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(54) **SLOT MACHINE BONUS ROUND WITH SKILL LEVEL CHOICE**

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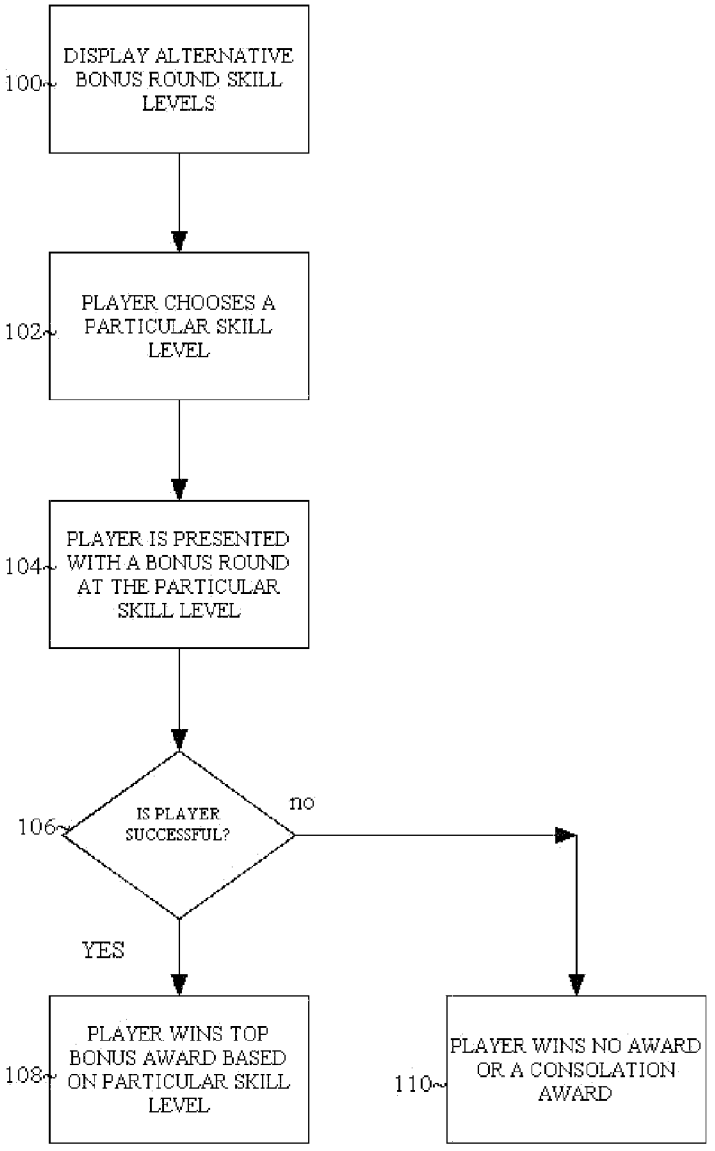
(52) **U.S. Cl.** **463/20**

(57) **ABSTRACT**

A slot machine method, apparatus, and computer readable storage to allow a player to select a skill level (e.g., easy, medium, hard) for a bonus round. The player is then presented with a task in the bonus round, and if the player successfully completes the task, then the player is awarded an award based on the skill level selected.



