June 3, 1941. R. R. MacKINNON 2,244,015

GAME

Filed Aug. 3, 1940 2 Sheets-Sheet 1

Fig. 1.

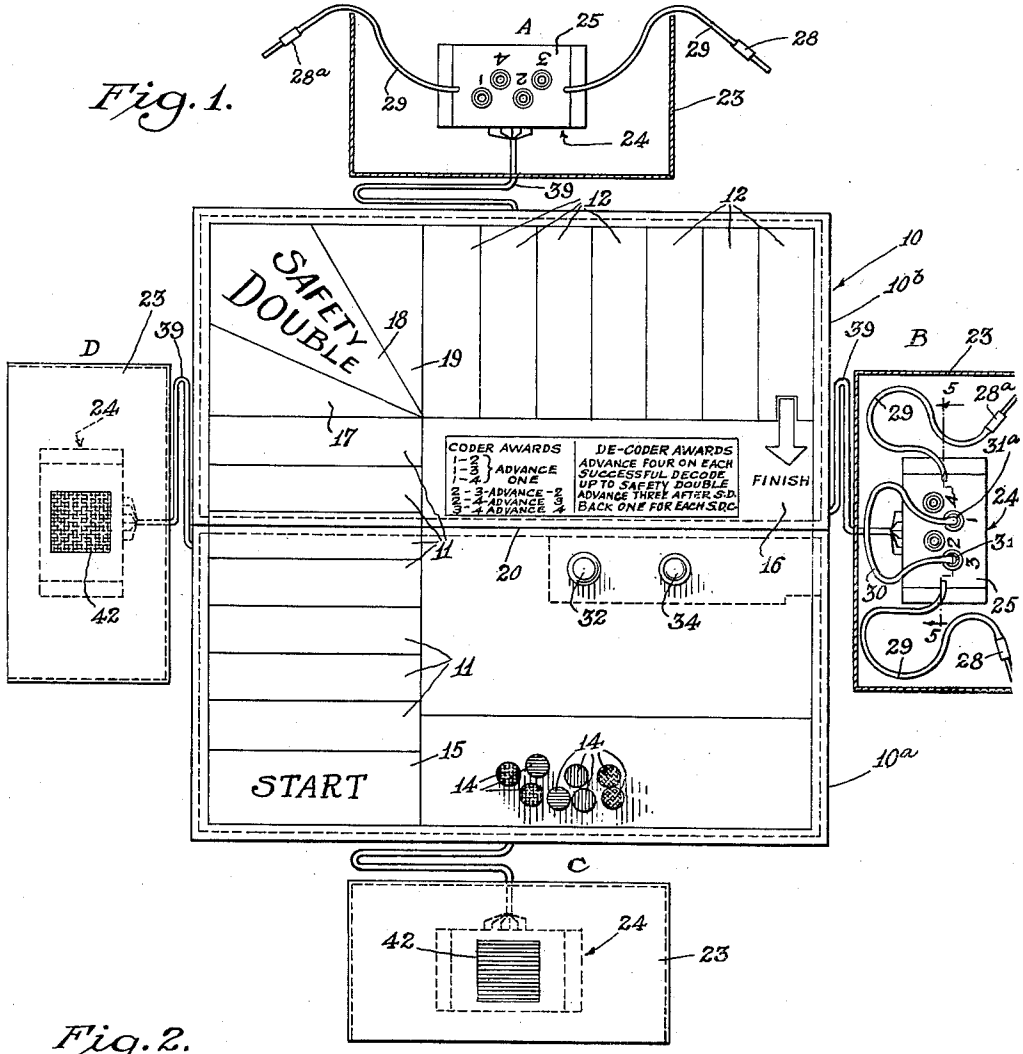
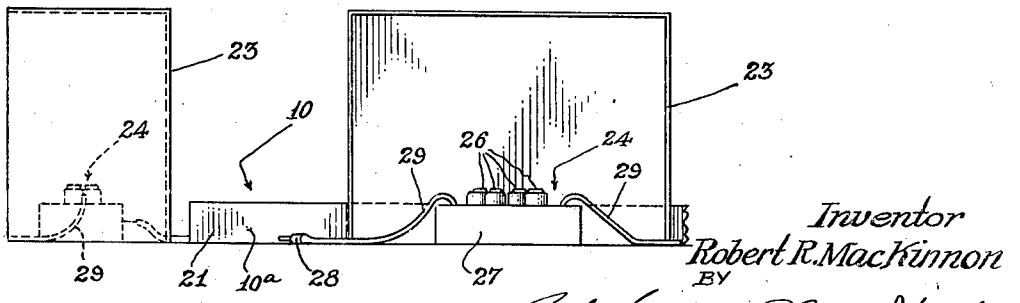


