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(71) Applicant(s)
Konami Corporation

(72) Inventor(s)
Suda, Satoshi;Takahashi, Katsumi

(74) Agent / Attorney
Shelston IP, Level 21 60 Margaret Street, Sydney, NSW, 2000

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US 6250883
US 6159098
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ABSTRACT

The present invention provides a game machine, slot machine, and game program in which, if a game state is for a normal game, an evaluation is made to determine if at least one
5 bonus symbol will be statically displayed or is statically displayed in a display module so that a condition needed for starting a bonus game is met. If the condition is met, a possible payout value that can be awarded to the player as payout in the bonus game is displayed before the bonus game is started. The game machine of the present invention increases a player's curiosity by displaying a possible payout value that can be awarded to the player as a payout for a bonus game before
10 starting the bonus game.

AUSTRALIA

Patents Act 1990

COMPLETE SPECIFICATION

STANDARD PATENT

APPLICANT: **KONAMI CORPORATION**

Invention Title: **GAME MACHINE, SLOT MACHINE, AND GAME PROGRAM**

The following statement is a full description of this invention, including the best method of performing it known to me:

GAME MACHINE, SLOT MACHINE, AND GAME PROGRAM

TECHNICAL FIELD OF THE INVENTION

The present invention relates to a game machine and a game program displaying,
5 before a bonus game starts, the possible payout value that can be awarded to a player as
payout in the bonus game.

BACKGROUND OF THE INVENTION

Any discussion of the prior art throughout the specification should in no way be
10 considered as an admission that such prior art is widely known or forms part of common
general knowledge in the field.

Conventional game machines provide, in addition to normal games, bonus games
that are more likely to be advantageous to a player as compared to normal games. In
addition to providing an attractive game, bonus games provide differences from normal
15 games such as increased win rates and higher payouts for wins. As a result, the player
generally experiences a high degree of anticipation for bonus games.

Another conventional game machine displays a number or a multiplication factor
in a symbol display region. The number or multiplication factor serves as a wild
symbol, and the number is added to or the multiplication factor is multiplied to the
20 payout which corresponds to the symbols lined up on a win line.

A conventional game machine is disclosed in Japanese Utility-Model Laid-Open
Publication Number Hei 520383, for example.

However, game machines are not known that indicate the payout value that can be
obtained by the player in a bonus game. In particular, there are no game machines that
25 indicate the payout values that the player can obtain in a bonus game based on the total
bet count. Thus, a player's curiosity can be increased further by displaying, before a
bonus game, the payout value that can be obtained by the player in the bonus game.

SUMMARY OF THE INVENTION

30 It is an object of the present invention to overcome or ameliorate at least one of the
disadvantages of the prior art, or to provide a useful alternative.

To this end, a first aspect of the present invention provides a game machine
comprising:

a display module that, at a start of a game comprising a normal game and a bonus game having a high probability of being advantageous to a player, provides a changing display of symbols initially in a static state in a plurality of display regions, said symbols being capable of changing continuously to other symbols in said changing display;

5 said display module providing a static display stopping said symbols in said changing display and statically displaying said symbols in said display regions, said symbols that are displayed statically optionally comprising at least one bonus symbol when said game is in said normal game;

10 an evaluation module that determines, when said game is in said normal game, whether said at least one statically displayed bonus symbol meets a condition for starting said bonus game;

wherein when said condition is met, said display module displays a possible payout value that can be awarded to the player as payout for said bonus game before said bonus game starts.

15 A second aspect of the present invention provides a slot machine for performing a game comprising a normal game and a bonus game having a high probability of being advantageous to a player, said slot machine comprising:

20 a display module that, at a start of said game, provides a changing display of symbols initially in a static state in a plurality of display regions, said symbols being capable of changing continuously to other symbols in said changing display;

 said display module providing a static display stopping said symbols in said changing display and statically displaying said symbols in said display regions, said symbols that are displayed statically optionally comprising at least one bonus symbol when said game is in said normal game;

25 an evaluation module that determines, when said game is in said normal game, whether said at least one said statically displayed bonus symbol meets a condition for starting said bonus game;

30 wherein when said condition is met, said display module displays a possible payout value that can be awarded to the player as payout for said bonus game before said bonus game starts;

 said display module displays said possible payout value that can be awarded to the player and also displays said bonus symbol in said display region that displayed said statically displayed bonus symbol; and

said possible payout value displayed along with said statically displayed bonus symbol corresponds to a number of win lines selected ahead of time by the player.

A third aspect of the present invention provides a computer-readable medium encoded with processing instructions for implementing a method for providing a game, said method comprising the steps of:

displaying a symbol in a static state in each of a plurality of display regions in a display module;

providing, at a start of said game comprising a normal game and a bonus game having a high probability of being advantageous to a player, a changing display of said symbols that were in said static state in said display regions, said symbols changing continuously to various symbols in said changing display;

providing a static display stopping said symbols in said changing display state and statically displaying said symbols in said display regions, said statically displayed symbols optionally comprising at least one statically displayed bonus symbol when said game is in said normal game;

evaluating, when said game is in said normal game, whether said at least one statically displayed bonus symbol meets a condition for starting said bonus game;

calculating a possible payout value that can be awarded to the player as payout for said bonus game before said bonus game starts when said condition is met as a result of said evaluation; and

displaying results of said calculation on said display module before said bonus game begins.

A fourth aspect of the invention provides a method for providing a game, said method comprising the steps of:

displaying symbols in a static state in a plurality of display regions;

continuously changing said symbols that were in a static state to various symbols at a start of said game comprising a normal game and a bonus game having a high probability of being advantageous to a player;

displaying a changing display of said changing symbols in said display regions;

stopping said symbols in said changing display;

displaying a static display statically displaying said symbols in said display regions, said statically displayed symbols optionally comprising at least one statically displayed bonus symbol when said game is in said normal game;

determining, when said game is in said normal game, whether said at least one statically displayed bonus symbol meets a condition for starting said bonus game; and

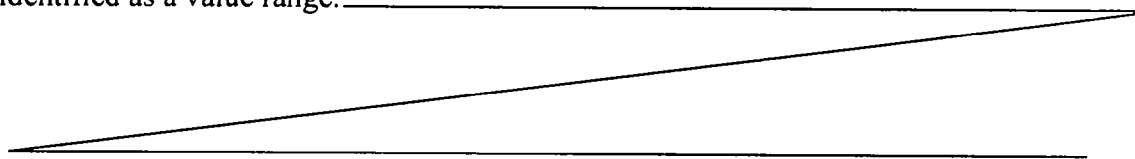
displaying, when said condition is met, a possible payout value that can be awarded to the player as payout for said bonus game before said bonus game starts.

5 Advantageously, in at least a preferred embodiment, the present invention increases the player's curiosity by displaying, before a bonus game, the payout value that can be obtained in the bonus game by the player.

10 In order to achieve the object described above, a game machine of the present invention provides a normal game and a bonus game having a high probability of being advantageous to a player. The game machine includes: a display module that, at a start of a game, provides a changing display of symbols that were in a static state in a plurality of display regions, the symbols are capable of changing continuously to other or various symbols, including a bonus symbol, and that provides a static display in which the symbols in the changing display state are stopped and are statically displayed
15 in the display regions; and an evaluation module that determines, if a game state is the normal game state, whether or not at least one of the bonus symbols that is or will be displayed statically meets conditions for starting the bonus game. If the condition is met, the display module displays the possible payout value that can be awarded to the player as payout for the bonus game before the bonus game starts.

20 Thus, when it is determined that the above condition is met, a display is provided before the bonus game of a possible payout value that can be awarded to the player as the bonus game payout. Thus, the player knows ahead of time the payout value that can be obtained in the bonus game. As a result, the player's anticipation and curiosity regarding the bonus game is increased, and this heightens the player's interest in the
25 game.

According to another aspect, in a game machine according to the present invention, the possible value for the payout value to be awarded to the player is identified as a value range. _____



Since the possible payout value that can be obtained is indicated as a value range, the player knows ahead of time the payout value that can be obtained in the bonus game. A payout range is a numerical range defined by a lower limit and an upper limit, e.g., "30 - 100". As a result, the player's anticipation and curiosity regarding the bonus game is increased, and the player's interest in the game is heightened.

According to another aspect, in a game machine according to the present invention, the possible value for the payout value to be awarded to the player is identified as a plurality of independent values.

Since the possible payout values that can be obtained are indicated as multiple independent values, the player knows the payout values that can be obtained in the bonus game ahead of time. Multiple, independent values are independent numerical values unrelated to each other, e.g., "30", "50", and "100". As a result, the player's anticipation and curiosity regarding the bonus game are increased, and the player's curiosity regarding the game is heightened.

According to another aspect, in a game machine according to the present invention, the possible value for the payout value is defined as a value expressed using an addition or multiplication operator.

Since the possible payout value that can be obtained is defined as a value notation using the addition or multiplication operator, the player is able to easily predict the size of the payout value that can be obtained in the bonus game. As a result, the player's anticipation and curiosity regarding the bonus game is increased, and the player's curiosity regarding the game is heightened.

According to another aspect, in a game machine according to the present invention, the display module displays the possible value for the payout value to be awarded to the player and also displays the bonus symbol in the display region at which the bonus symbol was displayed.

Since the possible payout value that can be obtained is displayed along the with the bonus symbols in the display regions displaying the bonus symbol, the player can directly see the size of the payout value that can be obtained in the bonus game. As a result, the player's anticipation and curiosity regarding the bonus game are increased, and the player's curiosity regarding the game is
5 heightened.

According to another aspect, in a game machine according to the present invention, the possible value for the payout value displayed along with the bonus symbol is changed according to a number of bets made by the player.

Thus, the payout value that can be obtained that is displayed along with each bonus symbol
10 changes according to the player's bet count. For example, if the bet count increases by a multiplication factor of 2 or 3, the possible payout values are correspondingly doubled or tripled. The higher the bet count is, the greater the payout from the bonus game, thereby making the player tend to set a higher bet count. As a result, the player's anticipation and curiosity regarding the bonus game is increased, and the player's curiosity regarding the game is heightened.

15 According to another aspect, a slot machine according to the present invention includes a game machine as described above wherein the possible value for the payout value displayed along with the bonus symbol corresponds to a number of win lines selected ahead of time by the player.