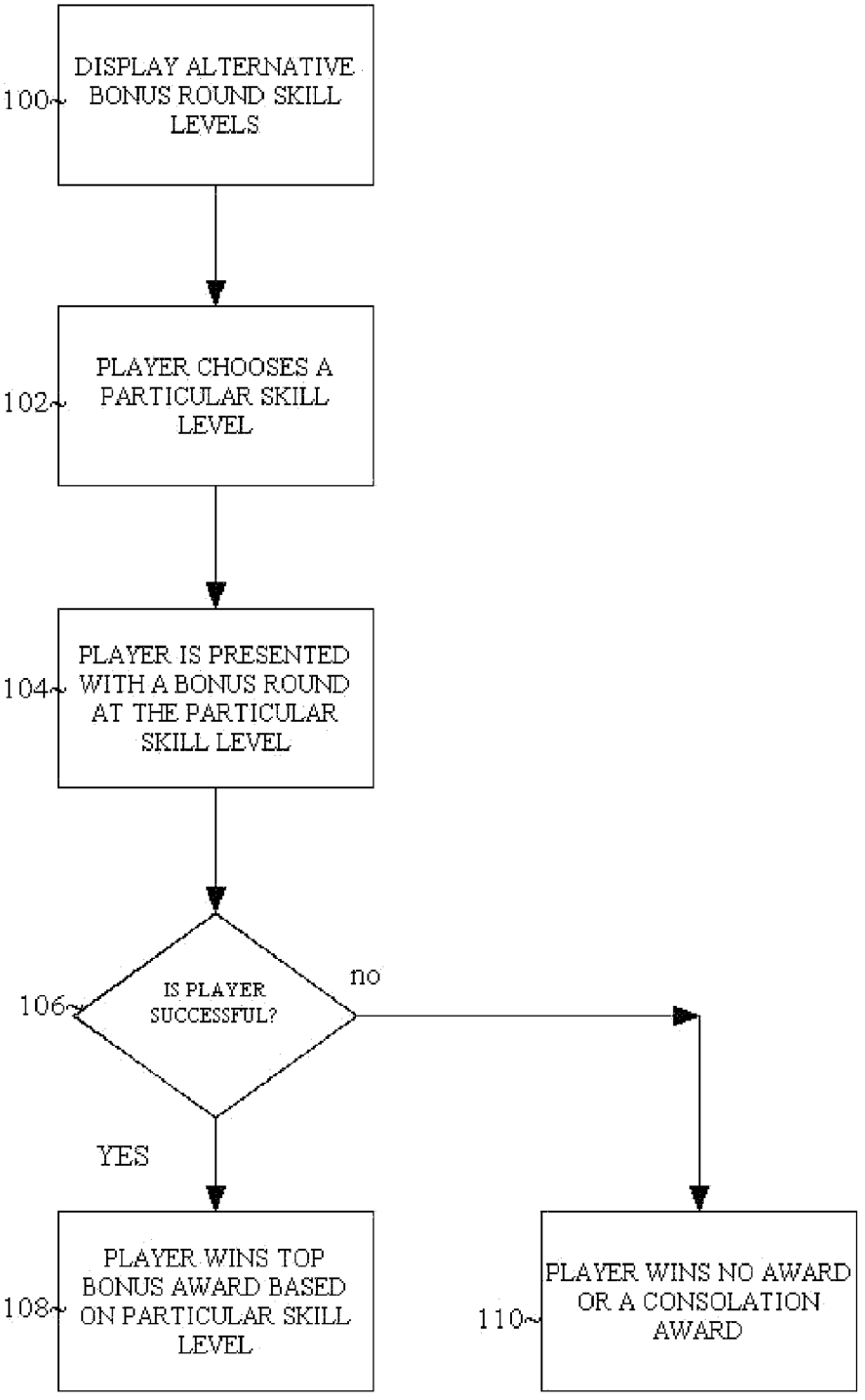

DISPLAY ALTERNATIVE BONUS ROUND SKILL LEVELS
100
PLAYER CHOOSES A PARTICULAR SKILL LEVEL
102
PLAYER IS PRESENTED WITH A BONUS ROUND AT THE PARTICULAR SKILL LEVEL
104
IS PLAYER SUCCESSFUL?
106
no
YES
PLAYER WINS TOP BONUS AWARD BASED ON PARTICULAR SKILL LEVEL
108
PLAYER WINS NO AWARD OR A CONSOLATION AWARD
110

