



US 20110223982A1

(19) **United States**

(12) **Patent Application Publication**
Hong et al.

(10) **Pub. No.: US 2011/0223982 A1**

(43) **Pub. Date: Sep. 15, 2011**

(54) **METHOD, APPARATUS, AND COMPUTER READABLE STORAGE FOR IMPLEMENTING A WAGERING GAME WITH BACCARAT ATTRIBUTES**

Publication Classification

(51) **Int. Cl.**
A63F 9/24 (2006.01)
A63F 1/00 (2006.01)
(52) **U.S. Cl.** **463/11; 273/292; 273/274**

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(57) **ABSTRACT**

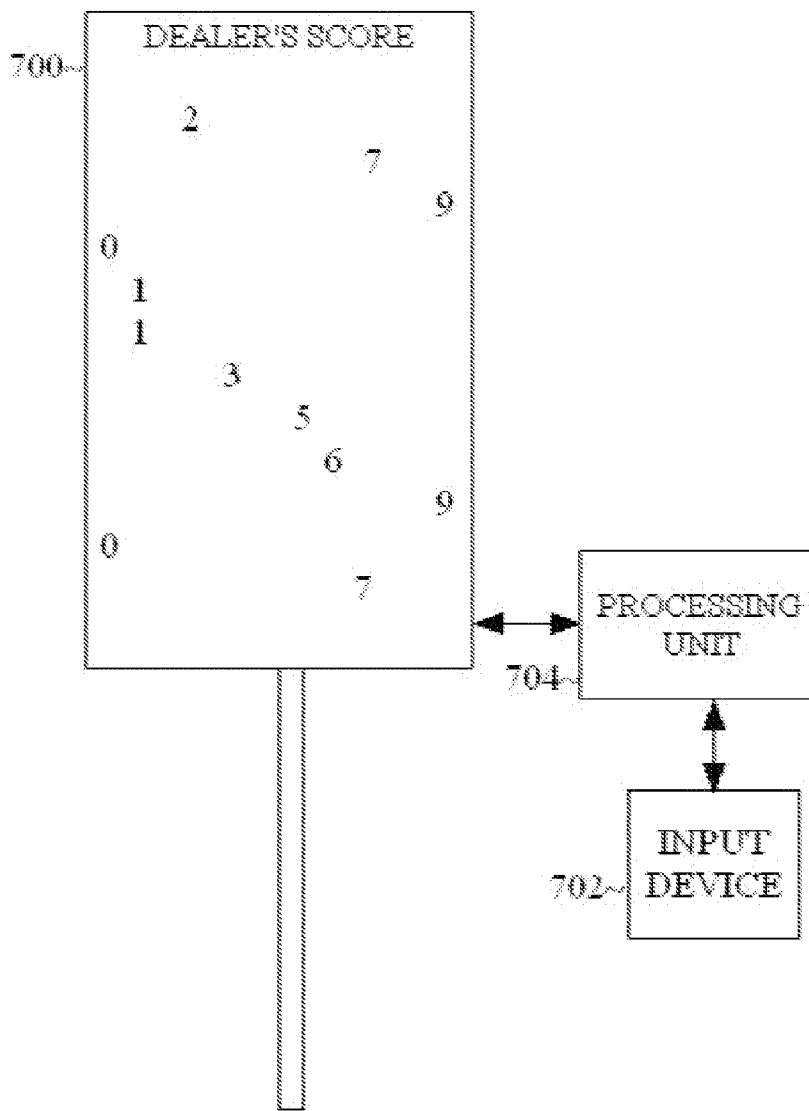
(21) **Appl. No.:** **12/822,160**

A method, apparatus, and computer readable storage to implement a casino wagering game related to Baccarat. Each player's hand and the dealer's (or banker's) hand is scored by adding up a point total of the respective cards modulo 10. The scoring also counts all pairs as a point total of 0. The player's hand is compared to the dealer's hand and the higher hand will win, subject to this scoring system. Numerous side bets can also be offered, such as a zero side bet wherein after the player is dealt two cards which total zero, the player is betting that a third dealt card (to form the player's three card hand) is also zero.

(22) **Filed:** **Jun. 23, 2010**

Related U.S. Application Data

(60) Provisional application No. 61/340,115, filed on Mar. 11, 2010.



