[54] PLAYING CARD DISTRIBUTION APPARATUS

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[58] Field of Search 273/148 A, 149 A

References Cited

UNITED STATES PATENTS

1,246,297 11/1917 Michell.......................... 273/148 A

1,887,203 11/1932 Hoke.......................... 273/149 P

3,165,319 1/1965 Benma.......................... 273/149 P

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[57] ABSTRACT

The disclosure is of an apparatus for enabling distribution of playing cards into predetermined groups, or "hands", for the game of Duplicate Bridge. The determination of distribution of the playing cards into four hands or sets of equal number is made by use of a punched code card having punches or holes for indicating the distribution of each card of a deck of playing cards, each playing card having printed on its back side a code corresponding to holes of the code card whereby matching superimposed holes of the code card and the printed code of each playing card indicates the hand in which that playing card should be placed.

2 Claims, 9 Drawing Figures
Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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PLAYING CARD DISTRIBUTION APPARATUS
CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of application Ser. No. 30,314, filed Apr. 20, 1970, which is a continuation of application Ser. No. 734,429, filed June 4, 1968, both said applications now being abandoned.

The disclosure of this application utilizes certain of the principles set forth in applicant's applications Ser. No. 472,270, filed July 15, 1965, and Ser. No. 681,667, filed Nov. 9, 1967, both now abandoned.

BACKGROUND OF THE INVENTION

The game of Contract Bridge is well-known today and is played by a great number of people in the form of "rubber" Bridge. In "rubber" Bridge, the cards are shuffled and dealt to each of the participants whereupon they then bid for the contract and play the hand accordingly. The scoring then takes place as the points from individual played hands or deals make up game scores which, in turn, contribute toward the rubber score and the final tally. While the game does require a great amount of skill and imagination to win constantly, luck can be a large factor. That is, when the better cards should fall majorly to one of the partnerships they will have an opportunity to score highly whether they are skilled bridge players or not.

Duplicate Bridge to a large extent corrects for the luck factor which is present in "rubber" Bridge. This is the form of Bridge which is played in nearly all Bridge tournaments and provides a contest wherein the skill or competing partners is accurately indicated by the score. In effect, all participating partners are made to play the same identical hands which their competitors play and the point gain, the measure of skill, can then be made by comparing scores of both the playing and the defending partners with the similar results achieved by other foursomes. The Bridge hands after being bid and played by one foursome are kept in the same order, by not intermixing the cards as they are played as in "rubber" Bridge, and passed to the next foursome for bidding and play. This procedure is repeated until all the hands have been played by each of the contestant four-somes. The scoring can then be made on the basis of what a foursome, both the playing and defending partners, did on a particular dealt hand relative to the results of all other competing four-somes.

It is apparent that Duplicate Bridge requires a large number of four-somes in order to produce the multitude of scores required for comparison of results on the various hands. Such multiple-table Bridge requires a large number of decks of cards, one for each deal to be played, and a large number of containers (called "boards") in which the individual hands of each deal are transmitted from table to table.

There are several types of Duplicate Bridge games which attempt to enable Duplicate Bridge play in the home or other casual gamesite. These games consist of certain books or listings which disclose particular Duplicate Bridge deals along with pertinent comparison and scoring material. In each of these prior known game assemblies a problem arises as to the manner and mode of distributing the predetermined bridge deals to the contestants. One solution has been to distribute a separate deck of cards to each participant at the table so that he may select his hand for each deal as it would be listed in his accompanying guide book. Another method uses card decks with printed numbers on the decorative side of the cards which designate the proper card distribution as per a particular deal or Bridge hand, the deck of cards having its usefulness limited to the number of deals that can be represented in the given space, usually 24 to 48 deals. Such modes of pre-determined deal distribution rely on judgement of the person or persons assembling the hand, tending to introduce errors which render the deals unplayable.

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SUMMARY OF THE INVENTION

The present invention contemplates card distribution which allows accurate distribution of playing cards into predetermined bridge hands from a total number of such cards, by means of punched code cards which enable the apparatus to automatically signal the hand to which each playing card belongs for the particular deal involved. The invention further contemplates the use with a book which accompanies the card distribution apparatus and which contains Duplicate Bridge tournament results and scoring for a multiplicity of Bridge hands or deals, each of which is identifiable to a particular punched code card.

It is an object of the present invention to provide a game apparatus which enables Duplicate Bridge play by a single foursome in the home.

It is further an object of the present invention to enable the play of Duplicate Bridge by a single foursome with match point scoring and thereafter to enable comparison of results with actual tournament results as very high standards.

It is still further an object of the present invention to enable playing card distribution in accordance with a single punched code card which is identifiable to a particular Bridge detail.

