

April 21, 1959

J. A. IANNONE ET AL

2,883,193

ELECTRICALLY OPERATED SIMULATED GAME

Filed March 4, 1957

5 Sheets-Sheet 1

Fig. 1

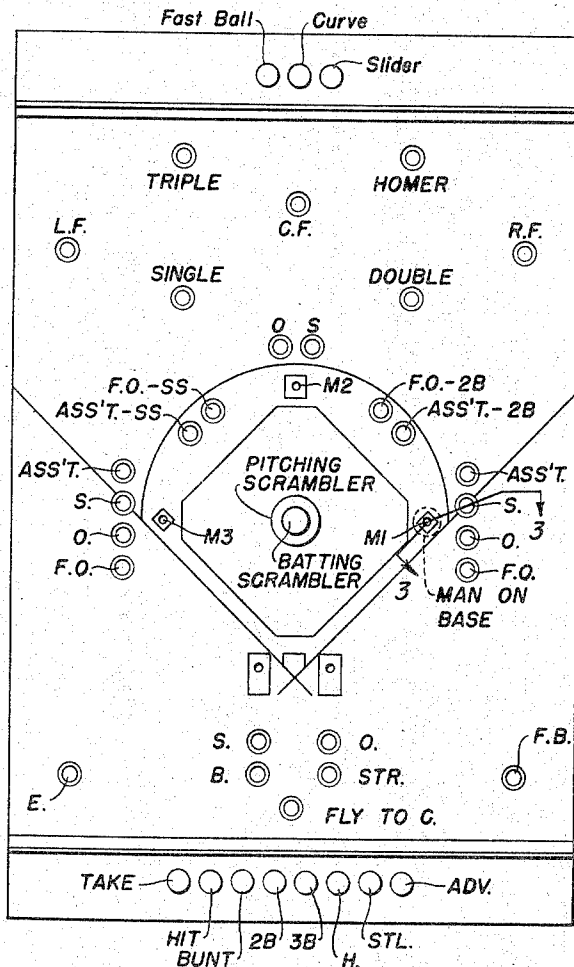


Fig. 2

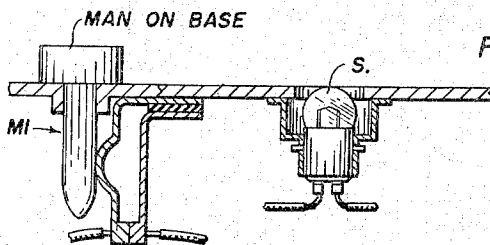
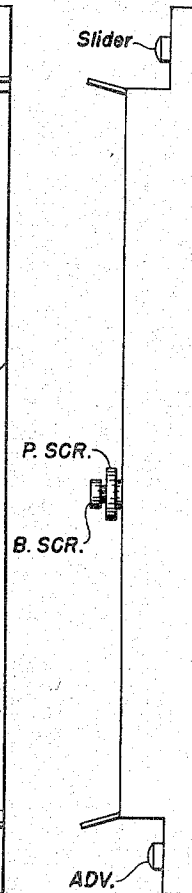


Fig. 3

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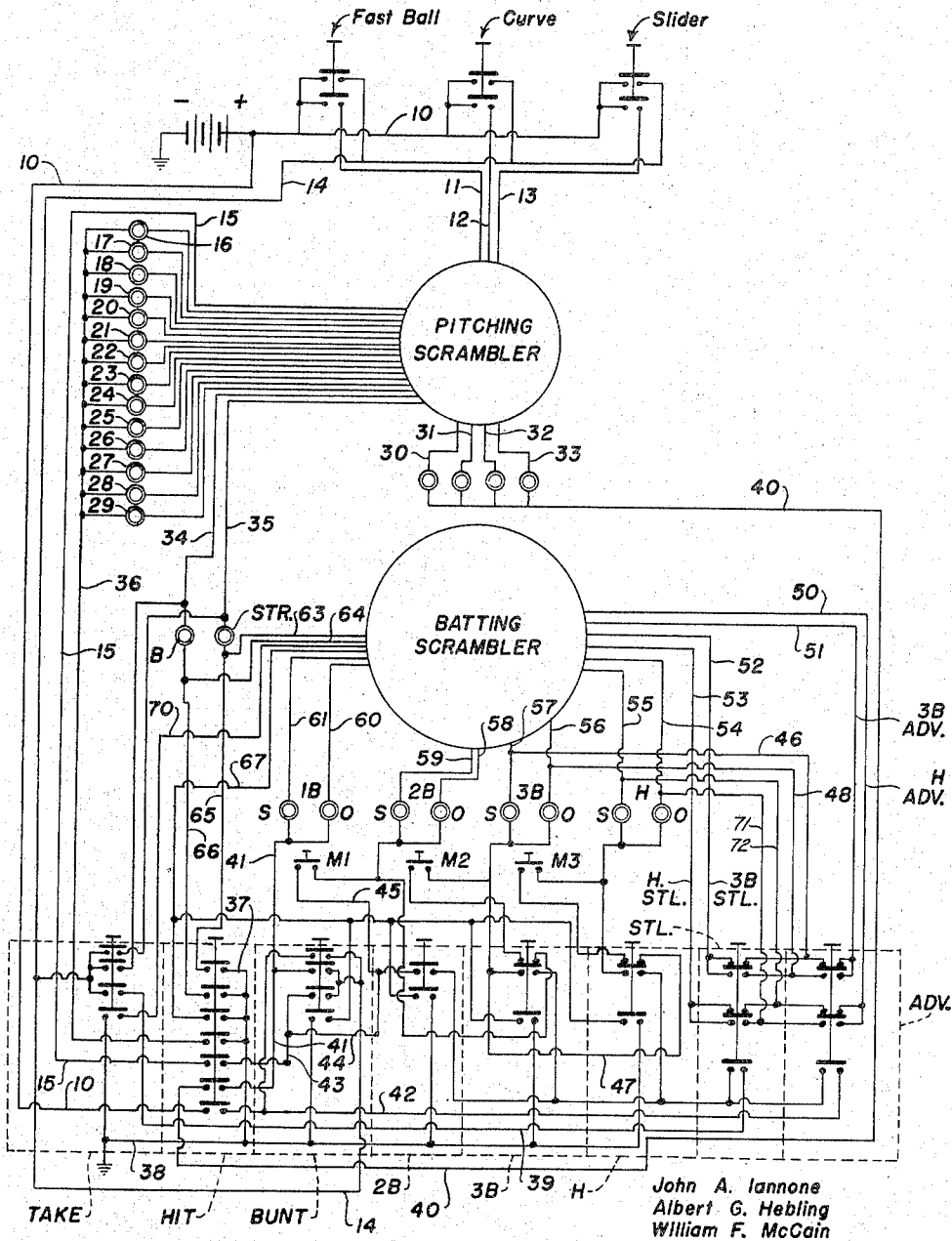


