US 20090280891A1

(19) **United States**

(12) **Patent Application Publication**

Filipour et al.

(10) **Pub. No.: US 2009/0280891 A1**

(43) **Pub. Date: Nov. 12, 2009**

(54) **REGULATED MULTI-PHASE GAMING**

(75) Inventors: **Cameron Anthony Filipour**, Las Vegas, NV (US); **Thierry Brunet De Courssou**, Henderson, NV (US); **David Wayne Steyer**, Las Vegas, NV (US); **Alexander Popovich**, Henderson, NV (US); **Adam Singer**, Henderson, NV (US)

Correspondence Address:
Young Law Firm, P.C.
4370 Alpine Road, Suite 106
Portola Valley, CA 94028 (US)

(73) Assignee: **CYBERVIEW TECHNOLOGY, INC.**, Palo Alto, CA (US)

(21) Appl. No.: **12/118,700**

(22) Filed: **May 10, 2008**

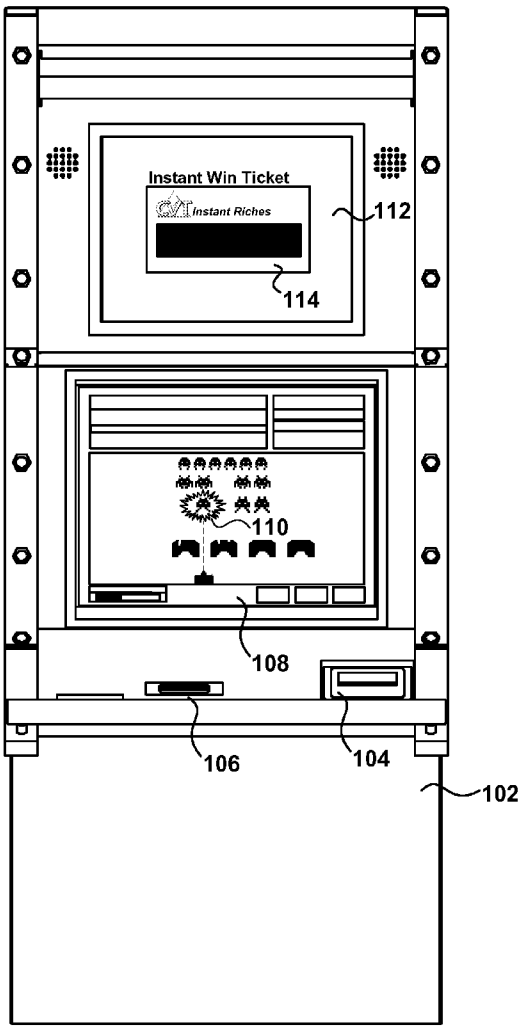
Publication Classification

(51) **Int. Cl.**
A63F 9/24 (2006.01)

(52) **U.S. Cl.** **463/22**

(57) **ABSTRACT**

Multi-phase games solve a key challenge in next generation casino gaming by allowing players to engage in new brand of casino game that rewards skills like manual dexterity and rapid decision making while guaranteeing game operators the consistent, reliable profits earned by legacy gaming models. Multi-phase games meet the evolving needs of both next generation players and game operators by separating play into two or more phases: 1) a skill-based phase, 2) a random phase, and 3) an optional progressive jackpot phase. Players who exhibit more skill in the skill-based phase of play earn more favorable terms in the random phase of play than players who exhibit less skill. The optional progressive jackpot feature fosters play and competition by awarding a progressive jackpot to the player or players with the highest score or scores over a predetermined period of time.



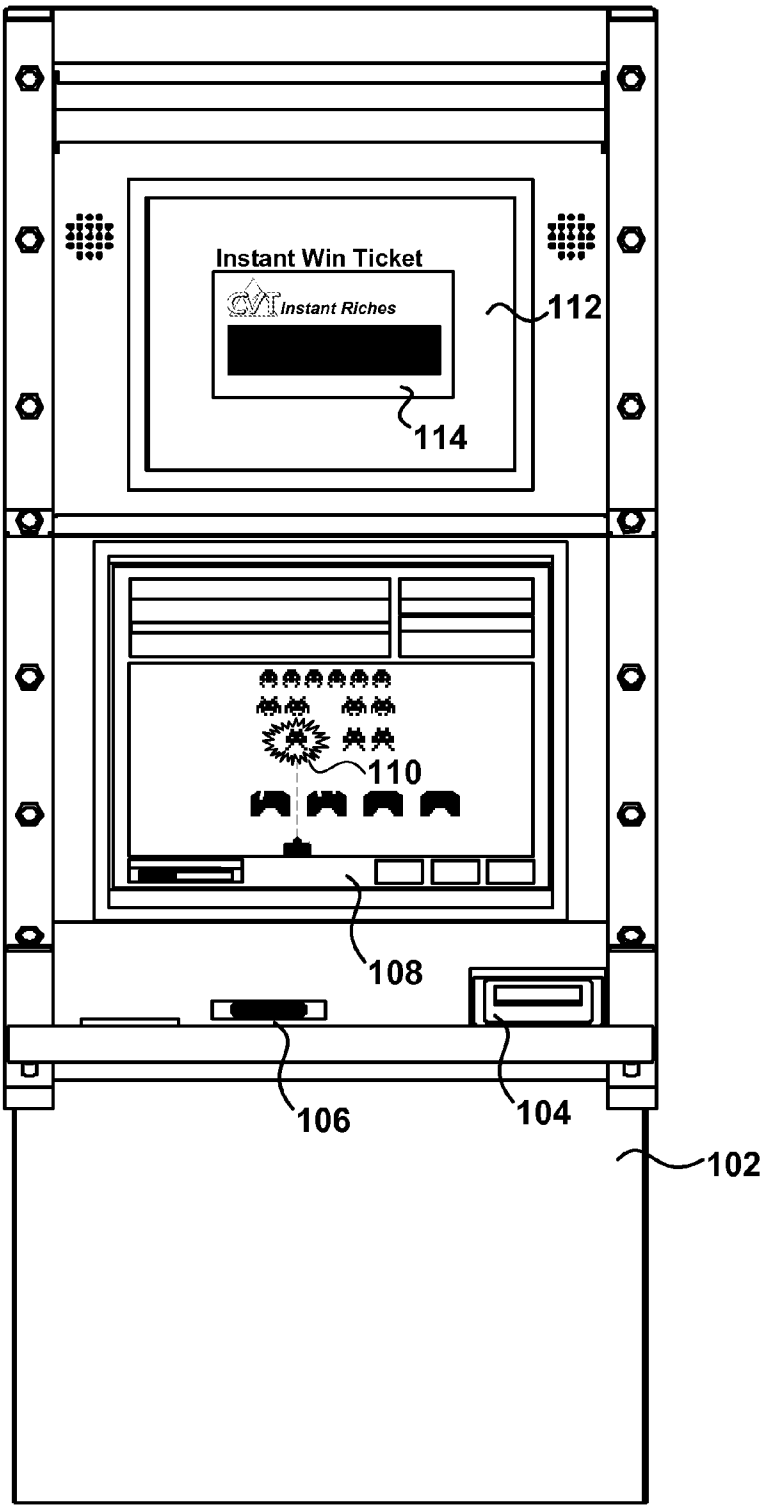

Instant Win Ticket
Instant Riches
112
114
110
108
106
104
102

FIG. 1

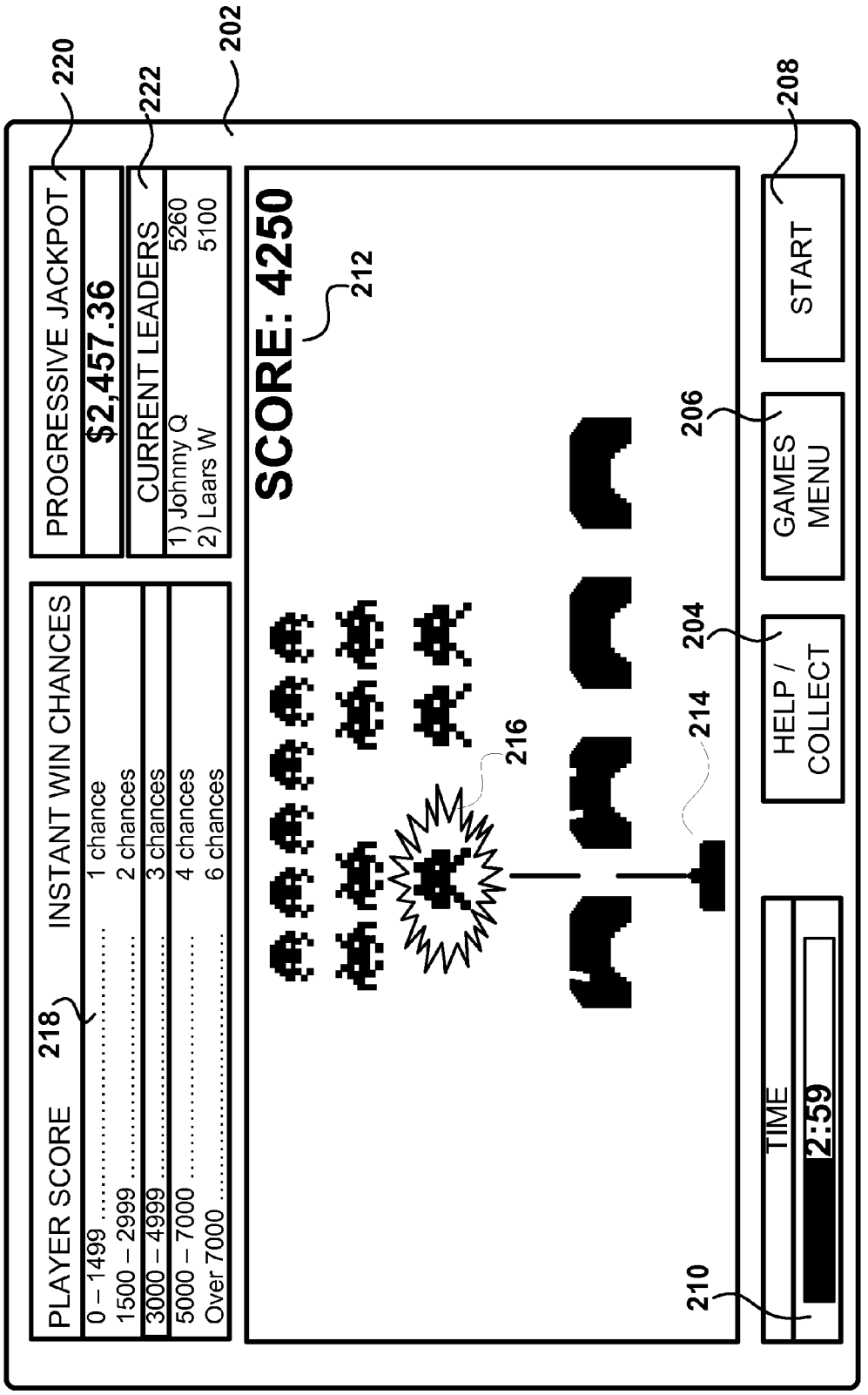

220
222
202
PROGRESSIVE JACKPOT
$2,457.36
CURRENT LEADERS
1) Johnny Q 5260
2) Laars W 5100
208
START
PLAYER SCORE
218
INSTANT WIN CHANCES
0 – 1499 ..... 1 chance
1500 – 2999 ..... 2 chances
3000 – 4999 ..... 3 chances
5000 – 7000 ..... 4 chances
Over 7000 ..... 6 chances
SCORE: 4250
212
206
GAMES MENU
204
HELP / COLLECT
216
214
210
TIME
2:59

FIG. 2

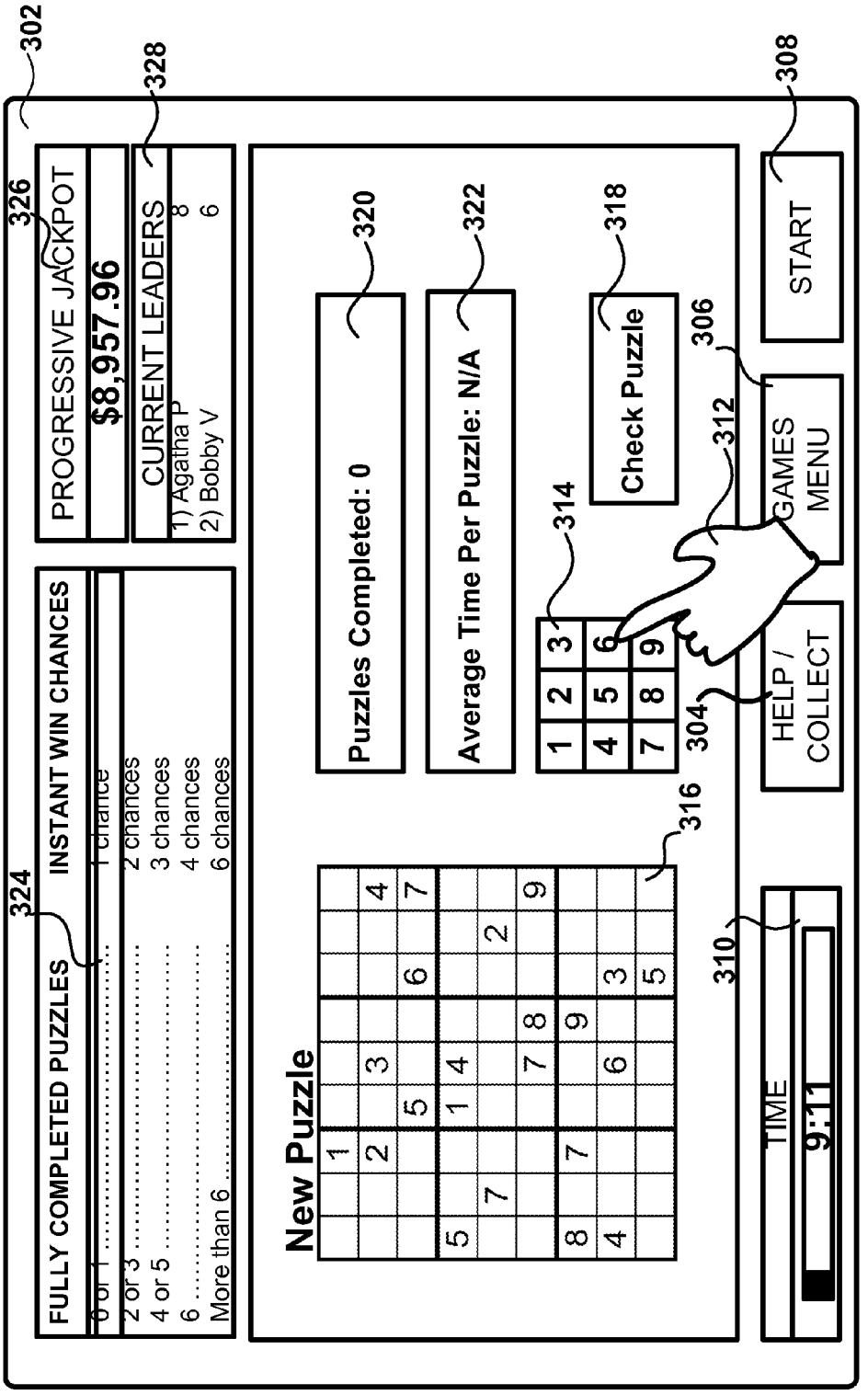

302
328
326
PROGRESSIVE JACKPOT
$8,957.96
CURRENT LEADERS
1) Agatha P 8
2) Bobby V 6
324
FULLY COMPLETED PUZZLES
INSTANT WIN CHANCES
0 or 1 ..... 1 chance
2 or 3 ..... 2 chances
4 or 5 ..... 3 chances
6 ..... 4 chances
More than 6 ..... 6 chances
New Puzzle
316
Puzzles Completed: 0
320
Average Time Per Puzzle: N/A
322
Check Puzzle
318
306
312
314
304
HELP / COLLECT
GAMES MENU
START
308
310
TIME
9:11

