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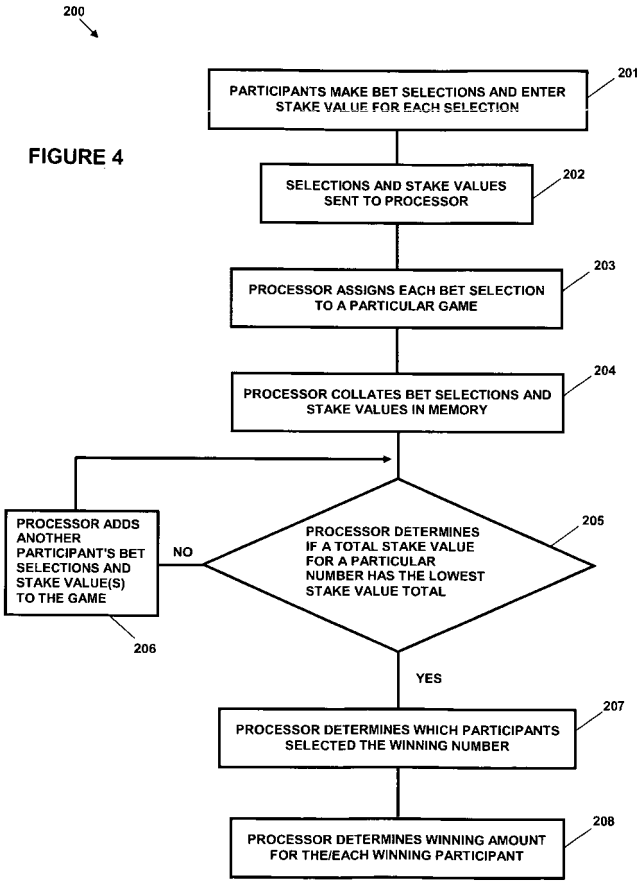
(54) Gaming apparatus

(57) Gaming apparatus (1) comprising a processor (3), a memory (5) and an input port, the processor configured to receive from the input port, signals from participant input devices (7) representative of selections from a set of options, each signal includes a value associated with a selection, and the processor configured to determine a total value amount for each particular option and to store in the memory the total value amount for each option and to determine a winning option which is the option with the lowest total value amount.

FIGURE 4



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Description

Technical field

[0001] The present invention relates generally to gaming apparatus.

Summary

[0002] According to one aspect of the invention there is provided gaming apparatus comprising a processor, a memory and an input port,
the processor configured to receive from the input port, signals from participant input devices representative of selections from a set of options, each signal includes a value associated with a selection, and the processor configured to determine a total value amount for each particular option and to store in the memory the total value amount for each option and to determine a winning option which is the option with the lowest total value amount.

[0003] According to another aspect of the invention there is provided a gaming system comprising a processor and a memory, and a plurality of participant input devices, the participant input devices configured to communicate with the processor, each input device configured to allow a participant to select at least one option from a set of options, the processor configured to receive signals representative of selections from the participant input devices, each signal including a value associated with a selection, and the processor configured to determine a total value amount for each particular option and to store in the memory the total value amount for each option and to determine a winning option which is the option with the lowest total value amount.

[0004] According to a further aspect of the invention there is provided machine readable instructions for a processor of a gaming apparatus, which instructions comprise instructions to configure the processor to process signals representative of selections from a set of options, each signal includes a value associated with a selection, and instructions to configure the processor to determine a total value amount for each option, and instructions to determine a winning option which is the option with the lowest total value amount.

[0005] Another aspect of the invention relates to a method of processing data in a processor of a gaming apparatus, the method comprising receiving signals from participant input devices representative of selections from a set of options, each signal includes a value associated with a selection, and the method further comprising determining a total value amount for each option and storing the total value amounts in a memory, and the method comprising determining a winning option which is the option with the lowest total value amount.

Description of the Drawings

[0006] Various embodiments of the invention will now be described, by way of example only, with reference to the following drawings, in which:

Figure 1 shows a gaming apparatus;

Figure 2 shows a gaming apparatus;

Figures 3 and 3a show a graphic user interface;

Figure 3b shows a table; and

Figure 4 is a flow diagram.

Detailed Description

[0007] With reference to Figure 1 there is shown a gaming apparatus 1 comprising a processor 3, a memory 5, and multiple participant terminals 7. Each terminal 7 can communicate with the processor 3 and vice versa, signals being conveyed by way of respective links 8. The links 8 interface with an input port arrangement of the processor 3. As described below, the apparatus 1 advantageously allows multiple participants to participate in a game event.

