March 24, 1970 G. K. KRUEGER, JR 3,502,336

DECK OF PLAYING CARDS HAVING A PLURALITY OF DIFFERENT TYPES OF SUIT MARKINGS, EACH OF WHICH IS VISIBLY DISTINCTIVE FROM THE OTHERS IN SURFACE APPEARANCE

Filed Feb. 14, 1967

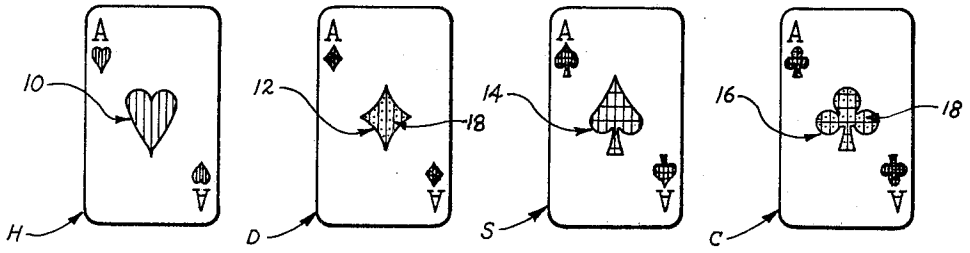


FIG. 1

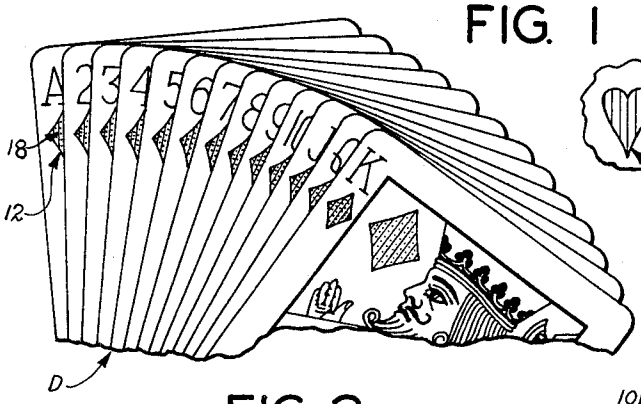


FIG. 2

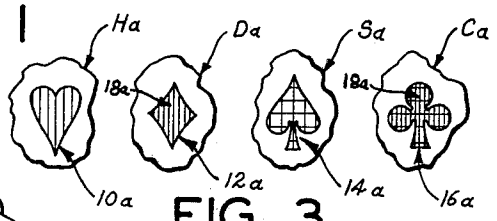


FIG. 3

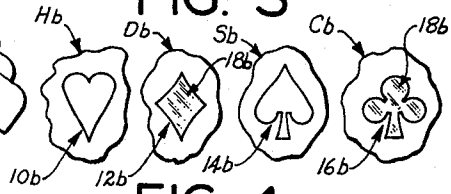


FIG. 4

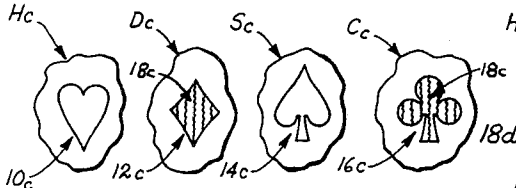


FIG. 5

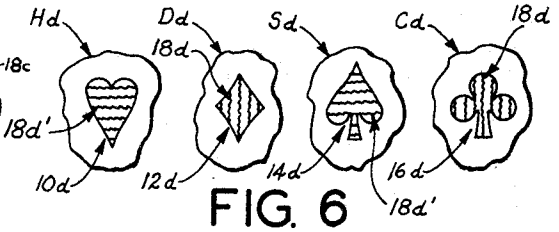


FIG. 6

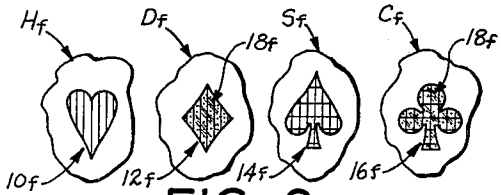


FIG. 8

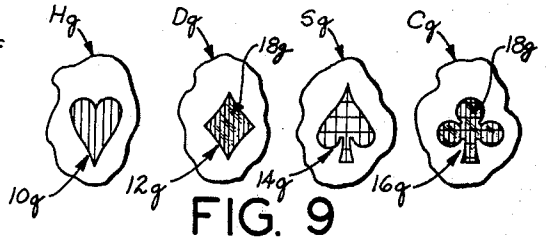


FIG. 9

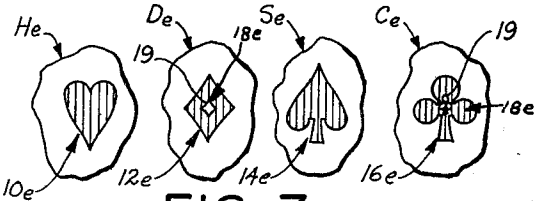


FIG. 7

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DECK OF PLAYING CARDS HAVING A PLURALITY OF DIFFERENT TYPES OF SUIT MARKINGS, EACH OF WHICH IS VISIBLY DISTINCTIVE FROM THE OTHERS IN SURFACE APPEARANCE

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ABSTRACT OF THE DISCLOSURE

The specification discloses a novel means for visibly distinguishing from each other the like-colored suits of playing cards because of visibly distinctive identifications provded thereon by differences in homogeneous surface appearances of card pips of different like-colored suits, such as differences in depth of color, color intensity, color shade, or the like, or differences in over-all surface reflectivity, or combinations thereof which provide visibly distinctive surface appearance differences between like-colored suit cards such as hearts and diamonds, clubs and spades, and not relying upon the pip shape.

