Jan. 1, 1935. E. SACHSENMAIER ET AL 1,986,362

INDICATOR FOR CARD GAMES

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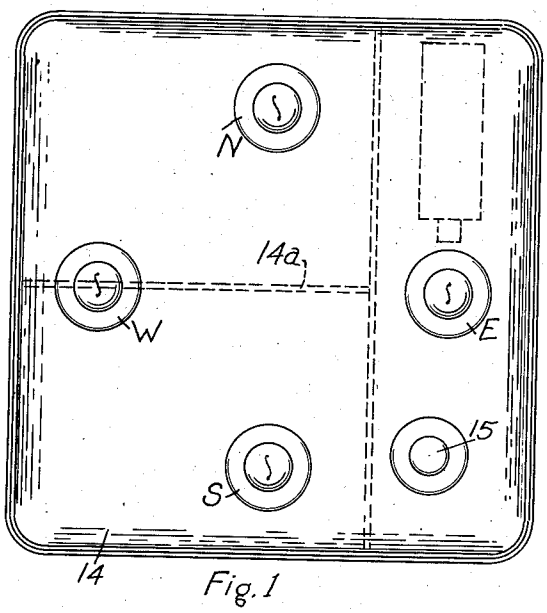


Fig. 1

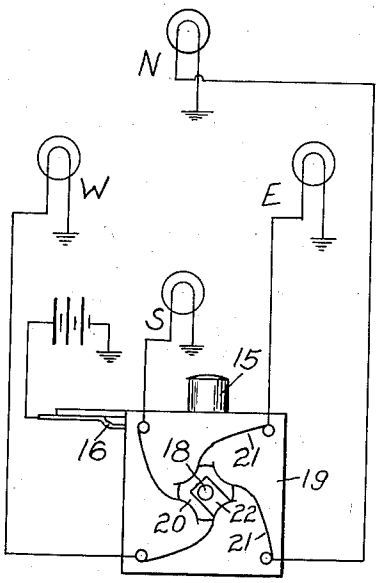


Fig.5

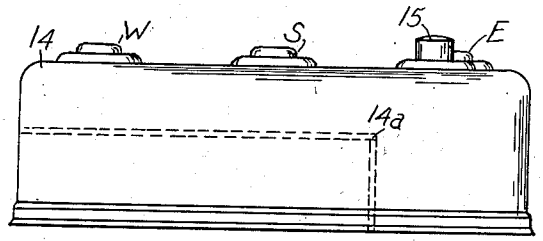


Fig.2

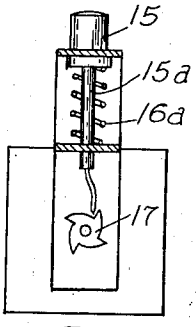


Fig. 6

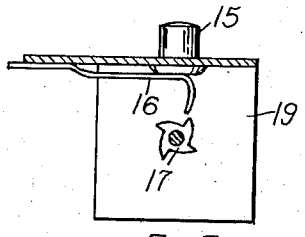


Fig.3

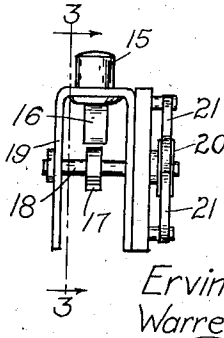


Fig.4

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INDICATOR FOR CARD GAMES

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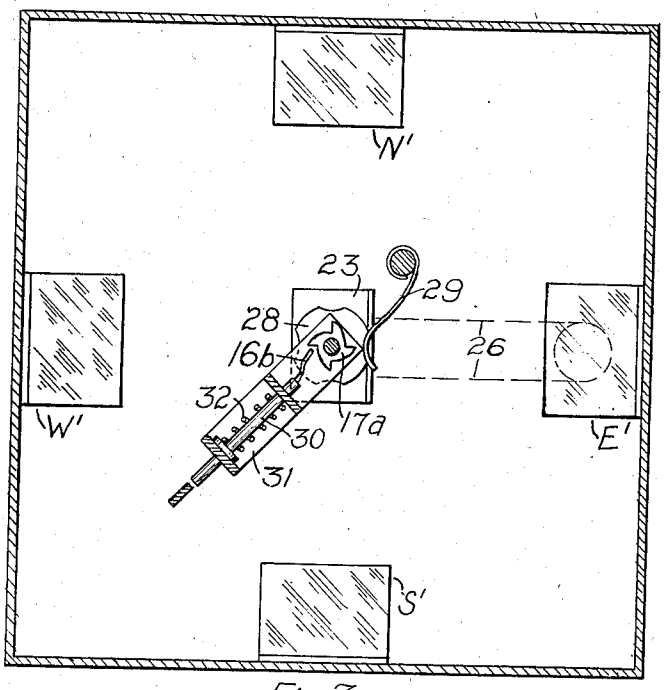