FIGURE 1

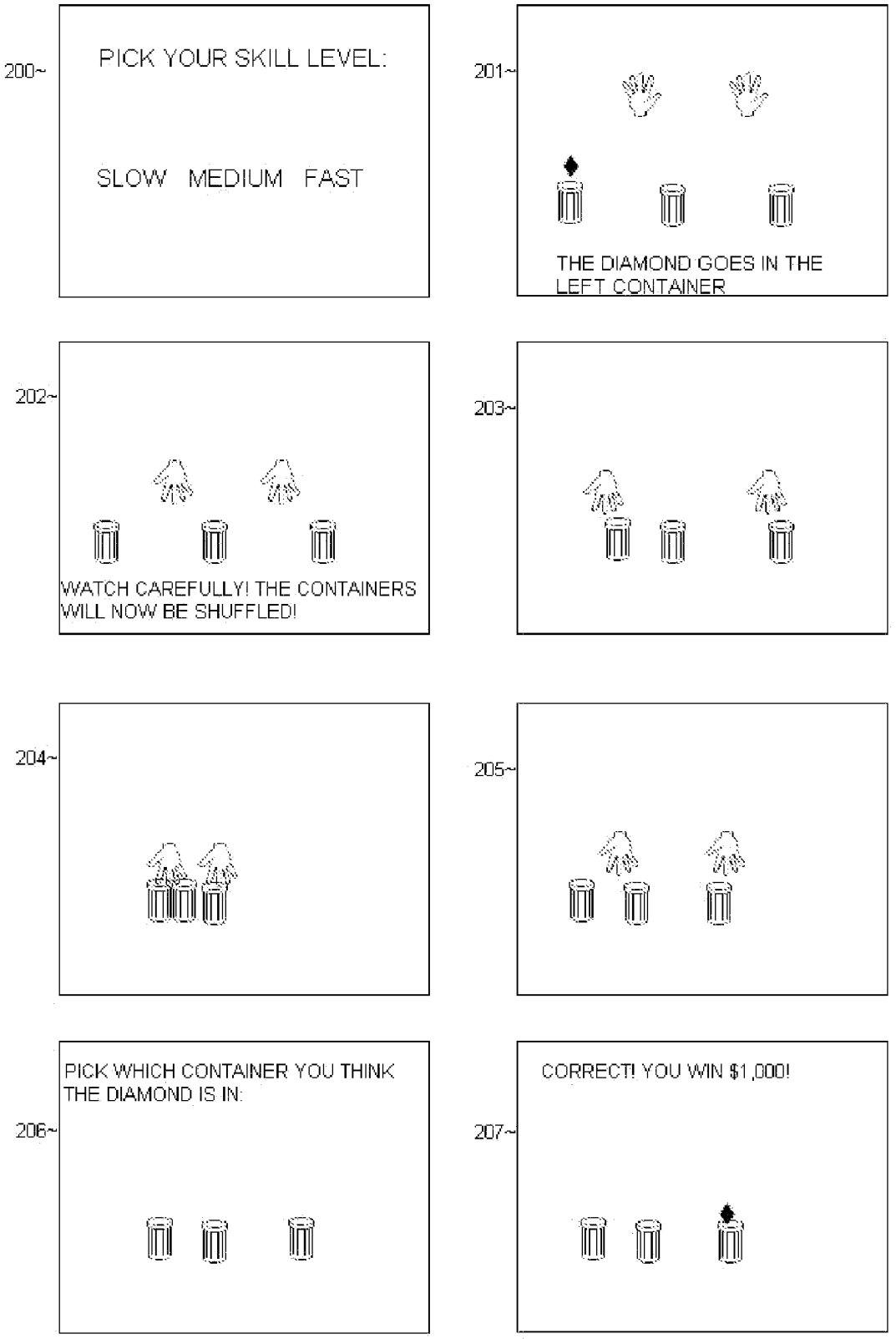

200~
PICK YOUR SKILL LEVEL:
SLOW MEDIUM FAST
201~
THE DIAMOND GOES IN THE LEFT CONTAINER
202~
WATCH CAREFULLY! THE CONTAINERS WILL NOW BE SHUFFLED!
203~
204~
205~
206~
PICK WHICH CONTAINER YOU THINK THE DIAMOND IS IN:
207~
CORRECT! YOU WIN $1,000!