Generally speaking, the present invention relates to the game art and, more particularly, to conventional playing cards which have been used for many years for the purpose of playing a great variety of different types of card games. Conventionally, a deck of such playing cards will have 52 cards including thirteen cards of each of four different suits, although it should be understood that the invention is not specifically limited to this exact type of deck of playing cards, but may be employed wherever it may be desirable to make it possible to quickly and easily visibly distinguish between cards of multiple different suits.

However, for purposes of simplicity of description, and since such conventional 52-card four-suit types of decks of playing cards are well known, this conventional type of deck of playing cards will be referred to primarily herein in connection with the present invention and the modifications thereof which comprise several exemplary forms of the present invention.

When playing cards, it is normally conventional to deal to one or more players a predetermined number of cards which each player then picks up and holds in his hand for use in playing a particular card game. When the player picks up his group of cards or "hand," he normally will segregate them in accordance with suit, since in a great many card games suit is extremely important. In a few instances, the player may also segregate the cards of any particular suit according to numerical sequence. However, this is not particularly important insofar as the present invention is concerned, which relates primarily to the first-mentioned type of card separation or segregation comprising the separating of the cards into groups of different suits in the player's hand.

When such initial card segregation has been done and, in fact, during the act of segregation of the cards by each of the players, the player will attempt to hold the plurality of cards in his hand in such a way as to prevent other players from observing the face of any of his cards and thus acquiring a possible playing advantage from knowing what card or cards a particular player possesses. This necessity for concealment of the face surfaces of his cards normally causes the card player to hold his cards in very closely adjacent, almost completely overlapped and/or superimposed relationship with just similar

side edges being slightly laterally displaced from one another so that the player can see just enough of the edge (and, in particular, the upper corner edge) of the card to know the denomination and suit—at least, this is the intent of the player in holding the cards in this closely bunched but slightly laterally displaced manner.

However, the above-mentioned type of card holding procedure has led to many mistakes on the part of a player, primarily mistakes as to precisely how many cards of each of the suits he has in his hand. The player is not likely to make substantial errors as to the denomination of any of the cards in his hand because the denomination marking can ordinarily be found in the extreme corner of the card and thus will be clearly visible even when the cards are held in the manner described above. However, such cannot be said for the pips identifying the suits (usually four suits) of the decks of cards, and frequently only portions of these pips will be visible to a player when he holds his plurality of cards in the closely bunched manner referred to above. This somewhat obscures the player's vision of the complete physical shape of each pip, which is the only basis upon which or whereby a player can distinguish between diamonds and hearts (both of which are conventionally red) and between spades and clubs (both of which are conventionally black).

Thus, it is possible for a player holding a group of cards in his hand in the above-mentioned closely bunched and very slightly laterally displaced manner, to mistake a heart for a diamond or vice versa or to mistake a club for a spade or vice versa, until he is ready to play the card and opens up the group of cards at the appropriate location to facilitate removal of that particular card, at which time the player is horrified to find that he has misread the suit, and this may completely spoil the player's game-playing strategy and, indeed, may very easily cause him to lose the game.

The present invention provides a complete solution to the above-mentioned prior art problem without outraging the preconditioned feelings of conventional card players, which would be the case if the conventional playing cards, which have been available for such a long period of time, were to be changed radically for the purpose of the present invention. In other words, it is quite possible that one could solve the problem by merely making the cards of each suit so completely visibly distinctively different that no person could possibly confuse a card of any one of the suits with cards of any of the other three suits.

For example, all heart cards might be totally red, all spade cards might be totally black, all diamond cards might be totally green and all club cards might be totally purple. It is quite clear that if such were the case, the likelihood of one visibly confusing cards of various suits would certainly be minimized. However, such cards, or comparable cards, have been found to be unacceptable to the cards-playing public because of the resistance-to-change factor comprising a basic element of human nature.

In other words, the desirable solution to the above-mentioned problem is to provide playing cards which do not depart very substantially from the appearance of entirely conventional playing cards, or which seem to depart so slightly therefrom that an ordinary player would hardly be aware of it or notice it, while, at the same time, the conventionally similar diamond and heart suits and spade and club suits (similar in color) should be clearly visibly distinctive from one another for the easy suit-identification purposes of the present invention referred to hereinabove. To achieve a compromise solution to the above divergent requirements is difficult and has not been satisfactorily accomplished in the prior art by any of

the various attempts to solve this problem of which I am aware.

However, the present invention substantially fully meets the above-mentioned divergent requirements—that is, provides a very easily visibly discernible distinction between hearts and diamonds, and between spades and clubs, without the necessity of seeing the pip shape of any card bearing same, and does so in a manner which does not outrage the sensibilities of long-time card players who have become accustomed to the appearance of conventional playing cards.

The above desirable objectives are achieved in the present invention primarily by providing visibly distinctive and different pip surface means on the conventionally similarly colored pips—that is, on hearts and diamonds which are conventionally colored red and on spades and clubs which are conventionally colored black. Incidentally, it should be noted that the word "color," and various forms thereof, is used herein in connection with black for purposes of convenience, although I am aware of the fact that optically speaking black is not truly a color but is merely the absence of reflected light. However, it will be referred to as a color herein for purposes of simplification in the description.