Thus, the possible payout value displayed along with each bonus symbol corresponds to the number of win lines selected ahead of time by the player. For example, if the number of win lines
20 selected ahead of time by the player is doubled or tripled, the possible payout values are correspondingly doubled or tripled. Since the higher the number of win lines selected by the player ahead of time, the larger the possible payout value in the bonus game. Therefore, the player tends to select a larger number of win lines. As a result, the player's anticipation and

curiosity regarding the bonus game is increased, thus heightening the player's interest in the game.

According to another aspect, a game program according to the present invention is a computer-executable game program providing a normal game and a bonus game having a high probability of being advantageous to a player. A computer-readable medium encoded with processing instructions can implement a method for providing the computer-executable game program. The game program includes: an operation for displaying a symbol in each of a plurality of display regions in a game display module; an operation for providing, at a start of a game, a changing display of symbols that were in a static state in a plurality of display regions, the symbols are capable of changing continuously to other or various symbols, including a bonus symbol, and for providing a static display stopping the symbols in the changing display state and statically displaying the symbols in the display regions; an operation for evaluating, if a game state is in the normal game state, whether or not at least one of the bonus symbols that is or will be displayed statically meets conditions for starting the bonus game; an operation for calculating a possible payout value that can be awarded to the player as payout for the bonus game before the bonus game starts if the condition is met as a result of the evaluation; and an operation for displaying results of the calculation on the game machine display module before the bonus game is begun.

Thus, when it is determined that the above condition is met, a display is provided before the bonus game of a possible payout value that can be awarded to the player as the bonus game payout. Thus, the player knows ahead of time the payout value that can be obtained in the bonus game. As a result, the player's anticipation and curiosity regarding the bonus game is increased, and this heightens the player's interest in the game.

BRIEF DESCRIPTION OF THE DRAWINGS

A preferred embodiment of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

5 Fig. 1 is a perspective drawing showing the exterior of a game machine according to an embodiment of the present invention;

Figs. 2A and 2B are block diagrams showing the electronic architecture of a game machine according to the embodiment of Fig.1;

Fig. 3 is a flowchart showing the operations performed by a game machine according to the embodiment of Fig. 1;

10 Fig. 4 is a flowchart showing the operations performed by a game machine according to the embodiment of Fig. 1;

Fig. 5 is a drawing showing a sample display of a symbol display module;

Fig. 6 is a drawing showing a sample display of a symbol display module;

Fig. 7 is a drawing showing a sample display of a symbol display module;

15 Fig. 8 is a drawing showing a sample display of a symbol display module;

Fig. 9 is a flowchart showing the operations performed by a game machine according to another embodiment of the present invention;

Fig. 10 is a flowchart showing the operations performed by a game machine according to the embodiment of Fig. 9;

20 Fig. 11 is a flowchart showing the operations performed by a game machine according to the embodiment of Fig. 9;

Fig. 12 is a drawing showing a sample display of a symbol display module;

Fig. 13 is a drawing showing a sample display of a symbol display module; and

Fig. 14 is a drawing showing a sample display of a symbol display module;

LIST OF DESIGNATORS

1: game machine; 7: symbol display module; 30: CPU; 31: ROM; 32: RAM; 81 - 83: bonus symbol; 100 - 102: bonus symbol

5 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

EMBODIMENT OF FIGS. 1 - 4

A game machine according to an embodiment of the present invention provides a normal game and a bonus game that is more likely to be advantageous to the player compared to the normal game. When the game machine is in the normal game state, the condition for starting a
10 bonus game is met when at least one bonus symbol is statically displayed in a display module. When it is determined that this condition is met, the possible payout that can be awarded to the player as the bonus game payout is displayed before the start of the bonus game.

In this embodiment, an example of the condition needed for starting a bonus game is for three mole nest symbols to be displayed in the display module, which has five reels. As shown in
15 Fig. 6, when a first reel 71 through fifth reel 75 have stopped and three mole nest symbols 81 - 83 appear, the next game will be a bonus game. If the results are determined ahead of time by random selection, it is known before the reels actually stop whether or not the above condition is met.

In this embodiment, as shown in Fig. 6, the possible payout values that the player can be
20 awarded as a bonus game payout are displayed on each of the mole nest symbols. In Fig. 6, the mole nest symbol 81 displays "30", the mole nest symbol 82 displays "50" and the mole nest symbol 83 displays "100". These payout values signify that 30, 50, or 100 coins can be obtained. As a result, the player is able to know ahead of time the possible payout value that can be obtained

in the bonus game.

The present invention can be implemented for any device (e.g., a device that provides a game) that can display symbols. This embodiment presents a game machine that provides a changing display in the vertical (horizontal is also possible) display of multiple types of symbols and provides a static display of the changing symbols based on the results of an internal random selection. For the section of the game machine that displays the symbols in a changing manner, a mechanical reel can be used. Alternatively, video reels can be used, where symbols are displayed in a changing manner as images on a liquid crystal display or the like. In addition to game machines, e.g., slot machines installed in pachinko parlors, where a player actively operates a stop button to determine a stopping timing and a stopping sequence for the reels, the present invention can also be implemented for game machines, e.g., in pachinko machines and slot machines in casinos, where the reels automatically stop in sequence regardless of the player's intentions. This embodiment presents an example in which the present invention is implemented for a video slot machine.

In this embodiment, coins are used as examples of game prizes, but the present invention is not restricted to this and any medium, e.g., pachinko balls, that can provide game value can be used. The present invention can be implemented for any game machine which provides both normal games and bonus games. The present invention can be implemented on any game machine, e.g., a game machine providing card games, as long as there are both normal games and bonus games.

In Fig. 1, a game machine 1 includes a case 2 and a front panel 3 attached to the front of the case 2 so that it can open and close. A symbol display module 7, disposed behind the front panel 3, is formed from a liquid crystal panel or a CRT (Cathode-Ray Tube) and displays columns

of symbols, e.g., five columns. This embodiment uses video reels. A program is executed and five reels are displayed in the symbol display module 7.

As shown in Fig. 5 through Fig. 7, the symbol display module 7 includes five reels that display symbols in a changing and static manner in columns (vertically, with respect to the game machine). More specifically, there is a first reel 71, a second reel 72, a third reel 73, a fourth reel 74, and a fifth reel 75. Symbols can be changingly and statically displayed on each reel.

The symbol display module 7 contains bonus symbols rendering mole nests, wild symbols, and various other symbols. As described above, multiple types of symbols are changingly displayed vertically, and then the changing symbols are statically displayed based on internal random selection results.

On the front of the case 2, there is disposed a coin deposit opening 10 and a coin return button 10a for getting coins back when a deposited coin is stuck or the like. A start lever 11 is a lever for starting the spinning display (changing display) on the symbol display module 7.

The game on the game machine 1 is started when the player performs a bet operation and a valid win line is established. A win line is a line where a win is established when a predetermined combination of symbols is arranged on the line. Different types of win line settings are possible, e.g., a horizontal center line, upper and lower horizontal lines, and diagonal lines. A bet operation takes place when a coin is dropped into the coin deposit opening 10, described later, or when a stored coin deposit button 21 is used to bet a stored coin. A bet operation is also possible by combining these bet operations.

As described above, the win line can be set up ahead of time at the start of a game. Alternatively, wins can be established based on a predetermined arrangement of symbols. For example, in this embodiment, a bonus game is won if three bonus symbols are displayed in any

three regions in the symbol display module 7. When wins can be established in this manner based on a predetermined symbol arrangement unrelated to the win line, wins can be established with a greater degree of freedom compared to when a win line is set up ahead of time in a fixed manner. This also increases the player's anticipation.

5 When a win line is set up by a player's bet operation and the start lever 11 is operated, the symbol display module 7 displays symbols in a changing manner. Then, when a predetermined period of time has elapsed, the symbol display module 7 sequentially displays the changingly displayed symbols in a static manner. The stopping sequence can be, for example, from left to right when facing the symbol display module 7. When stopping, the stopping operations are
10 separated by a time interval, e.g., 0.5 seconds. If, in this stopped state, a predetermined symbol combination is displayed on a win line, a win corresponding to the predetermined symbol combination is obtained.

A coin deposit opening 15 and a coin holding tray 16 are disposed below the front panel 3. Above the front panel 3 is disposed a game effects display 17, which is driven to provide game
15 effects. The game effects display 17 can be formed from an LCD (Liquid Crystal Device), various types of lamps, or the like. In this embodiment, an LCD is used. Also, a bonus game display 18 is disposed above the front panel 3. The bonus game display 18 is formed from LED's (Light Emitting Diodes) and is used when the player is awarded a win or a bonus that gives the player a high game value, as well as for game effects and when an error takes place. A speaker 19
20 generates voice instructions, music, sound effects, and the like. When a bonus is won, the game proceeds in a manner that is advantageous to the player, e.g., the win rate becomes 1/3.

Multiple lamps 20 disposed on the front panel 3 can be lit up, turned off, and made to blink in order to provide game-related display operations, e.g., displaying the active win lines based on

the number of deposited coins (or the number of credits that were bet), displaying wins, and the like. The stored coin deposit button 21 is a button for using a predetermined number of coins stored (credited) in a coin storage device not shown in the figure. A stored coin deposit button 22 is a button for using the maximum allowable number of coins stored in the coin storage device not shown in the figure. A coin storage count display module 23 displays the number of coins stored in a the coin storage display, not shown in the figure. A win count display module 24 displays the number of remaining rounds, the number of wins, and the like when a bonus prize is won. A coin payout count display module 25 displays the number of coins paid out and the like. The coin storage count display module 23, the win count display module 24, and the coin payout count display module 25 can be formed, for example, from LED's. An accounts button 26 is for settling accounts with regard to the stored coins. A locking device 27 locks or unlocks a door depending on the direction in which it is turned. A label 28 indicates the type of the game machine 1, the name of the manufacturer, or the like.

Figs. 2A and 2B are drawings showing the electronic architecture of the game machine according to this embodiment. As shown in Figs. 2A and 2B, electronically, the game machine 1 is formed from a main substrate A (Fig. 2A) and a sub-substrate B (Fig. 2B). The main substrate A is equipped with a CPU 30, a ROM 31, and a RAM 32 and performs control operations according to a program set up ahead of time. The ROM 31 contains a control program for controlling the operations of the game machine 1 as well as information such as a prize group selection table used to determine prize groups ahead of time (internal random selection). The CPU 30, the ROM 31, and the RAM 32 form an evaluation module.

