Nov. 4, 1952 R. W. BUMSTEAD 2,616,701

PLAYING CARDS

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Fig. 1.

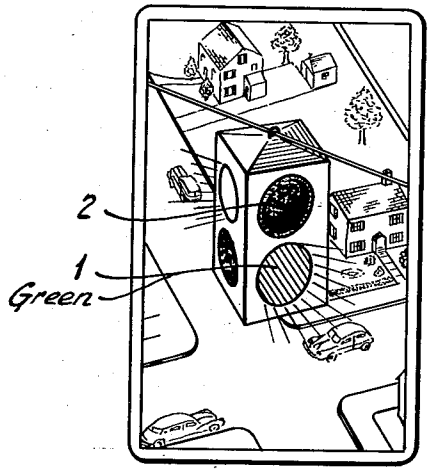
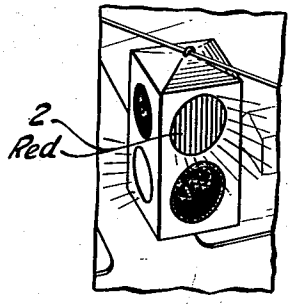


Fig. 2.



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PLAYING CARDS

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9 Claims. (Cl. 273—152.2)

1

This invention relates to playing cards having conventional suit and denominational designations. My improvement is such as to permit the playing of a scientific bidding game by as few as three players where the rules of the game adhere as closely as possible to those of conventional contract bridge.

A prime object of my invention is to provide the means for playing such a game as is indicated above. Another object is to provide a novel deck of playing cards having classifying indicia on their backs which, though they do not reveal the suits or denominations, enable the bidding phase of the game to be conducted entirely by only two of the players.

My improved deck of playing cards is useful for making a limited selection of cards of one category which are available for inspection when found in a dummy hand. These cards are identifiable as belonging to that category since their backs are marked with spots of a particular color, green, for example. Cards of a different category constitute the remainder of the deck and, because they are marked with spots on their backs having a distinguishing color, red, for example, they are unavailable, under the rules of the game, for examination during the auction and when found in a dummy hand.

In the accompanying drawing Figure 1 illustrates the back of a playing card which is marked with a spot of one color so as to identify it as belonging in the category first above mentioned. Fig. 2 is a fragmentary showing of the back of a playing card marked to identify it as belonging in the other of the two categories.

In order to simplify the following detailed description of my invention, cards of one category which are given a bidding informational characteristic will be referred to as "green-spotted" on their backs. Cards of the other category are "red-spotted."

The colors green and red as mentioned in the preceding paragraph are, of course, arbitrarily chosen and other colors may be adopted if preferred, so long as they are suitable for distinguishing the cards of the two categories. The drawing shows that the colored spots are round. This may be preferable but the shape of the spots is not essential. In fact, if desired, the indicia on the backs of the cards may take the form of a more or less complete coverage of the printing area, and each card may be marked with not merely one but a plurality of spots or other design for category distinction.

A fanciful preference for the colored spot

2

showing on the backs of the cards is as presented in Fig. 1 because the green spot 1 appears to be that of a traffic light at a street intersection, whereas the red spot shown in Fig. 2 as spot 2 appears to be that of a red traffic light. It will be understood, however, that it is not my intention to claim in this application any form of printing, or any design of a card back; but the purpose of the application is to protect the novel features of my improved deck of playing cards.

The novel features of my improved playing cards and the utility of the same for entertainment purposes may be best understood after describing the manner of their use in playing a modified game of contract bridge. The game as will now be described is only one of many different games which may be played with the same deck:

According to the rules of this illustrative game, the bidding is restricted to the dealer and his opponent who sits on his left. Each bidder first bids his own hand (or passes) and then lays his hand face down on the table while he picks up and examines the suits and values of green-spotted cards (if any) which are found to have been dealt to a dummy hand across the table from himself. He can now make a bid (or pass) for his dummy.

Although each of the opponent bidders has his turn during the auction, the bids are assumed to be originated rotatively from the four sides of the table, each live bidder making reference to his own dummy hand that was dealt across the table from himself. Only the green-spotted cards when found in a dummy hand are available for inspection. The red-spotted cards must not be lifted or turned up, on penalty of, say 50 points, until the auction phase is ended. So, because the examination of only the green-spotted cards in the dummy hand does not necessarily reveal its full value, an element of speculation is introduced into the bidding which is believed to be comparable with the exchange of information through the restrictions of partnership responses.

Another element of chance and speculation which is inherent in the game under discussion results from the fortuitous ratio which may exist between the green-spotted cards and the red-spotted cards among the thirteen cards dealt to a dummy hand. A bidder whose dummy contains fewer green-spotted cards than the dummy of his opponent takes a greater risk of over-bidding, but, as a matter of compensation, the red-spotted cards in his dummy may prove to be of greater value than the entire value of his op-

ponent's dummy. This would not always be so, but it is a factor that invokes consideration of the laws of probability.