FIG. 3

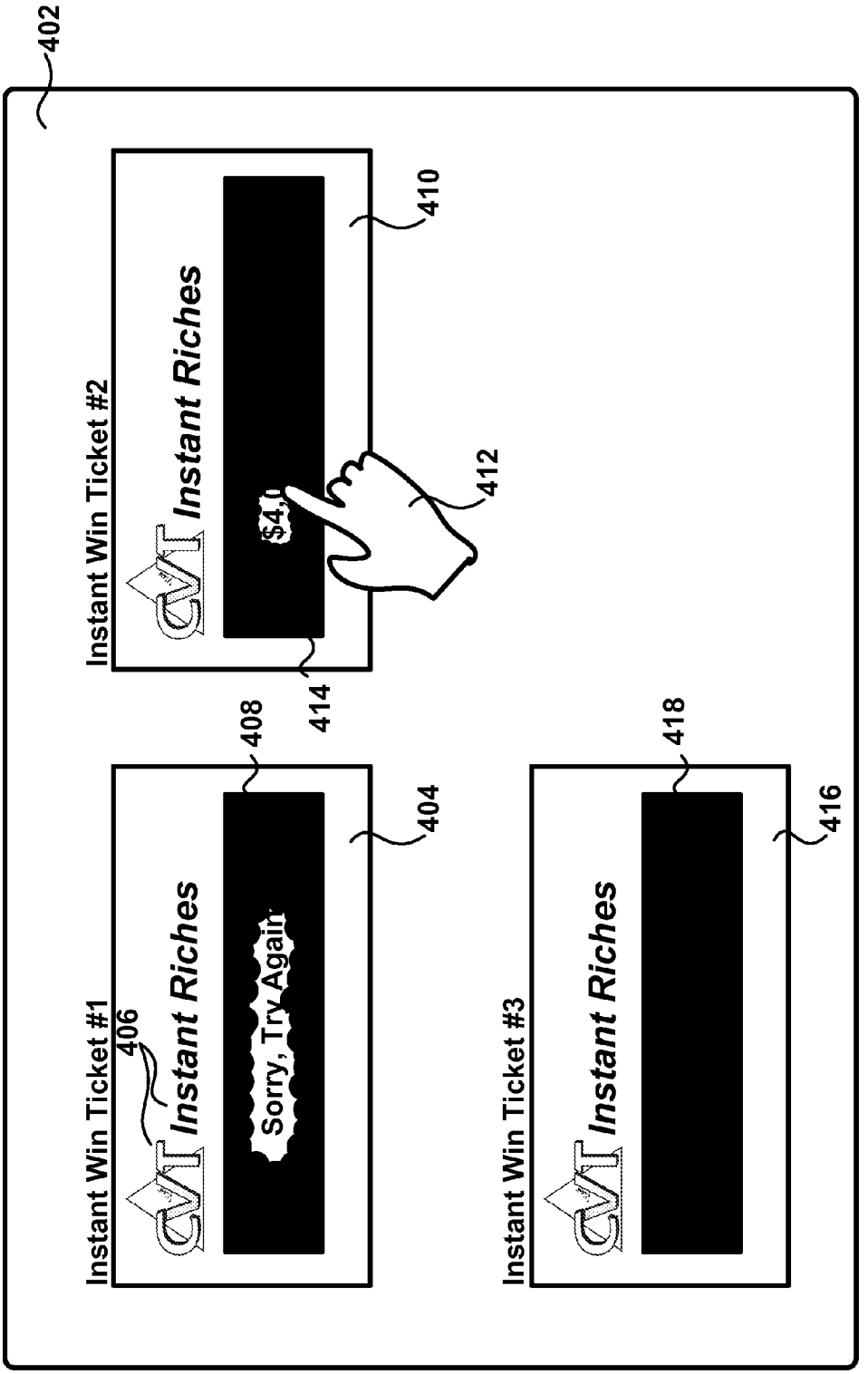

402
Instant Win Ticket #1
406
Instant Riches
Sorry, Try Again
408
404
Instant Win Ticket #2
Instant Riches
$4,0
410
412
414
Instant Win Ticket #3
Instant Riches
418
416

FIG. 4

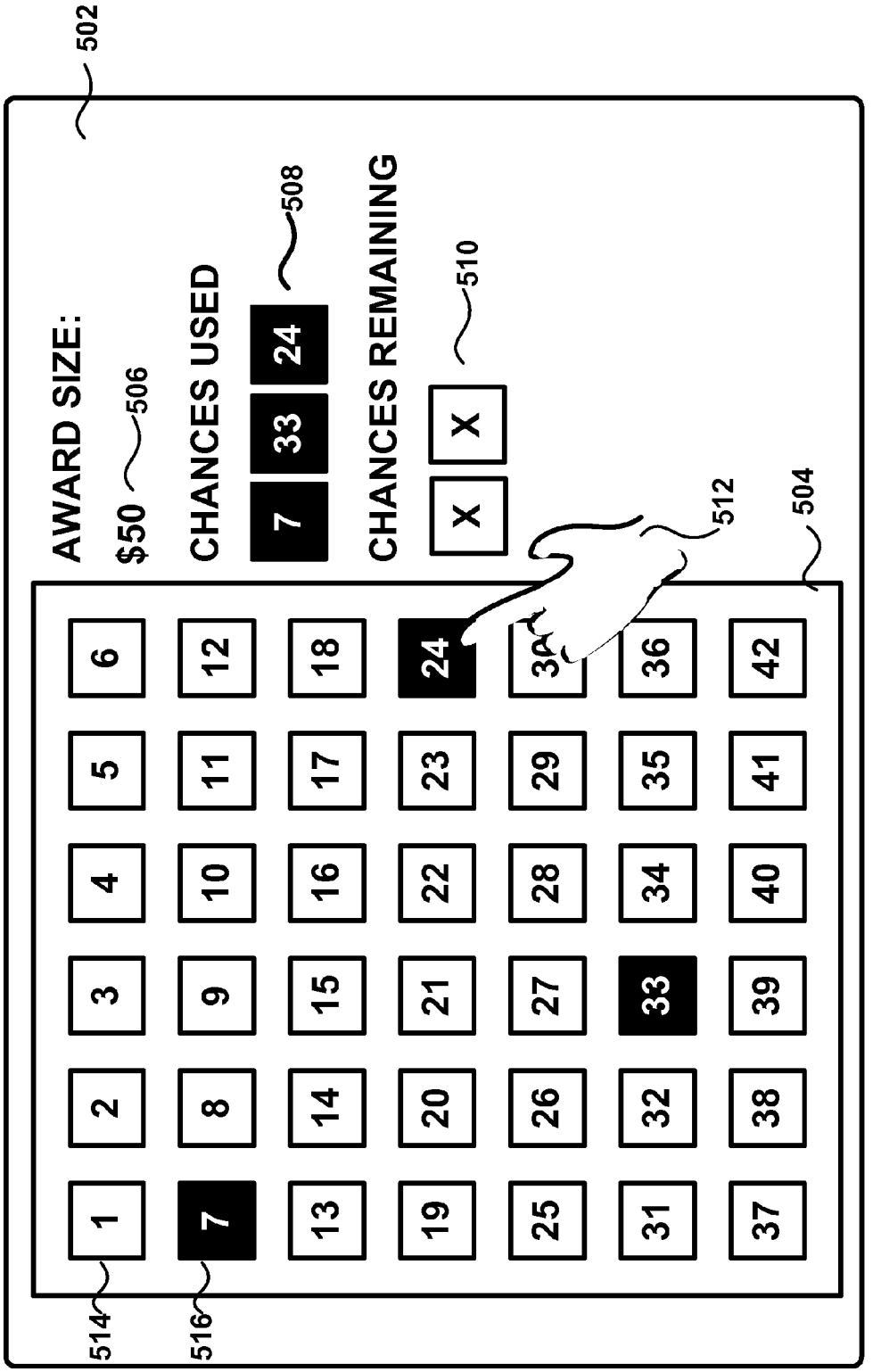

502
AWARD SIZE:
$50
506
CHANCES USED
7
33
24
508
CHANCES REMAINING
X
X
510
512
504
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
514
516

FIG. 5

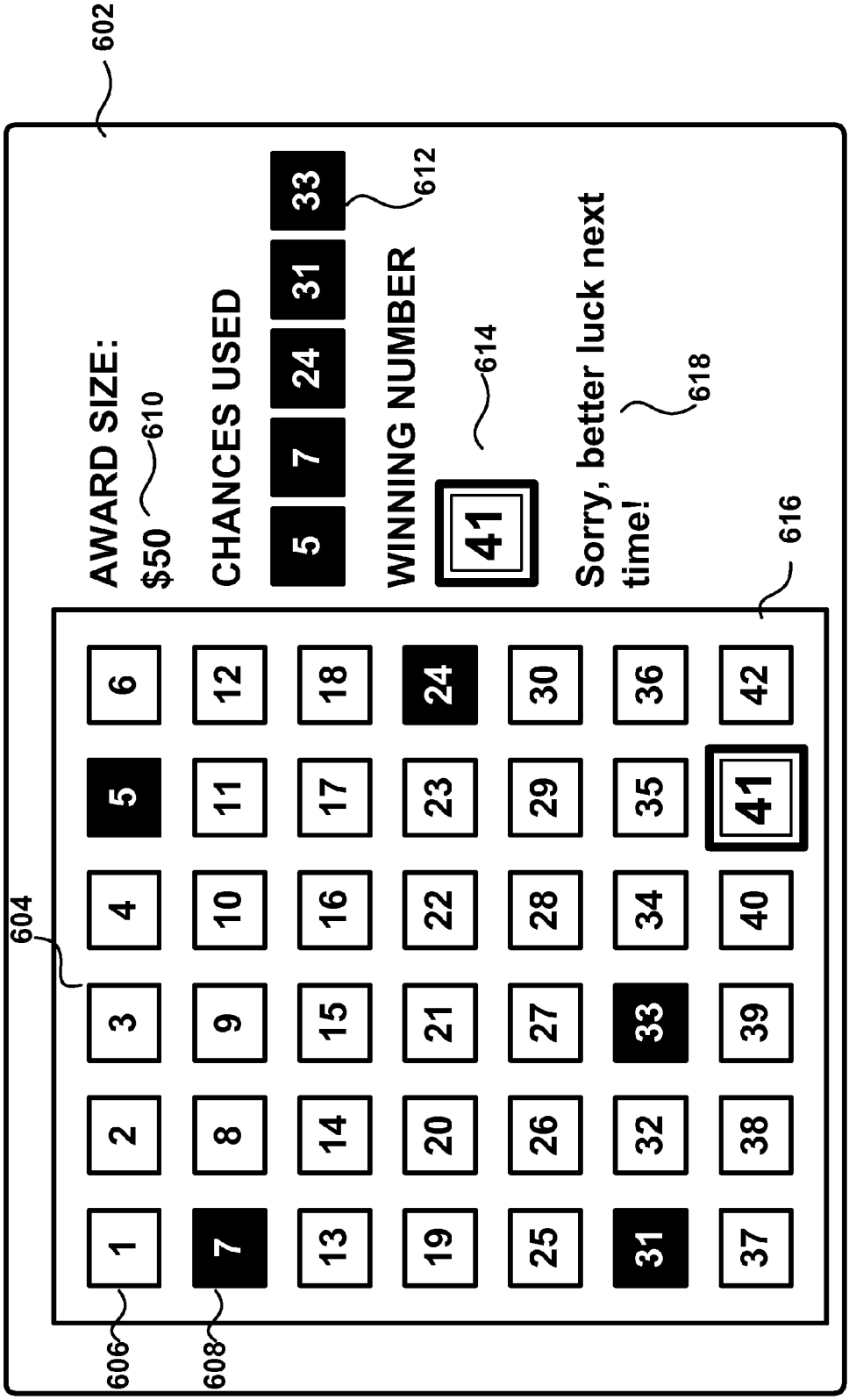

602
AWARD SIZE:
$50
610
CHANCES USED
5
7
24
31
33
612
WINNING NUMBER
614
41
Sorry, better luck next time!
618
616
604
606
608
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42

FIG. 6

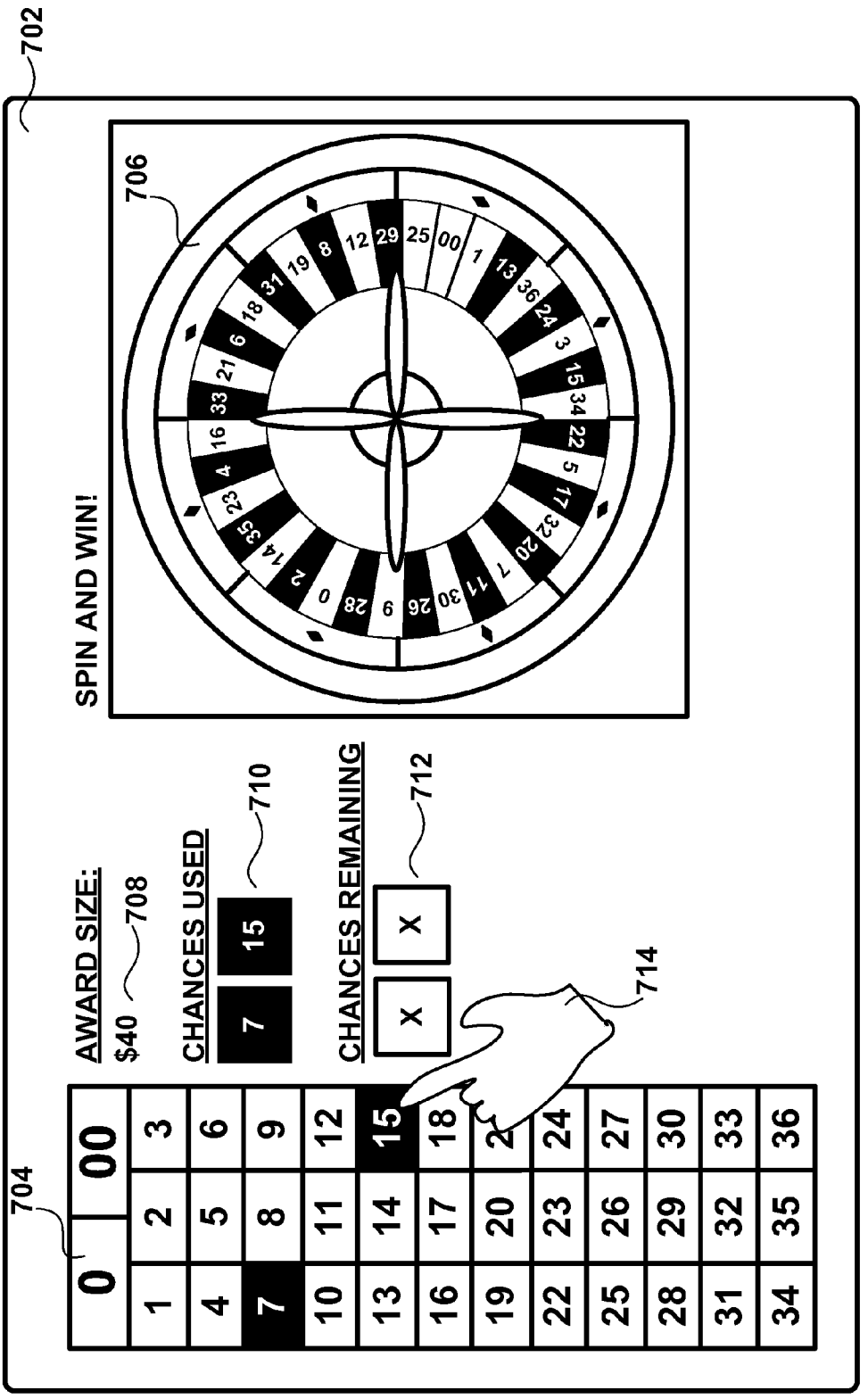

702
SPIN AND WIN!
706
AWARD SIZE:
$40
708
CHANCES USED
7
15
710
CHANCES REMAINING
X
X
712
714
704
0
00
1 2 3
4 5 6
7 8 9
10 11 12
13 14 15
16 17 18
19 20 21
22 23 24
25 26 27
28 29 30
31 32 33
34 35 36