Finally, it is an object of the invention to provide an apparatus which enables the operator to distribute playing cards as they are dealt from a deck into predetermined hands of Bridge by visual signals produced as the printed code of the playing card currently atop the deck matches the holes in a punched code card superimposed above that playing card, such signals relating to the predetermined hands.

Other objects and advantages of the invention will be evident from the following detailed description when read in conjunction with the accompanying drawings which illustrate the invention.

BRIEF DESCRIPTIONS OF THE DRAWINGS

FIG. 1 is an illustrative plan view indicating the complete array of available code mark positions placed in diverse combinations on the decorative sides of the individual playing cards of a deck of playing cards.

FIG. 2 is a plan view of the decorative side of a preferred form of playing card, illustrating the combination of code markings indicating the denomination of this playing card.

FIG. 3 is a plan view of the decorative side of a second specific playing card, illustrating the code markings of this playing card.

FIG. 4 is a plan view of the decorative side of a third specific playing card with a preferred form of punched code card superimposed upon the lower half of the playing card.

FIG. 5 is a plan view of the playing card of FIG. 2 with the code card of FIG. 4 superimposed upon the lower half of the playing card.

FIG. 6 is a plan view of the playing card of FIG. 3 with the code card of FIGS. 4 and 5 superimposed upon the lower half of the playing card.

FIG. 7 is a perspective view of a preferred form of apparatus according to the invention.

FIG. 8 is similar to FIG. 7, showing certain parts in moved positions.

FIG. 9 is an enlarged partial perspective view of one end of the apparatus shown in FIGS. 7–8, showing the apparatus in use.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail, FIG. 1 illustrates the "field" of 312 potential code mark positions 1 applicable to the decorative side of each playing card of a deck. These 312 potential positions 1 fall in six groups 2, 3, 4, 5, 6 and 7, indicated by dashed lines, each group having 52 positions. Within each group, each of the 52 positions therein is allotted to a certain card of the deck, and the positions are symmetrical so that when the card is rotated 180° reversing the ends of
the card but not turning the card over, the code positions are relatively the same. The relative locations of a specific playing card's position may vary from group to group within the field. For example, the Eight of Spades is represented by position 8 in group 5, by position 9 in group 6, and by position 10 in group 7; in symmetrical arrangement, the Eight of Spades is represented by position 11 in group 2, position 12 in group 3 and position 13 in group 4.

Likewise, the Two of Hearts is represented by positions 14, 15 and 16 and, symmetrically, positions 17, 18 and 19.

The Jack of Diamonds is represented by positions 20, 21 and 22, and, symmetrically, positions 23, 24 and 25.

Similarly, every other playing card of the deck is represented by a position in each group.

The code mark positions in groups 4 and 5 are assigned to the West player; those in groups 3 and 6 are assigned to the North player, and those in groups 2 and 7 are assigned to the East player.

In FIG. 2 the decorative side of a playing card 26 is shown. The card is the Eight of Spades, and its code marks 27 through 32 match the Eight of Spades' positions 8 through 13, respectively, in FIG. 1.

In FIG. 3 the decorative side of playing card 33, the Two of Hearts, is shown. Its code marks 34 through 39 match the Two of Hearts' positions 14 through 19, respectively, in FIG. 1.

Likewise, each other playing card of the deck has six code marks in a location pattern exclusive to the denomination of that card.

In FIG. 4 a punched code card 40, containing 39 punches 41, is shown superimposed over the lower half of playing card 42. Playing card 42 is the Jack of Diamonds, its visible code marks 43, 44 and 45 matching the Jack of Diamonds' positions 23, 24 and 25 in FIG. 1.

The 39 punches 41 of code card 40 are located such that if code card 40 were superimposed over the field of potential playing card code mark positions of FIG. 1, in the same relative position as shown with playing card 42 in FIG. 4, the locations of punches 41 would coincide with 39 code mark positions in the field of FIG. 1. Thus, each punch 41 corresponds to a particular card of the deck.

The 39 punches 41 of code card 40 are in three groups 46, 47 and 48, bounded by printed lines 49. Within each group 46, 47, and 48, there are 13 punches; therefore, 13 cards of the deck are represented in each group of punches.

The punches in code card 40 of FIG. 4 represent three "hands" of a particular "deal" of Bridge. Each group 46, 47 and 48 contains thirteen punches, representing the West, North and East players' hands, respectively, as shown by the symbols 50. Each card of the deck would be represented in one of the groups 46, 47 or 48, or in none of the groups. If not represented in any of groups, corresponding to the West, North and East hands, then the card would by process of elimination belong to the fourth hand, South.

In FIG. 4, none of the code marks of playing card 42, the Jack of Diamonds, coincide with a punch 41 in code card 40. Therefore, since no code mark is visible through a punch in the West, North or East groups, the Jack of Diamonds belongs to South in the deal represented by code card 40.

