

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
27 September 2007 (27.09.2007)

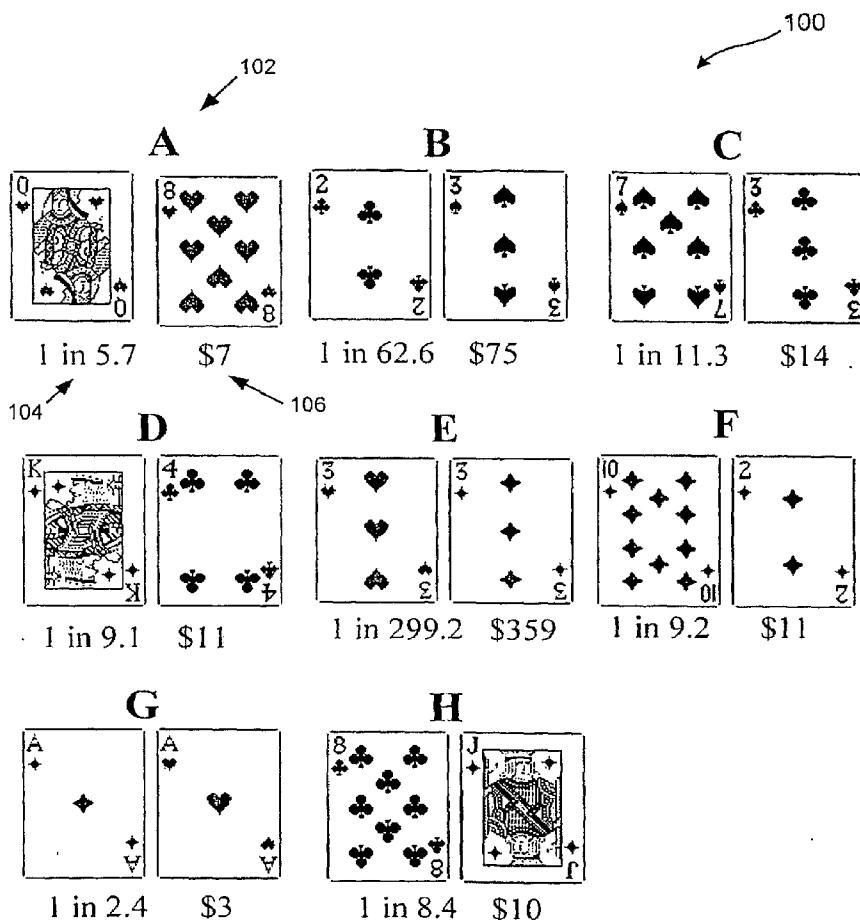
PCT

(10) International Publication Number  
**WO 2007/109185 A2**

- (51) International Patent Classification:  
A63F 9/24 (2006.01)
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- (21) International Application Number:  
PCT/US2007/006727
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (22) International Filing Date: 16 March 2007 (16.03.2007)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
11/377,481 16 March 2006 (16.03.2006) US
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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[Continued on next page]

(54) Title: COMPUTER-IMPLEMENTED SIMULATED CARD GAME



(57) Abstract: Various embodiments of methods and apparatus and systems for playing a simulated card game, such as Texas Hold'em Poker, are provided. One embodiment comprises a method for playing a simulated card game. One such method comprises the steps of: displaying a plurality of entries and at least one of a set of community game elements to a virtual game to a player, each entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game; receiving a wager from the player, the wager associated with at least one bet type; displaying the remaining of the set of community game elements to the player; and determining whether the wager wins based on the plurality of entries, the at least one bet type, and according to the game rule for the virtual game.

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**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *without international search report and to be republished upon receipt of that report*

## **COMPUTER-IMPLEMENTED SIMULATED CARD GAME**

### **CROSS-REFERENCE TO RELATED APPLICATION**

**[0001]** This application is a continuation-in-part patent application of, and claims the benefit of the priority of, copending U.S. Application Serial No. 11/088,166, filed March 23, 2005, and entitled "Computer-Implemented Simulated Card Game", which is hereby incorporated by reference in its entirety.

### **BACKGROUND OF THE INVENTION**

**[0002]** Computerized gambling, lottery games and instant games, whether run by governmental or private entities, have proven to be quite popular, and go back some time in history. Participation in a game gives a person a chance to win a substantial amount of money while also allowing private parties and lottery authorities to collect monies, some of them for public or charitable purposes. When taxed, the sales from games also provide additional revenue to state and city governments.

**[0003]** As technology advances, many games are ported from a paper-ticket based environment to a computer-based environment. Implementing games in a computer-based environment makes administration of games easier. Casino owners and/or government authorities can obtain almost instantaneously sales information from the gaming machines. However, implementing a traditional game in the computer-based environment is typically not a straightforward process. Many difficulties have to be overcome to preserve a game's characteristics that attract players in the first instance, and yet use the computer environment to make the game more player-friendly. One of the games that pose challenges to be ported to the computer-based environment is playing card games.

**[0004]** Accordingly, it is desirable to have a playing card game with a different strategic element present, such as Hold'em Poker available on a computer-based environment, where players can experience the excitement of this game along with additional information available in the computer-based environment that simplifies the game.

### **SUMMARY OF THE INVENTION**

**[0005]** One embodiment comprises a method for playing a simulated card game. One such method comprises the steps of: displaying a plurality of entries and at least one of a set of community game elements to a virtual game to a player, each entry including at least two game elements, each game element associated with a game value according

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**[0002]** Computerized gambling, lottery games and instant games, whether run by governmental or private entities, have proven to be quite popular, and go back some time in history. Participation in a game gives a person a chance to win a substantial amount of money while also allowing private parties and lottery authorities to collect monies, some of them for public or charitable purposes. When taxed, the sales from games also provide additional revenue to state and city governments.

**[0003]** As technology advances, many games are ported from a paper-ticket based environment to a computer-based environment. Implementing games in a computer-based environment makes administration of games easier. Casino owners and/or government authorities can obtain almost instantaneously sales information from the gaming machines. However, implementing a traditional game in the computer-based environment is typically not a straightforward process. Many difficulties have to be overcome to preserve a game's characteristics that attract players in the first instance, and yet use the computer environment to make the game more player-friendly. One of the games that pose challenges to be ported to the computer-based environment is playing card games.

**[0004]** Accordingly, it is desirable to have a playing card game with a different strategic element present, such as Hold'em Poker available on a computer-based environment, where players can experience the excitement of this game along with additional information available in the computer-based environment that simplifies the game.

### SUMMARY OF THE INVENTION

**[0005]** One embodiment comprises a method for playing a simulated card game. One such method comprises the steps of: displaying a plurality of entries and at least one of a set of community game elements to a virtual game to a player, each entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game; receiving a wager from the player, the wager

to a game rule for the virtual game; receiving a wager from the player, the wager associated with at least one bet type; displaying the remaining of the set of community game elements to the player; and determining whether the wager wins based on the plurality of entries, the at least one bet type, and according to the game rule for the virtual game.

**[0006]** Another embodiment comprises an apparatus for playing a simulated card game. One such apparatus comprises: a controller; a display device in communication with the controller, the display device configured to display a plurality of entries and at least one of a set of community game elements to a player, each entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game; a player input device in communication with the controller, the player input device configured to receive a player bet of at least one bet type selected by the player and communicate the player bet to the controller; and a ticket issuing device in communication with the controller, the ticket issuing device configured to receive ticket information from the controller and issue a ticket to the player; wherein the display device is configured to receive play information from the controller and further configured to display the play information to the player and the controller is configured to determine whether the player bet wins based on the plurality of entries and according to the game rule for the virtual game.

**[0007]** A further embodiment comprises a system for playing a simulated card game. One such system comprises: a communication network; at least one gaming machine in communication with the communication network; and a server in communication with the at least one gaming machine through the communication network, the server configured to host a virtual game; wherein the at least one gaming machine is configured to: receive game information from the server and display a plurality of game entries and at least one of a set of community game elements to a player, each game entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game; receive a player bet from the player and communicating the player bet to the server; receive ticket information from the server and issue a ticket to the player; display the remaining of the set of community game elements to the player; and receive winning information from the server, the winning information specifying whether the player bet wins based on the plurality of entries and according to the game rule for the virtual game.

**[0008]** Other aspects and features will become apparent after review of the following Brief Description of the Drawings, Detailed Description, and Claims.

### BRIEF DESCRIPTION OF THE DRAWINGS

- [0009] FIG. 1 depicts an initial display for a Hold'em Poker game.
- [0010] FIG. 2 illustrates a play slip used to make wagers in the Hold'em Poker game.
- [0011] FIG. 3 illustrates a ticket for the Hold'em Poker game.
- [0012] FIG. 4 illustrates the video display after three community cards have been revealed.
- [0013] FIG. 5 illustrates the video display after the fourth community card has been revealed.
- [0014] FIG. 6 is an example of the display at the end of the game.
- [0015] FIG. 7 is an alternative initial display for the invention.
- [0016] FIG. 8 illustrates the final display with a payout for the winning hand.
- [0017] FIG. 9 is a flow chart for a multi-player Texas Hold'em Poker game.
- [0018] FIG. 10 is a flow chart for a single-player Texas Hold'em Poker game.
- [0019] FIG. 11 illustrates a standalone gaming device.
- [0020] FIG. 12 illustrates a plurality of network-based gaming devices.
- [0021] FIG. 13 illustrates an initial display for another embodiment of a Texas Hold'em Poker game.
- [0022] FIG. 14 illustrates the video display of FIG. 13 after the remaining set of community cards are revealed.
- [0023] FIG. 15 illustrates the initial display for an embodiment of a Texas Hold'em Poker game which supports pari-mutuel betting.
- [0024] FIG. 16 illustrates an embodiment of a bet slip for making a pari-mutuel bet in the game of FIG. 15.
- [0025] FIG. 17 illustrates a "bets" display for supporting pari-mutuel betting.
- [0026] FIG. 18 illustrates another "bets" display for supporting pari-mutuel betting.
- [0027] FIG. 19 illustrates an "odds" display for supporting pari-mutuel betting.
- [0028] FIG. 20 illustrates a video display of the results of another embodiment of a Texas Hold'em game which supports pari-mutuel betting.
- [0029] FIG. 21 illustrates a bet slip for making another type of bet.
- [0030] FIG. 22 illustrates an issued ticket from the bet slip of FIG. 21.

### DETAILED DESCRIPTION OF THE INVENTION

[0031] The rules for the playing card game of Texas Hold'em Poker game are simple. A player makes his or her best poker hand out of seven cards, with two cards in the

player's hand and the other five community cards on the table. Thus, all players still in the game use three or more of the community cards to make their best hands. The player with the strongest hand wins. The game starts with the dealer dealing two cards face down to each player, and a round of betting commences. After all bets, raises, and folds are completed, the first three community cards are dealt.

**[0032]** The first three community cards are turned up all at once and are called "the flop". The flop is often the turning point in the game, determining who will stick it out to see the last two cards. A round of betting occurs immediately after the flop. Most players fold here if the flop does not fit with their hand. The fourth community card is called "the turn". As in previous plays, bets are placed. Finally, the fifth and final community card is turned over. This card is commonly called "the river". The last round of betting is completed and then the players turn over their cards, and the player with the highest hand wins.

**[0033]** Various embodiments of methods and computer-implemented apparatus and systems for playing a simulated card game, such as Texas Hold'em Poker, are described below. It should be appreciated, however, that other types of games and card games may be implemented. In one embodiment, the game generally comprises two stages. The first stage involves determining and displaying the initial sets of two-card hands. The second stage consists of determining and displaying the community cards -- the 5 cards shared by all of the players. A player can choose a set of two-card hands from a plurality of sets, wherein each set's winning odds are displayed to the player. The winning odds can be updated during the course of the game. At the end of the game, if the player has the winning hand, the player wins a prize associated with the set selected.

**[0034]** FIG. 1 shows a display 100 for the initial stage of an embodiment of a Texas Hold'em Poker game. The display 100 includes a plurality of entries in a game, each entry consisting of two playing cards, or game elements, from a standard deck. Each entry is labeled with indicia 102, and the letters of the alphabet are used in this example. Various embodiments exist for determining the initial set of hands from which the player makes his selection. In one embodiment, the initial set of hands may be determined as if the set is dealt from a randomly-ordered physical deck, as in a real game. In an alternative embodiment, the initial set of hands may be selected from a pool of sets of hands. Such a pool may consist of sets of non-overlapping hands that have desirable characteristics, such as an appealing range of odds and accompanying prizes. Such a pool may be cycled through or each selection chosen at random. In yet another embodiment, the same set of initial hands may be used for all instances of the game.