FIG. 7

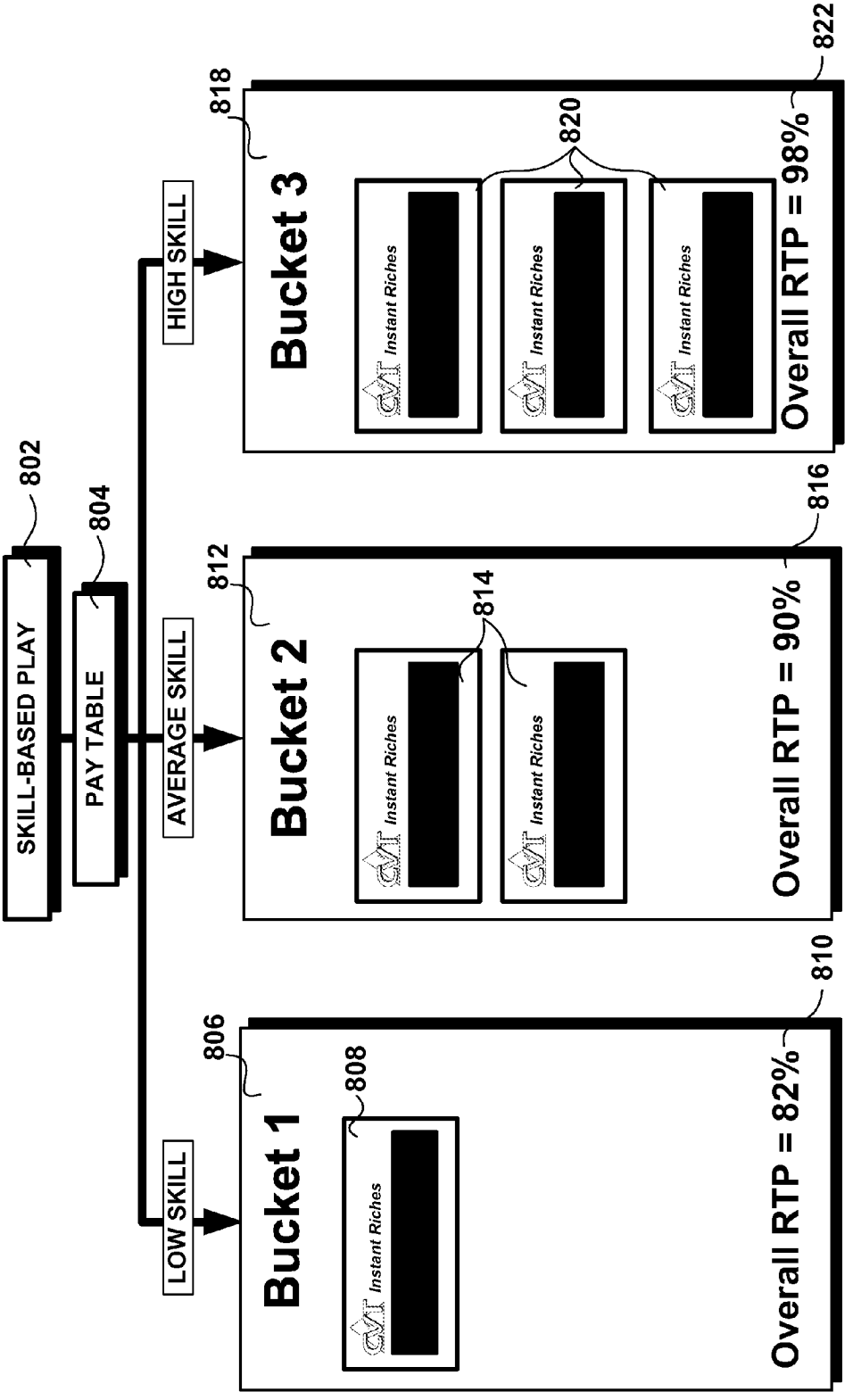

SKILL-BASED PLAY
802
PAY TABLE
804
LOW SKILL
AVERAGE SKILL
HIGH SKILL
Bucket 1
806
808
Instant Riches
Overall RTP = 82%
810
Bucket 2
812
814
Instant Riches
Overall RTP = 90%
816
Bucket 3
818
820
Instant Riches
Overall RTP = 98%
822

FIG. 8

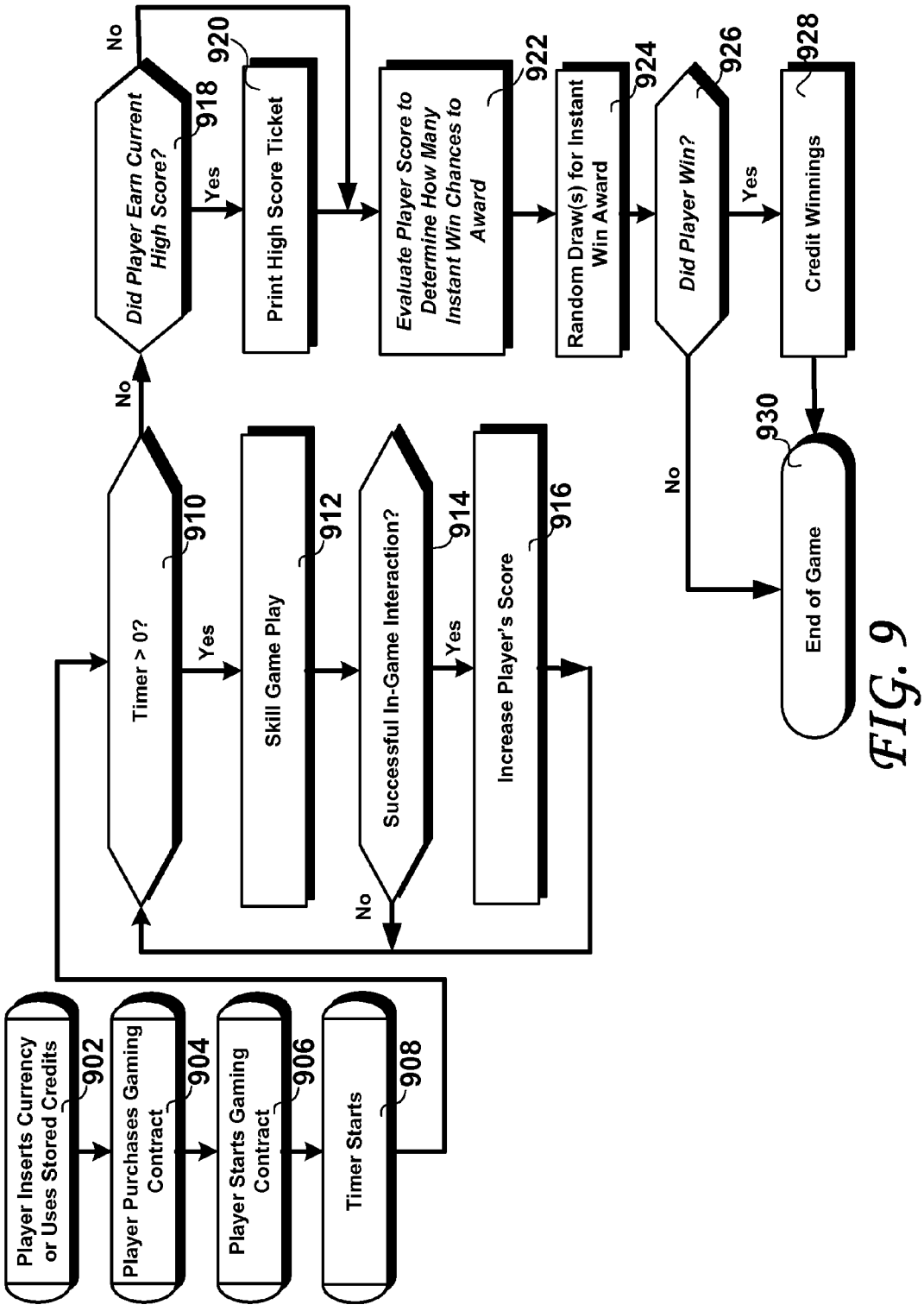

Player Inserts Currency or Uses Stored Credits
902
Player Purchases Gaming Contract
904
Player Starts Gaming Contract
906
Timer Starts
908
Timer > 0?
910
Yes
No
Skill Game Play
912
Successful In-Game Interaction?
914
Yes
No
Increase Player's Score
916
Did Player Earn Current High Score?
918
Yes
No
Print High Score Ticket
920
Evaluate Player Score to Determine How Many Instant Win Chances to Award
922
Random Draw(s) for Instant Win Award
924
Did Player Win?
926
Yes
No
Credit Winnings
928
End of Game
930

FIG. 9

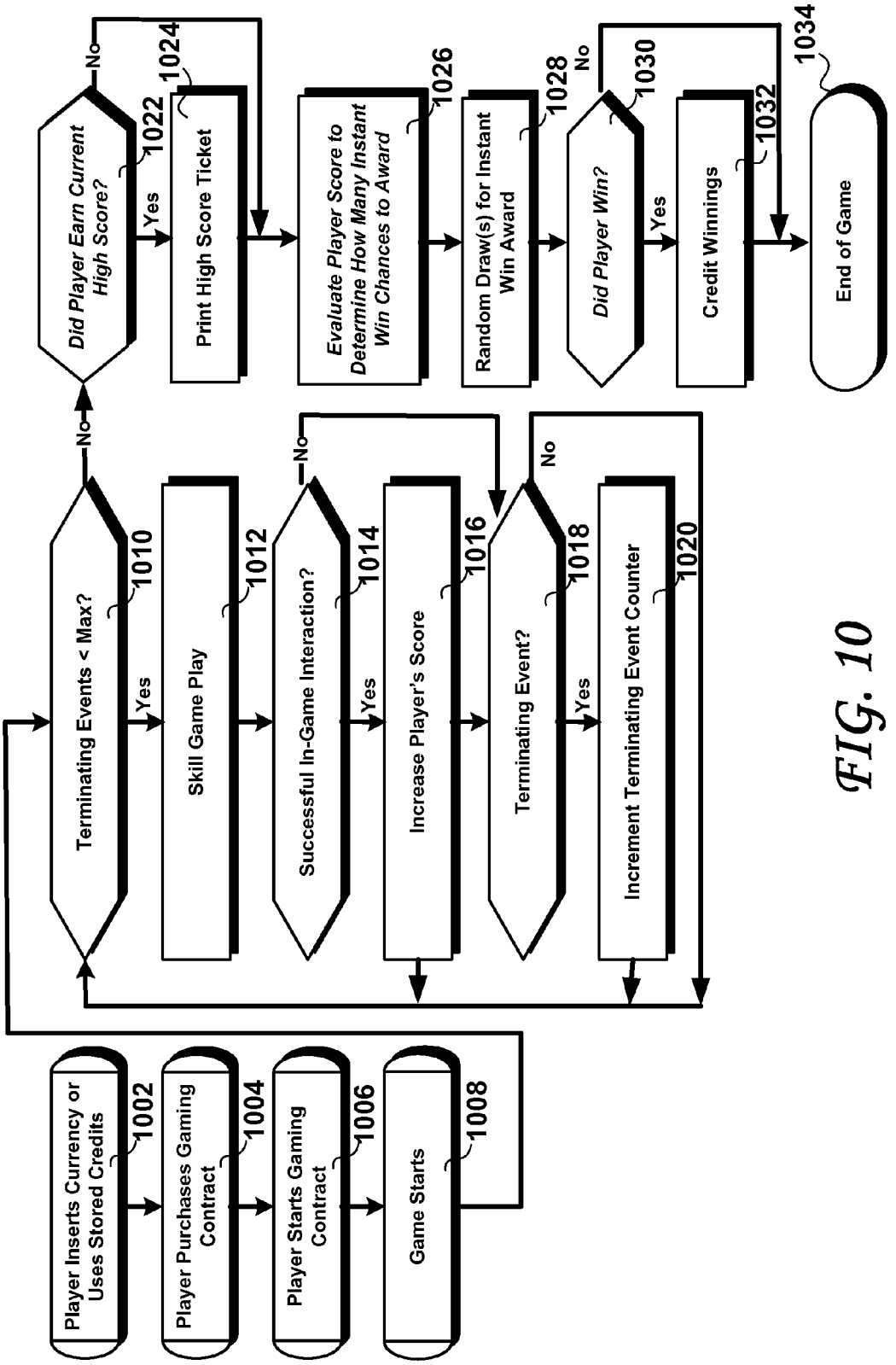

Player Inserts Currency or Uses Stored Credits
1002
Player Purchases Gaming Contract
1004
Player Starts Gaming Contract
1006
Game Starts
1008
Terminating Events < Max?
1010
Yes
Skill Game Play
1012
Successful In-Game Interaction?
1014
Yes
Increase Player's Score
1016
Terminating Event?
1018
Yes
Increment Terminating Event Counter
1020
No
No
No
Did Player Earn Current High Score?
1022
Yes
Print High Score Ticket
1024
No
Evaluate Player Score to Determine How Many Instant Win Chances to Award
1026
Random Draw(s) for Instant Win Award
1028
Did Player Win?
1030
Yes
Credit Winnings
1032
End of Game
1034