The rounds of bidding may be continued until there are three passes, as usual in contract bridge. Then the dummy across the table from the losing bidder, the bidder on the defendant side, is picked up and played by his partner, who up to that time did not participate. After the opening lead from the defendant who sits on the right from where the declarer's dummy is to be spread, that dummy is turned up for all to see its thirteen cards. The play of the hand is in full accord with conventional rules.

The selection of cards to be placed in the two categories, according to my invention, would appear to be somewhat arbitrary. After considerable research and experimentation, however, I have found that considerable care had to be exercised in making this selection so that a scientific bidding game could be played under rules that would give the game an entertainment value substantially equivalent to that of contract bridge. I cannot say that expert bridge players would be in accord with me or even amongst themselves as to what is the one best assortment of cards of different suits and denominations to be classed in the green-spotted and the red-spotted categories respectively. There are millions of different arrangements of the cards in the two categories, many of which would provide reasonably good opportunities for evaluating a dummy hand by inspection of the green-spotted cards only. But in order to render these opportunities fortuitously commensurate with one's ability to evaluate a partner's hand on the basis of his bidding responses there must be an inclusion of more than half of the honor cards in the green-spotted category. Also, there must be in the same category a sufficient number of cards of each suit so that the bidder may name his trump with some regard for the length of that trump suit that will be under his control.

On the other hand, the purpose of the inclusion of certain cards in the red-spotted category is to retain that element of speculation in the bidding which makes the game enjoyable.

It should be clearly understood that the scope of my invention is not restricted to any particular selection of cards to be placed in the green-spotted and red-spotted categories respectively, so long as such selection comes within the definition of any of the claims. Nevertheless, I submit the following assortment as being my particular preference and one which has been given the test of approval by a considerable number of card players:

Allotment of cards to the green-spotted category

Spades	K	Q	J	10		8	7		5				
Hearts	K	Q	J		9	8	7	6		4			
Diamonds	A		Q	J	10		8			5		3	
Clubs	A	K		J		9		7	6		4		2

The twenty-two cards of a 52-card deck which are not listed above are allotted to the red-spotted category. This selection is supported by a theory which seems reasonably sound, although I cannot prove it, not being too familiar with the laws of probability; the theory being that different denominations of cards should be given a weighted evaluation along a nonlinear scale. The squares of the numbers 1 to 13, representing the different denominations in each suit may be applied to these denominations as above given for the green-spotted category, and when this is done it will be seen that there is an approximate equalization

of values in the different suits and also in the four highest denominations of the different suits, namely, among the aces, kings, queens and jacks. Evaluation on a nonlinear scale is thus shown in the following table:

	Spades	Hearts	Diamonds	Clubs
	K 144 Q 121 J 100	K 144 Q 121 J 100	A 169 Q 121 J 100	A 169 K 144 J 100
Sub-total	365	365	390	413
	10 81 8 49 7 36 5 16	9 64 8 49 7 36 6 25 4 9	10 81 8 49 5 16 3 4	9 64 7 36 6 25 4 9 2 1
Total	547	548	540	548

The sum of the squares of the numbers 1 to 13 inclusive is 819; hence the value of green-spotted cards in each suit is approximately 67%, leaving a red-spotted value of 33%. With respect to the evaluation of the honor cards ace, king, queen and jack as allotted to the green-spotted category from each suit, this allotment departs sufficiently from equality to compensate for the greater risk one normally takes in bidding "game" on a minor suit trump declaration. The sum of the squares of the numbers

$$10+11+12+13=100+121+144+169=534$$

So, as shown in the above evaluation table, green-spotted card allotment to different suits and down to the sub-totals yields percentages of representation thus:

Spade honors K, Q, J=68%
Heart honors K, Q, J=68%
Diamond honors A, Q, J=73%
Club honors A, K, J=77%

Although the 10-spot is an honor card its value for bidding purposes should be considered chiefly along with the cards of inferior denomination and particularly with reference to the length of a suit which the bidder might wish to name as the trump. This is an accepted treatment of the 10-spot for evaluating one's hand while bidding.

Considering the suits collectively, it is my belief that every denomination should be represented in the green-spotted category. My preferred assortment provides this representation with the object of minimizing the possibility of identifying any particular card by sole reference to the color of the spot on the back. In the red-spotted category, also, all denominations but one are represented, namely, the jack. These characteristics of my preferred green-and-red classification should, however, be viewed as not absolutely indispensable, but they seem to have their good points and are for that reason recommended. The two green-spotted aces have been allotted to the minor suits and the red-spotted aces to the major suits in order to measurably equalize the risk of bidding "game" in any suit.

