continuous inclined
30 diamond-shaped runway trough, a lever pivoted on the second member of said runway and extending into and partly across the first member to form a gate, and a lever pivoted on said first member and engaging
35 said first named lever to operate said gate.

9. A base-ball game apparatus of the type set forth, comprising a continuous inclined diamond-shaped runway trough, having
40 openings for the chance escape of a ball, standards supporting said runway, and a

receiving trough for said ball below said openings.

10. A base-ball game apparatus of the type set forth, comprising a continuous inclined diamond-shaped runway trough, hav- 45 ing openings for the chance escape of a ball, a trough formed of cross arms disposed below said openings, and standards on said receiving trough supporting said runway.

11. A base-ball game apparatus of the 50 type set forth, comprising an inclined diamond-shaped runway trough formed integrally in a single piece, levers pivoted on the second and third members of said runway and extending at their ends through 55 the walls of said trough to form gates, and a lever pivoted on the first member and engaging at one end with the lever pivoted on the second member.

12. A base-ball game apparatus of the 60 type set forth, comprising an inclined diamond-shaped runway trough, an inclined delivery trough communicating at its lower end with the upper end of the first member of said runway, levers pivoted on the sec- 65 ond and third members of said runway and extending at their ends through the walls of said trough to form gates, and a lever pivoted on the first member and extending at its upper end through the wall of said mem- 70 ber to receive a ball descending said delivery trough and engaging at its lower end with the lever pivoted on the second member.

In testimony whereof I have affixed my 75 signature in presence of two witnesses.

THOMAS E. MURRAY.

Witnesses:

GERTRUDE T. PORTER,
MAY T. MCGARRY.