

Jan. 7, 1969

L. S. BERGER

3,420,526

BIDDING DEVICE FOR BRIDGE

Filed June 21, 1965

Sheet 1 of 3

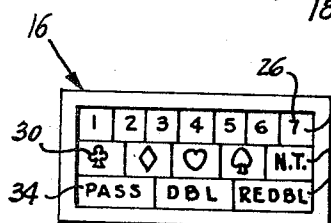
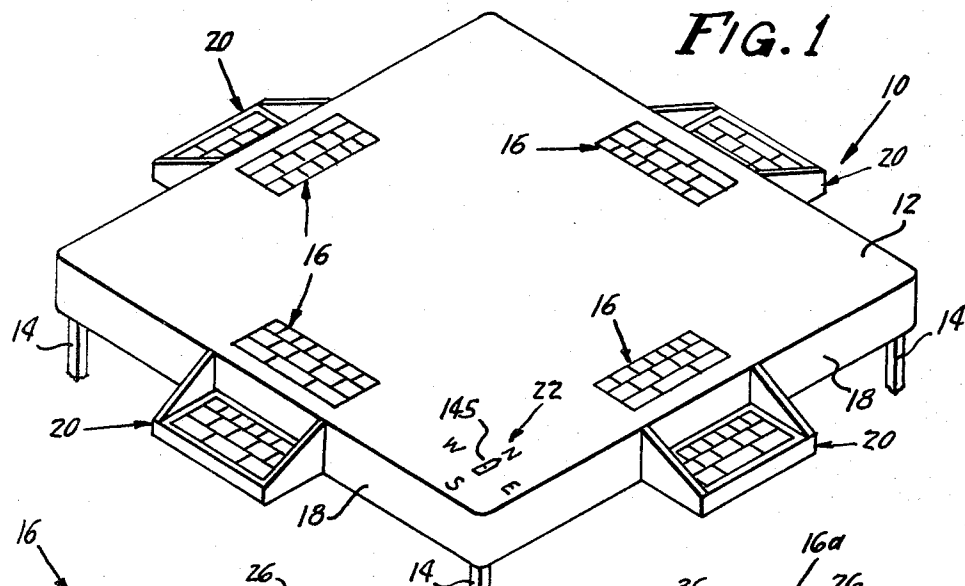


FIG. 2

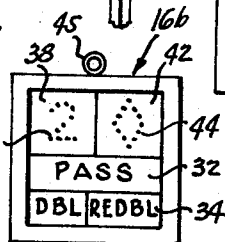


FIG. 4

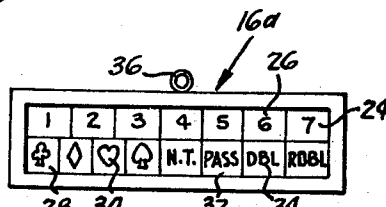


FIG. 3

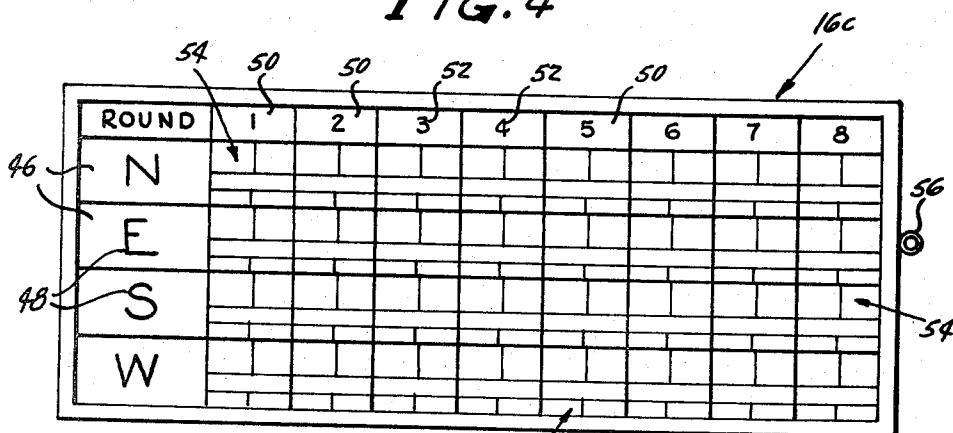


FIG. 5

LOUIS S. BERGER

INVENTOR.

BY

Kimmey Crowell & Weaver

ATTORNEYS.