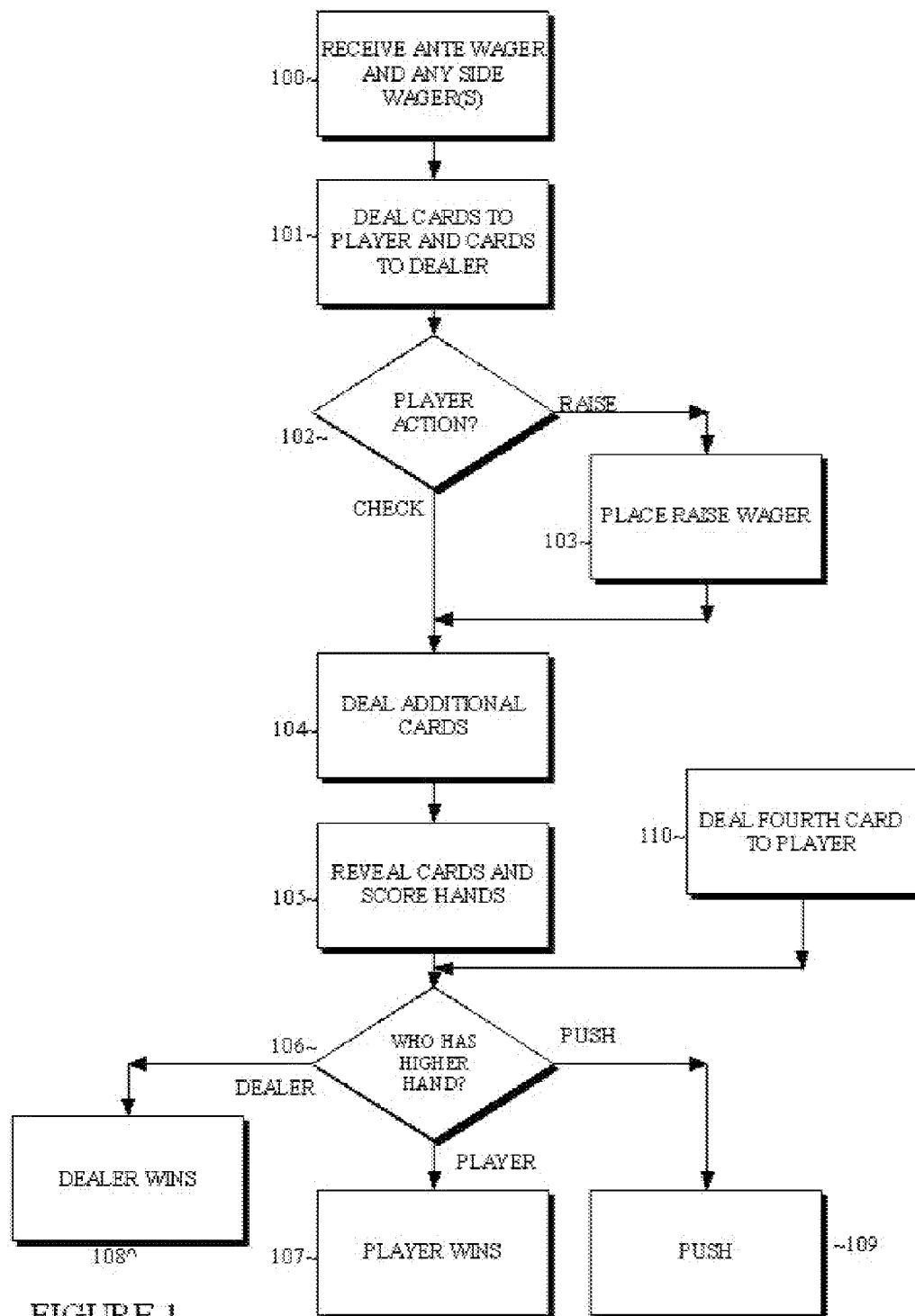


FIGURE 1

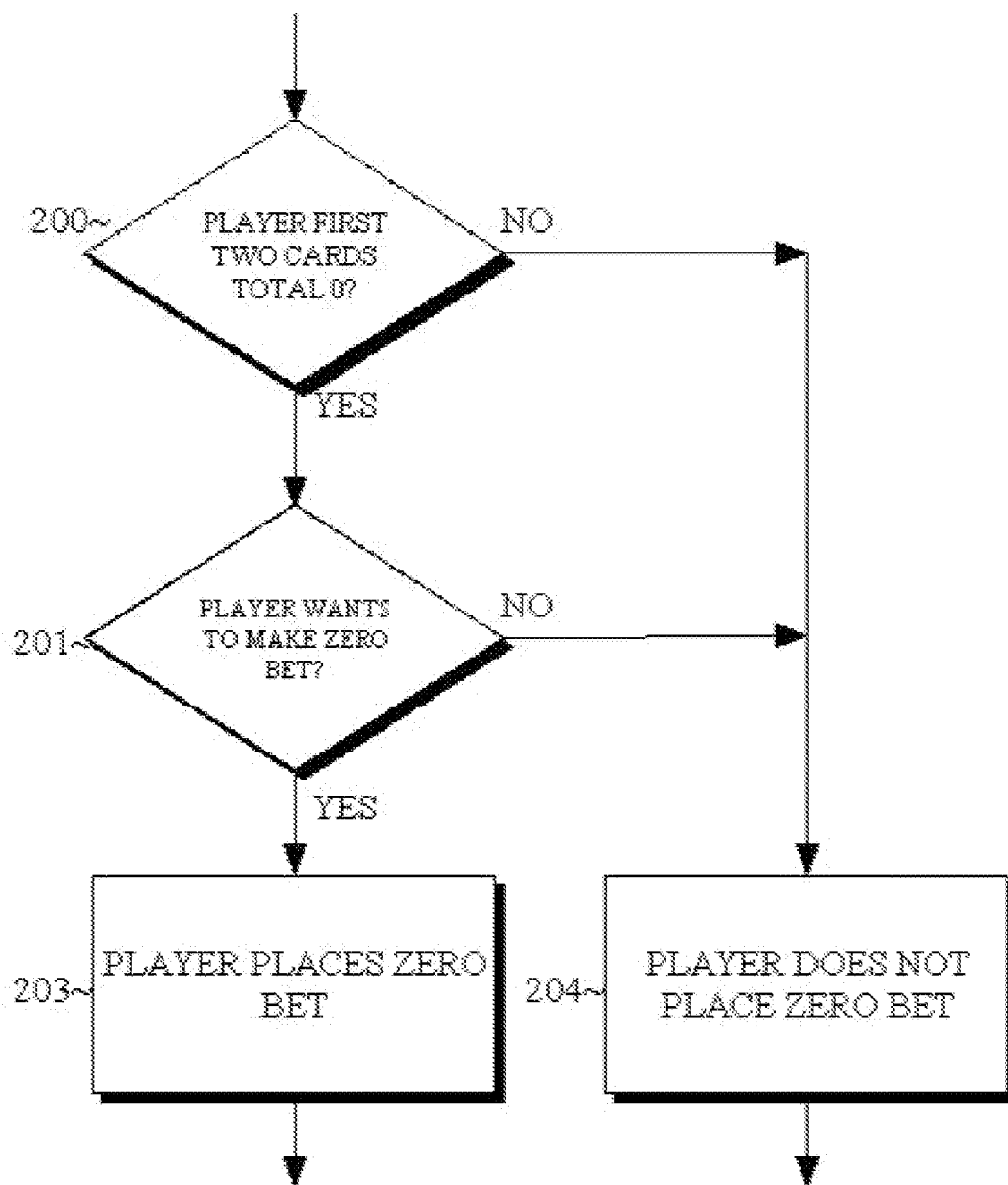


FIGURE 2

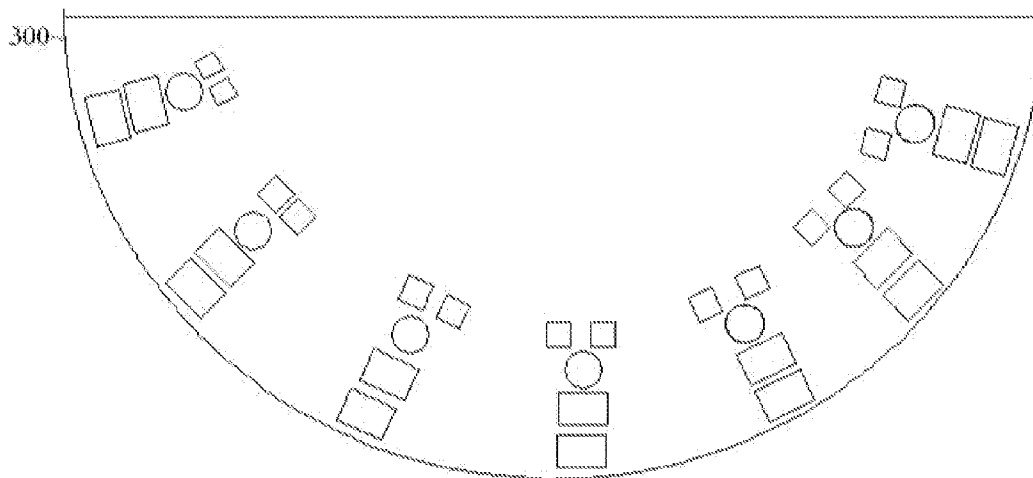


FIGURE 3A

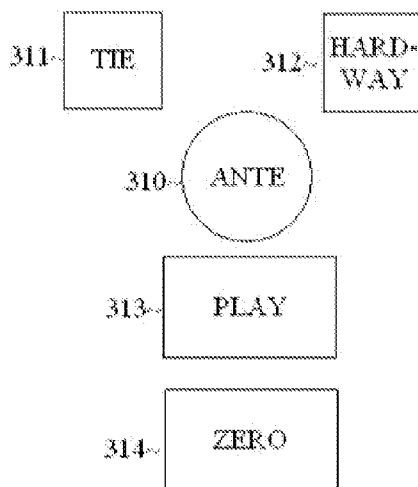


FIGURE 3B

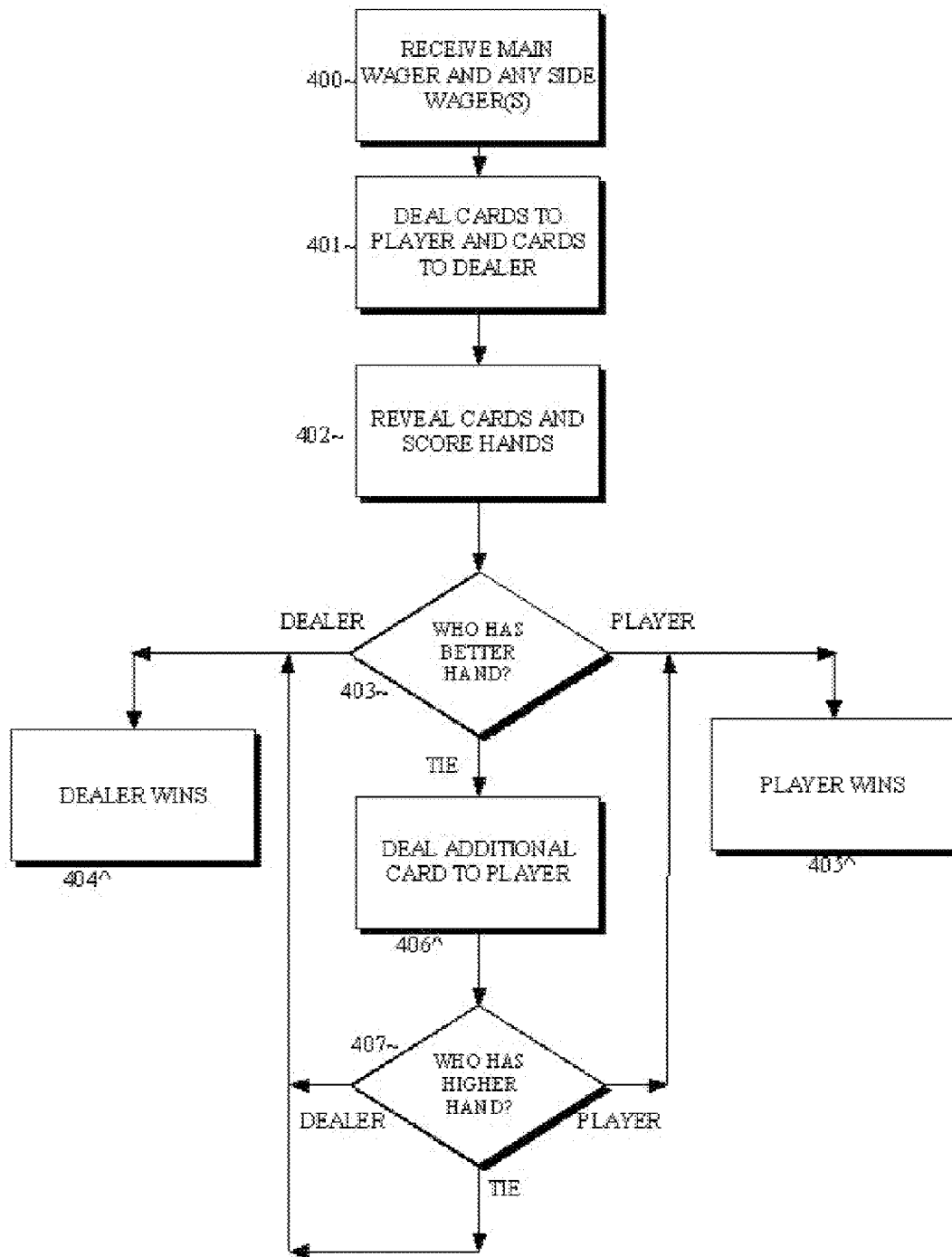


FIGURE 4

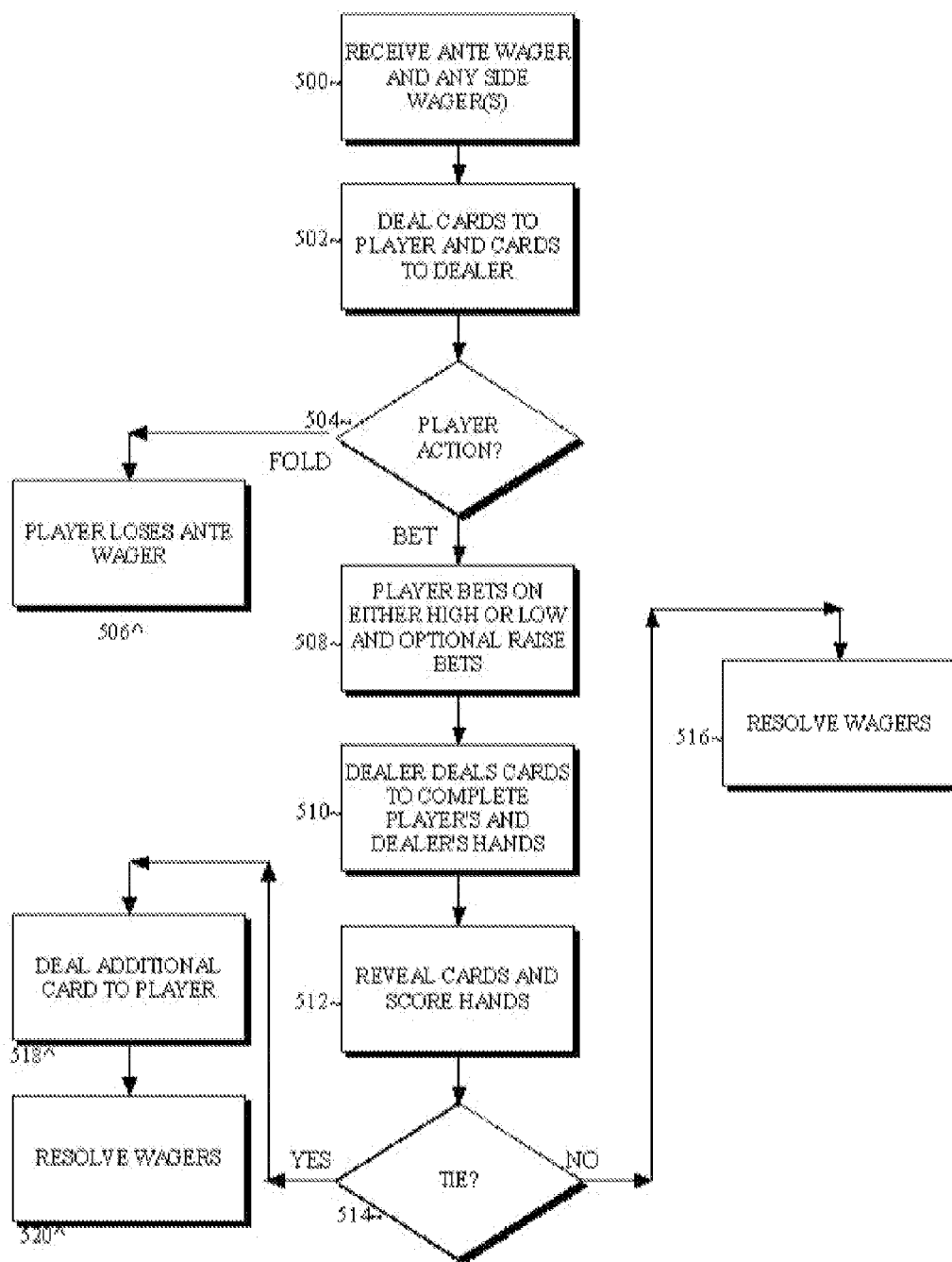


FIGURE 5

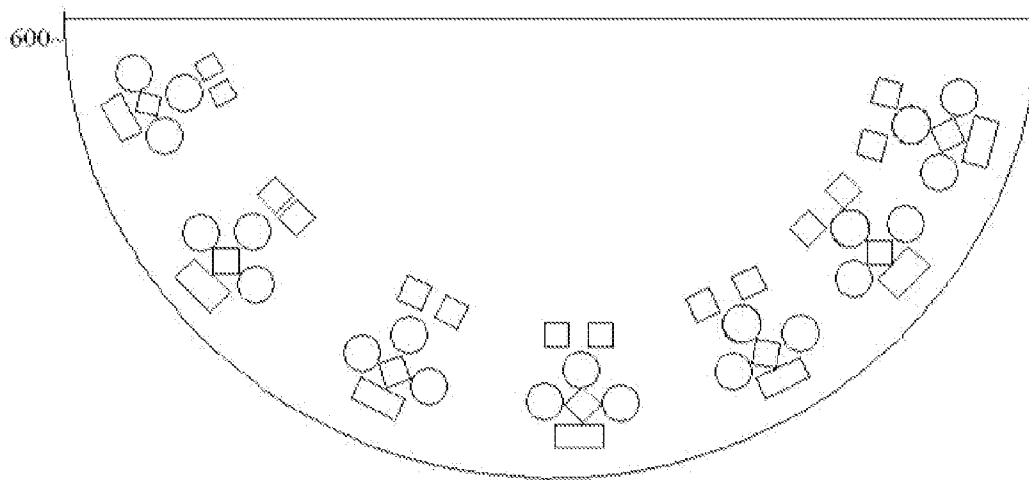


FIGURE 6A

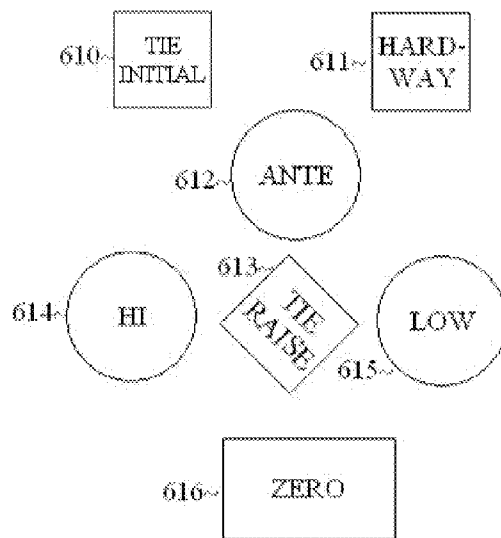


FIGURE 6B

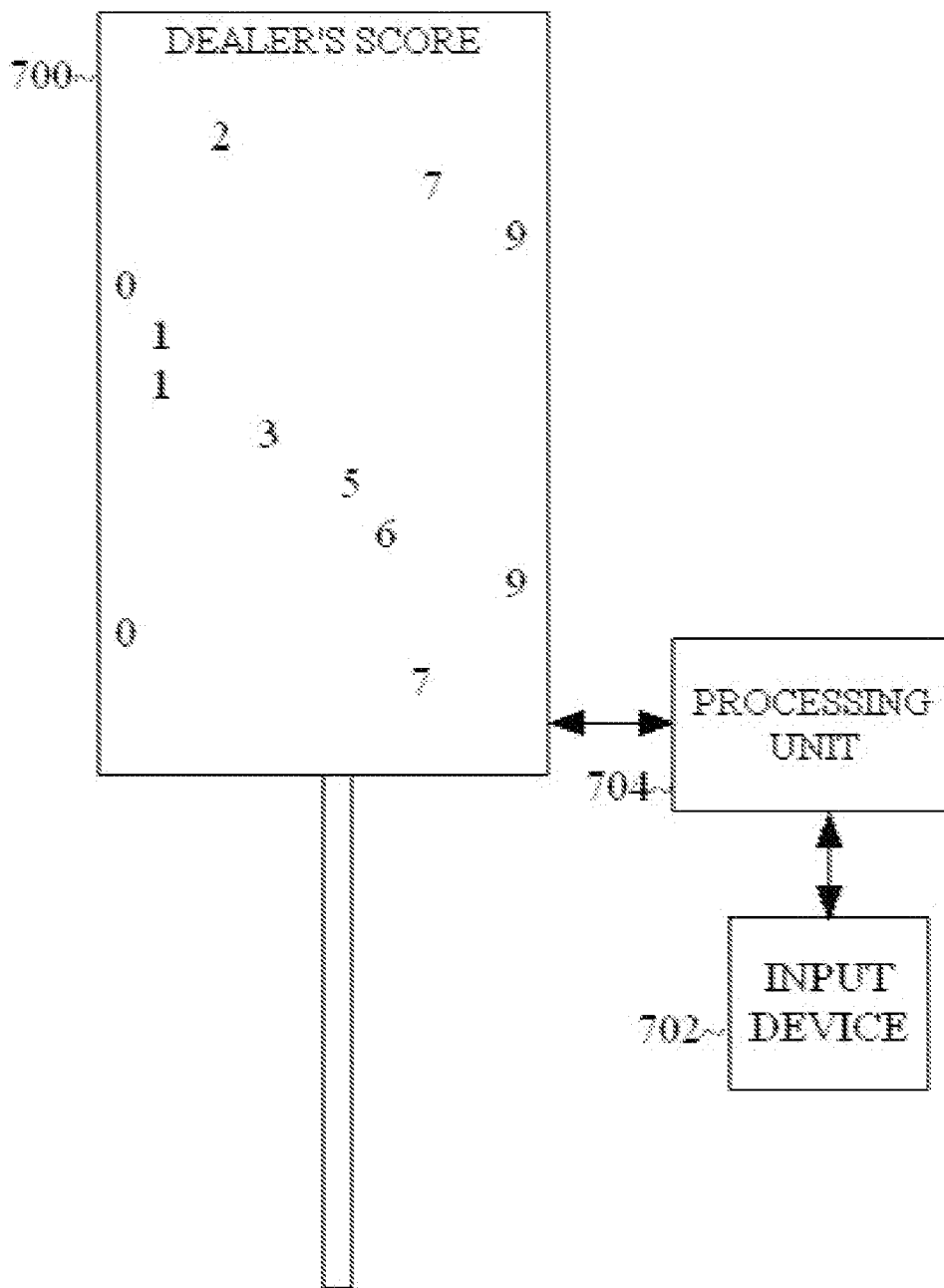


FIGURE 7

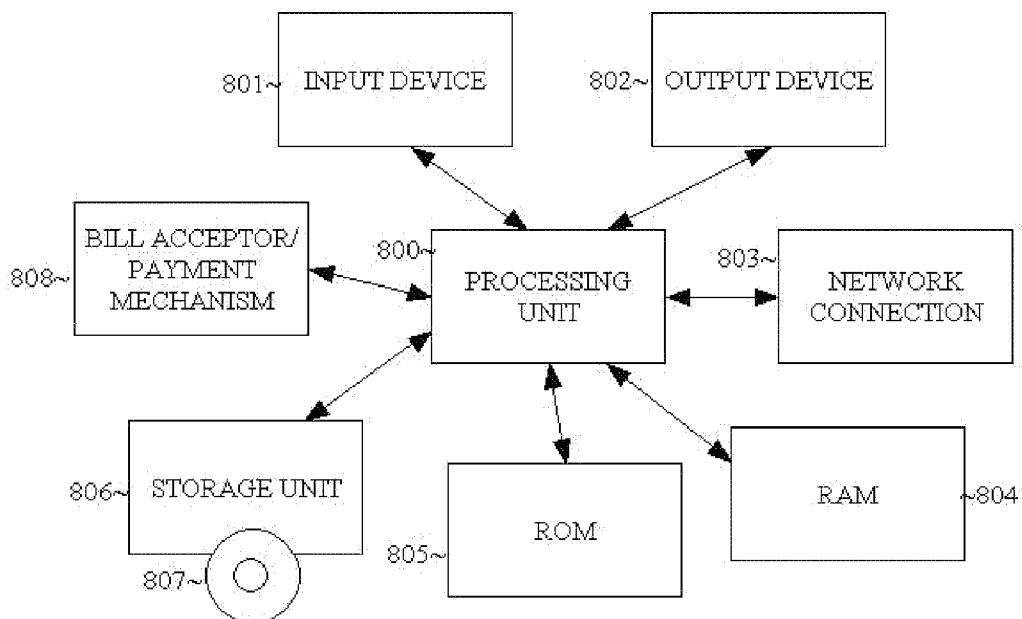


FIGURE 8A

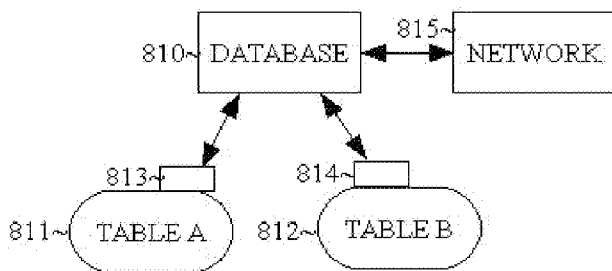


FIGURE 8B

METHOD, APPARATUS, AND COMPUTER READABLE STORAGE FOR IMPLEMENTING A WAGERING GAME WITH BACCARAT ATTRIBUTES

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims benefit to provisional application 61/340,115, filed on Mar. 11, 2010, entitled, "Card Wagering Game with Baccarat Attributes" which is incorporated by reference in its entirety for all purposes.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present general inventive concept is directed to a method, apparatus, and computer readable storage medium directed to a casino wagering game.

[0004] 2. Description of the Related Art

[0005] The original version of Baccarat is a lesser known game called "Chemin de Fer" which was introduced in France. One player is designated as the banker and deals two cards to himself and two cards to as the player hand. The banker and player then both look at their cards and if either the banker or the player has an eight or a nine, this is immediately announced and both hands are revealed. Otherwise, the player can request a third card which is dealt face up, and then the banker can choose to request a third card. Then both hands are revealed and the highest scoring hand wins.

[0006] The game of Baccarat is a popular and well known casino wagering game. Baccarat is described for example in U.S. Pat. No. 5,876,283, which is incorporated by reference herein in its entirety. Players can initially choose whether to bet on the player or the banker. Then a two card player hand is dealt and a two card banker hand is dealt face up. Each hand is scored by adding up the point totals of each card and for totals over 10, the first digit is dropped. The player hand and the dealer hand may draw additional cards depending on predetermined rules. When both hands are complete, the highest scored hand wins, thus if the player hand wins then players who bet on the player win and who bet on the banker lose, while if the banker hand wins then the players who bet on the banker win and who bet on the player lose. Regarding the player hand and the banker hand bets, ties will push. Since the house must have an advantage to stay in business, when players bet on the banker the house takes a commission off winning bets (typically 5%).

