Oct. 5, 1926. 1,601,849

F. R. CHESTER

GAME

Filed Nov. 23, 1922 3 Sheets-Sheet 1

Fig. 1.

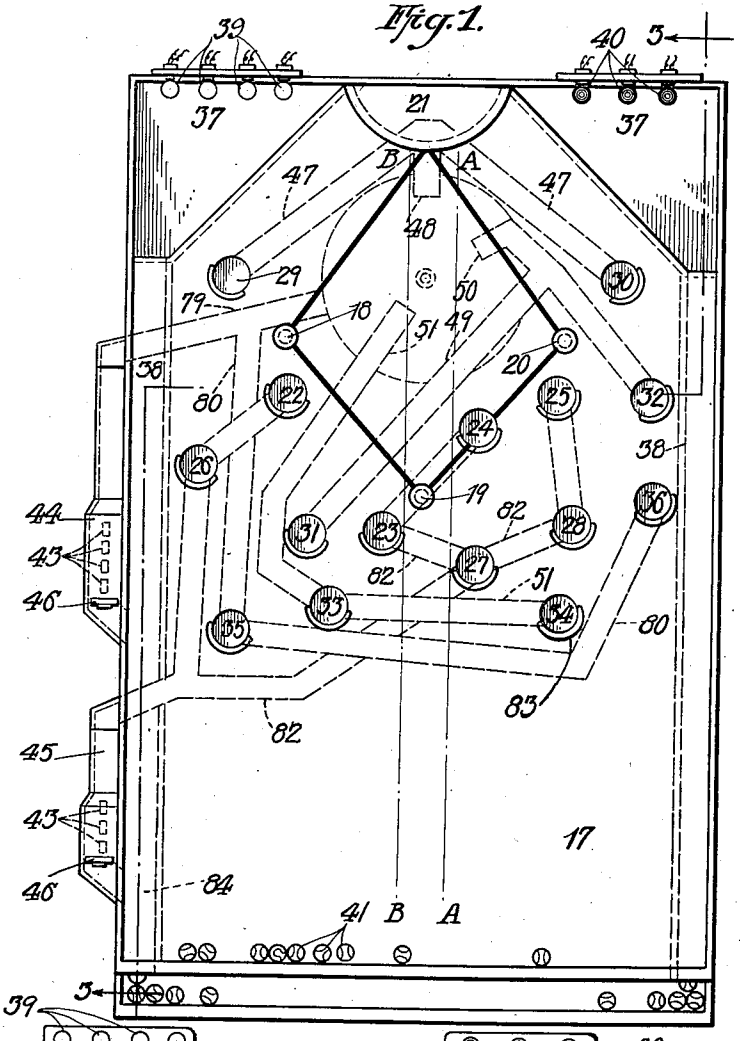
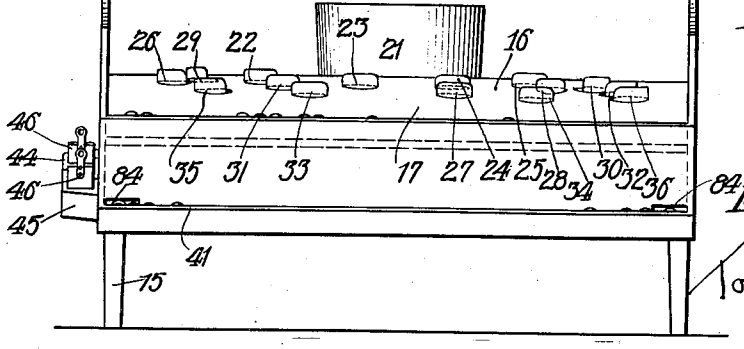



Fig. 2.




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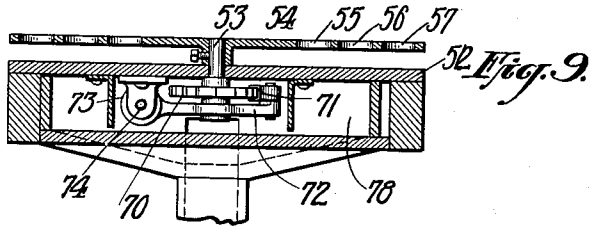



Fig. 9.

