Jan. 21, 1941. L. QUINN 2,229,389

GAME

Filed May 13, 1940 2 Sheets-Sheet 1

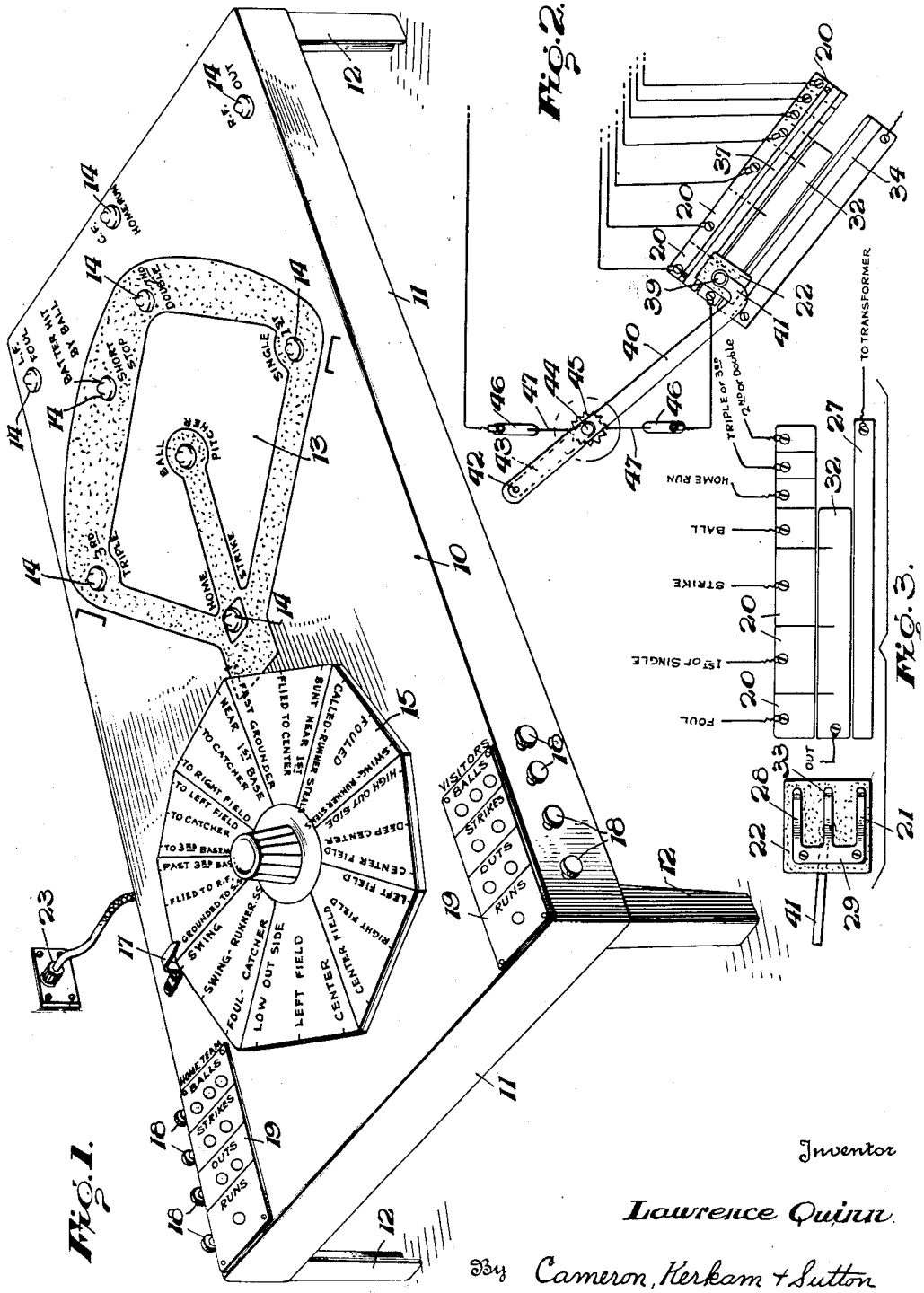


Fig. 1.

Fig. 2.

Fig. 3.