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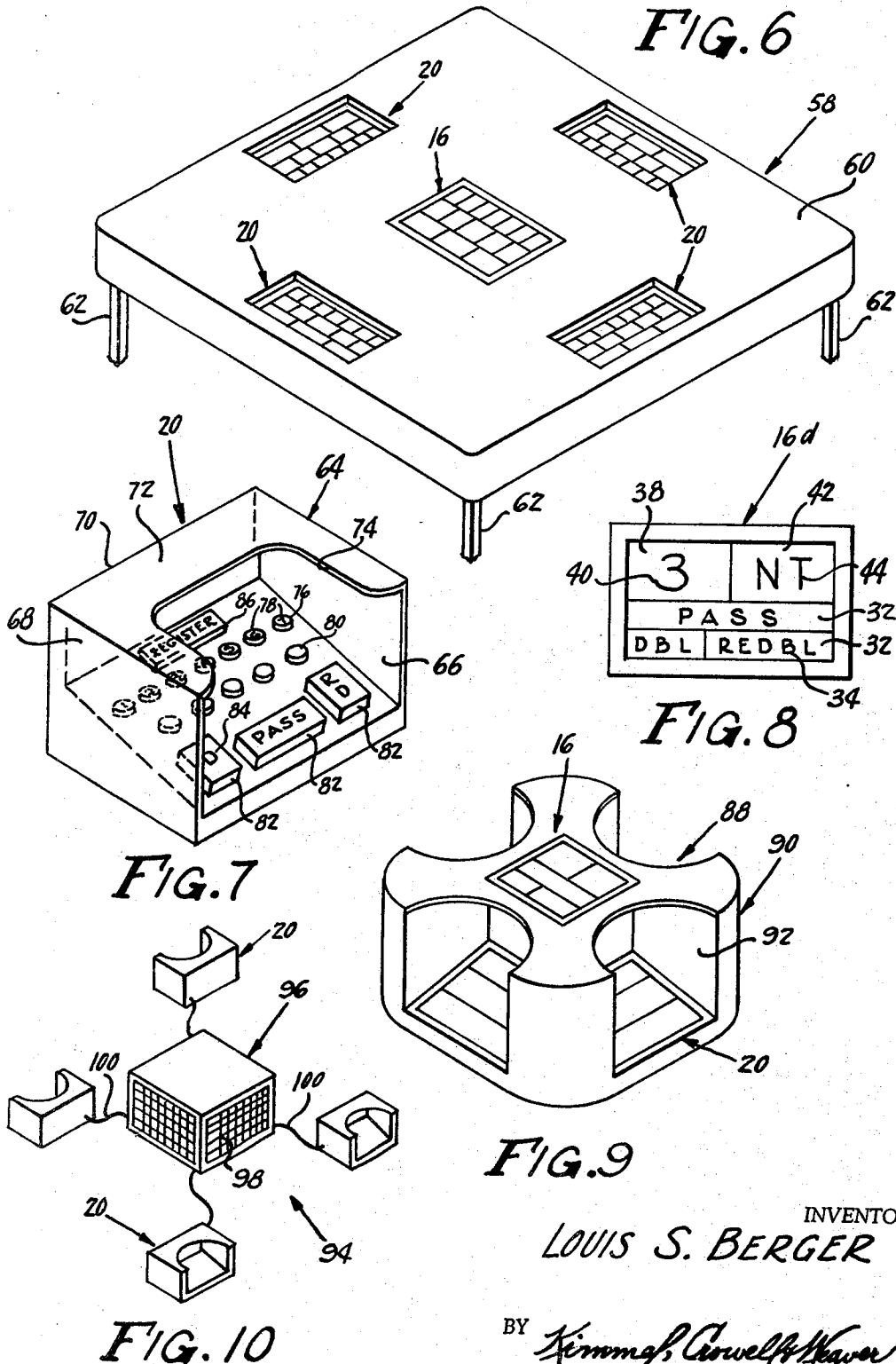


FIG. 6

FIG. 7

FIG. 8

FIG. 9

FIG. 10

INVENTOR.
LOUIS S. BERGER

BY *Kimmig, Corwell & Kauer*
ATTORNEYS.