The CPU 30 is connected to a clock generator circuit 33 generating a reference clock pulse and a random number generator circuit 34 generating a fixed random number. Control signals sent

from the CPU 30 are sent by way of an output port 35 to a coin payout device 36 paying out coins and a display control circuit 37 controlling the symbol display module 7. The symbol display module 7 and the display control circuit 37 form a display module.

5 Signals from a coin evaluation device 38 evaluating whether or not coins are appropriate, a payout coin counter 40 counting the number of coins to pay out, and a start lever 41 starting the spinning of the reels are received by the CPU 30 by way of an input port 43. Signals output from the CPU 30 are controlled by a transmission timing control circuit 45 controlling the timing of signal transmission to the sub-substrate B and are sent to the sub-substrate B by way of a data transmission circuit 46.

10 In the sub-substrate B, signals output from the data transmission circuit 46 are received by a data input circuit 47. Signals received by the data input circuit 47 are processed by a CPU 48. The CPU 48 is connected to a clock generator circuit 49 generating a reference clock pulse, a control/image ROM 50 containing various programs and image data, and a RAM 51. Image-related data is sent from the CPU 48 to a liquid crystal display 53 by way of a display circuit 52
15 performing image processing. The liquid crystal display 53 displays text, images, and animation. Audio-related data is sent from the CPU 48 to an amplifier circuit 56 by way of a sound LSI (Large Scale Integrated Circuit) 54 performing audio processing. The sound LSI 54 extracts necessary audio data from an audio ROM 55 when processing audio data. The audio data is amplified by the amplifier circuit 56 and is sent to a speaker 58 by way of an audio adjustment
20 circuit 57 performing audio adjustments.

Next, the operations performed by this embodiment described above will be described. Fig. 3 and Fig. 4 are flowcharts showing the characteristic operations performed by a game machine according to this embodiment. Also, Fig. 5 through Fig. 7 show sample displays on the

symbol display module 7.

First, there is a normal game start operation in the form of player input (step S1). In this case, as described above, the win line is established by the player's bet operation, and the start lever 11 is then operated. In this embodiment, as described above, wins can be established not only with a win line set up ahead of time at the start of a game but also based on the arrangement of bonus symbols. Since a win can be established based on the arrangement of bonus symbols in this manner, there is a greater degree of freedom in wins compared to when wins can only be established with a win line set up ahead of time. As a result, the player's anticipation is increased.

Next, random values are obtained to be used for stopping numbers of the first reel 71 through the fifth reel 75 (step S2), and the first reel 71 through the fifth reel 75 begin spinning (step S3). At this point, the symbol display module 7 is as shown in Fig. 5, where symbols appear to be spinning and changing in the display regions of the reels. The direction in which the reels spin can be, for example, from top to bottom or from bottom to top. Also, the spinning does not need to be along the vertical direction. It is possible for the reels to be arranged horizontally so that they spin from left to right or from right to left.

Next, the spinning of the first reel 71 through the fifth reel 75 is stopped sequentially (step S4). In this case, stopping takes place in sequence from the first reel 71 to the fifth reel 75, separated by predetermined intervals. The intervals can be, for example, 0.5 seconds. Next, an evaluation is made to see if there is a normal game win as well as whether there are three mole nest symbols in the symbol display module 7 (step S5). If three mole nest symbols did not appear, control proceeds to step S14.

As shown in Fig. 6, if three mole nest symbols 81 - 83 appear in the symbol display module 7, the game changes from a normal game to a bonus game (step S6). In this case, the

values displayed along with the three mole nest symbols appearing in the symbol display module 7 are carried over to the bonus game (step S7). More specifically, the values displayed along with the three mole nest symbols indicate the possible payout value that can be obtained by the player in the subsequent bonus game. Since the payout value that can be obtained is displayed along with the bonus symbol, the player is able to directly see the size of the payout value that can be obtained in the bonus game.

In this embodiment, the possible payout values that can be awarded to the player are indicated as multiple, independent values. More specifically, the symbol 81 indicates "30", the symbol 82 indicates "50", and the symbol 83 indicates "100". Since the possible payout values are indicated as multiple, independent values, the player knows ahead of time the possible payout values that can be obtained in the bonus game. In addition to using multiple independent values to indicate possible payout values, it would also be possible to indicate possible payout value ranges, e.g., "30 - 100", on the mole nest symbols.

Next, player performs a bonus game starting operation (step S8). The player performs a bet operation again, and the numbers rendered along with the images of mole nests in the mole nest symbols change corresponding to the number of bets. More specifically, in Fig. 6, the symbol 81 displays "30", the symbol 82 displays "50", and the symbol 83 displays "100", but if the player triples the number of bets, the symbol 81 correspondingly changes to "90", the symbol 82 changes to "150", and the symbol 83 changes to "300", as shown in Fig. 7.

In this manner, the bonus game payout value increases when the number of bets is higher. This makes the player increase the number of bets. As a result, the player's anticipation and curiosity regarding the bonus game is heightened. It is also possible to have the possible payout values displayed along with the bonus symbols change corresponding to the number of win lines

selected ahead of time by the player. More specifically, in Fig. 6, the symbol 81 displays "30", the symbol 82 displays "50", and the symbol 83 displays "100", but if the number of win lines selected ahead of time by the player is tripled, the symbol 81 can be changed correspondingly to "90", the symbol 82 can be changed to "150", and the symbol 83 can be changed to "300", as shown in Fig. 7. Since bonus game payouts increase when there are more win lines selected by the player ahead of time, the player tends to set up more win lines. As a result, the player's anticipation and curiosity regarding the bonus game is increased. As a result, the player is more interested in the game.

A bonus game is started in response to the bonus game starting operation at step S8, and a random value is obtained for the bonus game (step S9). The symbol display module 7 displays a bonus game screen, as shown in Fig. 8. In this example, an animation is displayed in which a mole character 85 passes through one of underground tunnels 86 - 88 and reaches a goal 89 - 91 on which payout values are displayed. More specifically, the mole character 85 begins burrowing in one of the underground tunnels 86 - 88 (step S10). The intermediate sections of the tunnels 86 - 88 appears as a black box so that the player cannot know what is happening in the intermediate sections of the tunnels 86 - 88.

When the mole character 85 reaches one of the goals 89 - 91 (step S11), the payout value to be obtained by the player is established. More specifically, the player obtains a payout that is either "90", "150", or "300". The bonus game payout is then displayed (step S12), and the game changes from the bonus game to the normal game (step S13). Next, if there is a WIN in Fig. 3, this is added directly to the credits (step S14), and control returns to the calling routine.

With a game machine according to this embodiment as described above, payout values that can be obtained by the player in a bonus game are displayed before the bonus game starts. As a

result, the player's anticipation regarding the bonus game can be increased.

EMBODIMENT OF FIGS. 9-11

Next, a game machine according to another embodiment will be described with reference to
5 Figs. 9-11. The structure of a game machine of this embodiment is similar to that of the
embodiment of Figs. 1-4. In the embodiment of Figs. 9-11, the bonus symbol is a symbol showing
a hammer. A bonus game is started when, as shown in Fig. 12, three hammer bonus symbols are
statically displayed in the symbol display module 7. The hammer symbols are shown with
different colors. In this example, there are two types of hammer symbols: a gold hammer symbol
10 100 and red hammer symbols 101, 102. The gold hammer symbol 100 doubles the payout value
obtained by the player. With the red hammer symbols 101, 102 the payout value is multiplied by
1, i.e., the red hammer symbols do not change the payout value. The display of the gold and red
hammer symbols in the symbol display module 7 is determined by internal random selection.
Thus, there may be cases where three gold hammer symbols are displayed, and there may be cases
15 where three red hammer symbols are displayed.

Next, the operations performed by the game machine according to this embodiment will be
described. Fig. 9 through Fig. 11 are flowcharts showing the characteristic operations performed
by the game machine according to this embodiment. Fig. 12 through Fig. 14 show sample displays
on the symbol display module 7.

20 In Fig. 9, a normal game starting operation is performed in response to player input (step
T1). In this case, a win line is established by the player's bet operation, and then the start lever 11
is operated. In this embodiment, as in the embodiment of Figs. 1-4, wins can be established based
on arrangements of bonus symbols in addition to win lines set up when the game starts. Since a

win can be established based on the arrangement of bonus symbols, there is a greater degree of freedom in how wins can be achieved compared with when wins are achieved only through win lines set up ahead of time. This also increases the player's anticipation.

Next, a random value is obtained to be used for stopping numbers in the first reel 71 through the fifth reel 75 (step T2), and spinning is begun for the first reel 71 through the fifth reel 75 (step T3). At this point, the symbol display module 7 provides a display of symbols spinning and changing in the display regions of the reels, as shown in Fig. 5. In this example, spinning takes place from top to bottom, but it would also be possible for spinning to be from bottom to top. Also, spinning does not have to be vertical. The reels can be disposed horizontally so that they spin from left to right or right to left.

Next, the spinning of the first reel 71 through the fifth reel 75 is stopped sequentially (step T4). In this case, the stopping takes place sequentially going from the first reel 71 to the fifth reel 75, separated by a predetermined time interval. The time interval can be, for example, 0.5 seconds. Next, an evaluation is performed to see if there is a normal game win or if there are three hammer bonus symbols (step T5). If three hammer symbols are not present, control proceeds to step T20.

If there are three hammer symbols, the game changes from the normal game to a bonus game as shown in Fig. 10 (step T6). The combination of three hammers is carried over to the bonus game (step T7). In Fig. 12, there a single gold hammer symbol 100 and two red hammer symbols 101, 102, thus providing three hammer symbols.

When a bonus game is started, the symbol display module 7 displays a screen similar to Fig. 13. In Fig. 13, nine holes 105 - 113 are shown as mole tunnel exits appearing on the ground. The player selects the gold hammer symbol 100, and the red hammer symbols 101, 102 and sets up

each hammer over one of the holes 105 - 113. In Fig. 13, the gold hammer symbol 100 is set up over the hole 109 and the red hammer symbols 101, 102 are set up over the hole 108 and the hole 112, respectively.

In the game machine 1 according to this embodiment, the symbol display module 7 includes
5 a touch panel. The player touches the screen to select a hammer, and one of the holes 105 - 113 can be selected for the selected hammer. Alternatively, various methods can be used for the on-screen selection, e.g., a pointing device or a cursor.