Fig. 7

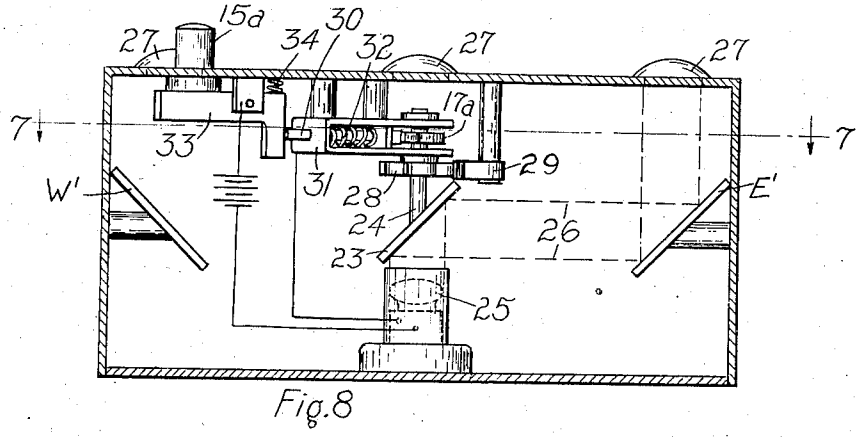


Fig. 8

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INDICATOR FOR CARD GAMES

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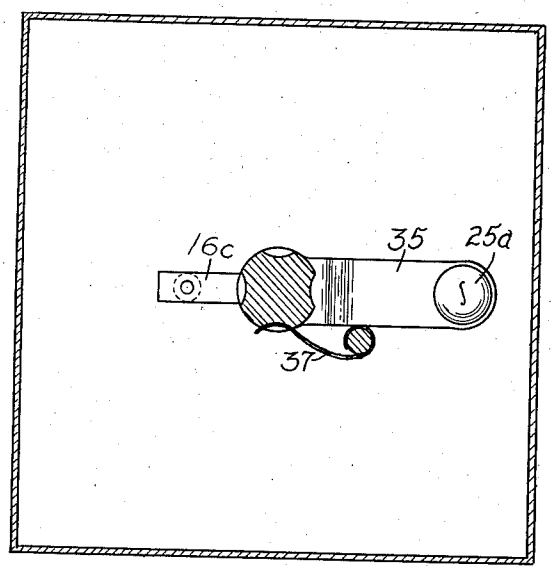


Fig. 9

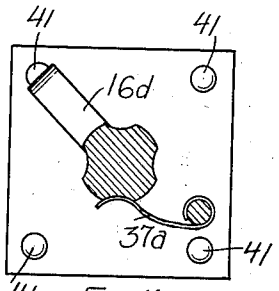


Fig. 11

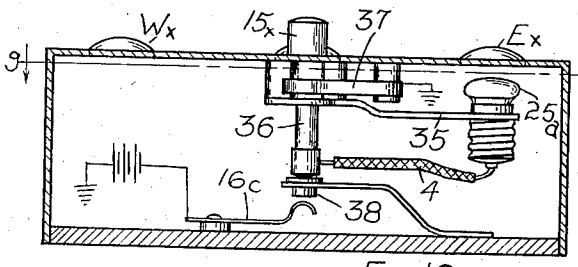


Fig. 10

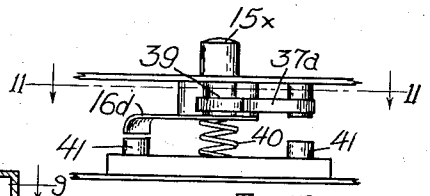


Fig. 12

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UNITED STATES PATENT OFFICE

1,986,362

INDICATOR FOR CARD GAMES

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Elkins Park, Pa.