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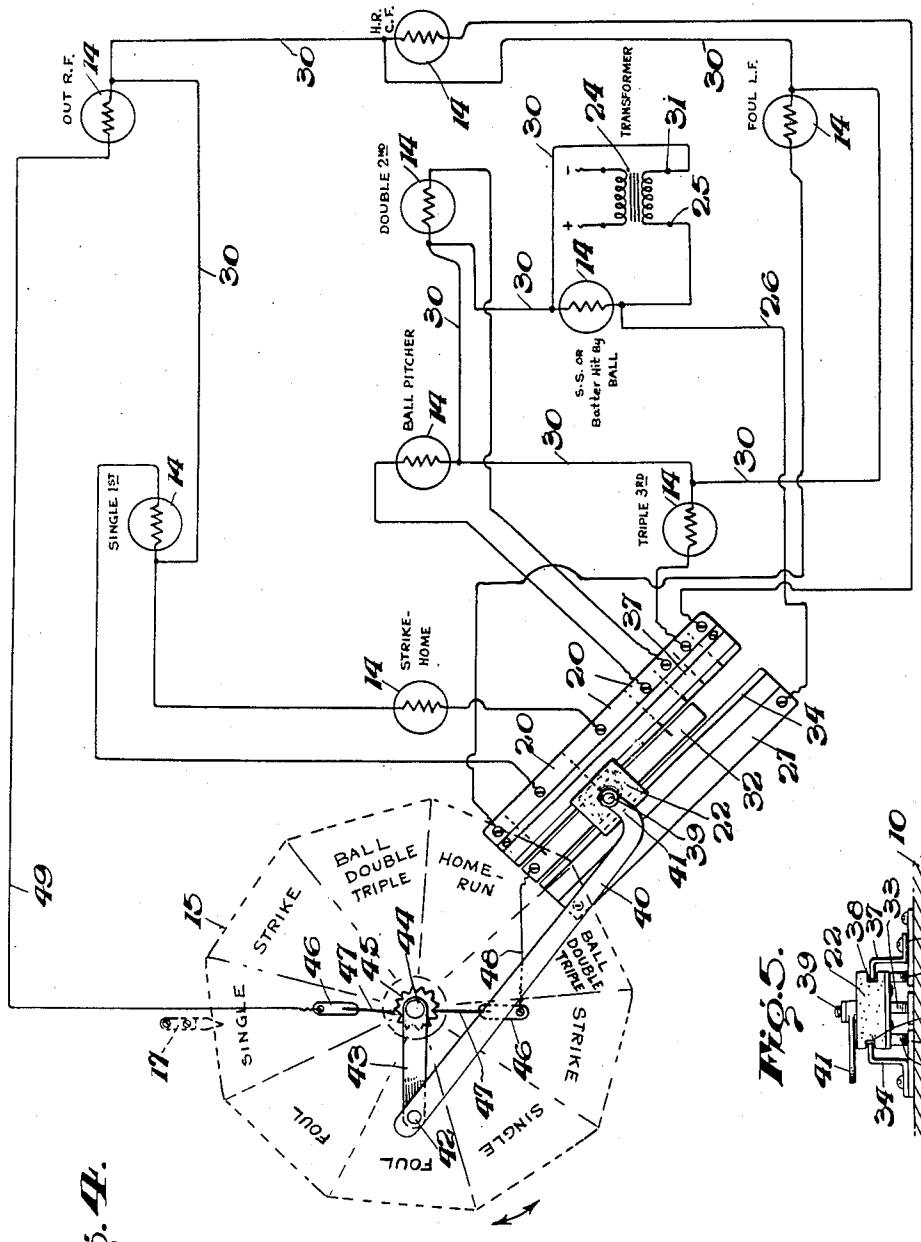


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE

2,229,389

GAME

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Application May 13, 1940, Serial No. 334,917

13 Claims. (Cl. 273—93)

This invention relates to an improved game mechanism and more particularly to a game mechanism with which games such as base ball and the like can be played.

It is an object of the present invention to provide an improved game board upon which can be realistically reproduced the playing field of a game and upon which the game can be played in a manner closely simulating that of actual play.

Another object of the present invention is to provide a novel mechanism for the playing of games, such as base ball, which will, during the course of play reproduce all plays possible in the actual game and with approximately the same frequency and probability of occurrence of the plays as in the actual play.

A further object of the present invention is to provide a novel game mechanism in which the element of chance is utilized for the selection of the various plays possible in an actual game for reproduction in the game being played.

A still further object of the present invention is to provide a novel game mechanism in which a novel combination of spinning disk or other rotating member and electrical means mutually select and indicate a play possible in an actual game for reproduction in the game being played.