In other words, in a conventional deck of playing cards the surface of a pip of the heart suit and the surface of a pip of the diamond suit are identical in all optical characteristics including spectral absorption and spectral reflection, and thus provide no suit-identification clue to an observer who must rely solely upon the exterior shape of each pip for suit-identification information.

In the case of the present invention, the surface of the heart suit pip and the surface of the diamond suit pip will, in themselves, be visibly discernibly different so that a player viewing same will know that one is a heart suit card and the other is a diamond suit card without the necessity of seeing the complete pip so that the exterior shape thereof could supply the suit-identification information.

The difference in the surface appearance of the heart pip and the diamond pip may be merely the fact that one is a slightly deeper red, or a red of greater depth of color, than the other. Thus one red pipe appears to be the same basic red color as the other red pip but has the appearance of having been somewhat diluted or weakened in intensity, or vice versa. This provides a clear visible distinction and yet is not offsensive to conventional card players who expect to see a diamond pip have a red surface and a heart pip have a red surface.

Another type of visibly discernible and differing surface appearance producing means for the heart pips and/or the diamond pips might be to have one of them of slightly different shade than the other, although basically closely related.

Another pip surface appearance variation between the diamond pips and the heart pips might be to provide a difference in surface light absorption and, conversely, light reflection characteristics. Thus, the heart pip might be the same red color as the diamond pip but appear to be extremely glossy, while the diamond pip might appear to be extremely dull—almost a matte finish. This difference is produced entirely by differences in absorption and reflectivity characteristics and is very obvious to the eye and thus will clearly provide the suit-identification information needed without requiring that the exterior pip shape be seen in full to provide this information as is conventionally the case.

Also, it should be noted that one or the other or both of the pips—that is, the diamond pip and/or the heart pip—may have similar surface appearances insofar as color intensity, shade, absorption and/or reflectivity are concerned, but may have one or two patterned surfaces which differ from one another. For example, one or the other of the heart or diamond pips may have an absolutely plain surface while the other has a retriculated grid-like pattern or any other desired pattern on the surface thereof, or vice versa. On the other hand, it is possible for the two pip surfaces to each bear such a pattern, but with the two patterns being quite different in appearance. As an example only, it might be that the heart pip would bear a vertically fluted pattern on the red surface thereof, while the diamond pip might bear a horizontally fluted pattern on the red surface thereof, thus providing a very clearly visibly discernible difference therebetween.

It should be understood that the foregoing general comments and description referring in a broad general sense to several different exemplary forms of the invention specifically mention said forms of the invention in connection with distinguishing the diamond pipe from the heart pip or vice versa, and have made no comment to this point with respect to distinguishing the club pip from the spade pip or vice versa. However, it should be understood that precisely the same type of means are applicable to the two black suit pips comprising the spade pip and the club pip and may be applied to either or both of same in a manner which will produce a visibly distinctive difference in appearance of club pips and spade pips based upon distinctions similar to those referred to hereinabove in connection with distinguishing heart pips from diamond pips and vice versa. Therefore, all of the foregoing statements relative to distinguishing heart pips from diamond pips and vice versa are equally applicable to the distinguishing of club pips from spade pips and vice versa, and are to be construed as being specifically applied thereto at this point.

It will be understood that the above merely describes a few of the many possible different visibly discernible and distinctive appearance-producing surface means which may be provided on the conventionally similar pips—conventionally similar as to color of suits, such as hearts and diamonds, or spades and clubs, or the like, and that all such visibly distinctive modified appearance producing surface means within the broad scope and teachings of the present invention are intended to be included and comprehended herein as fully as if described, illustrated, and claimed herein in individual form, particularity, and detail.

With the above points in mind, it is an object of the present invention to provide a novel, distinctive, visibly discernible card pip appearance modifying means, and cards bearing same, which make it possible for a person to quickly visibly identify any suit as a result of viewing just a portion of the surface of any card pip, with the invention including any or all of the features referred to herein generically and/or specifically, either individually or in combination, and with the various embodiments of the invention being of extremely simple, inexpensive, easy-to-use form adapted to be incorporated in playing cards at the time of manufacture thereof at virtually no increase in cost over the conventional cost of manufacture of such playing cards, and which will result in the production of such visibly perceivable suit-distinctive types of playing cards which do not basically depart from the general appearance of conventional playing cards to a degree such as to arouse psychological opposition to the use thereof—thus being conducive to widespread production, distribution, and use of the invention for the purposes outlined herein.

Further objects are implicit in the detailed description which follows hereinafter (which is to be considered as exemplary of, but not specifically limiting, the present invention), and said objects will be apparent to persons skilled in the art after a careful study of the detailed description which follows hereinafter, and all such implicit objects are intended to be included and comprehended herein as fully as if detailed with great particularity herein.

For the purpose of clarifying the nature of the present invention, several exemplary embodiments thereof are

illustrated in the hereinbelow-described figures of the accompanying drawing and are described in detail hereinafter.