Fig. 2.



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Fig. 3.

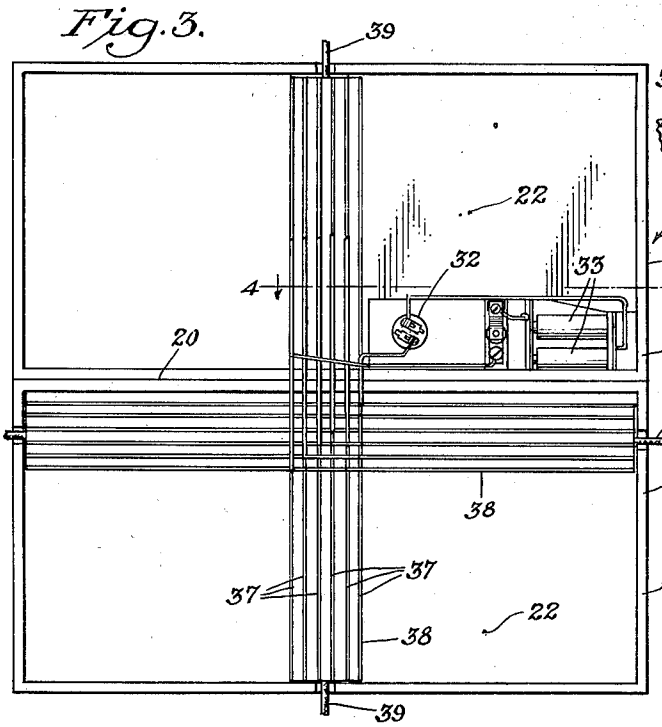


Fig. 4.

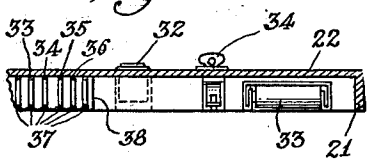


Fig. 5.

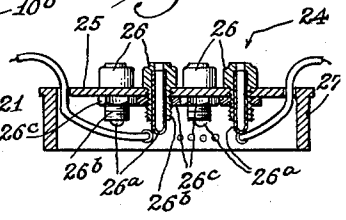
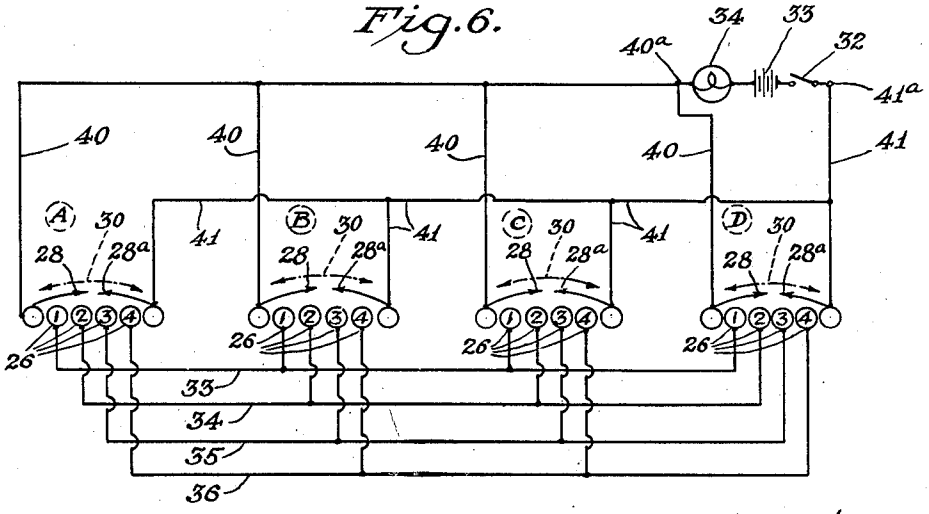


Fig. 6.