Application May 22, 1933, Serial No. 672,292

7 Claims. (Cl. 273—148)

The invention concerns means by which card players will be relieved of the mental hazard of keeping track of the next dealer by memory, the said invention providing manually operable apparatus by which the next dealer may be indicated. The invention also concerns means by which at any period of the particular round being played any player can ascertain which player dealt the cards for that particular round, or, in other words, who dealt the last hand, and in some cases when the first bid is relative to the dealer the invention may also serve to indicate the first bid or the opening lead.

Other characteristics of the invention will be clear from the following description.

In the drawings

Figure 1 is a plan view of one form of the apparatus.

Fig. 2 is a side view of Fig. 1.

Fig. 3 is a detail view partly in section of the manually operable elements for actuating the indicator, said view being a section on line 3, 3 of Fig. 4.

Fig. 4 is a view looking from the right of Fig. 3.

Fig. 5 is a wiring diagram together with the circuit closing means for switching into operation either one of the several lamps at the different players positions.

Fig. 6 is a modified form of manually operable device.

Fig. 7 is a plan view of a modified form of apparatus with parts in section, on line 7—7 of Fig. 8.

Fig. 8 is a side view of parts in Fig. 7, the container casing being shown in section.

Fig. 9 is a plan view partly in section of a further modification, taken on the line *a—a* of Fig. 10.

Fig. 10 shows parts of the apparatus of Fig. 9 in side elevation and with the container casing in section.

Fig. 11 is a plan view partly in section, on line 11—11 of Fig. 12, and

Fig. 12 is a side view of parts of another modification of the invention.

Referring to Figures 1 to 5, the numeral 14 indicates a box or casing of convenient size to be placed on the table at the right of the player who keeps score. This casing or box carries four indicators corresponding to the positions of the players N, S, and E, W, at which points electric lamps are located as indicated in the wiring diagram, which are lighted to indicate the dealers as they occur in succession, corresponding to the transfer of the deal from one position to another. Directly adjacent the position of the lamp S which corresponds to player "south" there is a button 15 to be operated say by the player who keeps score.

As shown in Figs. 3, 4 and 5, this push button 15 operates a pawl 16, which in this particular form of the invention operates a ratchet wheel 17 on a shaft 18 suitably journalled in a frame or box 19. This shaft at its outer end carries an electric switch member consisting of a block 20 having dwells or recesses in its periphery adapted to receive the curved ends of contact springs 21 suitably mounted on the framework. There are four of these contact springs, and there is also carried by the rotary block 20 a contact member 22 which, as the block is rotated step by step, will make electric contact with the contact springs 21. These contact springs 21 form parts of the various circuits leading to the several lamps at the positions N, S, E and W as indicated in Fig. 5. When the push button 15 is depressed for the purpose of transferring the deal from one player to another, the pawl spring 16 is moved downwardly so as to engage and move the ratchet 17 a quarter turn. This will transfer the rotary contact member 22 from that one of the springs 21 with which it has been in engagement to the next spring 21 so as to close the circuit of said next spring, and thus shift the indication from one of the lamps to the next lamp in order. In other words, when the push button 15 is depressed to the limit of its stroke, the switch block 20 will be turned so as to transfer the deal indication to the next player, whose corresponding lamp will be lighted.

Normally the pawl spring 16 is out of contact with the ratchet wheel 17 as shown in Figs. 3 and 4, and after the transfer of the deal indication has been effected, and the push button 15 is relieved of the pressure of the operator's finger, the pawl spring 16 will rise to the position shown in Figs. 3 and 4 to return the push button 15 to its normal position, and the circuit will be broken, it being observed that this break in the circuit will be due to the spring pawl 16 breaking contact with the ratchet wheel 17.

If at any time during progress of the game it is desired to ascertain which player last dealt the cards, it is only necessary to depress the finger button 15 sufficiently to make contact with the ratchet 17, whereupon the last setting of the apparatus will become effective to light the lamp indicating the last dealer. In this checking up action to ascertain who dealt the cards last, the push button 15 is not depressed far enough to

turn the ratchet 17, but only enough to close the circuit between the pawl 16 and the ratchet 17. Thus, at any point in the game a check-up can be made as to which player dealt the cards last. The contact springs 21 in addition to acting as means for closing the several circuits also act as detent means to determine the position of the switch block 20, as this is rotated from point to point.

In Fig. 6 is shown another form of the push button device in which the said button is provided with a stem 15*a* suitably guided in the frame, and a spring 16*a* returns the push button to its normal upper position when released from pressure of the operator's finger. The stem 15*a* carries at its lower end the pawl member for engaging the ratchet 17.