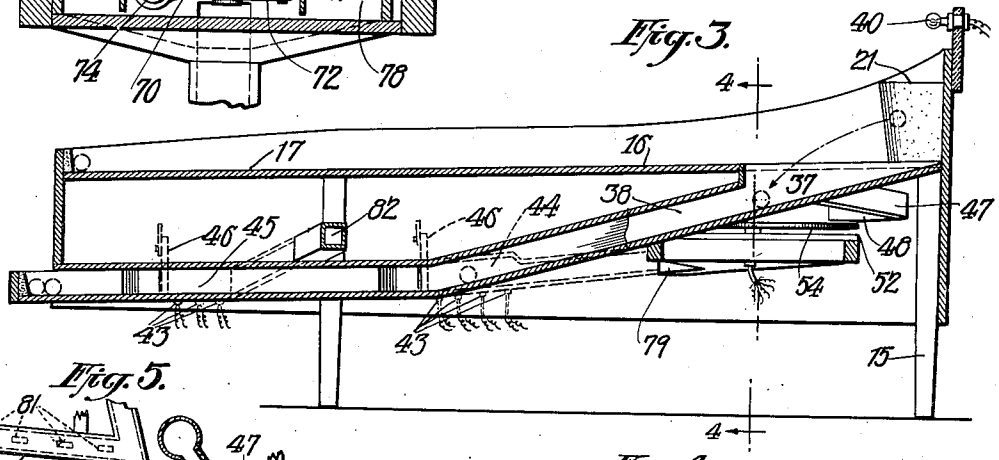



Fig. 3.

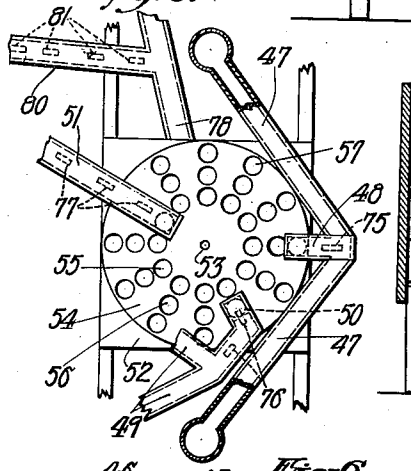



Fig. 5.

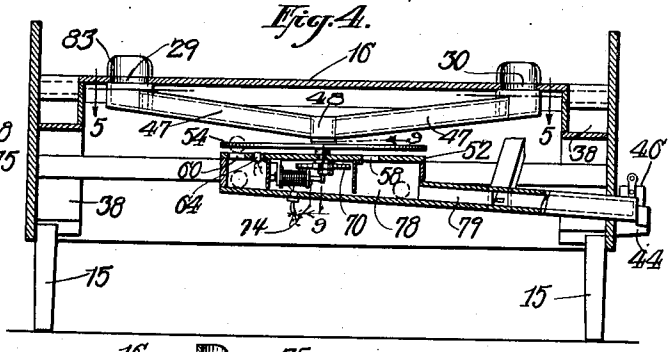



Fig. 4.

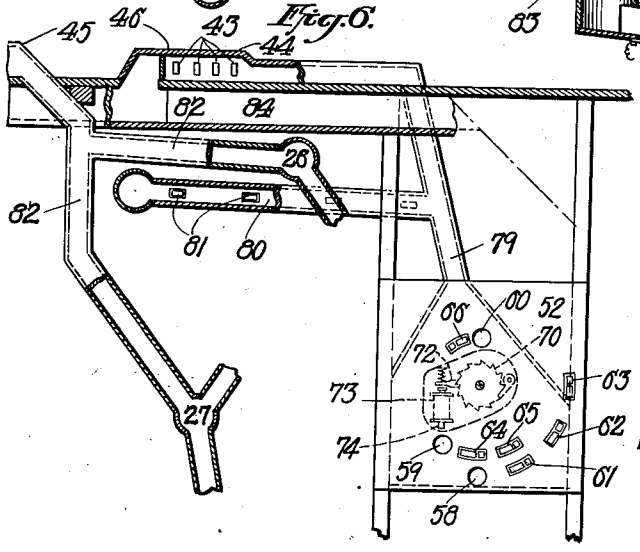



Fig. 6.

