

US 20070045957A1

### (19) United States

## Patent Application Publication (10) Pub. No.: US 2007/0045957 A1 Blair, JR. (43) Pub. Date: Mar. 1, 2007

#### (54) GAMING SYSTEM AND METHOD FOR DISPLAYING POT AMOUNTS TO FACILITATE CALCULATION OF POT ODDS FOR POT DEPENDENT WAGERS

(76) Inventor: Robert R. Blair JR., Reno, NV (US)

Correspondence Address: Belll, Boyd & Lloyd LLC P.O. Box 1135 Chicago, IL 60690-1135 (US)

(21) Appl. No.: 11/215,060

(22) Filed: Aug. 30, 2005

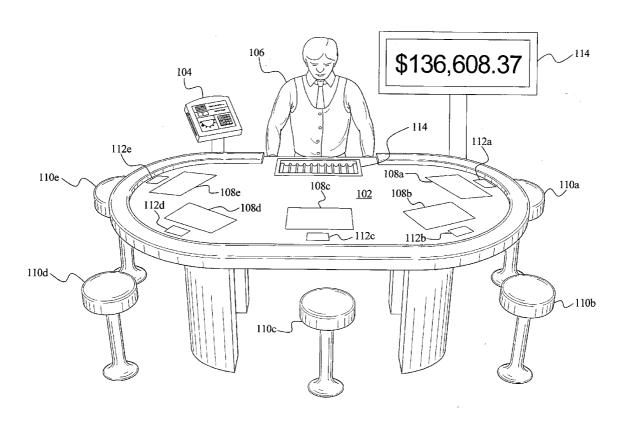
#### **Publication Classification**

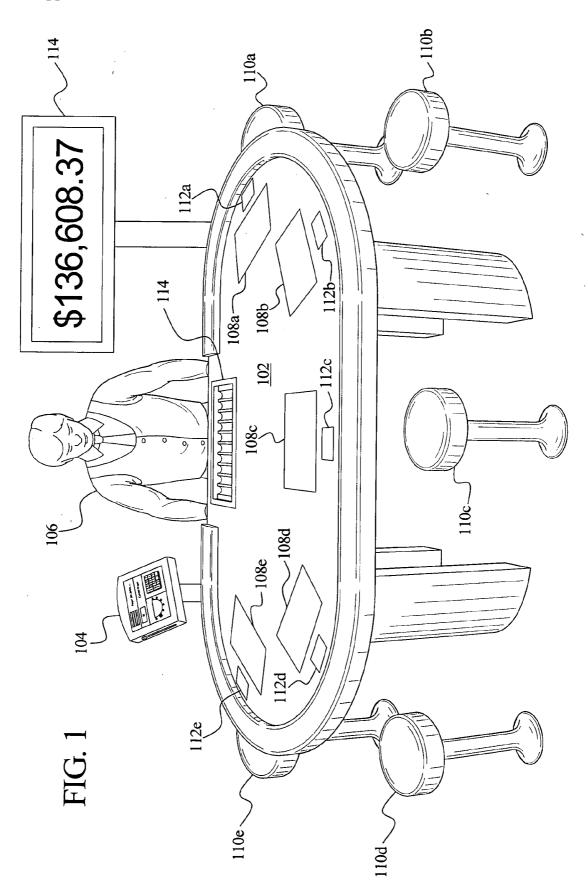
(51) **Int. Cl.**A63F 3/08 (2006.01)

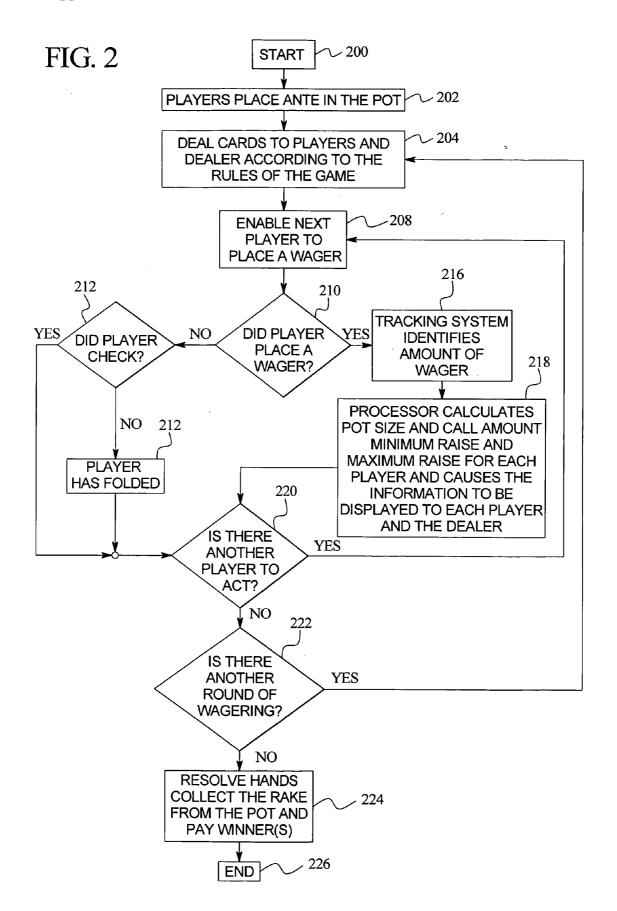
A63F 9/24 (2006.01)

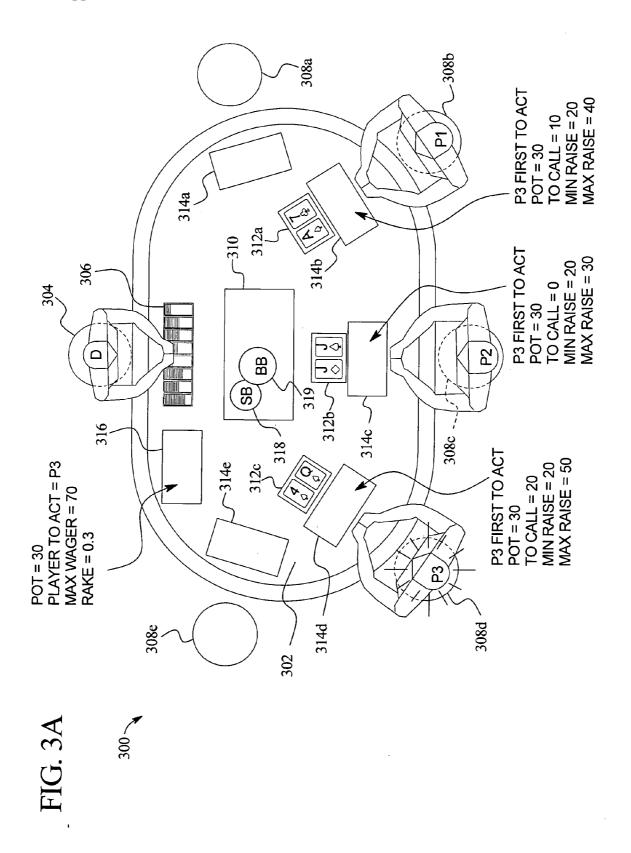
(57) ABSTRACT

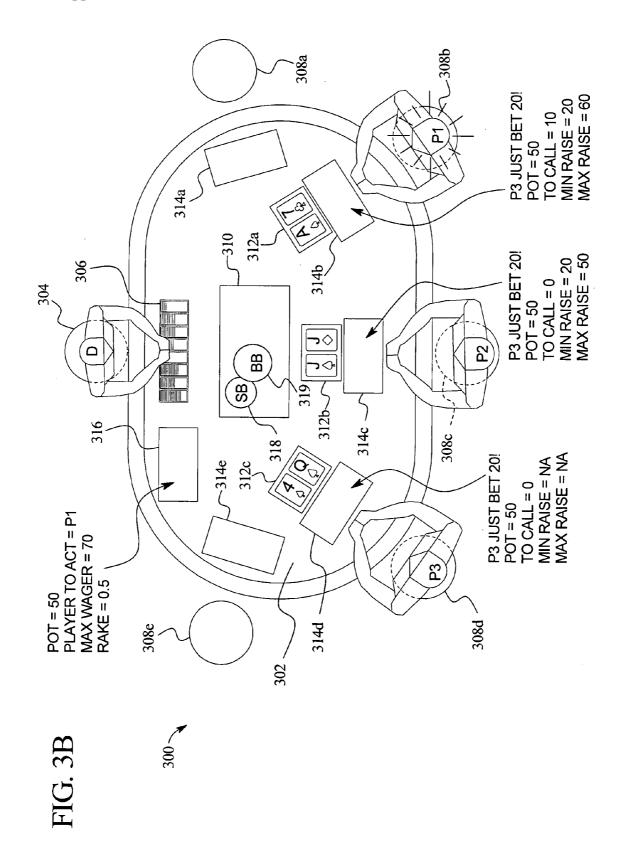
A gaming system having a live table game and capable of displaying real-time calculations of pot levels is provided. The gaming system includes a tracking system including an chip identifier for identifying the amount of each wager for each player position. In one embodiment, after identifying a wager the tracking system communicates the wager amount to a processor, and the processor calculates the value of the pot, the minimum allowable wager, the minimum allowable raise, and the maximum allowable wager. Each of these amounts are displayed to the players through one or more display devices.