FIG. 1 is a greatly reduced size plan view of four representative playing cards of a conventional 52-card deck of playing cards and shows a similar denomination card of each of the four different suits customarily present in such a conventional 52-card deck of playing cards. However, the representative four different suit cards are shown embodying one exemplary form of the present invention so that it is possible to quickly and easily visually perceive the difference between the two red suit cards—hearts and diamonds—and the two black suit cards—spades and club—by merely looking at any small portion of the surface of a card pip carried thereby, because of the fact that there is a visible discernible difference in the appearance of the surface portion of each card pip resulting from one exemplary form of light-modifying surface means of the present invention employed on at least one of the two red suit card pips and at least one of the two black suit card pips—in this exemplary form of the invention comprising the modification of intensity, or depth of color, of the red on the diamond suit card pips as compared to the red color on the heart suit card pips and the corresponding modification of intensity, or depth of color, of the black on the club suit card pips as compared to that on the spade suit card pips. It should be noted that the conventional color code markings for patent drawings are not entirely adequate to illustrate the change in depth of color, or color intensity, as referred to above in connection with the modified intensity red color of the diamond pips and the modified intensity black color of the club pips and, therefore, I have arbitrarily chosen to indicate said modified colors by modifying the conventional red color code marking by adding a number of black dots between the color coding lines in a manner which may be said to comprise stippling the color coded surface so as to indicate in an intuitively analogous manner a variation in depth of color or intensity of the red diamond color as compared to the conventional red heart color, and by doing the same thing with respect to the conventional black color coding for showing the modified intensity black color of the club pips.

FIG. 2 is a fragmentary view of all thirteen cards of the diamond suit conventionally present in a conventional 52-card deck of playing cards (although the cards embody the present invention), with the cards being shown in an overlapped, closely laterally adjacent relationship similar to the positional relationship of a group of cards when held in the hand of a player. This view clearly illustrates the fact that even though all of the cards are very closely laterally adjacent to one another to an extent such that only a portion of the pips of the various cards can actually be seen, because of the visibility distinctive light-modifying means provided on the club pips, it is possible at a glance to immediately perceive the difference between hearts and diamonds and the difference between spades and clubs without depending upon seeing the complete shape of the pips. Of course, it should be understood that normally a player will not have all thirteen cards of one suit in his hand. In fact, usually, a player will have different numbers of cards of most or all of the four suits in a hand including a large number of cards such as the thirteen illustrated in FIG. 2. However, the showing of FIG. 2, while arbitrary in that normally thirteen similar suit cards would not be found in a single hand, serves two useful purposes. First, it clearly shows that the diamond suit cards are immediately recognizable as diamond suit cards even in the closely laterally adjacent relationship shown in FIG. 2, and, secondly, it clearly shows that one preferred form of the invention is of the type wherein each of the four suits represented in FIG. 1 includes thirteen different denomination cards of the type shown in FIG. 2; thus between FIG. 1 and FIG. 2 effectively disclosing a 52-card playing card deck. It should be clearly understood that each of the other suits of FIG. 1 comprising the heart suit, the spade suit, and the club suit, includes thirteen cards of the same denominations as shown in FIG. 2 with respect to the diamond suit and that, in the case of the club suit, visibly distinctive light-modifying surface means is also provided on the surface of the club pips in a manner similar to that shown on the surface of the diamond pips in FIG. 2, and that the heart surface of the diamond pips in FIG. 2, and that the heart surface pips may remain unmodified and the spade surface pips may remain unmodified, thus providing visible distinctions by which any of the four suits of FIG. 1 can be recognized even if only a very small portion of the surface of one pip can be seen.

FIG. 3 is a view similar to FIG. 1, but fragmentarily shows only corresponding pip portions of the cards and illustrates a first modification of the invention wherein the modification of the diamond pip color comprises a change of shade rather than a change of color intensity or depth of color. This is also true with respect to the modification of the black pip color of the club pips which instead of being a true black may have a slightly brownish cast to the black. For the reasons noted hereinabove in connection with the first form of the invention, conventional color coding is not entirely adequate to clearly show the type of light-modifying means employed for the diamond pips and the club pips and, therefore, I have arbitrarily chosen to show this by correspondingly modifying the number of vertical color coding lines (and consequently the spacing therebetween) present in any given transverse distance of the modified color coded surface. This, in a rather intuitive or analogous sense, would be similar to frequency variation since the number of vertical lines present in the modified color coding would vary in a manner analogous to frequency variation when a color varies a shade from a predetermined shade, such as a true red in the case of the heart suit and a true black in the case of the spade suit.

FIG. 4 is a view similar to FIG. 1 and also similar to FIG. 2, but fragmentarily shows only corresponding pip portions of the cards and, in this case, a further variation in the light-modifying surface means carried by the red diamond pips and by the black club pips is shown, in each case comprising a variation in surface reflectivity to an extent such as to render the light-modified diamond pip surfaces visibly distinctive from the unmodified heart pip surfaces and to correspondingly render the light-modified club pip surfaces visibly distinctive from the unmodified spade pip surfaces. Conventional color coding does not take into account, nor provide for, the showing of such surface reflectivity variations and, therefore, it is necessary to employ some other means for representing same in FIG. 4. For this reason, no conventional color coding is shown for any of the four different pip colors which, in the case of the heart and diamond pips, is red and, in the case of the spade and club pips is black, so that an arbitrary showing comprising diagonally positioned, slightly overlapped, spaced lines on the surface of the diamond pips and on the surface of the club pips can be seen; said diagonal, overlapping lines being similar to that conventionally used to show transparent material in elevation and being arbitrarily employed for the purpose of designating a modified surface reflectivity characteristic of the corresponding red diamond pip surface and of the corresponding black club pip surface.