**[0035]** When displaying these cards, in one embodiment, the cards will have first appeared on screen with the back of the card displayed, with the value of each of the three cards then being revealed one by one. In another embodiment, the value of each card is apparent when it first appears on screen. Each entry of two cards has associated with it the odds 104 that the hand will win the game and a prize amount 106. The prizes are set so that the mathematical expectations of the prize payouts 106 for the hands are as close to each other or some fixed percentage as possible given the minimum increment of the prize amounts. For example, as illustrated in the embodiment of FIG. 1, the prizes assigned to each hand are such that each prize amount 106 is an even dollar amount and the overall return for each bet is close to 60% within approximately 2%.

**[0036]** FIG. 2 shows a play slip 200 that may be used to make wagers in a Texas Hold'em game. The play slip 200 includes the name of the game 202, the cost of the wager 204, instructions for the player 206, a set of indicia 208 corresponding to the indicia on the video display 100 described above, and areas 210 where the player may indicate his selection. After the player marks his selection, the play slip 200 is given to a lottery retailer, who may scan the ticket on a computer terminal, thereby registering the wager with, for example, a central control system. After the wager has been recorded, the central system will cause the terminal to issue a ticket 300, shown in FIG. 3, to the player, the ticket 300 indicating, for instance, the name of the game 302, the cost of the wager 304, the player's selection 306, and the prize to be awarded 308 if the player's selection is among the winning hands.

**[0037]** FIG. 4 shows a video display 400 after three of five community cards 402 have been revealed. The set of community cards may be determined in various ways. In one embodiment, the community cards may be determined as if dealt from a randomly-ordered deck, as in a real game. After the community cards 402 are displayed, the odds 404 and prizes 406 associated with each hand may be updated to reflect the chances of each hand. In this case, the odds displayed to the player may represent the actual probabilities of the various hands winning, as if the game were being played with a physical deck. In another embodiment, the set of community cards may be determined by a probability distribution, in which case the actual set of cards could be selected by a random number generator. For each initial set of hands there could be a probability distribution on the sets of community cards. In this case, the odds 404 assigned the initial hands may be derived from the probability distribution. For example, the odds assigned to a hand could be the sum of the probabilities for sets of community cards in the distribution that make the hand a winner. It is understood that, in certain



embodiments, these methods could be implemented in stages or in combination. For example, it could be such that the first three community cards ("the flop") 402 could be determined by a probability distribution and the remaining two cards ("the turn" and "the river") could be determined as if dealt from a randomly ordered deck.

**[0038]** FIG. 5 shows the video display 500 after the fourth community card 502, also known as "the turn," has been revealed. The odds 504 displayed may be adjusted to reflect the probabilities of the various hands winning, which may have changed due to the values of all four community cards that have been revealed. In this case, the odds 504 might no longer be displayed for any hand, such as hands B-F that cannot possibly win. Alternatively, the original odds may continue to be displayed. In yet another embodiment, a non-winning indication 508 may be associated with each non-winning hand.

**[0039]** FIG. 6 shows a video display 600 at the end of the game. At this point the last community card, "the river," 602 is revealed. The display or monitor no longer displays any odds, and it displays prize amount 606 for only the winning hand or hands. It may also display an indication of which hands are the winning hands and a verbal description of the outcome.

**[0040]** In various of the embodiments discussed above, the odds of an entry winning may be displayed at three stages of the game: (1) before any community cards have been disclosed, at which point the players make their wagers, (2) after three community cards have been disclosed, and (3) after 4 community cards have been disclosed. It should be appreciated that the odds may be calculated in various ways. For example, consider hand A in FIG. 1 that comprises the queen of hearts and 8 of hearts. There are 376,992 (36 choose 5) equally likely possible combinations for the community cards. Using a computer program, 65,634 of these combinations are identified that result in Hand A being a winner. Thus, the odds that hand A will win is  $376,992/65,634 = 5.7$ , for which the inverse is 5.7. In FIG 4, three community cards have been disclosed. There are 528 (33 choose 2) equally likely possible combinations for the remaining 2 community cards. Using a computer program, 182 combinations can be identified that result in hand A being a winner. Thus, at this stage of the game the odds that hand A will win are  $528 / 182 = 2.9$ . In FIG. 5, four community cards have been displayed. There are 32 remaining cards. Using a computer program, 18 combinations are identified that result in hand A being a winner. Thus, at this stage of the game the odds that hand A will result in a winner are  $32 / 18 = 1.8$ .

**[0041]** It should be appreciated that the discussed embodiments may not preclude the occurrence of multiple winners. The issue of "ties" can be handled in various ways. In one embodiment, the odds and prize values are based under the assumption that players who wager on a given hand will win that amount if that hand is among the winning hands for that game, whether the hand is the sole winner or a joint winner. That is, a player receives the same prize regardless of how many winners there are. In another embodiment, the prizes are set under the assumption that players who wager on a given hand will win that amount only if that hand is the sole winner and that players who wager on the hand will win a smaller amount if that hand is among the winning hands but is not the sole winning hand. For example, each winner could win some fraction of the prize he would have won had he been the sole winner. It is also possible to prevent ties altogether. For each set of initial hands, a probability distribution of sets of community cards could be contrived so that no ties exist in the universe of possible outcomes.

**[0042]** Those of ordinary skill in the art will appreciate that any number of prize structures for this game can be derived by, for example, varying the number of hands played, the pool of sets of initial hands, the probability distribution on the pool of sets of initial hands, the sets of community cards, the probability distribution on the sets of community cards, and the mathematical expectation of the total prize payout.

**[0043]** In a further embodiment, the prize amounts may be determined not by the probability distribution but rather by the relative amounts wagered in total on each of the hands according to a pari-mutuel scheme as shown in FIG. 7. In this embodiment, the prizes 704 may be displayed dynamically as wagers are made, or they may be displayed only after the window for placing wagers has closed, or they may be displayed only at the end of the game and only for the winning hand or hands. The monitor may display information on the number of bets that have been placed on each opening hand. For example, the odds 702 for the initial hands are displayed along with the number of tickets, or "bets," for each hand. Suppose that a total of 1200 tickets each costing \$2 were purchased. As indicated in FIG 7, suppose that 240 of those tickets selected Hand A as the winner. If A wins, as illustrated in the embodiment of Fig 8, and the payout is to be 60%, then the pari-mutuel prize payout per winning ticket is  $(1,200 \times \$2 \times 0.6)/240 = \$6$ .

**[0044]** It should be appreciated that the games may be implemented, at least partially, via a computer-implemented system, method, or apparatus. FIG. 9 is a flow chart 900 for a multi-player Texas Hold'em Poker game executed on a server. The server

generates an initial set of hands, calculates odds for each hand, and displays the initial set and the corresponding odds information to players, step 902. The display may be on multiple monitors connected directly to the server or connected to a client device that communicates with the server through a network. While the initial set is displayed, the server accepts wagers from the players, step 904. The wagers may be placed at different betting stations that are connected to the server. The wager information is transmitted through a network to the server for processing. The server may compute and update the betting information on the display. For example, the server may update in real time how many bets are placed on each hand as described with respect to FIG. 7. The betting information update may continue as long as the time for placing bets has not expired and the players are still placing bets. After betting is closed, the server generates five community cards, step 910, and display them to the players, step 912. The generation and display of the community cards may be done as described above or via alternative means. After the community cards are drawn and displayed to the players, the server determines a winning hand, or winning hands, and a corresponding payout, step 914. Finally, the winner is paid, step 916.

**[0045]** FIG. 10 is a flow chart 1000 for a single-player Texas Hold'em Poker game executed on a computing device. The computing device generates an initial set of hands, calculates odds for each hand, and displays the initial set and the corresponding odds information on a monitor to a player, step 1002. While the initial set is displayed, the computing device accepts a wager from the player, step 1004. After the player places a betting, the computing device generates five community cards, step 1006, and displays them to the player, step 1008. The generation and display of the community cards may be done in the manner described above. After the community cards are drawn and displayed to the player, the computing device determines a winning hand, or winning hands, and checks whether the player has the winning hand, step 1010. If the player has a winning hand, the computing device pays the player, step 1012.

**[0046]** In certain embodiments, the game may be implemented via a standalone gaming machine or a server. FIG. 11 illustrates an embodiment of a standalone gaming device 1100 for simulating a card game. The gaming device 1100 includes a display unit 1102, a player input device (e.g., scanning unit 1104) for scanning play slips, and a ticket issuing unit 1106 for issuing tickets to players. The gaming device 1100 has a controller that generates the initial set of entries and displays the initial set on the display unit 1102. The controller also takes player bets from the scanning device and issues a ticket to the player. After issuing the ticket, the controller generates gaming information, which

includes a set of community cards, and determines if the player has a winning hand according to the predefined rules of the game. The gaming device 1100 may also be connected to a server 1202 as illustrated in FIG. 12, in which case the gaming device 1100 may further comprise a suitable network interface device (not shown). The gaming device 1102 is connected to the server 1201 through a communication network 1204. In the embodiment illustrated in FIG. 12, each gaming device receives wagers from players, passes betting information to the server 1202, and displays the game information received from the server 1202.

**[0047]** As mentioned above, the cards may be displayed and revealed to the players in various ways. For example, in certain embodiments, players may place bets with one or more community cards revealed in advance and for which the prizes are fixed amounts. As illustrated in the embodiment of FIG. 13, 12 hands, labeled A-L, may be displayed on which the player places a bet. In this example, the unit bet price is \$2 and the payout is between 50% and 70%. Prizes for hands may be first computed to yield a return of 60%. Subsequently prizes may be rounded to the nearest dollar, which may result in the payout for a hand deviating from 60%. As further illustrated in FIG. 13, in this embodiment, one of the 5 community cards, the 2 of hearts, is initially displayed prior to placing a bet. The remaining 4 community cards may be revealed once the players have placed their bets. Probabilities may be assigned to each of the hands, based on the revealed community card and the fact that the remaining 4 community cards are randomly chosen from the remaining 27 cards (i.e., the standard 52 cards minus the 12 hands minus the 2 of hearts). For example, for Hand A, the probability is 16.88% that the hand will win given the other 11 hands and the fact that the first community card is the 2 of hearts. This probability is computed by counting the number of 4-card combinations that confer Hand A a winner out of the remaining 27 cards. For example, a computer program may identify exactly 2,962 such 4-card combinations that confer Hand A a winner. As there are 17,550 combinations of 4 out of 27, the probability is  $2,962 / 17,550 = 16.88\%$  that the remaining 4 community cards will confer Hand A a winner. Given the price and the probability that a hand will win, it can be assigned a prize. For instance, in the embodiment of FIG. 13, hand A is assigned a prize of \$7 per unit bet (yielding a prize payout of 59.1%).

**[0048]** As illustrated in FIG. 14, after the players have placed their bets, the remaining 4 community cards may be revealed, thereby conferring the winner(s) (in this example, Hand A wins with a Flush). Players who bet on Hand A receive \$7 per \$2 wager. The initial set of opening hands and the revealed community card(s) may vary per game. In

one embodiment, a database may store sets of opening hands (e.g., each record in a table comprising 12 opening hand and a community card and corresponding probabilities).

**[0049]** It should be appreciated that the game may be implemented with various types of permissible bets. In the embodiment illustrated in FIG. 15, a pari-mutuel type of betting scheme is implemented. For instance, display 1500 may display twelve hands 1502, labeled A-L, on which the player places a bet. The unit bet price is \$2 and the payout is 80%. Prior to betting, display 1500 may also display one of 5 community cards 1506 (in this case, the pre-betting community card 1508 is the 2 of hearts). The remaining 4 community cards may be revealed once the players have placed their bets. As illustrated in FIG. 15, display 1500 may include odds 1504 for each hand 1502 as defined in, for example, pari-mutuel horse racing. For example, for Hand A, the odds are 3.0 : 1. It may be determined that the prize for 1 unit bet is 3.0 units more than 1 unit (e.g., 4.0 units). These odds may be based on the bets that have been placed and may be periodically updated as players are making their bets. For example, the odds displayed in FIG. 15 reflect the following betting information: \$21,406 on Hand A, \$3,014 on Hand B, \$2,628 on Hand C, \$11,380 on Hand D, \$594 on Hand E, \$20,100 on Hand F, \$37,118 on Hand G, \$11,306 on Hand H, \$8,594 on Hand I, \$7,290 on Hand J, \$6,088 on Hand K, and \$1,322 on Hand L. In the embodiment illustrated in FIG. 15, the odds for each hand are computed by multiplying the total number of unit bets on all of the hands by the payout percentage (80%), dividing by the number of unit bets on the individual hand, subtracting 1 and rounding down to the nearest 1/10. For example, as there are a total of 65,420 unit bets (the sum of the money on all of the hands divided by the unit price of \$2) and there are 10,703 unit bets on Hand A (\$21,406/\$2), the odds for Hand A are:

$$.80 \times 65,420 / 10,703 - 1 = , \text{ which rounded down is } 3.8.$$

**[0050]** After the bets have been placed, the remaining 4 community cards 1506 may be revealed and a winner determined. The winner receives the dividend indicated by the odds for that hand. Ties may be resolved in various ways. For example, the rule could be that the dividend be computed by dividing the "net pool" (e.g., the percentage payout times the total of the bets) by the number of unit bets for the winning hands in the tie combined.