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2,244,015

GAME

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Application August 3, 1940, Serial No. 350,847

3 Claims. (Cl. 273—134)

The present invention relates to a novel game, the primary aim in the design of which has been to afford a game in which skill and superior intelligence, as distinguished from mere chance, play a predominating roll in determining the winner, but which may, nevertheless, be played under sufficiently simple rules and procedural requirements as to afford enjoyment to children as well as to adults and which is also sufficiently flexible as to permit playing of it by a variable number of players.

The presently disclosed game is of what may be termed a "combination-matching" type in that the players pitted against each other attempt to guess which of a limited number of "combinations" an opponent has selected. The correct and incorrect guesses are, in effect, totalized by moving a game piece or pieces across a progression board in accordance with a fixed set of awards and penalties based on the number of correct and incorrect guesses. Incidentally, the word "combination" is used herein in the broad sense ordinarily employed in common parlance as including what are, in a strict mathematical sense, both "combinations" and "permutations," except in those few instances herein where a true mathematical combination is designated as such. By selection of a "combination" I mean the selection or designation of desired indicia, numerals or the like from a predetermined series of them to constitute the combination. For example, in the particular embodiment of the invention herein shown, an electric signal circuit is employed with four numbered terminals presented to each player and he can select any desired pair of these terminals as his combination, the act of selection being accomplished by connecting the desired pair of terminals into a signal circuit, this connection remaining hidden, however, from the opponents. The opponent or opponents then attempt to match or "decode" this combination on their correspondingly numbered set of terminals by plugging a jumper across what they believe to be the same pair of terminals that were selected by the first player, and if they are right the signal circuit is set up, but if they are wrong it remains uncompleted. Obviously, other forms of hidden combination devices may be employed for each player, though the electrical system noted has a number of outstanding advantages and novel features including interest aroused by more or less spectacular visual or audible signalling when the signal circuit is successfully completed by a decoder, and the fact that the circuits established constitute an unimpeachable record of the selected combination so as to avoid arguments and cheating.

Bearing in mind the general character of the game contemplated, it should be understood that a more specific object of the invention is to provide such a game in which a game piece or pieces are moved across a progression board in accordance with certain awards and penalties determined by the success or failure of each player in outwitting the others as to what combinations he selects, but in which a crucial element of skill is introduced by correlating the rewards with the available combinations so that the visible position of the game piece on the board (and hence an indication of the award needed to move it to a desirable point on the board) affords clews as to the combination which will normally be selected.

Another object is to provide a game of the general type indicated in which a plurality of individual game pieces are provided, at least one for each player, for movement across a progression board, together with selection means for each player, normally hidden from the view of the others, and the correct or incorrect matching of which determines the awards and penalties on the basis of which the game pieces are successively advanced.

Another object is to provide a game of the type indicated above in which a game piece or pieces are advanced on the basis of awards or penalties predicated on the matching, by the opposing player or players, of the combination set up by successive ones of the players, and which may be played by a variable number of two or more players, but in which the number of combinations available to any one player are not more than approximately three times the minimum number of players required and not less than substantially one and one-half times the maximum number of players for whom provision is made in the game layout so that a fair balance is always maintained between the opportunities of the coder and decoders no matter how many are playing.

Another object is to provide in a game of the character indicated a selectively operable combination means in which desired ones of a series of combinations can be set up but in which the effect will automatically be the same, irrespective of what one of the available permutations of each true mathematical combination the player makes.

Still another object is to provide a combination-matching type game embodying an electrical signaling circuit which can be preliminarily conditioned by one player in such manner that the establishment of only a particular selected one of a plurality of connections available to the opponent or opponents will serve for completion of the signaling circuit.