FIG. 10

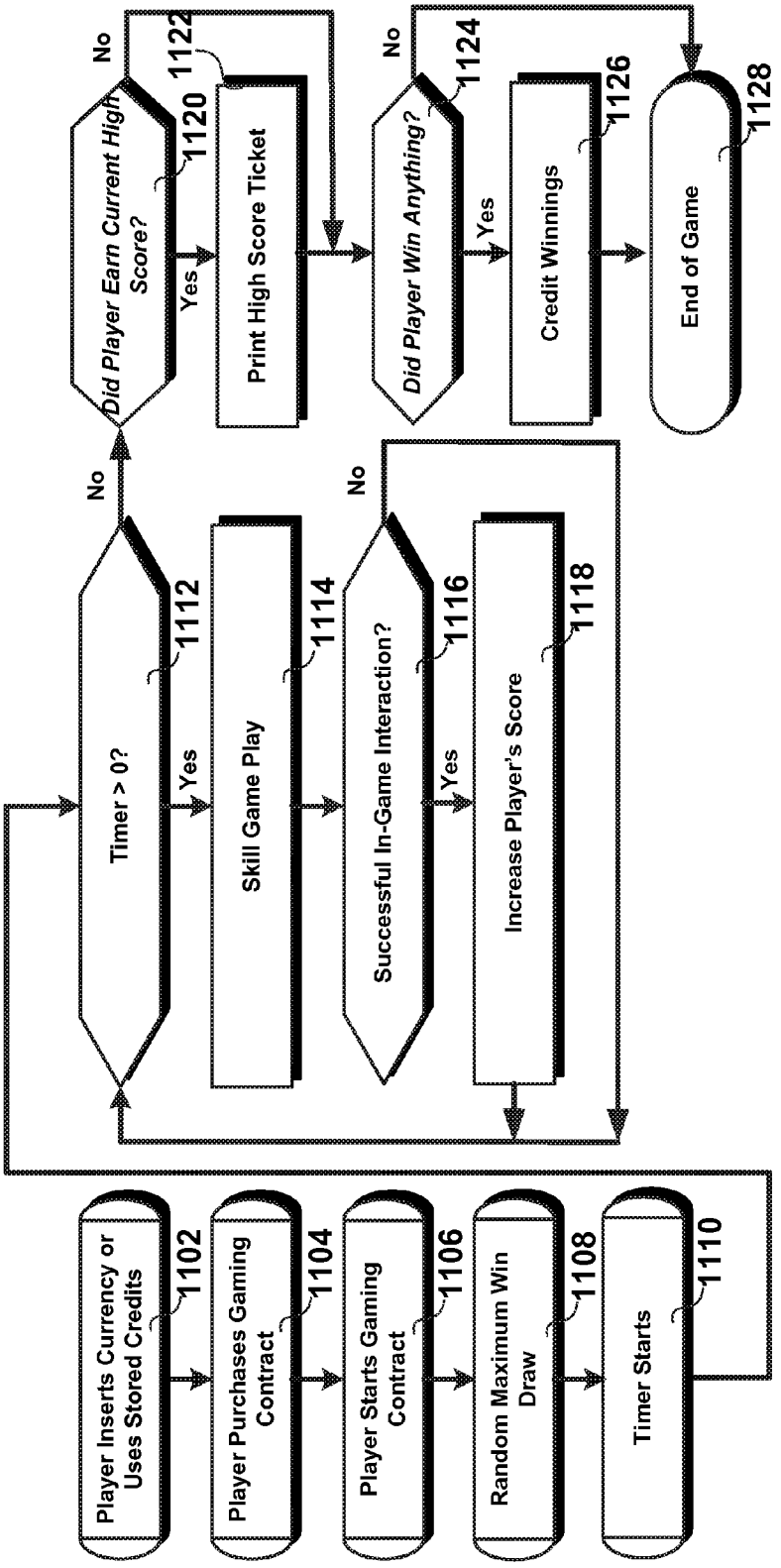

Player Inserts Currency or Uses Stored Credits
1102
Player Purchases Gaming Contract
1104
Player Starts Gaming Contract
1106
Random Maximum Win Draw
1108
Timer Starts
1110
Timer > 0?
1112
Yes
No
Skill Game Play
1114
Successful In-Game Interaction?
1116
Yes
No
Increase Player's Score
1118
Did Player Earn Current High Score?
1120
Yes
No
Print High Score Ticket
1122
Did Player Win Anything?
1124
Yes
No
Credit Winnings
1126
End of Game
1128

FIG. 11

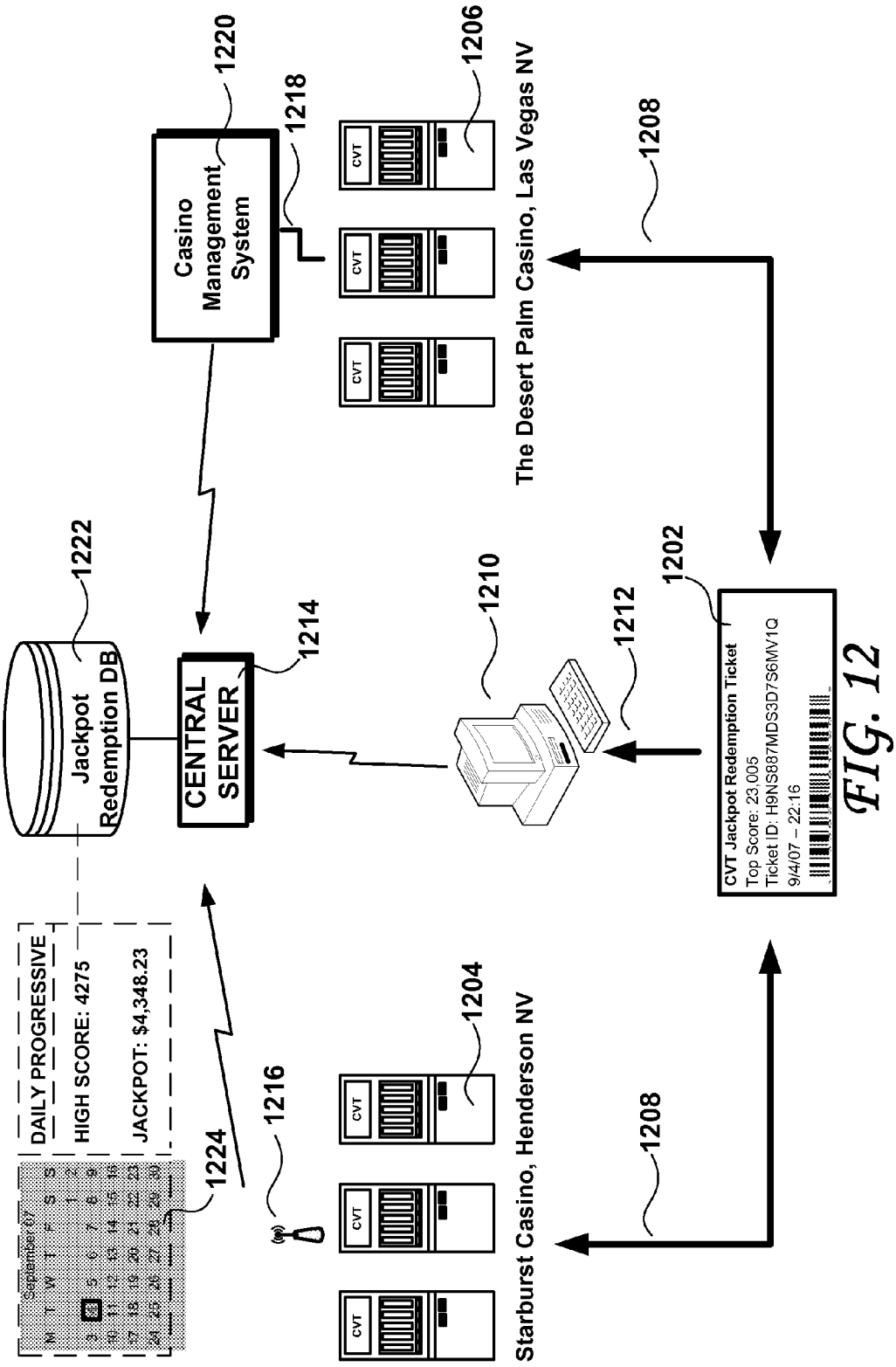

1220
1218
1206
Casino Management System
CVT
1208
The Desert Palm Casino, Las Vegas NV
1222
Jackpot Redemption DB
1214
CENTRAL SERVER
1210
1212
1202
CVT Jackpot Redemption Ticket
Top Score: 23,005
Ticket ID: H9NS887MDS3D7S6MV1Q
9/4/07 – 22:16
DAILY PROGRESSIVE
HIGH SCORE: 4275
JACKPOT: $4,348.23
1224
1216
1204
1208
Starburst Casino, Henderson NV

FIG. 12

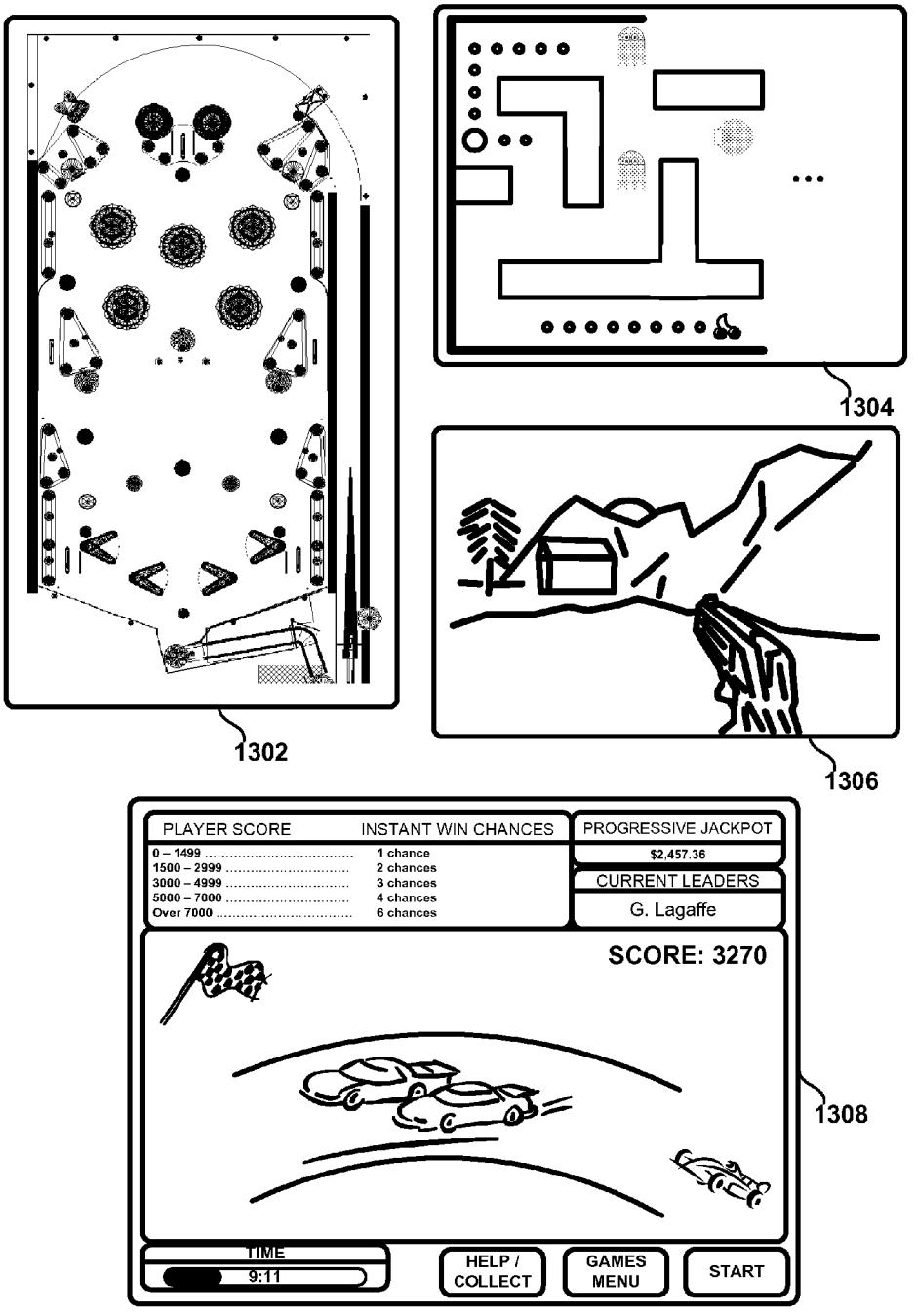

1302
1304
1306
PLAYER SCORE
INSTANT WIN CHANCES
0 – 1499 ..... 1 chance
1500 – 2999 ..... 2 chances
3000 – 4999 ..... 3 chances
5000 – 7000 ..... 4 chances
Over 7000 ..... 6 chances
PROGRESSIVE JACKPOT
$2,457.36
CURRENT LEADERS
G. Lagaffe
SCORE: 3270
1308
TIME
9:11
HELP / COLLECT
GAMES MENU
START

FIG. 13

REGULATED MULTI-PHASE GAMING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application is related in subject matter to commonly assigned application Ser. No. 10/167,052, filed Jun. 10, 2002, now U.S. Pat. No. 6,645,075, which is hereby incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

[0002] Embodiments of the present inventions relate generally to the field of regulated electronic games of chance.

SUMMARY

[0003] Regulated multi-phase skill games allow for the creation of a new class of electronic casino games in which player skill plays a larger role in determining the player's financial outcome without, however, compromising the inherent "house edge" built into each game. To accomplish this aim, multi-phase games according to embodiments of the present invention may include two segments of play: 1) skill-based play and 2) a random award. Players who are more successful in the skill-based portion of each game earn more favorable terms (i.e. higher average returns) in the random portion of play than do players who are less successful during the skill-based portion of play. This structure allows for games that further incentivize skilled play but that remain just as consistently profitable for game operators as traditional games.

[0004] The "skills" that are rewarded within multi-phase games according to embodiments of the present invention may include, for example, manual dexterity (such as may be useful in arcade style games), puzzle solving ability (such as may be used in puzzle games), general knowledge (useful in trivia games), or virtually any skill that the game designer may wish to measure.

[0005] An optional third segment of multi-phase game play according to embodiments of the present invention may utilize a percentage of each player's wager to fund a progressive jackpot awarded to the player or players having the highest skill-based play score over a predetermined period of time. This feature represents a breakthrough in house-banked casino play, allowing for the creation of games in which the most skilled players may play at a financial advantage without reducing the game's overall profitability for the house.

[0006] Accordingly, an embodiment of the present invention is a method of determining a reward due to a player of a regulated electronic game of chance. The method may include steps of accepting from the player a selection of a game play contract for a predetermined duration of game play for a predetermined amount of funds; providing the player with a skill-based first game that may be configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play thereon, and during the predetermined duration: determining a score of the player in playing the skill-based first game; after the predetermined duration: providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that may be determined at least in part by the player's score; randomly determining the reward due to the player for each of the number of winning opportunities.

[0007] According to further embodiments, the method may further include providing a skill-level table that may include a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill-level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and the chance-based game providing step may be carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score. The chance-based second game providing step may be carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases. The skill-based first game providing step may be carried out with the skill-based first game including, for example, a pinball game, a console style video game, a trivia game, or an electronic puzzle game, to name but a few of the possibilities. For example, the chance-based second game may include a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and/or a number on a keno number selection screen, to name but a few of the limitless possibilities. The measuring step may include a step of providing the determined score to the player. The likelihood of one or more of the winning opportunities leading to the player earning a reward may be higher with a higher determined score than with a comparatively lower determined score.