**[0051]** As mentioned above, the players may be permitted to make various types of bets, other than a "win" bet (i.e., the only way to win is for the player's hand to "win"). In other embodiments, the game may be implemented, at least partially, in a live setting with a dealer in a live broadcast. Regarding bet types, the game may incorporate bet types parallel to those of the horse and dog-racing and feature progressive pools. Such a multi-faceted game in a Casino environment may appeal to card players, horse, dog, jai-alai handicappers, pari-mutuel pool numbers players, casino patrons, lottery players, etc. A live embodiment may also improve the players' perceptions of authenticity. Furthermore, the magnitude of the pools may infuse the game with excitement and draw players. **[Question: To the extent possible and necessary, please further describe the live embodiments. Specifically, please describe how the display device and the game ticket features would be integrated with the live embodiments.]**

**[0052]** For a live (or partially live) version, a game could be broadcast live from a prominent casino floor in a method similar to the uplinking of a video signal from a track or fronton. A camera may be located above a card table with a live dealer placing the cards on the table with an official "observer" or "judge" in some prominent location to provide heightened credibility. Players may be seated around the table as observers only. Following a complete shuffle, a dealer may place twelve two-card hands face up on the table with an additional four cards face-down in a five-card flop pile with the center card face-up.

**[0053]** Pari-mutuel betting may incorporate a variety of bet types from horse racing (e.g., win, place, show, exacta, quinella, or trifecta bets). In the embodiment illustrated in FIG. 15, a player may wager any of a win, place, show, exacta, quinella, or trifecta bet. A bet slip 1600 such as that illustrated in FIG. 16 may be used. The player selects the bet type 1602 by selecting the corresponding oval 1604, and indicates hands 1606 from columns 1, 2, and/or 3 depending on the bet type. For example, an exacta bet means that the player wins if he correctly guesses the 1<sup>st</sup> and 2<sup>nd</sup> hands in that order. Therefore, for an exacta bet, the player would select a hand from column 1 and a hand from column 2.

**[0054]** The odds for the win bet type may still be displayed on a primary display. Betting information for the other bet types may be provided to the players on separate display(s) (or on the primary display). For example, there could be a display 1700 of the number of unit bets for the Win, Place, or Show bet types, as illustrated in FIG. 17. As another example, there could be a display 1800 for the number of unit bets for an exacta bet type as illustrated in FIG. 18. Alternatively, or in addition to, the odds derived from

the betting information for exacta bets may be displayed on a display 1900 as illustrated in FIG. 19. The displays of this information could be periodically updated.

**[0055]** As an example of how the prizes are determined for these "horse-racing"-style bet types, consider the betting information for Win, Place, or Show in FIG. 17. For a \$2 per wager, display 1700 displays the individual pools for Win, Place, or Show. Suppose the outcome for the game is as illustrated in FIG. 20 (the 1<sup>st</sup> place winner is Hand A with a Flush, the 2<sup>nd</sup> place winner is Hand H with 3 of a kind, and the 3<sup>rd</sup> place winner is Hand G with 2 pair, Aces High). As Hand A and Hand H place at a 80% payout, the dividend for a Place bet is 80% x the total number of Place bets divided by the number of place bets on Hand A and Hand H (according to the following equation):

$$80\% \times (9,295 + 5,414 + 17,944 + 7,972 + 17,194 + 10,863 + 11,386 + 7,322 + 7,799 + 7,476 + 2,644 + 574) / (9,295 + 7,322) = 5.0976 \text{ units} = \$10.10 \text{ (rounded down to the nearest dime)}$$

**[0056]** Exacta bets are illustrated in FIG. 18. Display 1800 displays the unit bets for each possible selection (e.g., AB means Hand A wins 1<sup>st</sup> place and Hand B wins 2<sup>nd</sup>). Based on the bets in FIG. 18, the odds may be displayed as in display 1900 (FIG. 19).

**[0057]** The game may also support event-based bet types (e.g., a bet that a particular event will or will not occur). A player could bet that a "3 of a kind", "4 of a kind", "Straight," or "Flush," would or would not be the legend assigned to at least one of the hands, once the community cards have been dealt. For example, once the community cards have been dealt, each hand may be assigned exactly one legend for which the hand qualifies (e.g., a pair, three of a kind, two pair, full house, four of a kind, straight flush, royal flush). FIG. 21 illustrates a bet slip 2100 for such a game, in which the player selects a "3 of a kind" bet type. FIG. 22 illustrates a corresponding issued ticket 2200 for this bet, which identifies the game number, date, bet type, outcome, and wager. If the outcome of the game is as in FIG. 20, the legend assigned to hand H is "3 of a kind," because that is the highest hand possible by combining the two cards with the community cards. Suppose the amount bet on the event of "3 of a kind" is \$5,746 and the amount bet on the event of a 3 of a kind not occurring is \$3,589. Then the dividend for a \$2 wager would be  $\$2 \times (.80) \times (\$5,746 + \$3,589) / \$5,749 = \$2.60$ , i.e., a \$.60 profit.

**[0058]** Also, there could be progressive bet types wherein pools are increased over time. For example, for a 12-hand game, the probability of a Royal Flush occurring is 1 in 2,696.0. These odds may be long enough to support a progressive pari-mutuel pool. To encourage participation at the beginning of the game, the gaming organization (or other

hosting entity) could consider seeding the initial pool with an attractive amount of money without incurring significant long term loss. A player who bets on the "Royal Flush," 80% of his wager goes into the pool. If a royal flush is a legend for one of the hands, the pool is divided among the players who placed a Royal Flush bet for that game, otherwise the pool is rolled to the next game.

**[0059]** Other bet types could span multiple games, similar to multi-race bet types in horse racing. In horse-racing, there are bets that apply to multiple races. For instance, a "Pick 6" bet requires the player to select the winner of six consecutive races prior to the first race of the pick six (e.g., the 1<sup>st</sup> 6 races of the day). This type of "multi-event" bet could be adapted to pari-mutuel Poker in various ways.

**[0060]** In an embodiment of a computer-based implementation, sets of opening hands could be determined in advance and made available to the player (e.g., displayed on separate monitors, or rotated on the same monitor). The player may choose a permutation of 6 hands. The player may have the opportunity to select a 6-permutation of the letters A through L indicating his selections for the winners of the 1<sup>st</sup> through 6<sup>th</sup> games.

**[0061]** It should be appreciated that a multi-event bet type may be implemented in various ways. In one embodiment, the multi-event bet type may be conducted to mirror or track a live version of the game. For example, the players could place their "Pick 6" bet once the 1<sup>st</sup> set of opening hands are dealt. A player may place a 6-permutation bet only knowing the opening hands for the 1<sup>st</sup> game. The other selections may be blind.

**[0062]** In another implementation, the "Pick 6" series of games may comprise the same set of opening hands and community cards. That is, the opening hands and community cards may be dealt for the first game. For subsequent games in the series, these opening hands (and possibly a community card) stay the same. The remaining cards are recovered and reshuffled for each game in the series. Yet another way to conduct a multi-event bet is to have simultaneous games conducted.

**[0063]** Any of the bet types described above (or other desirable bet types) may employ a minimum guaranteed payout more than the price point, as in horse racing. This may depend on players betting patterns and the discretion of the operator. Alternately, the house could guarantee that a winning bet would at least receive the initial wager. This would guarantee that the operator would not payout more than the total of the wagers.

**[0064]** It should be appreciated that various aspects of the systems, apparatus, devices, etc. described above may embody functions, features, logic, processes, methods, and/or steps which may be implemented in hardware, software, or any



combination thereof by operating a computer or other processing device to execute a sequence of machine-readable instructions. The instructions can reside in various types of signal-bearing or data storage primary, secondary, or tertiary media. The media may comprise, for example, RAM (not shown) accessible by, or residing within, the components of the system. Whether contained in RAM, a diskette, or other secondary storage media, the instructions may be stored on a variety of machine-readable data storage media, such as DASD storage (e.g., a conventional "hard drive" or a RAID array), magnetic tape, electronic read-only memory (e.g., ROM, EPROM, or EEPROM), flash memory cards, an optical storage device (e.g. CD-ROM, WORM, DVD, digital optical tape), paper "punch" cards, or other suitable data storage media including digital and analog transmission media.

**[0065]** While the invention has been particularly shown and described with reference to various described embodiments, it will be understood by those skilled in the art that various changes in form and detail may be made without departing from the spirit and scope of the present invention as set forth in the following claims. Furthermore, although various logical functions described above may be illustrated or described in sequential steps, it should be appreciated that different sequences may also be used to implement the invention and one or more of the steps may be performed concurrently. Furthermore, although elements of the invention may be described or claimed in the singular, the plural is contemplated unless limitation to the singular is explicitly stated.

CLAIMS

What is claimed is:

1. A method for playing a simulated card game, the method comprising the steps of:  
displaying a plurality of entries and at least one of a set of community game elements to a virtual game to a player, each entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game;  
receiving a wager from the player, the wager associated with at least one bet type;  
displaying the remaining game elements of the set of community game elements to the player; and  
determining whether the wager wins based on the plurality of entries, the at least one bet type, and according to the game rule for the virtual game.
2. The method of claim 1, wherein the at least one bet type comprises at least one of a win bet, an event-based bet, and a progressive bet.
3. The method of claim 2, wherein the event-based bet comprises a hand-type bet.
4. The method of claim 2, wherein the event-based bet comprises a fixed-odds bet.
5. The method of claim 1, wherein the at least one bet type comprises a pari-mutuel bet.
6. The method of claim 1, wherein the at least one bet type comprises a multiple game bet.

7. The method of claim 1, further comprising the steps of:  
displaying winning odds associated with each entry to the player; and  
displaying a plurality of prizes to the player, each prize associated with an entry.
8. The method of claim 1, wherein the step of displaying the remaining of the set of community game elements comprises:  
displaying the remaining of the set of community game elements one at a time;  
and  
updating the winning odds after each of the set of community game elements is displayed.
9. The method of claim 1, further comprising the step of issuing a ticket with an indication of the player's wager.
10. The method of claim 1, wherein the set of community game elements comprises five community game elements and the game rule comprises rules for Texas Hold'em Poker.
11. The method of claim 1, wherein the displaying the plurality of entries and the set of community game elements and the displaying the remaining of the set of community game elements to the player are based on a live deal.
12. The method of claim 1, wherein the steps of displaying the plurality of entries and the set of community game elements, displaying the remaining of the set of community game elements to the player, and receiving the wager from the player occur via a communications network.

13. An apparatus for playing a simulated card game comprising:

a controller;

a display device in communication with the controller, the display device configured to display a plurality of entries and at least one of a set of community game elements to a player, each entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game;

a player input device in communication with the controller, the player input device configured to receive a player bet of at least one bet type selected by the player and communicate the player bet to the controller; and

a ticket issuing device in communication with the controller, the ticket issuing device configured to receive ticket information from the controller and issue a ticket to the player,

wherein the display device is configured to receive play information from the controller and further configured to display the play information to the player and the controller is configured to determine whether the player bet wins based on the plurality of entries and according to the game rule for the virtual game.

14. The apparatus of claim 13, wherein the at least one bet type comprises at least one of a win bet, an event-based bet, a progressive bet, a hand-type bet, a fixed-odds bet, a pari-mutuel bet, and a multiple game bet.