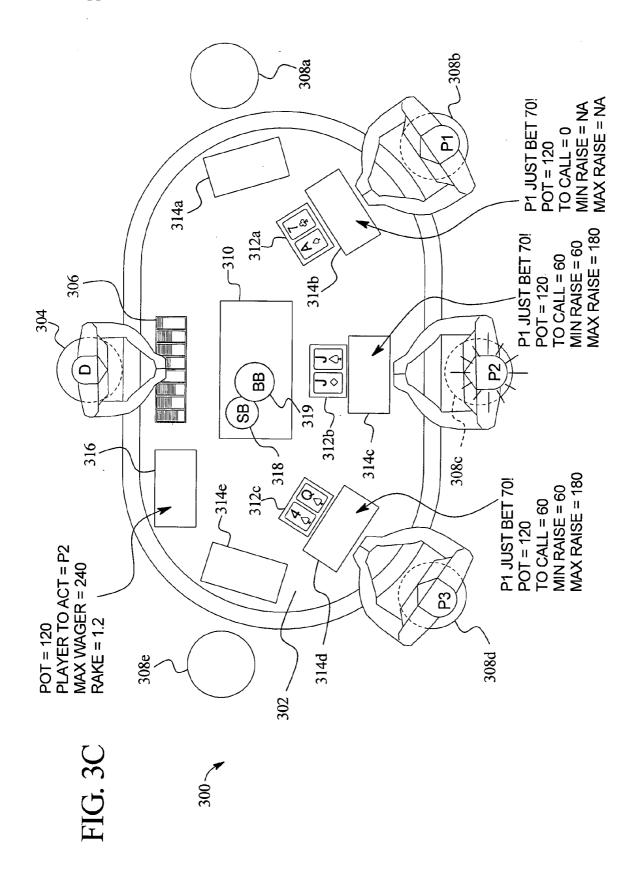


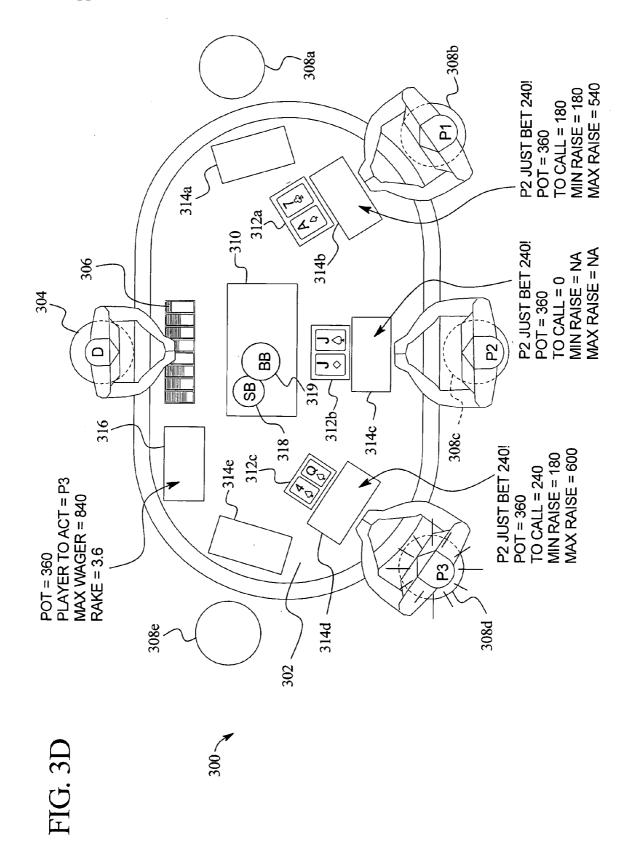


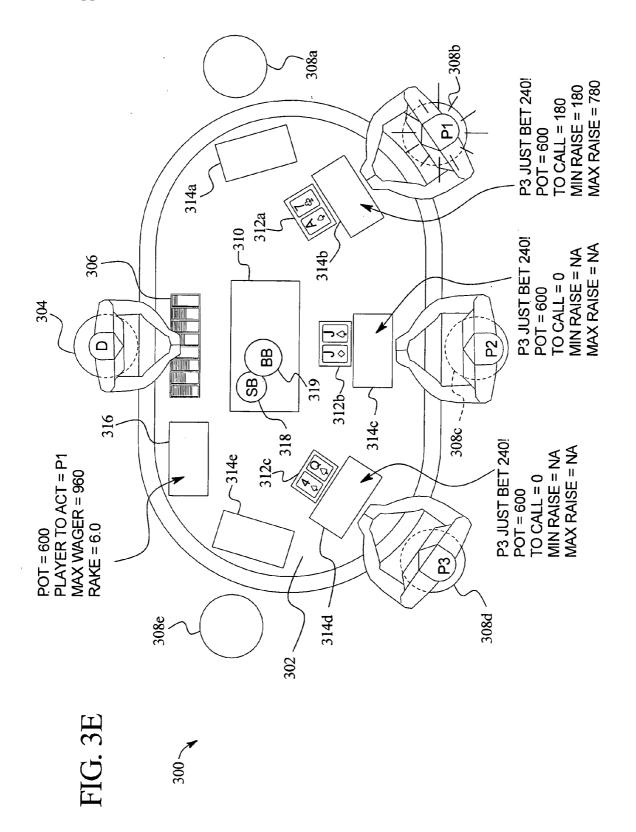


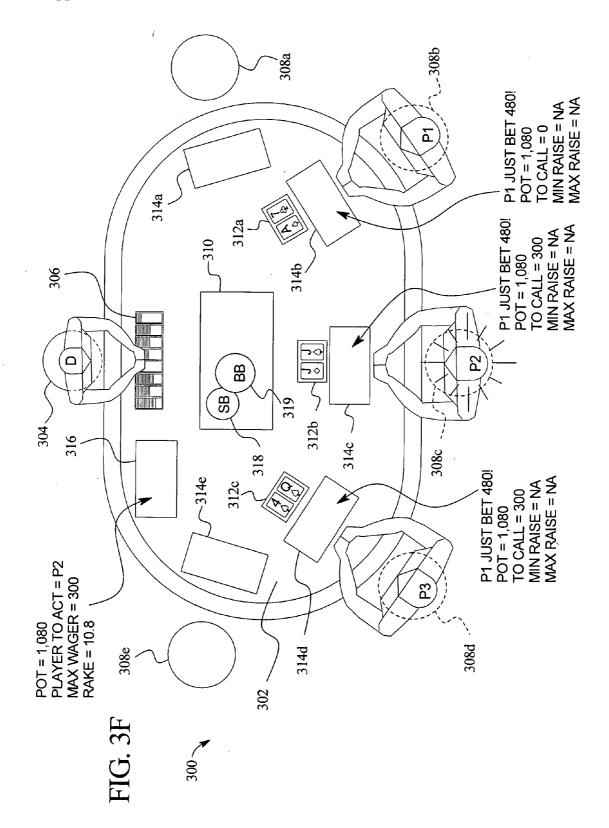


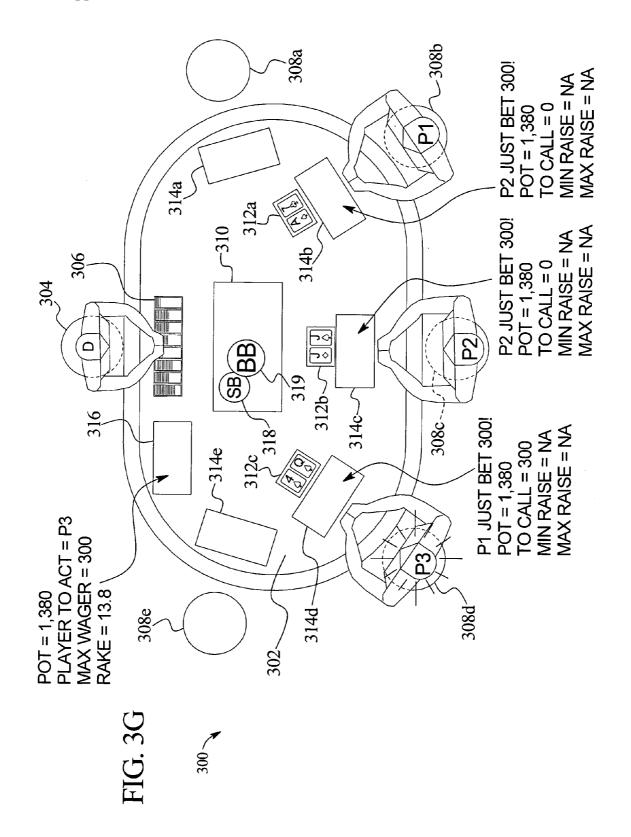


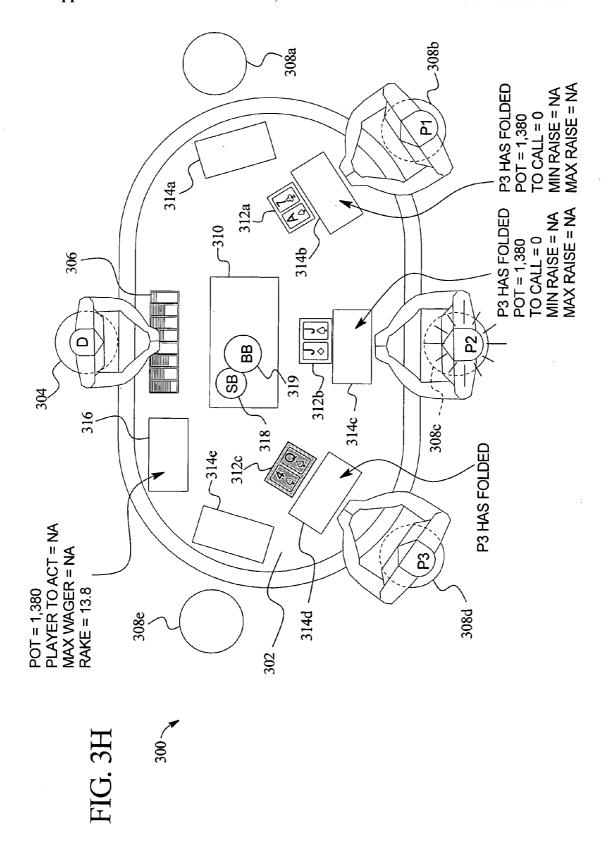


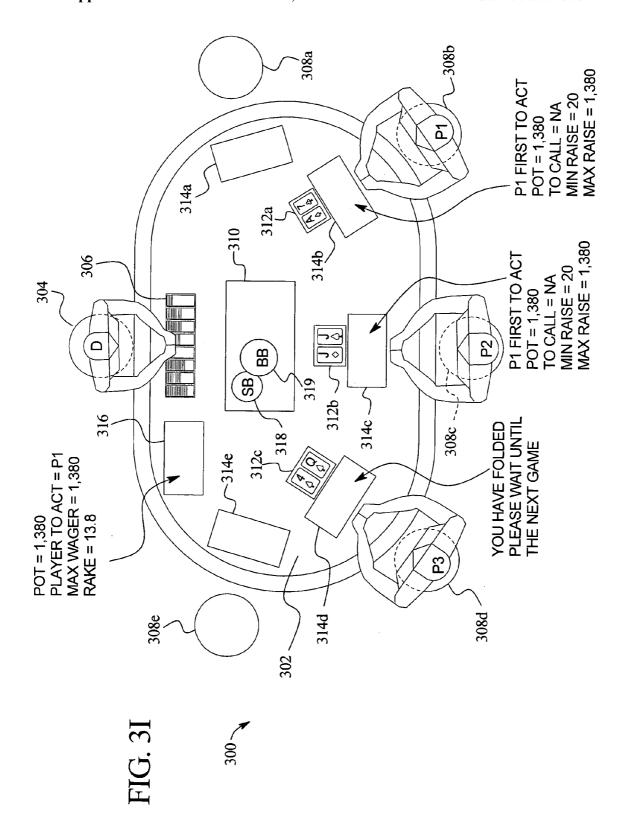












330

### FIG. 4A

## PLAYER 1 DISPLAY IT IS PLAYER 3'S TURN TO ACT.

CHIPS = 2,350	STRAIGHT FL % = 0.00
	FOUR OF A KIND % = 0.006
POT = 675	FULL HOUSE % = 0.24
TO CALL = 65	FLUSH % = 18
MIN RAISE = 130	STRAIGHT % = 0.0
MAX RAISE = 740	THREE OF A KIND % = 14
MAX WAGER = 805	TWO PAIR % = 100
	ONE PAIR % = 100
	# OF OUTS = 16
	POT ODDS = 33%

### FIG. 4B

# COMMUNITY DISPLAY IT IS PLAYER 2'S TURN TO ACT.

POT = 420	PLAYER 3
	TO CALL = 210 MIN RAISE = 260
PLAYER 1	MAX RAISE = 740 MAX WAGER = 630
TO CALL = 0 MIN RAISE = NA	,
MAX RAISE = NA MAX WAGER = NA	PLAYER 4
	TO CALL = - MIN RAISE = -
PLAYER 2	MAX RAISE = - MAX WAGER = -
TO CALL = 210 MIN RAISE = 260	
MAX RAISE = 740 MAX WAGER = 630	PLAYER 5
	TO CALL = - MIN RAISE = -
	MAX RAISE = - MAX WAGER = -

332

#### GAMING SYSTEM AND METHOD FOR DISPLAYING POT AMOUNTS TO FACILITATE CALCULATION OF POT ODDS FOR POT DEPENDENT WAGERS

#### COPYRIGHT NOTICE

[0001] A portion of the disclosure of this patent document contains or may contain material which is subject to copyright protection. The copyright owner has no objection to the photocopy reproduction by anyone of the patent document or the patent disclosure in exactly the form it appears in the Patent and Trademark Office patent file or records, but otherwise reserves all copyright rights whatsoever.

#### **BACKGROUND**

[0002] In recent years, poker has become very popular. Poker's popularity is in part based on the fact that it requires mental agility and the ability to out think your opponent(s). Some experienced poker players base their play largely on statistical or odds considerations. Other players rely less on mathematics and try to obtain a psychological advantage over their opponent(s). Others rely on both.

[0003] In a live table game, certain experienced poker players can look at their opponent(s) and discern information based on their physical behavior (i.e., their tells). Certain inexperienced poker players tend to exhibit physical changes in response to whether or not they have good or bad hands. These tells include flexing of muscles, heavy breathing, eye pupil dilation, dry throat, coughing, rapid heart rate, perspiration, fidgeting, and changes in the pace or volume of their speech. Some experienced poker players can even perceive a change in blood pressure by looking at their opponent's face. Consequently, certain experienced players can gain an advantage over their opponents by simply being observant and consciously controlling their own behavior.

[0004] In recent years, several computerized poker games have surfaced that allow a player to connect through the internet to a virtual poker room and compete against other real players that are also connected through the internet. However, when playing internet based poker games it is impossible to discern any physical reaction from an opponent(s) because they do not see or hear the opponent(s). Consequently, it is much more difficult to discern tells that help a player determine what cards an opponent is holding. The experienced internet poker player may only be able to glean information about their opponent based on their betting patterns. Accordingly, many experienced poker players prefer to play poker at a live gaming table to take advantage of their skills as described above. Furthermore, certain experienced players enjoy live gaming tables due to the mental interaction and camaraderie that can only come with playing in the presence of other people.