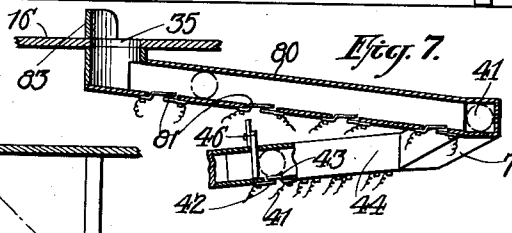



Fig. 7.

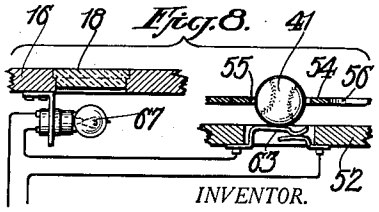



Fig. 8.

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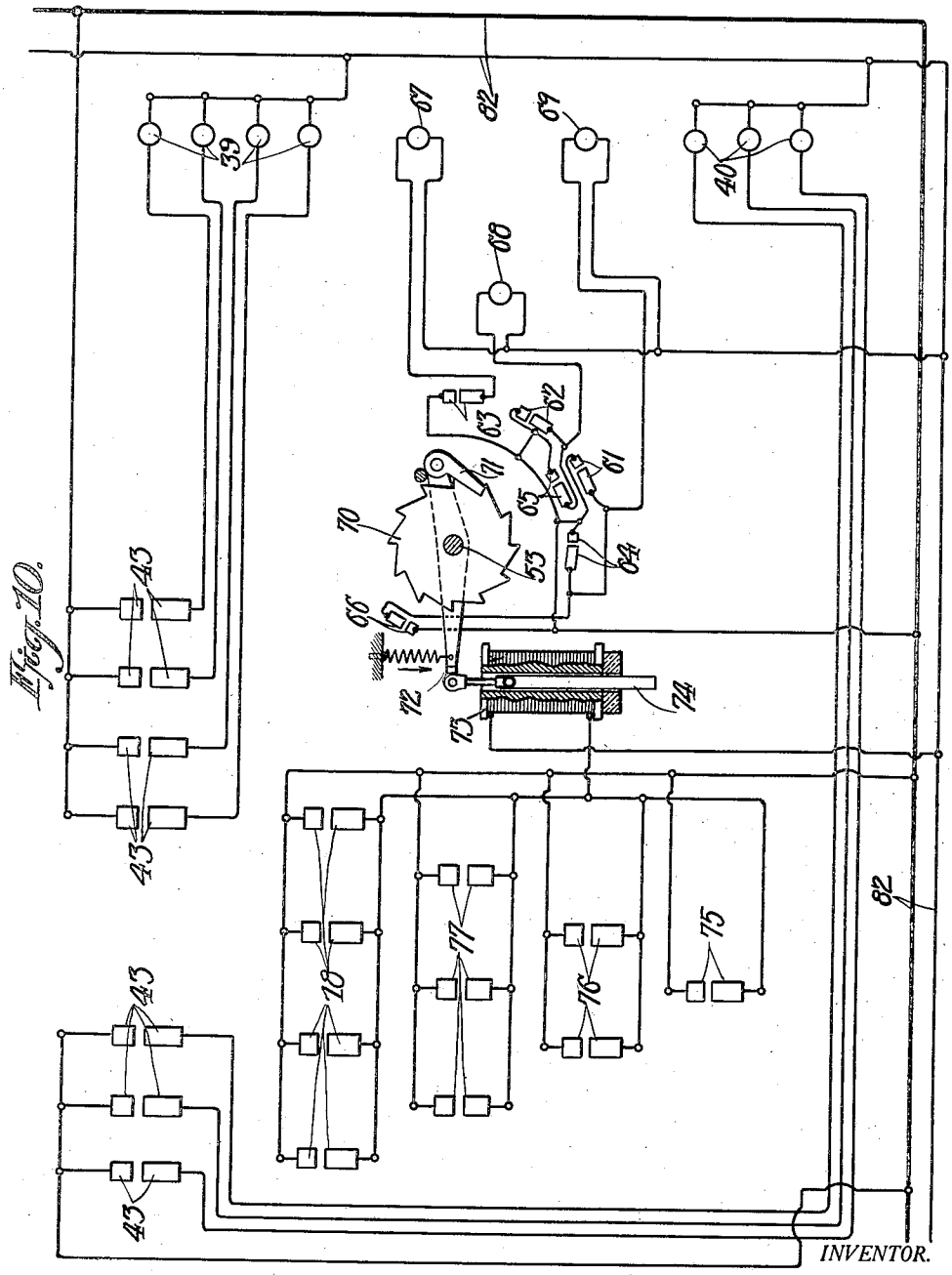



Fig. 10.