FIG. 5 is a view similar to FIGS. 1, 3, and 4, fragmentarily showing only corresponding pip portions of the cards, and illustrates a further modification of the invention wherein the light-modifying surface means of the diamond pips and the club pips are rendered visibly distinctive from the corresponding unmodified heart pip and spade pip surfaces, respectively, by the provision of visibly distinctive surface pattern means, thus clearly rendering the diamond pips visibly distinctive from the heart pips and clearly rendering the club pips visibly distinctive

from the spade pips. It should be understood that, because of the fact that the surface pattern means employed on the diamond surface pips and on the club surface pips, and comprising the light-modifying means in this form of the invention, would be difficult to see if conventional color coding were used to show the red color of the diamond pips and the black color of the club pips, such conventional red color coding and black color coding is omitted therefrom and, for purposes of consistency, the same red color coding and black color coding is omitted from the heart suit pips and the spade suit pips of FIG. 5.

FIG. 6 is a fragmentary view similar to FIG. 5 but illustrates a further modified form of the invention wherein both the heart suit pips and the diamond suit pips, each of which is red in color, have different types of surface pattern means comprising visibly distinctive light-modifying means. This is also true with respect to the spade pips and the club pips. A first type of surface pattern means is shown as comprising horizontal lines carried by the heart pips and similar horizontal lines carried by the spade pips, and it should be clearly understood that these represent an actual physical surface pattern of one exemplary and non-specifically limiting type and do not comprise blue color coding as one might initially assume from an examination of the color coding chart for patent drawings. Similarly, the other and visibly distinctive surface pattern means comprising the other light-modifying means carried by the diamond suit pips the club suit pips is shown as comprising a plurality of vertically directed lines, and it should be clearly understood that these represent a physical pattern of one exemplary type and are not intended to represent red or pink color coding in the conventional manner.

FIG. 7 is an enlarged, fragmentary view of playing card pip portions of a type generally similar to FIGS. 3 through 6 but illustrating a slightly different form of light-modifying surface means on the different suit card pips wherein they markedly differ from one another in appearance and light-reflecting characteristics with respect to a particular discrete surface area portion of at least one (either one) of the different but conventionally similarly colored pips such as hearts and diamonds or spades and clubs.

FIG. 8 is an enlarged, fragmentary view of playing card pip portions essentially showing a combination of the FIG. 1 and FIG. 4 forms of the invention.

FIG. 4 is an enlarged, fragmentary view of playing card pip portions similar to FIG. 8 but essentially illustrates a combination of the FIG. 3 and FIG. 4 forms of the invention.

Generally speaking, the present invention may comprise a deck of playing cards including any desired number of cards of any desired number of suits, with each suit including any desired number of denominations of differing individual cards.

In one preferred form, the deck of playing cards may include four suits, such as the heart suit cards, generally designated at H in FIG. 1, the diamond suit cards such as generally designated at D in FIGS. 1 and 2, the spade suit cards such as generally designated at S in FIG. 1, and the club suit cards such as generally designated at C in FIG. 1.

Conventionally, each of the four different suit card types will include thirteen different denomination cards, such as is shown with respect to the diamond suit in FIG. 2, and thus this would provide a 52-card deck of playing cards, although it should be understood that sometimes a joker is employed therewith, and this would actually convert the deck into a 53-card deck.

While this particular type of deck of playing cards is the one most generally used and is one with which the present invention is likely to have its greatest use, in combination therewith, it should be clearly understood that the invention is not specifically so limited that the reference to such a conventional deck of playing cards having the specifically identified four different suit card types and each adapted to include thirteen different denomination card types as exemplified in FIG. 2, is merely used for purposes of facilitating the description of the present invention but is not to be construed as specifically limiting it thereto.

Conventionally, each of the four different types of suit cards H, D, S, and C bears on the face thereof one or more pips such as shown at **10** in the case of each of the heart suit pips, such as is shown at **12** in the case of each of the diamond suit pips, such as is shown at **14** in the case of each of the spade suit pips, and such as is shown at **16** in the case of each of the club suit pips.

Conventionally, the heart suit pips and the diamond suit pips **10** and **12**, respectively, are of similar red color having similar spectral-absorption and spectral-reflection characteristics, and the spade suit pips and the club suit pips **14** and **16**, respectievly, are of similar black color having similar spectral-absorption and spectral-reflection characteristics. Thus, in conventional decks of playing cards, visual recognition of what suit a particular card in one's hand is can be very radially determined, as between hearts and diamonds on the one hand, and clubs and spades on the other hand, because of the very obvious difference in the red color of hearts and diamonds and the black color of clubs and spades. However, in such conventional decks of playing cards the visual discrimination between the two red card suits—that is, between hearts and diamonds and the visual discrimination between the two black card suits—that is, between spades and clubs—is provided in a totally different manner and is based largely upon recognition of the difference in physical outline or plan view shape of the corresponding red heart pips **10** as compared to the red diamond pips **12**, and the black spade pips **14** as compared to black club pips **16**.

In other words, it may be said in a rather general way that the first above mentioned type of suit discrimination—that is, between hearts and diamonds on the one hand and spades and clubs on the other hand—is a spectral distribution type of discrimination, while the second above mentioned type of suit discrimination—that is, between red hearts and red diamonds on the one hand and between black spades and black clubs on the other hand—is a configuration type of discrimination.