[0008] In order for a game event to commence at least two participants must be present at respective terminals 7. Each terminal comprises an output device, for example a visual display unit, and an input device, for example a keyboard and/or suitable navigation device (such as a mouse or the like). By using the input device each participant can indicate to the processor 3 that the participant wishes to commence a gaming event. Each user may be required to present or introduce monetary credential, such as bank notes, coins, tokens or a bank card in order to take part in a game event. To that end each terminal 7 is provided with a suitable payment system such as a coin/token discriminator, note discriminator/reader and/or card reader. Alternatively, each participant may be required to enter predetermined credentials, such as a username and/or password, and/or bank card details, from which the processor 3 can verify that the participant is eligible to participate, and (if appropriate) retrieve a credit limit to which the participant is entitled.

[0009] Once the processor 3 has determined that each of the multiple participants is entitled to participate, the processor 3 causes the output device of each terminal 7 to display a graphic user interface (GUI) 100, schematically shown in Figure 3. The GUI 100 comprises a bet selection region 110, a stake entry portion 120, a summary table 130, a submit button 140 and a selection cursor 150. The position of the cursor 150 can be moved using the input device. The bet selection region 100 resembles a roulette betting table layout, and is arranged into a plurality of sub-regions, each sub-region relating to a respective bet option. By the participant controlling the input device, he can move the cursor 150 over a particular sub-region so as to select a particular type of bet from the options available.

[0010] As can be seen in Figure 3 there are thirty six sub-regions 111, each indicating a respective number between one and thirty six. Each of the numbers is assigned as being red or black, as shown by light shading and dark shading, respectively.

[0011] With reference to Figure 3a, the sub-regions 111 allow five different types of bet to be selected. A first type of bet is to select one particular number. For example, as referenced by the reference letter 'J', the number '30' can be selected for a 'straight-up' bet. As shown by the reference letter 'I' a bet could be selected for two of the numbers (in this case '5' and '8') for a 'split' bet. Reference letter 'H' shows where the cursor 150 would need to be positioned in order to select a line of three numbers, here '25', '26' and '27' in order to select a so-called 'street' bet for those numbers. The reference letter 'G' indicates where the cursor would need to be positioned in order to select a 'corner' bet on the four numbers '16', '17', '19' and '20'. In order to place a 'line' bet on six numbers, for example '31', '32', '33', '34', '35' and '36', the participant would need to place the cursor 150 at the position shown by the letter F' .

[0012] In order to place a bet on either the first, second or third dozen of the numbers, one of the sub-regions 113 would be selected by using the cursor 150, In Figure 3a, the reference letter 'E' indicates that the numbers '1' to '12' are to be selected by positioning the cursor 150 over the sub-region 113a. To enable a participant to select any of the three columns of the representation of sub-region 111, the participant can conveniently select one of the sub-regions 115a, 115b and 115c. In Figure 3a the reference letter 'D' indicates that the first column is to be selected by sub-region 115a. The sub-regions 117 allow a participant to select all of those sub-regions 111 which are designated as red or all of those sub-regions 111 which are designated as being black. In Figure 3a the reference letter A indicates generally that either of those two options can be selected, by selecting the appropriate sub-region 117a or 117b.

[0013] The sub-regions 118a and 118b allow a participant to select those numbers from 1 to 36 which are even numbers and to select those numbers from 1 to 36 which are odd numbers.

[0014] The sub-regions 119a and 119b allow a participant to select the numbers 1 to 18 and 19 to 36, respectively.

[0015] It will be appreciated that the selection region 110 is conveniently arranged to allow a participant to select multiple numbers in a single selection step, namely the bet types indicated by letters 'A' through 'I'. It will be appreciated that the bet selection types exemplified by the reference letters 'B', 'C' and 'E' relate to mathematical characteristics common to each set of numbers of each type, whereas the bet selection types exemplified by the reference letters 'A', 'D', 'F', 'G', 'H' and 'I', each relate to a sub-set of numbers which have an aspect of their representation in the GUI 100 in common.

[0016] Figure 3b shows a summary table 200 of the different types of bet which a participant can select using the GUI 110. Figure 3b shows the minimum stake required for each type of bet selection (shown in nominal units), and the odds for each bet type.

