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(54) **WAGERING GAMES AND PROPOSITION WAGERS**

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(76) Inventor: **David Schugar**, Crown Point, IN (US)

Continuation-in-part of application No. 10/874,558, filed on Jun. 24, 2004, and which is a continuation-in-part of application No. 10/688,898, filed on Oct. 21, 2003, now Pat. No. 7,163,458.

Correspondence Address:  
**MUSKIN & CUSICK LLC**  
30 Vine Street  
SUITE 6  
Lansdale, PA 19446 (US)

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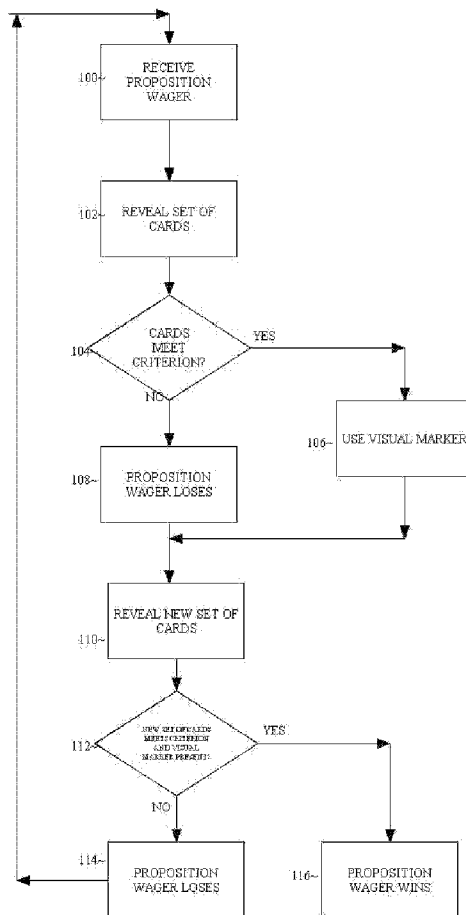
(63) Continuation-in-part of application No. 11/379,555, filed on Apr. 20, 2006, which is a continuation-in-part of application No. 10/688,898, filed on Oct. 21, 2003, now Pat. No. 7,163,458.

Continuation-in-part of application No. 11/379,561, filed on Apr. 20, 2006.

Continuation-in-part of application No. 11/158,919, filed on Jun. 22, 2005, which is a continuation-in-part of application No. 10/754,587, filed on Jan. 12, 2004, which is a continuation-in-part of application No.

(57) **ABSTRACT**

A method, apparatus, and computer readable storage to implement a wagering game involving a moving piece. Player's can bet on which side the moving piece will ultimately reach. Proposition wagers can be placed on future outcomes, such as how many turns the game would require before the game is over.