Next, a random number is obtained for selecting the hole 105 - 113 from which the mole
character will appear, as shown in Fig. 11 (step T9). Then, the mole is made to emerge (step
10 T10). An evaluation is made to determine if the mole emerged from the hole 108 or the hole 112 where the red hammers are set up (step T11). If the mole did not emerge from the hole 108 or the hole 112 where the red hammers are set up, control proceeds to step T14.

If the mole emerges from a hole at which a red hammer is set up, an animation is played
showing the red hammer hitting the mole at the hole 112, as shown in Fig. 14 (step T12). Then,
15 the payout value is displayed (step T13). In Fig. 14, the payout value for the hole 112 is shown as "20". Next, an evaluation is made to determine if the mole emerged from the hole 109, where the gold hammer is set up (step T14). If the mole did not emerge from the hole 109, where the gold hammer is set up, control proceeds to step T17. If the mole appears from the hole 109, where the gold hammer is set up, an animation is shown at the hole 109 of Fig. 14 of the mole being hit with
20 the gold hammer (step T15). Since the gold hammer doubles the payout value, a display is provided showing the payout value for the hole 109 being doubled (step T16). In this case, the multiplication operator "x" is used, but it would also be possible to use the addition operator "+".
Since the possible payout values that can be obtained are defined as expressions using an addition

or multiplication operator, the player can easily predict the size of possible payout values from the bonus game.

In Fig. 14, the mole does not emerge from the hole 108, where a red hammer is set up, but a mole emerges from the hole 105, where no hammer is set up. In this case, the player cannot
5 obtain a payout.

Next, an evaluation is made to determine if all the moles have emerged (step T17). If all the moles have not emerged, control proceeds to step T9. If all the moles have emerged, the bonus game payout is displayed (step T18) and the game shifts from the bonus game to the normal game (step T19).

10 Next, if there is a WIN, the value is added to the credit, as shown in Fig. 9 (step T20), and the procedure returns.

As described above, with the game machine according to this embodiment, the gold hammer bonus symbol itself serves to double the payout value. Thus, if the gold hammer appears, the game shifts to the bonus game, and the gold hammer is able to hit a mole. the payout value is
15 doubled. As a result, the player's anticipation can be increased.

The characteristic operations of the present invention described above are performed by having a computer execute a control program. More specifically, this control program is a game program that allows a computer to execute and provide a normal game and a bonus game having a high probability of being more advantageous to the player compared to the normal game. The
20 game program provides the following operations in the form of computer-readable and computer-executable commands: an operation for displaying symbols in a plurality of display regions in a game machine display module; an operation for, at a start of a game, providing a changing display of the symbols that were in a static state in the plurality of display regions, the symbols are capable

of changing continuously to other or various symbols, including a bonus symbol, and for providing a static display stopping the symbols in the changing display state and statically displaying the symbols in the display regions; an operation for evaluating, if a game state is in the normal game state, whether or not at least one of the bonus symbols that is or will be displayed statically meets
5 conditions for starting the bonus game; an operation for calculating a possible payout value that can be awarded to a player as payout for the bonus game if, as a result of the evaluation, the condition is met; and an operation to display results of the calculation on the game display module before the bonus game is started.

As described above, when the above conditions are met, the possible payout value that can
10 be awarded to the player is displayed before the start of the bonus game, allowing the player to know ahead of time the payout value that can be obtained in the bonus game. As a result, the player's anticipation and curiosity regarding the bonus game is increased, thus provoking the player's interest in the game.

The program described above can be obtained in recorded form on a recording medium,
15 e.g., CD-ROM or DVD. This type of program can also be obtained by receiving a signal sent from a computer serving as a transmission device by way of a transmission medium such as a communication network formed from public telephone lines, dedicated phone lines, cable TV lines, and wireless communication lines. The signal referred to here is a computer data signal in the form of a predetermined carrier wave containing the program. Regarding this transmission, it is
20 sufficient for at least one section of the program to be transmitted through the transmission medium. More specifically, the entirety of the data for the above program does not need to be present simultaneously in the transmission medium. Also, transmission methods for transmitting the program from the computer include transmitting the data for the program continuously and

transmitting intermittently.

ADVANTAGES OF THE INVENTION

As described above, the game machine of the present invention is a game machine
5 providing a normal game and a bonus game providing a higher possibility of being more
advantageous than the normal game. A display module, at the start of a game, provides a changing
display of the symbols that were in a static state in the plurality of display regions, the symbols
being capable of changing continuously to other or various symbols, including a bonus symbol, and
provides a static display stopping the symbols in the changing display state and statically displaying
10 the symbols in the display regions. An evaluation module determines, if a game state is in the
normal game state, whether or not at least one of the bonus symbols that is or will be displayed
statically meets conditions for starting the bonus game. If the condition is met, the display module
displays the possible payout value that can be awarded to the player as payout for the bonus game
before the bonus game starts.

15 Since, as described above, when the above conditions are met, the possible payout value
that can be awarded to the player as the bonus game payout is displayed before the bonus game is
started. Thus, the player can know beforehand the payout value that can be obtained. As a result,
the player's anticipation and curiosity regarding the bonus game is increased, and the player's
curiosity about the game is provoked.

Throughout this specification and the claims which follow, unless the
context requires otherwise, the word "comprise", and variations such as
"comprises" and "comprising", will be understood to imply the inclusion of a
stated integer or step or group of integers or steps but not the exclusion of any
other integer or step or group of integers or steps.

The reference to any prior art in this specification is not, and should not be taken as, an acknowledgement or any form of suggestion that the prior art forms part of the common general knowledge in Australia.

We claim:

1 1. A game machine comprising:

2 a display module that, at a start of a game comprising a normal game and a bonus
3 game having a high probability of being advantageous to a player, provides a changing display of
4 symbols initially in a static state in a plurality of display regions, said symbols being capable of
5 changing continuously to other symbols in said changing display;

6 said display module providing a static display stopping said symbols in said
7 changing display and statically displaying said symbols in said display regions, said symbols that
8 are displayed statically optionally comprising at least one bonus symbol when said game is in said
9 normal game;

10 an evaluation module that determines, when said game is in said normal game,
11 whether said at least one statically displayed bonus symbol meets a condition for starting said
12 bonus game;

13 wherein when said condition is met, said display module displays a possible payout
14 value that can be awarded to the player as payout for said bonus game before said bonus game
15 starts.

1 2. The game machine, as described in claim 1, wherein said possible payout value that can
2 be awarded to the player is identified as a value range.

1 3. The game machine, as described in claim 1, wherein said possible payout value that can
2 be awarded to the player is identified as a plurality of independent values.

1 4. The game machine, as described in claim 1, wherein said possible payout value that can
2 be awarded to the player is defined as a value expressed using one of an addition and a
3 multiplication operator.

1 5. The game machine, as described in claim 1, wherein said display module displays said
2 possible payout value that can be awarded to the player in said display region that is displaying said
3 statically displayed bonus symbol.

1 6. The game machine, as described in claim 5, wherein said possible payout value
2 displayed along with said statically displayed bonus symbol is changed corresponding to a number
3 of bets made by the player.

1 7. A slot machine for performing a game comprising a normal game and a bonus game
2 having a high probability of being advantageous to a player, said slot machine comprising:
3 a display module that, at a start of said game, provides a changing display
4 of symbols initially in a static state in a plurality of display regions, said symbols being capable of
5 changing continuously to other symbols in said changing display;
6 said display module providing a static display stopping said symbols in said
7 changing display and statically displaying said symbols in said display regions, said symbols that
8 are displayed statically optionally comprising at least one bonus symbol when said game is in said
9 normal game;
10 an evaluation module that determines, when said game is in said normal
11 game, whether said at least one said statically displayed bonus symbol meets a condition for

12 starting said bonus game;

13 wherein when said condition is met, said display module displays a possible
14 payout value that can be awarded to the player as payout for said bonus game before said bonus
15 game starts;

16 said display module displays said possible payout value that can be awarded
17 to the player and also displays said bonus symbol in said display region that displayed said
18 statically displayed bonus symbol; and

19 said possible payout value displayed along with said statically displayed
20 bonus symbol corresponds to a number of win lines selected ahead of time by the player.

1 8. A computer-readable medium encoded with processing instructions for
2 implementing a method for providing a game, said method comprising the steps of:

3 displaying a symbol in a static state in each of a plurality of display regions in a
4 display module;

5 providing, at a start of said game comprising a normal game and a bonus game
6 having a high probability of being advantageous to a player, a changing display of said symbols
7 that were in said static state in said display regions, said symbols changing continuously to various
8 symbols in said changing display;

9 providing a static display stopping said symbols in said changing display state and
10 statically displaying said symbols in said display regions, said statically displayed symbols
11 optionally comprising at least one statically displayed bonus symbol when said game is in said
12 normal game;

13 evaluating, when said game is in said normal game, whether said at least one

14 statically displayed bonus symbol meets a condition for starting said bonus game;

15 calculating a possible payout value that can be awarded to the player as payout for
16 said bonus game before said bonus game starts when said condition is met as a result of said
17 evaluation; and

18 displaying results of said calculation on said display module before said bonus game
19 begins.

1 9. The game machine, as described in claim 1, wherein said evaluation module
2 determines, while said symbols are in said changing display and when said game is in said normal
3 game, whether said at least one statically displayed bonus symbol meets said condition.

1 10. The game machine, as described in claim 9, wherein said possible payout value that
2 can be awarded to the player is identified as a value range.

1 11. The game machine, as described in claim 9, wherein said possible payout value that
2 can be awarded to the player is identified as a plurality of independent values.

1 12. The game machine, as described in claim 9, wherein said possible payout value that
2 can be awarded to the player is defined as a value expressed using one of an addition and a
3 multiplication operator.

1 13. The game machine, as described in claim 9, wherein said display module displays said
2 possible payout value that can be awarded to the player in said display region that is displaying said

3 statically displayed bonus symbol.

1 14. The game machine, as described in claim 13, wherein said possible payout value
2 displayed along with said statically displayed bonus symbol is changed corresponding to a number
3 of bets made by the player.

1 15. The slot machine, as described in claim 7, wherein said evaluation module of said
2 game machine determines, while said symbols are in said changing display and when said game is
3 in said normal game, whether said at least one statically displayed bonus symbol meets said
4 condition.