[0008] According to another embodiment, the present invention is a method of determining rewards due to a player of a regulated electronic game of chance that includes steps of accepting funds from a player and using a first portion of the funds to fund a progressive jackpot to be awarded at a predetermined point in time and using a second portion of the funds to purchase a game play contract for a predetermined duration of game play on the regulated electronic game of chance; providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play thereon, and during the predetermined duration: determining a score of the player in playing the skill-based first game; and after the predetermined duration: providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that may be determined at least in part by the player's score; randomly determining the reward due to the player for each of the winning opportunities; if the player's score matches or exceeds a current high score, establishing the player's score as the current high score, and awarding at least a portion of the progressive jackpot to the player if the player's score may be established as the current high score and has not been exceeded by the predetermined point in time.

[0009] The method may further include providing a skill-level table that includes a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill-level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and the chance-based game providing step may be carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score. The chance-based second game providing step may be carried out with an average reward to the player

of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases. The skill-based first game providing step may be carried out with the skill-based first game including, for example, a pinball game, a console style video game, a trivia game or an electronic puzzle game, to name but a few of the possibilities. The chance-based second game may include, for example, a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and/or a number on a keno number selection screen, to name but a few of the virtually limitless possibilities. The establishing step may include issuing a jackpot claim ticket to the player. The method may further include a jackpot claim ticket redemption step enabling players who hold a jackpot claim ticket for a score that has not been exceeded by the predetermined period of time to redeem the ticket for at least a portion of the progressive jackpot. The score determining step may include providing the determined score to the player.

[0010] According to still another embodiment thereof, the present invention is a method of determining a reward due to a player on a regulated electronic game of chance. Such a method may include steps of accepting funds from the player; setting a maximum terminating events parameter; initializing a terminating events counter to zero; providing the player with a skill-based first game that may be configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play of the skill-based first game; determining a score of the player in playing the skill-based first game; incrementing the terminating events counter each time the player triggers a terminating event during game play of the skill-based first game; concluding the skill-based first game when the terminating events counter equals the maximum terminating events parameter, and after the skill-based first game is concluded: providing a chance-based second game to the player, the chance-based second game including a number of winning opportunities that may be determined at least in part by the player's determined score, and randomly determining the reward due to the player for each of the number of winning opportunities.

[0011] The chance-based second game providing step may be carried out with a higher determined score being associated with a greater number of winning opportunities than is associated with a comparatively lower determined score. The chance-based second game providing step may be carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases. The skill-based first game providing step may be carried out with the skill-based first game including, for example, a pinball game, a console style video game, a trivia game or an electronic puzzle game. The chance-based second game may include a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout and/or a number on a keno number selection screen, for example.

[0012] A still further embodiment of the present invention is a method of determining rewards due to a player on a regulated electronic game of chance that includes steps of accepting funds from a player and using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play; setting a maximum terminating events parameter; initializing a terminating events counter to zero; providing the player with a skill-based first game that may be configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling the game play thereon; determining a score of the player in playing the skill-based first game; incrementing the terminating events counter each time the player triggers a terminating event during game play of the skill-based first game; concluding the skill-based first game when the terminating events counter equals the maximum terminating events parameter, and after the skill-based first game is concluded (i.e., over) providing a chance-based second game to the player, the chance-based second game including a number of winning opportunities that may be determined at least in part on the player's determined score; randomly determining the reward due to the player for each of the number of winning opportunities; if the player's determined score matches or exceeds a current high score for the skill-based game: establishing the player's score as a current high score for the skill-based first game, and awarding at least a portion of the progressive jackpot to the player if the player's score was established as the current high score and has not been exceeded by the predetermined point in time.

[0013] The chance-based second game providing step may be carried out with a higher determined score being associated with a greater number of winning opportunities than is associated with a comparatively lower determined score. The chance-based second game providing step may be carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases. The skill-based first game providing step may be carried out with the skill-based first game including, for example, a pinball game, a console style video game, a trivia game, or an electronic puzzle game. The chance-based second game may include, for example, a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout and/or a number on a keno number selection screen. The establishing step may include issuing a jackpot claim ticket to the player. The method may also include a jackpot claim ticket redemption step enabling players who hold a jackpot claim ticket for a score that has not been exceeded by the predetermined period of time to redeem the ticket for at least a portion of the progressive jackpot. The skill level measuring step may include providing the measured skill level to the player. The score determining step may include providing the measured score to the player.

[0014] A still further embodiment of the present invention is a method of determining rewards due to a player on a regulated electronic game of chance, comprising the sequential steps of accepting funds from the player; randomly determining a theoretical maximum reward that the player could win; providing a skill-based game that may be configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play on the skill-based game of chance, the provided skill-based game being further configured to include a plurality of reward generating assets, at least one of a number of the reward generating assets and a value of a reward for successfully interacting with any of the plurality of reward generating assets being dependent upon the randomly determined theoretical maximum reward; determining the score of the player in playing the skill-based game, and

based upon the determined score, determining how much of the randomly determined theoretical maximum reward the player actually wins.

[0015] The method may further include a step of providing a maximum reward table and the randomly determining step may be carried out by calling the maximum reward table. The accepting step may include using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play. The accepting step may include accepting from the player a selection of a game play contract for a predetermined duration of game play of the skill-based game for a predetermined amount of funds. The score determining step may be carried out with the score being determined according to a number of the plurality of reward generating assets with which the player successfully interacts during the game play of the skill-based game. The score determining step may include increasing the score with each successful interaction with any of the plurality of reward generating assets. The method may also include a step of determining whether the determined score matches or exceeds a pre-stored high score, and, if so, establishing the score as a new high score, and awarding at least a portion of the progressive jackpot to the player if the player's score was established as the high score and has not been exceeded as of a time when the progressive jackpot may be awarded. The accepting step may include using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play and the method further may include awarding at least a portion of the progressive jackpot to the player if the player has earned a score that has not been exceeded by the predetermined point in time. The providing step may be carried out with the skill-based game including one or more penalty inducing assets that may be configured such that each time the player interacts therewith, the determining step decreases the player's score by a predetermined penalty amount. The method may also include a step of initializing the score to 100 (or any predetermined initial value) and the score determining step decreases the score by the penalty amount each time the player interacts with the at least one penalty inducing asset during the game play. The skill-based game providing step may be carried out with the skill-based game including, for example, a virtual pinball game, a console style video game, a trivia game and/or an electronic puzzle game.

[0016] Yet another embodiment of the present invention is a method of determining a reward due to a player of a regulated electronic game of chance, comprising the steps of: accepting from the player a selection of a game play contract for a predetermined duration of video game play for a predetermined amount of funds; providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater manual dexterity earn higher scores than do players exhibiting comparatively less manual dexterity and enabling game play thereon, and during the predetermined duration: determining a score of the player in playing the skill-based first game; after the predetermined duration: providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that may be determined at least in part by the player's score; randomly determining the reward due to the player for each of the number of winning opportunities.

[0017] The method may further include providing a skill-level table that includes a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and the chance-based game providing step may be carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score. The chance-based second game providing step may be carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases. The chance-based second game may include, for example, a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout and/or a number on a keno number selection screen. The measuring step may include a step of providing the determined score to the player. The likelihood of at least one of the winning opportunities leading to the player earning a reward may be higher with a higher determined score than with a comparatively lower determined score.

[0018] A still further embodiment of the present invention is a method of determining rewards due to a player on a regulated electronic game of chance, comprising the sequential steps of: accepting funds from the player; randomly determining a theoretical maximum reward that the player could win; providing a skill based video game that may be configured such that, on average, players exhibiting greater manual dexterity earn higher scores than do players exhibiting comparatively less manual dexterity and enabling game play on the skill based video game; determining the score of the player in playing the skill-based video game, and based upon the determined score, determining how much of the randomly determined theoretical maximum reward the player actually wins.

[0019] The method may also include a step of providing a maximum reward table and the randomly determining step may be carried out by calling the maximum reward table. The accepting step may include using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play. The skill-based game providing step may be carried out with the skill-based game including a plurality of reward generating assets, and with at least one of a number of the reward generating assets and a value of a reward for successfully interacting with any of the reward generating assets being dependent upon the determined theoretical maximum reward. The accepting step may include accepting from the player a selection of a game play contract for a predetermined duration of game play of the skill-based game for a predetermined amount of funds. The score determining step being carried out with the score being determined according to an ability of the player to successfully interact with as many reward generating assets as possible during the game play of the skill-based game. The score determining step may include increasing the score with each successful interaction with any of the plurality of reward generating assets. The method may further include a step of determining whether the determined score matches or exceeds a pre-stored high score, and, if so, establishing the score as a new high score, and awarding at least a portion of the progressive jackpot to the player if the player's score was established as the high score and has not been exceeded as of a time when the progressive jackpot may

be awarded. The accepting step may include using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play and the method further may include awarding at least a portion of the progressive jackpot to the player if the player has earned a score that has not been exceeded by the predetermined point in time. The skill-based providing step may be carried out with the skill-based game including a plurality of penalty inducing assets and the randomly determining step may be carried out with at least one of a number of the penalty inducing assets and a value of a penalty amount for interacting with any of the penalty inducing assets being dependent upon the determined theoretical maximum win. The score may be initialized at 100 (or to some other predetermined value) and the score determining step may successively decrease the score by the penalty amount each time the player interacts with one of the penalty inducing assets during the game play.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. **1** depicts a dual screen gaming machine offering a multi-phase electronic game of chance, according to embodiments of the present invention.

[0021] FIG. **2** depicts one possible user interface for a multi-phase Casino Video Game with an outer space theme, according to embodiments of the present invention.

[0022] FIG. **3** depicts one possible user interface for a multi-phase Sudoku Game, according to embodiments of the present invention.

[0023] FIG. **4** depicts one possible display for a virtual scratch ticket random award draw within the multi-phase gaming model, according to embodiments of the present invention.

[0024] FIG. **5** depicts one possible lucky number selection screen for a lottery style random award draw within the multi-phase gaming model, according to embodiments of the present invention.

[0025] FIG. **6** depicts one possible lucky number drawing screen for a lottery style random award draw within the multi-phase gaming model, according to embodiments of the present invention.

[0026] FIG. **7** depicts one possible lucky number drawing screen for a roulette style random award draw within the multi-phase gaming model, according to embodiments of the present invention.

[0027] FIG. **8** depicts a system in which winning opportunities are assigned to buckets based on their expected value to the player, according to embodiments of the present invention.

[0028] FIG. **9** shows an exemplary flow of time-based game play on a regulated gaming machine configured with multi-phase gaming, according to an embodiment of the present invention.

[0029] FIG. **10** shows an exemplary flow of terminating event based game play on a regulated gaming machine configured with multi-phase gaming, according to an embodiment of the present invention.

[0030] FIG. **11** shows a gaming flow for a Reverse multi-phase gaming model, according to embodiments of the present invention.

[0031] FIG. **12** depicts one possible high score progressive jackpot claim ticket redemption model for multi-phase games, according to embodiments of the present invention.

[0032] FIG. **13** depicts additional examples of skill-based first games that may be used and/or adapted for use with multi-phase gaming, according to further embodiments of the present invention.

DETAILED DESCRIPTION

[0033] In the following detailed description of exemplary embodiments of the invention, reference is made to the accompanying drawings, which form a part hereof, and in which is shown by way of illustration specific exemplary embodiments in which the invention may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that logical, mechanical, electrical and other changes may be made without departing from the spirit or scope of the present invention. The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined only by the appended claims.

[0034] FIG. **1** depicts an exemplary dual-screen gaming machine offering a multi-phase electronic game of chance, according to embodiments of the present invention. The depicted gaming machine **102** features traditional peripherals including a bill acceptor **104** and player card acceptor **106** as well as a dual screen layout in which the gaming machine's bottom screen **108** displays a primary game **110** (such as, for example, the Space Invaders® originally manufactured by Taito and licensed for production in the U.S. by the Midway division of Bally) and the gaming machine's top screen **112** displays a bonus game **114**. Because multi-phase games according to embodiments of the present invention do not require custom peripherals or custom gaming cabinets, they may be advantageously offered alongside more traditional games within, e.g., a server-based, distributed gaming network.

[0035] Multi-phase games depart from their traditional counterparts in that their primary game play is either predominantly skill-based or completely skill-based. Traditional slot machines operate in a purely random fashion and, therefore, do not reward skilled play. Traditional video poker games operate in a predominantly random fashion, rewarding skilled play only to a small degree. Electronic versions of other popular casino games like video blackjack operate in a predominantly random fashion, and allow skilled players to achieve only marginally better returns than unskilled players over time.

[0036] It is believed that the predominantly random to purely random nature of traditional electronic casino games are of little interest to a significant segment of the gaming industry's potential customer base. Many potential customers, particularly those who have grown up playing popular home video games, prefer a gaming experience in which there is a greater correlation between the skill they have exhibited and their ultimate results. Many of these players are disdainful of games over which they exert little to no control, finding them to be generally mindless and unentertaining. It stands to reason that, were casino games to become successful in incentivizing skilled play (particularly manual dexterity skills), they would likely gain increased appeal within a key demographic that currently does not widely patronize them.

[0037] One important reason that predominantly skill-based games have not made inroads into the regulated casino environment relates to the difficulty in ensuring their profitability. Existing house banked games all have a built in math-

ematical edge that ensures they will generate a profit. In these games, the player's skill merely determines the magnitude of this house mathematical edge, with skilled players facing a smaller disadvantage than unskilled players.

[0038] As electronic casino gaming evolves to encompass more complex game classes such as fully interactive, fully skill-based console style games, new methods must be developed to create a satisfying play experience while ensuring each game's profitability. An ideal model of next generation gaming would achieve the following goals: a) incentivize skill-based play by awarding skilled players significantly greater average returns than non-skilled players, and b) employ a structure through which unskilled players may randomly achieve winnings, so unskilled players are not discouraged from playing, c) offer the promise that, with enough skill, a player could realize a financial advantage over the game and d) accomplish all of these aims while earning a consistent profit for the game operator by maintaining a reliable house edge that is not jeopardized by even the most skilled players.

[0039] Multi-phase gaming, according to embodiments of the present invention, constitutes the first gaming model that is able to successfully achieve each of the above-listed goals. This gaming model accomplishes these goals by employing a multi-phase structure that separates the skill-based element of each game from the random element of the game. In the first phase, the player engages in skill-based play and receives a score based on the strength of his or her performance. This score is then input into a second, random phase of play in which players with higher skill scores (corresponding to the measured level of skill) from the previous phase of game play earn more favorable terms (i.e., higher average returns) than players who were less successful during skill-based play. For example, a multi-phase game according to an embodiment of the present invention may offer the player the opportunity to scratch off virtual lottery tickets and win instant rewards in its random phase. Players who earned high skill scores in the first phase of play may then be given the opportunity to scratch off a greater number of virtual lottery tickets than players who earned comparatively lower scores. An optional third phase of play, according to embodiments of the present invention, may use a percentage of each wager made on a multi-phase game to fund a progressive jackpot awarded to the player or players earning the highest skill score or scores over a predetermined period of time.