[0005] In general, poker hands consist of five cards dealt from a 52 card deck. There are nine general categories of hands, ranked from highest to lowest, as shown in Table 1.

TABLE 1

Ranking of Poker Hands by Category		
Rank	Name	Example
1	Straight Flush	K <b>+Q4</b> J <b>4</b> 10 <b>4</b> 9 <b>4</b>
2	Four of a Kind	J <b>≙</b> J♥J◆J <b>≙</b> 3♠
3	Full House	A♥A♦A♣6♦6♠
4	Flush	A <b>♦</b> J <b>♦</b> 8 <b>♦</b> 6 <b>♦</b> 2 <b>♦</b>
5	Straight	8♦7♣6♦5♦4♣
6	Three of a Kind	Q <b>±</b> Q <b>∀</b> Q <b>♦</b> 6 <b>♦</b> 2 <b>±</b>
7	Two Pair	8♦8♥5♥5♣2♠
8	One Pair	K♦K≜8 <b>≑</b> 7 <b>±</b> 2♥
9	No Pair	A♥10♣7♦5♠3♠

[0006] Within each category, hands are ranked according to the rank of individual cards, with an Ace being the highest card and a two being the lowest card. There is no difference in rank between the four suits of cards. All hands can be ranked in a linear ranking from highest to lowest. Because suits are all of the same value, however, there are multiple hands that have identical rankings. For example, there are four equivalent hands for each type of straight flush, four of a kind, or flush, there are over a hundred equivalent hands for each two pair variation, and there are over 1,000 equivalent hands for each type of no-pair hand.

[0007] Poker is characterized by rounds of card dealing and wagering. Numerous variations of poker exist, including Five Card Draw, Five Card Stud, Seven Card Stud, Hold'em (also called Texas Hold'em), Omaha (also called Omaha Hold'em), and Pai-Gow. The variations in these games generally differ in the manner in which cards are dealt and in the manner and frequency in which bets are placed. Various criteria may also be used to determine the winning hand, including highest ranking hand, lowest ranking hand (Low-Ball), and high and low hands each win half (High-Low).

[0008] In certain variations of poker, a round of play begins when each player has placed an initial bet, called the ante, into the pot. The term pot refers to the total accumulation of antes and wagers made during a particular game. However, in other poker variations, such as Texas Hold'em, only two players at a table make the initial bets, commonly referred to as blinds. These blinds include a large blind and a small blind. The large blind is typically twice the value of the small blind. In an ante based game, any player that does not place an ante is not eligible to play that particular game. In a blind based game, all players are eligible to play, even if they did not initially place the large blind or the small blind. After the players have anted or placed the blinds, depending on the game, each player eligible for play is dealt an initial set of cards.

[0009] The number of cards dealt depends on the particular variation of poker being played. For example, in Five Card Draw, each player is initially dealt five cards. In Texas Hold'em, Five Card Stud and Seven Card Stud, each player is initially dealt two cards. These cards are typically dealt face-down; however, depending on the game, some of the

cards may be dealt face-up to the player. For example, in Five Card Stud each player is initially dealt one card face-up and one card face-down. In Texas Hold'em, each player is initially dealt two cards face-down which are commonly referred to as the hole cards.

[0010] After the initial deal, a first round of betting begins, where the players have the opportunity to place wagers. If a player places a wager, that wager must be matched (i.e., called) or raised by each player that wants to remain in the game. A raise includes matching the previous wager and increasing the total bet. A player who does not match a bet drops out of the game or folds. A round of betting ends when either every player but one has folded, or when the highest bet or raise has been called by each remaining player such that each remaining player has wagered the same amount into the pot during the round.