Fig. 4

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Fig. 5

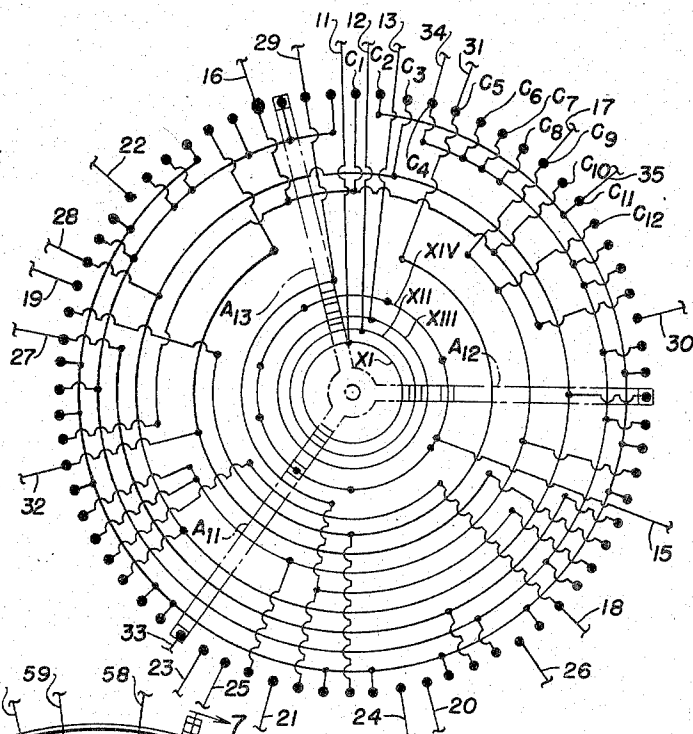


Fig. 6

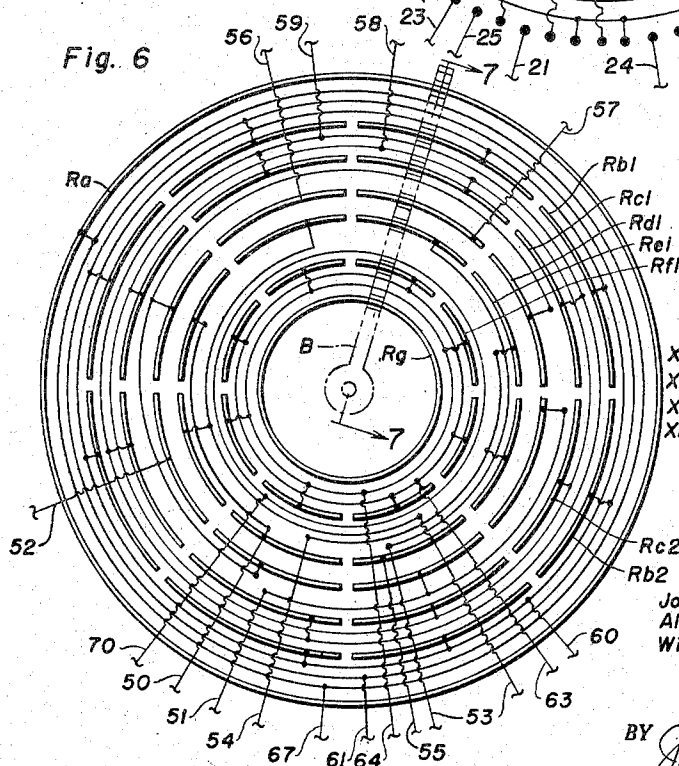
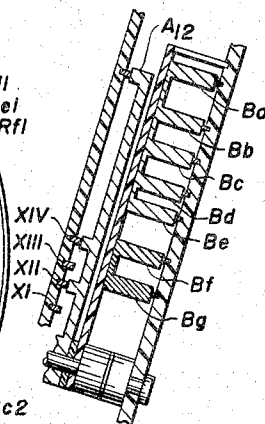


Fig. 7



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FIG. 8

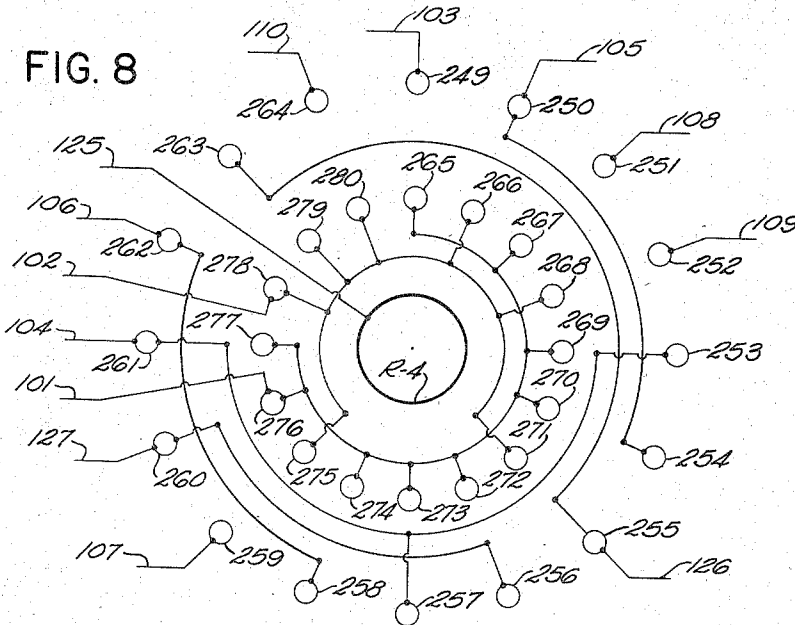
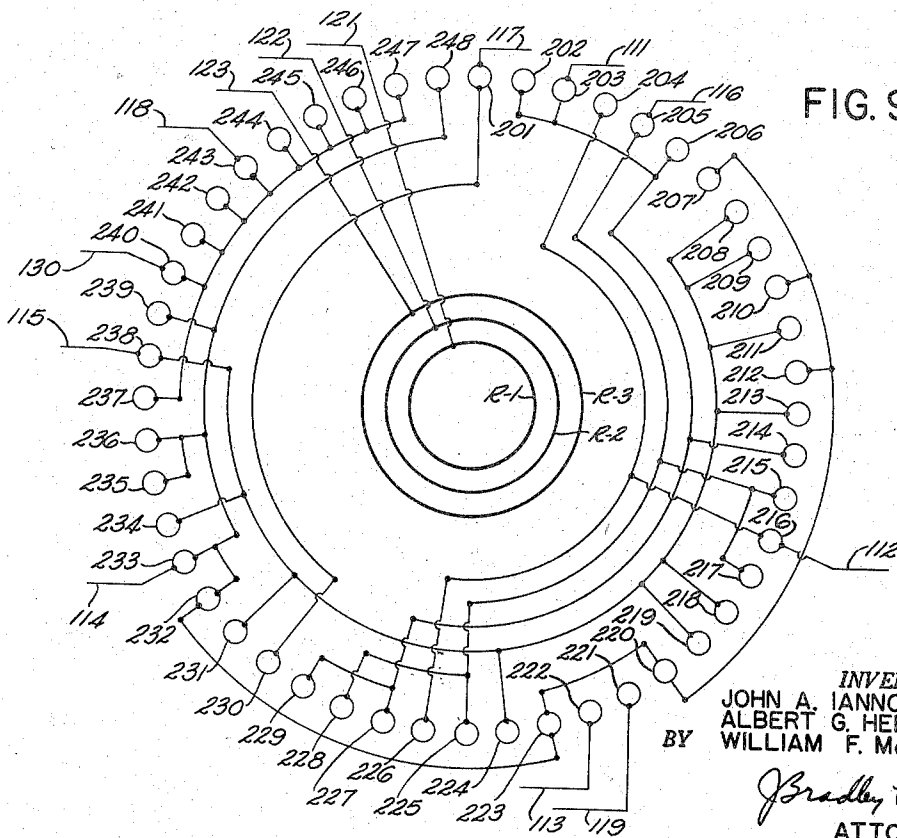


FIG. 9



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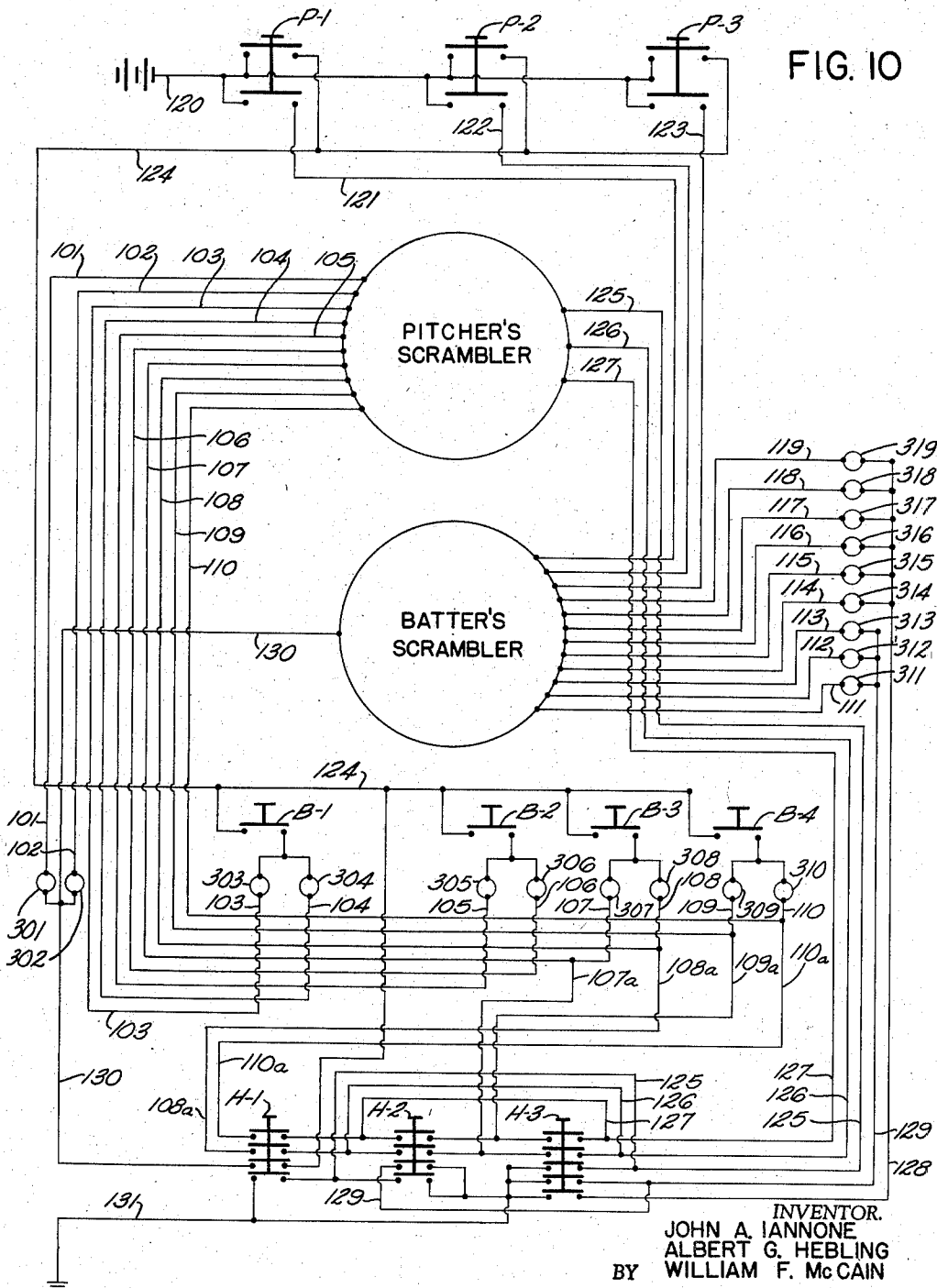
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FIG. 10