[0017] So, by using the cursor 150 and the selection region 110, each participant can select a particular bet option. Each participant is then required to enter in the region 120 the value of the stake for his particular selected bet option. Once entered, details of the selection and the stake are entered into the first and second columns of the table 130. The table 130 provides a convenient summary to the participant of bets selected thus far. The participant can then chose to submit his selected bets to the processor 3 in which case a suitable signal is sent to the processor 3. Alternatively, the participant can chose to make one or more further bet selections, using the procedure described above, before submitting those bet selections to the processor 3.

[0018] Where a participant has made multiple bet selections these will be shown to the participant in the table 130, so that he has the opportunity to review them before submitting them to the processor 3. Although not shown in Figure 3, the GUI 100 may be configured to allow a participant to amend and/or delete the bet selections populating the table 130 before submission of the, or each, bet selection to the processor 3.

[0019] Once the processor 3 has determined that it has received bet selections from a participant, the processor 3 assigns that participant's bet selections to a game event which is currently in progress. Alternatively, if no game events are currently in progress, the processor 3 initiates a new game event, and assigns the received bet selections from multiple participants to that game event. The processor 3 is configured to store in the memory 5, for each game event, a running total of stake values placed on each of the numbers 1 to 36. A participant's particular bet selection(s) are added to the appropriate total stake amounts for the particular numbers selected. Where a participant's bet selection includes one of the multiple option types (eg one of the types designated by letters 'A' to 'I'), the processor splits the stake value equally over each of the numbers covered by the multiple options selected, and then stores the updated value totals in the memory 5. For example, betting eighteen units on red, using sub-region 117a, the processor 3 would divide the stake amount by eighteen, and add the dividend amount to the total stored in the memory 3 relating to each of the red designated numbers. The other multiple option types can be similarly treated by the processor 3 since the processor is aware of which particular sub-set of the numbers 1 to 36 each multiple option type corresponds to.

[0020] Once the processor 3 has determined that bet selections have been received from multiple participants, the processor performs calculations to determine whether there is any one particular stake value total (for a particular number) which is the lowest take value total. If the processor 3 determines that there is such a single lowest

stake value total, then a win event is declared. When receiving the bet selections of the participants, the processor 3 receives an identifier which identifies which participants have selected which numbers and the stake placed on those options. The processor 3 causes this information to be stored in the memory 5. Once the processor 3 has determined that a win event has occurred it will determine the identifiers of, the, or those, participants who placed bets on the winning number. The processor 3 calculates the amount won by the, or each, participant based on the stake placed and odds for the type of bet placed. The processor 3 then communicates to the, or each, winning participant that he has won, and the amount that he has won.

[0021] In an alternative scenario, after the processor 3 has determined (updated) the stake value total associated with each number, it may determine that there is no single lowest total because two or more of the stake value totals are of the same amount. In this situation the processor 3 cannot determine a win and so adds one or more additional bet selections to the game event. The processor 3 then determines whether there is then a single lowest stake value total for a particular number. This process is repeated until a win event can be determined. However, a value relating predetermined maximum number of participants that can participate in one game event is stored in the memory 5. If the processor 3 determines that by adding a further bet selection of a participant to a particular game event that that maximum number would be exceeded, the processor 3 cancels the game event and transfers the bet selections of that game event to other game events which the processor 3 is hosting.

[0022] In practice, the processor 3 is configured to be capable of hosting a plurality of game events concurrently. Bet selections received from different participants are caused to be stored in the memory 5, and the processor 3 uses a substantially random selection process to assign each bet selection to a particular one of the game events which it is hosting.

[0023] Figure 4 is a flow diagram 200 showing the overall process steps performed by the gaming apparatus 1. Step 201 relates to the step of participants making bet selections and entering stake values from their terminals 7. Steps 202, 203 and 204 relate to signals containing that data being sent to the processor 3 from the terminals 7, and the data then being processed by the processor 3. At step 205, the processor 3 determines whether a win can be declared. If it cannot, then at step 206, the processor adds additional received bet selection and stake value data to that game. If a win can be determined, at step 207 the processor retrieves data from the memory 5 to determine the identity of the winning participant(s). At step 208 the processor 3 determines the amount won by the, or each, winning participant.

[0024] Figure 2 shows another embodiment of the invention comprising a gaming system shown generally at 10. The system 10 comprises a network comprising server equipment 11, a communications network 18, and a plurality of participant terminals 17. Each of the terminals 17 and the server equipment 11 are able to communicate by way of the communications network 18. Broadly, the network shown is intended to implement the principles of operation of the gaming apparatus 1. Here, however, the terminals are remote from the server equipment 11. The server equipment 11 is configured to implement the same or very similar processing steps as are performed by the processor 3 and the memory 5, as described above. The communications network 18 may comprise the Internet, a wired and/or wireless telecommunications network or any other suitable type of communications network infrastructure. Each of the terminals 17 comprises any kind of communications device, such as a personal computer, a mobile telephone or a personal digital assistant, for example.