15. The apparatus of claim 13, wherein the step of displaying the remaining of the set of community game elements comprises:

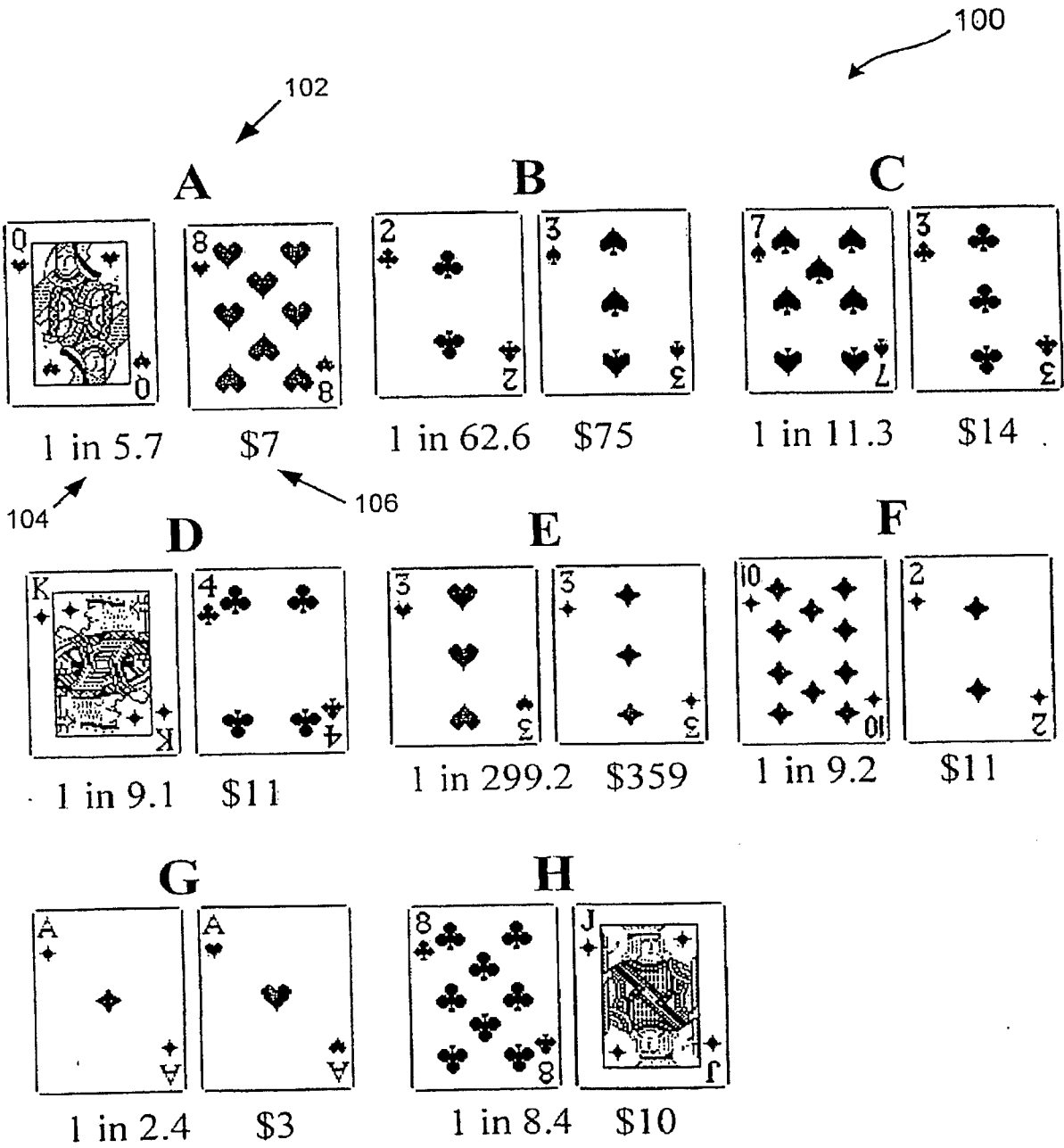
displaying the remaining of the set of community game elements one at a time;  
and

updating the winning odds after each of the set of community game elements is displayed.

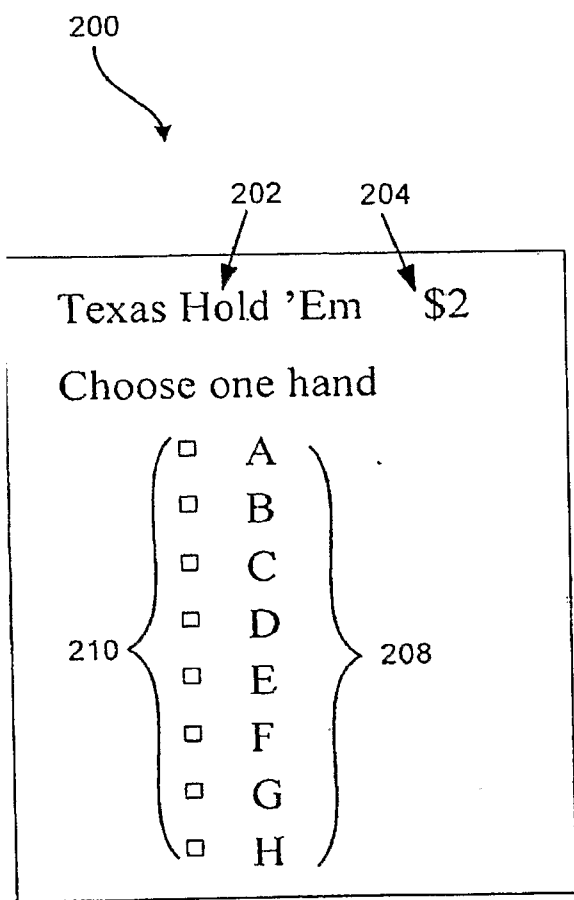
16. The apparatus of claim 13, wherein the ticket issuing device is configured to issue a ticket with an indication of the player's wager.

17. The apparatus of claim 13, wherein the set of community game elements comprises five community game elements and the game rule comprises rules for Texas Hold'em Poker.
18. The apparatus of claim 13, further comprising a network interface device in communication with the controller for communicating with a server via a communication network, the network interface device configured to pass betting information to the server.
19. The apparatus of claim 18, wherein the network interface device is configured to receive, from the server, the plurality of entries and the set of community game elements.
20. The apparatus of claim 19, wherein the plurality of entries and the set of community game elements are based on a live deal.
21. The apparatus of claim 13, wherein the at least one bet type comprises at least one of a win bet, an event-based bet, a progressive bet, a hand-type bet, a fixed-odds bet, a pari-mutuel bet, and a multiple game bet.

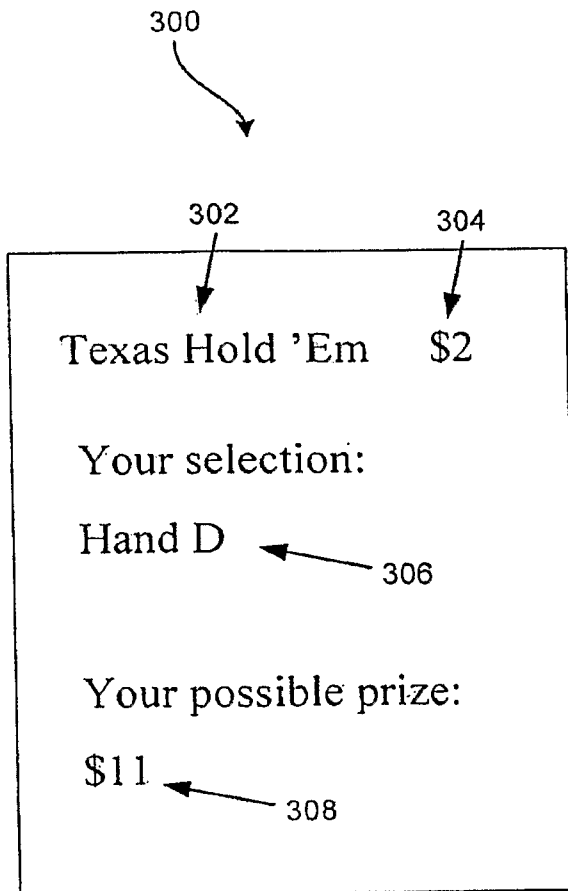
22. A system for playing a simulated card game, comprising:  
a communication network;  
at least one gaming machine in communication with the communication network;  
and  
a server in communication with the at least one gaming machine through the communication network, the server configured to host a virtual game,  
wherein the at least one gaming machine is configured to:  
receive game information from the server and display a plurality of game entries and at least one of a set of community game elements to a player, each game entry including at least two game elements, each game element associated with a game value according to a game rule for the virtual game;  
receive a player bet from the player and communicating the player bet to the server;  
receive ticket information from the server and issue a ticket to the player;  
display the remaining of the set of community game elements to the player;  
and  
receive winning information from the server, the winning information specifying whether the player bet wins based on the plurality of entries and according to the game rule for the virtual game.
23. The system of claim 22, wherein the player bet comprises at least one of a win bet, an event-based bet, a progressive bet, a hand-type bet, a fixed-odds bet, a pari-mutuel bet, and a multiple game bet.
24. The system of claim 23, wherein the set of community game elements comprises five community game elements and the game rule comprises rules for Texas Hold'em Poker.
25. The system of claim 23, wherein the server hosts the virtual game based on a live game.