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ELECTRICALLY OPERATED SIMULATED GAME

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Application March 4, 1957, Serial No. 643,830

21 Claims. (Cl. 273—88)

This is a continuation-in-part of our co-pending application filed January 29, 1954, entitled "Electrically Operated Simulated Game" and assigned Serial No. 406,968 and now abandoned.

The general object is to provide a game of the type indicated in which a selection of plays or actions is afforded the player, the result depending upon the selection made by him and also upon random factors unknown to him but which may follow the actual percentages for the game in question.

It is an object of the invention to provide one player with a strategic selection of the type of play he will make and then to provide him with random factors for success based upon actual predetermined percentages. It is a further object to provide the opposing player with a selection of defensive or offensive moves and then depending upon his selection of a particular move or play to provide him a predetermined random percentage to determine the success of the play.

Accordingly, while our invention is adapted in its broader aspects to other games, it is very well exemplified in a baseball game and will be described as embodying such a game.

The object of the invention as embodied in a baseball game is to permit the pitcher to selectively determine the type of pitch he will make. This selection of the pitch will set up certain random factors to determine the outcome or results of the pitch.

It is an object of the game to permit the batter to select the type of play he will make, for example whether he will let the pitch pass or will bunt or will endeavor to make a hit. Depending upon the pitch selected by the pitcher and the random factors there established and upon the action the batter will take, certain random factors will determine the success of the play based upon predetermined percentages.

It is a further object of the invention to permit the batting team to select other plays that it may take upon a pitch or a hit, as for example stealing a base or other advancement of a player already on base, but again certain random factors will determine the success of the action selected by the batter or team at bat.

In the drawings:

Fig. 1 is a plan view of a game embodying the invention;

Fig. 2 is a side elevation of Fig. 1;

Fig. 3 is a detailed section on the line 3—3 of Fig. 1;

Fig. 4 is a circuit diagram;

Fig. 5 is a detailed schematic diagram of a pitching scrambler selector switch showing the outline of Fig. 4;

Fig. 6 is a similar schematic of a batting scrambler;

Fig. 7 is a detailed section on the line 7—7 of Fig. 6;

Fig. 8 is a detailed schematic and circuit diagram of a modified pitching scrambler selector switch;

Fig. 9 is a similar schematic of a modified batter's scrambler selector switch; and

Fig. 10 is a circuit diagram of a modified embodiment employing the scramblers of Figs. 8 and 9.

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The game may be organized as shown in Fig. 1, for playing by two players, one of whom represents the team at bat (Batter) and the other of whom represents the team in the field (Pitcher), at any given time, the 5 players alternating at the end of each half inning as in an actual baseball game.

The Batter is provided with a series of eight switch buttons, which he may press, as desired, according to the type of play which he wishes to attempt, these buttons being labeled Take, Hit, Bunt, etc., and the Pitcher is provided with three switch buttons labeled Fast Ball, Curve, and Slider. The pressing of these various buttons establishes appropriate circuits as later pointed out in detail. There is also provided a batting scrambler 15 knob and a pitching scrambler knob, which knobs are turned by the Pitcher before each play and which vary the possible circuits. A sufficient number of lights is provided so as to indicate practically every possible play, the function of these various lights being in most cases obvious. At the home plate are a set of five lights 20 entitled Safe, Out, Ball, Strike and Fly to Catcher indicating various plays at the home plate.

Adjacent the first and third base locations are four lights labeled Assist, Safe, Out and Fly Out. Adjacent the 25 second base location are Out and Safe lights and also Fly Out and Assist lights for both the shortstop and second baseman. In the outfield are lights indicating the various possible hits and also lights indicating an Out to left fielder, center fielder or right fielder. The 30 Error and Foul Ball lights complete the light indicators.

Each base is furnished with a socket to take a plug simulating a man on that base and operating a switch M1, M2 or M3 underneath that base.

In the manner described below the result of a play 35 is determined by five factors, these being: the button pushed by the Batter; the button pushed by the Pitcher; the position of the pitching scrambler; the position of the batting scrambler; and the base or bases occupied. It might be noted at this point that the elements are 40 arranged so that the plays resulting will average very close in relative frequency to the results obtained in actual major league baseball.

The various indicator lights may be small 1½ volt flash light bulbs and the entire game may be energized 45 by a single flash light dry cell, which will operate for a very long time as the power requirements are very small.

Referring now to Fig. 4, the Hot wire is indicated as connected to the positive battery terminal, the negative terminal being connected to the ground wire or chassis. 50 The Fast Ball, Curve and Slider switches are normally open double pole switches. Closing any one of these switches establishes a connection from the line 10 to a line 14, which leads down to the Take and Bunt switches, and also to some one of the lines 11, 12 and 13 which 55 lead to the pitching scrambler.

The connections made from the pitching scrambler will vary according to the setting thereof. A line 15 60 leading to the Hit switch, and which may be termed the Man on Base line will be energized only when one of the lines 11, 12 or 13 is selected by the pitcher and the corresponding arms A11, A12 or A13 of the pitching scrambler is making contact with any of the assist contacts, lines 30 to 33 (Fig. 4) as hereinafter more fully 65 described. Lines 16 to 33 include the indicator lights, as set forth in Fig. 4, and the lines 34 and 35 lead to indicator lights and to the Take switch as indicated.

As will be apparent, the energizing of line 15 will be effective only if the Hit button is pressed (its possible effects being later described). The energizing of any of 70 lines 16 to 29 will also be effective only if the Hit button is pressed. Since the pressing of this button grounds the

line 36, to which all these lines are connected, the pressing of the Hit button will complete a circuit, lighting some one of the lights included in the lines 16 to 29.

If line 34 or 35 should happen to be energized the pressing of the Hit button will indicate a Ball or Strike, respectively, according to which of these two lines is energized by the pitching scrambler.

Should any of the lines 30 to 33 be energized, a connection will be established through line 40 and the Hit switch for indicating Safe or Out at first base only. However, if switch M1 is closed, then in addition to the Safe or Out light at first base the Safe or Out light at second base will be energized through line 15 (Fig. 4) and also the Safe or Out light at third base and Home providing that switches M2 and M3 are also closed at the same time as switch M1, and any one of the various assists.

The batting scrambler has a pair of wires 50, 51 leading from the Advance switch, a pair of wires 52, 53 leading from the Steal switch, and also wires 54 to 61 leading from the Safe and Out lights at each of the bases. A further pair of wires 63, 64 are connected to lines 65 and 66 respectively, and which lead from the Ball and Strike lights previously mentioned, to the Hit switch. A line 67 also leading to the Hit switch completes the batting scrambler connections.

Switches of the normally open type, except for the Steal, Advance, Third Base and Home switches, are provided for the Batter. The four switches mentioned contain contacts closing in both positions at indicated.

The operation of the circuit is brought out below in detail with reference to assumed possible settings of the scramblers, but will be preceded by a description of the scramblers themselves.

The pitching scrambler is shown in Fig. 5. It comprises a set of contacts, seventy-two in number and identified as C1, etc., with which cooperate three arms, A11, A12 and A13, connected respectively to the lines 11, 12 and 13 previously mentioned, by means of brushes riding on contact rings XI, XII and XIII as indicated; each of the arms A11, A12, and A13 also has a brush riding on the contact ring XIV. Arm A12, as shown in section in Fig. 7 comprises an insulating member provided with three contact brushes all connected together as by copper or brass plates, the innermost riding on the ring XII, the intermediate one riding in the ring XIV and the outermost being on one of the contacts C1, etc., and actually, in this case, on the contact C19 as shown in Fig. 5. As will be understood, the contact rings XI and XIII are similarly engaged by the arms A11 and A13.