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Sheet 3 of 3

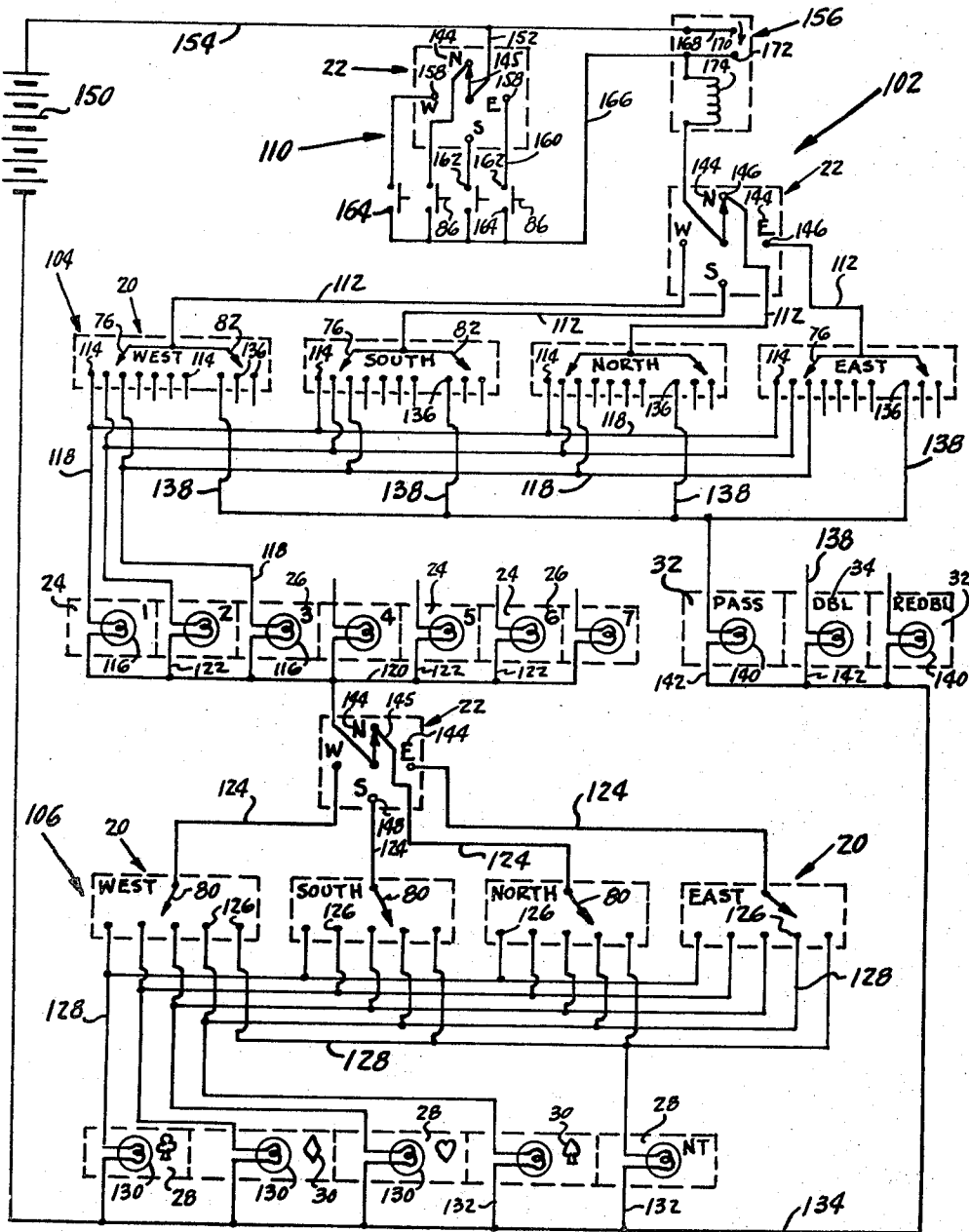


FIG. 11

INVENTOR.

LOUIS S. BERGER

BY

Kimball, Crowell & Weaver

ATTORNEYS.

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3,420,526

BIDDING DEVICE FOR BRIDGE

Louis S. Berger, P.O. Box 28374, University Park Station,
San Antonio, Tex. 78228

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U.S. Cl. 273-148

11 Claims

Int. Cl. A63f 1/16

ABSTRACT OF THE DISCLOSURE

A bridge bidding device including a separate display board for each player for indicating each player's individual bid, and an electrical circuit including an operating console for permitting each player to actuate the respective display board, the circuit including a switch for preventing the players from bidding out of proper sequence, is disclosed.

This invention relates to a bidding device for card games, and more particularly to a bidding device for the game of bridge and is particularly adapted to duplicate or tournament play open to the public although it may be advantageously used during any bridge game.