In FIG. 5, code card 40 of FIG. 4 is shown superimposed upon playing card 26 of FIG. 2, the Eight of Spades. Punch 51 in North group 52 coincides with code mark 28 of FIG. 2, code mark 28 being readily visible through punch 51. This visible indication means that playing card 26, the Eight of Spades, belongs to the North hand in the deal represented by code card 40.

In FIG. 6, code card 40 from FIGS. 4, 5 and 6 is shown superimposed upon playing card 33 of FIG. 3, the Two of Hearts. Punch 53 in East group 54 of code card 40 coincides with code mark 36 of FIG. 3. Thus, playing card 33, the Two of Hearts, belongs to the East hand in the deal represented by code card 40.

Similarly, if code card 40 is successively superimposed as in FIGS. 4, 5, and 6 upon each playing card in the deck, the visual signals produced by coincident code marks and punches, or lack of such visual signals, would dictate the complete distribution of the playing cards into four predetermined "hands" as dictated by the punch pattern in code card 40.

Likewise, a different pattern of 39 punches in another code card would signal a different predetermined distribution of playing cards inimitable to that code card.

It will be understood that the playing cards may be turned in either direction, as the same code marks appear symmetrically at each end of each card.

A preferred form of apparatus is shown in FIGS. 7-9. The case 61 is in the form of a flat box open at its top and at one end to serve as a container from which the playing cards are dealt. From rear wall 62, opposite side walls 63, 64 extend forward toward the open card delivery end of the case. Beneath the deck (or partial deck) of cards 65, the case has a bottom (not shown) on which the cards are supported. The top extends beyond the forward ends of wall 63, 64, and from its forward end a wall 67 extends downwardly. A wall 68 (one being shown) extends between each side of wall 67 and the sides of the case bottom forward beyond the forward ends of side walls 63, 64. Walls 62-64 and 67 are rectangular. Each wall 68 is rectiform at its upper portion and has an angular lower edge 69 sloping downwardly to the lower end of wall 67. Outwardly extending edge flange 71 depends from the edges of wall 67 and walls 68.

Side wall 63 is recessed at its outer side at 73. Side wall 64 is identically recessed at the opposite side of the case. A plurality of parallel side-by-side ridges 75 are formed down each side wall 63, 64 and across the bottom of the case, at the forward portions of the side walls, to form a gripping surface and to provide a decorative feature for the case.

The side walls 63, 64 have recesses 78, 79, respectively, at their inner sides adjacent wall 72. The recesses are rectangular and extend the full height of the case. Beyond the forward slot 80 is disposed downwardly from just below the upper edge of each side wall to the bottom, close to back wall 62.

A pivotally movable retainer 85 has a pair of oppositely projecting lugs 86, only one being shown, which are slidable disposed in the slots 80, and about which retainer 85 is pivotally movable. Retainer 85 is movable upwardly and downwardly in slots 80. Retainer 85 is moved upwardly to remove a portion of cards 65 and a code card 40 in the case, and then is lowered to rest flushly upon the cards. As cards 65 are removed one by one from the stack, the code card and retainer 85 move downwardly to continue to rest upon the cards. Cards 65 have camouflage marks not registerable with any code card perforation.

Retainer 85 is relieved at its sides at 88, 89 at the unrelied inner side portions of walls 63, 64. A rectangular opening 91 is provided through retainer 85 for observation of the code card 40 therethrough. Each code card 40 has projecting side portions 40u, 40b which are received in the recesses 78, 79, whereby the code card is held fixed with respect to the cards 65 therethrough.

Retainer 85 has downwardly depending walls 93-95 corresponding in position and shape to the walls 67, 68, 69, respectively, and which cover these walls when retainer 85 is fully moved downwardly when no cards are in the case. A pair of opposite projections 97, 98 are provided for raising retainer 85.

An opening 101 is provided through the upper portion of wall 93 and through the adjacent top wall of the retainer. Slots 103, 104 are disposed at the intersection of the top wall of the retainer and wall 93, of sizes to permit drawing of a single card 65 therethrough from the top of the stack or deck or such cards. The portions of wall 93 at the sides of opening 101 retain the remaining cards of the deck evenly stacked in the case. When the top card is removed through slots 103, 104, retainer 85 moved down so that the next top card may be withdrawn.
With retainer 85 elevated and pivoted upwardly, a deck of cards 65 is placed in the case. A code card 40 is placed on the top of the deck with projections 40a, 40b in recesses 78, 79. The retainer is dropped or lowered to rest on the code card and deck of cards. With the apparatus thus prepared, the cards may be dealt one at a time as directed by a code mark observed through a code card punch for each successive card of the deck.