[0007] U.S. Pat. No. 5,372,064 describes a Baccarat game which is "commission free." This was presumably invented in order to avoid the time consuming process of tracking commissions. This is accomplished by having certain hands that would have been winning hand declared "barred hands" which do not pay anything to the player. "No value" cards are also disclosed which when dealt to a winning banker hand, the banker would not then win the hand.

[0008] Baccarat is currently undergoing a resurgence, with nearly 20% of gambling revenue from the Las Vegas strip coming from Baccarat in early 2010. However, despite the resurgence, some players find the game to be stale. In addition, some players find the card drawing system in standard Baccarat to be non-intuitive, cumbersome, and thus, difficult. Casino games are evolutionary in nature with the goal of providing players with a more exciting and straightforward experience, while providing the casino with more wagering

action which translates into more casino profit. Thus, what is needed is a new version of Baccarat that while having certain elements of Baccarat, will offer players new and exciting opportunities for further wagering activity.

SUMMARY OF THE INVENTION

[0009] It is an aspect of the present invention to provide an exciting casino wagering game.

[0010] The above aspects can be obtained by (a) providing a physical deck(s) of cards and a physical gaming table; (b) dealing from the physical deck(s) of cards a player's initial hand and a dealer's initial hand; (c) receiving a choice of action from the player to raise or check, wherein if the player raises then the player places a play wager; (d) dealing from the physical deck(s) of cards additional card(s) to the player and additional card(s) to the dealer to form a final player hand and a final dealer hand; (e) determining a player score by computing a numerical total of all cards in the final player hand modulo 10 counting pairs as zero, and determining a dealer score by computing a numerical total of all cards in the final dealer hand modulo 10 counting pairs as zero; and (f) resolving the play wager based on a relationship between the player score and the dealer score.

[0011] These together with other aspects and advantages which will be subsequently apparent, reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Further features and advantages of the present invention, as well as the structure and operation of various embodiments of the present invention, will become apparent and more readily appreciated from the following description of the preferred embodiments, taken in conjunction with the accompanying drawings of which:

[0013] FIG. 1 is a flowchart illustrating an exemplary method to play a wagering game, according to an embodiment;

[0014] FIG. 2 is an exemplary flowchart illustrating a method to implement a zero side bet to the wagering game, according to an embodiment;

[0015] FIG. 3A is an exemplary table layout that can be used to implement the wagering game described herein, according to an embodiment;

[0016] FIG. 3B is close up of an exemplary betting layout used for each player in FIG. 3A, according to an embodiment;

[0017] FIG. 4 is a flowchart illustrating an exemplary method to implement a further variation of a wagering game, according to an embodiment;

[0018] FIG. 5 is a flowchart illustrating an exemplary method of implementing a wagering game with a high/low decision, according to an embodiment;

[0019] FIG. 6A is an exemplary table layout that can be used to implement wagering game illustrated in FIG. 5, according to an embodiment;

[0020] FIG. 6B is an exemplary betting layout used for each player in FIG. 6A, according to an embodiment;

[0021] FIG. 7 is a drawing of an output display to output recent game outcomes, according to an embodiment;

[0022] FIG. 8A is a block diagram of hardware comprising an electronic gaming machine to implement the methods described herein; and

[0023] FIG. 8B is a block diagram of a group of gaming tables networked together with access to a player database, according to an embodiment.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0024] Reference will now be made in detail to the presently preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to like elements throughout.

[0025] The present inventive concept relates to a method, apparatus, and computer readable storage medium to implement a new casino wagering card game that is related to, but different than, Baccarat. The game can be played with one or more decks of a standard 52 card deck. Unlike typical Baccarat, each player at the table will receive their own set of cards. The present game does not require a separate commission to be paid by players on wins. The game uses a unique scoring mechanism that counts pairs as zero, to be described below in more detail. There are several different embodiments of the invention that use this scoring system, all are also described below in more detail.

[0026] FIG. 1 is an exemplary flowchart illustrating a method to play a wagering game, according to an embodiment.