Various devices have been known in the prior art for recording or indicating in a non-verbal manner the bid of a player in a bridge game but it has been found that these devices are not sufficiently sophisticated to fulfill present day requirements.

It is therefore an important object of this invention to provide an electrically operated bidding device for bridge which positively precludes signalling or the transmission of information by voice inflection.

Another object of this invention is to provide an electrically operated bidding device for bridge which precludes the making of unintelligible bids, such as for example, "two pass," "four double," "pass re-double."

A further object of this invention is to provide each player at a table or tables with an individual console which is used to actuate indicia which represent the various bidding parameters.

A still further object of this invention is to provide a selector means which will preclude a bidder from bidding out of turn.

A more specific object of this invention is to provide a bidding console which is hidden from the view of other players so that the bidder's preliminary manipulation of the console is known only to himself.

A still further object of this invention is to provide electrical circuitry which is particularly adapted for use with a display board and console for relaying the input information from the console to the display board.

Other objects and advantages of this invention reside in the combinations of elements, arrangements of parts, and features of construction and operation, some of which will be apparent and some of which will be more fully pointed out hereinafter and disclosed in the accompanying drawings wherein there are shown preferred embodiments of this inventive concept.

In the drawings:

FIGURE 1 is an isometric view of a bridge table showing a plurality of display boards and consoles and a selector switch;

FIGURE 2 is a top plan view of one form of a console or display board;

FIGURE 3 is a top plan view of another form of display board;

FIGURE 4 is yet another form of display board which may be utilized with the bridge table of FIGURE 1;

FIGURE 5 is a further modification of a display board

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which may be positioned away from a bridge table in order to inform spectators of the bidding sequence;

FIGURE 6 is another modification of a bridge table showing a display board and a plurality of consoles in accordance with the principles of the instant invention;

FIGURE 7 is a modified form of a console which may be utilized in the practice of the instant invention;

FIGURE 8 is a further modified form of a display board;

FIGURE 9 is a portable bidding device having a display board and a plurality of consoles constructed in accordance with the principles of the instant invention;

FIGURE 10 is another form of bidding apparatus showing a plurality of display boards and consoles; and

FIGURE 11 is a schematic view of the circuit of the bidding device of the instant invention.

Referring now to the drawings in detail, wherein like reference characters designate like elements throughout the several views, there is indicated generally at 10 a bridge table embodying one form of bidding device according to the instant invention having the customary playing surface 12 and supporting legs 14. Co-planar with playing surface 12 and positioned intermediate each side of the customary four-sided table are a plurality of display boards indicated generally at 16, the details of which will be more fully explained hereinafter. Positioned on each of side edges 18 in substantial alignment with display boards 16 are a plurality of consoles indicated generally at 20 which may either be permanently secured to table 10 or releasably connected thereto.

A selector device indicated generally at 22 is located on one corner of playing surface 12, although selector 22 may be placed at any convenient location, in order to designate the bidding player and to render the specific electrical circuit from the console of the bidding player to the display board operable and at the same time to render all other circuits between consoles and display boards inoperable as later explained. As will also become more apparent hereinafter, each of the competing players records his desired bid on console 20 with the results thereof indicating to the remaining players and spectators, if any, on display board 16.

Although playing surface 12 is indicated as an integral part of table 10, it has been found advantageous, under some circumstances, to provide a false table top carrying display boards 16 and the necessary electrical circuits to connect consoles 20 to display boards 16. In such an arrangement consoles 20 are preferably releasably plugged into the false top to provide a compact readily storable device.

Referring now to FIGURE 2, display panel 16 includes a series of upper indicators 24 each having numerical indicia 26 thereon numbered from one to seven inclusive to indicate the number of tricks bid by the bidder. Since any bid made represents that the bidder contracts to make six tricks plus the additional number indicated by the bid and since only 13 tricks are possible such numbering is obviously all that is necessary. A second series of indicators 28 is positioned below the first series of indicators 24, each indicator 28 including an indicia 30 representing clubs, diamonds, hearts, spades and no-trump, designating the suit or nature of the bid. Three additional indicators 32 are provided having indicia 34 thereon representing the three remaining possible bids which are "pass," "double" and "re-double." Should the bidder decide to bid one heart, for example, the bidder will actuate the appropriate device on console 20, as more fully explained hereinafter, such that indicia 26 which is numbered 1 and indicia 28 carrying the heart-shaped indicia 30, will be illuminated.