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Patented Oct. 5, 1926. 1,601,849

# UNITED STATES PATENT OFFICE.

FRANK R. CHESTER, OF NEW YORK, N. Y.

## GAME.

Application filed November 23, 1922. Serial No. 602,708.

My invention relates to a game and mechanism therefor and aims to provide certain new and useful improvements in connection with a device of this character.

It is a well appreciated fact that any number of games have been placed upon the market which included a game-board or deck having pockets or openings therein, the object of the game being for the player to project a missile such as a ball towards these openings with the intention of disposing of the greatest number of missiles, one within each of said openings.

This type of device commonly known as Japanese roll ball, as well as games similar to the same, have offered numerous objections in that the playing of the game has quickly become uninteresting and also it has been necessary to have an operator in constant attendance with a game of this nature so as to return the balls to the player, etc.

With these and numerous other objections in mind, my present invention aims to provide a game and mechanism therefor which shall be extremely fascinating in its operation to the player in that, for example, the game parts may be built with a view of providing a baseball game and it will be possible, by means of my invention, to duplicate all of the basic plays of an actual game of this nature.

A further object of my invention is that of providing a device of the character stated in which none of the mechanical disadvantages experienced heretofore with games of this type will arise.

Another object of my invention is that of constructing a game which will require but a minimum of attention on the part of an operator incident to the fact that the entire game, with the exception of the actual playing thereof, may be operated in almost an automatic manner.

Having these and numerous other objects in mind, the present invention includes essentially a deck formed with openings or other suitable missile receiving elements, together with mechanism which may be utilized in conjunction with the foregoing structure or separately therefrom, which mechanism will register the imaginary plays achieved by the missiles entering the various openings in the deck.

Reference is had to the attached sheets of drawings as illustrating a practical embodiment of my invention and it will be seen in these drawings that:

Fig. 1 is a plan view of a game constructed in accordance with my invention.

Fig. 2 is an end view thereof.

Fig. 3 is a longitudinal sectional view taken along the lines 3—3 and in the direction of the arrows indicated in Fig. 1.

Fig. 4 is a transverse sectional view taken along the lines 4—4 and in the direction of the arrows indicated in Fig. 3.

Figs. 5, 6, 7 and 8 are fragmentary views (partly in section) showing in detail certain parts of the game mechanism and their cooperation with each other.

Fig. 9 is an enlarged sectional view taken along the lines 9—9 and in the direction of the arrows indicated in Fig. 3; and

Fig. 10 is a diagrammatic view of the circuit employed in actuating the parts of the game mechanism.

It will be noted in the embodiment illustrated that I have shown my invention as applied to a game which involves fundamentally the principles of baseball and also I have shown the mechanism thereof as being of the electrical type, but I wish it here understood that my invention is applicable to numerous other types of games which may employ any suitable mechanism.

Thus, referring primarily to Figs. 1, 2 and 3, it may be seen that in the type of device shown in the present application, the reference numeral 15 indicates supporting members upon which there is mounted the game-board, which latter embraces a deck preferably divided into two major surfaces one of which, identified by the reference numeral 16, constitutes the game-board proper, while the forward portion of the said deck i. e., the surface 17 forms what may be termed the approach to the said game-board, it being noted that the entire deck is slightly inclined for a purpose hereinafter brought out.

In the type of game shown, the first-mentioned surface has drawn upon it lines which simulate in appearance the general layout of a baseball diamond and at the points at which first, second and third base would be provided there are arranged transparent

members 18, 19 and 20 respectively, it being further noted that there is provided adjacent the "home" plate a buffer 21 which has its contact face preferably curved, it being noted that this member is conveniently disposed at the outer end of the surface 16 and intermediate the side edges thereof and that the same may be formed of resilient material so that, upon an object striking its face, it will rebound therefrom.

