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T. C. BROWNELL

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MEANS FOR RECORDING AND INDICATING THE PLAYING OF CARD GAMES

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2 Sheets-Sheet 1

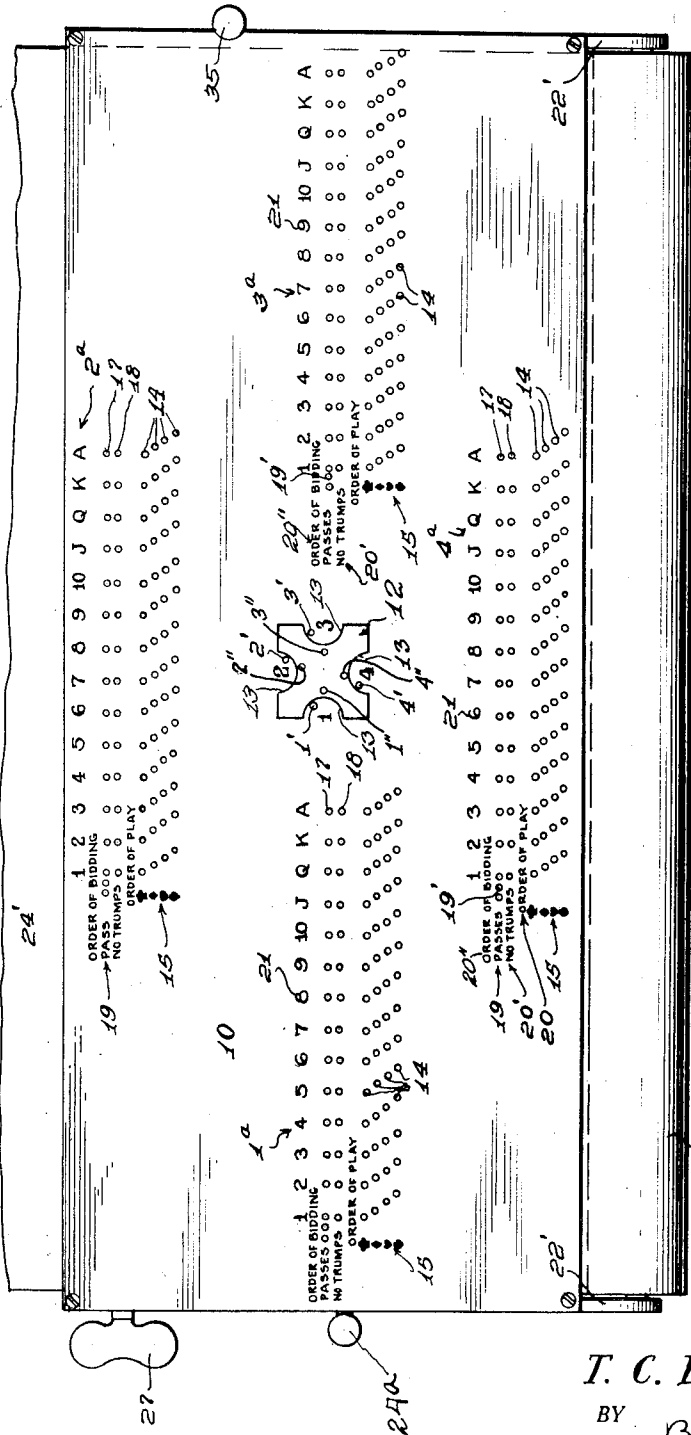


Fig. 1.

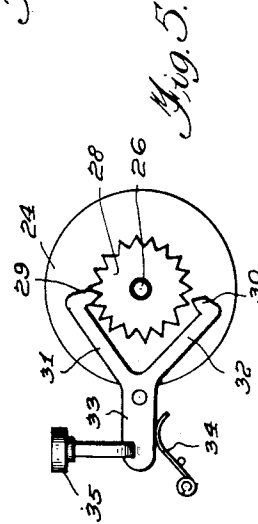


Fig. 5.

INVENTOR.

T. C. Brownell,

BY

B. P. Johnson

ATTORNEY.

UNITED STATES PATENT OFFICE

THOMAS C. BROWNELL, OF NEW YORK, N. Y.

MEANS FOR RECORDING AND INDICATING THE PLAYING OF CARD GAMES

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My invention relates to means for recording and indicating the hands, bidding, and playing of card games.