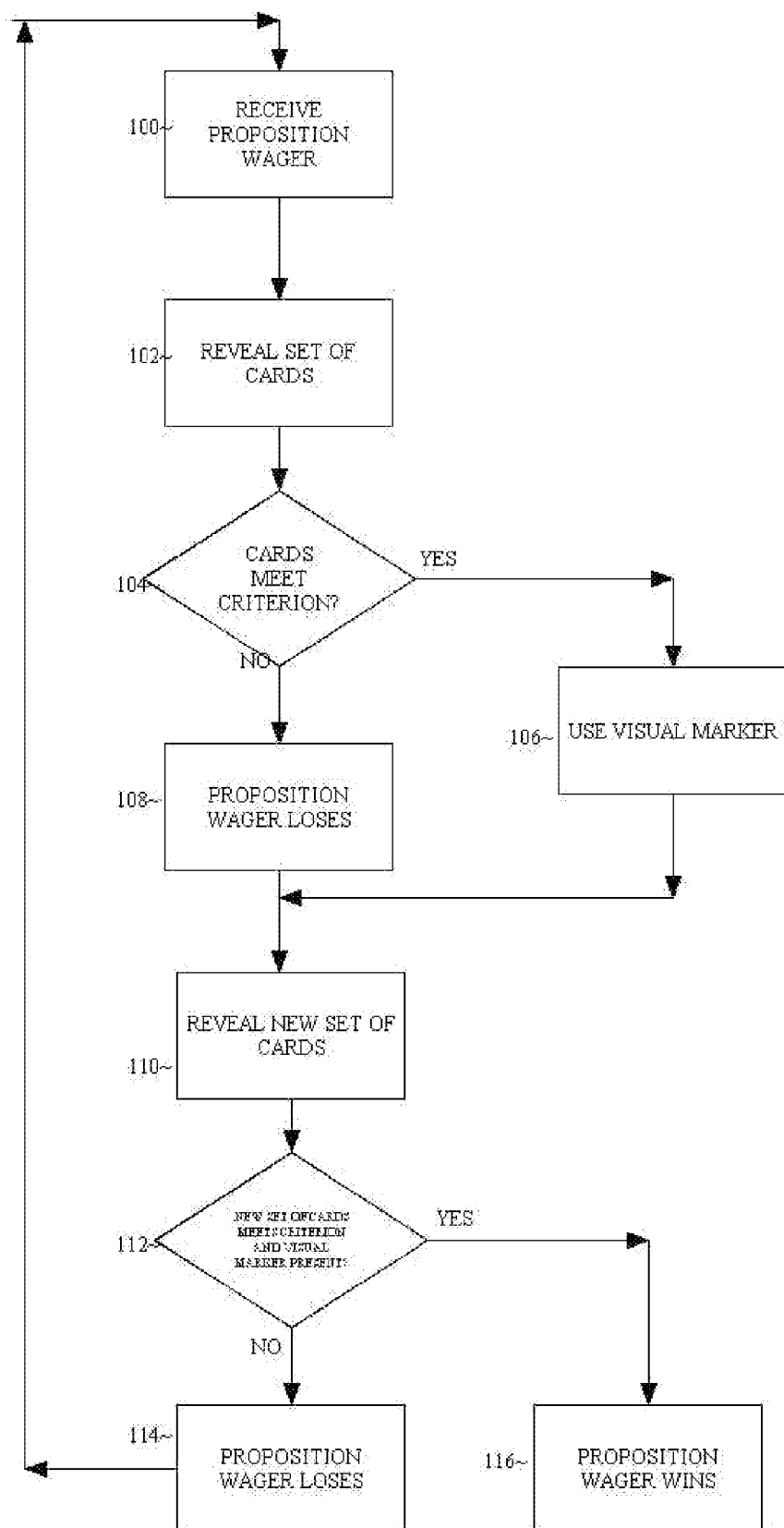


FIGURE 1

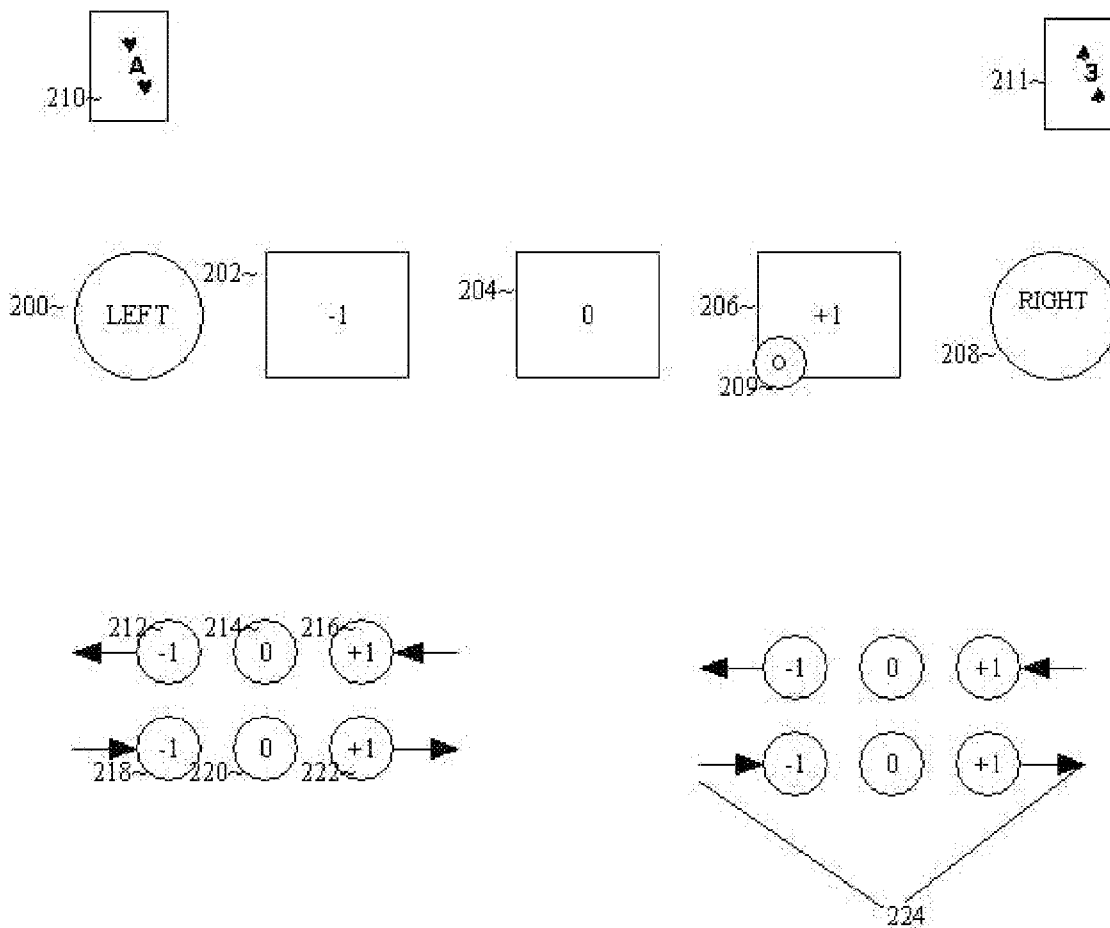


FIGURE 2

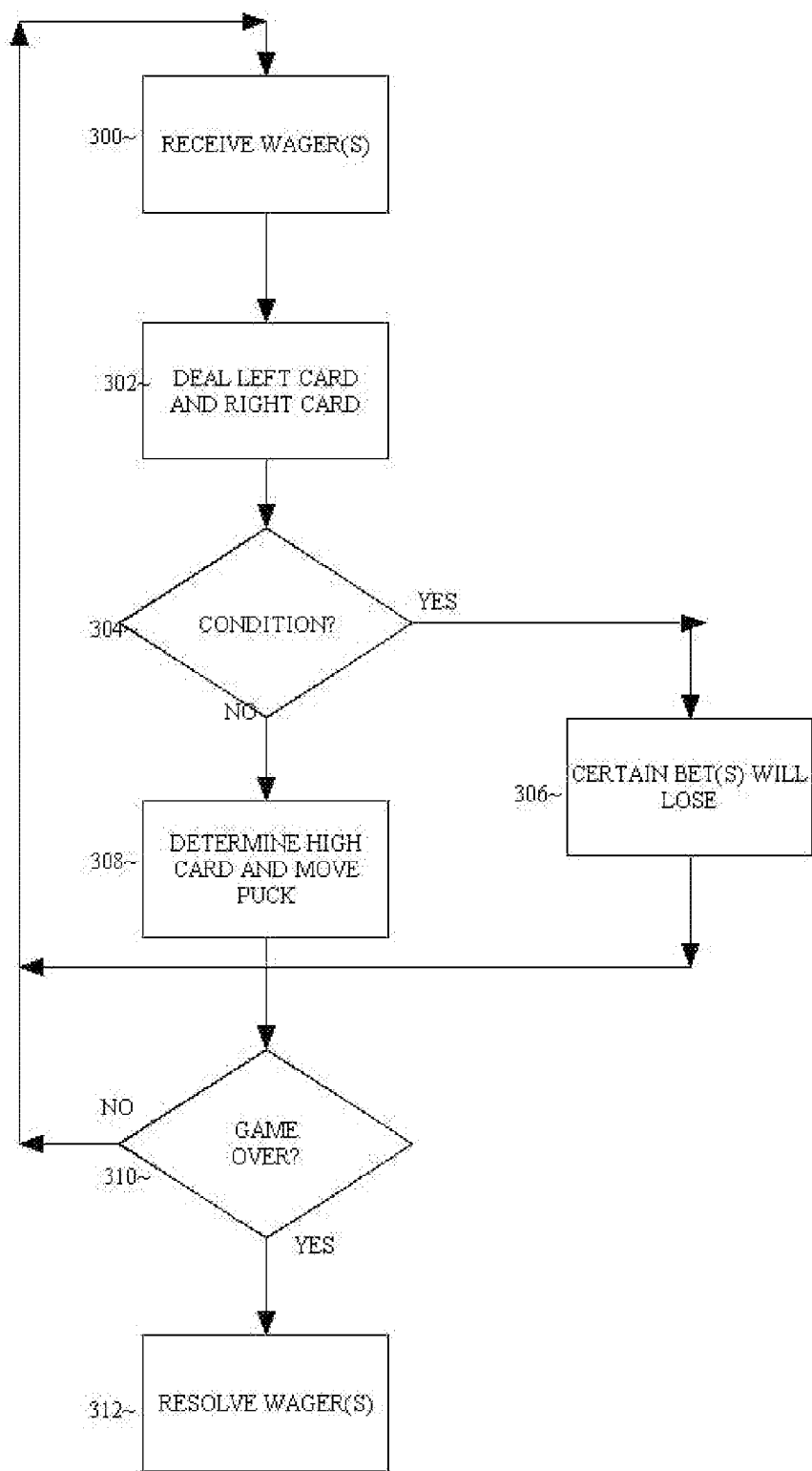


FIGURE 3

**WAGERING GAMES AND PROPOSITION  
WAGERS**

**CROSS REFERENCE TO RELATED  
APPLICATIONS**

[0001] This application also claims benefit to provisional application No. 60/745,263, filed on Apr. 20, 2006, which is incorporated by reference herein in its entirety for all purposes. This application is also a continuation in part of application Ser. No. 11/379,555, now pending, which is a continuation in part of application Ser. No. 10/688,898, filed on Oct. 21, 2003, entitled, "A Casino Game for Betting on a Bidirectional Linear Progression," now patent number U.S. Pat. No. 7,163,458, both applications of which are incorporated by reference herein in their entireties. This application is also a continuation in part of application Ser. No. 11/379,561, which claims benefit to provisional application No. 60/726,628, both applications of which are incorporated by reference herein in their entirety. This application is also a continuation in part of application Ser. No. 11/158,919, filed on Jun. 22, 2005, entitled, "Wagering Game With Player Banking of Positive Expectation Situations," which is a continuation in part of application Ser. No. 10/754,587, filed on Jan. 12, 2004, entitled, "Casino Games Directed to Betting on Progressions," which is a continuation in part of application Ser. No. 10/410,448, filed on Apr. 10, 2003, entitled, "Wagering