[0027] The method can begin with operation 100, which receives an ante wager from a player. This can be done as known in the art, wherein the player places chips (which are directly redeemable for cash) in a betting circle. Before wagers are accepted, the dealer would typically shuffle the deck (or use an electronic shuffler). A number of different players can play the game simultaneously, each player would make their own respective wagers and receive their own respective cards. For simplicity, "player" as used herein refers to one player but each of the players at the table will partake in the same method illustrated in FIG. 1 simultaneously. The ante wager is typically a mandatory wager, although in an alternative embodiment it can be optional. In addition to making the ante wager, players can also place optional bonus (also known as side) wagers of their choosing. Initial side wagers that can be placed are as follows. The side wagers can be resolved at any practical point in the game when it is known (e.g., the cards are revealed) what the resolution of the bet will be.

[0028] Players can place an optional initial tie bet before any cards are dealt. The tie bet wins 8 to 1 if the player hand and the dealer hand have the same score when the game is completed and all cards are dealt. If the player's hand and the dealer's hand are not identical at the end of the game (not a tie), then this bet will lose. Note that this is a different bet than the tie raise wager, which is placed at a later point in the game after the player has seen some card(s).

[0029] Player's can also place a dealer's score bet, which is an optional bet placed before any cards are dealt. Players have three choices. Players can bet that the dealer hand score will be 0, and will win 5 to 1 when the dealer hand is 0, otherwise the player will lose this bet. Players can also bet that the dealer hand score will be 1, 2 or 3, and will win 2 to 1 if the dealer's hand score is 1, 2 or 3, otherwise the player will lose this bet. Players can also bet that the dealer hand score will be 7, 8 or

9, and will win 2 to 1 when the dealer's hand score is 7, 8, or 9, otherwise the player will lose this bet.

[0030] Another side bet that can be optionally placed at this point is a hard way bet. The player is betting that his or her hand will win with low scores of 1, 2, 3 or 4. Payouts are 25, 10, 5, and 2 for a winning score of 1, 2, 3 and 4, respectively. If the player does not win or wins with a score higher than 4 then the player's hard way bet will lose.

[0031] Other optional side bets that can be offered are, betting on which player amongst all players will tie to the dealer's hand (picking the player correctly wins, otherwise it loses); betting on a predicted dealer's score, individually from 0 to 9 (the payouts for each score could be different); or betting a predicted net score for all cards dealt for the particular player (for example 6 cards if 3 cards are dealt each to the player and dealer) combined from the player and the dealer.

[0032] From operation 100, the method proceeds to operation 101, which deals cards to each player and to the dealer. In an embodiment, two cards are dealt to each player and two cards are dealt to the dealer (one card face down one card face up). The two cards dealt to each player would typically be dealt face down, although in an alternate embodiment they can also be dealt face up.

[0033] From operation 101, the method proceeds to operation 102, wherein the player takes his or her respective action, to raise or to check. The player will indicate his or her desired action by speaking to the dealer or using hand signals.

[0034] If in operation 102, the player decides to raise, then the method proceeds to operation 103, wherein the player must place a raise wager alongside the player's ante wager. The raise wager can be 1-3 times the player's ante wager (or in another embodiment, another range), at the player's choice. The player can also place other optional (at the player's option) raise wagers as well. The player can place a tie raise wager, which wins if the resulting score when the game is over (in operation 106) is a tie. A zero raise wager can be placed (if the player's point total at this point is zero) which wins if the player's final point (in operation 106 when all cards are dealt) total is zero and loses if the player's final point total is not zero. The zero raise wager is discussed in more detail in FIG. 2 and the accompanying description. The method then proceeds to operation 104.

[0035] If in operation 102, the player decided to check, then the method proceeds to operation 104 without the player placing an additional raise wager.

[0036] In operation 104 (from either operation 102 or 103), additional cards are now dealt to complete the player's hand and the dealer's hand. A third card is dealt to each player and a third card is also dealt to the dealer. Or alternatively, the dealer's initial hand (dealt in operation 101) could be formed of one face up card and two face down cards, obviating the need to deal a third dealer's card in operation 104.

[0037] From operation 104, the method proceeds to operation 105, wherein all cards are now revealed (turned face up). At this point, the winning bonus/side, ante and raise wagers can all be paid, while losing bonus/side, ante and raise wagers can be collected by the dealer. The ante wager pays on the three card combination in the player's hand. For example, Table I shows example payouts for the ante wager, although of course other payout schedules can be used as well. When there is no pair, three of a kind (trips), two or 3 face cards in the player's hand, then the player would lose the ante wager.

TABLE I

KKK	30 to 1
QQQ, JJJ	15 to 1
3 of a Kind	10 to 1
3 Face Cards	5 to 1
KK, QQ, JJ	3 to 1
2 Face Cards	1 to 1
Pair	1 to 1
Anything else	lose

[0038] If the player’s hand totals zero and the player made the zero raise wager, then the player has won the zero raise wager which pays 2:1 (or another payout), otherwise the zero raise wager would lose. After the hands are scored, other wagers which rely on the dealer’s total (such as the tie raise wager placed in operation 103) can be resolved as well. If the player made the tie wager and the result is a player/dealer tie (all cards are dealt and the player point total equals the dealer point total), then the player has won the tie raise wager (which can pay 6 to 1 or another payout) otherwise the player would lose the tie raise wager.

[0039] In operation 105, all hands can also be scored (evaluated). The hands (both players and dealer) are scored in the same manner, as follows. As in standard Baccarat, each card has a value corresponding to its rank (i.e., ace=1, two=2, three=3, four=4, five=5, six=6, seven=7, eight=8, nine=9, ten=0, jack=0, queen=0, king=0). Any point total over 10 would drop the first digit (e.g., 12 become 2, 24, becomes 4, etc.) This is also known as “modulo 10.” Pairs (two cards of equal rank) are scored as zero (0). For example, a three card hand using the following cards (the suits do not matter): king/queen/7 would be a point total of 7; five/five/nine would be a point total of 9 (the pair of fives count as zero); four/nine/four would be a point total of 9 (since the pair of fours count as zero); three/king/nine would be a point total of 2 (since the point total of 12 drops the first digit); two/two/two would be a point total of 2 (since one pair count as zero leaving a two left). Making pairs score 0 greatly simplified the game arithmetic, in fact, removing about 20% of the overall scoring exercise. For example, it is mind-boggling to score 7-7-8 as 2 in Baccarat and scoring 7-7-8 as 8 in the new invention is simple.

[0040] From operation 105, the method proceeds to operation 106, which determines who (the player or dealer) has the hand with the higher point total. If the player has the higher (better hand), then the method proceeds to operation 107, wherein the player wins. The player would typically win an even money (1:1) payout on the raise wager (if made in operation 103).

[0041] The hard way wager can also be resolved at this point. If the player made the hard way wager and the player’s low score (1 to 4) is higher than the dealer’s score, then the player wins the hard way wager (see payouts in Table II) otherwise the player loses the hard way wager.

TABLE II

Player’s total	Payout
1	25
2	10
3	5
4	2

[0042] If in operation 106 it is determined that the dealer has the higher (better) hand, then the method proceeds to operation 108 wherein the dealer wins. The dealer would take the player’s raise wager (if made in operation 103) from the player. The player would also lose any hard way wager that the player would have placed.

[0043] If in operation 106, it is determined that the dealer and the player both have an equal point total (a tie) then the method proceeds to operation 109, wherein the player’s raise wager (if any was placed) is considered a push, meaning it is neither won or lost.

[0044] In an alternative embodiment, when operation 106 determines that a push has occurred (when the player has exactly three cards), then (instead of going to operation 109) the method proceeds to operation 110 (the connection is not pictured). In operation 110, a fourth (“tiebreaker”) card is dealt to the player, upon which the method returns to operation 106 which determines who has the higher hand (now considering all four player cards but the dealer still only has three cards). If a further tie occurs (e.g., the fourth card is a ten), then the method would proceed to operation 109 (there would be no fifth card dealt).

[0045] A “zero raise bet” (or “zero bet”) can be offered in operation 102 (when the player is taking action whether to raise or check). In addition to making that decision, the player can also decide whether to place a tie bet.

[0046] FIG. 2 is an exemplary flowchart illustrating a method to implement a zero raise bet (or zero raise wager) to the wagering game, according to an embodiment. Immediately before operation 104 occurs, operation 200 can be performed (in other words, alongside the player’s decision whether to raise or check, the player can also contemporaneously make the optional zero side bet).

[0047] In operation 200, it is determined whether the player’s first two cards total 0 using the modulo ten system together with pairs equal zero (e.g., the first two cards are both ten-valued cards, or they are 5,5 or 6,4, or 7,3 or 8,2 or 9,1, or the first two cards are a pair, like 2,2, 3,3, or 4,4, 6,6, or 7,7, or 8,8, or 9,9). If the player’s first two cards do not total zero (0), then the method proceeds to operation 204, wherein the player does not (cannot) make the zero side bet. The method can then proceed to operation 104 (from FIG. 1).

[0048] If in operation 200, it is determined that the player’s first two cards have a point total of 0, then the method proceeds to operation 201, which offers the player the option to make the zero bet. If the player does not want to make the zero bet, then the method proceeds to operation 204, wherein the player does not place the zero bet and then the method can proceed to operation 104 (from FIG. 1).