Another and still further object of the present invention is to provide a novel mechanism for the playing of games such as base ball, in which a rotating disk is used to designate a play which might occur in an actual playing of the game and in which suitable electrical means operated by the rotation of the disk provide means for amplifying, modifying or clarifying the play designated by the disk.

A still further object of the present invention is to provide a novel game mechanism for the playing of a game in which a rotating disk carries play designations upon its face and in which electrical means, such as lights placed upon a reproduction of the playing field and illuminated by the rotating disk are used to amplify, modify and clarify the play designated by the disk.

Another and still further object of the present invention is to provide a novel game board with novel electrical circuits and novel means for opening and closing the circuits actuated by a rotating disk to illuminate lights placed about a playing field marked on the game board to designate, modify or clarify the play designated by the position of the rotating disk when it comes to rest.

A still further object of the present invention is to provide a novel chance element for game mechanisms of the type described which will be actuated by the rotating disk and may modify the play as indicated by the disk.

Another and still further object of the present invention is to provide a novel game mechanism which is an improvement over that disclosed in my Patent No. 2,118,359, which is of simple construction, durable, cheap to manufacture, and accurate and reliable in operation.

Other and still further objects of the present invention will appear upon consideration of the detailed description of the illustrative embodiment of the present invention which follows:

In the drawings, wherein like reference characters indicate like parts throughout the several views,

Fig. 1 is a perspective view of an illustrative embodiment of the novel game board of the present invention in which the various elements thereof are shown in their related positions;

Fig. 2 is a view of the sliding switch mechanism, the switch contacts, and the novel chance element utilized with the embodiment of the present invention shown in Fig. 1;

Fig. 3 is an enlarged detail of part of Fig. 2 showing the several switch contacts and the underside of the contact traveler;

Fig. 4 is a circuit diagram of the circuit used with the embodiment shown in Fig. 1; and

Fig. 5 is a cross-sectional view of the sliding switch mechanism shown in Fig. 2.

The present invention may be utilized in the playing of many types of games but for the purpose of illustration it will be described as used with a game of base ball so as to clearly and distinctly indicate the subject matter of the present invention.

Referring now to the several figures and more particularly to Fig. 1, **10** is a suitable surface member for the game mechanism, made of suitable insulating material supported by a frame **11** and legs **12**. Surface member **10** supports, as at **13**, the reproduction of a miniature base ball diamond. Upon and around diamond **13** are disposed a plurality of lights **14**. Lights **14** may have marked thereon, or as is shown in Fig. 1, upon member **10** adjacent lights **14**, suitable indicia to indicate the play or modification of the play that will be used when any particular light is illuminated. Adjacent diamond **13** and mounted for rotation relative to member **10** is a disk **15** bearing upon its surface designations of the various plays possible in the actual game of base ball.

Mounted adjacent rotating disk 15 on surface member 10 is a fixed play designating pointer 17. Carried by frames 11 are manual means 18 used to operate any suitable past play recording devices 19.

With reference now to Figs. 2–5, mounted beneath surface member 10 and rectilinearly disposed are a plurality of contact points 20 adapted to be successively engaged upon rotation of the disk 15 by a contact arm 21 secured to suitable traveler 22. Contact points 20 are suitably insulated from each other and each point is connected by suitable circuits to one or more of the lights 14. Electrical energy is supplied to these several circuits from any usual source of supply such as an outlet 23 from which current is taken to a suitable transformer 24 (Fig. 4). From one pole 25 of the secondary windings of transformer 24 current is conducted by any suitable circuit 26 to a suitable bus bar 27 arranged parallel to and separated from the line of contact points 20. A suitable contact member 28 is secured to traveler 22 and is designed to slidably engage bus bar 27. Contact arm 28 is electrically connected to contact arm 21 by bridging member 29 to supply current to the several contact points 20 to close one or more of the circuits to one or more of several lights 14. Lights 14 are provided with a common ground wire 30 connected to the second pole 31 of the secondary windings of transformer 24 to complete the circuits of the several lights 14.

The position in the line of contacts and length of each of the several contacts 20 are chosen with reference to the probability of occurrence of the play which each contact point represents in the playing of the actual game. The position and length of each contact are also chosen with reference to the speed of traveler 22 and contact arm 21 over it since the speed of traveler 22 will vary from one end to the other of the line of contacts as will appear more fully hereafter.