Method, Device, and Computer Readable Storage Medium, for Wagering on Pieces in a Progression," all three of which are incorporated by reference herein in their entireties for all purposes. This application is also a continuation in part of application Ser. No. 10/874,558, filed on Jun. 24, 2004, entitled, "Wagering Game Where Player Can Borrow Money for Wagers Based on Equity Position" which is incorporated by reference in its entirety for all purposes and 1) derives priority from the provisional patent application entitled, "Wagering Game Where Player Can Borrow Money Based on Positive Expectation," filed on Feb. 26, 2004, Ser. No. 60/548,481, which is incorporated by reference herein in its entirety for all purposes and 2) is also Continuation in Part (CIP) of patent application Ser. No. 10/688,898, now U.S. Pat. No. 7,163,458, filed on Oct. 21, 2003, entitled, "A Casino Game for Betting on a Bidirectional Linear Progression," which is incorporated by reference herein in its entirety for all purposes.

**BACKGROUND OF THE INVENTION**

[0002] 1. Field of the Invention

[0003] The present invention is directed to a method, apparatus, and computer readable storage for implementing a wagering game with various options.

[0004] 2. Description of the Related Art

[0005] Wagering games come in all shapes and sizes. Casinos are always looking for additional wagering games in order to provide a more exciting game for the player as well as ways to generate more revenue for the casino.

**SUMMARY OF THE INVENTION**

[0006] It is an aspect of the present invention to provide a wagering game which can be exciting to players.

[0007] The above aspects can be obtained by a method that includes (a) receiving a wager from a player; (b)

revealing a first set of two cards; (c) determining if the two cards comprise a characteristic, and if so, then setting a visual marker; (d) revealing a second set of two cards; and (e) determining if the second set of two cards comprise a characteristic and if the visual marker was set, and if both are true, then paying the wager an award amount, otherwise taking the wager from the player.

[0008] The above aspects can also be obtained by a method that includes (a) receiving a wager; revealing a set of two cards and moving a piece in a direction based on the two cards; and determining if the set of two cards comprises a characteristic, and if so, then taking the wager.

[0009] 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**

[0010] 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:

[0011] FIG. 1 is a flowchart illustrating an exemplary method of implementing a proposition wager game, according to an embodiment;

[0012] FIG. 2 is an exemplary table layout for implementing a wagering game, according to an embodiment; and

[0013] FIG. 3 is a flowchart illustrating an exemplary method of implementing a wagering game, according to an embodiment.

**DESCRIPTION OF THE PREFERRED  
EMBODIMENTS**

[0014] 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.