The second above mentioned type of discrimination, referred to above in a general way as comprising a configuration type of discrimination for discriminating similarly colored suit card pips from each other, has certain substantial disadvantages in that if the cards are very closely held in one's hand in a closely laterally adjacent but very slightly laterally displaced manner, such as is illustrated in FIG. 2, for example, and usually with the upper ends of the cards laterally spaced to a greater extent than the lower ends of the cards, it will be found that the pips **10**, **12**, **14**, or **16** of the various different suit cards H, D, S, or C are only partially in view and thus the complete outline or plan view shape or configuration of any of said pips **10**, **12**, **14**, or **16** cannot be very clearly seen, and it is only because of the pattern extrapolation capability of the human mind that one is able, in many cases, to mentally complete the partially seen pip pattern and to thus determine what the particular suit of the card in question bearing said pip actually is. This situation leads to numerous errors among card players, and quite often a card player will believe that he has hearts in his hand when he has diamonds, or vice versa, or will believe that he has spades in his hand when he has clubs, or vice versa, purely because of the partial obscurement of the complete pip pattern physical outline or shape of the card in question when held in a closely laterally adjacent relationship similar to the physical card relationship shown in FIG. 2.

However, in the first exemplary form of the invention illustrated in FIGS. 1 and 2, the above prior art problem is completely eliminated and overcome because of the fact that the diamond pips **12** each has what might be termed optical or visual light-modifying surface means, such as is designated at **18**, which is adapted to reflect light therefrom in a characteristically and distinctively different manner from light reflected from the surface of any of the heart pips **10**.

In the exemplarly first form of the invention illustrated in FIGS. 1 and 2, it will be noted that the light-modifying surface means **18** is of a type which comprises selective-absorbing and selective-reflecting surface means having a distinctively different spectral-absorption and spectral-reflection characteristic with respect to relative amplitude and/or frequency of light reflected therefrom so as to render the diamond pips **12** clearly visibly distinctive from the heart pips **10** even though they both appear to have red surfaces.

In the exemplary first form of the invention illustrated, the distinctively different spectral-absorption and spectral-reflecting characteristic of the light-modifying surface means **18** of the diamond pips **12** comprises means modifying the depth of the red color, or the intensity of the red color, thereof so that it is visibility distinctive from the unmodified red color of the surface of the heart pips **10**, thus making it possible to easily determine the difference between heart suit cards and diamond suit cards no matter how closely bunched in one's hand as long as any portion of any pip of the various cards thereof can be seen.

The modification of the depth, or intensity, of the red color of the diamond pips **12** provided by the light-modifying means **18** may be in either direction—that is, it may tend to increase the depth of color as compared to the red color of the heart pips **10**, or may be such as to decrease the depth of the red color or the intensity of the red color of the diamond pips **12** as compared to the red color of the heart pips **10**. Either or both arrangements, or a combination thereof, are contemplated and are intended to be included and comprehended within the broad scope of the present invention and are considered to be disclosed by the showing of FIGS. 1 and 2.

Substantially the same thing is true with respect to the unmodified black spade pips **14** and the light-modified black club pips **16** in the first form of the invention. In other words, it will be noted that the club pip **16** are provided with similar light-modifying surface means **18** comprising selective-absorbing and selective-reflecting surface means having distinctively different spectral-absorption and spectral-reflection characteristics from those of the unmodified black surface of the spade pips **14** and thus clearly visibly distinguishing the club pips **16** from the spade pips **14**. The modification of the depth or intensity of the black color of the club pip **16** provided by light-modifying means **18** may be in either direction—that is, it may tend to increase the depth of color as compared to the black color of the spade pips **14** or may be such as to decrease the depth of the black color or the intensity of the black color (in other words, render it somewhat grayish in apperance) of the club pips **16** as compared to the dense black color of the spade pips **14**. Either or both arrangements, or a combination thereof, are contemplated and are intended to be included and comprehended within the broad scope of the present invention and are considered to be disclosed by the showing of FIGS. 1 and 2.

FIG. 3 fragmentarily illustrates a slight modification of the first form of the invention as shown in FIG. 1 and because it does comprise a modification, similar parts are designated by similar reference numerals, followed by the letter *a*, however.

In the FIG. 3 modification of the invention, it will be noted that the light-modification or light-modifying surface means **18***a* carried by the diamond suit pips **12***a* and the club suit pips **16***a* are somewhat different from the corresponding light-modifying surface means **18** of the first form of the invention and do not comprise means primarly adapted to modify the depth of color, or intensity of color, reflected therefrom but comprise selective-absorbing and selective-reflecting surface means having distinctively different spectral-absorption and spectral-reflecting characteristics, primarily with respect to the frequency of reflected light from the surface **18***a* of the modified diamond pip markings **12***a* as compared to the light reflected from the surface of the corresponding heart pips **10***a* so that they appear to be different in shade. In other words, they may both appear to be red but may appear to differ slightly in shade or color. One might be a vermillion type red and the other might be a magenta type red or even a cyclamen type red. It will be noted that one convenient way of apparently varying the shade of red is to combine therewith greater or lesser quantities of yellow or blue or other widely separated colors of the spectrum or color scale which lie on opposite sides of the position of red therein, although the invention is not specifically limited to this particular method of varying the shade of the color. Also, it should be noted that either type of color shade modification is intended to be included and comprehended within the scope of the disclosure as being provided by the light-modifying means **18***a*.