[0025] Conveniently, even though participants may be remote from the server equipment 11, they can each participate in one or more gaming events.

[0026] It will be appreciated that machine-readable instructions in the form of a signal, data structure or recorded on a data carrier, may be loaded onto either of the processors 3 or 13 in order to configure the data processor 3 or 13 to be able to implement the required process steps to host a game event.

Claims

1. Gaming apparatus comprising a processor, a memory and an input port, the processor configured to receive from the input port, signals from participant input devices representative of selections from a set of options, each signal includes a value associated with a selection, and the processor configured to determine a total value amount for each particular option and to store in the memory the total value amount for each option and to determine a winning option which is the option with the lowest total value amount.

2. Gaming apparatus as claimed in claim 1 in which the data processor is configured to determine which participant or participants has/have selected the winning option

3. Gaming apparatus as claimed in claim 1 or claim 2 in which the data processor is configured to store, in the memory, an association between an identifier for each participant and the respective option(s) selected by that participant.

4. Gaming apparatus as claimed in any preceding claim, the processor configured to process signals which are representative of a multiple option selection, and the processor configured to assign a part of the associated value to the respective total value

amounts of each of the options included in the multiple option selection.

5. Gaming apparatus as claimed in claim 4, the processor configured to handle signals representative of a multiple option selection in which each option included in the multiple option selection has a characteristic which is common to those options.

6. Gaming apparatus as claimed in claim 5 in which the characteristic is at least one of (i) a mathematical characteristic and (ii) a parameter relating to a visual representation of the options.

7. Gaming apparatus as claimed in any preceding claim, the processor configured to assign a participant to a game event subsequent to a signal having been received by the data processor which signal is representative of a selection made by that participant.

8. Gaming apparatus as claimed in any preceding claim, the processor configured to add participants' selections to a game event until a winning option is determined for the game event.

9. Gaming apparatus as claimed in any preceding claim, the processor is configured to host multiple game events concurrently.

10. Gaming apparatus as claimed in claim 9, the processor configured to assign a participant's selection to a game event on a substantially random basis.

11. Gaming apparatus as claimed in any preceding claim, the processor configured to cancel a game event if no winning option is able to be determined for a predetermined maximum number of participants.

12. Gaming apparatus as claimed in any preceding claim, the processor configured to issue a signal to a participant input device representative of a game event in which the participant will be participating, the signal being issued subsequent to receipt by the processor of the signal representative of the participant's selection.

13. Gaming system comprising a processor and a memory, and a plurality of participant input devices, the participant input devices configured to communicate with the processor, each input device configured to allow a participant to select at least one option from a set of options, the processor configured to receive signals representative of selections from the participant input devices, each signal including a value associated with a selection, and the processor configured to determine a total value amount for each particular option and to store in the memory the total value amount for each option and to determine a winning option which is the option with the lowest total value amount.

14. Machine readable instructions for a processor of a gaming apparatus, which instructions comprise instructions to configure the processor to process signals representative of selections from a set of options, each signal includes a value associated with a selection, and instructions to configure the processor to determine a total value amount for each option, and instructions to determine a winning option which is the option with the lowest total value amount.

15. A method of processing data in a processor of a gaming apparatus, the method comprising receiving signals from participant input devices representative of selections from a set of options, each signal includes a value associated with a selection, and the method further comprising determining a total value amount for each option and storing the total value amounts in a memory, and the method comprising determining a winning option which is the option with the lowest total value amount.