Some plays are much more frequent than others and the plays are caused to occur in proportion to their actual frequencies, by assigning various numbers of the contacts C1, etc., to the various possible plays. For example: It will be noted that contact C4, which is connected to line 34 (Fig. 5) leading to a Ball light, is also connected to sixteen other contacts, C6, C7, C8, C13, etc., for a total of seventeen out of seventy-two contacts. Similarly, contact C9 and five other contacts are connected to line 17 (Fig. 5) leading to the Foul Ball light, while contact C11 and fifteen other contacts are collected to line 35 (Fig. 5) leading to the Strike light. Between the Foul Balls and Strikes we thus have a total of twenty-two contacts as compared to seventeen contacts leading to the Ball light, which agrees with the relative frequency as between balls and strikes when the player steps to the plate with the intention of hitting, sufficiently closely so that no difference is detectable between the scoring in the game and the actual baseball statistics. Similarly, only on contact (C34) is connected to the Home Run light or Triple light (C59), while five contacts are connected to the Single light and two contacts to the Double light, the percentages varying accordingly. The number of contacts assigned to the various plays or lights is indicated in tabular form below and requires no further description.

Pitching scrambler

Play or Light Indicators	Line	No. of Contacts Assigned	Contact Numbers
5 Ball (B)-----	34	17	C-4, 6, 7, 8, 13, 14, 17, 20, 27, 31, 55, 61, 64, 65, 68, 70, and 72.
10 Strike (S)-----	35	16	C-2, 11, 18, 21, 23, 29, 33, 36, 38, 45, 46, 51, 54, 56, 62, and 66.
15 Foul-----	17	6	C-9, 12, 22, 41, 49, 50.
Single-----	16	5	C-1, 10, 15, 53, 69.
Double-----	18	2	C-28, 48.
Triple-----	19	1	C-59.
15 Homer-----	20	1	C-34.
Error-----	21	1	C-40.
Fly-Outs-1st Baseman-----	22	1	C-63.
Fly-Outs-2nd Baseman-----	23	1	C-43.
Fly-Outs-3rd Baseman-----	24	1	C-35.
Fly-Outs-Shortstop-----	25	1	C-42.
Fly-Outs-Catcher-----	26	1	C-30.
20 Fly-Outs-Left Fielder-----	27	3	C-24, 32, 57.
Fly-Outs-Center Fielder-----	28	4	C-3, 19, 47, 60.
Fly-Outs-Right Fielder-----	29	3	C-26, 39, 71.
Assists-1st Baseman-----	30	1	C-16.
Assists-2nd Baseman-----	31	3	C-5, 37, 58.
Assists-3rd Baseman-----	33	1	C-44.
Assists-Shortstop-----	32	3	C-25, 52, 67.
25 Total Contacts-----		72	

The arms A11, A12 and A13 are displaced through odd angles, the arms A12 and A13 spanning twenty-two contacts or 110 degrees, the arms A13 and A11 spanning twenty-six contacts or 130 degrees and the arms A11 and A12 spanning twenty-four contacts or 120 degrees. With this arrangement it becomes possible to connect the contacts in such a way that the energizing of any of the buttons 11, 12 and 13 will practically always produce a different play from energizing any other of them. To achieve this result it is necessary only that the contact intervals between the "C" contacts which are connected together in groups be selected so that no two contacts of the group will be spaced apart by 110, 130 and 120 degrees. For example, contacts C5 and C37 are connected together in one group. If the intervals between these two contacts were either 110, 120 or 130 degrees it would be possible to have a random setting of the pitcher scrambler wherein two of the arms would be in contact with this group and the corresponding two buttons would each give the same play. In addition, the irregular spacing of the arms prevents possibility of a repeat of the possibilities of a play upon a random rotation of 120 or 240 degrees. With the irregular spacing the only possible repeat of all combinations is on rotation of 360 degrees which considerably reduces chances of such a repeat.

For clarity of understanding, the operation of the circuits as thus far described will now be briefly set forth, on the assumption that there is no Man on Base and that Hit button is depressed. First let it be assumed that the pitching scrambler is in the position of Fig. 5, and that the Fast Ball button is pushed. This energizes line 11, and since the arm A11 appears to be on the Assist Third Baseman line, a connection will be established through line 33 through the Third Base Assist light and thence through line 40 and through the Hit switch to the Safe and Out lights at first base, ground connection to the other side of one of these light being made through line 60 or 61 depending upon the setting of the batting scrambler, the batter being indicated as Safe or Out accordingly.

If, on the other hand, the Curve button were pushed, energizing line 12, connection would be established to the Fly Out Center Field light, which would be lighted by establishment of ground connection through line 36, the Hit switch and line 37 to the ground line 38. Thirdly, if the Slider switch were pushed, energizing line 13, a connection would be established through line 34 leading to the Ball light and from thence through the Hit switch

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and line 37 to ground as before. Other settings of the pitching scrambler would of course give still other plays.

The batting scrambler shown in Fig. 6 comprises outer and inner contact rings Ra, Rg, which are continuous and there are five sets of contacts between these rings, each set containing eight contacts. The latter contacts are indicated by the capital letter R followed by a letter b to f according to radial position and by numeral from 1 to 8 according to angular position. The brush arm, B, carries a pair of brushes, Bg and Bf, running on the contact ring Rg and segments Rf1, Rf2, etc., so as to connect some one of these segments to the contact ring. The brush arm also carries five brushes, Ba to Be, running on the contact ring Ra and segments Rb to Re. The brushes Ba to Be are interconnected by conductive material and connect ring Ra to radially aligned segments Rb to Re. In the position of Fig. 6, the brush arm, B, is connecting contact ring Rg to contact Rf8, and is similarly connecting contact ring Ra to contacts Rb8, Rc8, Rd8 and Re8. The contact rings and segments are connected to the lines leading from the batting scrambler in the manner indicated and the function of this scrambler will be clear from the following description and from the table set forth below.

Batting scrambler

	Safe Light	Line	Out Light	Line	Adv. Line	Steal
1st Base.....	Rb 2, 6, 7.....	61	Rb 1, 3, 4, 5, 8.....	60	None.....	None.
2nd Base.....	Rc 1, 4, 5, 7.....	59	Rc 2, 3, 6, 8.....	58	None.....	None.
3rd Base.....	Rd 8.....	57	Rd 7.....	56	Rd 2, 3, 51.....	Rd 1, 4, 5, 6*
Home Plate.....	Re 3.....	55	Re 1, 2.....	54	Re 4, 6, 50.....	Re 5, 7, 8**

*Line 52.

**Line 53.

Ball Light: Rf1, 4, 5, 7.

Strike Light: Rf2, 3, 6, 8.

NOTE.—On plays involving force; advancing or stealing the combination of safe or out at first and second base remains as shown above whereas the combinations of safe and out at third and home vary with each of the three plays as shown below:

		Safe	Lines	Out
Force Play.....	3rd Base.....	Rd 3, 4, 5, 6, 2, 8, 1.....	56, 57, 52, 46.....	Rd 7.
	Home.....	Re 3, 4, 5, 6, 7, 8.....	54, 55, 72, 50.....	Re 1, 2.
Advance Play.....	3rd Base.....	Rd 1, 4, 5, 6, 8.....	52, 51, 48.....	Rd 2, 3, 7.
	Home.....	Re 3, 5, 7, 8.....	50, 71.....	Re 1, 2, 4, 6.
Steal Play.....	3rd Base.....	Rd 2, 3, 8.....	52, 48.....	Rd 1, 4, 5, 6, 7.
	Home.....	Re 3, 4, 6.....	53, 71.....	Re 1, 2, 5, 7, 8.

Segments of the batting scrambler assigned to the advance and steal switches go from the scrambler to the normally closed contacts of the advance switch and the steal switch to the safe lights at third and home bases. When one of these switches is closed it transfers the segments from the safe light to the out light.

Outer ring of segments (Rb1, etc.), Nos. Rb1, 3, 4, 5 and 8 indicate Out at first base and the remainder of these segments indicate Safe at first base.

In the next ring of segments (Rc1, etc.), segments Rc1, 4, 5, 6 indicate Safe at second base, and the remainder Out at second base.

In the next ring of segments (Rd1, etc.), the first, fourth, fifth and sixth segments are connected to the third base Steal switch by line 52, the second and third segments to the third base Advance switch by line 51 and the seventh and eighth segments by lines 56 and 57, respectively, to the third base Out and Safe lights, respectively.

The next ring of segments (Re1, etc.), furnish similar indications but for the home plate, the first and second segments indicating Out at home plate, the third segment indicating Safe at home plate, the fourth and sixth segments being connected to the home plate Advance switch, and the remaining three segments to the home plate Steal switch.