**FIG. 1**

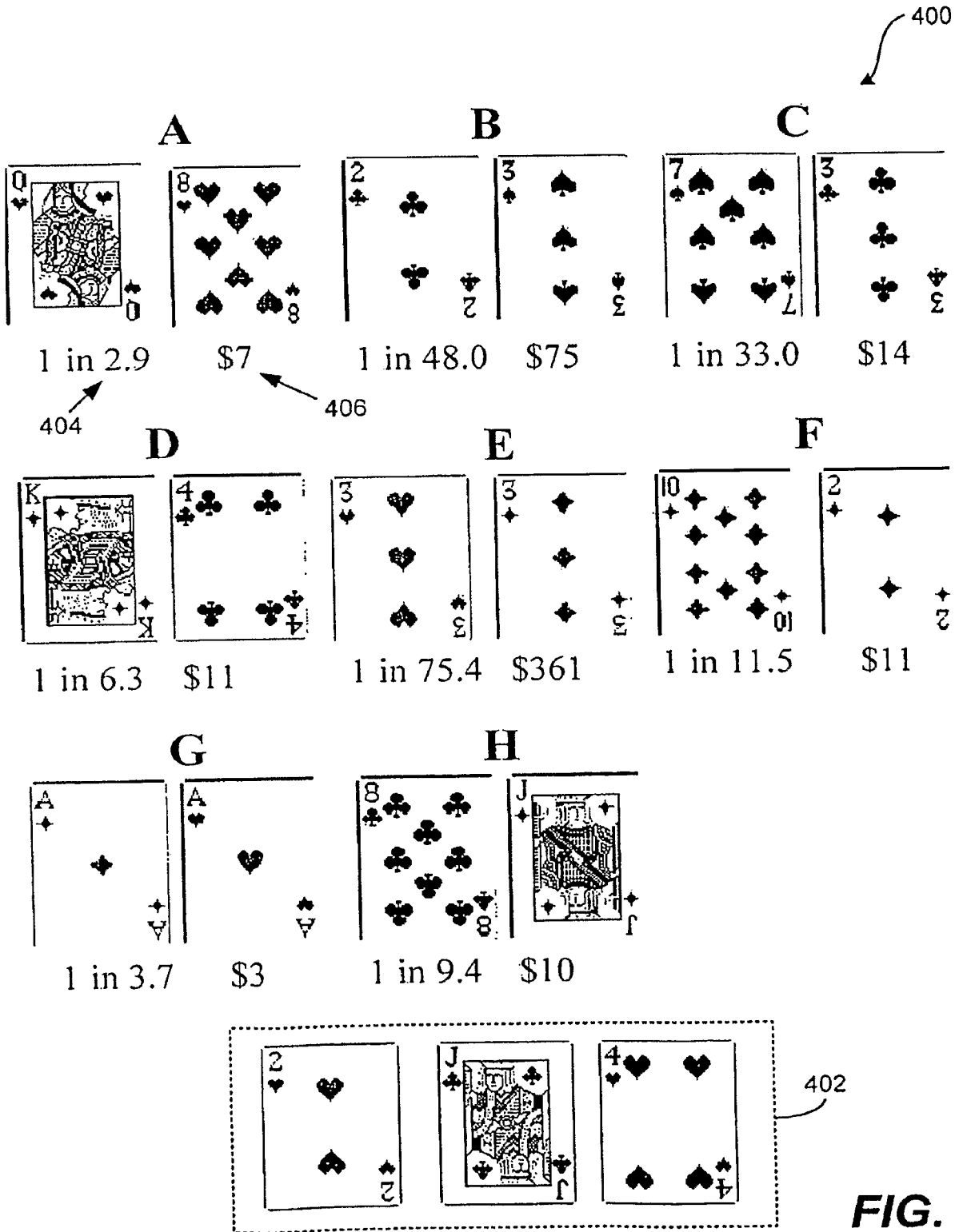


**FIG. 2**



**FIG. 3**





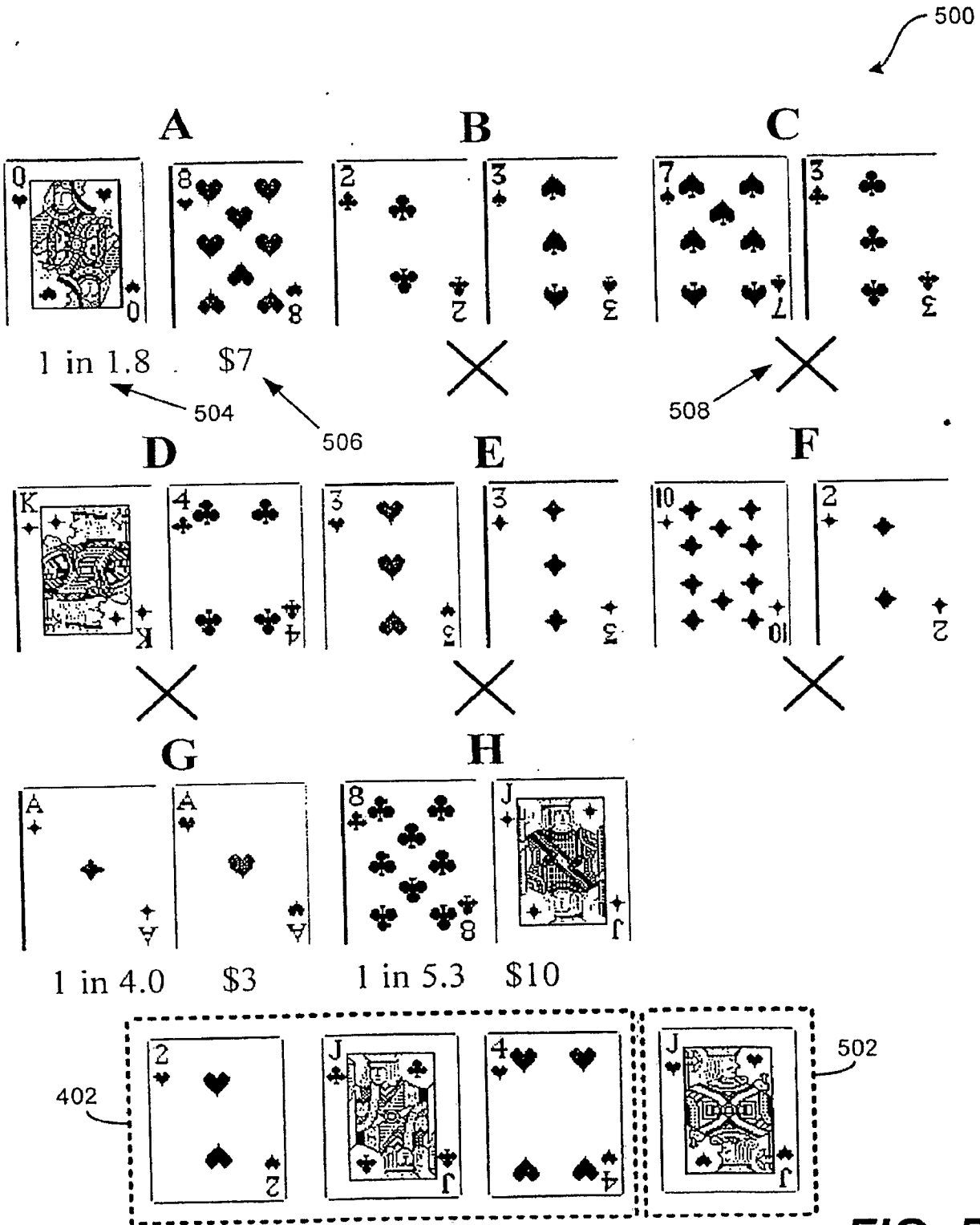


FIG. 5

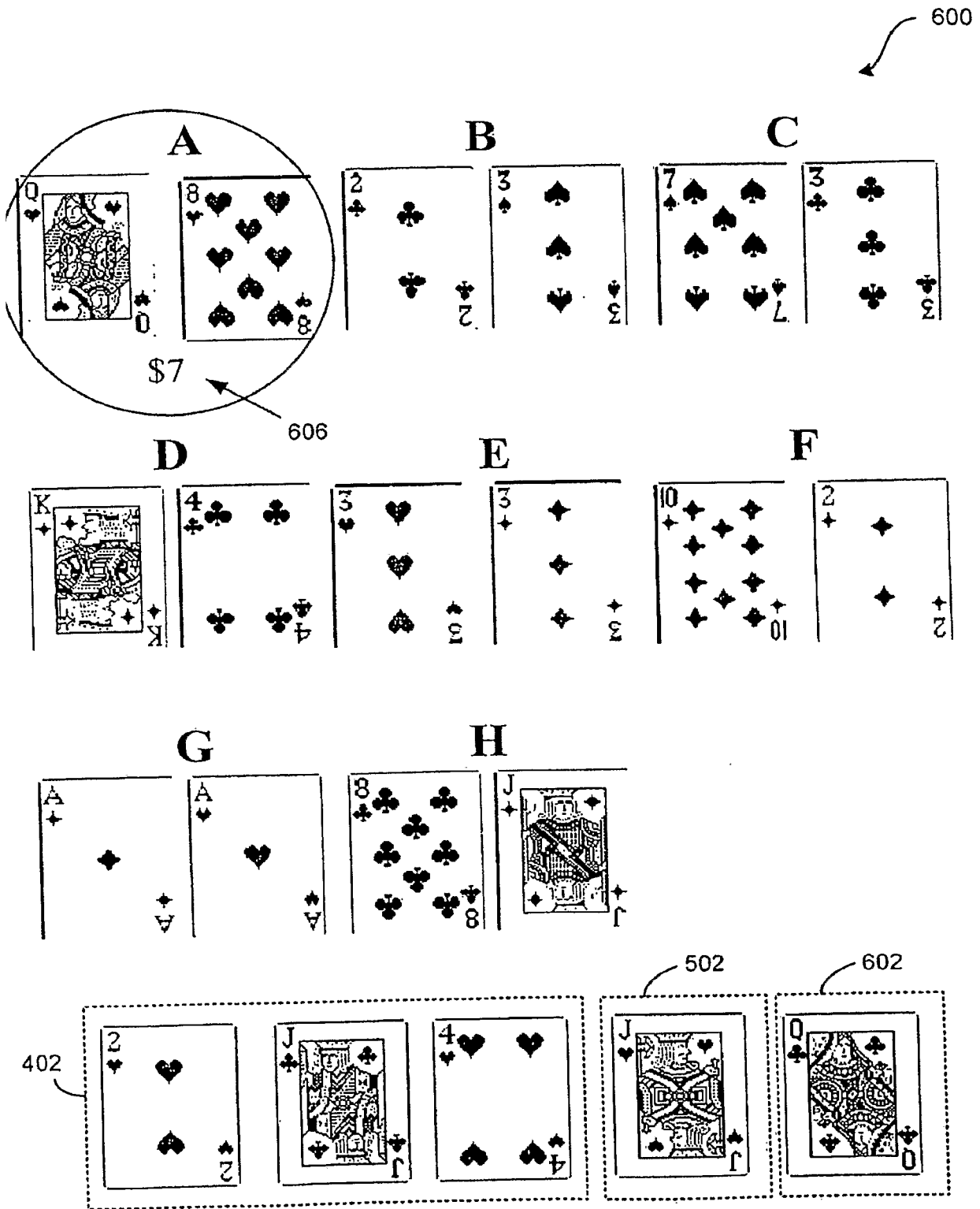
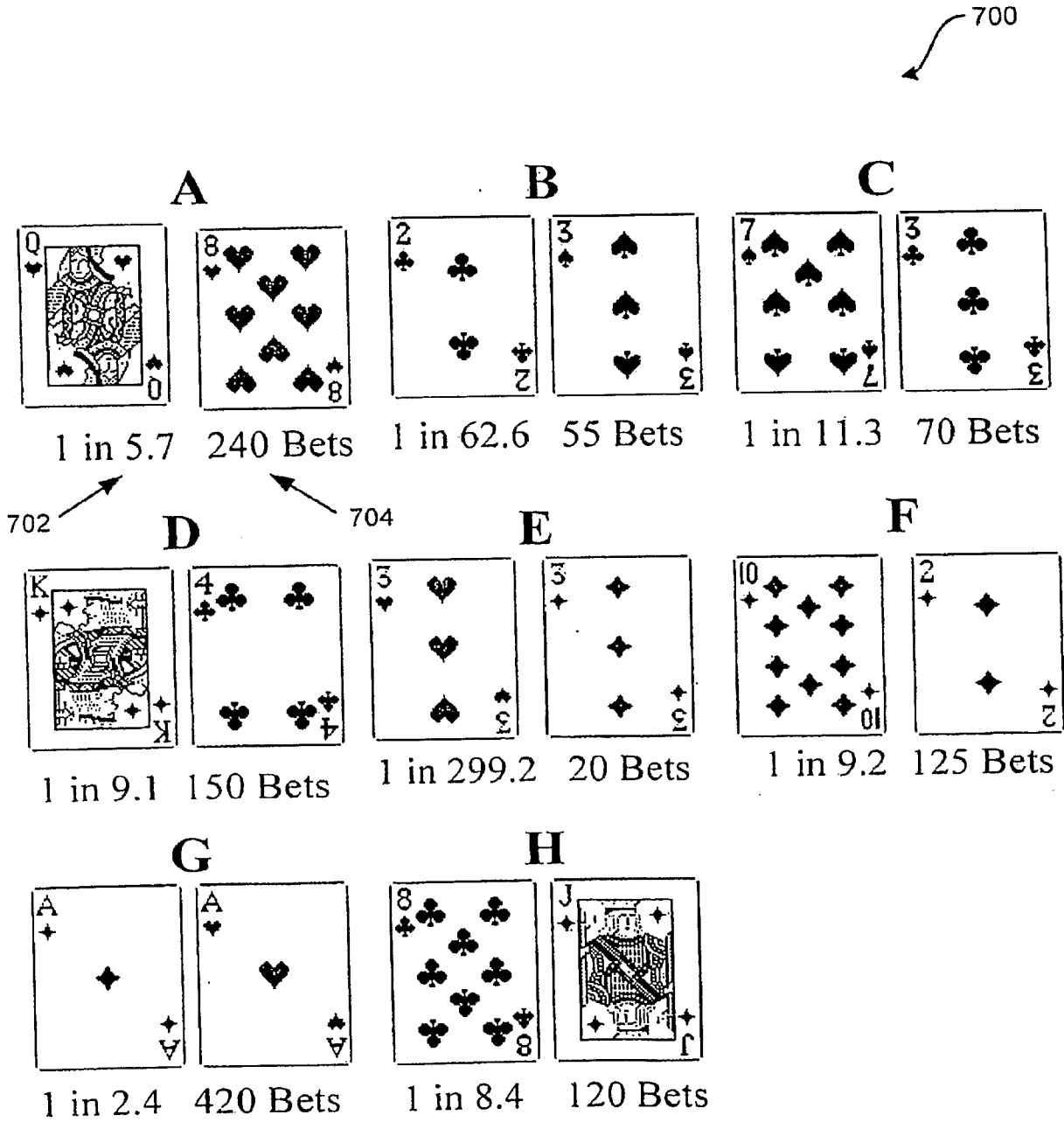