[0049] If in operation 201, the player wants to make the zero bet, then the method proceeds to operation 203, wherein the player places the zero bet (or zero raise bet). The amount the player can place on the zero bet is unlimited, although in another embodiment it must be within a multiplier range of the ante wager (e.g., 1-3 times the ante wager). The method can then proceed to operation 104, the player’s third card is dealt. If the player’s third card is a ten-valued card (i.e., 10, jack, queen, king), then the player wins the zero bet and is paid 2:1 on the zero bet (placed in operation 203) otherwise (if the third player card is not a 10 valued card) the player loses the zero bet.

[0050] In operation 100, the player has the option to make a number of optional bonus side bets, the player can bet any amount on the bonus side bets (up to the house table limits).

The bonus side bets can be resolved (paid or taken) in operation **105**. A first bonus side bet is a dealer's score bet, wherein the player can bet on a prediction of what he or she thinks the dealer's 3-card score will be. The player can choose from three choices (each choice has its own respective betting circle): the dealer's 3-card score will be 0 (pays 5:1), the dealer's score will be 1-3 (pays 2:1), and the dealer's 3-card score will be 7-9 (pays 2:1). The player is also free to bet on more than one of these choices simultaneously. If the dealer's score is different from what a player has bet, the bet is lost.

[0051] Another bonus side bet that can be placed in operation **100** by the player is a tie side bet. If the player's three-card hand score and the dealer's three-card hand score tie (have the same point total) then the tie bet pays 8:1, otherwise it loses.

[0052] A further bonus side bet that can be placed in operation **100** by the player is a hard way (win) side bet. The hard way side bet wins if the player's hand beats the dealer's hand (in operation **107**) and the player's point total is from 1-4. The payable in Table II can be used to determine how much a winning hard way side bet pays to the player. For example, if the player places a \$1 hard way side bet, and the player ends up beating the dealer (operation **107**) and the player's point total (of the player's hand) is 2, then the player would win \$10 (in addition to keeping his or her original \$1). If the player loses the hand (operation **108**) or the player wins (operation **107**) with a point total of 5-9 then the player would lose the hard way side bet.

[0053] An example of the game described above will now be presented (the payouts in Table I are used for this example although of course any payout table can be used). The example is merely one instance of a huge number of possible instances of games that can be generated. Fred is a player that bets (operation **100**) \$1 on the ante wager. Barney is another player at the same table that bets (operation **100**) \$2 on the ante wager. Neither player makes any bonus bets. The dealer deals (operation **101**) Fred: 3 hearts/6 diamonds. The dealer deals (operation **101**) Barney: nine hearts/nine spades. The dealer deals (operation **101**) himself: an ace diamonds and a face down card.

[0054] It is now Fred's turn and he decides (operation **102**) to place (operation **103**) a raise wager and places an additional \$3 wager in a raise betting circle (Fred can raise from 1-3 times his ante). Barney decides to check (operation **102**) but also decides to place (operation **203**) a zero bet for \$2. The dealer now deals (operation **104**) Fred his third card: 4 spades and deals (operation **104**) Barney his third card: Ace clubs. The dealer now also reveals (operation **105**) the dealer's downcard and deals (operation **104**) a third dealer's card: two hearts/ace hearts.

[0055] Now all the hands are scored (operation **105**). The dealer has a score of 2 (0 for the pair of Aces+the two=2). Fred has a score of 3 (3+6+4=13 modulo 10=3). Fred's hand does not qualify as any of the winning hands for the ante wager in Table I and thus Fred loses his ante wager. Since Fred has a higher score than the dealer, Fred wins even money on the raise (or play) wager or \$3. Barney has a score of 1 (0 for the pair +1 for the ace). Since Barney has a pair, according to Table I then Barney wins even money on the ante wager so Barney wins \$2. Barney did not receive a zero-valued card for the third card so Barney loses his zero bet. Barney's point total is lower than the dealer's point total but since Barney did not raise this does not matter. The game is over now and the dealer can now begin a brand new game.

[0056] FIG. 3A is an exemplary table layout that can be used to implement the wagering game described herein, according to an embodiment.

[0057] A gaming table **300** can be a standard physical gaming table made of wood with a felt on top which has the betting circles/squares imprinted onto it. The table layout illustrated accommodates seven players, although of course any other amount of players can be accommodated (as long as space permits).

[0058] FIG. 3B is close up of an exemplary betting layout used for each player in FIG. 3A, according to an embodiment.

[0059] Each of the seven betting areas for each player in FIG. 3A looks like the layout in FIG. 3B. Of course, other arrangements for the betting circles can be used as well and what is illustrated is only one possible example.

[0060] An ante betting area **310** is for the ante wager, a tie betting area **311** is for the tie raise wager, a hard way betting area **312** is for the hard way wager, the play betting area **313** is for the play wager, and the zero betting area **314** is for the zero raise wager. Each player makes their own respective wagers in their own respective set of betting areas.

[0061] In a further embodiment, a wagering game can be offered without a raise option for the player.

[0062] FIG. 4 is a flowchart illustrating an exemplary method to implement a further variation of a wagering game, according to an embodiment.

[0063] The method can begin with operation **400**, which receives a mandatory ante wager and any side wager(s) the player wishes to place. Any of the side (bonus) wagers described herein can be offered to the player as a side wager (depending on house preferences) and the player can optionally play or decline any such offered side wager.

[0064] From operation **400**, the method proceeds to operation **401**, which deals three cards to the player and three cards to the dealer. On other embodiments, different numbers of cards can be dealt to the player and the dealer.

[0065] From operation **401**, the method proceeds to operation **402**, which reveals all of the dealer's cards and all of the player's cards and scores the hands. The hands can be scored (evaluated) as described in operation **105**. All bonus (side) wagers can be also resolved (paid the appropriate amount as a winner or taken by the dealer as a loser) at this time.

[0066] From operation **402**, the method proceeds to operation **403**, which determines whether the dealer or the player has the better (higher) hand.

[0067] If in operation **403** it is determined that the dealer has the better hand, then the method proceeds to operation **404**, wherein the dealer wins the game. The player's main wager loses and is taken by the dealer (house).

[0068] If in operation **403**, it is determined that the player has the better hand, then the method proceeds to operation **405**, wherein the player wins the game. The player's main wager is paid as a winning wager (typically paid 1:1 although other payouts can be used as well).

[0069] If in operation **403** it is determined that the dealer's hand and the player's hand tie (i.e., they both have the same numerical point total), then the method proceeds to operation **406**, which deals an additional card to the player. The method then proceeds to operation **407**, which determines who has the better (higher hand), the dealer or the player. The player's hand is re-scored adding in the additional (fourth) card dealt in operation **406** according to the same scoring methodology used in operation **402** (also described with regard to operation **105**). After re-scoring the player's hand, if the player now has

the higher hand, then the method proceeds to operation **405**, wherein the player wins a payout on the main wager (typically 1:1).

[0070] If in operation **407** (after re-scoring the player's hand to include the fourth card dealt in operation **406**) the dealer has the better (higher) hand, then the method proceeds to operation **404**, wherein the dealer wins the game (the player loses the main wager). If in operation **407**, the dealer's hand and the player's hand tie (have the same numerical total), then the method proceeds to operation **404**, wherein the dealer wins the main wager (thus in operation **407**, the dealer wins on a tie). It is noted that now the player has four cards while the dealer only has three, although this should actually give the house an edge.

[0071] As an alternative to dealing the player a fourth card on a tie, other ways to resolve ties can be utilized as well. For example, the player can lose the main wager (dealer wins) all ties. Or, the house collects a commission (e.g., 5%) on all player wins on the main wager and ties push (neither the player or dealer wins on a tie). Or, the house would win on certain tie hands, for example the house could win all even ties, odd ties, or particular numerical total ties (e.g., 5) or zero ties.

[0072] The method illustrated in FIG. 4 can be played with the table layout and betting layout illustrated in FIGS. 3A and 3B, but with the play betting area **313** and the zero betting area **314** omitted because there is no play wager or zero wager in the method of FIG. 4. The method illustrated in FIG. 4 is a simplified embodiment with reduced player decisions (e.g., no player raise decision).

[0073] An example of the method illustrated in FIG. 4 will now be presented. Jane places a \$1 main wager bet and does not place any side bets. The dealer deals Jane a 5-diamonds/6-diamonds/king-clubs. The dealer deals the dealer a 3-spades/3-diamonds/9 hearts. Jane's score is 1 and the dealer's score is 9, thus the dealer has the higher score and the dealer wins. Thus Jane loses her \$1 main wager bet.

[0074] Another example of the method illustrated in FIG. 4 is presented. Alice places a \$1 main wager bet and does not place any side bets. The dealer deals Alice a 2-diamonds/3-diamonds/2-hearts. The dealer deals the dealer an ace-clubs/ace-hearts/3-spades. Both the Alice and the dealer have a score of 3, which is a tie. The dealer now deals Alice a fourth card, a 4-clubs. Alice's score is now 7. Since Alice's new score (7) is higher than the dealer's score (3), Alice wins a \$1 payout on her main wager bet (and thus pockets \$2).