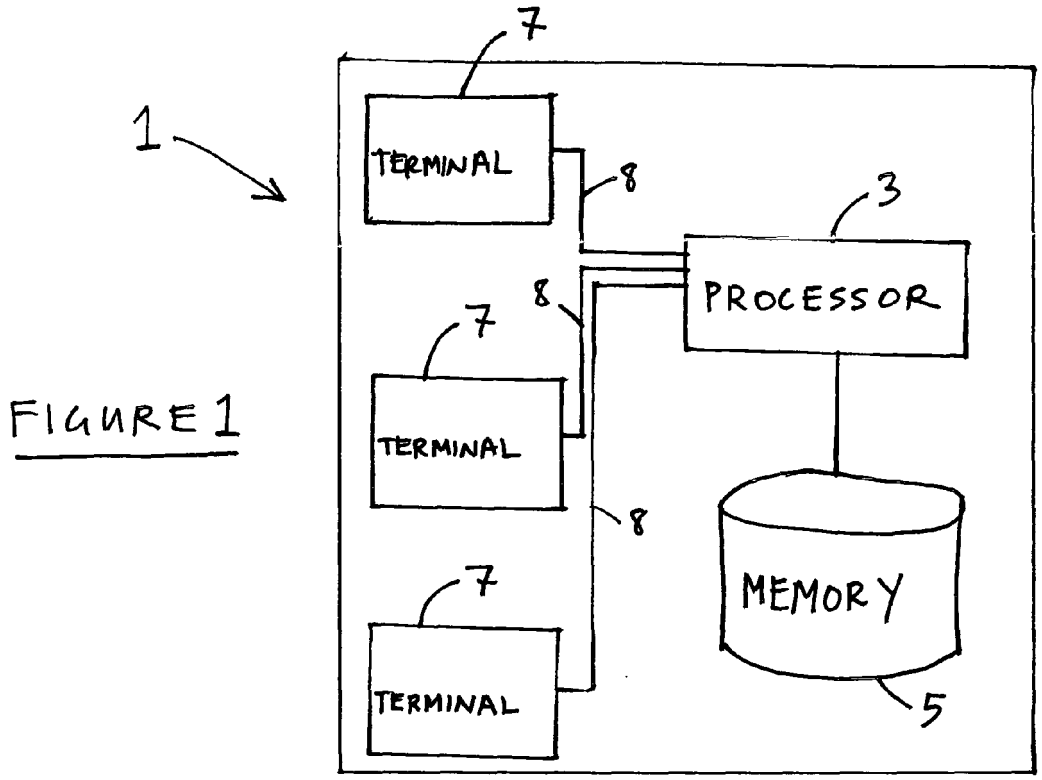


FIGURE 1

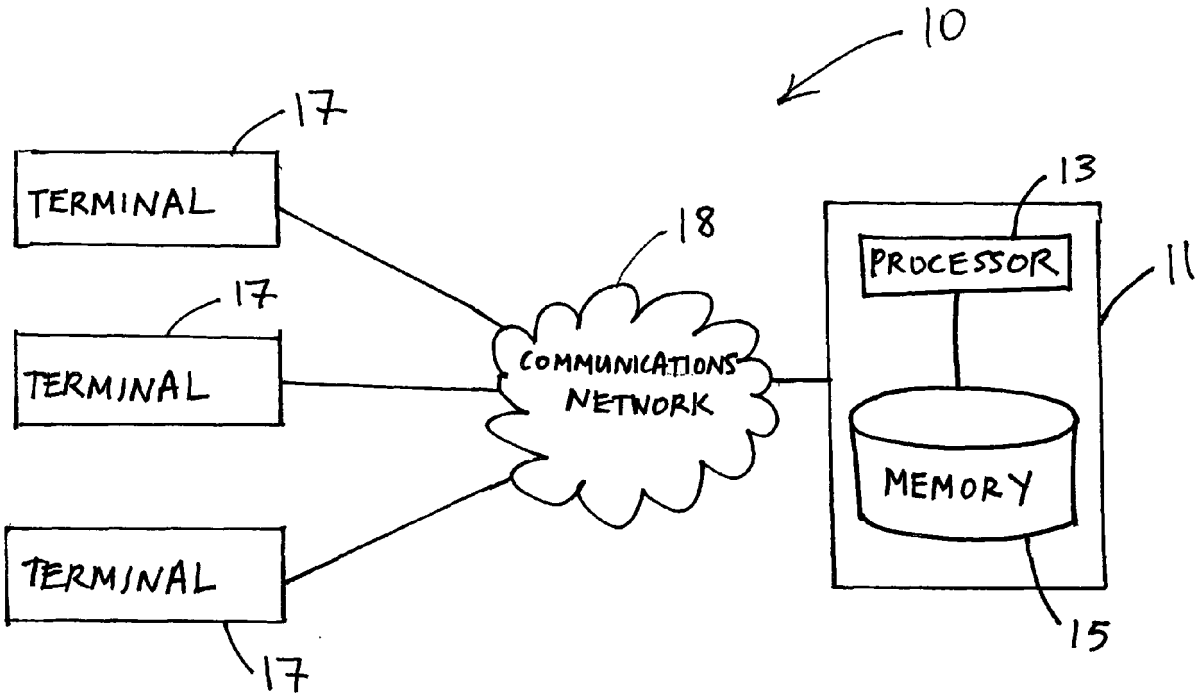
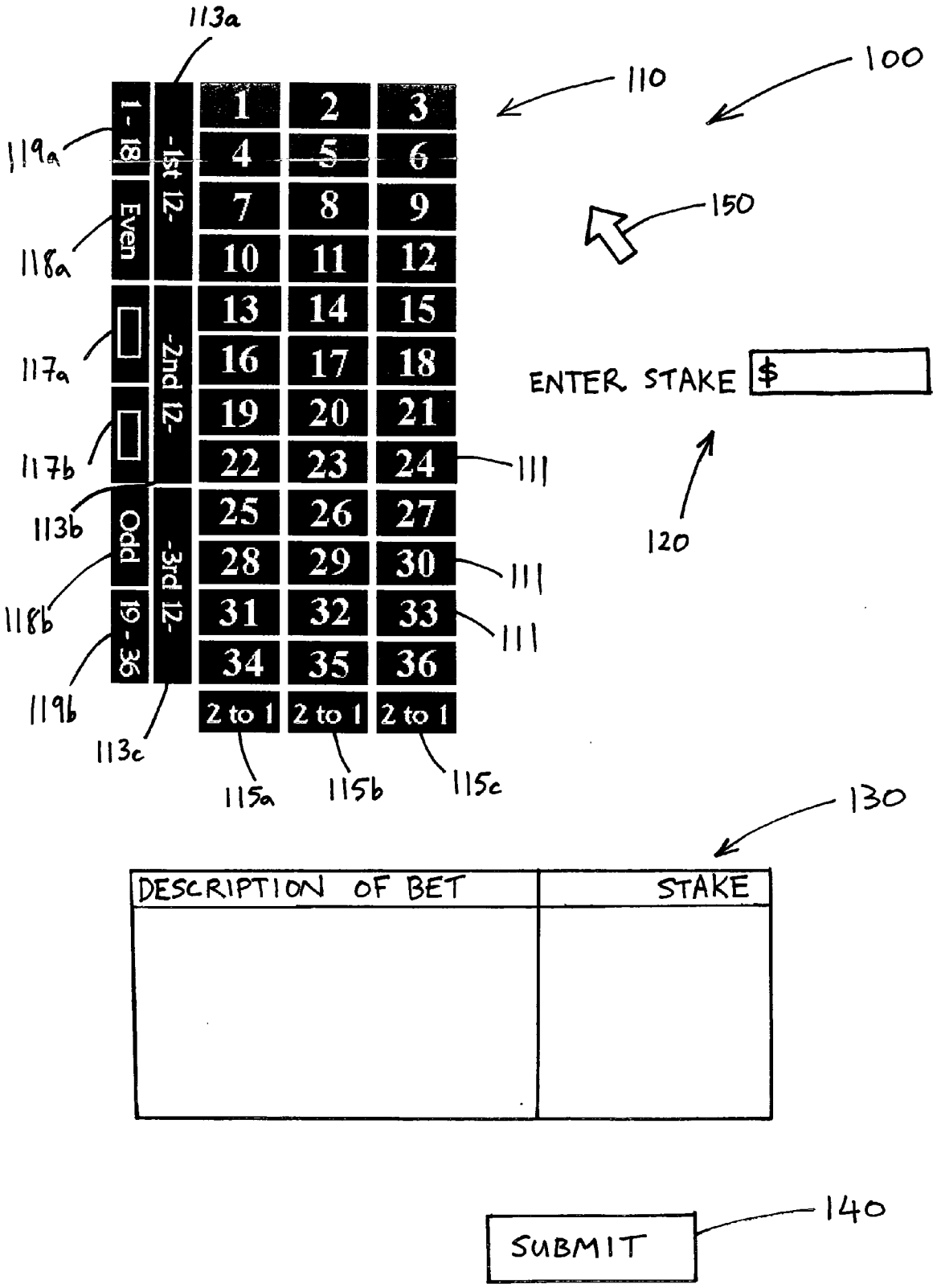


FIGURE 2

FIGURE 3


113a
110
100
150
119a
1 - 18
1st 12
2
3
4
5
6
118a
Even
7
8
9
10
11
12
2nd 12
13
14
15
117a
16
17
18
117b
19
20
21
ENTER STAKE $
22
23
24
111
113b
120
Odd
25
26
27
118b
3rd 12
28
29
30
111
19 - 36
31
32
33
111
119b
34
35
36
113c
2 to 1
2 to 1
2 to 1
115a
115b
115c
130
DESCRIPTION OF BET
STAKE
SUBMIT
140