FIGURE 2

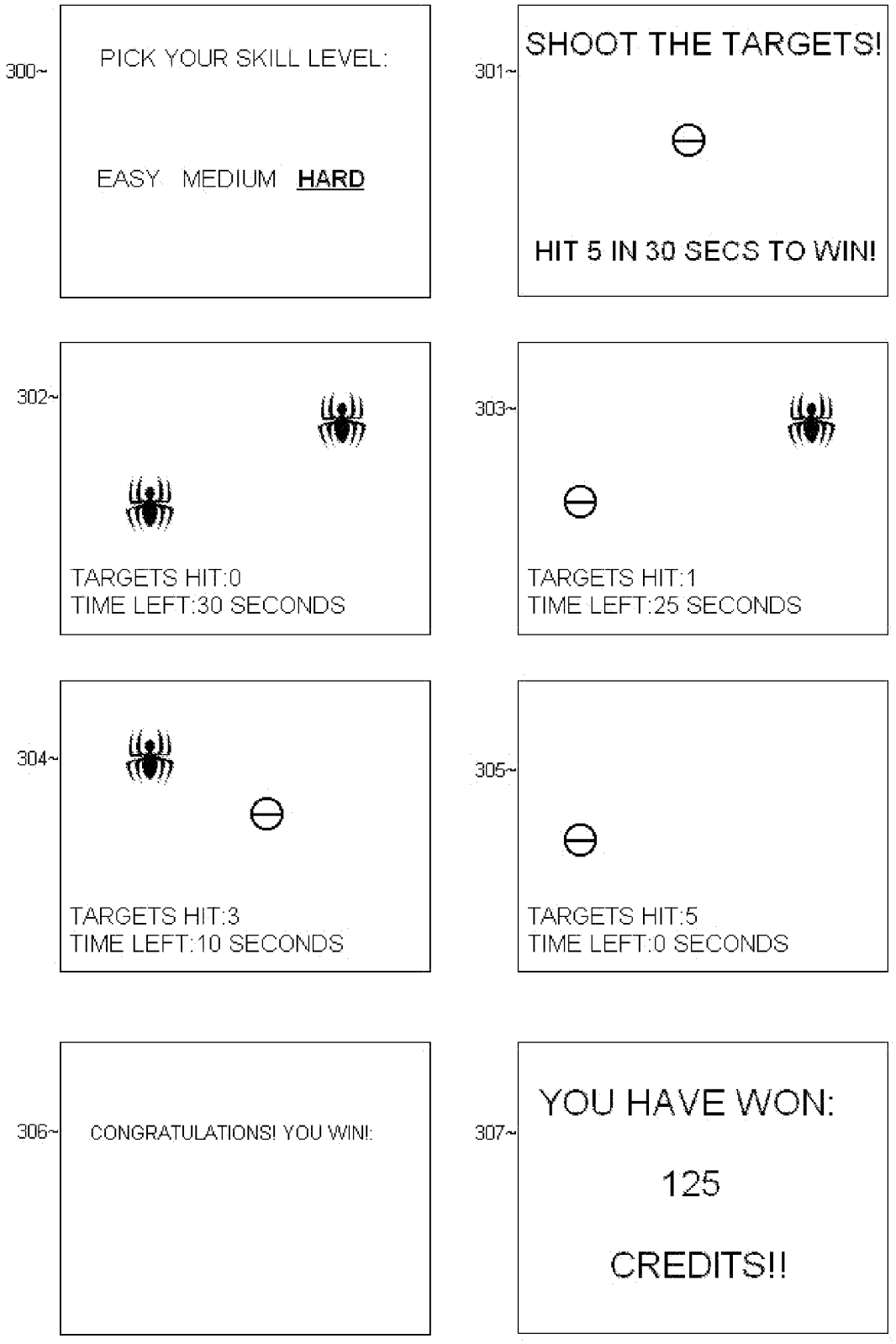

300~
PICK YOUR SKILL LEVEL:
EASY MEDIUM HARD
301~
SHOOT THE TARGETS!
HIT 5 IN 30 SECS TO WIN!
302~
TARGETS HIT:0
TIME LEFT:30 SECONDS
303~
TARGETS HIT:1
TIME LEFT:25 SECONDS
304~
TARGETS HIT:3
TIME LEFT:10 SECONDS
305~
TARGETS HIT:5
TIME LEFT:0 SECONDS
306~
CONGRATULATIONS! YOU WIN!
307~
YOU HAVE WON:
125
CREDITS!!

FIGURE 3

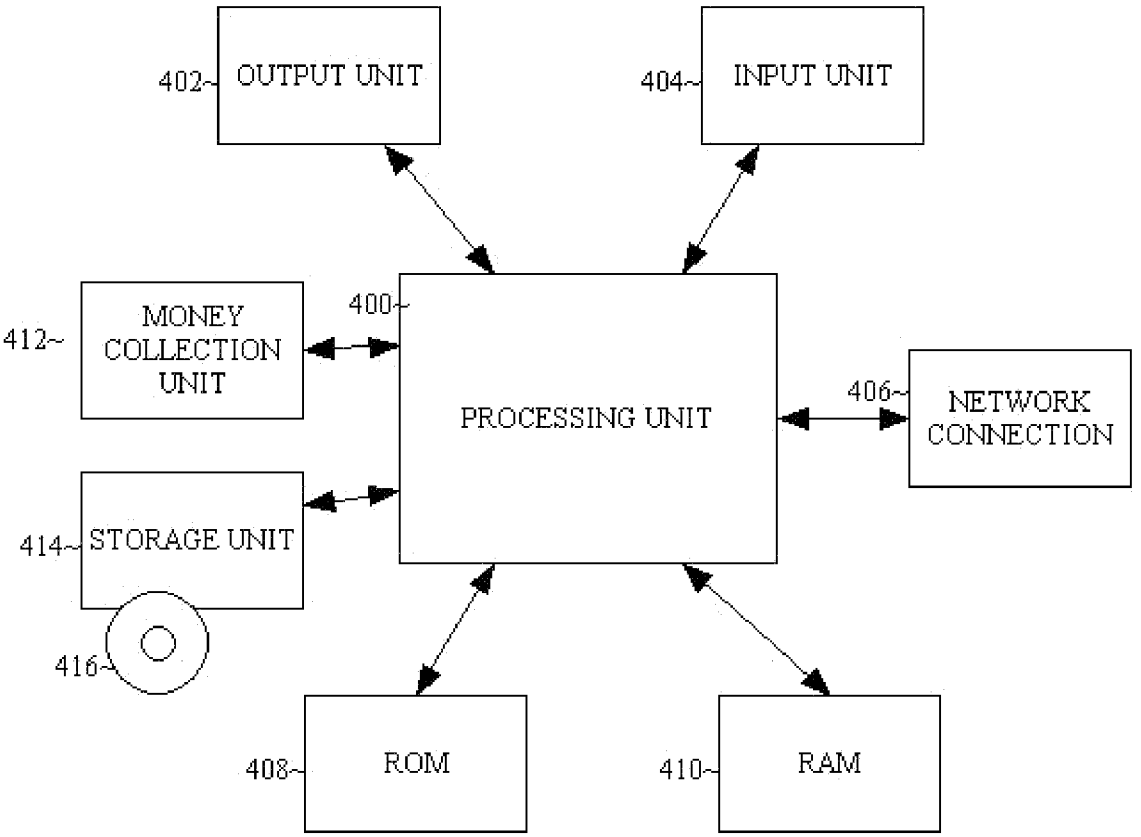

402
OUTPUT UNIT
404
INPUT UNIT
412
MONEY COLLECTION UNIT
400
PROCESSING UNIT
406
NETWORK CONNECTION
414
STORAGE UNIT
416
408
ROM
410
RAM

FIGURE 4

SLOT MACHINE BONUS ROUND WITH SKILL LEVEL CHOICE

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims benefit of provisional application 60/864,601, filed Nov. 6, 2006, which is incorporated by reference herein in its entirety. This application also claims benefit of provisional application 60/865,189, filed on Nov. 10, 2006, which is incorporated by reference herein in its entirety.