FIG. 6



**FIG. 7**

800

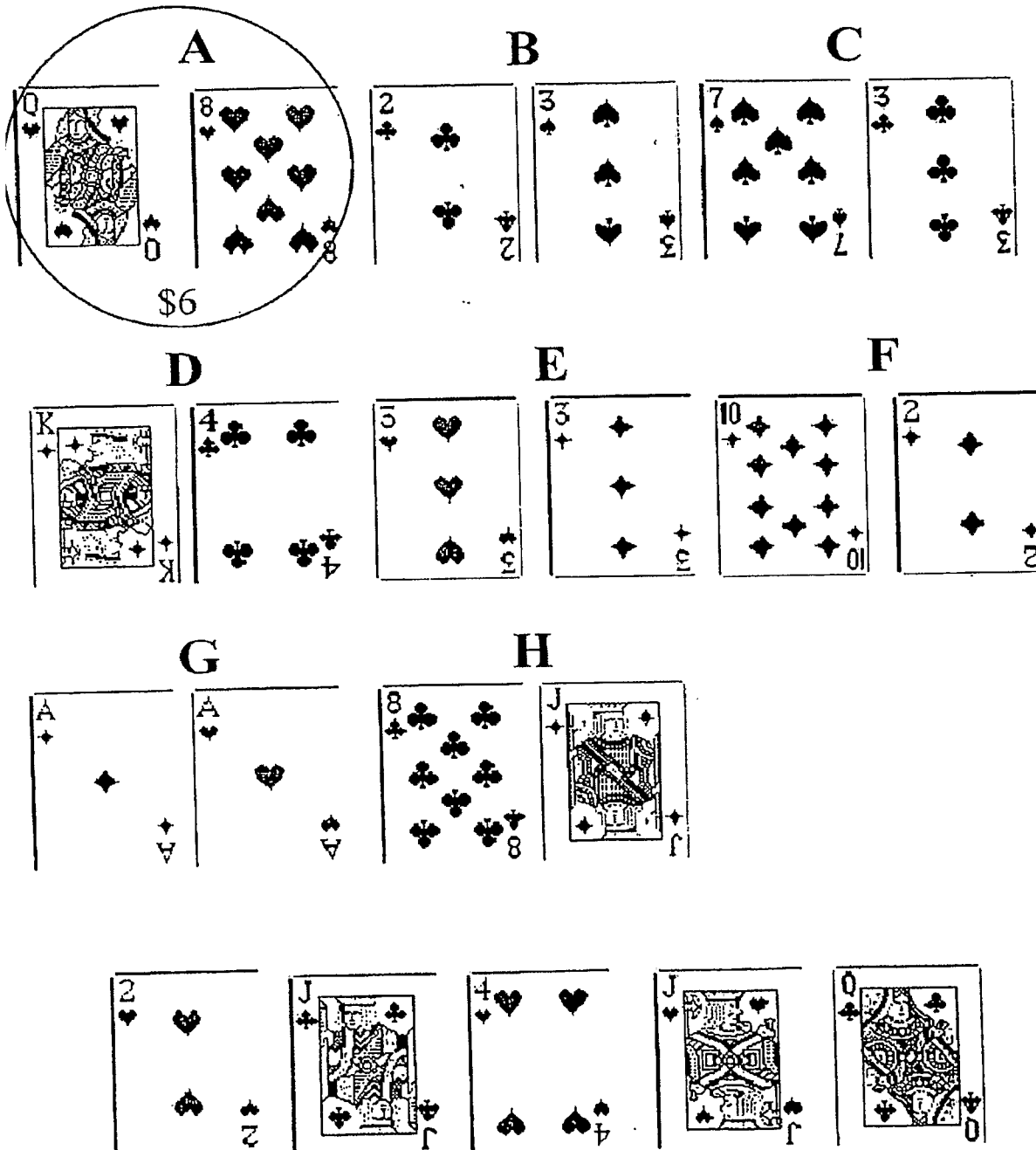
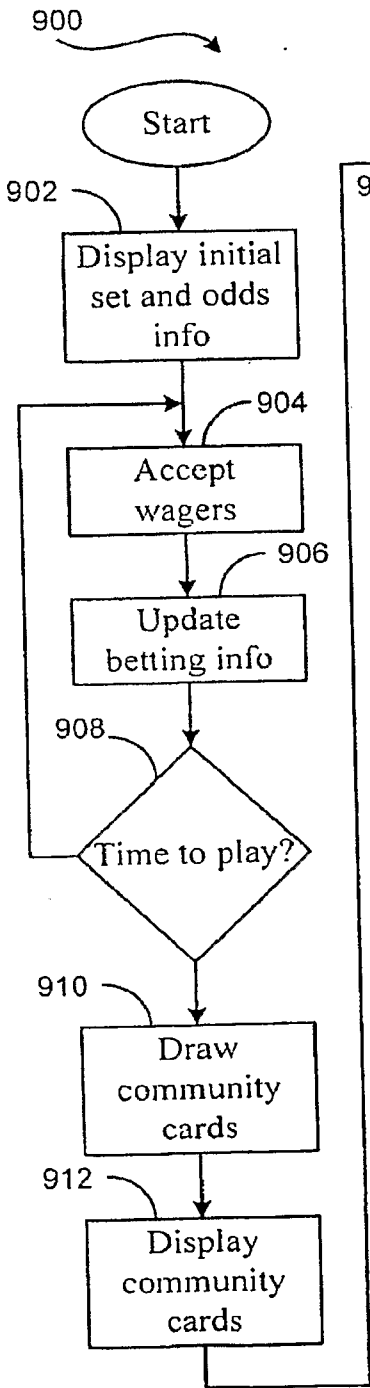
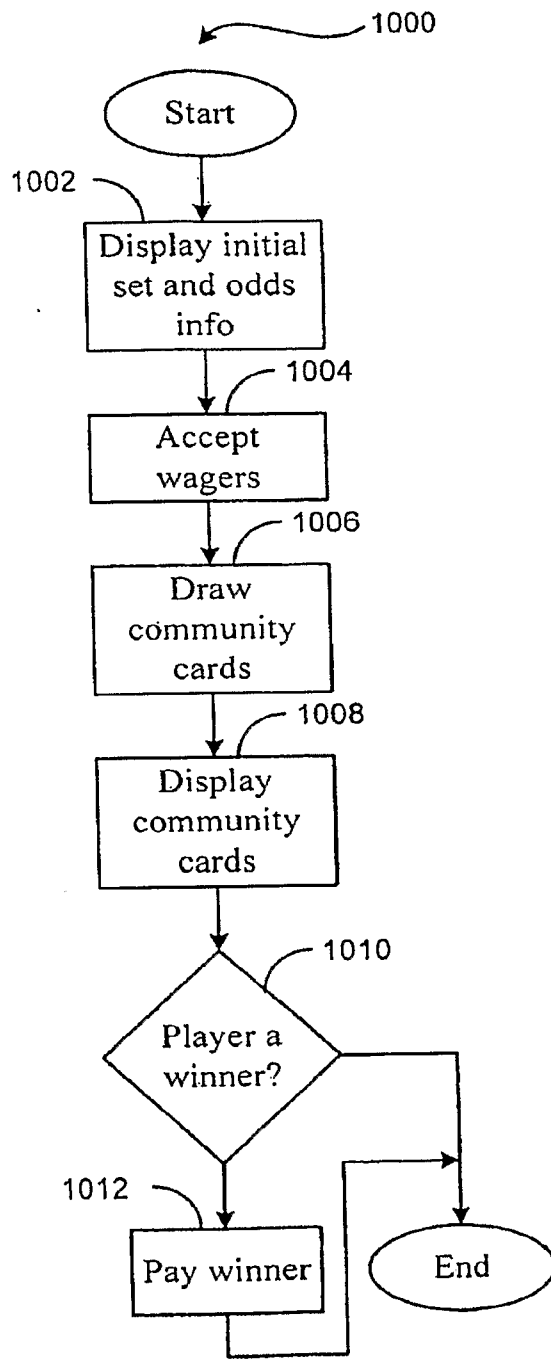
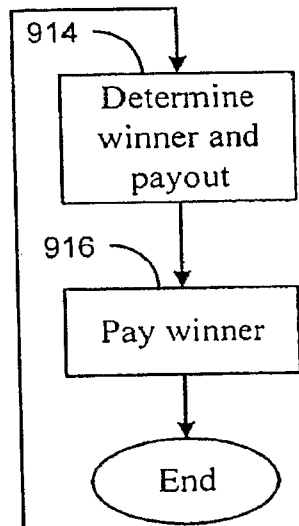