In accordance with my invention, I provide means whereby the cards held in each hand, when dealt, may be recorded. The bidding or passing by the players is also recorded. Each play made by the successive players is also recorded, throughout each successive hand. The recording is preferably effected by means of a plate having suitably designated apertures, with a flexible sheet beneath the apertures. The records are made in proper sequence by the insertion of a pencil or the like through the proper apertures, whereby marks or dots may be made upon the sheet. Means are provided to properly advance the sheet after the making of each record.

When the playing of the game has been completed, and the record produced upon the sheet, which will appear as dots on the sheet, the sheet is removed from the machine and wound backwards upon the pay-out spool, and may be fed through the machine in the same direction. This will first bring to view through the apertures in the top plate, the dots indicating the cards in the various hands, whereby each player will know the cards in his hand. Further advancement of the sheet will indicate the proper bid or pass for each player, and the successive advancement of the sheet will indicate the various players, for each trick. By this means instruction may be furnished in the proper playing of a game of cards, such as, bridge, for any given set of hands.

The sheet with the dots properly located thereon may be reproduced by any suitable means. It would, therefore, follow that a game of bridge may be played by experts, and the record produced upon the sheet, which may be produced in any suitable numbers, and furnished to players having the machine, which players may thereby be instructed.

In the accompanying drawings, forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is a plan view of a machine embodying my invention,

Figure 2 is a similar view with the top plate removed,

Figure 3 is an end elevation of the right side of the machine, parts broken away,

Figure 4 is a similar view of the left hand end of the machine, parts broken away, showing the reverse means and associated elements,

Figure 5 is a side elevation of the escape-ment.

In the drawings, wherein for the purpose of illustration, is shown a preferred embodiment of my invention, the numeral 10 designates a top plate, suitably supported by a frame 11. Formed upon the center of this top plate, by printing or other means is the representation of a table 12, having recesses 13, representing the positions of the players and these positions are preferably numbered from one to four, inclusive. Arranged adjacent to these recesses 13 are apertures which may be designated 1' to 4', inclusive. These apertures are staggered so that they are out of transverse alinement. The apertures extend through the top plate while the other portions of the table are simply printed or otherwise marked thereon. There is also a set of apertures 1'', 2'', 3'' and 4''. The apertures 1' to 4', inclusive, are employed to indicate the bidder, while apertures 1'' to 4'' are employed to indicate the leader.

Arranged upon the top 10 is a corresponding number of recording tables, 1^a, 2^a, 3^a and 4^a, preferably arranged opposite the positions 13.

Each table is identical and a description of one will suffice for all. Each table is provided with four longitudinal sets of apertures 14, formed through the top 10, and these longitudinal sets are arranged in superposed relation. At the left hand end of these sets are the representation of the suits of the cards, namely, clubs, diamonds, hearts and spades, as indicated at 15. The club designation shows that the uppermost set of apertures 14 is to be used in recording or indicating the plays in clubs, and the corresponding card designations are for the same purpose,

in connection with the longitudinal sets of apertures. The longitudinal sets of apertures are preferably transversely staggered, as shown, so that they will not overlap, in function. I preferably provide the designation "Order of play," at the left hand top of the longitudinal sets of apertures 14. Arranged directly above the longitudinal sets of apertures 14 are two longitudinal sets of apertures 17 and 18, formed in the top 10. Arranged adjacent to the left hand of the longitudinal set of apertures 17 and in alinement therewith, is the designation "Passes," as shown at 19, and at the right and adjacent to this designation are three apertures, as shown at 19', formed in the top. The apertures 19' form a separate group from the upper set of apertures 17, and the designation "Passes" does not apply to either of the sets of apertures 17 and 18. Arranged directly beneath the designation, "Passes," is a designation "No trumps," as indicated at 20'. This designation, "No trumps" is in alinement with the lower set of apertures 18 and is employed to designate the same. Arranged directly over the designation "Passes," is a designation "Order of bidding," as indicated at 20'', and this designation is applicable to the uppermost horizontal set 17 of apertures. Arranged above each of the sets of apertures is a longitudinal scale, designated at 21, embodying numerals running consecutively from one to ten, inclusive, and including "J," "Q," "K" and "A," standing for jack, queen, king and ace. This scale is co-related with the sets of apertures 17 and 18, to designate certain of the apertures therein by numerals, for indicating bidding and is also co-related with the set of apertures 14, for designating the character of the cards, played, in which event the numerals two to ten, inclusive, and the letters, "J," "Q," "K" and "A," will be employed.