[0015] The present general inventive concept relates to a method, system, and computer readable storage to implement a wagering game. More particularly, a wagering game, such as a bidirectional linear progression, can be improved upon by

[0016] The U.S. Pat. No. 7,163,458 patent, which is incorporated by reference herein in its entirety, describes a bidirectional linear progression game. The game moves a puck left or right based on a random number generator, such as cards, dice, etc. When the puck reaches either side, bets on that side wins.

[0017] In an embodiment, the game will feature a number line numbered -1 to +1 in increments of 1. A puck shall start at the zero position. Four bets are available at the beginning of each game as follows. A) The puck will eventually leave the number line to the left. B) The puck will eventually leave

the number line to the right. C) The number of turns will be less than 3.5. d) The number of turns will be more than 3.5.

[0018] After the players have made their bets two cards will be drawn from 2 to 8 ordinary decks or cards. All cards shall be scored according to their poker rank, with aces always high. If the first card drawn is higher the puck will move one unit to the left. If the second card drawn is higher the puck will move one unit to the right.

[0019] If the two cards are equal in rank the puck will not move. However the player may lose some or all bets according to the version of the game. Table I illustrates different versions of the game.

TABLE I

Version 1	If the two cards form a <u>suited pair</u> then all bets shall immediately lose and the game will be over.
Version 2	If the two cards form a <u>colored pair</u> then all bets made since the last turn will lose. Bets made previous to the last turn will remain active.
Version 3	If the two cards form a <u>suited pair</u> then all bets made on the current puck's position, including the last turn and previous turns in the same position, will lose. Bets made on other positions will remain active.
Version 4	If the two cards form a <u>colored pair</u> then all bets made on the current puck's position, including the last turn and previous turns in the same position, will lose. Bets made on other positions will remain active.
Version 5	If the two cards form an <u>opposite colored pair</u> then all bets made on the current puck's position, including the last turn and previous turns in the same position, will lose. Bets made on other positions will remain active.

[0020] If the two cards are of equal rank it shall not count as a turn for purposes of the over and under 3.5 turns bets. After the dealer moves the puck the players may make additional bets on bets A and B. The betting field will distinguish the puck position when bets are made. The game will be over when the puck leaves the number line to either the left or right.

[0021] Table II shows the pay table for all four bets according to the position of the puck at the time made.

TABLE II

Pay Table				
Position	Left Exit	Right Exit	Under 3.5	Over 3.5
-1	1 to 3	3 to 1	N/A	N/A
0	1 to 1	1 to 1	1 to 1	1 to 1
1	3 to 1	1 to 3	N/A	N/A

[0022] It is noted that the versions listed in Table I serve a purpose to enable the house to maintain an advantage. This is because the payouts in Table II do not inherently have a house advantage. A payable could be created which would have a house advantage, but the payouts might contain fractions and would not be as simple to pay as the ones listed in Table II. When one of the unlikely events occurs (suited pair, colored pair, opposite colored pair), then an event unfavorable to the player occurs. Of course, the player wishes that these events do not happen. In a further embodiment, a player may be able to "buy" his bet pay paying commission, either when he buys (places) the bet or upon any win. For example, if the puck is on the +1 position, and

the player wishes to bet on the left side, instead of being subjected to the unfavorable rules in Table I, the player can "buy" the bet by paying an additional commission (selected by the house). For example, if the commission is 5%, then if the player is going to place a \$100 wager, the player would also pay an additional \$5 for a total of \$105, however only \$100 is a wager on the left side and the house keeps the \$5 as a commission in exchange for not subjecting the player to any unfavorable rules. For example, in the latter example, since the player has brought his or her bet, if a same suited tie occurred (or any of the other unfavorable conditions), this would not affect any bets the player has bought in this manner. Alternatively, the player can pay any commission on any winnings (e.g., after a player is to be paid any amount, a commission can be deducted out of any winnings (e.g., 5%)).

[0023] If it were not for losing on suited or colored pairs all bets would pay exactly fair odds. It is losing on suited/colored/opposite colored pairs that give the house an advantage. The advantage depends on the version, number of decks, and sometimes the puck position at the time the bet is made.

[0024] Table 3 shows the probability of winning all bets according to the puck position.