It will further be noted in the present game that I have provided in the surface 16 two series of openings, one of which comprises the openings 22, 23, 24, 25, 26, 27, and 28 corresponding to the infield and outfield positions normally assumed by the players who occupy the first base, second base, short stop and third base; left field, center field and right field positions respectively. The second series of openings includes those identified by the reference numerals 29, 30, 31, 32, 33, 34, 35 and 36. These openings indicate the points at which safe hits may be scored and as will hereinafter be brought out a missile entering the opening 29 or 30 corresponds to a one base hit, the openings 31 and 32 correspond to a two base hit, 33 and 34 to a three base hit and 35 and 36 to "home" runs. Thus it will be understood, according to the game here depicted, that the object of the invention is to utilize a missile which, when projected against the buffer 21, will rebound therefrom and if, in such rebounding, it enters one of the openings in the first series, this would correspond to the imaginary batsman being declared out, which fact will be registered in a manner hereinafter stated. If, on the other hand, the missile on rebounding enters one of the openings of the second series, the batsman aforementioned will be considered as having made a safe hit, corresponding in the number of bases gained to that opening of the second series which the said missile enters.

It is to be noted in this connection that these openings are preferably so placed that the player, i. e., the person projecting the ball towards the bat 21 has a clear, straight space over the surface 16 to move the ball towards the bat, it being seen that this space is not interruupted by any of the openings of either series has been indicated by the boundary lines A and B.

Also, attention is invited at this time to the fact that all of the openings in both series are so disposed that a straight line may be drawn from various points in the striking face of the bat towards any of the openings in question without this line bisecting another opening. Thus the ball in rebounding may move in a straight line from the bat and enter any one of the openings without it being necessary for the missile to follow an erratic course in order to accomplish this result, and it will be appreciated that incident to the disposition of the openings, that it will be almost impossible for the missile to traverse the surface 16 on rebounding without its entering one of either series of openings. If, however, due to the peculiarity of the manner in which the said missile has struck the bat, it should move in such a manner as to avoid all of the openings, it will be obvious that due to the inclination of the deck it will return to the player who may again project the same towards the bat.

Also it will be noted that in the embodiment illustrated, those portions of the surface 16 beyond the space bounded by the foul lines are cut away as has been indicated at 37. Thus, if a missile should strike the bat 21 at such an angle as to reflect from its face to a point beyond the foul line, it will drop downwardly into the space provided by the cut-away portions, into the runway 38 (Fig. 3), and will also return to the player aforementioned.

Now with a view of indicating the results which a player is able to achieve, it will be noted that in the type of game shown, I have provided two series of lights 39 and 40, the former being four in number and indicating the "runs", while the latter are three in number and indicate the "outs".

These lights are connected with a suitable source of energy, as will be hereinafter described in connection with Fig. 10, and arranged in series with each one of the lights is a switch preferably of the type shown in Fig. 7 in which the leads 41 are connected to a stationary contact 42 and a spring contact 43 respectively. In the embodiment illustrated four of these switches are arranged in a chute 44 and each of these switches is connected to one of the "run" lights while three similar switches are disposed within a second chute 45 and are connected one to each of the "out" lights.

It will be noted, as has been clearly brought out in Fig. 7, that the movable contact 43 of each switch is arranged so as to extend into and above the base of the chute within which it is positioned and thus, assuming that a ball 41 passes down the same and that this ball is prevented from moving beyond the chute by any suitable means such as a gate 46, it will be appreciated that the weight of the ball will close the switch and accordingly cause a corresponding light to glow. Also it will be seen that these switches are so spaced from each other that the missile in each instance will occupy sufficient space within the chute in advance of the switch, so that upon a second missile passing into the chute, the latter will come to rest at a point at which it will bear against the movable portion of the next adjacent switch. Thus it will be appreciated that according to the number of missiles

within each of the chutes, a corresponding number of lights will be caused to glow and that upon moving the gate or other obstruction utilized, the balls will be free to roll down the chutes which are inclined to produce this result, and the switches will then again move to their open position so that the lights will cease to glow.