Referring now to FIGURE 3, a modified display board indicated generally at 16a is provided having indicators and indicia similar in character to those of FIG-

FIGURE 2. Display board 16a is provided with a reset button 36 which is used to turn off the lamps positioned behind indicators 24, 28, 32 and to release the actuation devices of console 20 as more fully explained hereinafter. Reset buttons (not shown) may be provided, if desired, on all forms of the invention.

Referring now to FIGURE 4, still another form of display board is shown generally at 16b including indicators 32 on which are positioned indicia 34 representing the bids of pass, double, and re-double. Display board 16b also includes a numerical indicator 38 having an indicia 40 thereon which may be changed from one to seven inclusive, a suit indicator panel 42 having indicia 44 thereon which may be changed to represent clubs, diamonds, hearts, spades and no-trump, and a reset button 45 to "erase" the previous bid from the panel.

Referring now to FIGURE 5, there is indicated generally at 16c a further form of display board, which is of the bid-retention type rather than the non-retention type as in FIGURES 2 to 4 inclusive, including a set of player indicating panels 46 having a series of indicia 48 thereon indicating each of the players in the customary manner as North, East, South and West. Also included on display board 16c are a series of bidding round indicators 50 having a series of indicia 52 thereon to indicate the round of bidding. A series of indicator panels shown generally at 54 are provided to record the bids of each of the players as the bidding progresses. Indicator panels 54 may be of any configuration but it has been found, that in the interest of compactness, the configuration of indicator panel 16b is preferred. Display board 16c also includes a reset button 56 when it is desired to erase all of the previously recorded bids as is desirable after a hand has been completed.

Referring now to FIGURE 6, there is indicated generally at 58 another bridge table having a playing surface 60 and the customary supporting legs 62 with a single display board 16 positioned in the center of playing surface 60 with each player being provided with a console 20 having the suitable devices thereon necessary to indicate the bid on display board 16.

With reference to FIGURE 7, console 20 is illustrated as including a privacy shield shown generally at 64 having three vertical walls 66, 68, 70 and a top wall 72 having a U-shaped cut-out 74 to allow the player access to the manipulable devices contained therein. The actual format of console 20 may be altered as desired, such as is shown on the display boards of FIGURES 2 and 3, but the preferred format is as shown in FIGURE 7. Console 20 includes a first series of buttons or manipulable means 76 each of which carry indicia 78 thereon numbered from one to seven in the same manner as buttons 24.

A second series of buttons 80 carry indicia thereon indicative of the four suits and no-trump. A third series of buttons 82 carry indicia 84 thereon indicative of double, pass and re-double in much the same manner that buttons 32 carry indicia 34. A further actuating device 86 is provided so that the player may first manipulate buttons 76, 80, or 82 within the console without recording such a bid on display board 16, and then manipulate button 86 to record the bid. It should be apparent that this additional actuating device allows the player to change his bid at any time until button 86 is pressed.

A further modified display board which may be mounted on console 20 is shown generally at 16d in FIGURE 8 and is of substantially identical layout as display board 16c as shown in FIGURE 4. Display board 16d includes manipulable devices 32 carrying indicia 34 thereon representative of the bids of pass, double and re-double and also includes a numerical indicator panel 38 having indicia 40 thereon which may be changed from one to seven as previously indicated. Display board 16d also includes a suit indicator panel 42 having indicia 44 thereon which may be altered to designate clubs, diamonds, hearts, spades and no-trump.

In FIGURE 9, there is indicated generally at 88 still another modified form of bidding device which may be placed in the center of an ordinary bridge table and which is portable. Bidding device 88 includes a four-sided support indicated generally at 90 having a cut-away at 92 positioned on each side thereof with a console panel indicated generally at 20 disposed in each cut-away 92. A display board indicated generally at 16 is conveniently provided in the center of support 90 so positioned as to inform all of the players of the bids made.

FIGURE 10 discloses a further modified form of bidding device generally indicated at 94 including a four-sided display assembly 96 having a display panel 98 on each side thereof. Although display panel 98 may be of any desired configuration, it is preferably similar to the bid-retaining type display panel 16c as shown in FIGURE 5. Electrically connected to display assembly 90 by a series of electrical connections 100 are the four consoles shown generally at 20 necessary to provide each of the players with a means of recording their bid. Since all consoles 20 of this embodiment may be remotely located and physically separated from the remainder, this embodiment may be used to avoid problem such as occurred in the international bridge competition as reported in Life Magazine of June 4, 1965, vol. 58, No. 22, pp. 32-33.