1 16. The method, as described in claim 8, wherein said evaluation step occurs while said
2 symbols are in said changing display.

1 17. A method for providing a game, said method comprising the steps of:
2 displaying symbols in a static state in a plurality of display regions;
3 continuously changing said symbols that were in a static state to various symbols at
4 a start of said game comprising a normal game and a bonus game having a high probability of
5 being advantageous to a player;
6 displaying a changing display of said changing symbols in said display regions;
7 stopping said symbols in said changing display;
8 displaying a static display statically displaying said symbols in said display regions,
9 said statically displayed symbols optionally comprising at least one statically displayed bonus

10 symbol when said game is in said normal game;

11 determining, when said game is in said normal game, whether said at least one
12 statically displayed bonus symbol meets a condition for starting said bonus game; and

13 displaying, when said condition is met, a possible payout value that can be awarded
14 to the player as payout for said bonus game before said bonus game starts.

1 18. The method, as described in claim 17, wherein said determining step occurs while said
2 symbols are in said changing display.

1 19. The method, as described in claim 17, wherein said possible payout value that can be
2 awarded to the player is identified as a value range.

1 20. The method, as described in claim 18, wherein said possible payout value that can be
2 awarded to the player is identified as a value range.

1 21. The method, as described in claim 17, wherein said possible payout value that can be
2 awarded to the player is identified as a plurality of independent values.

1 22. The method, as described in claim 18, wherein said possible payout value that can be
2 awarded to the player is identified as a plurality of independent values.

1 23. The method, as described in claim 17, wherein said possible payout value that can be
2 awarded to the player is defined as a value expressed using one of an addition and a multiplication

3 operator.

1 24. The method, as described in claim 18, wherein said possible payout value that can be
2 awarded to the player is defined as a value expressed using one of an addition and a multiplication
3 operator.

1 25. The method, as described in claim 17, wherein said possible payout value to be
2 awarded to the player is displayed in said display region that is displaying said statically displayed
3 bonus symbol.

1 26. The method, as described in claim 18, wherein said possible payout value that can be
2 awarded to the player is displayed in said display region that is displaying said statically displayed
3 bonus symbol.

1 27. The method, as described in claim 25, further comprising the step of changing said
2 possible payout value displayed along with said statically displayed bonus symbol corresponding to
3 a number of bets made by the player.

1 28. The method, as described in claim 26, further comprising the step of changing said
2 possible payout value displayed along with said statically displayed bonus symbol corresponding to
3 a number of bets made by the player.

1 29. A game machine substantially as herein described.

1 30. A slot machine for performing a game substantially as herein described.

1 31. A computer-readable medium substantially as herein described.

1 32. A method for providing a game substantially as herein described.