[0040] Because the first phase of game play is predominately skill-based or even fully skill-based, each player action will take on increased meaning and significance, which should lead to greater player engagement, suspense and entertainment. The random nature of the second phase of play ensures that even the least skilled players will sometimes achieve wins, which should keep players of all skill levels invested in the game. The progressive phase of play will appeal to the competitive nature of players, causing players to keep playing in hopes of winning funds by setting the game's "high score." Perhaps most importantly, this multi-phase structure grants casino operators the ability to offer players a game with a purely skill-based feel (in the first phase) that still maintains a consistent casino advantage.

[0041] FIG. **2** depicts one possible user interface for a multi-phase Casino Video Game with an outer space theme, according to embodiments of the present invention. The depicted exemplary user interface portrays the primary screen **202** of the gaming machine, which may be configured for the skill-based phase of play. The gaming screen features traditional gaming buttons including a HELP/COLLECT button **204** used to view help screens or cash out funds, a GAMES MENU button **206** used to view other gaming choices available on the gaming machine, and a START button **208** used to start a game not yet in progress. The gaming screen may also include, according to embodiments of the present invention, additional meters such as a TIME meter **210**, which may be configured to alert the player of the amount of amount of time remaining in his or her game. Multi-phase casino video games according to embodiments of the present invention may be structured by time as shown in FIG. **2**, in that the game is over when the TIME meter indicates that the player's game play time is over. Alternatively, multi-phase casino video games according to embodiments of the present invention may be structured such that game play ends upon the occurrence of one or more predetermined events. For example, the depicted outer Space Invaders® video game may be alternatively offered in a clock-less format in which the player's game is ended by the occurrence of terminating events (i.e., a predetermined number of alien missiles have hit the player's spaceship or a predetermined number of player lives have been exhausted).

[0042] Popular skill-based games may be offered for play in the multi-phase model, in many cases in an unaltered format (that is, configured no differently than when they were originally offered on home consoles, in video game arcades or on home computers). Because players may play games with which they are already familiar (and with which they may have formed some attachment or affinity), multi-phase casino games have a minimized learning curve. This ease of play is of tremendous value to game operators, as they earn revenue when players play, but not when players look through help menus or engage in other activities trying to orient themselves within a new game.

[0043] As noted above, in the center of the depicted exemplary user interface, a player is engaged in the popular outer space-themed console style Space Invaders® video game. In Space Invaders® the player earns a score **212** by using a cannon **214** to shoot aliens **216** that advance towards him. At the end of the player's gaming session, the player's final score, according to embodiments of the present invention, is referenced against a skill-level table **218** to determine how many winning opportunities the score **212** has earned for the player in the random phase of game play. In the exemplary case depicted in FIG. **2**, the player has earned 4,250 points, which makes him eligible, according to the exemplary skill-level table **218**, for 3 winning opportunities, as the score **212** falls between the stated score range of 3,000 to 4,999, which score range corresponds to 3 winning opportunities, as shown. Similarly, should the player's score increase to 5000 points, he or she would be awarded 4 winning opportunities, and should the player's score increase to 7000 points or more, 6 winning opportunities would be awarded, according to the exemplary skill-level table **218** of FIG. **2**.

[0044] It should be noted that this skill-based phase of play—i.e., the Space Invaders® video game—has been offered to the player in a largely unaltered format such that players already familiar with the arcade version of the game would be able to play with confidence and minimal orientation, reliving the video arcade exploits of their youth. It is understood that the skill-based phase of game play may be

readily configured to cater to specific demographics, as the primary skill-based game need not be limited to pixilated early 80's arcade favorites.

[0045] As also shown in FIG. **2**, meters in the top right portion of the depicted user interface may display the current size of the progressive jackpot **220** and the current high scores **222**. Multi-phase regulated games according to embodiments of the present invention may feature an optional progressive jackpot phase in which a portion (which may be operator-selectable, subject to regulations) of each wager made on a multi-phase game is used to fund a progressive jackpot. After a predetermined period that may be set by the game operator (i.e., every day, every week, every month, etc) the jackpot will be awarded to the player or players with the highest score or scores. The casino operator may configure the progressive jackpot to pay out only for the high score, the highest two scores, the highest three scores, or any number of players selected according to predetermined criteria. When a player of a multi-phase game according to an embodiment of the present invention earns a score that currently qualifies him for a jackpot award (in the event that the score is not exceeded before the jackpot deadline), the player becomes eligible to win all or a portion of the progressive jackpot and may be issued a jackpot redemption ticket.

[0046] In the depicted user interface, the current progressive jackpot **220** is set at $2,457.36. As shown at **222**, the current high scores are owned by Johnny Q (5,260 points) and Laars W (5,100 points). For purposes of illustration, we will assume that this exemplary game is set to pay the entire progressive jackpot to the owner of the highest score every night at midnight. In this scenario, if the current player achieves a score of 6,700 points, he or she would be issued a jackpot redemption ticket (or another functionally equivalent device may be given to the player or a previously issued player device may be suitably updated) displaying information including but not limited to: the score, the time the score was earned, and, if the operator wished to make such a service available, a code used to check the status of the reward claim over the Internet or by phone. If the player's score is not exceeded before the midnight jackpot deadline, then he or she would be able to collect the jackpot by inserting or presenting the ticket or other player device into or to a participating gaming machine or redemption kiosk or by presenting the ticket at the casino's cashier cage, or, if available, entering a code printed on the ticket into a dedicated website. Further details regarding the above progressive jackpot claim ticket issuance and redemption model is provided hereunder relative to FIG. **11**.

[0047] FIG. **3** depicts one possible user interface for a multi-phase Sudoku Game, according to embodiments of the present invention. The depicted user interface portrays the primary screen **302** of the gaming machine, which may be used for the skill-based phase of play. The gaming screen may include traditional gaming buttons, including a HELP/COLLECT button **304** used to view help screens or cash out funds, a GAMES MENU button **306** used to view other gaming choices available on the gaming machine, and a START button **308** used to start a game not yet in progress. The gaming screen may also include, according to embodiments of the present invention, TIME meter **310**, which alerts the player of the remaining time in his or her game. As noted above, multi-phase casino video games according to embodiments of the present invention may be structured according to a clock (i.e., by time), in that the game is over when the TIME meter indicates that the player's game play time is over. Alternatively, multi-phase casino video games according to embodiments of the present invention may be structured such that game play ends upon the occurrence of one or more predetermined events. For example, the depicted Sudoku game may be alternatively offered in a clock-less format in which the player's game ends upon the occurrence of one or more predetermined terminating events (e.g., the player makes a predetermined number of mistakes when trying to solve a puzzle or puzzles).

[0048] The multi-phase gaming model according to embodiments of the present invention may facilitate the creation of several different classes of casino games, including casino puzzle games. Indeed, popular puzzle games such as Sudoku may be converted for casino play without significant changes to their traditional rules and structure. The depicted user interface, for example, may feature a version of Sudoku in which the player **312** tries to complete as many puzzles as he or she can in a predetermined period of time by dragging and dropping numbers from a palate **314** into the empty squares of an onscreen puzzle **316**. In the depicted version of the game, the player must touch an onscreen button **318** to determine if a puzzle has been correctly completed, although alternate version of the game may be offered in which the game automatically checks each puzzle for successful completion after every change the player makes. Onscreen meters provide the player with information about game play, including but not limited to: how many puzzles the player has completed as shown at **320** and the average time taken to complete each puzzle has taken, as shown at **322**. Those of skill in this art will readily recognize that many variations are possible, which embodiments may include, for example, different meters, different layouts, and/or different criteria for determining whether the player has successfully completed a puzzle (completing puzzles within successively diminishing time periods, for example), and all such variations are deemed to fall within the scope of the present inventions.

[0049] Like the console style game of FIG. **2**, multi-phase puzzle games according to embodiments of the present invention may feature a session skill-level table **324** that equates the player's performance in the skill portion of the game (in this exemplary case, the number of puzzles completed) with the number of instant reward chances the player is to be awarded. Multi-phase puzzle games may also include a high score progressive jackpot. In this case, the gaming machine may display the size of the current progressive jackpot at **326**, as well as the current highest scores achieved, as shown at reference numeral **328**.

[0050] FIG. **4** shows one possible display for a virtual scratch ticket random award draw within the multi-phase gaming model according to embodiments of the present invention. The random award draw phase of game play may take on a plurality of formats, including the virtual scratch ticket model depicted in FIG. **4** at **402**. In this model, the player is presented with one or more virtual scratch lottery tickets **404**, **410**, **416**. Players who have performed more skillfully in the skill-based portion of game play may be awarded a greater number of virtual tickets to scratch off than players who have performed comparatively less skillfully.

[0051] Each virtual ticket in this model may be branded to promote, for example, the casino, the game supplier, a third party, or multi-phase gaming in general. As may be seen on virtual ticket **404**, the present assignee Cyberview Technology's "CVT" logo is featured in the top left corner along with

the marketing slogan "Instant Riches", as shown at **406**. The prize window of this particular ticket **408** has already been scratched by the player, revealing a non-winning outcome.

[0052] Touch screen technology may be used to allow the player to redeem each virtual lottery ticket through a simulated scratching motion, optionally with accompanying scratching sound effects. As is depicted on virtual ticket **410**, the player **412** may simply move his or her finger (or some kind of pointer if touch screen technology is not used) across the prize window **414** to virtually scratch away the virtual dark ink and reveal the prize stored underneath. In this case, the player has won a financial award, the size of which is still partially obscured. The player will continue the virtual scratching motion on the touch screen to reveal the full prize amount.

[0053] Virtual ticket **416** has yet to be touched by the player. The prize window **418** on unscratched tickets remains solid, obscuring the potential prize from the player until it is scratched.

[0054] FIG. **5** depicts one possible lucky number selection screen for a lottery style random award draw within the multi-phase gaming model, according to embodiments of the present invention. In addition to virtual scratch-off ticket schemes, regulated multi-phase games may make use of lottery drawing games for their random award phase. The depicted random award model **502** includes a selection menu of **42** numbers **504**, a graphic **506** listing the size of the award the player is trying to win, a graphic **508** listing how many winning opportunities the player has used (the player's total number of chances is based on his or her performance in the skill-based phase of play), and a graphic **510** listing how many winning opportunities the player has remaining.

[0055] The size of the player's potential reward may be fixed for a given game or it may be determined randomly. The amount of numbers the player may pick from—in this case **42**—may be increased or decreased by the operator to alter the volatility of the game.

[0056] Upon reaching the random phase of play in this model, the player may simply touch one of the numbers onscreen **512** to use one of his or her winning opportunities. Numbers that remain unselected take on a different onscreen appearance than numbers that have been selected. For example, in the depicted interface, selected numbers are shown in white text **516** and a black background while unselected numbers **514** are shown in black text with a white background.

[0057] The player, in this random award model, may continue to select lucky numbers from the number selection menu **504** until he has exhausted all of the winning opportunities he has earned. At that point, the game will consult a random number generator to select the winning lucky number. This random draw process is illustrated in detail in FIG. **6**.

[0058] FIG. **6** depicts one possible lucky number drawing screen for a lottery style random award draw within the multi-phase gaming model, according to embodiments of the present invention. As in the previous figure, the gaming screen **602** for this lottery style random award features a number selection menu **604** includes both unselected numbers **606** (such as 1) and selected numbers **608** (such as like 7), as well as a graphic **610** showing the size of the award the player is trying to win, a graphic **612** listing how many winning opportunities the player has used, and a graphic showing the winning number that has been randomly selected by a random number generator (the gaming machine's own or a random number obtained over a network from a central system), in this case "41" as shown at reference numeral **614**.

[0059] Within this random award model, a number of strategies may be used to dramatize the random number selection. For example, onscreen effects may be used where different numbers are emphasized in a quick succession such that it appears as if the winning number is dancing back and forth between the many potential numbers. A skill stop button maybe added to such systems allowing the player to stop the random draw. In these instances, the player may feel as if the point at which he presses the skill stop button will improve his chances at gaining a random reward but, in actuality, the results will purely random, just as they would have been with a random stop. Once a winning number has been selected, it is emphasized on the number selection menu **616**, the emphasis occurring, in this exemplary case, by surrounding the winning number with a bold square. As shown at **618**, a message may be displayed onscreen to console the player for losing outcomes or to congratulate the player for winning outcomes.

[0060] To make the random award phase of game play more enjoyable and intuitive to the player, popular casino games may be emulated. FIG. **7** depicts one possible lucky number drawing screen for a roulette style random award draw within the multi-phase gaming model, according to embodiments of the present invention. The depicted random award model **702** includes a roulette number layout **704**, a roulette wheel **706**, a graphic **708** listing the size of the award the player is attempting to win, a graphic **710** listing how many winning opportunities the player has used (the player's total number of chances being based on his or her performance in the skill-based phase of play), and a graphic listing how many winning opportunities the player has remaining, as shown at **712**.

[0061] The size of the player's potential reward may be fixed for a given game or it may be determined randomly. Upon reaching the random phase of play, players may choose which numbers they wish to play by touching numbers as shown at **714** on the onscreen layout **704**. Game operators may wish to make more volatile versions of the game available, where the player may be given the opportunity to double his potential reward by using two chances on the same number, or triple his reward by using three chances on the same number, or quadruple his reward by using four chances on the same number, etc. In addition, operators may also elect to make a version of the game available where players can touch the border between two numbers to select them both (but only win half as much if the roulette ball ends up in either number's bucket on the wheel) or they may make a version available where players can touch the corner between four numbers to select all four of them (at one quarter the depicted bet size). Once the player has used up all of his winning opportunities by selecting numbers, the onscreen roulette wheel will spin, revealing to the player a win (if the ball ends up in a bucket the player has chosen) or a loss (if the ball ends up in a bucket the player has not chosen).

[0062] FIG. **8** depicts an embodiment of the present inventions in which winning opportunities are assigned to buckets based on their expected value to the player. This bucketing system takes the player's performance (as evidenced by their score) in the skill phase of game play **802** as its input. For illustration purposes, let us consider an example in which the player has played a Sudoku puzzle game. The player, in this illustrative example, has purchased a time-based game play

contract to play for 5 minutes for $5 and completed 3 puzzles during that time. After completion of the skill-based phase of play, the multi-phase game would then reference its posted skill-level table **804** to determine how many winning opportunities the player has earned.

[0063] By referencing a skill-level table, multi-phase games assign each player's performance to one of various skill buckets. Players having exhibited a low level of skill (as evidenced by the score they have achieved) during the skill-based phase of the regulated multi-phase game may be assigned to a low skill bucket **806** in which they receive fewer winning opportunities **808** (in this case, only one) and a lower overall average Return To Player (RTP) percentage return **810** (in this case only 82%). From a mathematical standpoint, a player being assigned to the depicted Low Skill Bucket 1, would expect a theoretical average return of $4.10 on his $5.00 wager (assuming none of the original wager was used to fund a progressive jackpot).