[0075] The method illustrated in FIG. 1 provides the player an opportunity to make a "play" wager wherein the player is automatically betting that the player's hand will beat the dealer's hand. Thus, the play wager can also be considered a "high" wager since the player is betting his or her hand is higher than the dealer's. In a further embodiment, the player can choose whether the player predicts the player will have a higher hand than the dealer (a high wager) or that the player will have a lower hand than the dealer (a low wager). The player wins if his prediction is higher (i.e. betting on high) and his hand later turns out to be higher than the dealer's hand; the player loses if his prediction is lower (i.e. betting on low) and his hand later turns out to be higher than the dealer's hand.

[0076] FIG. 5 is a flowchart illustrating an exemplary method of implementing a wagering game with a high/low decision, according to an embodiment.

[0077] The method can begin with operation **500**, wherein the house receives (the player makes) a mandatory ante wager

and any optional side wagers that the player wishes to make. At this time, the cards can optionally be shuffled. All cards on the table (but for those in the deck) should be removed from the table so a new game can begin. The player can also place an initial tie bet, wherein the player is betting that the player's final point total will tie the dealer's final point total without seeing any cards in play. Note that this wager is different than the tie raise bet, wherein the player makes that bet after seeing his two initial cards and other players' cards if the game adopts face up action in play.

[0078] From operation **500**, the method proceeds to operation **502**, wherein the dealer deals each player's cards and the dealer's cards. In one embodiment, two cards are dealt to each player and two cards are dealt to the dealer. The dealer's cards are dealt one face up (the dealer's "up-card") and one face down. Each player's cards are dealt either face up or face down (while each player is allowed to view their own cards).

[0079] From operation **502**, the method proceeds to operation **504**, wherein the player decides on a course of action. After each player views his or her own two cards and the dealer's up-card, the player can decide to bet (play) or fold. If the player decides to fold, then the player indicates his or her decision to the dealer (i.e. verbally or using a hand signal) and the method proceeds to operation **506**, wherein the player loses his or her ante wager and the game ends (for that particular player).

[0080] If in operation **504** the player decides to bet, then the method proceeds to operation **508**, wherein the player much place either a high wager or a low wager (but not both). The high wager and the low wager can one times or two times the player's ante bet (placed in operation **500**).

[0081] In operation **508**, the player can also place optional raise bets (at each player's option). The tie wager is an optional raise bet the player can now place that can be any amount (subject to the table minimum/maximum). The tie wager is described herein and wins for the player if the result of the game is a tie, otherwise the tie bet loses for the player. The zero wager is another optional raise bet that the player can now place, which is also described herein and wins for the player if the eventual three cards of the player's hand score zero, otherwise the zero bet loses for the player.

[0082] From operation **508**, the method proceeds to operation **510**. The dealer then deals a final card to each player (either face up or face down) and a final card to the dealer (face up or face down).

[0083] From operation **510**, the method proceeds to operation **512**, wherein the dealer can reveal all live cards on the table (each player's cards and the dealer's cards). Each hand can be scored according to the method described with regard to operation **105** (that is, adding all the point values for each card in a hand modulo **10** while counting all pairs as 0).

[0084] From operation **512**, the method proceeds to operation **514**, which determines whether there is a tie (the numerical total of the player's hand equals the numerical total of the dealer's hand). The player's hand is formed using only all of the player's cards, while the dealer's hand is formed using only all of the dealer's cards.

[0085] If there is no tie in operation **514**, the method proceeds to operation **516**, which resolves the player's wagers. The player's ante wager is resolved using a paytable, regardless of the dealer's hand. For example, a paytable such as one illustrated in Table III can be used to determine what multiple of the ante wager a winning payout would be. Of course other values for winning hands and payouts can be used as well.

Thus, if the player's three card hand does not contain any of the hands in Table III, the player would lose the ante wager. All wagers can be resolved at this point, including side wagers (both initial side wagers and raise side wagers).

TABLE III

Hand	Payout
KKK	30 to 1
QQQ, JJJ	12 to 1
Other 3 of a Kind	8 to 1
3 Face Cards	4 to 1
2 Face Cards	2 to 1
KK, QQ, JJ	2 to 1
Other Pairs	1 to 1
Anything else	lose

[0086] If the player placed the tie wager (in operation 508), then since there is no tie, the player has lost the tie wager.

[0087] The player must have also made (in operation 508) either a high bet or a low bet. This wager can be resolved as indicated in Table IV.

TABLE IV

Bet	Condition	Result
High	player's hand has a higher score than dealer's score	bet wins
High	player's hand has a lower score than the dealer's score	bet loses
Low	player's hand has a higher score than dealer's score	bet loses
Low	player's hand has a lower score than dealer's score	bet wins

[0088] For example, if the player made the high bet and the player's hand has a higher score than the dealer's score, then the player has won the high bet (which is typically paid at 1:1). If the player made the high bet and the player's hand has a lower score than the dealer's score, then the player has lost the high bet (and the high bet would be collected by the dealer). If the player made the low bet and the player's hand has a higher score than the dealer's score, then the player would lose the low bet. If the player made the low bet and the player's hand has a lower score than the dealer's score, then the player would win the low bet (which is typically paid at 1:1).

[0089] All other unresolved wagers that were placed would be resolved now as well (i.e. the hard way wager if placed).

[0090] If in operation 514 it is determined that there is a tie between the player and the dealer, then the method can proceed to operation 518, which deals an additional (fourth) card to the player. The player's score is now evaluated based on all four player cards vs. the three dealer cards (using the same scoring methodology used in operation 512).

[0091] The method can then proceed to operation 520, which resolves all bets (as in operation 516). If there is another (second) tie, then this results in a push and the player's high or low wager (made in operation 508) is pushed (neither wins or loses) while all other bets made are resolved appropriately (see operation 516 for a discussion of other wagers). In another embodiment, in the case of a second tie, the player loses the high or low wager (made in operation 508).

[0092] In yet a further embodiment to resolve ties, instead of dealing the player a fourth card as described in operation 518, the player (after the initial tie) automatically loses 50% of the high or low wager (which was placed in operation 508).

[0093] An example of the method illustrated in FIG. 5 will now be presented.

[0094] Roger makes (operation 500) a \$1 ante wager. The dealer deals (operation 502) Roger an ace-clubs/6-hearts, and deals the dealer (himself) a 4-diamonds (up-card) and a downcard (not visible to Roger at this point). Roger then decides to continue playing (operation 504) and makes a low wager (operation 508) of \$2. The dealer then deals (operation 510) Roger a third card of 7-spades and deals himself (the dealer) a third card face down. Roger's point total is now 4. The dealer reveals the dealer's two face down cards to be: 4-hearts and 8-spades. The dealer's point total is 8 (since the pair of 4's count as 0). Since Roger's point total of 4 is lower than the dealer's point total of 8, and Roger bet on the low bet, then Roger wins a \$2 payout on the low wager. Since Roger's three cards do not comprise any of the winning hands in Table III Roger loses his \$1 ante wager. Thus, Roger has made a \$1 net profit on this game.

[0095] In further embodiments of the method illustrated in FIG. 5 (and described in the accompanying description), different numbers of cards can be dealt to the players and the dealer. In a two card embodiment (instead of a three card embodiment as described above), in operation 502 the dealer can deal only one card to each player (wherein each player can inspect their own card) and one card to the dealer (face down). The game play is similar to described above, wherein in operation 510 the dealer deals a final card to each player and the dealer, and in operation 512 the two card hands are scored (instead of three card hands). In this embodiment, the ante wager would be based only upon the player's two cards, and a payable such as that illustrated in Table V can be used. All payouts described herein (including those in Table V) are used as merely examples.

TABLE V

Hand	Payout
KK	30 to 1
QQ, JJ	12 to 1
2 face cards	8 to 1
Other pairs	4 to 1
K high	2 to 1
Q, J high	2 to 1
Anything else	lose

[0096] In a further four card embodiment of the method illustrated in FIG. 5, the method remains the same but in operation 502 the dealer deals three initial cards to each player (either face up or face down) and three initial cards to the dealer (two cards face up and one card face down). After players have made their respective high/low raise bets and/or raise side bet, the dealer deals every player one more card and the dealer one more card. In this operation each player's four card hand is scored using the method described against the dealer's four card hand. A pay table such as that illustrated in Table VI can be used to pay each player's ante wager.

TABLE VI

Hand	Payout
KKKK	30 to 1
QQQQ, JJJJ	12 to 1
Other 4 of a Kind	8 to 1
4 Face Cards	4 to 1

TABLE VI-continued

Hand	Payout
KKK, QQQ, JJJ	3 to 1
Other 3 of a kind	2 to 1
3 Face Cards	2 to 1
KK, QQ, JJ	2 to 1
2 face cards	1 to 1
Other Pairs	1 to 1
Anything else	lose

[0097] FIG. 6A is an exemplary table layout that can be used to implement wagering game illustrated in FIG. 5, according to an embodiment.

[0098] A gaming table 600 can be a standard physical gaming table made of wood with a felt on top which has the betting circles/squares imprinted onto it. The table layout illustrated accommodates seven players, although of course any other amount of players can be accommodated (as long as space permits).

[0099] FIG. 6B is an exemplary betting layout used for each player in FIG. 6A, according to an embodiment;

[0100] A tie initial betting area 610 can be used to place the initial tie wager, a hard way initial betting area 611 can be used to place the hard way wager, an ante betting area 612 can be used to place the ante wager, a tie raise betting area 613 can be used to place the tie raise bet, a high betting area 614 can be used to place the high wager, the low betting area 615 can be used to place the low wager and the zero betting area 616 can be used to place the zero raise wager.