A further object is to provide a combination-matching type game in which a simple and economical electrical matching-network is pro-

vided for interconnecting various player stations.

The invention also resides in various structural improvements and arrangements of the parts by virtue of which complete portability and a high degree of compactness are achieved, as well as low cost of manufacture.

Further objects and advantages of the invention will become apparent as the following description proceeds, taken in connection with the accompanying drawings in which:

Figure 1 is a plan view of a game embodying the invention, the screens or hoods at two of the player stations being shown in horizontal section to expose the interiorly located parts.

Fig. 2 is a fragmentary end elevation of the game layout in Fig. 1.

Fig. 3 is a bottom plan view of the game board included in Fig. 1.

Fig. 4 is an enlarged detail sectional view taken substantially along the line 4—4 in Fig. 3.

Fig. 5 is an enlarged detail sectional view taken substantially along the line 5—5 in Fig. 1.

Fig. 6 is a schematic wiring diagram of the electrical circuit for the game.

While the invention is susceptible of various modifications and alternative constructions, I have shown in the drawings and will herein describe in detail, the preferred embodiment, but it is to be understood that I do not thereby intend to limit the invention to the specific form disclosed, but intend to cover all modifications and alternative constructions falling within the spirit and scope of the invention as expressed in the appended claims.

In the exemplary embodiment of the invention herein shown (see Fig. 1) the illustrated game comprises a progression board 10 which may be of any desired layout. In the present case a series of panels or rectangles 11 and 12 along two edges of the board indicate the successive stations or steps through which game pieces 14 are moved. The game pieces start from the panel 15 marked "start" and are advanced to the final panel 16 marked "finish." At the corner of the board, intermediate the two rows of station panels 11, 12 are three additional spaces or panels 17, 18 and 19, the center one of which is a "safety double" station.

In brief, a certain number of game pieces 14, two in the present instance, are provided for each player and the pieces are advanced step by step to the successive panels 11, 17, 18, 19 and 12, in the order indicated, from the "start" station to the "finish" point, the object of the game for each player being to get all of his game pieces around to the finish point before his opponents succeed in doing so. The advances of the game pieces are made in accordance with a system of awards and penalties based on the manipulation of a novel combination selection and matching apparatus described below.

The necessary indicia for the progression board 10 may be lithographed or otherwise applied to the bottom surfaces of two shallow box sections 10a and 10b hinged together at 20. As best shown in Fig. 3 (see also Fig. 2) each of the box sections 10a, 10b includes a rectangular border frame 21 with a flat wooden or cardboard panel 22 fixed on one face of the frame. When these hinged sections 10a, 10b are swung open they can be placed face down on a table with the playing surface on their bottom panels 22 facing upward as shown in Fig. 1, the layout of stations being formed by the indicia applied to the exposed bottom faces of these panels.

At four stations A, B, C and D, about the board 10, provision is made for a corresponding number of players (Fig. 1). It should be noted here, however, that the layout shown can be used just as well by two or three players rather than four and that the layout can be changed to provide stations for an even greater number of players if desired. At each of these stations is a simple collapsible cardboard hood or shield 23, which screens from the view, of all but the player at that particular station, his combination selection and matching apparatus. These hoods 23 have been shown as provided with top rear and end walls made of cardboard and these wall sections may be suitably hinged so that when not in use the hoods can be collapsed into flat form for compact storage.

Within each of the hoods 23 is a coder block or combination selection and matching device 24, herein shown as comprising rectangular terminal boards 25 of insulating material, each of them having four terminals 26 on it in the form of plug receptacles or jacks. As best shown in Fig. 5, each of these terminals 26 includes a metal sleeve 26a with a closed lower end fixed in a threaded bushing 26b. These bushings have enlarged heads and are fixed to the terminal board 25 by lock nuts 26c. The terminal boards themselves are supported on rectangular border frames 27, which are high enough to provide ample clearance for the lower ends of the terminals. On the face of each of the terminal boards 25 are indicia, herein shown in the form of numerals 1 to 4, for identifying the several terminals (see Fig. 1).