The casing 11 is provided at its ends with brackets 22', extending upon the rear side of the machine. These brackets pivotally support a pay-out spool 23^a, carrying a sheet 24', formed of paper or the like. This sheet, is passed through a longitudinal slot 25', formed adjacent to the top plate 10 and is adapted to pass beneath the perforated top plate 10 and rest upon a table or supporting plate 23, and is then adapted to discharge through a slot 26', formed in the rear edge of the casing 11, adjacent to the top plate 10. The sheet passes over a roller 22, which serves to press the same against the perforated top plate. The sheet also passes over a feed roller 24, having frictional engagement therewith, pressing the same against the top plate 10 and serving to drive it. The feed roller 24 has frictional engagement with the sheet to drive it, as explained, and this frictional engagement may be effected by any well known means, such as by forming the periphery of the roller of rubber, or corrugating the

same, or providing the roll with teeth to enter openings in the sheet. The spool 23^a, and rollers 22 and 24, all extend longitudinally of the plate 10, and the sheet is fed transversely of the plate 10. The roller 22 is carried by a shaft 22^a, the right end of which is suitably journaled in the casing 11, while the left end of the shaft 22^a is journaled in a vertically adjustable support or bar 23^b, arranged near the left side of the machine. The drive spool 24 is preferably hollow and receives a torsional coil spring 25, one end of which is attached to a rod 26, and the other end to the side of the hollow spool 24, as shown. The rod 26 has its right end journaled through an opening in the casing 10 and extends outwardly of the same. A key 27 is attached to the rod or shaft 26 to turn the same and thus place the spring 25 under tension. The left end of the rod or shaft 26 is journaled in the vertically adjustable support 23^b, and this end of the rod 26 carries a ratchet wheel 27' engaged by a pawl 28', mounted on the support 23^b. This pawl and ratchet means prevents back turning of the shaft 26. The spring 25 turns the drum 24 with relation to the shaft 26, to feed the sheet, as is obvious.

An escapement wheel 28 is rigidly attached to the right end of the drum 24 but is rotatable upon the shaft 26. This escapement wheel is adapted to be alternately engaged by dogs 29 and 30, carried by angularly arranged arms 31 and 32, rigidly secured to a pivoted arm 33.

The pivoted arm 33 is held raised by a spring 34 and is depressed by a button 35 or the like. Upon each depression of the button 35 and its release the escapement wheel 28 and feed roller 24 will advance one step, which will effect the travel of the sheet 24', by an amount equal to distance between the apertures, in either direction of travel.

The support 23^b is held raised by a rod 36, guided within a sleeve 37, and moved upwardly by a spring 38. The spring 38, therefore, maintains the rollers 22 and 24 in frictional engagement with the sheet 24'. The support 23^b may be depressed by a knob 24^a, rigidly secured thereto, and operating through a slot in the casing 11.

As illustrating the method of recording the playing of the game of bridge, it may be assumed that the player at the position 13 indicated "1" is the dealer. A pencil point may now be passed through the aperture 1', making a dot upon the sheet 24', and the button 35 will then be depressed to advance the sheet 24', one step. The cards are dealt in the usual manner and each player will have thirteen cards, the joker being removed. A record of the cards in each hand must now be made. Assuming that player "2," who will make the bid, holds a hand containing the ace, king and queen of diamonds and king, queen, ten, nine, eight, seven, six, five, four and two

of clubs, a record is made of these cards, by inserting the point of the pencil through the proper apertures 14 in the table 2^a, thus producing correspondingly located dots on the sheet 24'. In this manner all of the cards held by the player "2" are recorded and the sheet 24' may be advanced one step, and in a similar manner all other cards held by the other players are recorded. Player "1" having dealt the cards, now has the first bid, and assuming that he passes, a record of this is made by inserting the point of the pencil through the aperture 1' and through the first aperture 19' to the left in table 1^a, making a dot on the sheet 24'. Player "2" may now bid two diamonds, and a record is made of this, by inserting the point of the pencil through the aperture 2' and through the aperture in set 17, beneath "2," in scale 21, and through the aperture 14, designated "Diamonds," beneath the "2" designation. In a similar manner the bidding of each successive player may be recorded, and it may also be recorded in playing no trumps, by the use of the apertures 18, as is obvious. The bidding being concluded by all of the players, the button 35 is depressed and released and the sheet 24' advanced to the next step. It being assumed that player "4," the partner of player "2," bids seven diamonds, and all other players passed, and diamonds are trumps, player "2" will have the lead, and player "4" will have his hand laid upon the table. Player "2" may now lead the ace of diamonds and this is recorded by inserting the pencil point through the aperture 14, table 2^a, beneath the designation "A," and opposite the "diamond" designation. The play of each successive player, during the taking of a trick is recorded in a similar manner, each trick appearing complete at one time. At the end of the taking of the trick, the button 35 is again depressed and the sheet 24 advanced to the next position. The party taking the last trick leads, as may be shown by inserting the pencil through the aperture at the table, and his next play is recorded by the operation hereinbefore explained.