[0064] Players exhibiting an average level of skill (i.e., they have achieved an average score) may be assigned to an average skill bucket **812** in which they receive a greater number of winning opportunities **814** (in this case, two chances) than the players in the low skill bucket, but a lesser number of winning opportunities than players in the high skill bucket **818**. Players assigned to the average skill bucket **812** will earn, on average, a higher overall return **816** (in this case, an average RTP percentage of 90%) than will players in the low skill bucket but a lower overall return than players in the high skill bucket. From a mathematical standpoint, a player assigned to the Average Skill Bucket **812**, may expect a theoretical average return of $4.50 on his $5.00 wager (assuming none of the original wager was used to fund a progressive jackpot).

[0065] Players exhibiting high skill (i.e., those that have achieved a high score) may be assigned to a high skill bucket **818** in which they receive a greater number (in this case, three chances) of winning opportunities **820** than are received by players having exhibited an average or low level of skill, and a higher overall average return **822** (in this case, an average RTP percentage of 98%) than players of low or average skill. From a mathematical standpoint, a player being assigned to the depicted High Skill Bucket **318** may expect a theoretical average return of $4.90 on his $5.00 wager (assuming again that none of the original wager was used to fund a progressive jackpot). In addition, if the progressive high score jackpot feature is in place and the player's skill level is high enough to win the jackpot, the player may actually play the game at a financial advantage.

[0066] It should be noted that while the included illustration depicts a multi-phase wagering model with three buckets, models with a greater number of buckets may be readily implemented. For example, the Sudoku skill-level table detailed in FIG. **3**, shows five different buckets.

[0067] One significant advantage of this bucketing feature used within the present regulated multi-phase games is the manner in which it allows game designers to regulate the relationship between winning opportunities awarded to the player and the value of those chances. Game designers would like to be able to reward the skilled player with a large amount of extra instant win opportunities (thus increasing the player's enjoyment of the game) while having the flexibility to tightly control the value of each added chance. A further advantage of this feature is that these changes can be made by altering a game's pay table only, as changes to the games core elements are not necessary.

[0068] For example, if each instant win ticket had a set cash value (which they need not have, according to embodiments of the present invention), then the game designer would not be able to award a second or third instant win ticket to the player without doubling or tripling his theoretical return from the game. Advantageously, the bucketing feature allows the game designer to exert greater control over the reward process. Low skill players, for example, may receive only one instant win opportunity with a theoretical value of $3. In the same game, average skill players may receive two instant win opportunities each with a theoretical value of $2. The combined value of the two $2 opportunities would be $4, which is greater than the $3 earned by the less skilled player. So, while the financial return the average skill player has earned is 33% greater than that of the low skill player, the average skill player has been awarded twice as many winning opportunities which, for many players, equates to double the fun. So long as the game designer fairly rewards players (by ensuring that more skilled players earn greater rewards), the game designer has the flexibility, using the present bucketing system, to create countless reward schemes to maximize player enjoyment and excitement.

[0069] FIG. **9** shows an exemplary flow of time-based game play on a regulated gaming machine configured with multi-phase gaming, according to an embodiment of the present invention. Players fund a time based multi-phase game by, for example, inserting funds (any form of money or value) as shown at **902** or by allocating funds from a credit balance already available on the gaming machine or the network to which the gaming machine is coupled. Players wishing to play a multi-phase game may then select a game play contract type as shown at **904** and purchase it at an agreed price for a set duration. For example, the player may purchase a 5 minute game play contract to play a multi-phase for $5. Both the duration of the game play contract and its cost advantageously may be predetermined, packaged together, and presented to the player as a menu offering of game play contract types. According to embodiments of the inventions described herein, the menu of offerings provided to gaming operators may be customizable, to enable the operators of gaming establishments to select and/or set the game play contract duration and price combinations that they believe will best meet the demands of their customers.

[0070] Because this brand of multi-phase game is time-based, players must press a start button to start the game play contract session, as shown at **906**. At **908**, the session credit meter is initialized to zero and the timer begins with the duration associated with the selected game play contract. It is to be noted that the session credit meter may be initialized to an amount other than zero. The timer is incremented (or decremented) by a clock set to a small periodicity, every millisecond for example, and may be continually monitored to determined if the timer has expired, as shown at **910**.

[0071] As long as the game's timer has not expired, the player may continue playing the skill-based gaming phase **912** in an attempt to accrue points. Every time the player has a successful in game interaction **914** (for example, destroying an alien spacecraft in Space Invaders® or solving a puzzle or a portion thereof in Sudoku), the player's score is increased, as shown at **916**. This dynamic (i.e., steps **910**, **912**, **914** and **916**) occurs until the player's timer has expired, indicating the end of the skill phase of his or her gaming session.

[0072] Upon termination of the skill phase of gaming, the player's score is compared to a table of the highest scores

earned within a predetermined period of time, as shown at **918**. If the player has earned a top score (i.e. a score high enough to currently qualify him for an award) then he is issued a jackpot redemption ticket (or some other functionally similar device) **920** which he will be able to redeem for all or a portion of the jackpot if his high score is not exceeded before the jackpot period expires.

[0073] After the player's jackpot eligibility has been determined, the skill-level table is then consulted at **922** to determine the number of winning opportunities associated with his skill-level score. As noted above, the better the player's skill-level score, the more winning opportunities the player earns. For example, in a Sudoku themed puzzle regulated multi-phase game according to embodiments of the present invention, players solving 2 or 3 puzzles during the course of their game play contract may qualify for 2 winning opportunities while players solving 4 or 5 puzzles may qualify for 3 winning opportunities. Winning opportunities may take the form of virtual scratch off lottery tickets, lottery or keno style draws, or any other random award method.

[0074] After the game has determined how many winning opportunities to award the player, the game enters its random draw phase, as shown at **924**. Each winning opportunities references a pay table and a random number generator to determine if the player has won any funds, as shown at **926**. If the player has won funds, they are credited to his or her account at **928**. If the player has not won funds then his or her game is over, as shown at **930**.

[0075] FIG. **10** shows an exemplary flow of terminating event based game play on a regulated gaming machine configured with multi-phase gaming, according to an embodiment of the present invention. As shown therein, players fund a terminating event based multi-phase game by, for example, inserting funds as shown at **1002** or by allocating funds from a credit balance already available on the gaming machine or from the network to which the gaming machine is coupled. Players wishing to play a multi-phase game may then select a contract type as shown at **1004** and purchase it at an agreed price.

[0076] The duration of multi-phase game may be determined by the player reaching a predetermined number of terminating events instead of a timer expiring. When the player presses the start button at **1006**, both the session credit meter and a terminating event counter are initialized to zero at **1008**. During game play, this counter is monitored continually, every millisecond for example, to determine if the player has exceeded his predetermined limit (that is, to determine whether the maximum number of terminating events has been exceeded), as shown at **1010**.

[0077] As long as the player has not triggered a predetermined number of terminating events, the player may continue play of the skill-based gaming phase of the regulated multi-phase game according to an embodiment of the present invention, in an attempt to accrue points, as shown at **1012**. Each time the player has a successful in game interaction **1014** (for example, destroying an alien spacecraft in Space Invaders® or solving a puzzle or a portion thereof in Sudoku), the player's score is increased at **1016**.

[0078] Any event occurring in the game that is not a successful game interaction may be a terminating event (such as, for example, making an error in Sudoku). The game will evaluate each event that occurs at **1018**. Events that are classified as terminating events will cause the terminating event counter to be incremented, as shown at **1020**.

[0079] The described game play dynamic (i.e., steps **1010**, **1012**, **1014**, **1016**, **1018** and **1020**) occurs until the player has reached the predetermined number of terminating events, indicating the end of the skill phase of his or her regulated multi-phase gaming session.

[0080] Upon termination of the skill phase of gaming, the player's score is compared to a table of the highest scores earned within a predetermined period of time **1022**. If the player has earned a top score (i.e. a score high enough to currently qualify him for an award) then he is issued a jackpot redemption ticket (or other functionally equivalent device) at **1024** which he will be able to redeem for all or a portion of the jackpot if his score is not exceeded before the jackpot period expires.

[0081] After the player's jackpot eligibility has been determined, his score is then compared to a pay table at **1026** to determine the number of winning opportunities for which his score has qualified him. The better the player's score, the greater the number of winning opportunities the player earns. For example, in a Sudoku themed puzzle game, players solving 2 or 3 puzzles in their game play contract duration may qualify for 2 winning opportunities while players solving 4 or 5 puzzles may qualify for 3 winning opportunities. Winning opportunities may take the form of virtual scratch off lottery tickets, lottery or keno style draws, or any other random award method.

[0082] After the game has determined how many winning opportunities to award the player, the present regulated multi-phase game enters its random draw phase at **1028**. Each winning opportunity references a pay table and a random number generator to determine if the player has won any funds, as shown at **1030**. If the player has won funds, they are credited to his or her account at **1032**. If the player has not won funds then his or her game is over, as shown at **1034**.

[0083] FIG. **11** shows a gaming flow for a regulated reverse multi-phase gaming model, according to further embodiments of the present invention. Regulated reverse multi-phase games follow the reverse sequence of the regulated multi-phase games described above, with the random or chance phase of game play preceding the skill-based phase of play. In the regulated reverse multi-phase model, the player's theoretical maximum reward is determined randomly first, whereupon the player then the player uses his or her skill (in the skill-based phase of play) to determine how much of that theoretical maximum reward he or she will actually receive.

[0084] While regulated multi-phase games according to embodiments of the present invention add drama to the gaming experience by featuring an interactive random phase of game play, the regulated reverse multi-phase game embodiments allow game operators to perform the random phase of game play "behind the scenes" or hidden from the player's view. This structure allows for a game with a more integrated feel since the primary (i.e. interactive) portion of game play has a single phase instead of two distinct phases.

[0085] The skill-based phase in a regulated reverse multi-phase game may be structured differently than the skill-based phase of a regulated multi-phase game, as described above. The skill-based phase within standard multi-phase games may, for example, be comprised of an existing console style video game with very little or no adaptation being necessary. This simple conversion is possible because the skill phase in these games is static; every player experiences a game with the same opportunities to score points.

[0086] In contrast, the skill-based phase in a regulated reverse multi-phase game according to embodiments of the present invention changes in accordance with the random phase that has preceded it. Players who have randomly achieved a high maximum win will play a skill-based game with more opportunities to score points than players who have randomly achieved a lower maximum win. To make this dynamic work, the reverse multi-phase game may store multiple version of the skill-based game internally (or dynamically adjust the difficulty thereof) and then cue an appropriate version of the game based on each player's previously calculated maximum win. The logical flow of a full time-based reverse multi-phase game with a high score progressive jackpot is listed in greater detail below. It should be noted that regulated reverse multi-phase games according to embodiments of the present invention may also be offered to players in a terminating-event format as opposed to a time-based format. In addition, regulated reverse multi-phase games may be offered to the player without a high score progressive jackpot.

[0087] Players fund a regulated reverse multi-phase game by, for example, inserting funds as shown at **1102** or by allocating funds from a credit balance already available on the gaming machine, or retrieved from a network to which the gaming machine is coupled. Players wishing to play a regulated reverse multi-phase game may then select a game play contract type as shown at **1104** and purchase it at an agreed price for a set duration. For example, the player may purchase a 5 minute game play contract to play a multi-phase for $5. Both the duration of the game play contract and its cost advantageously may be predetermined, packaged together, and presented to the player as a menu offering of game play contract types. According to embodiments of the inventions described herein, the menu of offerings provided to gaming operators may be customizable, to enable the operators of gaming establishments to select and/or set the game play contract duration and price combinations that they believe will best meet the demands of their customers.

[0088] The depicted regulated reverse multi-phase game is time-based, meaning that players must press a start button to start the game play contract session, as shown at **1106**. At the point a game is initiated, the game may randomly reference a maximum reward table to determine the player's maximum win at **1108**. This figure may be greater than the player's wager (meaning that the player will have the opportunity to win funds), may be equal to the player's wager (meaning the best the player can do is break even), or may be less than the player's wager (meaning that the player will be playing to minimize his or her losses). According to an embodiment of the present invention, this draw occurs behind the scene; the resulting maximum win information is not shared with the player. In another embodiment, the theoretical maximum reward information is indeed shared with and provided to the player.

[0089] At **1110**, the session credit meter is initialized to zero and the timer begins with the duration associated with the selected game play contract. It is to be noted that the session credit meter may be initialized to an amount other than zero. The timer is incremented (or decremented) by a clock set to a small periodicity, every millisecond for example, and may be continually monitored to determined if the timer has expired, as shown at **1112**.

[0090] As long as the game's timer has not expired, the player may continue play of the skill-based gaming phase in an attempt to accrue points, as shown at **1114**. Every time the player has a successful in game interaction **1116** with a reward generating asset (for example, destroying an alien spacecraft in Space Invaders® or solving a puzzle (or a portion thereof) in Sudoku), the player's score is increased, as shown at **1118**. The amount of points each player's score is increased may be dynamically altered based on, for example, the result of the earlier maximum win random draw. Alternatively, the amount of points the player gets for each successful interaction with a reward generating asset may be fixed, but the number of possible interactions may be dynamically adjusted based on the result of the earlier maximum win random draw. This game play dynamic occurs until the player's timer has expired, indicating the end of the skill phase of his or her gaming session.

[0091] Upon termination of the skill phase of gaming, the player's score may be compared to a table of the highest scores earned within a predetermined period of time, as shown at **1120**. If the player has earned a top score (i.e. a score high enough to currently qualify him for an award if the jackpot deadline expired at the end of the player's game) then the player is issued a jackpot redemption ticket (or other functionally similar device) at **1122**, which the player will be able to redeem for all or a portion of the jackpot at the if his score is not exceeded before the jackpot period expires.

[0092] After the player's jackpot eligibility has been determined, his score is then compared to a pay table **1124** to determine if the he or she has won any funds. Greater wins are awarded to players with higher skill-level scores. For example, in a Sudoku themed puzzle game, players solving 2 or 3 puzzles in their game play contract duration may qualify for a win of $10, while players solving 4 or 5 puzzles may qualify for a $25 win. The skill-level table that lists this skill-level or performance-to-win conversion is predetermined and may be posted on, e.g., the gaming screen. After game play has concluded, players who have qualified for a reward are issued funds **1126**, whereas players who have not qualified for a reward are not issued any funds. At this point, the game terminates as shown at **1128**.

[0093] FIG. **12** shows a high score progressive jackpot claim ticket redemption model for multi-phase games, according to embodiments of the present invention. When the progressive high score jackpot feature is enabled, multi-phase games are configured to issue Jackpot Redemption tickets **1202** to players who have earned the highest score on the jackpot for which they are competing. FIG. **12** demonstrates how gaming machines at multiple locations such as the Starburst Casino in Henderson, Nev. **1204** and The Desert Palm Casino in Las Vegas, Nev. **1206** could be networked together to establish a common jackpot pool. The physical games at both locations may be configured to both issue and check the status of jackpot redemption tickets **1208**. Players checking a winning ticket may be issued cash, a ticket representing the cash value of the jackpot, or some other form of money.

[0094] In addition, if the game operators wish to make such a feature available, the status of jackpot redemption tickets may be checked at a player's home using a personal computer **1210** and an Internet connection. In this scenario, players wishing to check the status of a ticket may enter a code printed on the ticket **1202** into a web site dedicated for that purpose, as suggested at **1212**. According to some embodiments of the invention described herein, the players holding winning tickets would return to the casino and enter their ticket into a participating machine to receive their award. In other embodi-

ments, players may have the funds mailed to their home in the form of a check or transferred to an account in their name electronically.