The innermost ring of segments (Rf1, etc.) includes four segments (Nos. 1, 4, 5 and 7) connected to the Ball light and the remaining four segments connected to the Strike light.

Operation when the batter takes

At each setting of the batting scrambler, some one of the contacts Rf1, Rf2, etc., will be connected to contact ring Rg and hence to line 70, leading to the Take push

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button switch. Accordingly, one of the lines 63 and 64 will also be connected to the line 70. If now the Take switch and any one of the Pitcher's switches are closed, line 70 is grounded (lowermost contacts of the Take switch in Fig. 4) and lines 34 and 35 are both energized from line 14 (top two pairs of contacts in the Take switch). Therefore, either the Ball or Strike light will light, depending on the batting scrambler setting, and the chances being even. This is the complete operation of the Take button, except that a line 39 leading to the Steal switch is also energized by closing the Take switch. The possible ensuing operations when the Steal switch is also operated are described below. It will be noted that when only the Take button is pushed, line 36 and line 40 are both dead, while lines 34 and 35 are both energized, regardless of the pitching scrambler setting, which therefore has no effect upon the play.

When the Batter takes, and a fourth Ball results, any players on base are automatically advanced if forced, in the same way as in an actual game.

Operation when the batter "hits," bases empty

The pushing of the Hit switch button indicates the Batter's intention. A bad Ball may nevertheless be refused, resulting in a Ball, as in actual baseball.

Depressing the Hit push button grounds the line 36 (through the fourth pair of contacts in the switch and lines 37 and 38) and also grounds Ball and Strike lines 65 and 66 (upper two pairs of contacts). Accordingly, if any of lines 16 to 29, 34 or 35 happen to be energized by the pitching scrambler, the corresponding play will be indicated.

Closing the Hit switch also connects line 40, leading from the Assist lights, through the next to the lower pair of contacts in the switch and a line 41 to the first base Safe and Out lights. Accordingly, if any of the lines 30 to 33 is energized by the pitching scrambler, a circuit would be established through the appropriate Assist light and the Safe or Out at first base light, the corresponding line 61 or 60, some one of the segments Rb1, etc., the contact ring Ra, line 67, contacts of the Hit switch (third pair from the top) and line 37 to the ground line 38. Thus, according to the setting of the scramblers, there will be indicated either a Put Out and an Assist by one of the infielders, or an attempted Put Out by one of the infielders with the batter Safe at first. The remaining contacts in the Hit switch (first and third pair from the bottom) serve to connect the hot wire 10 to a line 42 leading to the Advance switch and the Man on Base line 15 to a line 43 which leads to the Man on Base switch, M1. In this way, provision is made for the plays involving men on bases, as hereinafter described.

"Hits" with men on base

Assuming that there is a man on first base, so that the switch M1 is closed, and the Hit button is depressed, the action so far as the Batter is concerned will be as above described. In addition, however, the connection is established from line 15 through the Hit switch, and lines 43, 44, 45 and the switch M1 to the second base Safe and Out lights.

Lines 58 and 59 leading from these lights to the scrambler are connected to segments Rc1, etc., as before mentioned, and hence a connection of one of these lines, but not the other, will be made through contact ring Ra to ground, indicating a Safe or Out play at second base, provided line 15 is energized. Line 15 is connected to the contacts of the ring XIV in the pitching scrambler (Fig. 5), which contacts are lined up with outer contacts connected to the Assist lines 31 to 33, so that line 15 will be energized if and only if one of these Assist lines is also energized. Accordingly, there will be indicated in addition to Safe or Out at the base in question the appropriate assist or attempted assist. This may correspond to a sacrifice if the Batter is Put Out on the play on a Hit Ball. In other cases the effect is controlled by the selected "Ground Rules," as for example, recalling the man to first base on a Ball other than the fourth, advancing or further advancing the man to third on a single, etc. If there should be a man on at first and second; or first, second and third, the action described above will result in a Safe or Out at first, second and third base, in the first instance and a Safe or Out at all the bases in the second instance. However, if there is no runner at first base, but there are runners at second or third or both second and third, neither base runner is forced and therefore does not have to run to the next base on a batted ball, consequently the fielder has only the one play to make and that is at first base, providing of course that line 15 is energized as described previously. The player-batter may at his own option on an infield play, advance the runners to the next base. The method of advancing is explained hereinafter.

It should be borne in mind that the above described indications where there is a man on base are effective only when line 15 is energized. Otherwise a man or men on base are advanced as forced or according to appropriately selected ground rules. The operation with men on more bases than one will be apparent from the description of the operation with only one man on base and any of the appropriate Safe or Out indications will be given and in the correct percentages.

Stealing bases

If the batter wishes to attempt to steal a base, he presses the Take, Steal and desired base buttons simultaneously, the man being indicated as safe or out in appropriate percentages. Assuming for example that there is a man on first, so that switch M1 is closed and that the batter attempts to steal second, the following action will occur. Connection will be established from wire 14 through the third set of contacts of the Take switch to line 39 and from there to the Steal switch, which being closed energizes the upper right hand contact in the second base switch and hence through switch M1 will light the second base Safe or Out light, according to the setting of the batting scrambler, which connects either line 58 or 59 to ground. Connecting line 58 to half the contacts in the appropriate set and line 59 to the other will give a fifty-fifty chance on an attempted steal of second. An attempted steal of third base with a man on second proceeds similarly but does not involve switch M2. But the percentage is determined by the direct and indirect connections of lines 56 and 57 to the batting scrambler. It will be observed that line 56 in addition to its direct connection to the scrambler (Figs. 4 and 6) will have an indirect connection through lines 48 and 52 through the Steal switch, while line 57 will have an indirect connection

through line 46, the Advance switch and line 51, the percentage on the play being regulated accordingly. A steal of home plate with a man on third proceeds similarly, except that in this case, the connections in question are the direct and indirect connections of the lines 54 and 55, the indirect connections leading this time to the lines 50 and 53.

Advancing a runner

If a player has scored a single or double, he as the batter, is entitled to only the number of bases scored. However, if there are runners on base, and the batter scores either a single or double, then the runners automatically advance one or two bases as the case may be. As in baseball, a runner many times attempts to go from first to third base or from second to home on a single scored by the batter. On a double scored by the batter, the runner may attempt to go from first to home. The player-batter in this game can attempt to advance the runner the one additional base by pressing the "Hit, Advance," and the appropriate base switches simultaneously. The player-batter may also advance runners by "Bunting" or "Sacrificing" as it is often called in baseball, by pressing the "Bunt, Advance" and appropriate base switches simultaneously. It must be remembered that advance plays can only be made when the base runners are not forced and there are two or less outs against the team at bat. The action is the same as in the case of the attempted steal, which has just been described, except that the Advance switch is involved instead of the Steal switch. The Safe and Out percentages will vary accordingly. For example, with a man on third if it is attempted to steal home, the percentage is determined by the number of connections of lines 55 and 50 on the one hand as compared with those of lines 54 and 53 on the other. If, however, it is attempted to advance a man on third, the percentage of success will be determined by the number of connections of lines 55 and 53 on the one hand, as compared with lines 54 and 50 on the other. Some differences exist in an attempted steal of third. It will be observed that a very simple circuit arrangement has been provided making it possible to reflect a different percentage of success for steal plays and advance plays, as well as the normal forces and advances or put outs in conjunction with assist plays.

The bunt switch

The bunt switch is used to bunt or sacrifice. The pitcher on closing any one of his switches (A11, 12, 13) energizes line 14. If the bunt switch is closed, current passes from the line 14 through the second contact of the bunt switch to the first base safe or out lines. It also passes through the third contact of the bunt switch to the switch M1. The results of the bunt will be indicated at first base depending upon the setting of the batting scrambler through the line 60 or 61 which lead to the ring Rb1 through arm B to ring Ra and then via the line 67 through the bunt switch to ground. If there is a runner on first, or first and second, or first, second and third, current is fed to switch M1 to indicate whether a runner on first was safe or out at second and similarly at third. In this case the runners are forced and the advance switch need not be depressed.

If, however, there is a runner on second or third or both and one on first and the batter wishes to advance or attempt to advance them on a bunt, he must also close the advance switch and the third base or home switch or both, respectively, in order to determine his success or failure as in the manner of an advance.

In the modified form shown in Figs. 8, 9 and 10 the board for the game would appear substantially as shown in Figs. 1 and 2 with the exception that the batter would have only three selective switches instead of eight as shown in Fig. 1. The switches would be as follows: The first switch will be labeled Take/Steal. The second switch will be labeled Bunt/Sacrifice, and the third switch

will be labeled Hit/Advance. Referring to Fig. 10 showing the schematic circuitry, the three switches will correspond respectively to H-1, H-2 and H-3.