As an example, it is to be noted that the contact 20 marked "Foul" in Fig. 3, which is connected to the light 14 marked "L. F. foul," is longer than the contacts marked "Home run," "Triple" or "Double" and is located at the extreme end of the line of contacts where the velocity of contact arm 21 will be reduced. The probability of the occurrence of a foul is thus made equal to that existing in the actual playing of the game. The position and length of the contacts representing other plays are similarly chosen.

Arranged between the line of contacts 20 and bus bar 27, and separated therefrom, is a contact 32 designed to be engaged by a contact arm 33 secured to traveler 22 and electrically connected to bridge 29. Secured to bus bar 27 and extending therealong is Z-shaped member 34 designed to engage a groove 35 in traveler 22 and provide one rail of a track or way for traveler 22 (Fig. 5). Secured to the line of contacts 20 and insulated therefrom, as at 36, and extending therealong is a second Z-shaped member 37 designed to engage a groove 38 in traveler 22 to provide the second rail of a track or way for traveler 22. When in motion traveler 22 slides upon Z-shaped members 34 and 37 and contact arms 21, 28 and 33 slide over contacts 20, bus bar 27 and contact 32 respectively.

Reciprocation of traveler 22 by the rotation of disk 15 slides contact arms 21, 28 and 33 over their respective contacts. To this end, traveler 22 is provided with an upstanding pin 39. A connecting arm 40 is provided with a right-angled extension 41 which rotatably engages pin 39. Arm 40 pivotally engages a second arm 43 at 42. Arm 43 is secured to the lower end of a shaft 44 rotatably mounted in surface member 10. Shaft 44 extends through surface member 10 and disk 15 is secured thereto. Upon rotation of disk 15 shaft 44 is rotated, rotating arm 43 which in turn acting through arm 40 slides traveler 22 back and forth along the track or way provided by bars 34 and 37.

Connecting arm 40 is provided with inturned portion 41 to distribute the forces acting upon traveler 22 when arm 43 is passing through its positions of dead center to make traveler 22 more responsive to the rectilinear forces exerted at these times.

A suitable chance element is provided for use with the novel game mechanism of the present invention. This chance element comprises a gear 45 loosely mounted upon shaft 44 and is designed to partially rotate therewith upon rotation of disk 15. Suitably secured to surface member 10 as by bases 46 are suitable resilient contact elements 47. Elements 47 are of such a length that they engage the ends of the teeth of gear 45 but cannot engage the intermediate portions thereof. One resilient element 47 is suitably connected, as by wire 48, to contact 32. The other resilient element 47 is suitably connected, as by wire 49, to the light 14 marked "Out." Upon rotation of disk 15 gear 45 will be partially rotated by shaft 44 and if ends of gear teeth engage both the resilient elements 47 when gear 45 comes to rest and contact arm 33 engages contact 32 then the light 14 marked "Out" is illuminated and the player is called out. If gear 45 comes to rest and both resilient elements 47 are not engaged by the ends of gear teeth then the circuit to the light 14 marked "Out" is not completed and the play indicated by the disk 15 and other lights 14 is used. It is to be particularly noted that contact 32 does not extend along those contacts 20 marked "Home run," "Triple," "Double" so that the chance element cannot operate to call the player out when arm 21 comes to rest upon either of these three contacts.

It will be noted by referring to Fig. 4 that the light 14 indicated as "S. S." and "Batter hit by ball" is illuminated at all times. This prevents the game mechanism of the present invention from failing to indicate a play. Should contact arm 21 stop upon any of the insulating strips between contact points 20 than no circuit would be completed and but for the illumination of the light just referred to no play would be indicated by the lights 14.

With the game board mechanism of the present invention set up as shown in the several figures described above, to play the game a player rotates disk 15 which slides traveler 22 back and forth over the line of contacts 20 and suppose that disk 15 and traveler 22 come to rest in the position shown in Fig. 4. In this position contact arm 21 engages the contact 20 which is connected to the light 14 marked "Single." Current is led from transformer 24 through wire 26, bus bar 27, contact arm 28, connecting element 29 and contact arm 21 through the contact 20 to illuminate this light. Pointer 17 is then opposite a suitable indication on disk 15 which will indicate whether the single, as shown by light 14, was a single past third base, a fly to right field, a grounder to short stop, a bunt near first base, a fly to center, or a fast grounder. The next player

then rotates disk 15 and suppose disk 15 comes to rest in the position shown in Fig. 2. In this position contact arm 21 engages the contact 20 which is connected to the light 14 marked "Foul." This light is then illuminated. At the same time pointer 17 will indicate on disk 15 whether the foul is near first base, to the catcher, to right field, to left field or to the third baseman. The next player then rotates disk 15 and the play which he will use will be indicated by the illumination of the lights 14 together with the play indicated on disk 15 by the pointer 17.