For purposes of combination selection each of the coder blocks 24 also includes a pair of plugs 28, 28a on the ends of flexible leads 29 projecting from the terminal board 25. When the "coder" sets up a combination he has only to insert the plugs 28, 28a into the desired pair of terminals 26. For example, if he wishes to select the combination 1–3, he can insert the plug 28 in the terminal 1 and the plug 28a in the terminal 3. Similarly, for purposes of combination matching, each of the coder blocks 24 is provided with a loose wire jumper 30 having plugs 31, 31a on its ends. In attempting to match a combination, the opponent or "decoder" inserts the plugs 31, 31a into the terminals he selects so as to bridge the same, as for example, between the terminals numbered 3 and 1 at station B (Fig. 1).

It will be observed, upon reference to Fig. 1, that at stations A and B the layout of the terminals is different on each of the two terminal boards 25 shown, and the same holds true at the other stations C and D. In other words, at station A terminals 1 and 2 appear in the top row, while 3 and 4 are in the bottom row. On the other hand, at station B terminals 2 and 4 are in the top row, while terminals 3 and 1 are in the bottom row. This different order is used at each station so that players cannot gain an unfair advantage by observing the position of an opponent's hands when he inserts the plugs 28, 28a in setting up a combination. While on the subject of the terminals, it should also be noted that particular significance attaches to the fact that four terminals are provided on each coding block in the present game layout. With four terminals, six combinations are available, namely, 1—2, 1—3, 1—4, 2—3, 2—4, 3—4. On the other hand, provision is made in this layout for a maximum of four players, and

a minimum of two players is required. Consequently, the number of possible combinations is one and one-half times the maximum number of players and three times the minimum number, or six. This is a rather critical relation since, by so coordinating the number of combinations with the two limit numbers of players possible in the layout, a fair balance of opportunity is maintained between the coder and the opposing decoder or decoders.

During play each of the players acts in turn as a coder or, in other words, sets up a combination with his plugs 28, 28a on the coder block 24 at his station. Then the opponents or decoders at the other stations attempt successively to match this, to them unknown, combination by plugging in their jumpers 30 across what they believe to be the terminals of the selected combination. After each of the decoders has plugged in his jumper 30, he depresses a push button switch 32 on the playing board (Fig. 1). In the event that the decoder has successfully matched the combination, closure of the switch 32 will connect batteries 33 (see Figs. 3 and 6) to a signal device, herein shown as a lamp 34, so that the latter is lighted, indicating the successful decoding. In the event that the lamp remains unlighted when the switch 32 is closed, however, it shows that the attempted matching of the combination was unsuccessful. The mental tension built up in the course of this procedure, and the sudden burst of excitement touched off by the flashing on of the signal lamp, add materially to the fascination of the game.

The electrical network which interconnects the parts described to effect operation of the signal lamp 34 in the manner set forth is characterized particularly by its simplicity. Upon reference to the wiring diagram in Fig. 6, it will be seen that each of the correspondingly numbered terminals 1, 2, 3 and 4 are interconnected respectively by conductors 33, 34, 35 and 36. In the actual game board these conductors are seated in grooves 37 (see Figs. 3 and 4) formed in wooden strips 38 fixed within the box sections 10a, 10b in the manner of a cross. At each of the stations A, B, C and D the leads 33 to 36 emerge in the form of a flexible cable 39 (see Figs. 1 and 3). Also included in these cables, and seated in others of the grooves 37, are leads 40 and 41 connected respectively to the selection plugs 28 and 28a at the various stations.