[0002] This application is also related to the following ten applications identified by their application number, all nine applications are incorporated by reference herein in their entireties: Ser. No. 11/035,691 ("Slot Machine Game that Allows Player to Purchase Reel Respins"); Ser. No. 11/326,125 ("Slot Machine Bonus Game); Ser. No. 11/337,960 ("Slot Machine with Skill Aspect"); Ser. No. 11/558,405 ("System and Method for Allowing Piggyback Wagering"); Ser. No. 11/609,315 ("System and Method for Allowing Piggyback Wagering"); Ser. No. 11/459,253 ("Slot Machine Bonus Game"); Ser. No. 11/558,564 ("System and Method for Administering a Progressive Jackpot Limited to a Bonus Round"); Ser. No. 11/678,050 ("Slot Machine Game With Additional Features"); Ser. No. 11/764,689 ("Slot Machine Game with Additional Award Indicator"); and Ser. No. 11/776,508 ("Slot Machine Game With User Selectable Themes"). All ten of these applications are incorporated by reference herein in their entireties for all purposes. Any and all features of any of these applications can be combined with each other and with any feature(s) described herein.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] The present inventive concept relates to a system, method, and computer readable storage, for providing additional themes to slot machine games.

[0005] 2. Description of the Related Art

[0006] Slot machine games are a billion dollar industry. The current three or five reel machines have been around for a long time and some players may find current game play monotonous.

[0007] What is needed is a slot machine with additional slot machine features which will generate more excitement for players and/or more revenue as well.

SUMMARY OF THE INVENTION

[0008] It is an aspect of the present general inventive concept to provide additional features to slot machine games.

[0009] The above aspects can also be obtained by a method that includes (a) receiving an initial wager from a player; (b) spinning reels on a slot machine to a stopped reel position and triggering a bonus round based on the stopped reel position; (c) allowing a player to choose a particular skill level for the bonus game; (d) presenting a player with a bonus game involving physical skill, with a difficulty of the bonus game being based on the particular skill level; and (e) determining if the player succeeded or failed on the bonus game, wherein if the player is determined to succeed in the bonus game, then awarding the player a top award based on the particular skill level.

[0010] The above aspects can also be obtained by a method that includes (a) a processing unit to perform: (b) receiving an initial wager from a player; (c) spinning reels on a slot machine to a stopped reel position and triggering a bonus round based on the stopped reel position; (d) allowing a player to choose a particular skill level for the bonus game; (e) presenting a player with a bonus game involving physical skill, a difficulty the bonus game being based on the skill level; (f) determining if the player succeeded or failed on the bonus game, (g) wherein if the player is determined to succeed in the bonus game, then awarding the player a top award based on the particular skill level; and (h) an output unit to display results of the processing unit.

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

BRIEF DESCRIPTION OF THE DRAWINGS

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

[0013] FIG. **1** illustrates an exemplary flowchart of a method to implement a bonus round with a skill level choice, according to an embodiment;

[0014] FIG. **2** illustrates an example of screen shots illustrating a bonus round, according to an embodiment;

[0015] FIG. **3** illustrates an example of screen shots illustrating another bonus round according to an embodiment; and

[0016] FIG. **4** is a block diagram of one example of hardware that can be used to implement the method, according to an embodiment.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0017] 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.

[0018] Embodiments of the invention relate to slot machine games, where a player typically places a wager, presses a button to spin the reels, the reels each stop at a random position. Payouts are then determined by comparing all paylines played to a predetermined set of winning combinations, and then the determined payouts, if any, are awarded to the player based on the wager. Additional features can augment the excitement of a player and may also result in increased action for the casino.

[0019] A slot machine bonus round (triggered by a triggering condition such as getting a predetermined combination on the reels on the initial spin) will allow a player to choose one of at least two skill levels {e.g., (slow, medium, fast) or (easy, medium, hard), etc.} The player will then be presented with a challenge wherein the player will be presented with a test of his or her dexterity and/or powers of observation and/or motor skills, or any type of skill. The challenge will be presented at the skill level that the player had chosen. The challenge is then presented, and if the player succeeds, the player then wins an award based on the player's choice of skill level. Typically, the fast/hard levels will have the highest expected (or actual)

awards, while the slow/easy levels will have the lowest expected (or actual) awards, and the expected (or actual) award will typically be proportional to the skill level the player has chosen.

[0020] For example, the challenge can be a "shell game," wherein an animation is presented wherein a pea (or other object such as a diamond) is placed in a shell (or other container), and animated hands shuffle the shells around. The player's goal is to watch the shells to follow which shell contains the pea. After the animation is completed, the player can choose which container he or she thinks the pea is in. If the player guesses right, the player wins an award, wherein if the player guesses wrong, then the player may win nothing or an optional consolation prize (typically lower than the award if the player won.)