One or more persons can play the game as above described. It is preferable to have the players divided into two teams as in an actual game of base ball. If two teams are playing, the players of one team play in rotation, each player spinning disk 15 until he is either out or on base, and until the team has acquired three outs when the other team has its turn at play, the succession of players and teams being identical to that practiced in the actual game.

Various modifications of the above described illustrative embodiment of the novel game mechanism of the present invention may now occur to those skilled in the art without departing from the spirit of the invention. For instance, suitable counters or mechanical means may be used upon the reproduction of the base ball diamond on the game board to indicate the players on base. It is also obvious that the game mechanism described above may be easily converted to the playing of games other than base ball. To determine the scope of the present invention reference must be had to the appended claims.

What is claimed is:

1. In a game board apparatus of the type described, a game board, a rotatable disk mounted on said board bearing on its surface a plurality of designations of the plays of the game, a plurality of electric lamps mounted upon said game board and associated with play designations complementary to those appearing on said disk, circuits for said lamps, contacts for said circuits rectilinearly mounted beneath said board, a contact arm slidably engaging said contacts and actuated by the rotation of said disk to engage said contacts and close said circuits, and a chance element actuated by the rotation of said disk to close at random circuits to certain of said lamps.

2. In a game board apparatus of the type described, a game board, a rotatable disk on said board having on its surface a plurality of designations of plays of the game, a plurality of lamps on said board associated with play indications complementary to those appearing on said disk, circuits for said lamps, contacts for said circuits rectilinearly mounted beneath said game board, a contact arm slidably engaging said contacts and actuated by said disk to close said circuits, a gear rotated at random by said disk and contacts mounted adjacent said gear and designed to engage the ends of gear teeth to close circuits at random to modify the play indicated by the at rest position of said disk.

3. In a game board apparatus of the type described, a game board, a disk rotatably mounted with respect to said game board and bearing upon its surface a plurality of circumferentially disposed designations of various plays of the game, means fixed with respect to said game board for indicating the play designation of said disk to be used, a plurality of lamps carried by said game board also associated with designations of various plays of the game, a plurality of contact elements rectilinearly mounted beneath said game board and electrically connected with said lamps, a contact arm slidably engaging said contact elements and actuated by the rotation of said disk to close the circuits through said lamps by engagement with said contact elements, the play designations on said disk and the position and length of said rectilinearly disposed contact elements being so arranged that the play indicated by the lamp or lamps illuminated when the disk is at rest in any given position and that designated on said disk by the indicating means are mutually complementary and when combined define the proper play to be made by the player of the game.

4. In a game board of the type described, a surface member, a reproduction of a playing field upon said surface member, a rotatable disk mounted on said surface member adjacent said playing field, said disk bearing on its face a plurality of circumferentially disposed designations of the plays possible in an actual game, an index mounted on said surface member adjacent said disk for indicating the play designation to be used when said disk comes to rest after having been rotated, a plurality of lights arranged about said playing field and associated with play designations complementary to the plays designated by said index and disk, circuits for said lights, contact points for said circuits rectilinearly mounted beneath said surface member, a contact arm slidably engaging said contact points and actuated by the rotation of said disk to engage said contacts and successively close said circuits.

5. In a game board apparatus of the type described, a game board, a disk rotatably mounted with respect to said game board and bearing upon its upper surface a plurality of circumferentially disposed designations of various plays of the game, means fixed with respect to said game board for indicating the play designation of said disk to be used, a plurality of lamps carried by said game board also associated with designations of various plays of the game, a plurality of contact elements electrically connected with said lamps and rectilinearly mounted beneath said game board, a contact arm actuated by said disk to slidably engage said contact elements and close the circuits through said lamps and means rotated by said disk for closing in an unpredictable manner circuits to certain of said lamps, the play designations on said disk and the position and length of said rectilinearly disposed contact elements being so arranged that the play indicated by the lamp or lamps illuminated when the disk is at rest in any given position and that designated on said disk by the indicating means are mutually complementary and when combined define the proper play to be made by the player of the game.