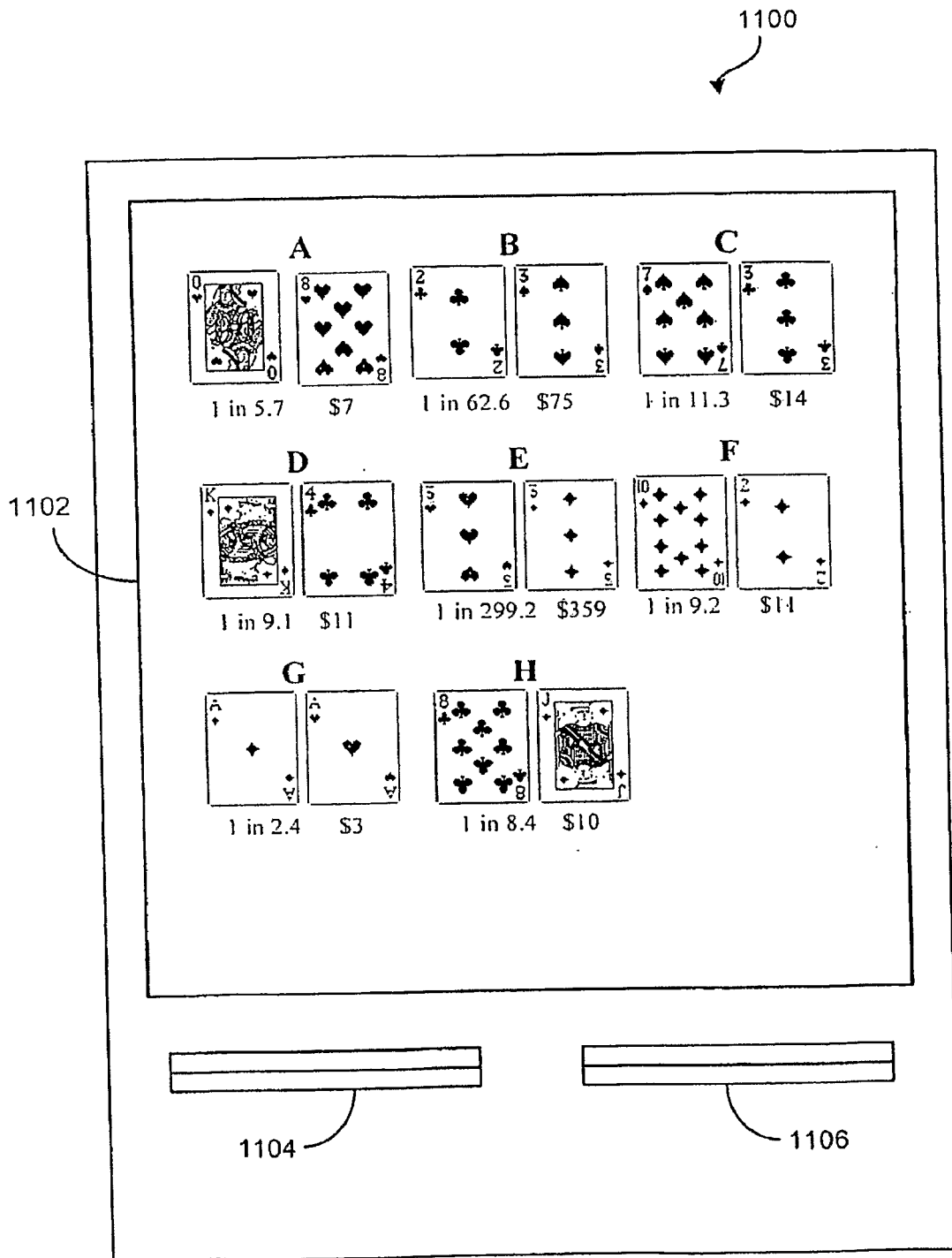
FIG. 8



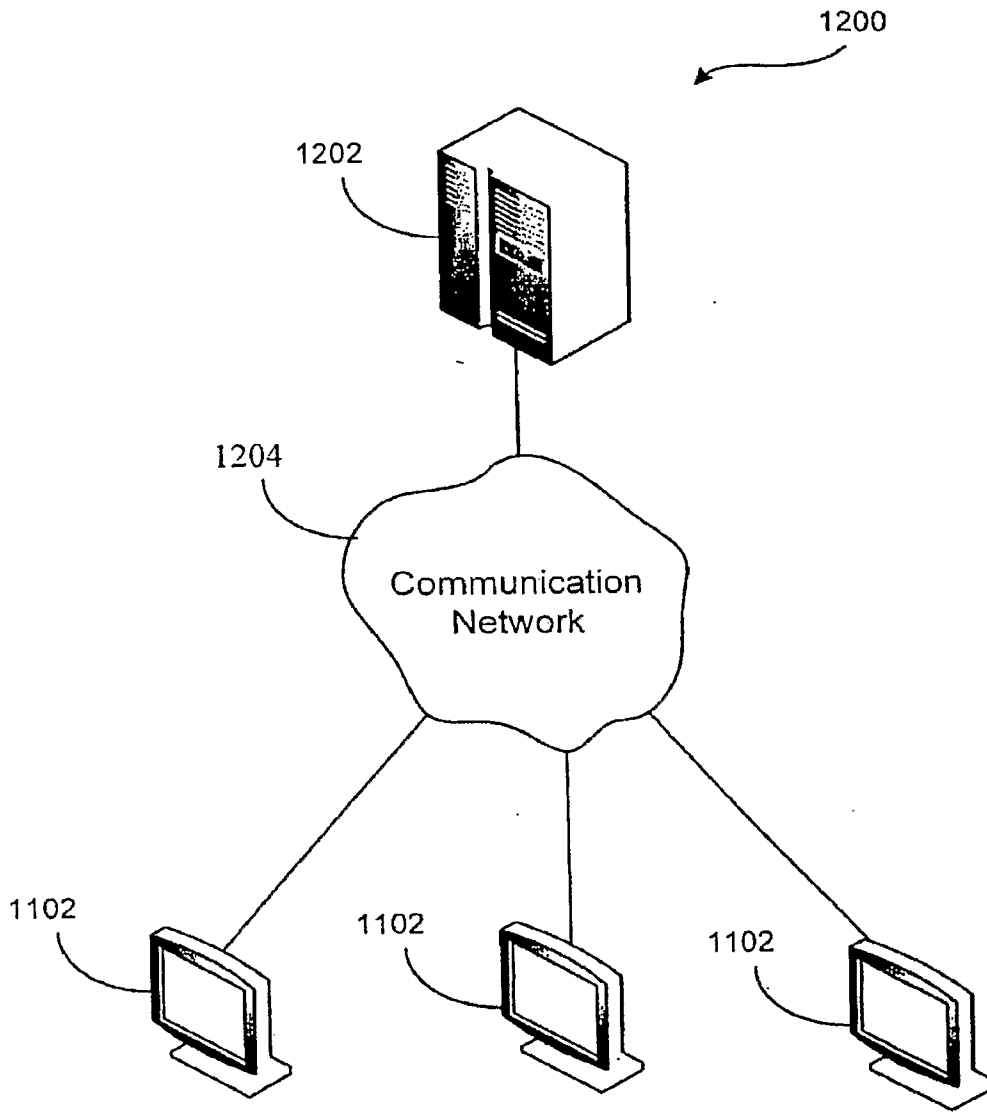
**FIG. 9**



**FIG. 10**



**FIG. 11**



**FIG. 12**



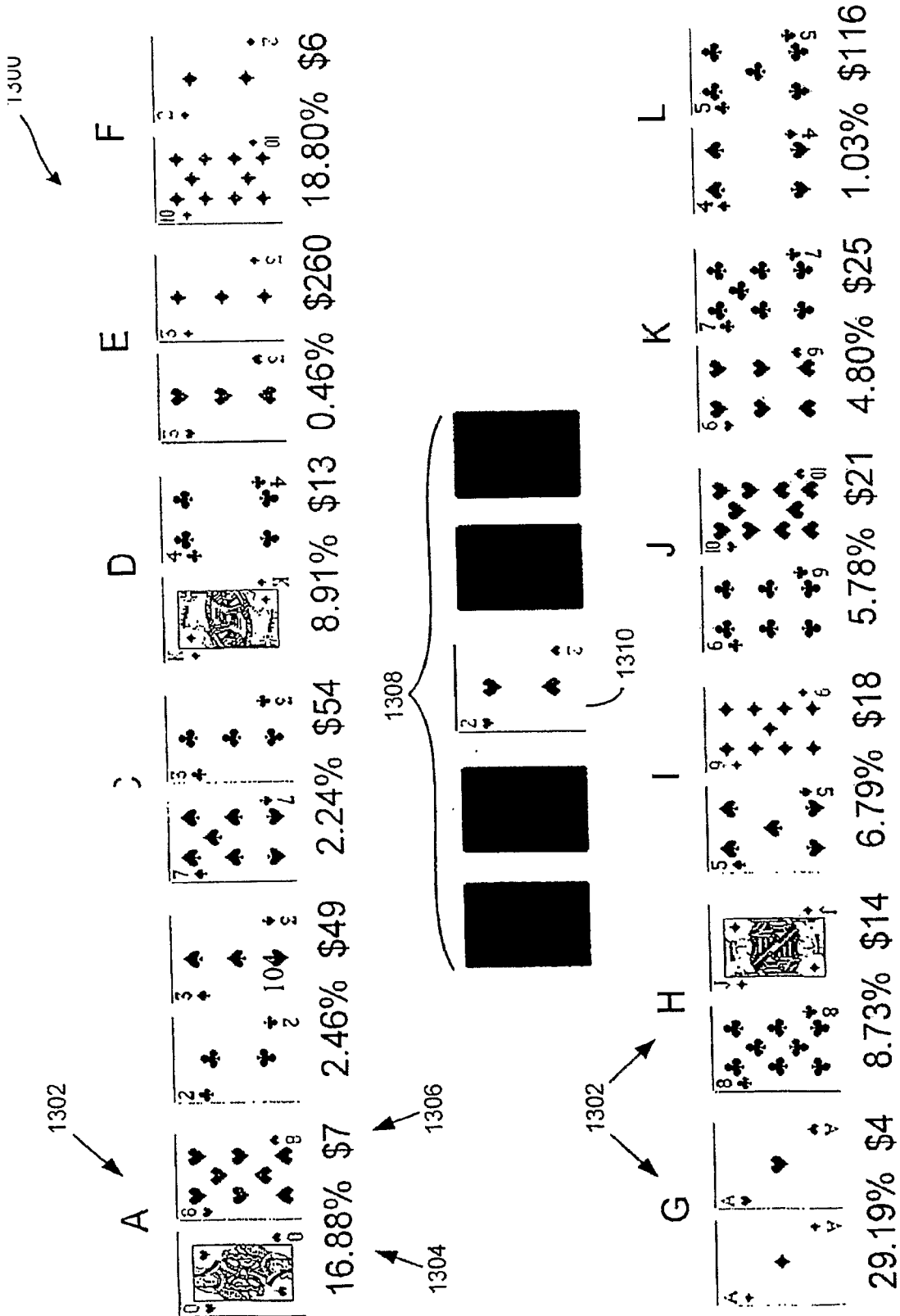


FIG. 13

1400

1402

WINNER!  
FLUSH

**A**

16.88% \$7

**B**

2.46% \$49

**C**

2.24% \$54

**D**

8.91% \$13

**E**

0.46% \$260

**F**

18.80% \$6

1308

1310

**H**

8.73% \$14

**I**

6.79% \$18

**J**

5.78% \$21

**K**

4.80% \$25

**L**

1.03% \$116

FIG. 14

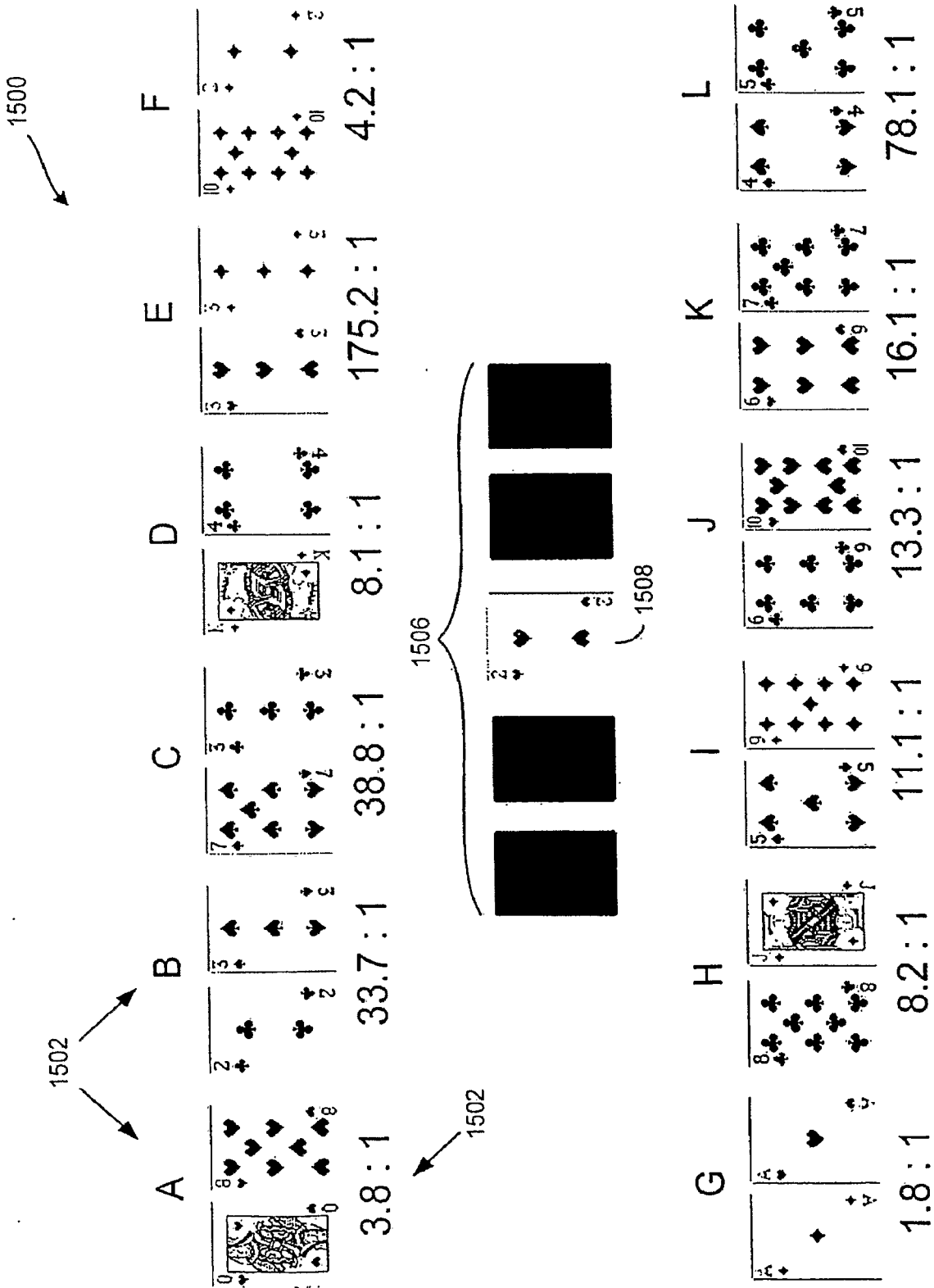


FIG. 15

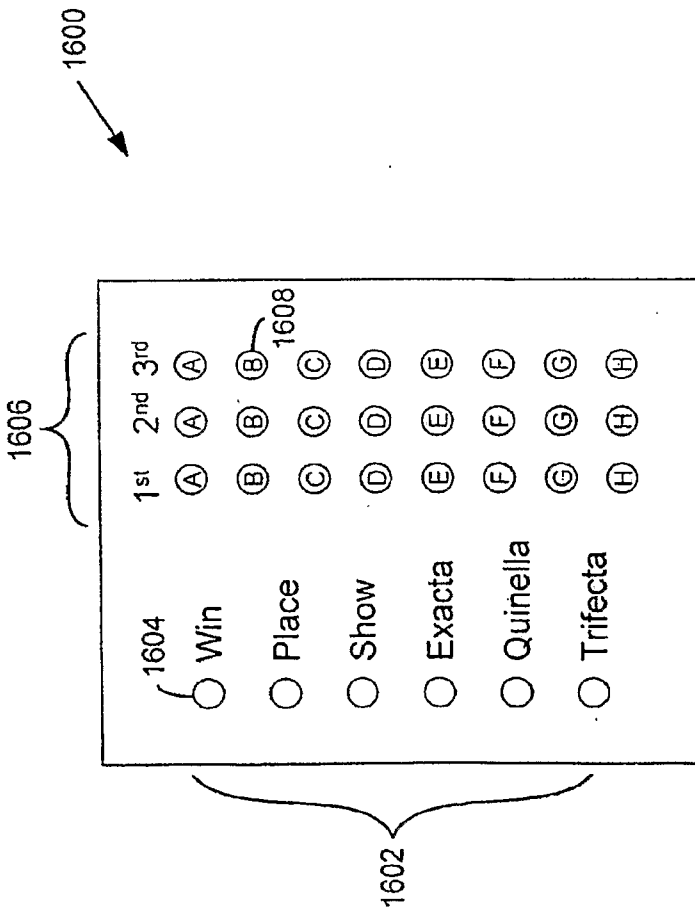


FIG. 16


1700

BETS

	A	B	C	D	E	F	G	H	I	J	K	L
Win	10,703	1,507	1,314	5,690	297	10,050	18,559	5,653	4,297	3,645	3,044	661
Place	9,295	5,414	17,944	7,972	17,194	10,863	11,386	7,322	7,799	7,476	2,644	574
Show	8,172	4,754	15,786	7,008	14,736	9,549	10,009	6,439	5,495	5,208	2,324	505