In Fig. 1 the main casing 14 is divided into two compartments by a partition 14*a*. Each of these compartments may be adapted to receive a pack of cards. These packs may be of different color, and the lamps of the apparatus may be differently colored, for instance, N and S of one color and E and W of another color. Therefore, when either one of the lamps is lighted it will not only indicate the dealer, but also the pack of cards which the dealer is to use.

Referring to Figs. 7 and 8 a reflector 23 is arranged centrally of the box or casing which is adapted to be placed on the card table alongside the position of one of the players. This reflector is in inclined position relative to its vertical shaft 24 so that it will reflect the light from a lamp 25 disposed directly below and axially in relation to the axis of rotation of the reflector. The reflector is adapted to divert the vertical rays from the lamp 25 horizontally as indicated by the broken lines 26 in Figs. 7 and 8, so as to impinge upon reflectors E', W', N' and S', which are positioned so as to indicate the dealers by diverting the horizontal rays vertically through the glasses 27 arranged at different points about the box corresponding to the positions of the players.

The central reflector 23 is rotated a quarter turn at each action, for which purpose its shaft 24 carries a block 28 having rests or notches for receiving a spring detent 29, said rests or notches being at 90° from each other. The reflector shaft 24 also carries a ratchet wheel 17*a* adapted to be operated by a pawl 16*b* carried by a rod 30 suitably guided in the frame 31 and under tension of a spring 32. The rod 30 is adapted to be operated by a bell crank lever 33, which in turn is operated by a push button 15*a* and a spring 34. The bell crank lever 33 normally is out of contact with the rod 30, but when the push button 15*a* is depressed the bell crank lever will contact with and operate the rod 30 so that the reflector 23 will be given a quarter turn about its vertical axis so as to shift the reflecting action from say reflector E' to reflector S', to thus shift the deal indication from one player to another. At the same time that this action takes place, the contacting of the bell crank lever 33 with the rod 30 will close the electric circuit shown, lighting the lamp 25 so that the reflecting action of the light above mentioned will take place to shift the deal indication.

In this arrangement also the contact will be broken as soon as the deal indication has been effected and pressure has been withdrawn from the push button 15*a*. This will be due to the action of the spring 34 removing the end of the bell crank lever 33 from contact with the rod 30, thus breaking the circuit which is indicated generally in Fig. 8. The parts will now be in a position with the lamp out, but with conditions such that by simply closing the contact between the bell crank lever 33 and the rod 30 the lamp 25 will be lighted and the indication of the last deal position will be made. It is understood in this action that the push button 15*a* will be depressed only far enough to make the electrical contact, but not far enough to shift the deal indication from one position to another, because the reflector 23 will not be shifted.

In Figs. 9 and 10 is shown another modification in which the lamp is moved from station to station. In this form only one lamp is needed, this being similar in this respect to the apparatus shown in Figs. 7 and 8. The lamp is carried by an arm 35 on the vertical shaft 36, which is operated by a turning button 15*x*. A detent 37 determines the quarter turn positions of the vertical shaft 36, and this makes the lamp 25*a* register accurately with the different indicating positions, two of which are illustrated in Fig. 10 at E*x* and W*x*, it being understood that apertures are arranged in the box cover, said apertures being closed by transparent members. The electrical contact for lighting this lamp 25*a* results from depressing the button 15*x* so that the contact spring 16*c* is engaged by a contact member 38 on the lower end of the shaft 36. It thus requires two movements of the push button 15*x* to get the desired shifting of the deal indication from one position to another. One of these movements is the rotary movement which carries the lamp 25*a* from one position to the next, and the other movement is the depression of the button 15*x* to close the electrical circuit. This electrical circuit is indicated generally in Fig. 10 diagrammatically.

In Figs. 11 and 12 still another form of the apparatus is shown in which a contact member 16*d* is mounted on a rotary shaft 39 which is operated by the push button 15*x* any suitable form of detent being employed at 37*a* like in the forms previously described. A spring keeps the push button normally in its upward position. In order to get the change of deal indication the push button 15*x* is rotated and at the same time it is depressed so that the contact spring 16*d* will contact with the proper one of the contact members 41 mounted on the base plate. In this form like in the form previously described, a complete operation of the push button will effect the change of the deal indication from one position to another, but at any time that a check-up is desired as to the last dealer, it is necessary only to give a partial operation of the push button. This partial operation of the present form, like that in Fig. 10, would be simply the depression of the push button far enough to close the electrical contact momentarily. In all the forms it will be noticed that a full operation of the manually operable device represented by the finger piece or push button, will effect the transfer of the deal indication from one position to another for indicating the change in the deal from one player to another, and in all the forms a partial operation of the manually operable devices will give an indication of the last deal position or player.