6. In a game board apparatus of the type having a rotatable disk having play designations thereon and lamps selectively energized by the at rest position of said disk to complement the play indicated on said disk, means for modifying in an unpredictable manner the play so indicated including a gear rotatable by said disk, contact elements adapted to engage the extremities of gear teeth and lamps connected in circuit with said contact elements to be illuminated only when said contact elements engage extremities of gear teeth to indicate a modification of the play indicated.

7. In a game board of the type described, in-

cluding a rotatable disk, lights mounted on said game board and circuits for said lights, contacts for said circuits rectilinearly mounted beneath said game board, a continuous contact parallel to and spaced from said rectilinearly disposed contacts, and connected to a source of current, a contact arm slidably engaging said continuous contact, a second contact arm slidably engaging said rectilinearly disposed contacts, and means sliding said contact arms over said contacts actuated by the rotation of said disk to supply current to said lamps, each of said rectilinearly disposed contacts being of such length and so positioned in said line of contacts that the probability of said second named contact arm stopping thereon will be the same as that of the occurrence of the play, which each of said contacts represents, happening in an actual game.

8. In a game board apparatus having a rotatable disk with play designations thereon and lights arranged about the game board to complement the play indicated by the at rest position of the disk and circuits for said lights, contacts for said circuits rectilinearly mounted beneath said game board, a continuous contact mounted beneath said game board spaced from and parallel to said rectilinearly disposed contacts, and connected to a source of current, a second continuous contact mounted beneath said game board and between said rectilinearly disposed contacts and said continuous contacts, a contact arm designed to slidably engage each of said contacts, means electrically connecting said contact arms, means actuated by the rotation of said disk to slide said contact arms over said contacts and a circuit connecting said second named continuous contact with a chance element actuated by the rotation of said disk to modify at random the play indicated by the at rest position of said disk.

9. In a game board apparatus of the type having a rotatable disk and lamps energized by the at rest position of said disk to indicate the play, means for modifying in an unpredictable manner the play so indicated including a gear rotatable by said disk, a pair of contact elements adapted to engage the extremities of gear teeth of said gear and a lamp connected in circuit with said pair of contact elements to be illuminated only when said contact elements engage extremities of gear teeth of said gear to indicate a modification of the play indicated.

10. In a game board apparatus of the type described having a game board with a play bearing rotatable disk mounted on its surface and electric lamps to indicate plays complementary to those appearing on said disk, a shaft for said disk extending through said board and means rotatable by said disk to at random complete circuits to certain of said lamps to modify the play indicated by the at rest position of said disk including a gear loosely mounted on said shaft and contact elements in the circuits of certain of said lamps to engage the extremities of teeth of said gear.

11. In a game board apparatus of the type described having a game board with a play bearing rotatable disk mounted on its surface, electric lamps to indicate plays complementary to those appearing on said disk and circuits for said lamps, means energizing said lamps upon rotation of said disk including rectilinearly disposed contact elements in said circuits, a continuous contact parallel to and separated from said rectilinearly disposed contacts, means supplying current to said continuous contact, a contact arm slidably engaging said rectilinearly disposed contacts, a contact arm slidably engaging said continuous contact, means electrically connecting and supporting said contact arms and a track or way along which said supporting means is adapted to slide.

12. In a switch mechanism for a game board apparatus of the type described including a rotatable disk, lamps mounted on the game board and circuits for said lamps, rectilinearly disposed contacts in said circuits, a continuous contact spaced from and parallel to said rectilinearly disposed contacts, a track or way disposed above said continuous contact and said rectilinearly disposed contacts, a slide mounted for reciprocation upon said track or way, a contact arm depending from said slide and slidably engaging said rectilinearly disposed contacts, a second contact arm depending from said slide slidably engaging said continuous contact and electrically connected to said first named contact arm and means connecting said slide to said rotatable disk whereby when said disk is rotated said slide will be reciprocated on said track or way.

13. In a switch mechanism for a game board apparatus of the type described, a plurality of rectilinearly disposed contacts, a continuous contact spaced from and parallel to said rectilinearly disposed contacts and extending partially therealong, a second continuous contact spaced from and parallel to said first named continuous contact and extending the length of said rectilinearly disposed contacts, a track or way disposed above said contacts, a slide mounted for reciprocation on said track or way, electrically connected contact arms depending from said slide each arm slidably engaging one of said contacts, manual means for reciprocating said slide on said track or way, a chance element operable by said manual means and means electrically connecting said first named continuous contact to said chance element.

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