TABLE 3

Probability of Winning				
Position	Left Exit	Right Exit	Under 3.5	Over 3.5
-1	75.00%	25.00%	N/A	N/A
0	50.00%	50.00%	50.00%	50.00%
1	25.00%	75.00%	N/A	N/A

[0025] Table 4 shows the probability of a suited and colored pair according to the number of decks

TABLE 4

Probability of Suited and Colored Pair			
Decks	Suited Pair	Colored Pair	Opposite Colored Pair
2	0.9709%	2.9126%	3.8835%
4	1.4493%	3.3816%	3.8647%
6	1.6077%	3.5370%	3.8585%
8	1.6867%	3.6145%	3.8554%

[0026] Conveniently, the probability of a 2-turn game is 50%. The probability of 4 or more turns is 50%. The number of turns will always be an even number. So the probability of under 3.5, and over 3.5 turns, are both 50%. Any number of turns greater than 2 and less than 4 may be used for the over/under line.

[0027] The average number of times the puck will return to the center position, from the center position is 1. The expected number of times the puck will return to a side position, from the same side position is 0.5. The house edge in versions 3, 4, and 5 depend on the expected number of draws from the same position once a bet has been. This would include the subsequent turn plus all returns to the same position. So the expected number of card draws from

the given position, including the subsequent draw, equals 2 from the center position, and 1.5 for each of the side positions.

[0028] The rest of the tables show the house edge for each version. The house edge applies equally to all four types of bets.

[0029] Table 5 shows the house edge under version 1 of the rules, in which all bets lose if the cards form a suited pair. The expected number of remaining turns from position 0 is 4, and from positions -1 and +1 is 3. The house edge is the product of the number of expected remaining turns and the probability of a suited pair.

TABLE 5

Version 1 House Edge				
Position	2 decks	4 decks	6 decks	8 decks
-1	2.91%	4.35%	4.82%	5.06%
0	3.88%	5.80%	6.43%	6.75%
1	2.91%	4.35%	4.82%	5.06%

[0030] Table 6 shows the house edge under version 2 of the rules. In version 2 all bets lose made on the last turn if the cards form a colored pair. The house edge is simply the probability of a colored pair.

TABLE 6

Version 2 House Edge				
Position	2 decks	4 decks	6 decks	8 decks
-1	2.91%	3.38%	3.54%	3.61%
0	2.91%	3.38%	3.54%	3.61%
1	2.91%	3.38%	3.54%	3.61%

[0031] Table 7 shows the house edge under version 3 of the rules. In version 3 all bets lose made on the current position if the cards form a suited pair. The house edge is the product of the number of expected turns originating from the current position and the probability of a suited pair.

TABLE 7

Version 3 House Edge				
Position	2 decks	4 decks	6 decks	8 decks
-1	1.46%	2.17%	2.41%	2.53%
0	1.94%	2.90%	3.22%	3.37%
1	1.46%	2.17%	2.41%	2.53%

[0032] Table 8 shows the house edge under version 4 of the rules. In version 4 all bets lose made on the current position if the cards form a colored pair. The house edge is the product of the number of expected turns from originating the current position and the probability of a suited pair.

TABLE 8

Version 4 House Edge				
Position	2 decks	4 decks	6 decks	8 decks
-1	4.37%	5.07%	5.31%	5.42%
0	5.83%	6.76%	7.07%	7.23%
1	4.37%	5.07%	5.31%	5.42%

[0033] Table 9 shows the house edge under version 5 of the rules. In version 5 all bets lose made on the current position if the cards form an opposite colored pair. The house edge is the product of the number of expected turns originating from the current position and the probability of a suited pair.

TABLE 9

Version 5 House Edge				
Position	2 decks	4 decks	6 decks	8 decks
-1	5.83%	5.80%	5.79%	5.78%
0	7.77%	7.73%	7.72%	7.71%
1	5.83%	5.80%	5.79%	5.78%

[0034] In a further embodiment, conditions during the game (such as those in Table I and operation 304) are not used. The house would gain its advantage by taking a variable commission on all wins. For example, when the game is over (the puck has reached either side), the house would either take no commission or X % commission (e.g., 10% or any number) based on a characteristic of the two cards that ended the game. For example, if, at the end of the game, the last two cards revealed are the same color, then the house can take 10% out of all wins on left or right bets (or alternatively all bets). If the last two cards revealed are not the same color, then the house takes no commission at all. In this way, the house is effectively taking 5% commission on all wins (since half of the time the house would be taking no commission and half of the time the house would be taking 10% commission). This is advantageous because half of the time, the dealer would not have to go through the trouble of making change to pay commission. The characteristic that the two cards must be to take or not take commission can be any, such as: same suit, same color, opposite suit, opposite color, same rank, certain values (e.g., one or both cards are aces), etc.

[0035] In a further embodiment, an additional bet can be made before the game begins which pays based on how many times the puck moves before reaching either side. Table 10 below illustrates one exemplary payable for such a bet.