It is apparent from FIGS. 7-9 that the apparatus of the invention holds a deck of coded playing cards in correct position with respect to a punched code card which allows the operator, acting upon the resulting visual signals produced as previously described, to slide the uppermost playing card off the deck and pass same to the proper player as dictated by the visual signal, and the next lower playing card to become likewise properly positioned under the said code card for the subsequent distribution of that card, etc. When all of the playing cards of the deck have thus been distributed, the four players will have been dealt predetermined "hands" of 13 cards each. The hand punched on the code card will usually be hands which have been dealt to and played by expert tournament players. The distribution of cards being complete, the deal is ready for bidding, playing and scoring by the players, and subsequent comparison of results with those achieved by the tournament players previously.

The punched code card contains printed information necessary for the bidding, including identification of which player is "dealer" and thus bids first, and which partnership is "vulnerable." Upon completion of play, the participants may turn to a master record of consensus of results which pertains to the particular Duplicate Bridge distribution of that code card, identified by the deal number on the code card. It is contemplated that the consensus results would be printed in an accompanying booklet, to be consulted only after play of the deal is completed. The remarks concerning the deal would include actual tournament results on the deal, and expert comments on the proper bidding and play of the hands of the deal.

As in tournament Duplicate Bridge, each of the two partnerships receives a "match point" for every tournament partnership in the same direction (such as East-west or North-South) that it outscores, and a half "match point" for each such pair it ties. After the evening's (typically 12 to 20 deals), the partnership with the highest cumulative "match point" total wins.

Inasmuch as the determination of distribution of the cards is accomplished by viewing of a code mark in a group (hand) area of the code card, or lack thereof, the remainder of the back of each card may be decorated by designs or colors which do not interfere with the code mark viewing through the code card punches. The code marks and punches are not necessarily of the rectangular shapes shown, and mixed shapes can be employed. For example, code marks in the form of round dots could be used, and viewed through punches of any suitable shape to enable their viewing.

The foregoing discloses a novel playing card distribution apparatus which allows informal gatherings of people to participate in the game of Duplicate Bridge. The present device enables a game apparatus which will allow any Bridge player to compare his Bridge ability against other Bridge players with the element of luck almost completely eliminated and, in the preferable form, the accompanying material can afford the tournament results compiled by expert Bridge players in a consensus form so that the participant can derive a direct indication of his own ability as compared to that of experts. It is anticipated that periodic issues of new code cards sets would be offered to owners of the apparatus, such subsequent issues being based on other Bridge tournaments, thus offering a continuing series of authentic and entertaining deals for use with the apparatus.

It should be understood that the invention need not be restricted to those materials and designs configurations as set forth specifically herein. The essential point of the invention are in the coding and automatic signalling procedure and there are many known types of variations on the disclosed hardware which may be substituted to provide equivalent structure. Further, it is entirely within the inventor's intention that the specific designs can be materially altered without changing the function of the apparatus.

Changes may be made in the combination and arrangement of elements as heretofore set forth in this specification and shown in the drawings, it being understood that changes may be made in the embodiments disclosed without departing from the spirit and scope of the invention as defined in the following claims:

What is claimed is:

1. Apparatus for use in distributing playing cards one at a time from the top of a deck of playing cards, comprising case means for containing a deck of playing cards with the playing cards stacked in alignment, said case means being open at its top and at one end, playing card retainer means pivotally connected to said case means at the other end of said case means and being movable between a position at rest upon such playing cards of said deck as are in said case means and a position pivotally raised therefrom, said retainer means extending from its pivotal connection with said case means over said cards and being downturned to extend along the outer ends of said cards to hold said cards stacked within said case means, said retainer means having slot means along the upper edge of said downturned portion adapted to pass the uppermost card in said case therethrough and having opening means at said slot means for access in moving the uppermost card through said slot means, said apparatus including plural playing cards each bearing code marks on their backs receivable snugly in said case means, code card means adapted to cover an end portion of a playing card and having perforations therethrough for viewing a code mark of each playing card to direct its distribution to a playing hand, said case means having means for fixing said code card means in a position over the inner end portion of the uppermost playing card in said case means, said retainer means having additional opening means therethrough at the portion thereof over said code card means, said pivotal connection of said retainer means including slot means in opposite sidewalls of said case means and lug means at opposite sides of said retainer means each slidably disposed in one of said slot means whereby said lug means move downwardly as cards are removed through said first-named slot means and said retainer means remains flushly against the uppermost card remaining in said case means, said code card fixing means including additional slot means in said opposite sidewalls and lug means at opposite sides of said code card means each slidably disposed in one of said additional slot means whereby said code card means is at once fixedly in said case means but movable downwardly as cards are removed through said first-named slot means.

2. The combination of claim 1, said case means having wall means depending downwardly from the outer end of its bottom over which said downturned portion of said retainer means is moved progressively as additional cards are removed.

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