At the conclusion of the game, a complete record has been made, of every play, bids, and also the cards in each hand.

To furnish instructions in the playing of the game, the sheet 24', which has been fed from the forward end of the machine may now be removed from the machine, and is re-wound backwards upon the pay-out spool 23^a, and again fed forwardly in the same direction, by means of the feed roller 24, through the machine. This will bring the dots recorded upon the sheet 24' beneath the corresponding apertures, and by virtue of the designations of these apertures, the cards referred to by them may be ascertained. For instance, the sheet 24' with the record thereon is advanced to the first position whereby

the various dots recording the cards in the various hands, are visible through the apertures 14 of the tables, and these hands may become known or reproduced to the players by giving them corresponding cards. The further advancement of the sheet 24' will indicate the bidding and further advancement will indicate the playing of the cards in the taking of each trick.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same, and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention, or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. A machine for indicating the various transactions which have occurred in playing a game of cards, comprising a support, a top plate mounted upon the support and having apertures which are designated for indicating the plays in the game, a support plate arranged near and beneath the top plate and extending throughout the major portion of the length of the top plate and adapted to receive thereon a sheet, a pay-out spool mounted upon the support exteriorly of the same and the top plate and arranged adjacent to one end of the top plate and serving to carry said sheet, a feed roller arranged within the support outwardly of and adjacent to the end of the support plate and adapted to engage with the sheet traveling upon said support plate, said feed roller engaging beneath the sheet and serving to hold the same against the top plate and to advance said sheet, yielding means to move the feed roller upwardly with relation to the top plate so that it has a driving frictional engagement with said sheet, means to impart a step by step turning movement to the feed roller, and means to depress the feed roller so that it releases the sheet and said sheet may be readily rewound in whole or in part upon the pay-out spool, the support plate serving to guide the sheet to the feed roller for engagement therewith.

2. A machine for indicating the various transactions which have occurred in the playing of a game of cards, comprising a support, a top plate mounted upon the support and having sets of apertures which are designated for indicating the various plays in the game, said sets of apertures being so arranged that they co-act with a flexible sheet having a step by step movement, a support plate arranged near and beneath the apertured top plate and terminating at one end at a point spaced inwardly from the corresponding end of the top plate, a pay-out spool mounted upon the support exteriorly of the support and the top plate and arranged adjacent to one end of the

top plate and serving to carry said sheet, a feed roller carried by the support outwardly of and adjacent to the forward end of the support plate and beneath the adjacent end of the top plate, said feed roller engaging beneath the sheet and serving to hold the same against the top plate and to advance said sheet, yielding means to move the feed roller upwardly with relation to the top plate so that it has driving frictional engagement with said sheet, power means tending to turn the feed roller, pawl and ratchet escapement means connected with the feed roller and adapted to be manually actuated so that the power means may impart a step by step turning movement to the feed roller, manually actuated means to depress the feed roller so that it releases the sheet and said sheet may be readily rewound in whole or in part upon the pay-out spool, the support plate serving to guide the sheet to the feed roller for engagement therewith.

3. A machine for indicating the various transactions which have occurred in the playing of a game of cards, comprising a support, a top plate mounted upon the support and having sets of apertures which are designated for indicating the various plays in the game, said sets of apertures being so arranged that they co-act with a flexible sheet having a step by step movement, a support plate arranged near and beneath the apertured stop plate and being shorter than the same whereby one end is spaced from the corresponding end of the top plate, a pay-out spool mounted upon the support and arranged adjacent to one end of the top plate and serving to carry said sheet, a feed roller carried by the support and arranged outwardly of the end of the support plate and beneath the adjacent end of the top plate, said feed roller engaging beneath the sheet and serving to hold the same against the top plate and to advance said sheet, yielding means to move the feed roller upwardly with relation to the top plate so that said feed roller has driving frictional engagement with said sheet, a spring motor to turn the feed roller including a spring mounted within the feed roller, pawl and ratchet escapement means connected with the feed roller and adapted to be manually actuated so that the spring motor may impart a step by step turning movement to the feed roller, and manually actuated means to depress the feed roller so that it releases the sheet and said sheet may be readily rewound in whole or in part upon the pay-out spool, the support plate serving to guide the sheet to the feed roller for engagement therewith.

In testimony whereof I affix my signature.

THOMAS C. BROWNELL.