TABLE 10

Puck moves	pays
2-3	0
4	1 (push)
5	2
6	4
7	10
8	20

TABLE 10-continued

Puck moves	pays
9	50
10	100

[0036] The payouts in Table 10 are just for illustrative purposes only and may not be mathematically sound. This bet can work as follows. The player bets \$1 before the game begins. The puck then moves to the left (to -1), then the puck moves to the left again (left side wins), the player has lost his wager because the puck has only moved two times which, according to table 10, has a payout of 0. Consider another example. The player bets \$1, then the puck moves left (to -1), then the puck moves right (to 0), then the puck moves right (to +1), then the puck moves left (to 0), then the puck moves left (to -1), then the puck moves left (left side wins). Since the puck has moved seven times, the player is paid \$10.

[0037] In a further embodiment, the player can bet which direction the puck will move too on the next random outcome. If cards are used, then a player can place a wager on which of the two cards revealed will be the highest card (and hence which direction the puck would travel), and if the player wagered correctly then the player would win even money, otherwise the player would lose his wager. If a tie ensues, then the player would push his wager, with the exception that if a same suited tie occurred then the player would lose his wager. Instead of same suited tie, other characteristics can be used as well, such as: same color tie, opposite color tie, opposite suited tie, etc.

[0038] A further proposition bet can be offered on whether the two cards revealed comprise a suited pair, and on the next round the two cards again reveal a suited pair (back to back suited pairs). The player can make a proposition wager on whether this would happen. If a suited pair is revealed, then a lammer or type of marker can be used to indicate that this has happened, and then if the next two cares are a suited pair, the dealer would then pay out any wagers on this proposition wager. This bet can be used during any game, for example, the game described herein (or in priority applications) that moves a puck based on a random number generator. If cards are used as the random number generator, then this proposition wager can be made each time two new cards are revealed.

[0039] The odds of a suited pair are 5/311. Once there has been one suited pair the probability the next hand is also a suited pair is  $(306/310) * (5/309) + (4/310) * (3/309)$ . So the overall probability is  $(5/311) * ((306/310) * (5/309) + (4/310) * (3/309)) = 0.000259$ . A fair payoff would be 3894 to 1. If the back to back suited pairs paid off at 3000:1, the house edge would be 22.33%.

[0040] Thus for example, a player can place the proposition wager on a suited pair. Two cards can be dealt, for example a five clubs and a five clubs. A marker is then used to indicate that a first suited pair has been dealt. When the next two cards are dealt, if they are another suited pair, such as a ten heart ten hearts, then the player wins a payout on his or her wager. If two pairs of suited pairs were not dealt, then the player would lose his wager.

[0041] Instead of suited pairs, other conditions can be used, such as non-suited pairs, colored pairs, non-colored pairs, etc. In a further embodiment, if the player receives only one suited pair, but not both, then the player can win an award (but not as high of an award as the player would have won if the player received two pairs).

[0042] FIG. 1 is a flowchart illustrating an exemplary method of implementing a proposition wager game, according to an embodiment.

[0043] The method can start with operation 100, which receives a proposition wager. In operation 102, a set of two cards are revealed (although any number of cards can be used).

[0044] Operation 104 determines whether the two cards meet a predetermined criterion. The criterion can be any criterion (or criteria), such as a suited pair, any pair, non suited pair, colored pair, non-colored pair, etc. If the criterion is determined not to be met, then in operation 108 the proposition wager loses.

[0045] If the criterion is determined in operation 104 to have been met, then in operation 106 a visual marker (or lammer) can be placed on the table to indicate that the first half of the goal of getting two pairs of cards that meet a criterion has been met. The visual marker can be any kind of object, placeholder, sign, token, etc., placed on the table to indicate that the first criterion has been met. Using a visual marker is optional (hence operation 106 can be optional and operation 112 can simply determine if both revealed sets met the predetermined criterion), however such use would deter cheating or forgetfulness.

[0046] In operation 110, a new set of cards is revealed (e.g., two, or any other number), and operation 112 determines if the new set meets the predetermined criterion as well as the first set did, and if both are true, then the method can proceed to operation 116, wherein the proposition wager wins. Otherwise, the method can proceed to operation 114, wherein the proposition wager loses. In a further embodiment, if the first set of cards meets the criterion but not the second set, then a consolation award may be paid on the wager (less than the payout if both sets met the predetermined criterion).