Now with a view of providing mechanism serving to indicate the position of the players upon the bases, it will be noted that the openings 29 and 30 are preferably connected together by runways 47 merged into a common passage 48. Also the openings 31 and 32 are each connected to runways 49 also merging into a common passage 50, while finally the openings 33 and 34 are connected to each other by a runway 51 and this latter, together with the passages aforementioned, all terminate at points relatively adjacent each other.

Disposed adjacent to the outer or delivery ends of these latter elements there is provided a board 52 (Figs. 5 and 9) and rotatably mounted above the said board by means of a shaft 53 is a plate 54 formed in the present instance with three annular series of openings 55, 56, and 57 respectively, it being noted that the end of the runway 51 (Fig. 5) is substantially in line with and above the first-named of these series, while the passages 50 and 48 align with the second and third series of openings respectively.

As has been brought out in Fig. 6, the board 52 is formed with three openings 58, 59 and 60, these openings being disposed at a distance corresponding to that existing between the different series of openings 55, 56 and 57 therefrom, and switches are arranged in advance of each of the openings first mentioned.

As has been shown in Fig. 6, three of these switches are mounted upon the board 52 in advance of the opening 58, these switches being indicated by the reference numerals 61, 62 and 63. Two switches 64 and 65, are positioned in advance of the opening 59 and a single switch 66 is provided in advance of the opening 60. Although any desirable type of switch may be utilized, I prefer to employ a switch of the character shown in Fig. 8 and it will be obvious from this figure that, assuming that a ball 41 is resting within one of the openings of the plate 54, that this missile will bear against one of the switches carried by the board 52 and will close the same and, for example, as has been brought out in this figure and in Fig. 10, it will be noted that the switch 63 is connected to the light 67 underlying the transparent member 18 indicating first base. As has further been shown in the figure referred to, the switches 62 and 65 are connected in parallel and with the light 68 underlying the transparent member 19 indicating second base, while finally the switches 61, 64 and 66 are connected in parallel and to the light 69 underlying third base.

By this construction, assuming that any one of these switches are closed, one of the lights last mentioned will be caused to glow to indicate that the corresponding base is occupied.

Now with a view of securing an advance of the imaginary runners along the bases and to the "home" plate, upon a hit being registered, it will primarily be noted that the shaft 53 is extended to a point below the board 52 and at this point there is attached to it a ratchet 70 which is engaged by a pawl 71, the latter being mounted upon a beam 72 fulcrumed upon the shaft 53 and connected to a solenoid 73 co-operating with an armature 74. This armature is in circuit with a source of current supply and arranged in series within this circuit there are provided a number of switches and in the present game a single switch 75 is arranged in the passage 48 while two switches 76 are disposed within the passage 50, it being also noted that three of this latter type of switch, indicated by the reference numeral 77, are disposed within the runway 51. Thus as a ball passes down any of these passages, it will be understood that a momentary closing of those switches within this passage will occur and this will result in an energization of the solenoid 73 and a consequential attraction of the armature 74 and revolution on the part of the plate 54.

As has been best brought out in Fig. 4, there is a space 78 below the board 52 and communication with this space is afforded by means of a runway 79 which is in turn connected with the chute 44, so that upon a ball being carried over the board 52 by the rotation of the plate 54 and being finally brought to a point at which it will drop through one of the openings in the board and into the space 78, this ball will roll down the runway 79 and into the chute 44 and finally come to rest at a point at which it will close one of the switches 43.

Finally, referring to Figs. 1, 5, 6 and 7, it will be seen that the openings 35 and 36 communicate with a runway 80 and this runway has four switches 81 arranged within its body and has its outer end communicating with the runway 79, it being noted that the switches aforementioned are each connected in series with the solenoid 73.

In review and referring particularly to Fig. 10, it will be noted that a source of electrical energy is provided from which leads 82 extend and that one of the leads connected to each of the series of bulbs 31 and 40 is connected with one of the leads 82. The second leads of the bulbs 31 are connected with the second lead of the current

supply but interposed in the former are the switches 43 which are disposed within the chute 44. Similarly, the second leads of the bulbs 40 are also connected with the second lead of the current supply and arranged within the former are the switches 43 disposed within the chute 45. Also one lead of the solenoid 73 is connected with one lead of the current supply but the opposite lead thereof is connected in series with the groups of switches 75, 76 and 77 so that it is necessary to close any one of these switches in order to obtain an attraction of the armature.