FIG. 17

BETS

1800 

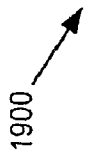
AB	346.5
AC	549.3
AD	693.1
AE	804.7
AF	895.8
AG	972.9
AH	1,039.7
AI	1,098.6
AJ	1,151.2
AK	1,198.9
AL	1,242.4
BA	693.1
BC	1,242.4
BD	1,386.2
BE	1,497.8
BF	1,589.0
BG	1,666.1
BH	1,732.8
BI	1,791.7
BJ	1,844.4
BK	1,892.0
BL	1,935.6
CA	1,098.6
CB	1,445.1
CD	1,791.7
CE	1,903.3
CF	1,994.4
CG	2,071.5
CH	2,138.3
CI	2,197.2
CJ	2,249.9
CK	2,297.5
CL	2,341.0
DA	1,386.2
DB	1,732.8
DC	1,935.6
DE	2,191.0
DF	2,282.1
DG	2,359.2
DH	2,426.0
DI	2,484.9
DJ	2,537.5
DK	2,585.2
DL	2,628.7
EA	1,609.4
EB	1,956.0
EC	2,158.7
ED	2,302.5
EF	2,505.3
EG	2,582.3
EH	2,649.1
EI	2,708.0
EJ	2,760.7
EK	2,808.3
EL	2,851.8
FA	1,791.7
FB	2,138.3
FC	2,341.0
FD	2,484.9
FE	2,596.4
FG	2,764.7
FH	2,831.4
FI	2,890.3
FJ	2,943.0
FK	2,990.7
FL	3,034.2
GA	1,945.9
GB	2,292.4
GC	2,495.2
GD	2,639.0
GE	2,750.6
GF	2,841.7
GH	2,985.6
GI	3,044.5
GJ	3,097.2
GK	3,144.8
GL	3,188.3
HA	2,079.4
HB	2,426.0
HC	2,628.7
HD	2,772.5
HE	2,884.1
HF	2,975.3
HG	3,052.3
HI	3,178.0
HJ	3,230.7
HK	3,278.3
HL	3,321.8
IA	2,197.2
IB	2,543.7
IC	2,746.5
ID	2,890.3
IE	3,001.9
IF	3,093.1
IG	3,170.1
IH	3,236.9
IJ	3,348.5
IK	3,396.1
IL	3,439.6
JA	2,302.5
JB	2,649.1
JC	2,851.8
JD	2,995.7
JE	3,107.3
JF	3,198.4
JG	3,275.5
JH	3,342.3
JI	3,401.1
JK	3,501.5
JL	3,545.0
KA	2,397.8
KB	2,744.4
KC	2,947.2
KD	3,091.0
KE	3,202.6
KF	3,293.7
KG	3,370.8
KH	3,437.6
KI	3,496.5
KJ	3,549.1
KL	3,640.3
LA	2,484.9
LB	2,831.4
LC	3,034.2
LD	3,178.0
LE	3,289.6
LF	3,380.7
LG	3,457.8
LH	3,524.6
LI	3,583.5
LJ	3,636.1
LK	3,683.8

FIG. 18

ODDS

AB	950.8:1
AC	599.4:1
AD	474.8:1
AE	408.8:1
AF	367.1:1
AG	338.0:1
AH	316.2:1
AI	299.2:1
AJ	285.5:1
AK	274.1:1
AL	264.4:1
BA	474.8:1
BC	264.4:1
BD	236.9:1
BE	219.2:1
BF	206.5:1
BG	196.9:1
BH	189.3:1
BI	183.1:1
BJ	177.8:1
BK	173.3:1
BL	169.4:1
CA	299.2:1
CB	227.2:1
CD	183.1:1
CE	172.3:1
CF	164.4:1
CG	158.2:1
CH	153.2:1
CI	149.1:1
CJ	145.6:1
CK	142.5:1
CL	139.9:1
DA	236.9:1
DB	189.3:1
DC	169.4:1
DE	149.5:1
DF	143.5:1
DG	138.8:1
DH	134.9:1
DI	131.7:1
DJ	129.0:1
DK	126.6:1
DL	124.5:1
EA	203.9:1
EB	167.6:1
EC	151.8:1
ED	142.2:1
EF	130.6:1
EG	126.7:1
EH	123.5:1
EI	120.8:1
EJ	118.5:1
EK	116.4:1
EL	114.6:1
FA	183.1:1
FB	153.2:1
FC	139.9:1
FD	131.7:1
FE	126.0:1
FG	118.3:1
FH	115.5:1
FI	113.1:1
FJ	111.1:1
FK	109.3:1
FL	107.7:1
GA	168.5:1
GB	142.9:1
GC	131.2:1
GD	124.0:1
GE	118.9:1
GF	115.1:1
GH	109.5:1
GI	107.3:1
GJ	105.5:1
GK	103.9:1
GL	102.4:1
HA	157.6:1
HB	134.9:1
HC	124.5:1
HD	117.9:1
HE	113.3:1
HF	109.8:1
HG	107.0:1
HI	102.8:1
HJ	101.1:1
HK	99.6:1
HL	98.3:1
IA	149.1:1
IB	128.6:1
IC	119.1:1
ID	113.1:1
IE	108.9:1
IF	105.6:1
IG	103.0:1
IH	100.9:1
IJ	97.5:1
IK	96.1:1
IL	94.9:1
JA	142.2:1
JB	123.5:1
JC	114.6:1
JD	109.1:1
JE	105.1:1
JF	102.1:1
JG	99.7:1
JH	97.7:1
JI	96.0:1
JK	93.2:1
JL	92.0:1
KA	136.5:1
KB	119.2:1
KC	110.9:1
KD	105.7:1
KE	102.0:1
KF	99.1:1
KG	96.8:1
KH	94.9:1
KI	93.3:1
KJ	91.9:1
KL	89.6:1
LA	131.7:1
LB	115.5:1
LC	107.7:1
LD	102.8:1
LE	99.3:1
LF	96.5:1
LG	94.4:1
LH	92.6:1
LI	91.0:1
LJ	89.7:1
LK	88.5:1

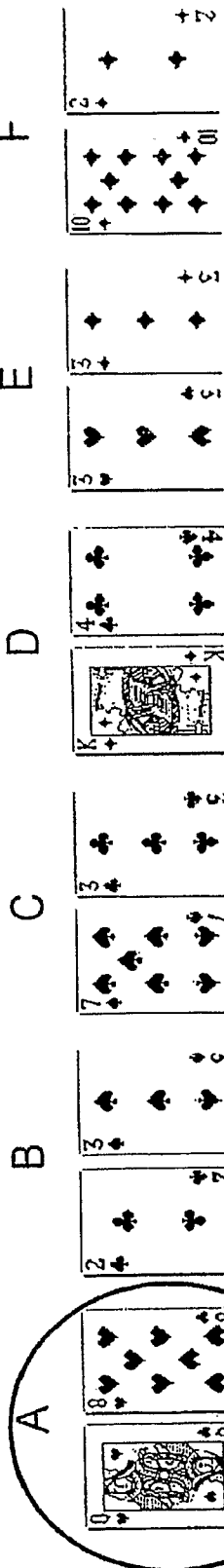
FIG. 19

1900 

2000

2002

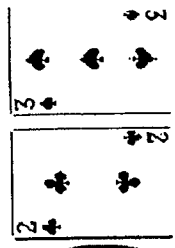
1<sup>st</sup> PLACE  
FLUSH



3.0 : 1

2010

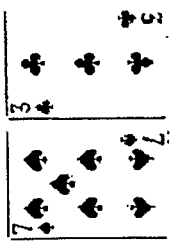
B



27.5 : 1

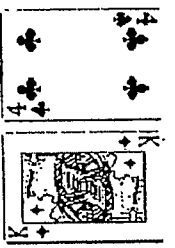
2004

C



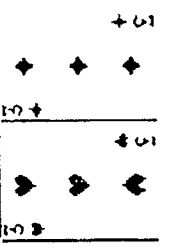
31.7 : 1

D



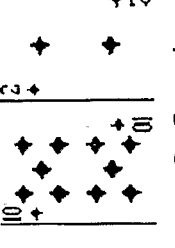
6.5 : 1

E



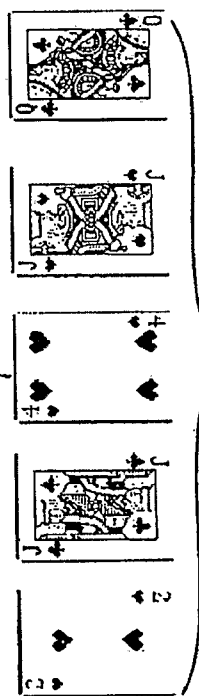
143.8 : 1

F



3.2 : 1

2008



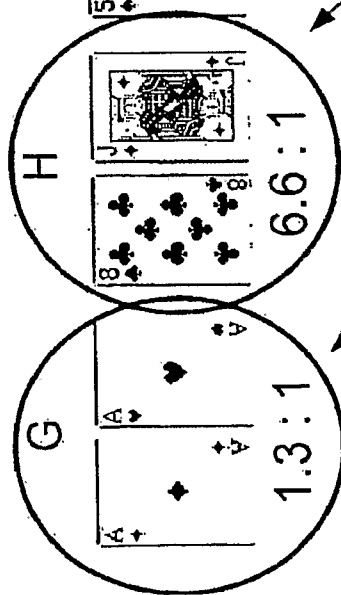
3<sup>rd</sup> PLACE  
2 PAIR

1.3 : 1

2014

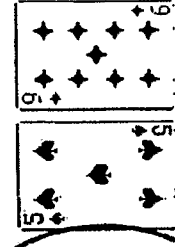
2006

2<sup>nd</sup> PLACE  
3 of a KIND



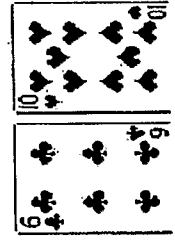
6.6 : 1

I



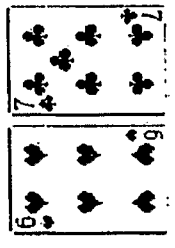
9.0 : 1

J



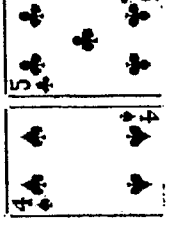
10.8 : 1

K



13.1 : 1

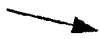
L



64.0 : 1

FIG. 20

2100



	YES	NO
3 OF A KIND	<input checked="" type="radio"/> 2104	<input type="radio"/>
STRAIGHT	<input type="radio"/>	<input type="radio"/>
FLUSH	<input type="radio"/>	<input type="radio"/>
STRAIGHT or FLUSH	<input type="radio"/>	<input type="radio"/>
STRAIGHT or HIGHER	<input type="radio"/>	<input type="radio"/>
WAGER	<input checked="" type="radio"/> \$2	<input type="radio"/> \$4 <input type="radio"/> \$8 <input type="radio"/> \$100

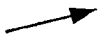
2102



2106



2200



GAME: 23  
 DATE: 09-18-05  
 BET: 3 OF A KIND  
 OUTCOME: YES  
 WAGER: \$2.00

FIG. 21

FIG. 22