The game board as shown in Fig. 1 is further modified by having an inoperative lead-off position for each base on which the man on that base may be placed during the pitch. It is understood that when a man is placed on a base, he closes the switch or contacts at that base, whereas in the lead-off position the base switch remains open.

With reference to Figs. 8, 9 and 10, the modified form is still designed for two players. One player representing the team at bat, hereinafter called the Batter and the other player representing the team in the field, hereafter called the Pitcher.

The pitcher has three switches labeled, for example, Fast Ball, Curve Ball, and Change-Up and referring, respectively, to the switches in Fig. 10 of the circuit diagram labeled P-1, P-2, P-3, respectively. As heretofore described, the pitcher also has a scrambler identified by legend in Fig. 10 as the Pitcher Scrambler and shown in detail in Fig. 8. The batter also has three switches H-1, H-2, H-3 as described above and a Batters Scramble identified by legend in Fig. 10 and in diagrammatic detail in Fig. 9.

The playing field of the game is a regulation baseball diamond drawn to scale with the four bases First, Second, Third and Home having contact switches which are closed by placing a man on base. These four bases correspond, respectively, to the switches indicated in Fig. 10 as B-1, B-2, B-3 and B-4. At each of the bases except Home base there is a dummy switch (not shown) in which a runner safe at that base is plugged prior to the next play being made. These dummy switches have no electrical connection and are merely for the purpose of having the base switch open at the time of commencement of the next play. It also adds to the illusion of reality since runners normally stand in a lead-off position from the base at the commencement of the next play.

At Home base on either side of the plate corresponding to the positions of a left-handed batter and a right-handed batter, respectively, there is a dummy hole which may be marked "Batters Position" where the batter may be placed to add to the illusion that he is at bat. Again, there are no electrical connections to either of these holes. At the commencement of the play, the pitcher presses one of his three buttons, P-1, P-2, P-3 depending on his selection of the ball he will throw. Current from the line 120 will then be delivered through one of the lines 121, 122 or 123 leading to the batters scrambler (Fig. 10). Current simultaneously is delivered to line 124 from any of the three switches.

Referring now to Fig. 9 it will be understood that on the batters scrambler there are three arms (not shown) but constructed similarly to the arms A-11, A-12 and A-13 of Fig. 5. The arms, however, are more simplified and merely make a connection between the outer peripheral contacts 201 to 248 and one of the inner rings R1, R2 and R3. The arms are preferably spaced from each other 105°, 127½° and 127½°. The first arm makes a connection between the ring R1 and any one of the outer contacts 201 to 248, the second arm similarly connects ring R2 to any one of the outer contacts, and the third arm similarly connects a ring R3 to any one of the outer contacts. The rings R1, R2 and R3 are energized, respectively, from the switches P-1, P-2, P-3 by the lines 121, 122 and 123, see Figs. 9 and 10. Thus, if the pitcher selects a Fast Ball and depresses switch P-1, current will flow to the ring R1 through line 121 and thence through the arm 1 (not shown) to one of the contacts 201 to 248 on which the arm rests due to random selection, as heretofore described with respect to Fig. 5. In like fashion, the curve ball P-2 is connected to ring R2 by line 121 and the change-up ball P-3 is connected to ring R3 by line 123. The outer contacts 201-248 of

the batters scrambler (Fig. 9) are connected in predetermined gangs to lead-out lines 111 to 119 inclusive and line 130. Each line 111 to 119 (Fig. 10), energizes a signal lamp 311 to 319, respectively. Lines 111 to 113 are connected to line 129, while lines 114 to 119 are connected to line 128. The following table will show the ganging of the outer contacts on the batters scrambler (Fig. 10) and also the play indication of the lamps 311 to 319 in lines 111 to 119, respectively.

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Batters scrambler

Play Designation	Lamp	Line	Batters Scrambler
15 Infield Pop-up.....	311	111	202, 203, 206, 214, 217 and 229.
Foul Ball.....	312	112	204, 216 and 226.
Error.....	313	113	222.
Ground Ball.....	314	114	207, 210, 212, 220, 223, 232, 233, 235, 236, 239, and 248.
Out-field Fly Out.....	315	115	208, 209, 211, 213, 218, 219, 224, 231, 234 and 238.
20 Single.....	316	116	205, 215, 217, 225, and 228.
Double.....	317	117	201 and 230.
Triple.....	318	118	243.
Home Run.....	319	119	21.
Strike/Ball.....	330	130	237, 240, 241, 242, 244, 245, 246 and 247.

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It should be noted that the ratio of the number of contacts ganged to one line to the total number of contacts is the random percentage that that line will be employed. Also the relative location of contacts ganged together is designed to prevent like results between any two of the switches P-1, P-2 and P-3, for any given setting of the scrambler arms.

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Contacts 237, 240, 241, 242, 244, 245, 246 and 247 are connected in gang to line 130 leading to parallel lines 101 and 102 leading to the pitchers scrambler (Fig. 10).

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With reference to Figs. 8 and 10, the pitchers scrambler has a set of rotatable arms which connect any four consecutive contacts of the contacts 249 to 264 inclusive to ring R4. There is another arm which connects the inner set of contacts 265 to 280 inclusive also to ring 4. There is no electrical insulation between any of these arms. Ring 4 is connected to line 125. The pitchers scrambler in the main determines whether a batter has a strike or a ball and whether a runner is safe or out at base. The following table shows the connections and signal designations of the pitchers scrambler.

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Pitchers scrambler

Light Designation	Lamp	Line	Contacts in Gang
50 Strike.....	301	101	265, 267, 269, 270, 272, 273, 274 and 277.
Ball.....	302	102	271, 268, 266, 280, 279, 278, 275, 249.
1st Base Safe.....	303	103	253, 257 and 261.
1st Base Out.....	304	104	250, 254.
2nd Base Safe.....	305	105	258, 262.
2nd Base Out.....	306	106	259 also 255 and 263 when either switch H-2 or H-3 is closed to connect line 126 in series with lamp 310 in line 110.
3rd Base Safe.....	307	107	251 also 255 and 263 when switch H-1 is closed to connect line 126 in series with lamp 308 in line 108.
60 3rd Base Out.....	308	108	52 also 56 and 60 when either switch H-2 or H-3 is closed to connect line 127 in series with line 109 and lamp 309.
Home Safe.....	309	109	64 also 56 and 60 when switch H-1 is closed to connect line 127 in series with lamp 310 in line 110.
65 Home Out.....	310	110	126 255, and 263.
70		127	256, and 260.

Line 125 leads from ring R4 through each switch H-1, H-2 and H-3 to line 131 connected to the opposite potential of line 120.

Line 127 connects contacts 256 and 260 of the pitchers scrambler to line 109a through either switch H-3 or H-2, but line 127 through switch H-1 is connected to line 110a.

Line 126 connects contacts 255 and 263 to line 107a through switches H-3 and H-2 but to line 108a through switch H-1.

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Now with reference to Fig. 10 it will be noted that one terminal of a source of current, such as a battery, is connected to line 120, at the top of the figure. Line 120 runs to normally open switches P-1, P-2 and P-3. The closing of any one of these three switches applies current directly to line 124 and also to one of lines 121, 122 and 123. Lines 121, 122 and 123 lead to rings R1, R2 and R3, respectively, of the batters scrambler. By means of the arms, current may be delivered out of the batters scrambler to any one of the lines 111 to 119, inclusive, or line 130. Lines 111 to 119 have signal lights 311-319, inclusive, which will light provided the ground lines 128 or 129, as the case may be, are connected to the opposite potential of the source of current or battery. If switch H-3 is closed, line 128 connected to lines 114-119 leads out to line 131 connected to the opposite potential of the source of current or battery. Switches H-3 and H-2 connect line 129 from lines 111 to 113 to line 131.

Line 124 which receives potential upon the depression of any one of the switches P-1, P-2 or P-3 leads to each of the normally open base switches B1, B2, B3 and B4 supplying potential to their safe and out lights when these switches are closed. The respective safe and out lights of the four bases lead to the pitchers scrambler which has mutually exclusive random selection between safe and out in predetermined ratios. Line 124 is also connected to line 130 through switch H-1. Line 130 supplies current to the strike or ball lamps 301-302 in lines 101 and 102 respectively. Again either one of these will be lighted depending on the pitcher scrambler which can light only one of these as may be seen by reference to Fig. 8. Line 130 may, of course, also be energized from the batters scrambler by chance. That is important only when switch H-1 is open. Ring R4 of the pitchers scrambler by line 125 is connected to the opposite potential of the source of current or battery by any one of the switches H-1, H-2, or H-3 to line 131. The following example will give a more clear understanding of the operation of the game:

Assuming, for example, that the players Batter and Pitcher, turn their respective scramblers of Figs. 8 and 9 so that the arms of the batting scrambler are resting as follows: Arm 1 (not shown) connects ring R1 to contact 205 leading to line 116. Arm 2 (not shown) connects ring R2 to contact 219 leading to line 115. Arm 3 (not shown) connects ring R3 to contact 236 leading to line 114. Assume further that the arms of the pitching scrambler have at random connected line 125 and ring R4 to the following contacts and lines:

Contact	Line	Signal in line
251.....	108	(308) 3rd Base Out.
252.....	109	(309) Home Safe.
253.....	104	(304) 1st Base Out.
254.....	105	(305) 2nd Base Safe.
278.....	102	(302) Ball.