It will be understood that the box or casing containing the appliance is of small size and takes up little room on the card table adjacent the player who is to operate it.

While the invention is shown as embodied in a portable box or casing adapted to be placed on the top of the card table, it is not limited to this,

as it may be embodied in the table itself as a permanent part of the table organization and instead of having the indicators closely grouped together, they may be arranged in positions substantially at the positions on the table occupied by the players.

In all forms a full or complete operation of the push button or like device will make and shift the indicator, whereas a partial operation of said device will simply make but will not shift the indicator from one station to another. The full operation may consist, for instance, of the full stroke movement of the push button in one and the same direction and the partial operation may be only part of the stroke in one direction, or the full operation may involve a turning as well as a pushing movement in the direction of the axis of the button, whereas a partial movement would involve omission of the turning movement and performance of the axial movement. These are examples, possible variations, falling within the broad scope of the invention.

The circuits for the several forms of the apparatus are such as lie within the province of one skilled in the art to incorporate. It may be pointed out, however, briefly that in connection with the forms shown in Figs. 1 and 2, the spring pawl 16 forms a part of the circuit when it contacts with the ratchet 17, the circuit being completed to the axle of said ratchet and the contact member 22 to the springs 21, which also act as detents. The block 20 carrying the contact 22 serves to insulate the contacts 22 and 21 from each other, except when said contacts are actually in engagement.

The circuit in the form shown in Fig. 8 may be from the battery to the lever 33, and from the frame carrying the pin 30 to one terminal of the electric lamp, the other terminal being connected back to battery.

In Fig. 10 the circuit may be from battery through the spring 16c, the contact 38, metal cap on shaft 36, spring 37 to ground, and from ground back to battery.

We claim:

1. In apparatus for indicating the dealer in a card game, a manually operable member, a plurality of indicator stations, one for each dealer, signal means to be displayed at said stations, electric circuit connections for energizing, when closed, the signal means, means actuated by said manually operable means including a circuit closing contact and signal changing means for displaying the signal at said indicator stations, one after another, said manually operable means and circuit closing contact being under spring tension, for returning to retracted position, when released from manual operation, and thereby breaking the circuit to the signal last displayed, said manually operable member being capable of a partial operation to repeat the closing of the circuit just broken for repeating the display of the last signal, without changing the signal to another station, substantially as described.

2. In apparatus for indicating the dealer in a card game, a manually operable member, a plurality of indicator stations, one for each dealer, signal means to be displayed at said stations, comprising a separate signal for each station, electric circuit connections for said signals, a switch for closing the circuit connections to said signals singly, a source of electric current, electric contact means for closing a circuit from the source of current to the switch, a manually operable device for operating said contact and for operating the switch, said contact and manually operable device being under spring tension for returning to retracted position when released from manual control, said manually operable device being capable of a partial operation to close the contact and repeat the signal last displayed, without operating the switch, and being capable of a full operation to close said contact and operate the switch to shift the signal to another station.

3. Apparatus for indicating the dealer in a card game comprising a plurality of signal lamps, one for each dealer, a source of electric current, and circuit connections to the lamps, a switch controlling said circuit connections to light said lamps singly in prescribed order, a pawl and ratchet for operating the switch, a manually operable device for operating the pawl, said pawl and ratchet being normally separated, and forming means for closing the circuit from the source of current to the switch, substantially as described.

4. Apparatus according to claim 1 in which the signal means comprises an electric lamp, and the signal changing means comprises a movable reflector and a plurality of reflectors, one at each station for receiving the light rays reflected by said movable reflector, substantially as described.

5. Apparatus according to claim 1 in which the signal means comprises an electric lamp, and the signal changing means comprises a movable support for said lamp together with means operated by said manually operable device for moving said support to shift the lamp from station to station.

6. Apparatus according to claim 1 in which the circuit closing action and signal changing action are effected by a step by step movement of the manually operable device in one and the same direction.

7. Apparatus according to claim 1 in which the circuit closing action and signal changing action are effected by a rectilinear movement and a rotary movement respectively of the manually operable device.

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