[0011] Depending on the variation of poker being player, each game may have several rounds of wagering, each round of wagering generally preceded by dealing one or more cards. If two or more players remain after a particular round of wagering, either more cards are dealt, or there is a showdown, depending on the game variation being played. A showdown occurs when two or more players remain in a game after the last round of wagering has been completed for a particular round. A player wins a game of poker either by having the highest ranking hand when a showdown occurs, or by being the last remaining player in the game after all other players have dropped out, or folded. At a showdown, each player displays the player's hand to the other players. If two or more players have identically ranked hands that are the highest ranking hands, the pot is split evenly between them.

[0012] Certain card games such as poker, and more specifically pot-limit poker games require real time evaluation of the pot levels and allowable wagers. These pot-limit games require fast and accurate calculations to keep the game moving, which can be difficult for dealers to do. In blackjack table games, the dealer's job is relatively simply because the player simply makes an initial bet and then the hand is resolved. Even if the particular blackjack player is granted an opportunity to split cards or double down, the player simply puts an amount into the pot that equals his original wager. The blackjack dealer's task is to separate the wagers into different stacks and then payoff this amount at the conclusion of the round. In Blackjack, the wagering ability or wagering limitations placed on a particular player during a round of play does not depend on pot levels or the previous wagers of the other players playing at the same

[0013] In contrast to a card game like Blackjack, when playing a pot based card game such as a multiplayer poker game, the ability or limitations of one player to wager a certain amount is dependent on the size of the pot and on what previous players have wagered. For example, the maximum raise that a player can make is a function of the current size of the pot. In a pot-limit game, the minimum allowable raise must be greater than or equal to the size of the previous bet or the size of the previous raise for particular round of play. The maximum allowable raise is the value currently in the pot plus the amount that a given player would need to place to call. Therefore, if different players have varying call amounts, then the maximum allowable raise can vary for different players at a given point in time.

[0014] In pot limit games, the maximum allowable raise can be difficult to calculate because of the rule that allows a player first to call the previous wager and then to wager the size of the pot, including that call. For example, in a game of Texas Hold'em, where the blinds are \$1 and \$2 the initial size of the pot would be \$3. The first player to act can fold, call the \$2, or raise. If the player wagers \$4, he has raised the minimum amount of \$2, because the previous wager was \$2. If the player wagers \$7, he is wagering the maximum allowable raise, because he is calling the \$2 blind, creating a total pot size of \$5, and then raising the value of the pot. The \$7 wager includes the \$2 call plus the \$5 maximum raise.

[0015] Also, in a betting round where there are multiple raises, the dealer must keep track of who has raised what amounts to determine what amounts the remaining players are required to make to call. For example, suppose that in a five player game the first player bets \$1, the second player raises \$2 over the first player, the third player raises \$3 over the second player, the fourth player calls the third player, and the fifth player raises \$5 over the third player. Therefore, to call, the first player must put in \$10, the second player must put in \$8, and the third and fourth players must put in \$5 each. This can be somewhat difficult for a dealer to keep track of, especially in a fast moving game. Depending on the rules of the game, there may be a limit on the number of raises or re-raises in a particular round of wagering and the dealer is also required to keep track of this. In addition, the dealer is required to calculate a percentage of the total value of the pot. This percentage is generally referred to as the rake and this amount represents a fair return to the casino for providing gaming services to the players.

[0016] Accordingly, it is clear that in a poker game, such as a pot-limit poker game, the calculations that the dealer must perform are numerous and sometimes complicated. As discussed above, internet based poker games utilize a virtual dealer and virtual chips, and are able to instantaneously perform these calculations because each player electronically inputs each of their wager amounts instead of moving chip on a table as in a live poker game. Therefore, there is no concern about a live dealer having to make split second calculations and possibly make errors. However, with table games having a live dealer and using physical betting chips the dealer must make all these calculations leaving the possibility for error and also slowing down the game play. Therefore, there is a need to provide a live table game with the capability of performing real-time evaluations of pot levels more quickly and accurately.

[0017] In addition, certain experienced poker players are mathematically inclined and make wagering decisions based, at least in part, on pot levels. This practice is commonly referred to as calculating pot odds. Under one definition, pot odds are the ratio of the current size of the pot divided by the size of the player's next wager. For example, if a player must call a \$2 raise by an opponent, and the total amount of money in the pot before the potential call is \$12, then the pot odds are 6-to-1 (i.e., twelve divided by two). If the player were to raise another \$2 (i.e., wagering \$4), then the pot odds would be 3-to-1 (i.e., twelve divided by four). However, it should be appreciated that pot odds may be calculated or defined in any suitable manner.

[0018] For every potential wager, the correct mathematical strategy is influenced by the pot odds. Low pot odds

require a player to make a large wager relative to the size of the pot. High pot odds require a small wager relative to the size of the pot. In general, as pot odds increase, the player's average return on investment will be higher because the player must make a relatively small wager to have the possibility of winning a relatively large pot.

[0019] In addition to calculating pot odds, as described above, certain experienced players also consider pot odds to include the calculation of the odds of achieving a particular hand. And thus, they use the value of both to at least in part determine how to play. Players calculate these odds based on the cards in their hand, any face-up cards displayed on the table, and on the number of cards remaining in the deck. In one example where the poker variation is Texas Hold'em, there are eight players at a table, each player has been dealt two cards face-down, and four community cards have been dealt. Therefore, a total of twenty cards have been dealt, with each player knowing what six of the cards are. Accordingly, forty-six cards remain unknown to each player. If a particular player has two hearts in their hand and two of the four community cards are hearts, then the player has four out of five cards for a possible flush. The experienced player can calculate the probability of achieving a flush when the fifth community card (commonly referred to as the river card) is dealt by dividing the number of unknown cards (i.e., fortysix) by the number of hearts unaccounted for (i.e., nine). Accordingly, the odds of achieving a flush are approximately 19%. In this example, to justify a call just based on pot odds, the player assumes that they will win if they hit the flush, but will lose otherwise. Therefore, the amount required to call must be lower than about 19% of the value of the pot to justify making the call (i.e., the pot odds must be greater than about 4-to-1). In the example given above where the total amount of money in the pot before the potential call is \$12, the player would make the \$2 call because the pot odds are 6-to-1, which is higher than about 4-to-1. However, the player would not raise to \$4 because the pot odds are 3-to-1. which is lower than 3.5-to-1.

[0020] In the internet based poker games, as discussed above, the value of the pot is continually updated and displayed to the player. This relieves the player of the burden of having to first calculate the value of the pot prior to making calculations of pot odds. Accordingly, a need exists for a gaming system including a live gaming table that automatically calculates and displays the value of the pot.

#### SUMMARY

[0021] One embodiment of the present disclosure provides a gaming system operated at least partially under control of a processor and including a gaming table for a card game. More specifically, this embodiment includes a gaming table having a tracking system including at least one chip identifier, where the chip identifier is operable to identify the value of each of the players' wagers at each of a plurality of player positions, for each round of play. The tracking system is operable to communicate the wager amounts to the processor and the processor calculates the value of the pot. The gaming table also includes an associated display device operable to display to the players and the dealer the calculated pot amounts which can be used by a player to individually calculate the pot odds. Therefore, the gaming system of the described embodiment is capable of performing quick and accurate evaluations of pot levels and informing the players and dealer of same.

[0022] In one embodiment, the gaming system includes a table for a poker game. The gaming system includes a tracking system as discussed above. In this embodiment, the gaming table includes a plurality of display devices, the dealer position and the player positions each including at least one of said plurality of display devices. The display devices are operable to display the value of a pot, a minimum wager, a minimum raise and a maximum raise associated with each respective player. The value of the pot, the minimum wager, the minimum raise and the maximum raise are calculated by the processor after each wager according to the rules of the game. Therefore, the gaming system is able to provide the players and dealer with real time information on wagering limitations through a private display interface to assist players with the wagering process. In another embodiment, the tracking system tracks the value of the wagers and the processor calculates the value of the pot. In this embodiment, the processor causes the display device to display the value of the pot after each wager for each play of the poker game.

[0023] In one embodiment, the gaming system includes a common display device operable to display the value of the pot as well as the call amount, the minimum eligible raise and the maximum eligible raise for each of the player positions.

[0024] In one embodiment, the wager or chip identifier operates on optical recognition. In another embodiment, the recognition technology is based on radio-frequency identification. One example of an optically based chip reading technology is described in U.S. Pat. No. 6,514,140 to Storch, which provides a gaming table for Blackjack or other card games. An individual black and white CCD sensor is mounted in a reading turret and is placed in front of each player's wagering position. In this system, each wagering chip includes patterns of repeated coding around the periphery of each player's that are identifiable by the CCD sensor. However, in the present embodiments it should be appreciated that any suitable chip identification or recognition technology may be used.

[0025] In one embodiment, the gaming system includes a tracking system including an identifier additionally operable to identify the players' cards. The scanning technologies may be optical, based on radio frequency identification or another suitable method. One example of this type of technology is described in U.S. Patent Application No. 2003/0171142 to Toshiyuki et al., which discloses a card data reader where the card data recorded on the back of the player card will be read by an internal image sensor. Another example of this technology is described in U.S. Patent Application No. 2002/0049085 to Richard et al. ("Richard"), which discloses a table monitor that automatically images the activity occurring at a gaming table. The Richard application describes an imaging system that makes a periodic comparison of captured images identifying player wagering, as well as the appearance, removal and position of cards and other game objects on the gaming table. Therefore, a card tracking system enables the casino to automatically track the cards and store the information into memory.