[0101] Of course, the betting layouts illustrated in FIGS. 3 and 6 are merely examples and other configurations of such betting circles can be used as well.

[0102] FIG. 7 is a drawing of an output display to output recent game outcomes, according to an embodiment.

[0103] A scoreboard 700 is an electronic display (made of LEDs, LCD, CRT, or other output technology) that displays the dealer's most recent score's for the most recent games. The topmost score (2) is the most recent dealer score, the next score (7) is the second most recent dealer's score, etc. Each time a new game is completed, the scores can be scrolled downward and the latest outcome is added at the top.

[0104] The scoreboard 700 is electrically connected to a processing unit 704, which drives the scoreboard 700. The processing unit 704 is electrically connected to an input device 702 which can be a keypad, keyboard, buttons, etc. The dealer inputs the latest dealer's score into the input device so that the latest dealer's score can be added to the scoreboard 700 by the processing unit 704.

[0105] All methods described herein can be played on an electronic gaming device (EGD) or on a personal computer running the game which is served from an Internet (or online) casino.

[0106] FIG. 8A is a block diagram of hardware comprising an electronic gaming machine to implement the methods described herein.

[0107] A processing unit 800 can be a microprocessor and associated structure (e.g., cache, bus, etc.) The processing unit 800 can be connected to an input device 801 (such as a touch-screen, keyboard, mouse, etc.), an output device (such as a touch-screen, speakers, LCD display, etc.), a network connection 803 (to connected to a computer communications network such as the Internet, LAN, WAN, etc.), a RAM 804, a ROM 805, a storage unit (such as a DVD-drive, CD-ROM,

EPROM, Hard drive, etc.). A computer readable storage medium 807 (e.g., hard drive, CD, DVD, etc.) can be read by the storage unit 806 and can be used to store any and all assets needed to implement the methods described herein on the hardware, including programs to control the processing unit 800 to execute the methods, and game assets (e.g., video, images, sounds, etc.) The processing unit 800 can also be connected to a bill acceptor/payment mechanism 808 which can receive cash and credit the cash to the machine so the player can wager with the inserted cash. A player can also use electronic funds to credit the machine to wager. The payment mechanism 808 can also allow the player to cash out whatever credits the player has on the machine (either in cash, coins, electronic funds, a cashless ticket, etc.)

[0108] FIG. 8B is a block diagram of a group of gaming tables networked together with access to a player database, according to an embodiment. It is common in casinos that the casino would track player play in order to provide incentives and complimentary ("comps") to the players in order to encourage them to gamble. Players are given loyalty cards which contain a magnetically encoded identification number which allows the casino to track the player's play in a casino database. Dealer's or pit personnel observe the players at a table and periodically enter into a terminal (which is connected to the database) characteristics of the player's play (e.g., average bet amount).

[0109] A gaming table A 811 and a gaming table B 812 are physical gaming tables with electronic card readers 813 and 814 respectively. The electronic card readers can read an electronically encoded players code (such as with a magnetic stripe) and transmit the code to the electronic database 810 so that the respective player's play can be tracked. The electronic database 810 (such as an SQL database) which can archive play data from players and associate the play with each player's identification number. The data in the electronic database 810 can be retrieved by casino personnel at a later point in time in order to make decisions about whether to (and how much) award players complimentary. The electronic database 810 is connected to a network connector or hub 815 which allows other computers in the casino (or casino property group) to access the database 810.

[0110] All of the methods described herein (except for the electronic versions) can be played with a physical deck of cards and physical chips (directly redeemable for cash) can be used in order to place and resolve wagers. The physical deck of cards can be one or more standard decks of 52 cards or other special decks. The games are played on a physical gaming table which is comprised of felt on top (with the layout printed on it), wooden legs, and other known components (e.g., chip rack, etc.) Unless otherwise stated, all wagers placed herein can be any amount (subject to table minimum and maximum amounts).

[0111] Any description of a component or embodiment herein also includes hardware, software, and configurations which already exist in the prior art and may be necessary to the operation of such component(s) or embodiment(s).

[0112] Further, the operations described herein can be performed in any sensible order. Any operations not required for proper operation can be optional. Further, all methods described herein can also be stored on a computer readable storage to control a computer.

[0113] The many features and advantages of the invention are apparent from the detailed specification and, thus, it is intended by the appended claims to cover all such features

and advantages of the invention that fall within the true spirit and scope of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation illustrated and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

What is claimed is:

1. A method to implement a wagering game, the method comprising:

providing a physical deck(s) of cards and a physical gaming table;

dealing from the physical deck(s) of cards a player's initial hand and a dealer's initial hand;

receiving a choice of action from the player to raise or check, wherein if the player raises then the player places a play wager;

dealing from the physical deck(s) of cards additional card(s) to the player and additional card(s) to the dealer to form a final player hand and a final dealer hand;

determining a player score by computing a numerical total of all cards in the final player hand modulo **10** counting pairs as zero, and determining a dealer score by computing a numerical total of all cards in the final dealer hand modulo **10** counting pairs as zero; and

resolving the play wager based on a relationship between the player score and the dealer score.

2. The method as recited in claim **1**, wherein if the dealer score is higher than the player score then the player loses the ante wager and if the player score is higher than the dealer score then the player wins a payout on the ante wager.

3. The method as recited in claim **1**, wherein before the dealing the initial hands, receiving an ante wager from the player.

4. The method as recited in claim **3**, wherein the ante wager is paid based on the final player hand.

5. The method as recited in claim **1**, wherein if the player score equals the dealer score then dealing an additional card to the player and determining a new player score by computing a numerical total of all cards in the final player hand modulo **10** counting pairs as zero, and resolving the play wager based on a relationship between the new player score and the dealer score.

6. The method as recited in claim **1**, further comprising after receiving the choice of action from the player, determining if a point total of the player's initial hand is zero and if so, then receiving from the player an optional zero raise bet from the player, wherein the zero raise bet wins a payout for the player if the player score is zero and loses for the player if the player score is not zero.

7. The method as recited in claim **6**, wherein the point total of the player's initial hand is computed using modulo **10** and counting all pairs as zero.

8. The method as recited in claim **1**, further comprising after receiving the choice of action from the player, receiving an optional tie raise wager from the player, wherein if the player score equals the dealer score then the tie raise wager wins a payout otherwise the player loses the tie raise wager.

9. A method to implement a wagering game, the method comprising:

providing a physical deck(s) of cards and a physical gaming table;

dealing from the physical deck(s) of cards a player's initial hand and a dealer's initial hand;

receiving a choice of action from the player to fold, place a low wager, or place a high wager;

dealing from the physical deck(s) of cards additional card(s) to the player and additional card(s) to the dealer to form a final player hand and a final dealer hand;

determining a player score by computing a numerical total of all cards in the final player hand modulo **10** counting pairs as zero, and determining a dealer score by computing a numerical total of all cards in the final dealer hand modulo **10** counting pairs as zero; and

if the player placed the low wager, paying a payout to the player on the low wager if the player score is lower than the dealer score and taking the low wager from the player if the player score is higher than the dealer score,

if the player placed the high wager, paying a payout to the player on the high wager if the player score is higher than the dealer score and taking the high wager from the player if the player score is lower than the dealer score.

10. An electronic gaming apparatus to implement a wagering game, the apparatus comprising:

an input device;

an output device;

a processing unit configured to operate with the input device and the output device, and executing instructions to perform:

dealing a player's initial hand and a dealer's initial hand;

receiving a choice of action from the player to raise or check, wherein if the player raises then the player places a play wager;

dealing from the physical deck(s) of cards additional card(s) to the player and additional card(s) to the dealer to form a final player hand and a final dealer hand;

determining a player score by computing a numerical total of all cards in the final player hand modulo **10** counting pairs as zero, and determining a dealer score by computing a numerical total of all cards in the final dealer hand modulo **10** counting pairs as zero; and

resolving the play wager based on a relationship between the player score and the dealer score.

11. The apparatus as recited in claim **10**, wherein if the dealer score is higher than the player score then the player loses the ante wager and if the player score is higher than the dealer score then the player wins a payout on the ante wager.

12. The apparatus as recited in claim **10**, wherein before the dealing the initial hands, receiving an ante wager from the player.

13. The apparatus as recited in claim **12**, wherein the ante wager is paid based on the final player hand.

14. The apparatus as recited in claim **10**, wherein if the player score equals the dealer score then dealing an additional card to the player and determining a new player score by computing a numerical total of all cards in the final player hand modulo **10** counting pairs as zero, and resolving the play wager based on a relationship between the new player score and the dealer score.

15. The apparatus as recited in claim **10**, further comprising after receiving the choice of action from the player, determining if a point total of the player's initial hand is zero and if so, then receiving from the player an optional zero raise bet from the player, wherein the zero raise bet wins a payout for the player if the player score is zero and loses for the player if the player score is not zero.

16. The apparatus as recited in claim 15, wherein the point total of the player's initial hand is computed using modulo 10 and counting all pairs as zero.

17. The apparatus as recited in claim 10, further comprising after receiving the choice of action from the player, receiving

an optional tie raise wager from the player, wherein if the player score equals the dealer score than the tie raise wager wins a payout otherwise the player loses the tie raise wager.

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