[0021] A table can be used to map skill levels and prizes. For example, Table I below illustrates a sample mapping of skill levels and corresponding prizes. The easy skill level would typically have the shells moving slowly, while the medium skill level would typically have the shells moving faster than the easy level, and the hard skill level would typically have the shells moving faster than the medium level.

TABLE I

Skill level	prize amount	consolation prize
Easy	$ 25	$5
Medium	$ 50	$5
Hard	$100	$5

[0022] Other, more complicated formulas can be used for the prize amount. For example, Table II below illustrates a further example of skill level mapping. Note that there is an increasing relationship between a difficulty of the skill level and the prize amount. This means that the harder the skill level for the player, the higher the prize amount will be (an increasing relationship). However, the increasing relationship does not require that if skill level B is twice as hard as skill level A, then the prize amount for B will be double that of prize amount A. While it can, this is not a requirement.

TABLE II

Skill level	prize amount	exp. value	consolation prize
Easy	$20 + RND(20)	$30	$5
Medium	$30 + RND(30)	$45	$5 + RND(2)
Hard	$30 + RND(50)	$55	$8

[0023] Note that RND represents a random number generated between 1 (or 0) and the parameter. Note that there is an increasing relationship between a difficulty of the skill level and the expected value of the prize amount. This means that the harder the skill level for the player, the higher the expected value of the prize amount will be (an increasing relationship).

[0024] A bonus round can be triggered in a number of ways. For example, a player can place an initial wager into a slot machine, spin the reels, and if a combination of the symbols on the reels forms a predetermined combination, then this triggers a bonus round. Typically, the player would not have to pay to enter the bonus round (since getting to play the bonus round is essentially an award that the player has won on the standard slot game).

[0025] FIG. **1** illustrates an exemplary flowchart of a method to implement a bonus round with a skill level choice, according to an embodiment.

[0026] The method can begin with operation **100**, which displays to the player alternative bonus round skill levels. The player can select which of the alternative bonus round skill levels the player wishes to play. Typically, the harder the skill level (the less likely of success the average player will attain), the more money the player can expect to win if the player succeeds in that bonus level.

[0027] From operation **100**, the method can proceed to operation **102**, wherein the player chooses a particular skill level. The player can do this by touch an identified skill level, pressing buttons, etc.

[0028] From operation **102**, the method can proceed to operation **104**, wherein the player is presented with a bonus round at the particular skill level selected by the player in operation **100**. The player will play out the bonus round to completion. The bonus round can be any type of bonus round involving skill, such as a shell game, shooting game, etc.

[0029] From operation **104**, the method can proceed to operation **106**, which determines whether the player was successful when the player played the bonus round in operation **104**. For example, if the player correctly selected the container with the shell, succeeded in shooting a predetermined number of targets, etc., then the player is considered successful.

[0030] If the player is considered successful in operation **106**, then the method can proceed to operation **108**, wherein the player wins a top award for the particular skill level. The top award can be a predetermined award, or an award determined using a formulaic approach.

[0031] If the player did not complete the bonus round successfully in operation **106**, then the method can proceed to operation **110**, wherein the player wins nothing. Alternatively, the player can win a consolation prize, which would be less than the top predetermined award that would be awarded in operation **108**. Alternatively, the player can win a consolation prize determined using a formulaic approach, which would have an expected value less than the expected value of the award awarded in operation **108** had the player completed the bonus round successfully.

[0032] FIG. **2** illustrates an example of screen shots illustrating a bonus round, according to an embodiment.

[0033] In a first output **200**, a player picks his or her skill level which he or she is most comfortable with. A player with poor skill may likely pick slow (or easy) notwithstanding the fact that this will typically produce the lowest award. In this example, the player picks hard (e.g., by touching the screen).

[0034] In second output **201**, the player is shown which container the object is being placed in. Once the player knows which container the object is being placed in, the player will try to keep his or her eye on that container so that the player can correctly identify that container once the containers have been mixed.

[0035] In further outputs **202**, **203**, **204**, **205**, an animation is displayed wherein the containers are being shuffled around. The player should watch carefully to try to follow which container contains the object. Note that the animations are presented at the level the player picked in FIG. **1**. If the player picked easy, the speed would be slow, if the player picked medium, the speed would be faster than the slow speed from the easy level, and if the player picked fast, then the speed would be fastest.

[0036] After the animation is completed, output **206** allows the player to guess which container he or she thinks the object is in. The player can make his or her selection by touching the screen or pressing buttons. In this example, the player picks the rightmost container.

[0037] In output **207**, the container wherein the diamond is actually in is revealed. Since the player picked correctly, the player wins $100. If the player did not pick the correct container, either the player would win nothing or the player would win a consolation prize (which would typically be less than the $100 the player would get for guessing correctly).