[0026] In one embodiment, the card game is a poker game including at least one round of wagering. In this embodiment, the processor is operable to determine the number of raises during a particular round of wagering and cause the

number of raises to be displayed on the display device. Therefore, the gaming system alerts the dealer when the maximum number of raises has been made in a particular round of wagering such that the dealer can prevent players from raising again.

[0027] In one embodiment, the gaming system includes at least one display device and a tracking system including at least one chip identifier. In this embodiment, the card game is a no-limit poker game. For each player position, the chip identifier identifies the total value of the player's chips and communicates these values to the processor. The processor causes these values to be displayed by at least one display device, where the display devices are viewable to all of the players in the game. Therefore, players will not be able to hide or otherwise misrepresent the number of the chips they have left. Accordingly, in a no-limit poker game, all of the players will know how large of a wager they would need to make in order to force another player to go all-in.

[0028] In one embodiment, the processor is operable to calculate a range of pot odds for each player position. The range of pot odds is based on each players' minimum allowable wager and maximum allowable wager. As discussed above, the pot odds are a function of the players' next potential wager. Therefore, because the player has a range of wagering possibilities, there is a corresponding range of pot odds. The gaming system provides the player with information regarding what the pot odds would be if they decided to make the smallest possible wager or the largest possible wager. Accordingly, the player can make a more informed decision on how much to wager.

[0029] In one embodiment, the processor is operable to calculate the house rake, where the house rake is based on the value of the pot. Therefore, the dealer is provided with quick and accurate information on how much to take from the pot, without having to first calculate the value of the pot and then apply a percentage of that value. In one embodiment, the processor is operable to calculate the portion of the pot to be paid to one or more players, based on the value of the pot, the house rake and the number of winning hands. Therefore, in the case where two or more players are to split the pot the gaming system provides the dealer with not only the amount of the house rake, but also provides the amounts for dividing the remaining pot evenly amongst the winning players. In another embodiment, the processor causes the display device to display the pot value and the rake to the dealer.

[0030] In one embodiment, the processor determines the probability of achieving any one of a plurality of predetermined hands for each player position based on the player's cards and any community cards, where the cards have been previously identified by a card identifier. In one embodiment, the gaming system includes a plurality of display devices each associated with one of the plurality of player positions, wherein the probabilities of achieving one of the plurality of predetermined hands are optionally displayed to each player on the display devices. Therefore, the gaming system can optionally provide additional information (e.g., in a training mode) to players to assist them in wagering decisions.

[0031] An advantage of the present disclosure is that quick and accurate determinations of pot levels can be determined.

[0032] Another advantage of the present disclosure is that the dealer and the players are provided information regarding wagering limitations and pot odds.

[0033] Additional features and advantages of the present disclosure are described in, and will be apparent from, the following Detailed Description and the figures.

#### BRIEF DESCRIPTION OF THE FIGURES

[0034] FIG. 1 is a front perspective view of one embodiment of the gaming system of the present disclosure.

[0035] FIG. 2 is a flow diagram of the of the operation of one embodiment of the present disclosure.

[0036] FIGS. 3A, 3B, 3C, 3D, 3E, 3F, 3G, 3H and 3I are top views of one embodiment of the gaming system, where the gaming system is a poker game.

[0037] FIGS. 4A and 4B are screen shots of an individual display device and a community display device, respectively, of one embodiment of the disclosure.

#### DETAILED DESCRIPTION

[0038] Referring now to the drawings, one embodiment of the gaming system of the present disclosure is illustrated in FIG. 1. In this embodiment, the gaming system includes a gaming table 100 such as a poker table. The gaming table includes a playing surface 102 and a computer interface 104 accessible to a dealer 106. The gaming table includes a plurality of display devices such as display devices 108a, 108b, 108c, 108d and 108e associated with a plurality of player positions 110a, 110b, 110c, 110d and 110e. The table also includes a plurality of play areas 112a, 112b, 112c, 112d and 112e associated with the player positions. The table also includes a dealer chip tray 114.

[0039] In the illustrated embodiment, the gaming table includes five player positions. However, it should be appreciated that the gaming table may include any suitable number of player positions so as not to interfere with game play. The display devices 108a, 108b, 108c, 108d and 108e are mounted to the table so as to generally coincide with each player position. In another embodiment, the gaming table may also include one or more community display devices 334 (see also, FIG. 4B) shared by the players. The community display devices displays information related to the pot to a plurality of players. In another embodiment, the gaming table includes a community display device and does not include individual display devices associated with the player positions.

[0040] In one embodiment, a plurality of the gaming systems of the present disclosure are capable of being connected to a data network. In one embodiment, the data network is a local area network (LAN), in which one or more of the gaming systems are substantially proximate to each other and an on-site central server or controller as in, for example, a gaming establishment or a portion of a gaming establishment. In another embodiment, the data network is a wide area network (WAN) in which one or more of the gaming systems are in communication with at least one off-site central server or controller. In this embodiment, the plurality of gaming systems may be located in a different part of the gaming establishment or within a different gaming establishment than the off-site central server or

controller. Thus, the WAN may include an off-site central server or controller and an off-site gaming system located within gaming establishments in the same geographic area, such as a city or state. The WAN gaming system may be substantially identical to the LAN gaming system described above, although the number of gaming systems in each system may vary relative to each other.

[0041] In another embodiment, a plurality of gaming systems at one or more gaming sites may be networked to a central server in a progressive configuration, as known in the art, wherein a portion of each wager to initiate a primary game may be allocated to bonus or secondary event awards. In one embodiment, a host site computer is coupled to a plurality of the central servers at a variety of mutually remote gaming sites for providing a multi-site linked progressive automated gaming system. In one embodiment, a host site computer may serve gaming systems distributed throughout a number of properties at different geographical locations including, for example, different locations within a city or different cities within a state. In one embodiment, the community display device 334 displays a progressive award. The progressive award may be determined by several rounds of poker, or it may be determined by contributions from different gaming tables throughout the gaming establishment, each gaming table 300 linked through a network, as described above.

[0042] In one embodiment, the host site computer is maintained for the overall operation and control of the system. In this embodiment, a host site computer oversees the entire progressive gaming system and is the master for computing all progressive jackpots. All participating gaming sites report to, and receive information from, the host site computer. Each central server computer is responsible for all data communication between the gaming system hardware and software and the host site computer.

[0043] The operation of one embodiment of the present disclosure is generally illustrated in FIG. 2. FIG. 2 includes a general overview of the operation of one embodiment of the gaming system where the game is a poker game. However, it should be appreciated that the game played may be any suitable card game that includes one or more rounds of wagering. The gaming system initiates the poker game as indicated in step 200. The dealer prompts the players to place an ante into the pot as indicated by block 202. If a player does not place the required ante, the player must sit out of that particular round. The gaming system includes a chip or wager identifier which identifies the antes and stores this information into a memory. The gaming system is at least partially under control of at least one processor, and the processor calculates the initial value of the pot based on the antes identified by the chip identifier.

[0044] After the antes have been placed, the dealer deals cards to the players according to the particular rules of the game as indicated by block 204. The dealer enables the players to place wagers, as indicated by block 208. Because this poker game is an ante based variation, the first player to wager may either place a wager or check. In one embodiment, the gaming system includes a chip identifier that determines whether or not a wager has been placed and the amount of the wager. In one embodiment, the chip identifier includes an optical or radio-frequency based technology that identifies the presence of chips in a particular region of the

table, as described above. Therefore, based on the presence of chips or the lack thereof, the tracking system will be able to identify whether or not the player has placed a wager, as indicated by decision diamond **210**.

[0045] In one embodiment, if the chip identifier does not sense that any chips have been placed into the wagering area within a predetermined period of time, the tracking system sends a signal to the processor that the player has not placed a wager. If the processor determines that the player did not make a wager, the gaming system determines whether or not the player has folded the hand or has merely checked the hand, as indicated by decision diamond 212. If the player does not place a wager and is not required to call, the gaming system determines that the player has checked and the player remains in the game. If the player is required to call another player's wager and the tracking system does not identify a wager, then the gaming system determines that the player has decided to fold the hand and indicated by block 214. In another embodiment, the gaming system includes a display device including an input such that the dealer may input whether a player has decided to fold or check.

[0046] In one embodiment, the gaming system includes a timer displayed by a display device and a player is required to act within a predetermined period of time. If the tracking system does not identify any chips wagered when the time expires or within a predetermined time after the time expires, the processor determines that the player has either checked or folded and then the play passes to the next player. In one embodiment, the gaming system may include an input device associated with each player position, where the player may input a decision to fold or to check before expiration of the predetermined period of time. Alternatively, the dealer may have an input device and when the player indicates a decision to check or fold to the dealer, the dealer inputs this decision using the input device and the play passes to the next player.

[0047] The processor recalculates the value of the pot and the value of the chips assigned to the player. Therefore, the tracking system enables the gaming system to record every wager for all of the players and also calculate the size of the pot in real time. With this information, the processor is capable of calculating, for each player, the amount necessary to call, the minimum raise, the maximum raise, and the maximum wager according to the rules of the game, as indicated by block 218.

[0048] After the processor has calculated these values for each player, the processor causes the information to be displayed to each player and the dealer on the respective display device, as indicated by block 218. In one embodiment, the information may be displayed on a community display device 332, as shown in FIG. 4B. In another embodiment, as shown in FIG. 4A, the gaming table includes a plurality of individual display devices 330, each associated with a different player position. These individual display devices 330 display the pot amount and wagering information as discussed above and may optionally include the odds of achieving a particular hand, as discussed below.