Further it will be noted that one lead extending from each of the lights 67, 68 and 69 is directly connected with one of the leads of the current supply, while the second lead of the light 67 is connected with the second lead of the source of current supply 82, it being noted, however, that the switch 63 is arranged in series with this lead. Similarly the second lead of the light 68 has arranged in series with it the parallel switches 62 and 65, while finally the second lead of the light 69 has arranged in series with it the parallel switches 61, 64 and 66.

Finally it is to be noted that the openings of both series may be guarded by any suitable means, such as shields 83, so that the player must necessarily project the missile against the bat 21 in order to permit of the former entering one of the openings. Also the said bat is preferably under-cut so that the said missile is prevented from bouncing upwardly therefrom upon striking its face.

Now, in operation it will be understood, assuming that a player projects a ball over the surfaces 17 and 16 to a point at which it will rebound from the buffer 21, and further, assuming that this ball enters the opening 29, that the said ball will roll down the runway 47 and so into the chute 48 and be deposited in one of the outermost series of the openings 57 of the plate 54.

In this position the ball will press against the movable portion of the switch 63 thus closing this switch and causing the light 67 to glow so that the transparent member 18 will be illuminated to indicate that first base is occupied. Now again assuming that a second ball is projected by the player so that it rebounds from the buffer 21 and enters either of the openings 31 or 32 it will be understood that this ball will move down one of the runways 49 and through the chute 50. In its passage through the latter the switches 76 will each be closed for an instant and thus it will be obvious that the armature 74 will be twice attracted to partially rotate the plate 54 and subsequently the ball will be deposited in one of the openings of the series 56, it being noted that in this position the ball will engage the movable portion of the switch 65 and close the latter to cause the bulb 68 to glow thus illuminating the transparent member 19 designating second base, to indicate that this base is occupied.

It will be noted, however, that prior to the depositing of the ball by the chute 50 into the opening of the series 56 under-lying the end of the same that due to the rotation of the plate 54, incident to the attraction of the armature 74, that the ball resting in one of the openings 57 of the outer series and pressing against the movable portion of the switch 63 will be advanced over the switch 62 to rest upon the switch 61 thus causing the light 69 to glow and accordingly illuminate the transparent member 20 to indicate that third base is occupied. In other words by means of the mechanism forming a part of the present game all the basic plays of an actual baseball game can be duplicated.

Now again assuming that a ball is thrown against the bat 21 so that the ball in rebounding passes beyond one of the foul lines and falls through one of the openings 37, it will be obvious that this ball will be returned to the player by means of the runway 38. Upon again throwing this ball, assuming that the same in rebounding enters through the opening 24, it will be understood that this ball will move along one of the runways 82 provided for this purpose and be admitted to the chute 45 in which it will rest upon the movable portion of one of the switches 43 causing one of the lights 40 to glow to indicate that the player is "out." If a ball is now thrown against the bat 21 in such a manner that the same enters either of the openings 29 or 30 it will be appreciated that in moving toward the plate 54 through the chute 48 that the switch 75 within the latter will be closed for an instant. This will result in a single energization of the solenoid causing the plate 54 to be rotated one step which will primarily result in the balls, which are maintaining the switches 61 and 65 in closed position, being advanced one step so that the first ball will fall through the opening 58 while the second ball will rest upon the movable portion of the switch 64 thus closing the circuit through the light 69 and indicate that third base is occupied. The ball which has fallen through the opening 58 will pass into the space 78 and roll through the runway 79 into the chute 44 until its further movement is stopped by the gate 46 or other obstruction utilized. At this point, as has been previously brought out, the ball will rest against the lowermost of the switches 43 within this chute and will close the same to cause one of the lights 31 to glow to indicate that a "home run" has been achieved. In the interim that ball which has last been mentioned as moving along the runway 47 and chute 48 will have been deposited with-

in one of the openings of the series 57 thus closing the switch 63 and thus indicating by means of the light 67 that first base is occupied. If now a ball should fall into either of the openings 33 or 34 and move down to the runway 51 it will be obvious that in such a movement it will close the switches 77 causing a triple actuation of the armature and consequent delivery of the ball closing the switch 64 into the chute 44 through the opening 59, while the ball maintaining the switch 63 in closed position will be advanced over switches 62 and 61 and will finally pass through the opening 58 and connecting runway into the chute 44 so that two more of the switches 43 within this chute will be closed indicating by means of two more of the bulbs 31 that a like number of "home runs" have been accomplished. The ball which has been causing the movements last named will in the meantime move down the runway 51 and be deposited within one of the openings of the series 55 at a point which will close switch 66 thus indicating that third base is occupied.