Referring now to FIGURE 11, there is indicated generally at 102 an exemplary form of an electrical circuit which is necessary in the operation of the bidding device of the instant invention to connect consoles 20 with any of the display panels 16 as previously discussed. The major components of the circuitry 102 comprises a first circuit shown generally at 104 which designates the number of tricks contracted for, a second circuit shown generally at 106 which designates the suit bid by the bidder and which is in series with circuit 104, a third circuit shown generally at 108 which is used to designate the bids of pass, double and re-double, and which is in parallel with circuits 104, 106 and a fourth circuit indicated generally at 110 which prevents inadvertent bids and which is in series with first and second circuits 104, 106 and third circuit 108. It should be apparent that circuits 104, 106 may be reversed such that current flowing therethrough may first flow through circuit 106 and then through circuit 104 rather than as illustrated.

Circuit 104 includes a series of lead-in electrical connections 112 each leading to console 20 positioned adjacent each of the players, who are conveniently designated West, South, North and East. Selectors or buttons 76 are shown schematically in FIGURE 11 and selectively connect lead-in wire 112 with a plurality of electrical connections 114, each of which leads to an electric bulb 116 through an electrical conduit 118 with several of the wires being omitted for clarity of illustration.

Each of electric bulbs 116 is positioned behind indicator panel 24 of display boards 16 and 16a as shown in FIGURES 2 and 3 and are readily adaptable by conventional means to actuate the numerical indicator panels 38 of display boards 16b, 16c and 16d as shown in FIGURES 4, 5 and 8. Electric bulbs 116 are connected to a common outlet wire 120 by a series of electrical connections 122 to complete circuit 104.

It should be apparent that first circuit 104 includes connections to console 20 provided for each of the players from which display board 16 is actuated by a plurality of parallel circuits leading from numerical indicia actuators 76 to numerical indicia panels 24 to indicate the number of tricks contracted for by each of the bidding players.

Although FIGURE 11 illustrates bidder selector switch 22 in various positions of rotation, the description thereof will be deferred inasmuch as the basic circuitry of this invention may be practiced without such a switch, although the same is desirable. Accordingly, common outlet wire 120 of circuit 104 may be connected by a common junction (not shown) to four electrical conduits 124, one leading to each of consoles 20 provided for each of the

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players. Selectors or buttons 80 selectively connect each of electrical conduits 124 with a plurality of electrical connections 126 which provide electrical communication through wires 128 to a number of electric lamps 130 positioned behind indicator panels 28 to record the suit bid. Each of lamps 130 has an outlet wire 132 connected to a common outlet conduit 134 as more fully explained hereinafter.

In the operation of circuits 104, 106 the bidding player will actuate buttons 76, 80 on console 20 as shown in FIGURE 7 to effect the lighting of bulbs 116, 130 to indicate to the remaining players and spectators the suit and number of tricks contracted for. Quite obviously, neither of lamps 116, 130 will be actuated until circuits 104, 106 are both closed to avoid a premature indication of the bid.

As previously mentioned, circuit 108 is in parallel with circuits 104, 106 and includes selectors 82 which connect lead-in wire 112 with three electrical connections 136, each of which leads through a wire 138 to an electric bulb 140 positioned behind indicator panels 32 of display boards 16, 16a of FIGURES 2 and 3 to indicate the bids of pass, double and re-double. Each electric bulb 140 is provided with an outlet wire 142 connected with common outlet wire 134 to place circuit 108 in parallel with circuits 104, 106.

Since it is possible for a bidder to make an unintelligible or conceptually impossible bid such as for example, "three pass" or "double diamond," buttons 76, 80, 82 are so arranged that buttons 76, 80 may be sequentially actuated, but button 82 cannot be simultaneously actuated with either button 76 or 80. More specifically, the arrangement is preferably that the actuation of button 82 with either of buttons 76, 80 will return all of these manipulable devices to the open position and result in leaving all of circuits 102, 104, 106 inoperative. This arrangement not only precludes the registering of a conceptually impossible bid but also prevents the closing of circuit 108 when the inadvertent bids of "double diamond" and "two double" are made in lieu of "one diamond" and "two spades" respectively.