[0047] FIG. 2 is an exemplary table layout for implementing a wagering game, according to an embodiment.

[0048] A left winning area 200, a right winning area 208, a -1 spot 202, 0 spot 204, and a +1 spot 206 make up the board. A puck 209 is moved left or right, depending on which card is higher. A first card 210 and a second card 211 are displayed. Since the first card is higher, the puck would move to the left based on these two cards.

[0049] A -1 left betting circle 212, a 0 left betting circle 214, a +1 left betting circle 216, a -1 right betting circle 218, a 0 right betting circle 220, and a +1 right betting circle 222 can be used to indicate which side the player is betting on based on the current position of the puck. Betting circle set two 224 is for a second player.

[0050] FIG. 3 is a flowchart illustrating an exemplary method of implementing a wagering game, according to an embodiment.

[0051] The method can start with operation 300, which receive wager(s). Players can make wagers such as which



side the puck will reach first, and other proposition wagers. In operation 302, two cards are revealed.

[0052] In operation 304, it is determined if a condition is met based on the two cards. For example, if they both comprise a suited tie. If the condition is not met, then the game proceeds to operation 308, which determines the high card and moves the puck accordingly. From operation 308, the method can proceed to operation 310, which determines if the game is over, which is when the puck would have left either side of the playing field. If so, then the method can proceed to operation 312, which resolves the wagers placed.

[0053] If, in operation 304, the two cards revealed meet a condition (e.g., suited pair), then the method proceeds to operation 306 wherein certain bets will be taken as a loss. See Table I for different variations of how this can be done. For example, bets placed on either left or right when the puck was in the center position will all lose if the puck is on the center position when the predetermined condition is met (e.g., same suited pair).

[0054] Any of the embodiments described herein can also be played on an electronic gaming device. The gaming device comprises a processing unit connected to a ROM, RAM, output device (e.g., a touch screen), bill or coin acceptor, internet connection, software programs which control the gaming device to play any of the methods described herein, and any other hardware needed to implement an electronic gaming device.

[0055] It is noted that any of the operations described herein can be performed in any sensible order. Further, any operation(s) may be optional. Also, any feature or embodiment described herein can be combined with any other. This also includes any document incorporated by reference, and such documents can also be combined with each other.

[0056] 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 play a wagering game, the method comprising:

- receiving a wager from a player;
- revealing a first set of cards;
- determining if the first set of cards comprise a characteristic, and if so, then setting a visual marker;
- revealing a second set of cards; and
- determining if the second set of cards comprise a characteristic and if the visual marker was set, and if both are true, then paying the wager an award amount, otherwise taking the wager from the player.

2. The method as recited in claim 1, wherein the first set of cards comprise two cards.

3. The method as recited in claim 2, wherein the second set of cards comprise two cards.

4. The method as recited in claim 3, wherein the characteristic is a suited pair.

5. The method as recited in claim 3, wherein the characteristic is an unsuited pair.

6. The method as recited in claim 3, wherein the characteristic is a colored pair.

7. The method as recited in claim 3, wherein the characteristic is an uncolored pair.

8. The method as recited in claim 3, wherein the first set of cards comprise

9. A method to play a wagering game, comprising:

- receiving a wager;
- revealing a set of two cards and moving a piece based on the two cards; and
- determining if the set of two cards comprises a characteristic, and if so, then taking the wager.

10. The method as recited in claim 9, wherein the characteristic is a suited pair.

11. The method as recited in claim 9, wherein the characteristic is a non-suited pair.

12. The method as recited in claim 9, wherein the characteristic is a colored pair.

13. The method as recited in claim 9, wherein the characteristic is a non-colored pair.

14. The method as recited in claim 9, wherein the piece moves based on which of the two cards is higher.

15. The method as recited in claim 9, wherein the piece moves based on which of the two cards is higher with the exception that if the two cards tie then the piece does not move.

16. A method as recited in claim 9, wherein the taking takes all wagers made in addition to the wager.

17. The method as recited in claim 9, wherein the if the set of two cards comprises a characteristic, then ending the game.

18. An electronic gaming apparatus to play a wagering game, the apparatus comprising:

- a processing unit to perform:
  - receiving a wager from a player;
  - revealing a first set of cards;
  - determining if the first set of cards comprise a characteristic, and if so, then setting a visual marker;
  - revealing a second set of cards;
  - determining if the second set of cards comprise a characteristic and if the visual marker was set, and if both are true, then paying the wager an award amount, otherwise taking the wager from the player; and
- an output device to output results of the processing unit.

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