Substantially the same thing is true with respect to the light-modifying surface means **18***a* carried by the modified club pips **16***a*—that is, it may effectively vary the shade or apparent color of the basically black surface of the club pips **16***a* in some visibly distinctive manner as compared to the dense black surface of the conventional spade pip **14***a*. For example, a certain amount of brown may be present in the basic black of the light-modifying surface means **18***a* carried by the club pip **16***a* so that it will appear to have a slightly brownish cast or color differing rather distinctively from the dense black appearance of the spade pip **14***a*, or some other color may be included in the black of the light-modifying means **18***a* carried by the club pips **16***a* so as to apparently change the color thereof in any desired visibly distinctive manner.

FIG. 4 fragmentarily illustrates a slight modification of the first form of the invention as shown in FIG. 1, and because it does comprise a modification, similar parts are designated by similar reference numerals, followed by the letter *b*, however.

In the FIG. 4 modification of the invention, it will be noted that the light modification surface means **18***b* carried by the diamond suit pips **12***b* and the club suit pips **16***b* are somewhat different from the corresponding light modifying surface means **18** of the first form of the invention and do not comprise means primarily adapted to modify the depth of color or intensity of color reflected therefrom but comprise selective-absorbing and selective-reflecting surface means having distinctively different spectral-absorption and spectral-reflecting characteristics, primarily with respect to all frequencies of light reflected from the surface **18***b* so that it may be said that the modification largely comprises a surface reflective modification of the surface **18***b* of the modified diamond pip markings **18***b* as compared to the surface of the corresponding heart pip **10***b* so that one looks relatively dull and the other looks extremely glossy. In other words, they may both appear to be red but one appears to be a dull red and the other appears to be a glossy or shiny red. Substantially the same thing is true with respect to the light-modifying means **18***b* carried by the club suit pipe **16***b*—that is, the surface reflectively thereof is modified in either a manner tending to make it more glossy or less glossy than the surface reflectivity of the corresponding spade suit pip **14***b*. Of course, this latter feature is also true of the light-modifying means **18***b* when carried by the diamond pip **12***b*—that is, it may render the surface reflectively thereof either greater or less as compared to the surface reflectivity of the similarly red colored heart pip **10***b*.

FIG. 5 fragmentarily illustrates a slight modification of the first form of the invention as shown in FIG. 1, and because it does comprise a modification, similar parts are designated by similar reference numerals, followed by the letter *c*, however.

In the FIG. 5 modification of the invention, it will be noted that the light-modification or light-modifying surface means **18***c* carried by the diamond suit pips **12***c* and the club suit pips **16***c* are somewhat different from the corresponding light-modifying surface means **18** of the first form of the invention and do not comprise means primarily adapted to modify the depth of color or intensity of color reflected therefrom but comprise selective-absorbing and selective-reflecting surface means differing from the surface of the corresponding heart pips **10***c* and spade pips **14***c* because of the presence of a surface pattern means, which is designated by said reference numeral **18***c* in each instance. Thus, it is not necessary for any variation in color intensity, color shade, or general surface reflectivity to be present in the manner of the first, second, and third forms of the invention described hereinbefore in order to render the diamond pips **12***c* and the club pips **16***c* visibly distinctive from the corresponding unmodified heart pips **10***c* and spade pips **14***c* because of the presence of the surface pattern means **18***c* on the diamond pips **12***c* and the club pips **16***c*.

Obviously, the particular type of surface pattern means **18***c* can be modified substantially within the broad scope of the present invention and can be positionally reversed—that is, can be carried by the other pips **10***c* and/or **14***c* if desired.

FIG. 6 is a fragmentary view very similar to FIG. 5 and merely illustrates that both of the red pips **10***d* and **12***d*, comprising the heart pips and the diamond pips, may bear different surface pattern means **18***d'* and **18***d*, respectively, and that, correspondingly, both of the black pips **14***d* and **16***d*, comprising the spade pips and the club pips, may bear different surface pattern means **18***d'* and **18***d*, respectively, thus obviously rendering all of said pips visibly distinctive from each other if any portion of the surfaces thereof can be seen.

FIG. 7 illustrates a further slight modification, and similar parts are designated by similar reference numerals, followed by the letter *e*, however. In this modification, it will be noted that the light-modified surface **18***e* of any diamond pip **12***e* is distinctive in appearance from the surface means of the heart pip **10***e* by reason of being markedly different in light reflecting characteristics with respect to a discrete surface area portion of the diamond pip **12***e*—said discrete surface area portion being designated by the reference numeral **19** and comprising an uncolored or whie area of diamond shape and of smaller size than the complete diamond pip **12***e*. Exactly the same arrangement is provided on the club suit pip **16***e* wherein the light-modified surface **18***e* thereof is effectively provided by reason of the provision of the discrete surface area portion **19** which is a white area portion shaped like the conventional larger black club pip **16***e*. Obviously, the discrete white area **19** of the diamond suit pip **12***e* distinguishes it from the heart suit pip **10***e* in an easily visibly observable manner and the same thing is true with respect to the discrete surface area portion **19** of the club suit pip **16***e* which is thus very readily visibly distinguished from the spade suit pip **14***e*.

FIG. 8 essentially illustrates in enlarged fragmentary form a combination of the FIG. 1 and the FIG. 4 forms of the invention, and corresponding portions are designated by similar reference numerals, followed by the letter *f*, however. In this modification, it will be noted that the light modifying means **18***f* of the diamond suit pip **12***f* includes both a modification of the intensity or depth of color of the red on the diamond suit card pips **12***f* in the manner of the FIG. 1 form of the invention and a variation in the surface reflectivity of the diamond suit pip **12***f* in the manner of the FIG. 4 form of the invention. This is also true with respect to the light modifying surface means **18***f* of the club suit pip **16***f*, and thus it will readily be seen that the combination of a change in color intensity, or depth of color, and also a change in surface reflectivity provides a readily visibly observable distinction between diamond suit pips and heart suit pips and between club suit pips and spade suit pips.