FIG. 1

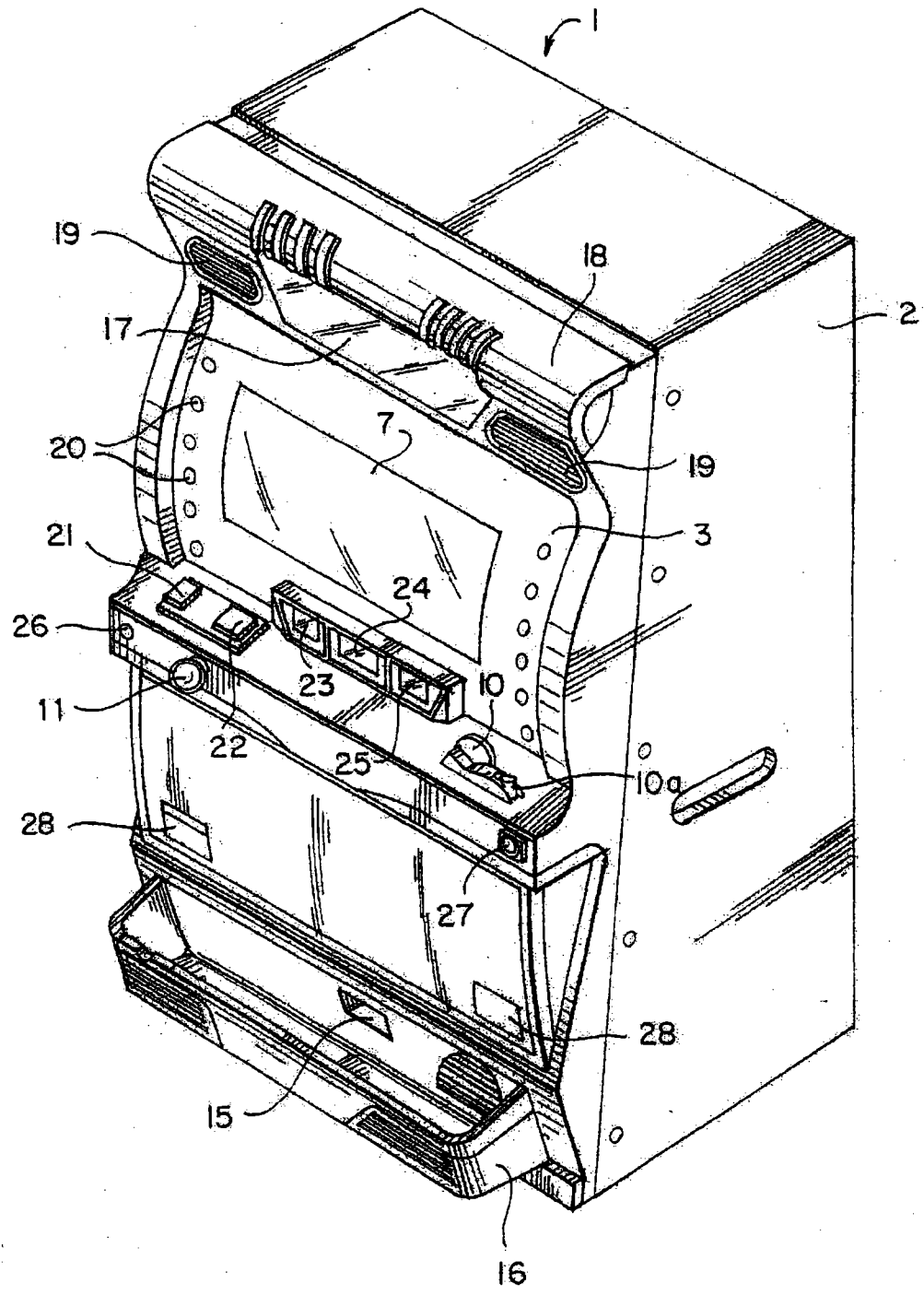


FIG. 2A

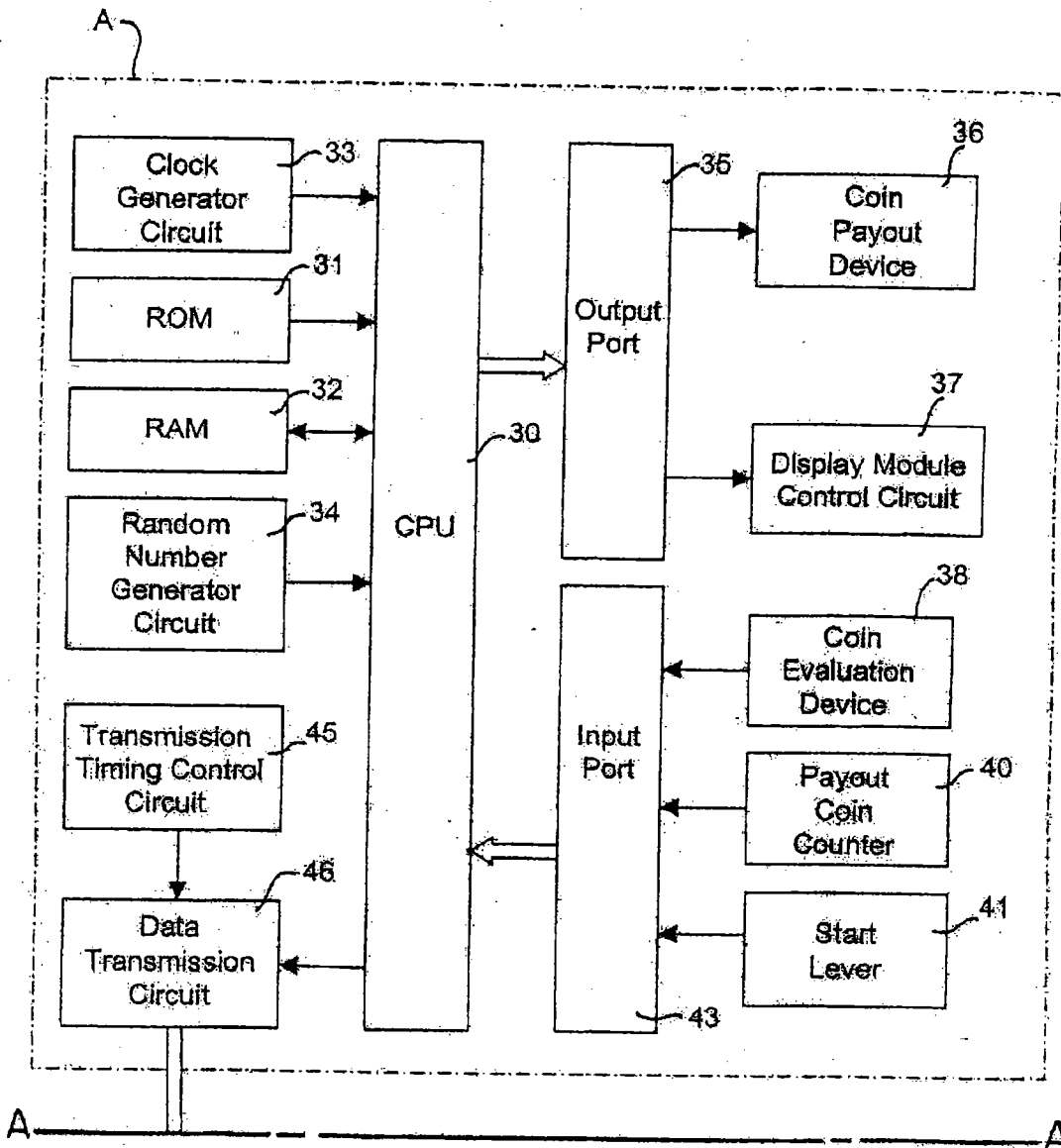


FIG. 2B

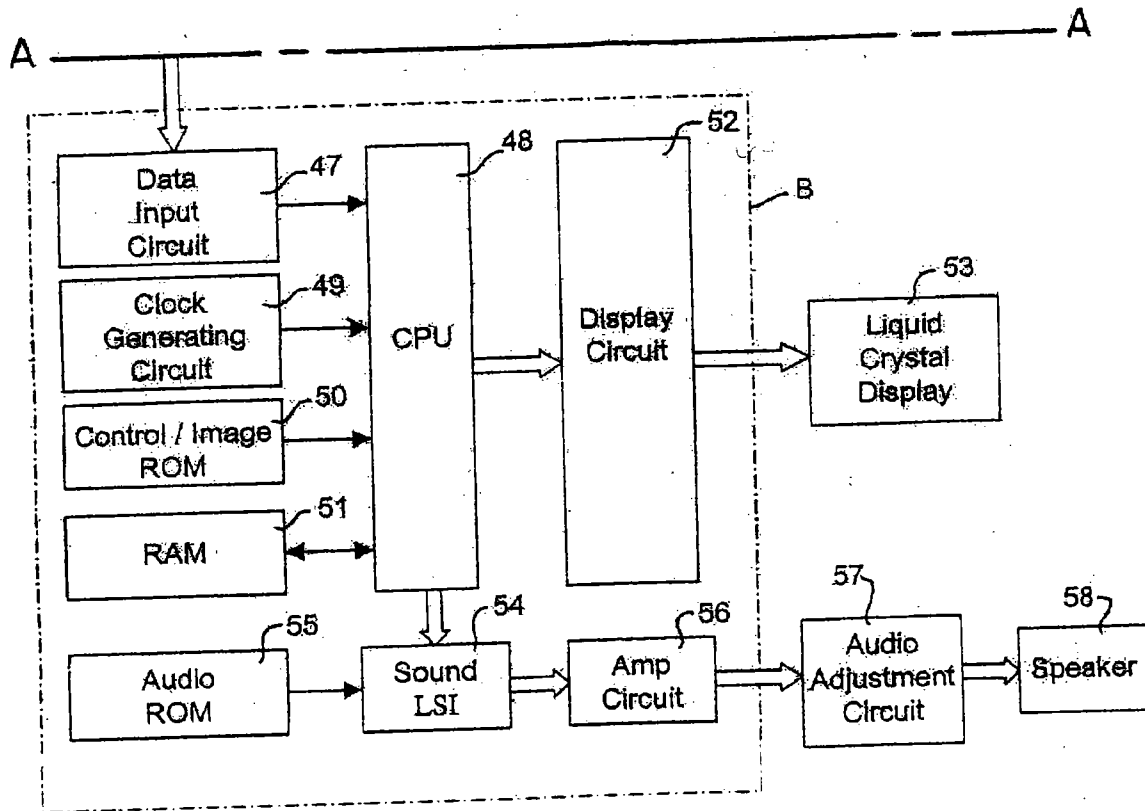


FIG. 3

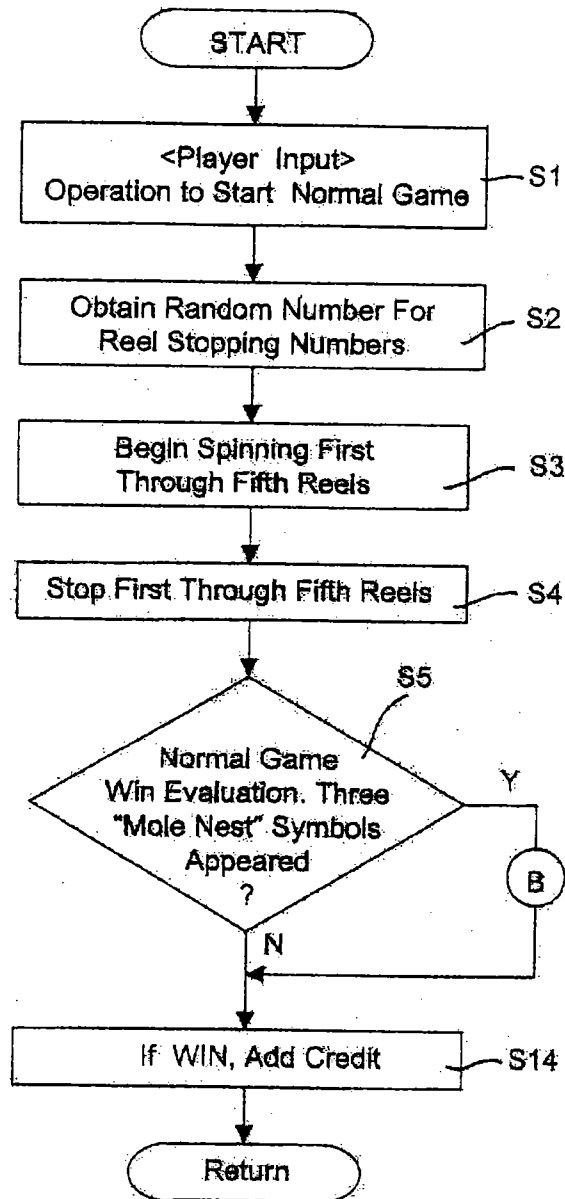


FIG. 4

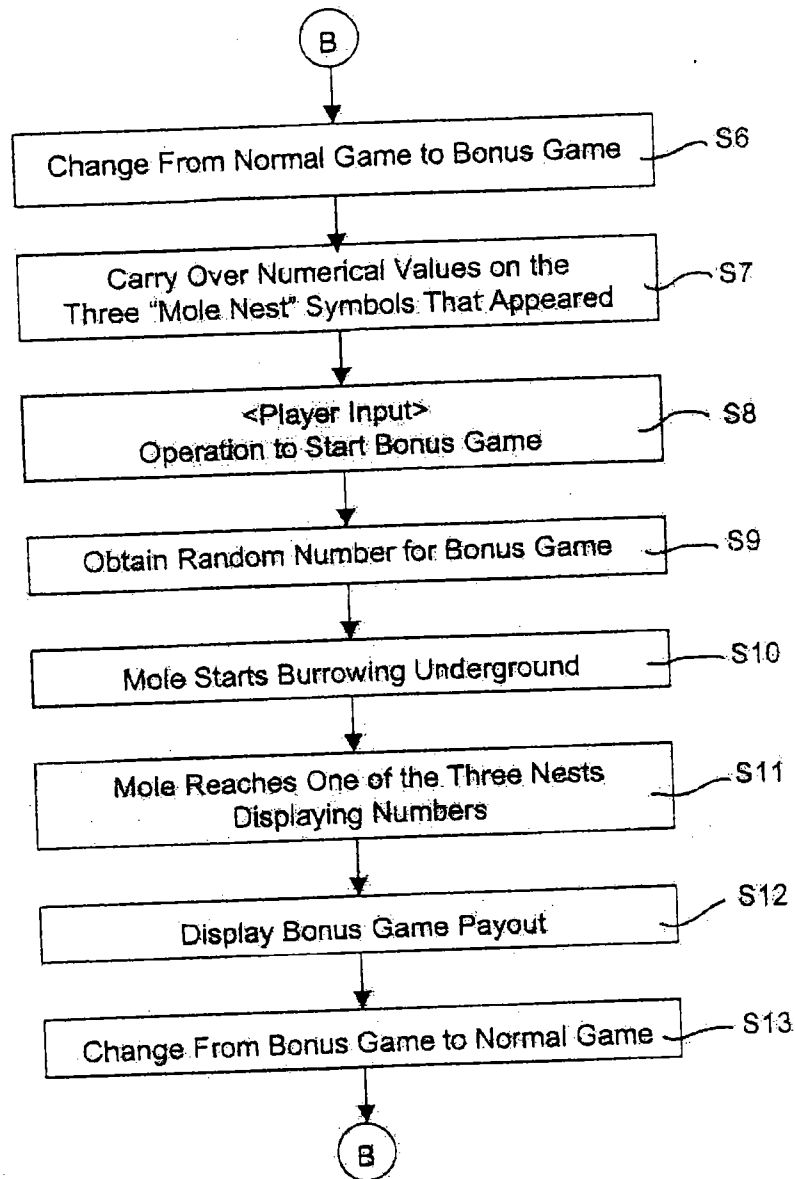