Now assuming that the pitcher selects to throw a fast ball and accordingly depresses switch P-1: Current will now flow on line 120 from one potential through switch P-1 and lines 121 and 124. Current in line 121 will flow to ring R1 of the batters scrambler and in turn through the connected contact 205 through the signal in line 116 (a single) and by line 128 to a contact on the hit advance switch H-3. Line 124 is connected to one side of all the base switches B-1, B-2, B-3 and B-4 and also to one side of the Take/Steal switch H-1.

Now if: the batter closes switch H-3 (Hit/Advance), line 128 is connected to line 131 of the opposite potential and hence the signal in line 116 is energized. This indicates that the batter has singled and is entitled to first base. Therefore, a runner is plugged into the inoperative lead-off hole for that base. It should be noted that the combination of hit plays described depends on

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the hit switch being closed and one of the free pitching switches being closed in order to feed one of the rings of the batters scrambler and the contact randomly connected to that ring.

Now if, in the play described above, there had been a runner on first base, that runner is automatically entitled to second base and is plugged into the lead-off hole for that base. If the batting team decides to advance an extra base on the hit, that is, to have the runner go to third base instead of stopping at second, the runner is plugged into third base closing the switch B-3. This then connects line 124 to safe and out lights (307, 308) in lines 107 and 108 of third base. Since we have assumed above that the pitching scrambler has an arm resting on contacts 251, only line 108 is in a complete circuit. That is, current passes through line 108 to contact 251 to ring R-4 and through line 125 to the hitting switch H-3 to line 131 of the opposite potential causing the out signal (308) in line 108 to be energized. The result will be that the batter singled and is safe at first and the runner is out at third as a result of attempting to advance an extra base on the hit. It should be noted that an advance of this type may also be done if the batter hits a double which would entitle him to attempt to advance a runner from first to home (in our assumed case, he would be safe at home through line 109 and contact 252). Moreover, he may try to advance a runner one base either from second to third or third to home when he has hit on an outfield flyout or a ground ball provided, of course, there is less than two out at the beginning of the play.

Now, had the batter closed the switch H-2 (Bunt/Sacrifice) instead of switch H-3, then line 128 would be in an open circuit and the signal in line 116 would not be energized. In the assumed play, had the switch H-2 been closed no signal would be energized thereby indicating that the batter had bunted the ball as he desired and therefore must run to first base. At first base, the runner is plugged in to close the switch B-1 completing the circuit from 124 to the safe and out signals, lamps 303 and 304 in lines 103 and 104, respectively. However, since an arm of the pitchers scrambler is resting on the contact 253 to line 125 only line 104 is in complete circuit (through switch H-2 and line 131) and accordingly only the "out" signal 304 in line 104 would be energized indicating the batter was thrown out at first base.

It should be noted that if any one of the arms of the batters scrambler resting on any contact connected to lines 101, 102, 111, 112 or 113 and the pitcher closes the correspondingly pitching switch then the batter may cause one of the following to happen:

(a) Take the pitch for a ball energizing the lamp 302 in line 102 (pitching scrambler in position assumed above);

(b) Bunt at the pitch and pop it up to the infielder who caught the ball for an out energizing lamp 311 in line 111;

(c) Bunt at the pitch and foul energizing lamp 312 in lines 112, or

(d) Bunt at the pitch, hit the ball on the ground to an infielder who makes an error, the batter then reaches first safely energizing lamp 313 in line 113.

In the situation, where a batter decides to close the switch H-2 and there is a runner on first base, if the batter bunts fairly (no lights), he must then move the runner from the inoperative lead-off position at first base and plug him to the hole in the center of second base to close the switch B-2. Completing the circuit from line 124 through the lamps 305 and 306 in lines 105 and 106 leading to the pitchers scrambler to determine which of lines 105 or 106 shall be energized as heretofore explained. In the particular example given, an arm of the pitchers scrambler is resting on contact 254 and hence only line 105 is in a complete circuit and lamp 305 (safe) is energized. The batter must then plug a runner into

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first base to determine the result of the bunt itself. As explained above, in the situation assumed, the bunter would be tagged out at first. The result therefore would be a safe run on second base and the batter thrown out at first base.

Now, if the batter decides to close switch H-1 (Take/Steal), line 124 is connected through the switch to line 130 applying potential to strike and ball lights 301 and 302. But only 302 is connected to the opposite potential through line 102 to contact 278 to ring R-4 and then out line 125 and through switch H-1 to line 131 of opposite potential.

In the cases of a successful bunt (no light), or a ground ball (light 314), the runner should be advanced to first base center hole (switch B-1) to determine if he is safe or out.

The lines 126 and 127, connected to contacts on the pitchers scrambler, are provided for a method and means for varying the safe and out odds at third base and home, depending upon which switch H-1, H-2, H-3 the batter selects. By connecting these lines to contacts that otherwise would go to line pairs 107, 108 or 109, 110, it is possible to vary or reverse the odds depending on which of the "H" switches is closed. For example, in Fig. 10, line 126 is connected to lamp 307 (safe) by line 107 and 107a through switches H-3 and H-2. Line 126 is, however, connected to lamp 308 (out) by switch H-1, line 108a and line 108. Line 127 is similarly connected to lamp 309 (safe) and lamp 310 (out) by lines 109a and 110a.

It should be noted that this requires careful placement of contacts in the pitchers scrambler so that no pair of safe-out lights can be simultaneously lighted. It should be borne in mind that the four arms that contact the outer ring of contacts 249-264 always engage four consecutive contacts as before mentioned. This method of varying the odds may, of course, be utilized with other bases and other relations on either scrambler.

We claim:

1. An amusement game simulating a competitive sport, comprising in combination a plurality of switches operable selectively by one player, a plurality of switches operable selectively by a second player, said switches simulating strategic plays permissible to the role of each player, respectively, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, one of said scrambler switches interconnected to certain of said indicator signals in accordance with the results of play initiated by one of said players, the other of said scrambler switches interconnected to other of said indicator signals in accordance with the results of play initiated by the other of said players, and circuits interconnecting the said player switches, the scrambler switches and the indicator signals, for activating the said signals, according to the selective switches operated by each of said players and the setting of the corresponding scrambler switch.

2. An amusement game simulating a competitive sport, comprising in combination a plurality of switches operable selectively by one player, a plurality of switches operable selectively by a second player, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, one of said scrambler switches being interconnected to the selective switches of one player and certain of said indicator signals, said scrambler switch being operative to activate said signals in predetermined chance ratios for results of plays initiated by said one player, the other of said scrambler switches interconnected to the selective switches of said other player and other of said indicator signals to activate said signals in predetermined chance ratios for results of counter plays to said plays from said first

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player, and circuits interconnecting the said player switches, the scrambler switches and the indicator signals in accordance with the results of play according to the switches operated by the two said players and the setting of the said scrambler switches, the said circuits comprising circuits including a player switch and both scrambler switches, and circuits including another player switch of said second player and only one of the scrambler switches for selective inactivation of the scrambler switch interconnected with the selective switches of said one player.

3. An amusement game simulating baseball comprising in combination a plurality of batter switches operable selectively by a player representing the batter and including take and hit switches, a plurality of switches operable selectively by a second player representing the fielding team, a plurality of indicator signals for indicating selectively any of a variety of results of a play initiated by the fielding team, a manually operable scrambler selector switch, a further plurality of indicator signals for indicating selectively any of a variety of results of a play initiated by the batter, and circuits interconnecting the said batter switches, the scrambler switch and the further indicator signals, for activating the said further signals according to the switches operated by the batter and the setting of the said scrambler switch.

4. An amusement game simulating baseball, comprising in combination a plurality of switches operable selectively by one player representing the batter and including take and hit switches, a plurality of switches operable by a second player representing the fielding team, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, circuits interconnecting the said player switches, the scrambler switches and the indicator signals in accordance with the results of play according to the switches operated by the two said players and the setting of the said scrambler switches, and a circuit operable selectively from said take switch to inactivate one of said scrambler switches.