The specific form of my invention as herein shown and described will be understood to be merely illustrative and no limitations are implied other than as determined by the scope of the claims.

I claim:

1. A deck of playing cards having four suits and thirteen denominations in each suit, the deck being divisible into two classes each of which

includes a predetermined assortment of widely differing denominations in each of the four suits, identical indicia applied to the backs of all the cards of one class to distinguish the same from cards of the other class, and identical indicia of another type applied to the backs of all the cards of the other class.

2. A deck of fifty-two playing cards, said deck having four suits and thirteen denominations in each suit, the back of each card bearing one or the other of two informative indices, each particular index being applied to cards of a respective group wherein all four suits and widely varied denominations of each suit are included, the one index being of a type which under certain conditions designates "permission to inspect" and the other index being of a type which under like conditions designates "inspection denied," said conditions being those which prevail after dealing the deck with the cards face down, there being at least one dummy hand in the deal, said indicia being operative during an auction to control the extent to which inspection of cards found in a dummy hand is permitted.

3. In a deck of playing cards of the type having four suits and thirteen denominations in each suit, an examinable category of individual cards and a speculative category comprising the remainder of the cards in the deck, the examinable category including cards chosen from all four suits and of widely differentiated denominational values, a symbol of uniform characterization displayed on the back of each card of the examinable category, and a different symbol of uniform characterization displayed on the back of each card of the speculative category.

4. A deck of fifty-two playing cards composed of four suits and thirteen different denominations in each suit, said deck being also divisible into two and only two groups, where the first group is composed of a majority and not more than thirty-six of the cards and includes cards chosen from all four suits, identical indicia on each of the cards of the first group and on the backs thereof to distinguish the same from cards of the second group when only their backs are exposed to view, and means for indicating restrictive use of the cards of the second group during the conduct of an auction, this second group comprehending cards of all four suits and a wide range of denominational values, said means comprising identical back-side indicia which are applied exclusively to all the cards of the second group.

5. A deck of playing cards having four suits and cards of thirteen different denominations in each suit, said cards being divisible into two and only two categories, namely a first category including certain cards of widely varied denomination which are available for face-side inspection if found in a dummy hand during an auction, and a second category comprehending the remaining cards of the deck, these cards being selected from all four suits, indicia means, all alike, displayed on the backs of the cards of said first category for indicating "permission to inspect their faces" if found in a dummy hand during an auction, and other indicia means, all alike, displayed on the backs of the cards of the second category for indicating that the inspection of their faces during an auction is to be denied if said cards are found in a dummy hand.

6. A deck of fifty-two playing cards comprising a first group of cards not less than sixteen nor more than twenty-six in number, the backs of which are substantially indistinguishable one from another but are distinguishable from cards of a second group constituting the remainder of the deck, there being displayed on said backs a distinctive symbol exclusively appropriate to each group, the symbol appropriate to the first group having a significance which restricts their use under certain conditions, as in auction bidding, each of the fifty-two cards of said deck being distinctively characterized on their face sides as in a conventional deck having four suits and thirteen different denominations in each suit, there being a predetermined selection of denominations of widely different values which are included in each of said groups, and also an inclusion of cards of each of the four suits in each of said groups.

7. A deck of playing cards comprising four suits and thirteen different denominations in each suit, being of the type conventionally used in playing contract bridge, indicia displayed on the back of each card and of two distinctive types, said indicia constituting means for separating the cards of the full deck into two and only two categories, means in said deck constituted by the particular choice of cards of different suits and denominations as predetermined for inclusion in a particular category whereby said indicia are rendered substantially incapable of revealing the identity of any particular card's suit or denomination, means giving said indicia of one type a significance which indicates "permission to inspect," and means giving the indicia of the other type a significance which indicates "denial of inspection."

8. A deck of cards having conventional suits, four in number and thirteen denominations in each suit, means displayed on the backs of certain cards of said deck for signifying a permissive inspection of their faces if such cards are dealt to a dummy hand, and means displayed on the backs of the remaining cards of said deck for signifying a denial of inspection under like circumstances, but during an auction, the two said means being relatively distinctive, and comprising indicia of like appearance on the backs of all said certain cards, and other indicia of like appearance on the backs of said remaining cards, the selections of suits and denominations of cards which bear the respective types of distinctive indicia, being so intermingled that the indicia per se are rendered substantially incapable of revealing individual card identities.

9. A deck of playing cards having four suits and thirteen cards in each suit, said deck being divisible into two categories, the cards of one category bearing on their backs identical designations of a particular type and the cards of the other category bearing on their backs identical designations of another type, said one category being inclusive of at least seven cards in each suit and said other category being inclusive of at least five cards in each suit.

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