Since a bidder may inadvertently bid out of turn with the previously described circuit, selector switch 22 is strategically located within the previously described circuit to obviate such a difficulty. Selector switch 22 is preferably of the rotary break-before-make type and includes a plurality of indicia 144 to indicate each of the players North, East, South and West and a selector handle and connector 145. Switch 22 also includes a plurality of electrical connections 146 that are connected to lead-in wire 112 to render circuits 104 and 108 operable and a plurality of second electrical connections 148 to render circuit 106 operable.

It should now be apparent that the positioning of a suitable power source 150 in connection with common outlet wire 134 and electrical connections 144 will render the illustrated circuit means 102 fully operable. It should also be seen that rotary switch 22 will blank a non-retaining bid display board since the movement of handle 145 will sever circuits 104, 106 and 108. It may be advantageous to make switches or buttons 76, 80, 82 of the mechanically retained magnetically returned variety such that the cessation of electrical flow through these circuits will return buttons 76, 80, 82 to their original open positions.

It has been found that players often indicate a bid on console 20 which, with the electrical circuit is previously disclosed, would immediately be registered on display board 16 with the player then being desirous of changing the bid. Such is disruptive of the smooth flow of the bridge game and is deleterious to spectator appeal from the observance of any of the aforementioned display boards. To obviate such a practice, it has been found advantageous to insert an additional electrical circuit to make the bidding player aware that any bid made is ir-

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revocable. Accordingly, fourth circuit 110 is interposed between a power source 150 of any suitable type and the inlet electrical connections 146. Circuit 110 is connected to battery 150 by a wire 152 and another wire 154 which also leads to a relay indicated generally at 156 of any suitable type. Wire 152 is in electrical communication with handle 145 of selector switch 22 which will make electrical contact with a plurality of electrical connections 158 as handle 145 is rotated to the suitable location.

Contacts 158 are in electrical communication through a wire 160 to a series of electrical connections 162 positioned beneath register or actuating means 86 of console 20. Also positioned beneath actuating means 86 is a further set of electrical connections 164 which make contact with relay 156 through a common wire 166. Actuating means 86 is spring biased into an open position such that it must consciously be pushed by a bidder to actuate the electrical signalling means of the display boards previously mentioned to bring to the attention of the bidder that the pushing of register 86 renders the bid irrevocable.

Relay 156 may be of any suitable type, but is preferably includes a pivotally mounted single pole connection 168 carrying an electrical terminal 170 on the free end thereof which may be attracted to stationary electrical terminal 172 on the end of wire 166. Positioned in a conventional manner with respect to pivoted arm 166 is a coil 174 which, when current is flowing therethrough, generates sufficient magnetic forces to attract pivoted arm 168 and close the electrical connection between terminals 170, 172.

Although most of the separate components of electrical circuit 102 have previously been explained and their operation illustrated, it is thought desirable to describe certain sophisticated circuitry comprehended by the instant invention. One player, or perhaps a disinterested referee may manipulate rotary selector switch 22 from either the indicated position on bridge table 10 or from a position remote from the playing area, as may be done during a televised tournament or when numerous spectators are present. As illustrated in FIGURES 1 and 11 selector handle 145 is so positioned that the bidding turn is vested in the player North.

For purposes of illustration, North opens with a bid of one heart, and accordingly actuates button 76 having indicia "one" thereon and button 80 having the "heart" indicia 30 thereon. By then pressing register 86 the electrical circuit including battery 150, fourth circuit 110, first circuit 104 including lamp 116 adjacent indicator panel 24 having the indicia "one" thereon, and second circuit 106 including indicator panel 28 and lamp 130 lit behind heart-shaped indicia 30 thereon will be completed thus indicating to the remaining players and spectators, if any, that the bid by North is one heart.

The referee or appointed player then shifts selector handle 145 in a clockwise direction to indicate player East is to bid. Assuming that the decision is made to pass, East presses manipulable means 82 having the indicia "pass" thereon and will then operate register 86 to record this bid to all concerned. In recording this bid, the electrical circuit including battery 150, fourth circuit 110, and third circuit 108 including electric lamp 140 positioned behind indicator panel 32 having the indicia pass thereon will be completed.

The appointed person then rotates handle 145 in the clockwise direction so that the player South may bid. For purposes of illustration, South intends to bid one spade, and manipulates button 76 having the indicia "one" thereon but inadvertently presses button 82 having the indicia "double" thereon, thus indicating a conceptually impossible bid. Since buttons 76, 80, 82 are so arranged that button 82 cannot be actuated with either of buttons 76, 80, selector button 76 having indicia "one" thereon is returned to the inoperative position as will button 82 having the indicia "double" thereon. Such an arrangement in console 20 thus prevents the recording of a conceptually impossible bid and the player South will immediately

recognize the mistake and correct the same by re-actuating button 76 having the indicia "one" thereon and by actuating button 80 having the spade-shaped indicia 30 thereon. By pressing register 86, circuits 104, 106 will be completed registering the bid of one spade to all concerned.