[0049] Referring again to FIG. 2, after the processor causes the information to be displayed on the display devices, the gaming system determines whether or not there is another player yet to act as indicated by decision diamond 220. In general, there is another person to act when less than

all of the players have called a bet, called a raise, or checked their hands. When a player has either wagered an amount or raised an amount, they are not entitled to act again unless their wager has been raised or re-raised, respectively. In other words, a player cannot raise or re-raise themselves. If the processor determines that there is another player to act, the gaming system enables the next player to place a wager, as indicated by block 208.

[0050] If the gaming system has determined that there are no players left to act, the processor determines if there is another round of wagering, as indicated by decision diamond 222. This determination is based on a predetermined set of rules based on the variation of poker being played. If the processor determines that there is another round of wagering, then the dealer deals one or more cards to the players or deals one or more community cards as dictated by the rules on the particular game being played, as indicated by block 204. If the processor determines that there are no rounds of wagering remaining, the remaining players that have not folded show their cards, the dealer collects the rake (i.e., the house percentage), and the pot is distributed to one or more winners. The gaming system automatically calculates the rake based on a predetermined set of criteria and the value of the pot, eliminating the possibility of dealer error. After all of the hands have been resolved and the winners paid, the game ends as indicated in step 226.

[0051] In one embodiment, as seen in FIG. 3A, the poker game may be any suitable variety of poker played at a live gaming table 300, on a playing surface 302, with a human dealer 304. The gaming table generally includes a chip tray 306 for holding several stacks of the dealer's chips. The dealer may use the chip tray 306 to collect the rake. The dealer may also use the chip tray to make change for a player or allow a player to buy into a game. In one embodiment, the gaming table includes a plurality of player positions 308a, 308b, 308c, 308d and 308e. In this example, there are five player positions but only three players P1, P2 and P3 playing at the table. It should be appreciated that the gaming table could accommodate any suitable number of playing positions and players so as not to interfere with game play. In the illustrated embodiment, the gaming table includes a community wagering area 310 where all players place their bets. The sum of all wagers placed in the wagering area define the size of the pot as discussed above. The table game also includes a plurality of play areas 312a, 312b, 312c, 312d and 312e, each associated with one of the player positions. Cards are dealt by the dealer substantially within the play areas, such that cards dealt at one player position are not confused with cards dealt at different player positions.

[0052] In the example illustrated in FIGS. 3A-3G, the poker variation played is pot-limit Texas Hold'em. However, it should be appreciated that any suitable pot-limit poker variation may be used. This example of play includes a raise and several re-raises to illustrate the difficultly involved in requiring a dealer to make quick and accurate calculations on the fly. The size of the pot after the first round of betting depends on the size of the initial blinds (described below) and the wagering rules of the game. In an example of a pot-limit game as illustrated in FIGS. 3A-3G, the size of the pot increases dramatically with each pot limit wager. In contrast, the increase of the size of the pot in a limit game is more moderate.

[0053] The game begins with one or more blind bets. In this example, a small blind 318 and a large or big blind 319 are required by the first player to the left of the dealer and the first player to the left of the small blind, respectively. Player P1 sitting in the first occupied player position 308b to the left of the dealer 304 places the small blind. Player P2 sitting in the first occupied player position 308c to the left of the player who placed the small blind, places the big blind 319. In the illustrated embodiment, the dealer deals every hand and does not participate in the play of the game. This is typical of poker tables in gaming establishments. The player positions that are required to place the big blind and the small blind also shift clockwise, as discussed above. In another embodiment, the game is played without a dedicated dealer and one of the players acts as the dealer. Therefore, there is a different dealer for each hand and the blind positions shift clockwise as described above.

[0054] Following the placement of the blinds, the dealer deals two cards face down to each of the players, these two cards are often referred to as the hole cards as discussed above. Following the dealing of the hole cards is a first round of wagering. In general, the player immediately to the left of the big blind is the first to act. The dealer deals three community cards, often referred to as the flop. Following the flop and another round of wagering, the dealer deals one additional community card, often referred to as the turn. Following the turn and another round of wagering, the dealer deals a fifth and final community card, often referred to as the river. This is followed by a final round of wagering. Therefore, there is a potential for four rounds of wagering. Each player is allowed to use any of the community cards in combination with their hole cards to form the best hand of five cards. At the end of the final round of wagering, the player with the best ranking poker hand is the winner. Alternative, a player can win the pot if all other players at the table have folded. If two or more players have identically ranked hands then the pot is split evenly between them.

[0055] In the illustrated embodiment, the gaming table includes a tracking system including a suitable chip identifier, as described above and below. The chip identifier identifies the amount of the wagers for each of the player positions 308b, 308c and 308d. The tracking system sends a signal to the processor and the processor stores this information or data in memory. The processor uses this information to calculate values such as the current size of the pot, the amount needed to call, the minimum raise that a player can make, and the maximum raise that a player can make according to the house rules relating to Texas Hold'em. In one embodiment, the processor causes the wagering history for each player to be stored in memory. In this embodiment, the processor may also determine whether and how many times the pot has been raised in a particular round of betting. If there are rules in a particular game that limit the number of times that players may raise, the processor causes this information to be displayed on a display device to the players and to the dealer as described below. Therefore, the tracking system assists the dealer with certain tasks, thus allowing the dealer to focus his/her attention on other tasks.

[0056] In one embodiment, the gaming system includes a plurality of display devices 314a, 314b, 314c, 314d and 314e, each display device associated with a plurality of player positions 308a, 308b, 308c, 308d and 308e, respectively. In the illustrated embodiment, the display device can

display information to a player including the size of the pot, the amount needed to call, the minimum raise that a player can make, and the maximum raise that a player can make. In other embodiments, the display device may provide the player with other information such as pot odds or odds of receiving a particular hand, as discussed above. In the illustrated embodiment, the dealer position 304 also includes a display device 316. The dealer's display device includes information as discussed above and additionally includes information of concern to only the dealer, such as the house rules, amount of the rake, and the amounts to be paid to each player at the end of the game. This information assists the dealer because the dealer does not have to continually perform calculations that may slow down the game or lead to costly errors. In another embodiment, as illustrated in FIG. 1, the gaming system may include a community display device 334. The community display device may be included in addition to the individual display devices 314a, 314b, 314c, 314d and 314e associated with each of the player positions or it may be used in place of the individual display

[0057] Referring to FIG. 3A, prior to the initiation of a game, player P1 must place the small blind 318 and player P2 must place the large or big blind 319, as discussed above. In the illustrated embodiment, the small blind and the big blind should be placed substantially within a wagering area 310 included on the playing surface 302 of the gaming table. In this example, the amount of the small blind is ten and the amount of the big blind is twenty. However, it should be appreciated that any suitable blind amounts may be used. Therefore, the value of the pot at the beginning of the game is thirty, as illustrated on the display devices 314b, 314c, 314d and 316.

[0058] Referring again to FIG. 3A, after the blinds have been placed in the wagering area and identified by the chip identifier (not shown), the dealer deals the hole cards to the respective play areas 312a, 213b and 213c. Player P1 has been dealt an Ace of hearts and a seven of clubs, player P2 has been dealt a Jack of diamonds and a Jack of spades, and player P3 has been dealt a four of spades and a Queen of spades. Therefore, player P2 has the best initial hand of a pair and P3 has two cards of the same suit for a possible flush. At this point in the game, the pot value is thirty and the rake is 0.3 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. In this example, the rake is equal to 1% of the value of the pot. However, it should be appreciated that the rake may be a minimum amount, a maximum amount, rounded up or down to the nearest dollar, or may be determined in any suitable manner. Also, the player displays and the dealer display indicate that player P3 is the first to act. As discussed above, player P3 has the option to call or fold. Because P3 did not place a blind, the call amount is twenty, as indicated on P3's display device 314d. Also, because this is the first round of wagering, the maximum prior wager or raise is the value of the big blind, or twenty, as indicated on P3's display device 314d. Therefore, the minimum raise for P3 is twenty. In this pot-limit poker game, P3's maximum raise is equal to the value of the pot (thirty) plus the amount of any necessary call (twenty). Therefore, P3's maximum raise is fifty. The maximum allowable wager is equal to the value of the maximum raise plus the value of the call. Therefore, P3's maximum wager is 70, as indicated in the dealer display 316. It should be appreciated that the maximum wager may also be displayed on the player display devices and/or on a community display device. Even though it is not P1's or P2's turn to act, the gaming system causes information to be displayed relating to their next turn to act, if they have one. P1's call amount is only ten, as P1 had previously placed the small blind, as indicated on P1's display device 314b. P1's maximum raise is equal to the value of the pot (thirty) plus the amount of any necessary call (ten). Therefore, P3's maximum raise is forty, as indicated on P1's display device 314b. Note that this is less than the maximum raise for P3 because P1's call amount is less than P3's call amount. P2's call amount is zero, as P2 had previously placed the large blind, as indicated on P2's display device. P2's maximum raise is equal to the value of the pot (thirty) plus the amount of any necessary call (zero). Therefore, P3's maximum raise is thirty, as indicated on P2's display device 314c.