[0095] In the redemption model depicted in FIG. **12**, information about the status of each daily jackpot may be stored within a central server **1214**. Gaming machines on each floor may be coupled to the central server **1214** wirelessly as suggested at **1216** or through a wired connection **1218**, optionally via a participating casino's casino management system **1220**. The central server **1214** may include or be coupled to a jackpot redemption database **1222** in which critical information **1224** about each jackpot is organized and stored. This information may include, for example, the size of the jackpot, the high score, and all of the scores, codes, game info, and timestamps associated to jackpot redemption tickets issued on each particular day.

[0096] FIG. **13** depicts additional examples of skill-based games that may be used and/or adapted for use with multi-phase gaming, according to further embodiments of the present invention. As shown, virtually any classic or modern PC, console or arcade games may be used, with permission from the owners thereof, within multi-phase gaming machines according to embodiments of the present invention. For example, a video pinball game may be used as the skill-based game, as shown at **1302**. Alternatively, a Pac Man® game may be the skill-based game, as shown at **1304**. Younger players may prefer a scripted first person shooter game, as suggested at **1306**. For example, a game belonging to Microsoft's Halo® franchise may form the basis of the skill-based portion of a multi-phase gaming machine according to embodiments of the present invention. First person point of view games (e.g., Id Software's Wolfenstein 3-D and its progeny) are particularly well suited for incorporation into multi-phase games, as these games have already earned a wide and enthusiastic following. Moreover, the fan base of such games constitutes a prized demographic for casino operators. Other examples of skill-based games include, for example, car racing games, as suggested at **1308**. Each of these games, although only as shown in the racing game **1308**, may include a skill-level table relating the player score and the player's winning opportunities, a progressive jackpot counter, a listing of the current leaders and the above-described timer, help collect, games menu and start buttons. Virtually any game that includes an element of skill or knowledge (where more skilled or more knowledgeable players will, on average, earn higher scores than comparatively less-skilled or knowledgeable players) is suitable for implementation within a multi-phase game according to an embodiment of the present invention. Within the rubric of "skill", embodiments of the present invention explicitly include other attributes such as specialized knowledge, manual dexterity, proficiency in any task, mental acuity, memory and even other attributes such as singing ability, strength, flexibility and/or other acts of mental or physical prowess. Therefore, the skill-based game, according to embodiments of the present invention, is not limited to classic or contemporary video games, but may include games that are yet to be developed where one player can distinguish him or herself from other players on grounds other than random chance.

[0097] While the foregoing detailed description has described several embodiments of this invention, it is to be understood that the above description is illustrative only and not limiting of the disclosed invention. Indeed, a number of other modifications will no doubt occur to persons of skill in this art. All such modifications, however, should be deemed to fall within the scope of the present invention.

What is claimed is:

1. A method of determining a reward due to a player of a regulated electronic game of chance, comprising the steps of:
- accepting from the player a selection of a game play contract for a predetermined duration of game play for a predetermined amount of funds;
- providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play thereon, and during the predetermined duration:
- determining a score of the player in playing the skill-based first game;
- after the predetermined duration:
- providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that is determined at least in part by the player's score;
- randomly determining the reward due to the player for each of the number of winning opportunities.

2. The method of claim **1**, further comprising providing a skill-level table that includes a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill-level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and wherein the chance-based game providing step is carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score.

3. The method of claim **1**, wherein the chance-based second game providing step is carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases.

4. The method of claim **1**, wherein the skill-based first game providing step is carried out with the skill-based first game including one of a pinball game, a console style video game, a trivia game, and an electronic puzzle game.

5. The method of claim **1**, wherein he chance-based second game includes at least one of a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and a number on a keno number selection screen.

6. The method of claim **1**, wherein the measuring step includes a step of providing the determined score to the player.

7. The method of claim **1**, wherein a likelihood of at least one of the winning opportunities leading to the player earning a reward is higher with a higher determined score than with a comparatively lower determined score.

8. A method of determining rewards due to a player of a regulated electronic game of chance, comprising the steps of:
- accepting funds from a player and using a first portion of the funds to fund a progressive jackpot to be awarded at a predetermined point in time and using a second portion of the funds to purchase a game play contract for a predetermined duration of game play on the regulated electronic game of chance;
- providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibit-

ing comparatively lower skill and enabling game play thereon, and during the predetermined duration:

determining a score of the player in playing the skill-based first game;

and after the predetermined duration:

providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that is determined at least in part by the player's score;

randomly determining the reward due to the player for each of the winning opportunities;

if the player's score matches or exceeds a current high score, establishing the player's score as the current high score, and

awarding at least a portion of the progressive jackpot to the player if the player's score is established as the current high score and has not been exceeded by the predetermined point in time.

9. The method of claim **8**, further comprising providing a skill-level table that includes a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill-level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and wherein the chance-based game providing step is carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score.

10. The method of claim **8**, wherein the chance-based second game providing step is carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases.

11. The method of claim **8**, wherein the skill-based first game providing step is carried out with the skill-based first game including one of a pinball game, a console style video game, a trivia game, and an electronic puzzle game.

12. The method of claim **8**, wherein he chance-based second game includes at least one of a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and a number on a keno number selection screen.

13. The method of claim **8**, wherein the establishing step includes issuing a jackpot claim ticket to the player.

14. The method of claim **13**, further comprising a jackpot claim ticket redemption step enabling players who hold a jackpot claim ticket for a score that has not been exceeded by the predetermined period of time to redeem the ticket for at least a portion of the progressive jackpot.

15. The method of claim **8**, wherein the score determining step includes providing the determined score to the player.

16. A method of determining a reward due to a player on a regulated electronic game of chance, comprising the steps of:

accepting funds from the player;

setting a maximum terminating events parameter;

initializing a terminating events counter to zero;

providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play of the skill-based first game;

determining a score of the player in playing the skill-based first game;

incrementing the terminating events counter each time the player triggers a terminating event during game play of the skill-based first game;

concluding the skill-based first game when the terminating events counter equals the maximum terminating events parameter, and

after the skill-based first game is concluded:

providing a chance-based second game to the player, the chance-based second game including a number of winning opportunities that is determined at least in part by the player's determined score, and

randomly determining the reward due to the player for each of the number of winning opportunities.

17. The method of claim **16**, wherein the chance-based second game providing step is carried out with a higher determined score being associated with a greater number of winning opportunities than is associated with a comparatively lower determined score.

18. The method of claim **16**, wherein the chance-based second game providing step is carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases.

19. The method of claim **16**, wherein the skill-based first game providing step is carried out with the skill-based first game including one of a pinball game, a console style video game, a trivia game, and an electronic puzzle game.

20. The method of claim **16**, wherein the chance-based second game includes at least one of a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and a number on a keno number selection screen.

21. A method of determining rewards due to a player on a regulated electronic game of chance, comprising the steps of:

accepting funds from a player and using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play;

setting a maximum terminating events parameter;

initializing a terminating events counter to zero;

providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling the game play thereon;

determining a score of the player in playing the skill-based first game;

incrementing the terminating events counter each time the player triggers a terminating event during game play of the skill-based first game;

concluding the skill-based first game when the terminating events counter equals the maximum terminating events parameter, and

after the skill-based first game is concluded:

providing a chance-based second game to the player, the chance-based second game including a number of winning opportunities that is determined at least in part on the player's determined score;

randomly determining the reward due to the player for each of the number of winning opportunities;

if the player's determined score matches or exceeds a current high score for the skill-based game:

establishing the player's score as a current high score for the skill-based first game, and

awarding at least a portion of the progressive jackpot to the player if the player's score was established as the current high score and has not been exceeded by the predetermined point in time.

22. The method of claim **21**, wherein the chance-based second game providing step is carried out with a higher determined score being associated with a greater number of winning opportunities than is associated with a comparatively lower determined score.

23. The method of claim **21**, wherein the chance-based second game providing step is carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases.

24. The method of claim **21**, wherein the skill-based first game providing step is carried out with the skill-based first game including one of a pinball game, a console style video game, a trivia game, and an electronic puzzle game.

25. The method of claim **21**, wherein he chance-based second game includes at least one of a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and a number on a keno number selection screen.

26. The method of claim **21**, wherein the establishing step includes issuing a jackpot claim ticket to the player.

27. The method of claim **21**, further comprising a jackpot claim ticket redemption step enabling players who hold a jackpot claim ticket for a score that has not been exceeded by the predetermined period of time to redeem the ticket for at least a portion of the progressive jackpot.

28. The method of claim **21**, wherein the skill level measuring step includes providing the measured skill level to the player.

29. The method of claim **21**, wherein the score determining step includes providing the measured score to the player.

30. A method of determining rewards due to a player on a regulated electronic game of chance, comprising the sequential steps of:

accepting funds from the player;

randomly determining a theoretical maximum reward that the player could win;

providing a skill-based game that is configured such that, on average, players exhibiting greater skill earn higher scores than do players exhibiting comparatively lower skill and enabling game play on the skill-based game of chance, the provided skill-based game being further configured to include a plurality of reward generating assets, at least one of a number of the reward generating assets and a value of a reward for successfully interacting with any of the plurality of reward generating assets being dependent upon the randomly determined theoretical maximum reward;

determining the score of the player in playing the skill-based game, and

based upon the determined score, determining how much of the randomly determined theoretical maximum reward the player actually wins.

31. The method of claim **30**, further comprising a step of providing a maximum reward table and wherein the randomly determining step is carried out by calling the maximum reward table.

32. The method of claim **30**, wherein the accepting step includes using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play.

33. The method of claim **30**, wherein the accepting step includes accepting from the player a selection of a game play contract for a predetermined duration of game play of the skill-based game for a predetermined amount of funds.

34. The method of claim **30**, wherein the score determining step is carried out with the score being determined according to a number of the plurality of reward generating assets with which the player successfully interacts during the game play of the skill-based game.

35. The method of claim **30**, wherein the score determining step includes increasing the score with each successful interaction with any of the plurality of reward generating assets.

36. The method of claim **32**, further including a step of determining whether the determined score matches or exceeds a pre-stored high score, and, if so, establishing the score as a new high score, and awarding at least a portion of the progressive jackpot to the player if the player's score was established as the high score and has not been exceeded as of a time when the progressive jackpot is awarded.

37. The method of claim **30**, wherein the accepting step includes using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play and wherein the method further includes awarding at least a portion of the progressive jackpot to the player if the player has earned a score that has not been exceeded by the predetermined point in time.

38. The method of claim **30**, wherein the providing step is carried out with the skill-based game including at least one penalty inducing asset that is configured such that each time the player interacts therewith, the determining step decreases the player's score by a predetermined penalty amount.

39. The method of claim **38**, further including a step of initializing the score to 100 and wherein the score determining step decreases the score by the penalty amount each time the player interacts with the at least one penalty inducing asset during the game play.

40. The method of claim **30**, wherein the skill-based game providing step is carried out with the skill-based game including one of a virtual pinball game, a console style video game, a trivia game, and an electronic puzzle game.

41. A method of determining a reward due to a player of a regulated electronic game of chance, comprising the steps of:

accepting from the player a selection of a game play contract for a predetermined duration of video game play for a predetermined amount of funds;

providing the player with a skill-based first game that is configured such that, on average, players exhibiting greater manual dexterity earn higher scores than do players exhibiting comparatively less manual dexterity and enabling game play thereon, and during the predetermined duration:

determining a score of the player in playing the skill-based first game;

after the predetermined duration:

providing a chance-based second game to the player, the chance-based second game being configured to include a number of winning opportunities that is determined at least in part by the player's score;

randomly determining the reward due to the player for each of the number of winning opportunities.

42. The method of claim **41**, further comprising providing a skill-level table that includes a plurality of score ranges and an associated number of winning opportunities for each of the plurality of score ranges, the skill level table being configured such that higher scores are associated with greater numbers of winning opportunities than are associated with comparatively lower scores and wherein the chance-based game providing step is carried out with the number of winning opportunities being determined by calling the skill-level table using the player's score.

43. The method of claim **41**, wherein the chance-based second game providing step is carried out with an average reward to the player of at least some of the winning opportunities of the chance-based second game increasing as the number of winning opportunities increases.

44. The method of claim **41**, wherein he chance-based second game includes at least one of a virtual scratch off lottery ticket, a number in a lottery number selection screen, a number on a roulette layout, and a number on a keno number selection screen.

45. The method of claim **41**, wherein the measuring step includes a step of providing the determined score to the player.

46. The method of claim **42**, wherein a likelihood of at least one of the winning opportunities leading to the player earning a reward is higher with a higher determined score than with a comparatively lower determined score.

47. A method of determining rewards due to a player on a regulated electronic game of chance, comprising the sequential steps of:

accepting funds from the player;

randomly determining a theoretical maximum reward that the player could win;

providing a skill based video game that is configured such that, on average, players exhibiting greater manual dexterity earn higher scores than do players exhibiting comparatively less manual dexterity and enabling game play on the skill based video game;

determining the score of the player in playing the skill-based video game, and

based upon the determined score, determining how much of the randomly determined theoretical maximum reward the player actually wins.

48. The method of claim **47**, further comprising a step of providing a maximum reward table and wherein the randomly determining step is carried out by calling the maximum reward table.

49. The method of claim **47**, wherein the accepting step includes using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play.

50. The method of claim **47**, wherein the skill-based game providing step is carried out:

with the skill-based game including a plurality of reward generating assets, and

with at least one of a number of the reward generating assets and a value of a reward for successfully interacting with any of the reward generating assets being dependent upon the determined theoretical maximum reward.

51. The method of claim **47**, wherein the accepting step includes accepting from the player a selection of a game play contract for a predetermined duration of game play of the skill-based game for a predetermined amount of funds.

52. The method of claim **47**, wherein the score determining step being carried out with the score being determined according to an ability of the player to successfully interact with as many reward generating assets as possible during the game play of the skill-based game.

53. The method of claim **47**, wherein the score determining step includes increasing the score with each successful interaction with any of the plurality of reward generating assets.

54. The method of claim **49**, further including a step of determining whether the determined score matches or exceeds a pre-stored high score, and, if so, establishing the score as a new high score, and awarding at least a portion of the progressive jackpot to the player if the player's score was established as the high score and has not been exceeded as of a time when the progressive jackpot is awarded.

55. The method of claim **47**, wherein the accepting step includes using a first portion of the funds to fund a progressive jackpot to be awarded after a predetermined point in time and using a second portion of the funds to enable game play and wherein the method further includes awarding at least a portion of the progressive jackpot to the player if the player has earned a score that has not been exceeded by the predetermined point in time.

56. The method of claim **47**, wherein the skill-based providing step is carried out with the skill-based game including a plurality of penalty inducing assets and wherein the randomly determining step is carried out with at least one of a number of the penalty inducing assets and a value of a penalty amount for interacting with any of the penalty inducing assets being dependent upon the determined theoretical maximum win.

57. The method of claim **56**, wherein the score is initialized at 100 and wherein the score determining step successively decreases the score by the penalty amount each time the player interacts with one of the penalty inducing assets during the game play.

* * * * *