The lamp 34, battery 33 and push button switch 32, all connected in a series subcircuit with free or end terminals 40a, 41a to which the respective leads 40, 41 are connected. Consequently, when one of the pairs of plugs 28, 28a is plugged into two of the terminals 1 to 4 in its corresponding set, these coder block terminals are connected to the terminals 40a, 41a of the signal subcircuit noted through corresponding portions of the leads 40, 41. Then if one of the jumpers 30 is connected across any of the correspondingly numbered pairs of terminals 1 to 4 on another of the coder blocks, the complete loop for the signal circuit will be set up or, in other words, the leads 40, 41 will be connected together by the jumper 30 so that a circuit between the lamp and battery can be completed by simply closing the switch 32. Especially to be noted in connection with this arrangement is the fact that the particular permutation selected by plugging in one of the jumpers 30 is of no consequence. In other words, if the decoder guesses correctly that the combination which he must match is 1—2 it does not make any difference whether, of the two available permutations, he picks 1—2 or 2—1. The effect on the circuits will, in either case, be the same.

Though various sets of rules may, of course, be agreed upon by the players in using the game apparatus described above, the following may be considered as exemplary for purposes of complete understanding of one possible mode of playing the game:

1. *Start.*—The various players may throw dice or otherwise select by chance the player who is first to act as a coder.

2. *Coding.*—The player selected to act first as a coder, as for example the player at station A in Fig. 1, inserts the plugs 28, 28a in two of his coder block terminals 1 to 4 to designate the combination which he selects. The coder must then remove his hands from the screen or hood 23 so that his opponents can be assured that he will not thereafter change the combination set up.

3. *Decoding.*—Each opponent in turn, proceeding clockwise about the board, attempts to decode or match the combination selected by the coder. For this purpose each of the opponents plugs in his jumper 30 across what he believes to be the selected combination, removes his hands from his hood 23 and presses the push button 32. If the lamp 34 lights, it indicates that he has been successful in his decoding and, of course, if it fails to light, it shows that he has been unsuccessful.

4. *Coder awards.*—After each decoder has had his turn, if they have all failed to light the signal lamp 34, then the coder announces his number combination, which is tested for accuracy by the player to his left. The coder then takes his award on the basis of the tabulation printed on the game board 10 (see Fig. 1). Thus, for combinations 1—2, 1—3, 1—4 he is permitted to advance one of his game pieces 14 one step. If his combination was 2—3, he can make an advance of 2; if it was 2—4, he can make an advance of 3 and if it was 3—4 he can make an advance of 4. Each player has two game pieces 14, the latter being individually colored and the colors in each case correspond to identifying color panels 42 on the various hoods 23, so as to correlate the game pieces with the players at the various stations. An advance award cannot be split between two game pieces of the same player when they are moving out of the "start" rectangle 15, but may be split between two pieces of the same player after they have left the "start" rectangle.

5. *Decoder awards.*—The award for a successful decoder is a four-panel advance up to and including the "safety double" panel 18 and a three-panel advance for either piece ahead of this point. Advances may be made by a successful decoder only when his fame piece or pieces are in a position to take advantage of the full award. When only a portion of the award can be used because of a blockade or in finishing, no advance can be made.

6. *Penalties.*—A coder must move one game piece back one panel for each instance in which an opponent succeeds in decoding his combination. Penalty moves can be split between two game pieces. If the penalty carries one or both pieces back farther than the "start" panel 15, and the total penalty cannot be used, no penalty is assessed. No penalty is given to an unsuccessful decoder.

7. *Blockades.*—With four players a blockade is

formed by (*a*) two pieces of one color and one of another color on any of the panels 11, 12, 17 or 19, or, (*b*) any four pieces on any of the panels 11, 12, 17 or 19. With three players a blockade is formed by any three pieces of one of the panels 11, 12, 17 or 19. With two players a blockade is formed by two pieces of one color on any of the panels 11, 12, 17 or 19. No advance may be made onto a panel where a blockade exists or through a panel where a blockade exists. A backward penalty move may, however, end on or go through a panel where a blockade exists. There can be no blockade on the safety double panel 18.

8. *Safety double.*—Both the awards and penalties are doubled when one or both of the player's game pieces are on the safety double panel. For example, an award of three becomes six from this point, a penalty of one becomes two, etc. With both pieces on this panel, double awards or penalties may be split. There is no blockade on the safety double.