[0059] Referring to FIG. 3B, player P3 placed a wager of twenty, as indicated in the display devices 312b, 312c, 312d and 316. The new pot value is fifty and the rake is 0.5 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the player displays and the dealer displays indicate that player P1 is the next player to act. P1 has the option to call, fold or raise as discussed above. The maximum prior wager or raise is still the value of the big blind, or twenty, as indicated on P1's display device **314***b*. Therefore, the minimum raise for P**1** is twenty. P1's maximum raise is equal to the value of the pot (fifty) plus the amount of any necessary call (ten). Therefore, P1's maximum raise is sixty. Note that by P3 calling the big blind, the value of the pot increased and consequently, the value of the maximum allowable raise for P1 increased accordingly. As discussed above, the maximum allowable wager is equal to the value of the maximum raise plus the value of the call. Therefore, P1's maximum wager is 70, as indicated in the dealer display 316. P2's call amount remains at zero, as P2 had previously placed the big blind, as indicated on P2's display device 314c. P2's maximum raise is equal to the value of the pot (fifty) plus the amount of any necessary call (zero). Therefore, P2's maximum raise is fifty, as indicated on P2's display device 314c. Because P3 was the last to act, P3's call amount is zero and P3 is not currently eligible to raise, as indicated on P3's display device 314d.

[0060] Referring to FIG. 3C, player P1 placed a wager of seventy, as indicated in the display devices 312b, 312c, 312d and 316. The new pot value is one-hundred twenty and the rake is 1.2 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the player displays and the dealer displays indicate that player P2 is the next player to act. P2 has the option to call, fold or raise as discussed above. The maximum prior wager or raise is P1's previous raise of sixty. Therefore, the minimum raise for P2 is sixty. P2's maximum raise is equal to the value of the pot (one-hundred twenty) plus the amount of any necessary call (sixty). Therefore, P2's maximum raise is one-hundred eighty, as indicated in P2's display device 314c. Note that by P1 previously raising, the value of the pot increased and consequently, the value of the maximum allowable raise for P2 increased accordingly. As discussed above, the maximum allowable wager is equal to the value of the maximum raise plus the value of the call. Therefore, P2's maximum wager is 240, as indicated in the dealer display 316. P3's call amount increased to sixty, as indicated on P3's display device 314d. P3's maximum raise is equal to the value of the pot (one-hundred twenty) plus the amount of any necessary

call (sixty). Therefore, P3's maximum raise is one-hundred eighty, as indicated on P3's display device 314d. Because P1 was the last to act, P1's call amount is zero and P1 is not currently eligible to raise, as indicated on P1's display device 314b.

[0061] Referring to FIG. 3D, player P2 placed a wager of two-hundred forty, as indicated in the display devices 312b, 312c, 312d and 316. The new pot value is three-hundred sixty and the rake is 3.6 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the dealer display indicates that player P3 is the next player to act. P3 has the option to call, fold or raise as discussed above. Note that in this example, the rules permit three raises in a particular round of wagering. However, it should be appreciated that different rules may apply that include a different maximum number of raises. The maximum prior wager or raise is P2's previous raise of one-hundred eighty. Therefore, the minimum raise for P3 is one-hundred eighty. P3's maximum raise is equal to the value of the pot (three-hundred sixty) plus the amount of any necessary call (two-hundred forty). Therefore, P3's maximum raise is six-hundred, as indicated in P3's display device 314d. Note that by P2 previously raising, the value of the pot increased and consequently, the value of the maximum allowable raise for P3 increased accordingly. As discussed above, the maximum allowable wager is equal to the value of the maximum raise plus the value of the call. Therefore, P3's maximum wager is eight-hundred forty, as indicated in the dealer display 316. P1's call amount increased to one-hundred eighty, as indicated on P1's display device 314b. P1's maximum raise is equal to the value of the pot (threehundred sixty) plus the amount of any necessary call (onehundred eighty). Therefore, P1's maximum raise is fivehundred forty, as indicated on P1's display device 314d. Because P2 was the last to act, P2's call amount is zero and P2 is not currently eligible to raise, as indicated on P2's display device 314c.

[0062] Referring to FIG. 3E, player P3 placed a wager of two-hundred forty, as indicated in the display devices 312b, 312c, 312d and 316. Therefore, P3 decided to simply call rather than raise the pot. The new pot value is six-hundred and the rake is 6.0 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the dealer display indicates that player P1 is the next player to act. P1 has the option to call, fold or raise as discussed above. As discussed above, the rules in this example permit three raises in a particular round of wagering. The maximum prior wager or raise is P2's prior raise of one-hundred eighty. Therefore, the minimum raise for P1 is one-hundred eighty. P1's maximum raise is equal to the value of the pot (six-hundred) plus the amount of any necessary call (one-hundred eighty). Therefore, P1's maximum raise is seven-hundred eighty, as indicated in P1's display device 314b. Note that by P3 previously calling, the value of the pot increased and consequently, the value of the maximum allowable raise for P1 increased accordingly. As discussed above, the maximum allowable wager is equal to the value of the maximum raise plus the value of the call. Therefore, P1's maximum wager is nine-hundred sixty, as indicated in the dealer display 316. P2's call amount remains at zero, as indicated on P2's display device 314c. Because P3 was the last to act and did not raise over P2, P2 and P3 are not currently eligible to raise, as indicated on display devices 314c and 314d.

[0063] Referring to FIG. 3F, player P1 placed a wager of four-hundred eighty, as indicated in the display devices 312b, 312c, 312d and 316. The new pot value is therefore one-thousand eighty and the rake is 10.8 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the dealer display indicates that player P2 is the next player to act. Generally, P2 has the option to call, fold or raise as discussed above. Note however that P2 is not able to re-raise because the rules permit only three raises in a particular round of wagering. The processor causes the limitation on re-raising to be displayed on the dealer display 316. However, if P2 was able to re-raise, the minimum, raise for P2 would be three-hundred. Therefore, P2's only two options are to call or fold.

[0064] Referring to FIG. 3G, player P2 called the amount of three-hundred, as indicated in the display devices 312b, 312c, 312d and 316. The new pot value is therefore one-thousand three-hundred eighty and the rake is 13.8 as indicated in the dealer display 316 and the player displays 314b, 314c and 314d. Also, the dealer display indicates that player P3 is the next player to act. As discussed above, P3 only two options are to call or fold.

[0065] Referring to FIG. 3H, player P3 opted to fold, as indicated by P3's play area 312c and on the display devices 312b, 312c and 312d. The pot value remains at one-thousand three-hundred eighty and the rake remains as 13.8 as indicated in the dealer display 316 and the player displays 314a, 314b and 314c. Also, the dealer display indicates that the current round of wagering is complete and that there is no one left to act.

[0066] Referring to FIG. 31, the dealer deals three community cards into a common area 320 (i.e., the flop). The flop includes an Ace of diamonds, a four of clubs and an eight of spades. By including the community cards with P1's hole cards, P1 has a pair of Aces. This is often referred to as flopping the top pair. The pot value remains at one-thousand three-hundred eighty from the previous round of wagering as indicated in the player displays 314b, 314c and 314d. Similarly, the rake remains at 13.8 as indicated in the dealer display 316. Generally, the first player to act in a round of wagering is the person to last raise in a previous round of wagering. In this example, P1 raised three-hundred in the first round of wagering, and therefore P1 is first to act, and indicated by the display devices 314b, 314c, 314d and 316. P1 has the option to either check or bet as discussed above. Because this is a new round of wagering, the minimum wager for P1 is the value of the large blind or twenty. However, it should be appreciated that the minimum wager could also be the value of the small blind or any other suitable value. P1's maximum wager is equal to the value of the pot (one-thousand three-hundred eighty), as indicated in P1's display device 314b. Similarly, P2's minimum and maximum allowable wager are the same as P1's.

[0067] As illustrated by the previous example, if several players in a row decide to make pot-sized raises, the size of a pot can escalate rather dramatically. Therefore, there are many calculations that must be performed by the dealer.

[0068] Card Tracking System and Display of Pot Odds

[0069] In one embodiment, the dealer display and/or the individual display devices may also include information relating to pot odds. Typically, only the more experienced

players are able to calculate pot odds, especially if they are required to first calculate the size of the pot. Accordingly, many inexperienced players are at a disadvantage because they are not able to estimate whether or not it would be worthwhile to call an opponent. In one embodiment, the gaming system includes a chip identifier and a processor that automatically calculates and causes a display device to display the size of the pot to the player, as described above. Without having to calculate the value of the pot, players can focus solely on calculating the pot odds. Therefore, it is easier to compare the estimated probability of achieving a particular winning hand with the pot odds to determine the correct mathematical wagering decision. In another embodiment, the gaming system displays not only the pot value and the player's maximum and minimum wagers, but also calculates and displays the pot odds relating to both the player's minimum and maximum possible wager. Therefore, a player does not have to divide the size of the pot by their potential wagers and can focus solely on how the pot odds compare with their estimated probability of winning.

[0070] In one embodiment, the gaming system further includes a card identifier and provides each player with additional information relating to pot odds that includes the probability of achieving particular high ranking hands. This allows even the most inexperienced players guidance as to whether or not they should place a wager based on their hole cards and any community cards, depending on the rules of the game. In one embodiment, this information is only provided to the players when the game operates in a training mode (i.e., where the game play is for instruction purposes only and does not involve actual wagering). In this mode, the inexperienced players can learn some advanced strategy without having to put their money at risk. In this embodiment, the processor automatically calculates the number of outs and the pot odds for each player based on the card information obtained from the card reader or identifier. In one embodiment, these calculations only take into account the player's own cards and any community cards and do not factor in the cards dealt to the other players. In this way, the gaming system processes only the information available to each player. The processor causes this information to be displayed on each player's display device 330, as shown in FIG. 4A. Therefore, in this training mode every player is provided with significant guidance as to when and how much they should bet.