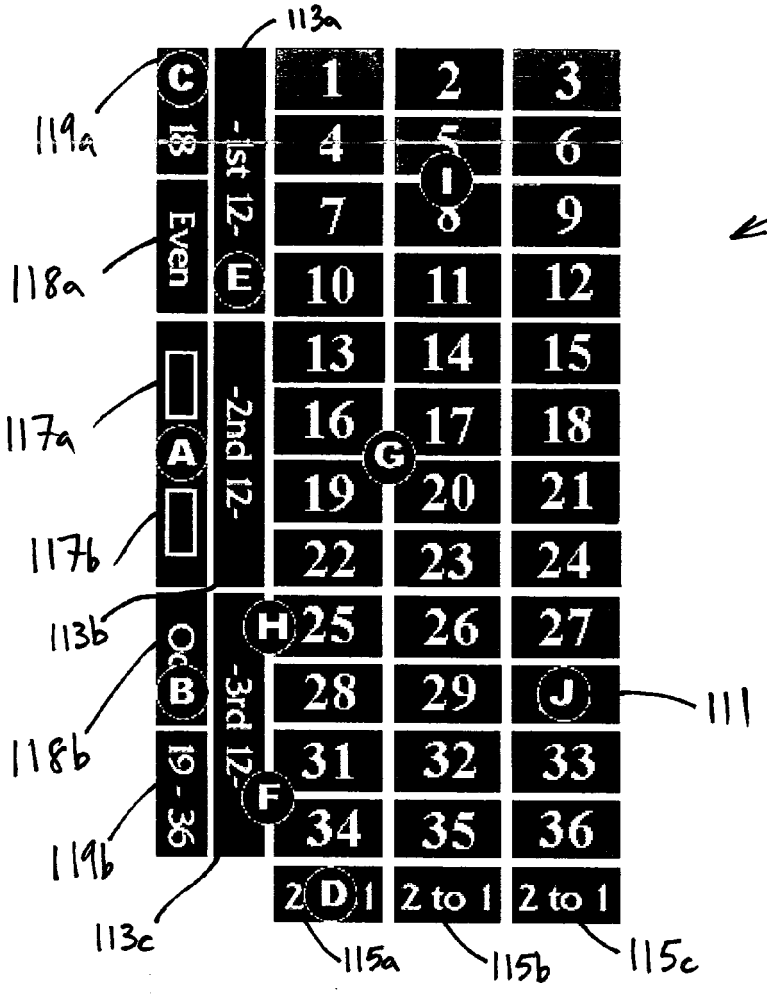


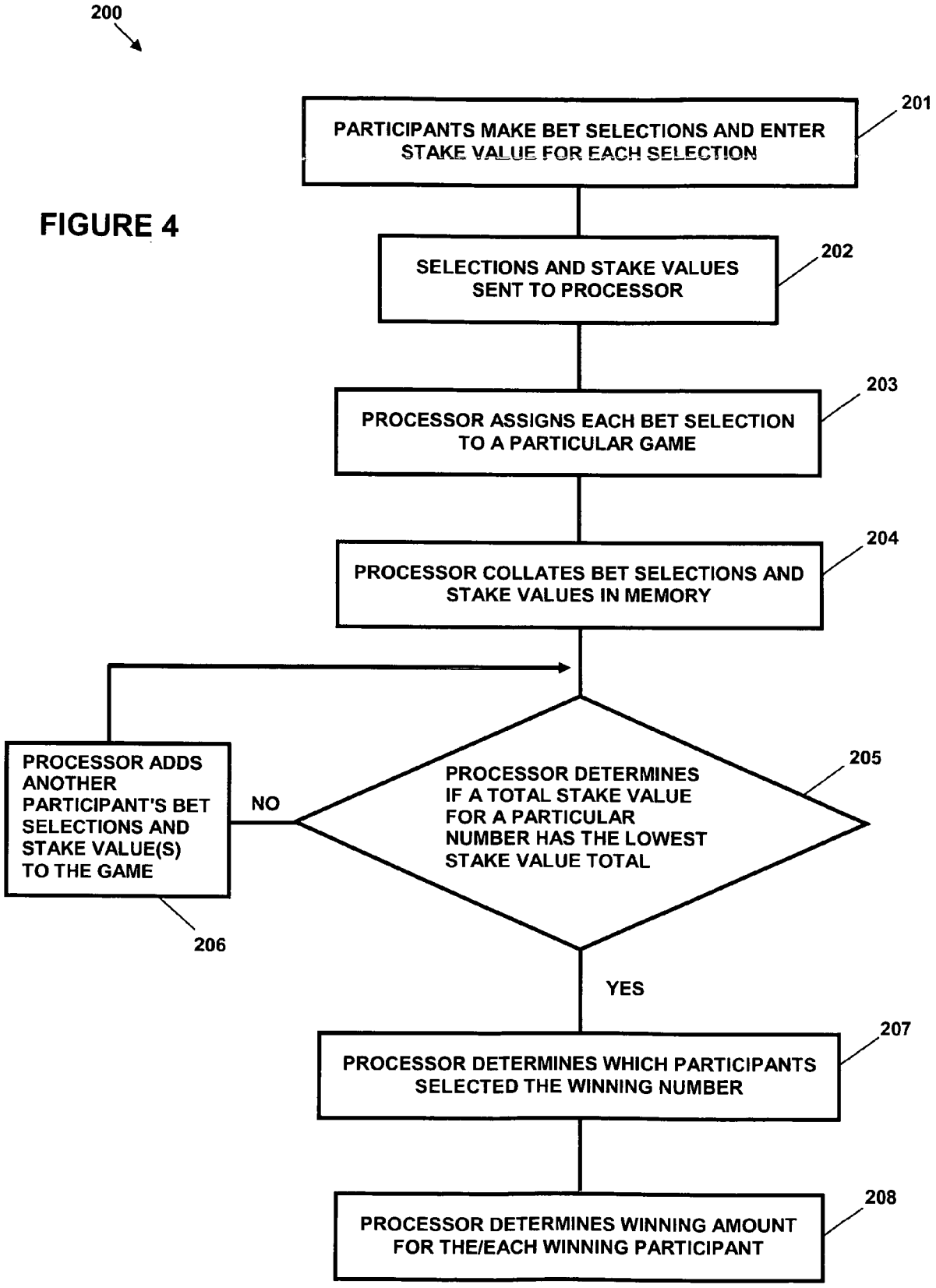
FIGURE 3a

200

	Description	Minimum Bet	Odds
A	Red or Black	18	1 – 1
B	Odd or Even	18	1 – 1
C	High or Low	18	1 – 1
D	Column	12	2 – 1
E	Dozen	12	2 – 1
F	Line	6	5 – 1
G	Corner	4	8 – 1
H	Street	3	11 - 1
I	Split	2	17 – 1
J	Straight Up	1	35 – 1

FIGURE 3b

FIGURE 4


200
PARTICIPANTS MAKE BET SELECTIONS AND ENTER STAKE VALUE FOR EACH SELECTION
201
SELECTIONS AND STAKE VALUES SENT TO PROCESSOR
202
PROCESSOR ASSIGNS EACH BET SELECTION TO A PARTICULAR GAME
203
PROCESSOR COLLATES BET SELECTIONS AND STAKE VALUES IN MEMORY
204
PROCESSOR DETERMINES IF A TOTAL STAKE VALUE FOR A PARTICULAR NUMBER HAS THE LOWEST STAKE VALUE TOTAL
205
NO
PROCESSOR ADDS ANOTHER PARTICIPANT'S BET SELECTIONS AND STAKE VALUE(S) TO THE GAME
206
YES
PROCESSOR DETERMINES WHICH PARTICIPANTS SELECTED THE WINNING NUMBER
207
PROCESSOR DETERMINES WINNING AMOUNT FOR THE/EACH WINNING PARTICIPANT
208

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EUROPEAN SEARCH REPORT

Application Number
EP 08 25 2310

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2008/146308 A1 (OKADA KAZUO [JP]) 19 June 2008 (2008-06-19) * paragraph [0030] * * paragraph [0048] * * paragraphs [0076] - [0079] * * paragraphs [0104] - [0134] * -----	1-15	INV. G07F17/32 G07F17/34
X	US 2002/052241 A1 (IDAKA MITSUHIRA [JP]) 2 May 2002 (2002-05-02) * the whole document * -----	1-15	
A	US 2002/037763 A1 (IDAKA MITSUHIRA [JP]) 28 March 2002 (2002-03-28) * paragraphs [0057] - [0065] * -----	1-15	
			TECHNICAL FIELDS SEARCHED (IPC) G07F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	28 October 2008	Breidenich, Markus

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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28-10-2008

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