9. *Order of play.*—After the opponents have attempted in succession to decode the combination set up by the first coder, the next player on his left becomes the coder and the cycle of play is repeated. Thus, each player in turn becomes a coder.

10. *Winner.*—The first player who succeeds in advancing both of his game pieces into the finish panel 16 is the winner.

The general procedure in playing the game will be apparent from the foregoing. Particularly to be noted in this connection is the prime element of skill introduced in the game by the correlation of the game piece advances with the various available combinations. For example, if a player has a game piece 14 two steps away from the "finish" panel 16, his opponents will realize that there are only three combinations available out of the total of six which will give the necessary award of two. On the other hand, the coder may deceive his opponents by choosing a combination affording a larger award and splitting it between his two game pieces. Or, in an extreme case, he may pick a combination which he knows he cannot use during that round just to confuse his opponents by the daring of his play. A study of the layout will show that there are many other tricky situations which will arise in view of blockades, game pieces on the safety double panel, etc., all of which afford possible clews as to the combination which a coder will select, thus making it possible for his opponents to outwit him. Despite these stimulating intricacies which are available to really skillful players, the apparatus to be manipulated is so simple that even a child can use it with pleasure and the competitive effect of the advancing game pieces, the flashing signal light, etc., all stimulate interest and enjoyment for even the unskilled.

I claim as my invention:

1. In a game of the type described, the combination of an electrical signaling device, a plurality of coder blocks with like sets of terminals on each, one such coder block for each of a corresponding number of players, means operable by a player at any one of said coder blocks for establishing any selected one of a predetermined series of supply circuits from a source of current to said signaling device but with an interruption in each circuit so established between a selected pair of terminals on his coder block, and means operable by a player at another coder block for bridging the interruption in any one of said circuits, the last mentioned means including interconnections between corresponding terminals on the several coder blocks and a jumper for interconnecting any desired pair of terminals on the last mentioned player's coder block, whereby the interruption in the circuit established by the first mentioned player is successfully bridged by the second mentioned player if the latter connects his jumper across the pair of terminals on his coder block corresponding to the pair on the first mentioned player's coder block between which the interruption existed.

2. In a plural player game of the type described, the combination of a plurality of coder blocks, one for each player, each coder block having on it an equal number of plug receptacles with like identifying indicia for the various receptacles on each block, an electrical signaling device, means including a pair of flexible leads extending to each of the coder blocks and having plugs thereon insertable into any selected pair of receptacles on its corresponding coder block for preliminarily establishing a supply circuit from a source of current to the signaling device but with an interruption in the circuit between the selected pair of receptacles, and means including interconnections between correspondingly identified receptacles on the several blocks and a loose jumper with plug ends for interconnecting the corresponding pair of receptacles on a block other than that to which one of said pair of leads is plugged for bridging the interruption between the pair of receptacles to which the last mentioned pair of leads is connected.

3. In a plural player game of the type set forth, the combination of a plurality of coder blocks, one for each player, each coder block comprising an equal number of plug receptacles with identifying indicia therefor and two flexible leads with plugs thereon adapted to be plugged into any selected pair of receptacles on the corresponding coder block, a signaling subcircuit comprising an electrical signaling device with a pair of input terminals and a source of current having a pair of output terminals, one of the latter being connected to an input terminal of the signaling device, the remaining terminals on the signaling device and source constituting free terminals for the subcircuit, means for connecting one of said flexible leads in each pair to one of the free terminals of said signaling subcircuit through a normally open push button switch, means for connecting the other flexible lead in each pair to the other free terminal of said signaling subcircuit, whereby the plugging of a pair of said leads into any selected pair of receptacles on its corresponding coder block serves to preliminarily connect said free terminals of the signaling subcircuit together through said push button switch but with an interruption between the selected pair of receptacles, leads interconnecting the receptacles of the several coder blocks which are identified by like indicia, and a loose jumper with plug ends for each coder block, the plugging of one of said jumpers into the pair of receptacles on another coder block corresponding to the pair to which one of said pairs of flexible leads has been connected serving to complete a connection between the last mentioned receptacles.

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