FIG. 5

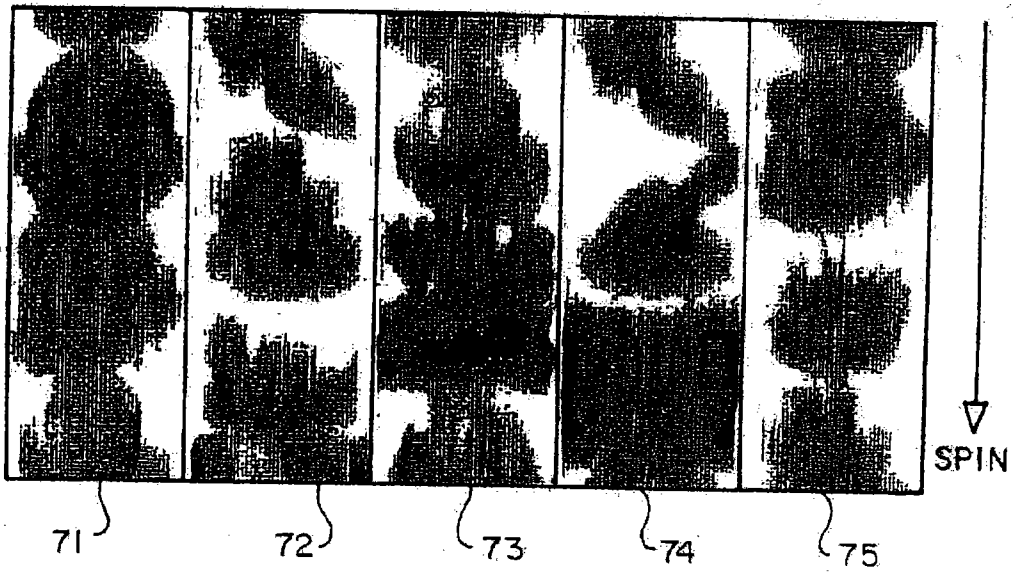


FIG. 6

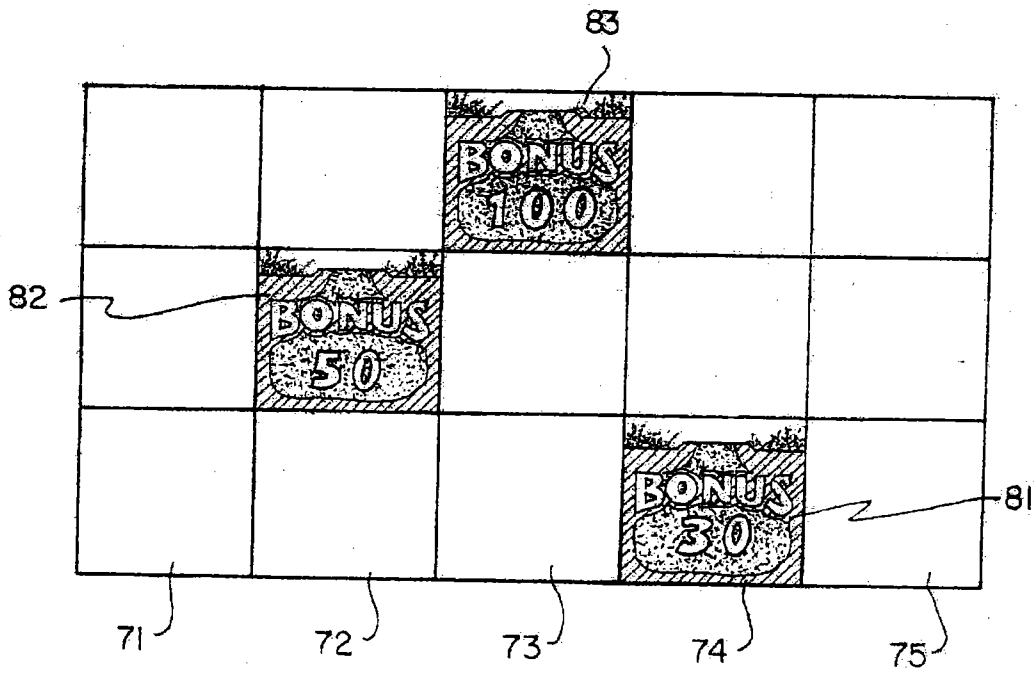


FIG. 7

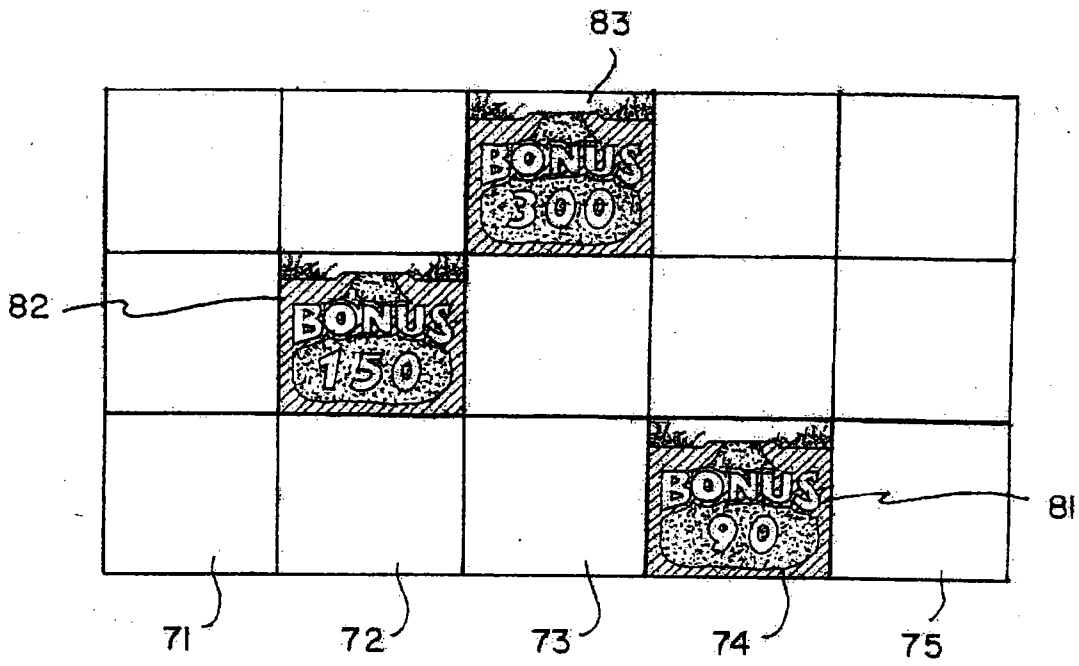


FIG. 12

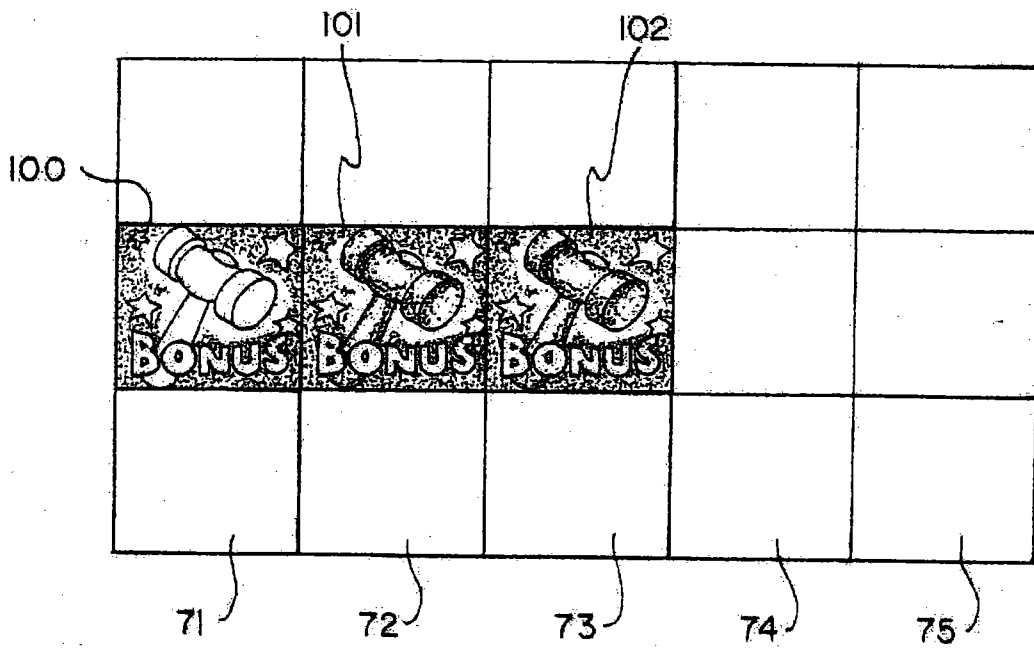


FIG. 8