FIG. 9 illustrates in enlarged fragmentary form a combination of the FIG. 3 and FIG. 4 forms of the invention, and corresponding portions are designated by similar reference numerals, followed by the letter *g*, however. In this modification, it will be noted that the light modifying means **18***g* of the diamond suit pip **12***g* includes a modification of the shade or hu of color of the red on the diamond suit card pips **12***g* in the manner of the FIG. 3 form of the invention and also includes a variation in the surface reflectivity of the diamond suit pip **12***g* in the manner of the FIG. 4 form of the invention. This is also true with respect to the light modifying surface means **18***g* of the club suit pip **16***g*, and this it will readily be seen that a change in color shade or hue and also surface reflectivity provides a readily visibly observable distinction between diamond suits pips and heart suit pips and between club suit pips and spade suit pips.

It should be noted that in the first forms of the invention illustrated in the figures, with the exception of FIG. 6, the light-modifying means has been shown as being carried, in the case of the red suit cards on the diamond pips, and in the case of the black suit cards on the club pips. However, it should be clearly understood that this is exemplary only and is not to be construed as specifically limiting the invention to such an arrangement. Actually, in any of the various forms of the invention, the relative positioning of the light-modifying means may be reversed from the exemplary forms illustrated—that is, the heart pips may bear the light-modifying means and the spade pips may bear the light-modifying means. Also, the present invention contemplates an arrangement similar in principle to that illustrated in FIG. 6—that is, an arrangement wherein each of the similarly colored pips may have a different type of light-modifying means of any of the various forms described herein, or functional equivalents thereof.

It should also be noted that it is possible to combine various of the different types of light-modifying means illustrated in the different forms of the invention described in detail hereinbefore and shown in the different figures of the drawing.

Additionally, it should be noted that numerous other types of visibly distinctive light-modifying means may be employed. For example, one or the other of the similarly colored pips may have a series of dots while the other does not, or they may each have a series of differently arranged dots. Indeed, it is possible to change the light-modifying means within very broad limits.

The light-modifying means may be suitably applied to the surface of the cards whether they are of cardboard or paper stock material, plastic material, or of other types of material, and may be carried on the surface thereof or may be slightly imbedded therein, or otherwise appropriately positioned thereon in any of the light-modifying manners referred to hereinbefore for the suit-visible-distinction purposes of the present invention.

It should be understood that the figures and the specific description thereof set forth in this application are for the purpose of illustrating the present invention and are not to be construed as limiting the present invention to the precise and detailed specific structure shown in the figures and specifically described hereinbefore. Rather, the real invention is intended to include substantially equivalent constructions embodying the basic teachings and inventive concept of the present invention.

I claim:

1. A deck of playing cards having a plurality of different types of suit markings each indicating a different suit

and each of which is visibly distinctive from the other suit markings in surface appearance in a manner not predicated upon differences in the shapes of said different suit markings, with similar suit markings taking the form of similar suit pips, and with the pips of each different suit having a characteristic different shape and having a characteristic and visibly observably different homogeneous reflective light-modifying surface means extending across and coextensive with the entire surface of each of said pips, said visibly observably different reflective light-modifying surface means of each different type of pip corresponding to each different suit comprising different selective spectral-absorbing and complementary spectral-reflecting surface means adapted to reflect the light therefrom in a characteristically different manner distinctively and differently modified from that of all other pips of cards of a different suit whereby to make it possible for a card player to determine at a glance from the surface appearance of any pip or portion of a pip what the suit of any card bearing same is, without the necessity of seeing the shape of any individual pip for such suit-identifying purpose, said selective spectral-absorbing and complementary spectral-reflecting surface means of pips of different conventional suits which conventionally have similarly-colored pips taking the form of homogeneous pip surfaces of substantially the same basic color, but differing from each other in overall homogeneous surface reflectivity and, therefore, differing from each other by presenting glossy and/or dull appearances as a function of said overall homogeneous surface reflectivity so as to render the pips of such conventionally similarly-colored

but different suit pips clearly visibly distinctive but generally similar in appearance to the similar-colored but different suit pips of conventional cards, thus avoiding a radical departure in pipe appearance from the conventionally similarly-colored suits of conventional playing cards while positively providing visibly observable distinctions of all suits from each other completely irrespective of pip configuration and merely as a result of differences in complete homogeneous pip surface appearance.

2. A deck of playing cards as defined in claim 1 wherein said different selective spectral-absorbing and spectral-reflecting surface means of the pips of different suits which conventionally have similarly-colored pips, additionally have said homogeneous pip surfaces provided thereover with said same basic color, but visibly perceptibly differing from each other in depth of color, intensity, or shade of said same basic color.

References Cited

UNITED STATES PATENTS

339,066	3/1886	Levey	273—152.43
1,608,127	11/1926	Lefebure	273—152.43
1,629,256	5/1927	Cohen	273—152.43
2,012,288	8/1935	Roon	273—152.1 X
3,092,402	6/1963	Reed	273—148 X

FOREIGN PATENTS

66	1868	Great Britain.
18,747	1907	Great Britain.

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