[0038] In additional to the "shell game," illustrated above, any type of skill challenge can be applied to the methods described herein. For example, targets can be shot (with a toy gun or by pressing buttons on a screen), a simulated sports game can be played (e.g., a simulated baseball game), a simulated boxing match or street fight, etc. Note that the skill level picked by the player is not limited to a speed of the animation presented, but can apply to any other aspect of a game which would improve or decrease a player's chances of winning. For example, in a shooting game, the hard skill level (with the highest prize or expected prize) could have the least amount of bullets to kill a villain (e.g., 5) while the easy skill level (with the lowest prize or expected prize) could have a higher amount of bullets to kill a villains (e.g. 20).

[0039] The speed of the animation can be adjusted based on the skill level. For example, an easy skill level (slow) can display a 1000 frame animation (e.g., shuffling the containers) in 60 seconds, while the medium skill level can display the same 1000 frames in 45 seconds, while the fast (hard) skill level can display the same 1000 frames in 30 seconds. Of course other methods of displaying a fast or slow animation can be used as well.

[0040] Other bonus type rounds can be offered as well. For example, the player can be played a song and then presented with a picture of a piano. The player must reproduce the song the player heard by pressing on the right keys on the piano in sequence. The easy skill level may have only a few notes (e.g., 3) while the medium skill level may have more notes (e.g., 5), while the hard skill level may have even more notes (e.g., 10).

[0041] The methods described herein can be applied to any game of skill which can be offered in different skill levels.

[0042] In a further embodiment of the shell game type of bonus round, each container can have an award associated with it. For example, three containers can be shown, the first container with a $30 award in it, the second with an $80 award in it and the third with a $50 award in it. The awards are then covered and the containers are shuffled and the player has to watch the containers to try to follow the container with the highest award. When the animation is over, the player chooses a container, the contents of the containers are revealed and the player is awarded the prize inside the container that the player has chosen. This embodiment can be implemented with or without allowing the player to choose a skill level, as described herein. If the player chooses a skill level, then the disparity of prizes can be greater. For example, if the skill level is easy (slow), then the three containers can have the following awards: $10 $20 $30, if the skill level is hard (fast) then the three containers can have the following awards: $2 $20 $38.

[0043] FIG. **3** illustrates an example of screen shots illustrating another bonus round according to an embodiment.

[0044] A further type of bonus round can be a shoot game. For example, a player can be given a limited time (or a limited amount of ammunition) in order to hit a predetermined number of targets. If the player succeeds in hitting the predetermined number of targets, then the player would have won or successfully completed the bonus round. If the player did not hit the predetermined number of targets, then the player would be considered to not have successfully completed the bonus round.

[0045] Table III below illustrates three different levels and parameters for each.

TABLE III

Skill level	time given	number of hits	average bonus award
Easy	60 seconds	3	$ 50
Medium	45	4	$ 75
Hard	30	5	$125

[0046] Thus, for example, if the player selects to play an easy level, the player would have 60 seconds to hit 10 targets. The player can fire a gun at targets which move on the screen, or alternatively use a track ball, joystick, etc. The player can pull a trigger on the gun (or push a button on the machine, etc.) to fire.

[0047] In a first output **300**, the player can select which skill level the player wishes to play. This can be done by touching the desired skill level, etc.

[0048] In a second output **301**, the player is then presented with instructions on how to successfully complete the bonus round. In this example, the player must hit at least five targets in 30 seconds to win.

[0049] In a third, fourth, and fifth output **302**, **303**, **304**, the player plays the bonus round until the time runs out. In a sixth output **305**, the bonus round is over (the time has run out) and the player has hit five targets in the allotted time, thus the player has won.

[0050] A congratulations output **306** can be presented to the player. Finally, an award screen **307**, can be presented to the player indicating the award determination for successfully completing the bonus round. This award is determined based on the skill level selected. For example, in Table III, since the player has selected the hard level and won, the player wins the predetermined $125.

[0051] Alternatively, the amount won in a successful bonus round completion can be determined formulaically. However, the expected value of hard bonus rounds should have higher expected values for successfully completing the bonus round. For example, in the last column of table III, instead of using simple predetermined bonus rounds, the bonus award can be a random number from 1 to the value in the last column of table III. For example, if the player successfully completes the medium bonus round level, then the player will win a bonus award of a random number from 1 to 75.

[0052] If the player does not successfully complete the bonus round, then the player can win nothing. Alternatively, the player can receive a consolation award, which would typically be lower (or have an expected value lower) than the award for successfully completing the bonus round (or the expected value of successfully completing the bonus round).

[0053] It is further noted that instead of providing the player a limited amount of time, the bonus game can alternatively (or additionally) provide the player with a limited amount of shots (ammunition) in order to hit the targets. For example, in Table III, the hard skill level may give the player only 10

shots, while the medium skill level may give the player **15** shots, while the easy skill level may give the player **20** shots. Alternatively (or additionally), the more difficult the skill level the faster the targets would move, making it more challenging for the players to hit the targets.

[0054] FIG. **4** is a block diagram of one example of hardware that can be used to implement the method, according to an embodiment.