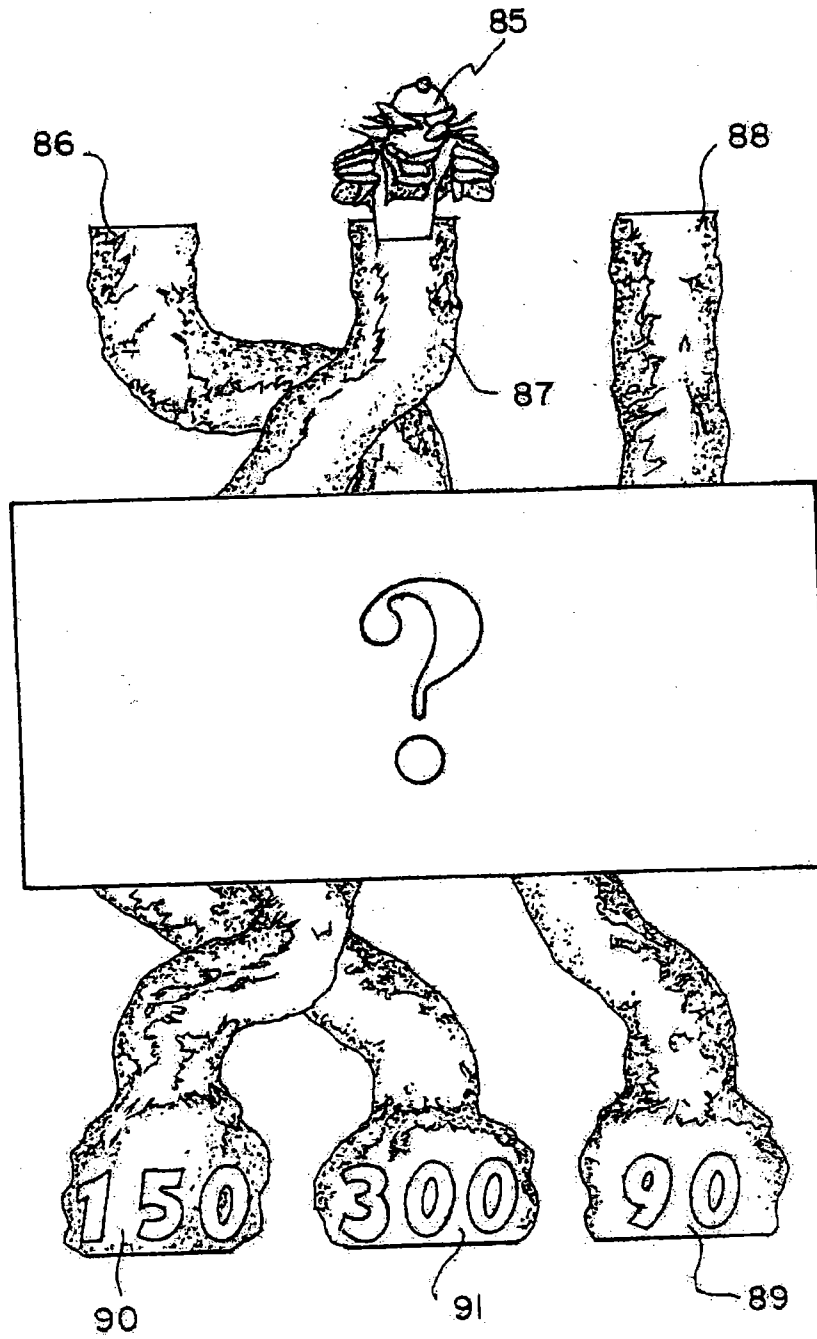


FIG. 9

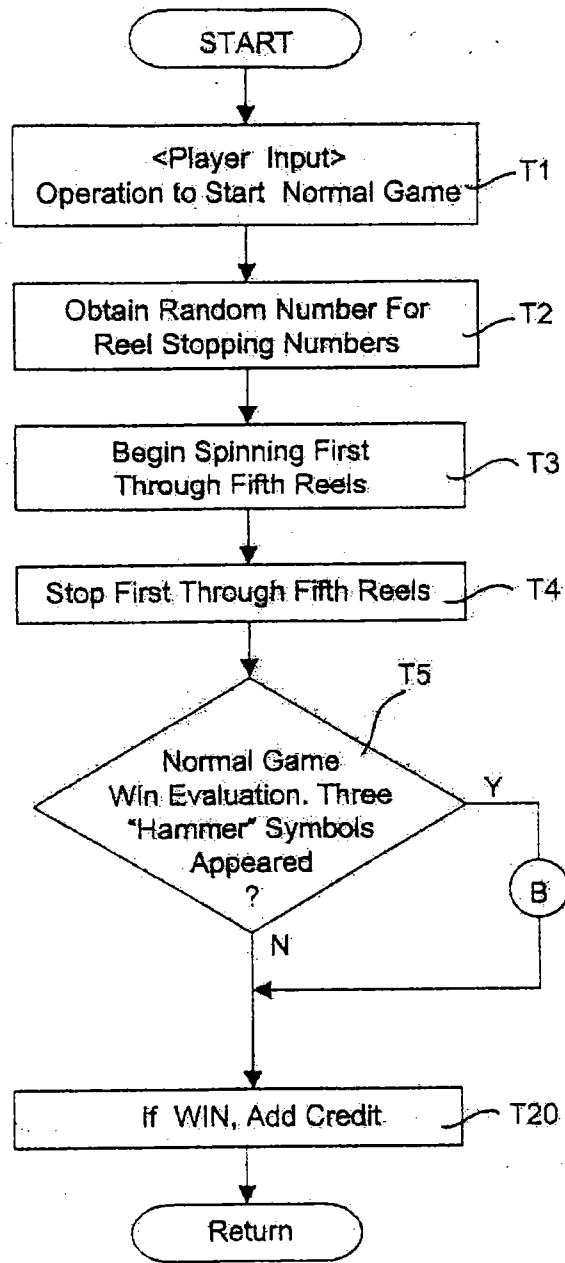


FIG. 10

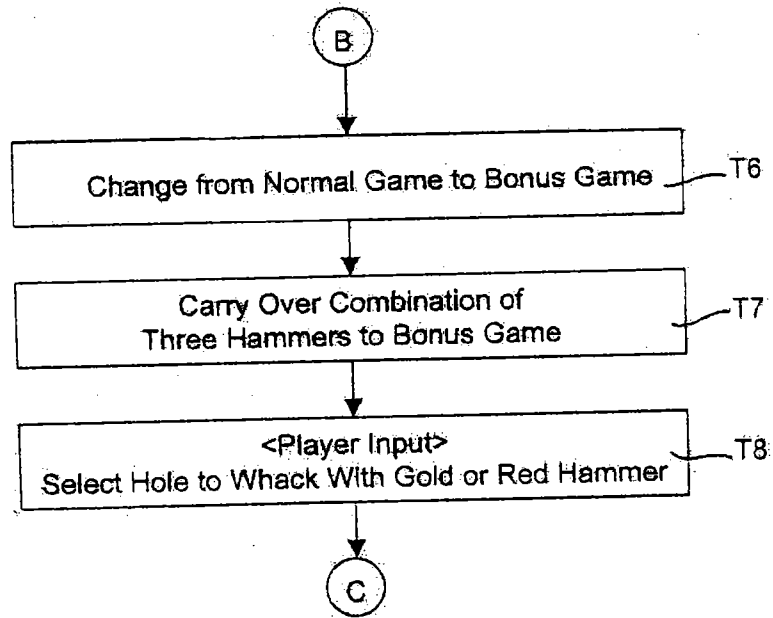


FIG. 11

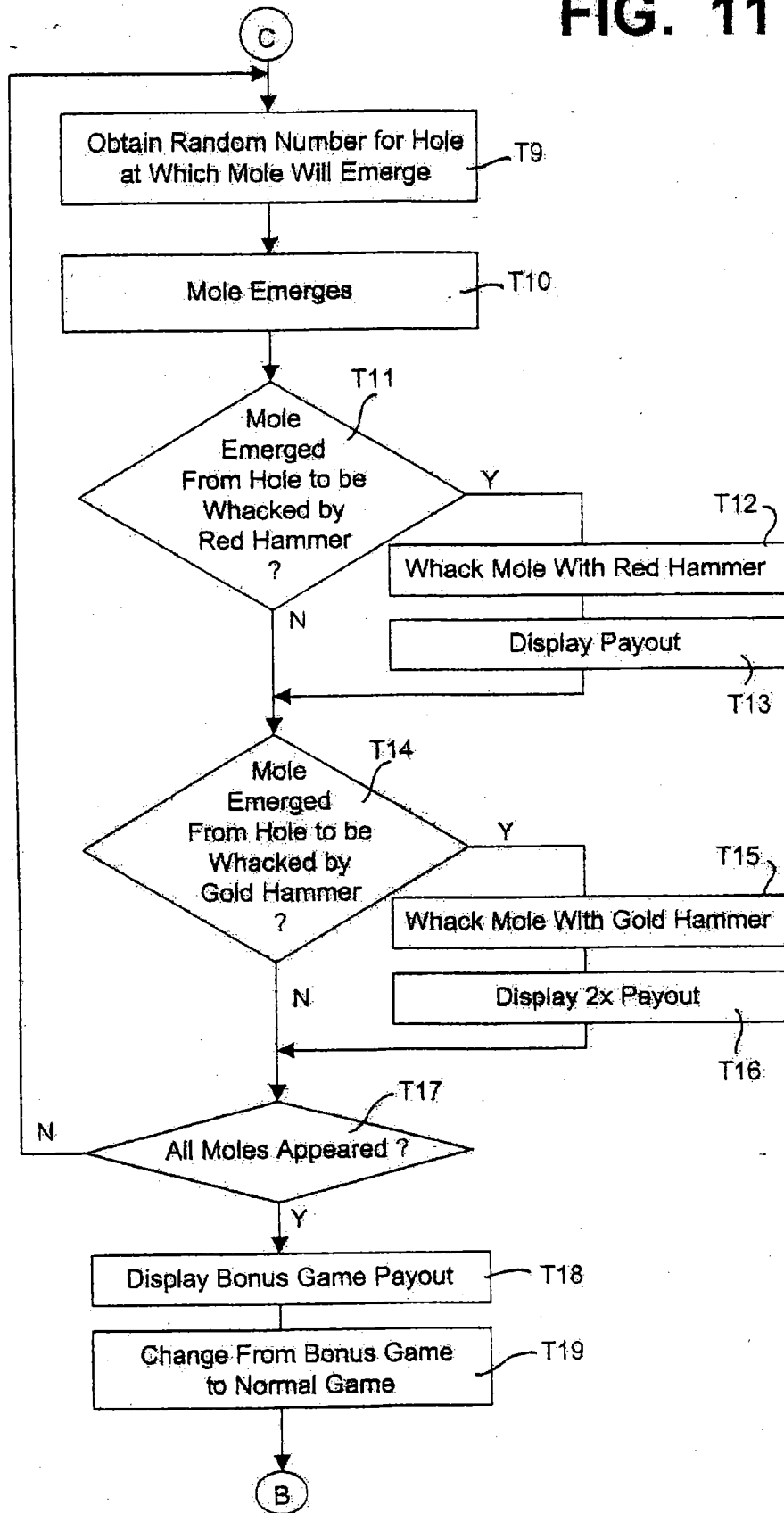


FIG. 13

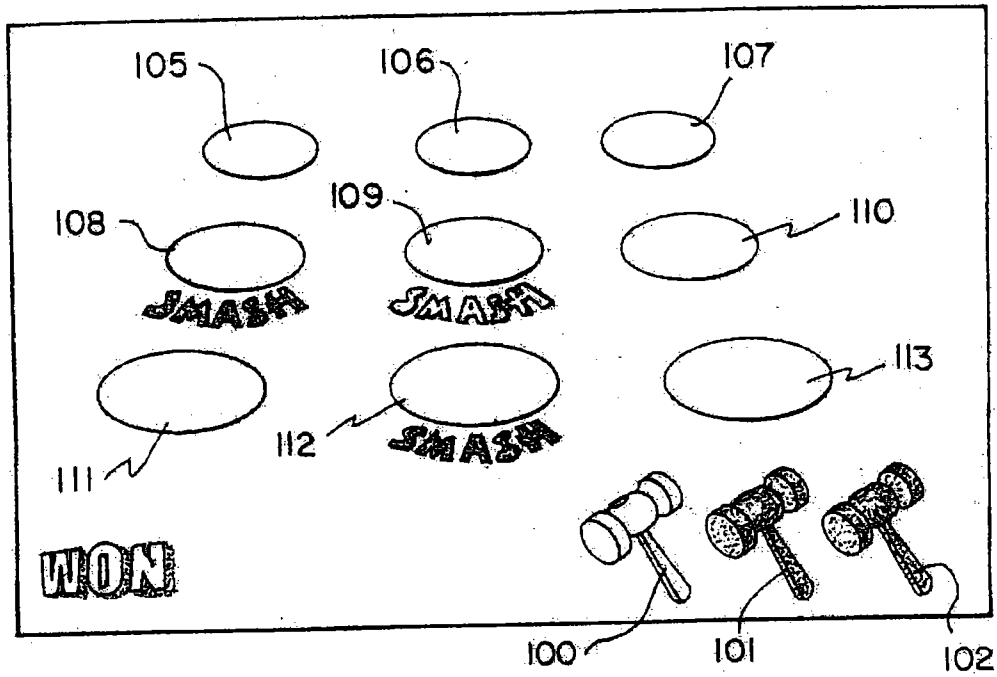


FIG. 14