Any number of plays are possible of achievement by means of the game apparatus depicted but for the sake of brevity I do not here describe the same in view of the fact that they are perfectly apparent. However in order to clarify the operation which will occur if a "home run" hit were registered i. e., if a ball entered either of the openings 35 or 36 it will be understood that such a ball would move down the runway 80 and in its passage through the same would close the four switches 81 thus causing the armature to be attracted four times which would result in any balls resting within any openings of the series 55, 56 or 57 being advanced to a point at which they would drop through the openings 58, 59, or 60 so that they would be free to move into the chute 44 to register the corresponding number of "runs", which number would be supplemented by the "home run" hit caused by the ball moving through the runway 80 and subsequently moving into the runway 79 and so into the chute 44.

It will also be understood that when a player desires to again commence the game, that this may readily be done by simply opening both of the gates 46 of the chutes 44 and 45, thus allowing all of the balls within the same to move into the chute 84, it being understood that the plate 54 may also be moved so that the balls resting within the openings of the same may drop into the space 78, thus freeing the board from these balls and effecting a recovery of the same.

Thus all of the objects of this invention have been accomplished and it will be understood that numerous types of games might be utilized and that changes in structural arrangement of the game mechanism might be resorted to without in the least departing from the spirit of my invention as defined by the following claims.

What I claim as my invention is:—

1. A game mechanism including a registering mechanism, a board formed with an opening and an actuating member for said mechanism associated with said board adjacent said opening and in advance of the same and means adapted to move an element past said member and to allow said element to subsequently pass through said opening.

2. A game mechanism including a board, registering mechanism for said game, actuating members associated with said board for operating said registering mechanism, a plate movable with respect to said board and being formed with retaining portions overlying said actuating members and means for moving said plate.

3. A game mechanism including a board, registering mechanism for said game, actuating members associated with said board for operating said registering mechanism, a plate movable with respect to said board and being formed with retaining portions overlying said actuating members, chutes arranged adjacent to said plate and means associated with said chutes for causing a movement of said plate when a missile moves through the same.

4. A game mechanism including a board, registering mechanism for said game, actuating members associated with said board for operating said registering mechanism, a plate movable with respect to said board and being formed with retaining portions overlying said actuating members, chutes arranged to said plate and means associated with said chutes for causing a movement of said plate when a missile moves through the same, said chutes having their delivery ends disposed adjacent to the openings in said plates.

5. A game including a board, a deck formed with openings above said board, chutes extending from said openings to points adjacent said board, a plurality of series of switches mounted upon said board, registering mechanism connected with said switches and a movable plate formed with openings disposed above said board, the delivery ends of said chutes being arranged above different openings in said plate.

6. A game including a board, a deck formed with openings above said board, chutes extending from said openings to points adjacent said board, a plurality of series of switches mounted upon said board, registering mechanism connected with said switches and a movable plate formed with openings disposed above said board, the delivery ends of said chutes being arranged above different openings in said plate, means

for moving said plate and actuating means for said last-named means disposed within each of said chutes.

7. A game including a board formed with openings, a plate movable with respect to said board and above the same, said plate being formed with missile retaining means, means for moving said plate, means for delivering missiles to a point adjacent said plate and means connected with said board for registering the presence of missiles in association with said plate.

8. A game of the baseball type, including, in combination, a deck having thereon a representation of the game grounds, said deck being formed with a series of missile-receiving openings, means for registering the progress of the game and means for actuating said last-named means, said latter means including a missile-receiving member, means for advancing the same, means for actuating said registering means when missiles are associated with said member, and means for operating said advancing means upon a further missile entering one of said openings.

Signed at New York in the county of New York and State of New York this 21st day of November A. D. 1922.

FRANK R. CHESTER.