#### [0071] Calculation of Side-Pots

[0072] In one embodiment, the gaming system calculates and keeps track of side pots. In general, a side pot is necessary when one or more players have wagered all of their chips (i.e., gone all in), but other players still have the option to wager additional amounts. Therefore, the fact that one player has exhausted their stack of chips does not limit the ability of the rest of the players at the table from being able to continue to wager against each other on a good hand. However, because the first player who already has all of their chips in can not call additional wagers, they are prevented from participating in additional wagering, and thus, one or more side-pots must be formed. In traditional game play on a basic gaming table, a side-pot is a group of chips that are physically separated from the main pot. This is necessary so that the dealer is able to pay off players correctly at the end of the game. Additionally, it is possible for more than one side-pot to be formed. This can be difficult for the players and the dealer to keep track of.

[0073] In one embodiment, as described above, the gaming system includes a tracking system including a chip identifier capable of identifying the value of all bets wagered by each of the players for each of the rounds of wagering. For each player that has not folded, the dealer determines the player with the best hand, the player with the second best hand, and so on. As discussed above, the processor is operable to determine the total value wagered by each player. Therefore, upon the input of the winners by the dealer into an input device, the gaming system can allocate portions of the pot to the winner(s) after the rake has been accounted for. The player with the best hand receives a portion of the entire pot limited only by the value of the pot after they wagered the last of their chips. The player with the second best hand receives a portion of the remaining pot limited only by the value of the first side-pot after they wagered the last of their chips. Any additional side-pots continue to be decided in this manner. Once again, determining the payoff for these side pots can be difficult and prone to mistakes. However, in the embodiment of the present disclosure including the tracking system described above, all of the side-pots can be automatically calculated. Therefore, it is not necessary to physically segregate chips in the wagering area into a main-pot and one or more side-pots.

#### [0074] Community Wagering Area

[0075] In one embodiment, the gaming table includes a community wagering area rather than individual wagering areas associated with each player position. The gaming system also includes a tracking system that identifies all wagers placed in the community wagering area. In one embodiment, the gaming table includes an input device that enables the dealer to select which player is the next to act. Therefore, after the tracking system has identified the amount of the most recent wager, the gaming system is able to credit a particular player with having made a particular wager. Therefore, the community wagering area more closely resembles a pot.

[0076] In another embodiment, the gaming table includes a community wagering area and individual wagering areas associated with each player position. The gaming system includes a plurality of chip identifiers, each associated with a wagering area player. The chip identifiers are operable to identify all wagers placed in the individual wagering areas. After the chips have been identified and the wager has been calculated, the wager is credited to a particular player position. The chips can then be moved into the community wagering area. Therefore, the gaming system provides a community wagering area more closely resembles a pot, rather than having individual stacks of chips next to each player.

[0077] In one embodiment, the gaming table includes a community wagering area and a plurality of chip recognition zones. In this embodiment, each chip includes an identifier microchip including a unique identification number that is stored in a database. Each chip identification number is associated with a value and is capable of being associated with a physical location on the gaming table corresponding to one of the chip recognition zones. In one embodiment, the chip recognition zones include: player chip trays (i.e., a

physical location associated with each player position); the dealer chip tray; and a community wagering area on the gaming table. However, it should be appreciated that the gaming system may include any suitable number of chip recognition zones. In one example, when a player enters a game, the player places their chips into their respective chip tray which includes a chip recognition system, as described above. The gaming system identifies each of the chips and assigns ownership of the chips to the respective player position. When the chips are later placed into the community wagering area, the chip recognition system associated with the community wagering area identifies the identification number for each chip. Therefore, the gaming system is able to determine that a particular chip came from a particular player position. Accordingly, even though the player is placing the chip in a community wagering area, the gaming system is able to determine what player has made the wager and further calculate the value of the pot.

[0078] It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

The invention is claimed as follows:

- 1. A gaming system operated at least partially under control of at least one processor, said gaming system comprising:
  - a table for a live card game, said table including a support structure, a playing surface, a plurality of player positions, a dealer position and at least one wagering area, and wherein said card game employs at least one deck of playing cards;
  - a tracking system including a chip identifier, said chip identifier operable to identify one or more chips which represent an amount of each wager placed in the at least one wagering area, wherein the tracking system is operable to communicate the wager amounts to the processor; and
  - at least one display device operable to display a value of a pot for each play of the card game at the table to each of a plurality of players at the table and to a dealer at the table, wherein the processor is operable to calculate the value of the pot for each play of the card game after each wager for plays of the card game at the table.
- 2. The gaming system of claim 1, which includes a plurality of display devices, the dealer position and each of the player positions associated with one of the plurality of display devices.
- 3. The gaming system of claim 1, wherein the at least one display device includes a communal display device operable to display a call amount, a minimum raise, a maximum raise and a maximum wager for each of the plurality of player positions for plays of the card game at the table.
- **4**. The gaming system of claim 1, wherein the card game is a poker game including at least one round of wagering.
- **5**. The gaming system of claim 1, wherein the card game is a poker game selected from the group consisting of: Five Card Stud; Seven Card Stud; Five Card Draw; Texas Hold'em and Omaha Hold'em.

- **6**. The gaming system of claim 1, wherein the card game is a poker game including at least one round of wagering, and the processor is operable to determine a number of raises during a particular round of wagering and cause said number of raises to be displayed by the display device.
- 7. The gaming system of claim 1, wherein for the play of the card game at the table the processor is operable to calculate pot odds for each player position, wherein the pot odds are based, at least in part, on the value of the pot for said play of the card game at the table.
- **8**. The gaming system of claim 7, wherein the processor is operable to cause the pot odds to be displayed on the at least one display device associated with each of the player positions.
- 9. The gaming system of claim 7, wherein for the play of the card game at the table the processor is operable to calculate a range of pot odds for each player position, said range of pot odds based on each players' minimum allowable wager and maximum allowable wager for said play of the card game at the table.
- 10. The gaming system of claim 1, wherein the tracking system is operable with the processor to determine for the play of the card game at the table a house rake, said house rake based on the value of the pot for said play of the card game at the table.
- 11. The gaming system of claim 10, wherein the processor is operable to calculate and cause the at least one display device to display:
  - (a) a portion of the pot to be paid to one or more players based on the value of the pot for one of the plays of the card game at the table,
  - (b) the house rake, and
  - (c) the number of winning hands.
- 12. The gaming system of claim 1, wherein the tracking system includes a card identifier operable to identify the rank and suit of each card dealt for plays of the card game at the table, wherein said tracking system is operable to communicate the information about each card dealt in said play of the card game to the processor.
- 13. The gaming system of claim 10, wherein the processor is operable to determine the probability of achieving any one of a plurality of predetermined hands for each player position based on the player's cards and any community cards.
- 14. The gaming system of claim 13, which includes a plurality of display devices each associated with one of the plurality of player positions, wherein the probabilities of achieving one of the plurality of predetermined hands are optionally displayed to the players on the display devices.
- 15. A gaming system operated at least partially under control of at least one processor, said gaming system comprising:
  - a table for a live poker game, said table including a support structure, a playing surface, a plurality of player positions, a dealer position and at least one wagering area, wherein said poker game employs at least one deck of playing cards;
  - a tracking system including at least one chip identifier, said chip identifier operable to identify one or more chips which represent an amount of each wager placed at each wagering area for a play of the card game at the table, wherein the tracking system is operable to communicate the wager amounts to the processor; and

- a plurality of display devices, the dealer position and the player positions each including one of said plurality of display devices, wherein the processor is operable to cause each of the display devices to display a value of a pot for at least one play of the poker game at the table after at least one wager for plays of the poker game at the table.
- **16**. The gaming system of claim 15, wherein the table is configured for a pot limit poker game.
- 17. The gaming system of claim 15, wherein the tracking system includes a plurality of chip identifiers, each associated with a different one of the player positions.
- 18. The gaming system of claim 17, which includes a memory device, wherein the processor causes the value of each of the wagers for each of the players to be stored into said memory device.
- 19. The gaming system of claim 15, wherein the processor is operable to cause each of the display devices to display the value of a pot, a minimum wager, a minimum raise and a maximum wager associated with each respective player, wherein the value of the pot, the minimum wager, the minimum raise and the maximum raise are calculated by the processor after each wager according to the rules of the poker game for plays of the poker game at the table.
- 20. The gaming system of claim 19, wherein the display device at the dealer position has at least one input associated therewith.

- 21. The gaming system of claim 20, wherein the input includes a touch screen display.
- 22. A gaming system operated at least partially under control of at least one processor, said gaming system comprising:
  - a table for a live poker game, said table including a support structure, a playing surface, a plurality of player positions, a dealer position and at least one wagering area, wherein said poker game employs at least one deck of playing cards;
  - a tracking system including at least one chip identifier, said chip identifier operable to identify one or more chips which represent an amount of each wager placed in the wagering area for plays of the card game at the table, wherein the tracking system is operable to communicate the wager amounts to the processor; and
  - at least one display device, wherein the processor is operable to cause the display device to display, after each wager for the play of the poker game at the table, a total value of the pot and a value selected from the group consisting of: a minimum wager; a minimum raise; and a maximum wager.

\* \* \* \* \*