5. An amusement game simulating baseball, comprising in combination a plurality of switches operable selectively by one player representing the batter and including take and hit switches, a plurality of switches operable by a second player representing the fielding team, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, one of said scrambler switches being interconnected to the selective switches of one player and certain of said indicator signals, said scrambler switch being operative to activate said signals in predetermined chance ratios for results of plays initiated by said one player, the other of said scrambler switches interconnected to the selective switches of said other player and other of said indicator signals to activate said signaling in predetermined chance ratios for results of counter plays to said plays from said first player, and circuits interconnecting the said player switches, the scrambler switches and the indicator signals in accordance with the results of play according to the switches operated by the two said players and the setting of the said scrambler switches, the said circuits comprising circuits including one hit switch and both scrambler switches, and circuits including the take switch and only the scrambler switch of the said first player.

6. An amusement game simulating baseball comprising in combination a plurality of switches operable selectively by one player representing the batter, a switch necessarily operable by a second player representing the fielding team, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, circuits interconnecting

the said player switches, the scrambler switches and the indicator signals, for activating the said signals, according to the switches operated by the two said players and the setting of the said scrambler switches, and at least one of said circuits operable selectively by said batter player to shunt one of said scrambler switches at the selection of said batter player to vary the possibilities of a play without regard to the selection of switches by said second field player.

7. An amusement game simulating baseball comprising in combination a plurality of switches operable selectively by one player representing the batter and including take and hit switches, a switch operable by a second player representing the field team, a plurality of indicator signals for indicating selectively any of a variety of results of a play, two manually operable scrambler selector switches, the circuits interconnecting the said player switches, the scrambler switches and the indicator signals, for activating the said signals according to the switches operated by the two said players and the setting of the said scrambler switches, the said circuits comprising circuits including the hit switch and only one scrambler switch, and circuits including the take switch and only the other one of the scrambler switches.

8. A game according to claim 7, comprising also circuits including the hit switch, both scrambler switches and two indicator signals for indicating assist plays.

9. An amusement game simulating baseball and comprising a plurality of indicator signals including signals for indicating safe and out at a predetermined base, a scrambler selector switch having a plurality of contacts for establishing a connection to activate said signals, switch means operable for an attempt to steal the said base, switch means operable to attempt to advance a runner to the said base, connections from the said safe and out signals leading directly to predetermined contacts of the said scrambler switch to provide ratios of safe and out and connections leading indirectly to certain contacts of said scrambler switch in a different ratio through contacts of the said steal and advance switches respectively, whereby the number of contacts of the said scrambler switch connected to the safe and out signals respectively when the advance switch is operated differs from the numbers of such contacts so connected when the steal switch is operated, so that the probability of an activation of the safe signal at the said base upon random setting of the scrambler switch is varied accordingly.

10. An amusement game simulating baseball and comprising a plurality of indicator signals including signals for indicating safe and out at a predetermined base, a scrambler selector switch having a plurality of contacts for establishing a connection to activate said signals, switch means operable for an attempt to steal the said base, switch means operable to attempt to advance a runner to the said base, connections from the said safe and out signals leading directly to certain contacts of the said scrambler switch in a predetermined safe and out ratio and connections leading indirectly to certain contacts on said scrambler switch to establish a different predetermined ratio through contacts of the said steal and advance switches, whereby the number of contacts of the said scrambler switch connected to the safe and out signals respectively when the advance switch is operated differs from the numbers of such contacts so connected when the steal switch is operated, so that the probability of an activation of the safe signal at the said base upon random setting of the scrambler switch is varied accordingly, a switch for indicating presence of a man on an immediately preceding base and a connection therefrom leading to the said safe and out signals for completing the activating circuit therethrough.

11. An amusement game simulating baseball and comprising a pair of signals for indicating a ball and a strike respectively, a scrambler selector switch settable at random for establishing an activating connection to both or neither

of the said signals according to a predetermined probability, a switch manually operable by a player for completing an activating circuit from both the said signals to operate the same when activated by the said scrambler, a second manually operable switch, connections therefrom for establishing activating connections simultaneously to both said signals and a connection from each said signal to a second scrambler selector switch, and a second scrambler selector switch for alternatively completing an activating circuit for one of the said signals through one of the last said connections for activating the same, and settable at random for so completing the connection of the ball and strike signals with a predetermined probability whereby possible random operation of said ball and strike signal may be initiated from said one scrambler selector switch and absolute random operation of said ball and strike signal may be initiated by said second scrambler selector switch.

12. An amusement game according to claim 11 comprising also a third manually operable switch, for simulating a man on base, a fourth manually operable switch for simulating an attempted steal and a fifth manually operable switch for simulating an attempted advance of a runner, connections including the first, third and fourth switches and the second said scrambler switch for indicating a man as safe or out at a succeeding base and connections including the second, third and fifth said switches and the second said scrambler switch for indicating a man as safe or out at the said succeeding base.

13. An amusement game according to claim 12 comprising a said third switch for indicating a man on base associated with first, second and third base respectively.

14. An amusement game according to claim 13 comprising also connections through the first said manually operable switch and through the said third switches, for indicating men on bases, and the second said scrambler switch, for activating signals to indicate the man as safe or out at the said base.

15. An amusement game simulating baseball and comprising a selector switch settable at random and selectively operable switches, indicator signals for indicating a variety of plays, circuits including the said switches and signals for selectively activating the same according to the setting and operation of the switches, switches for indicating the presence of men on base, further signals for indicating men as safe or out at the bases depending on the random setting of said selector switch in the presence of men on base, and circuits including the last said signals and switches for activating the last said signals including said switch for indicating men on base.

16. In an amusement game simulating baseball comprising a plurality of indicator signals for indicating various plays, a manually operable switch to indicate a man on base, switch means for indicating an attempted play to advance a man on base to a subsequent base, said means interconnected to signals for indicating respectively safe and out at the subsequent base, a scrambler switch having a variety of contacts for indicating random predetermined frequencies corresponding to experiential frequencies for the game of baseball, a plurality of switches selectively operable to indicate the play for advancing said man to said subsequent base, said plurality of switches each connecting said safe and out signals to contacts of a predetermined random frequency of said scrambler switch to vary the predetermined frequencies of safe and out with respect to the selective switch for a selective play from said plurality of switches.

17. In a simulated baseball game, an electric circuit having a pitcher switch therein for initiating a play to the batter, a scrambler switch connected in series with said initiating switch and having a variety of contacts for indicating a predetermined frequency to connect in series in said circuit a plurality of signal

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indicators to indicate the result of a pitch, means to connect at random any one of said plurality of contacts in series with said initiating switch to indicate the result of a pitch from said initiating switch, and a plurality of button switches in said circuit indicating a choice of play to be taken by the batter, but at least one of said signal indicators not being connected in said circuit by at least one of said plurality of batter switches whereby if the batter selectively closes one other said plurality of switches is closed, a second scrambler, said signal indicators remains inoperative.

18. In a simulated baseball game, an electric circuit, a plurality of normally open switches corresponding to bases connected in parallel in said circuit, a plurality of signal indicators connected in parallel in said circuit, a scrambler switch having a plurality of contacts connected in predetermined random frequencies in series with said signal indicators and means to connect said contacts by chance selection in series with said switches, whereby the closing of said switches may energize a random selection of said parallel connected signal indicators.

19. In a device substantially as set forth in claim 18 further characterized by a plurality of selective switches connected in series between said scrambler and said signal indicators.

20. In a simulated baseball game, a source of electrical potential having a pair of output terminals for developing said potential thereacross, a first scrambler switch having a plurality of conductors, a plurality of switches connected to one of said terminals, one of said switches being connected to at least one of said conductors and other of said switches being connected to other of said electrical conductors, a plurality of contacts in said scrambler switch, means to at random connect said conductors to a random selection of said contacts, each of said contacts being connected in series with a signal indicator to indicate a particular result of play, a second plurality

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of switches, said signal indicators being connected to the other of said terminals by said plurality of switches, at least one of said second plurality of switches being connected to certain of said signal indicators and at least one other of said second plurality of switches being connected to other of said indicators to illuminate said indicators in random from said first scrambler when a selected switch of said first-named plurality of switches is closed and a selected switch of said second named plurality of switches is closed, a second scrambler, said second scrambler having a plurality of contacts and an electrical conductor and means therein to connect said conductor at random to at least any one of said contacts, said conductor in said second scrambler being connected to said other of said terminals through said second-named plurality of switches and a third plurality of switches connected to said one of said terminals and having in series with said contacts of said second scrambler another system of signal lights to indicate other results of play, each switch in said several pluralities of switches being identified with a choice of play and said signals being then randomly energized by the position of at least one of said scrambler switches to indicate the result of said choice of play.

21. In a device substantially as set forth in claim 20, further characterized by contacts in said second-named scrambler connected to certain of said last-named signal groups to vary the predetermined odds established by said second-named scrambler through said second-named switches.

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