[0055] A processing unit **400** (which can comprise a microprocessor and related components) can be connected to an output unit **402** (e.g., LCD or touch screen, etc.), an input unit **404** (e.g. a touch screen, keyboard, buttons, etc.), a network connection **406** (e.g. connection to a casino server or the Internet or other communication network), a ROM **408**, a RAM **410**, and any other hardware known in the art needed to implemented a digital version of the game (not pictured). The game can also be served to a remote client playing at an online casino over a computer communications network (such as the internet). A money collection unit **412** can be used to receive cash (e.g., a bill acceptor), or other payment from such as electronic payment and credit. A storage unit **414** can be a CD-ROM drive, a DVD-ROM drive, or any device that can read a computer readable storage medium. A CD-ROM **416** (or any other type of computer readable storage medium) can be read by the storage unit **414** and can contain data, assets, programs, etc., in order to implement the methods described herein on an electronic gaming machine such as the one illustrated in FIG. **4**.

[0056] Further, the order of any of the operations described herein can be performed in any order and wagers can be placed/resolved in any order. Any operation described herein can also be optional. Embodiments described herein can be played on an electronic gaming machine using a video output device, or a mechanical gaming machine using physical reels, as known in the art. Data for any embodiments described herein can be stored on any type of computer readable storage medium (e.g. CD-ROM, DVD, disk, etc.)

[0057] The descriptions provided herein also include any hardware and/or software known in the art and needed to implement the operations described herein. All components illustrated herein may also optionally communicate with any other illustrated or described component.

[0058] 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 bonus game, the method comprising:

receiving an initial wager from a player;

spinning reels on a slot machine to a stopped reel position and triggering a bonus round based on the stopped reel position;

allowing a player to choose a particular skill level for the bonus game;

presenting a player with a bonus game involving physical skill, with a difficulty of the bonus game being based on the particular skill level; and

determining if the player succeeded or failed on the bonus game,

wherein if the player is determined to succeed in the bonus game, then awarding the player a top award based on the particular skill level.

2. The method as recited in claim **1**, further comprising, if the player failed in the bonus game, then the player does not win an award in the bonus game.

3. The method as recited in claim **1**, further comprising, if the player failed in the bonus round, then the player wins a consolation award in the bonus game, the consolation award having a lower expected value than the top award.

4. The method as recited in claim **1**, wherein the bonus game is a shell game.

5. The method as recited in claim **1**, wherein the bonus game is a shooting game.

6. The method as recited in claim **1**, wherein the award is determined based on predetermined awards for each possible skill level.

7. The method as recited in claim **6**, wherein there is an increasing relationship between each predetermined award and a difficulty of the predetermined award's respective skill level.

8. The method as recited in claim **1**, wherein the award is determined based on a formula, wherein each possible skill level has its own respective formula.

9. The method as recited in claim **8** wherein there is an increasing relationship between an expected value of each skill level and a difficulty of each respective skill level.

10. The method as recited in claim **1**, wherein the bonus game comprises:

indicating a winning container;

shuffling animatedly at least two containers which comprise the winning container, the shuffling performed at a speed based on the particular skill level;

allowing the player to select a selected container;

if the selected container matches the winning container, the player has succeeded on the bonus game, otherwise the player has not succeeded (failed) at the bonus game.

11. The method as recited in claim **1**, wherein the bonus game requires the player to hit a predetermined number of targets in a finite amount of time in order for the player to succeed in the bonus game.

12. The method as recited in claim **1**, wherein the bonus game requires the player to hit a predetermined number of targets with a fixed amount of shots in order for the player to succeed in the bonus game.

13. A slot machine apparatus, the apparatus comprising:

a processing unit to perform:

receiving an initial wager from a player;

spinning reels on a slot machine to a stopped reel position and triggering a bonus round based on the stopped reel position;

allowing a player to choose a particular skill level for the bonus game;

presenting a player with a bonus game involving physical skill, a difficulty the bonus game being based on the skill level;

determining if the player succeeded or failed on the bonus game,

wherein if the player is determined to succeed in the bonus game, then awarding the player a top award based on the particular skill level; and

an output unit to display results of the processing unit.

14. The apparatus as recited in claim **12**, further comprising, if the player failed in the bonus game, then the player does not win an award in the bonus game.

15. The apparatus as recited in claim **2**, further comprising, if the player failed in the bonus round, then the player wins a consolation award in the bonus game, the consolation award having a lower expected value than the top award.

16. The apparatus as recited in claim **12**, wherein the bonus game is a shell game.

17. The apparatus as recited in claim **12**, wherein the bonus game is a shooting game.

18. The apparatus as recited in claim **12**, wherein the award is determined based on predetermined awards for each possible skill level.

19. The apparatus as recited in claim **17**, wherein there is an increasing relationship between each predetermined award and a difficulty of the predetermined award's respective skill level.

20. The apparatus as recited in claim **12**, wherein the award is determined based on a formula, wherein each possible skill level has its own respective formula.

21. The apparatus as recited in claim **19** wherein there is an increasing relationship between an expected value of each skill level and a difficulty of each respective skill level.

* * * * *