The appointed player next rotates selector handle 145 so that the player West may bid. West may then make his bid in the manner previously indicated.

When selector handle 145 is returned to the North position, buttons 76, 80 of North's console will be depressed to indicate his previous bid unless buttons 76, 80 are of the magnetically returned type as previously mentioned. It should be noted, however, that the associated display board will not be illuminated because register 86 will keep circuit 102 open. Upon actuation of buttons 76, 80 to indicate an additional bid or the actuation of buttons 82 to indicate a pass or the like the appointed person will remove the previously indicated bid from console 20 and allow North to make the proper bid.

In the case of the modification shown in FIGURE 5 the entire sequence of bidding will be retained for purposes of information.

From the foregoing it is now seen that there is herein provided an improved bidding device for bridge which accomplishes all of the objects of this invention and others, including many advantages of great practical utility and commercial importance.

Since many embodiments may be made of this inventive concept, such as, for example, by projecting the indicated bid upon a motion picture screen rather than utilizing an electrically illuminated display board or by recording the bid upon a plurality of punch cards or the like which are processed by a computer to facilitate duplicate scoring, and since many modifications may be made of the embodiments hereinbefore shown and described, it is to be understood that the foregoing is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. A bidding device for bridge comprising:

at least one display board providing a plurality of electrically actuated indicia representative of a suit or no-trump, the number of tricks bid, pass, double and re-double;

four consoles including manipulable means for selectively actuating said indicia, and

circuit means electrically connecting said indicia of said display board to said manipulable means of each of said consoles,

said circuit means including a first normally open circuit connectnig said indicia representing the number of tricks bid with said manipulable means in series with a second normally open circuit connecting said indicia representing the suit bid with said manipulable means, and a third normally open circuit connecting said indicia representing pass, double and re-double with said manipulable means in parallel with said first and second circuits.

2. The structure of claim 1 wherein said circuit means includes a selector switch having indicia designating each player according to the bidding sequence for rendering inoperable each of said first, second and third circuits to each console except the console of the player who must bid.

3. The structure of claim 2 wherein said circuit means includes a fourth circuit in series with said first, second and third circiuts including manipulable means biased to open position which the bidding player must consciously actuate to illuminate the display board.

4. A bidding device for bridge comprising:

a plurality of display boards providing a plurality of electrically actuated indicia representative of the biddable suits of clubs, diamonds, hearts, spades and no-trump, the number of tricks contracted for, and the bids of pass, double and re-double;

four consoles including a movably mounted selector representative of the biddable suits of clubs, diamonds, hearts, spades and no-trump, the number of tricks contracted for and the bids of pass, double and re-double;

circuit means electrically connecting each of said display boards to each of said consoles including

a numerical circuit electrically connecting said indicia representative of the number of tricks bid to said selectors representative of the number of tricks bid,

a suit circuit in series with said numerical circuit electrically connecting said indicia representative of the suit bid to said selectors representative of the suit bid, and

another circuit in parallel with said numerical and said suit circuit electrically connecting said indicia representative of the bids of pass, double and re-double with said selectors representative of the bids of pass, double and re-double.

5. The structure of claim 4 wherein said circuit means includes an additional circuit in series with said numerical and suit circuits and said another circuit having four movably mounted registers normally biased to a circuit opening position so that the bidding player must consciously close said another circuit to actuate said display board.

6. The structure of claim 5 wherein said circuit means includes a power source.

7. The structure of claim 6 wherein said additional circuit includes a movably mounted selector switch having indicia representative of each player for selectively connecting said power source to said registers.

8. The structure of claim 4 wherein said circuit means includes a power source and a movably mounted selector switch in series with said numerical and suit circuits, said another circuit having indicia representative of each player for selectively connecting said power source to said selectors of said numerical and another circuits.

9. The structure of claim 4 wherein said display boards, said consoles and said circuit means are mounted in a portable housing.

10. The structure of claim 4 wherein said display boards and said consoles are secured to a bridge table.

11. The structure of claim 10 wherein an additional display board is mounted remote from said bridge table.

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ANTON O. OECHSLE, *Primary Examiner.*

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