



(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
07.03.2007 Bulletin 2007/10

(51) Int Cl.:
G07F 17/34 (2006.01)

(21) Application number: **06254367.3**

(22) Date of filing: **19.08.2006**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

(72) Inventor: **Chambers, Rebecca**
Nottingham NG7 2LX (GB)

(74) Representative: **Gosnall, Toby**
Barker Brettell
138 Hagley Road
Edgbaston
Birmingham B16 9PW (GB)

(30) Priority: **24.08.2005 GB 0517287**

(71) Applicant: **Bell-Fruit Group Limited**
Lenton
Nottinghamshire NG7 2LX (GB)

(54) **Entertainment machine**

(57) An entertainment machine (100) comprising a set of reels (104) arranged, in a first mode, to spin inde-

pendently of one another and, in a second mode, arranged for at least a first (200) and a second (202) of the reels to spin together substantially as a single reel.

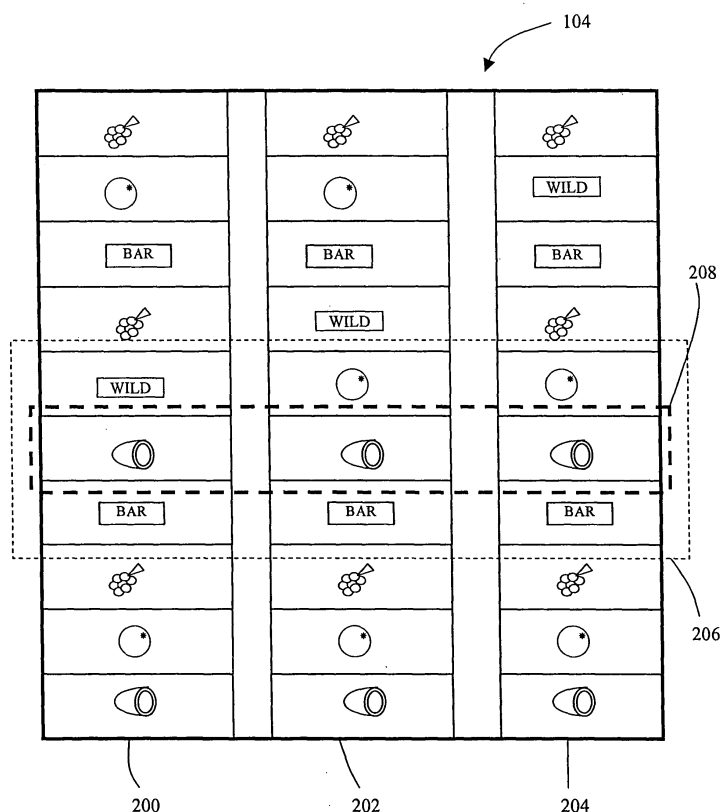


Fig. 2

Description

Field of the invention

[0001] This invention relates to an entertainment machine and in particular, but not exclusively, relates to an entertainment machine that can be freed for play by the payment of credit thereto. Such credit may take the form of coins, tokens, credit card payment, charging to an account, or the like.

Background of the invention

[0002] The field of entertainment machines is well developed and there is a large industry that is supported by the development of such machines. The continued success of entertainment machines depends on the continued development of this field in order that new and innovative games can be provided in order that players continue to play the machines. If players become bored or unchallenged by games provided by such machines then industry behind such machines is likely to fail. It is appreciated that in any industry, no matter what the technology, the overriding drive is likely to be the generation of sufficient income, at least to break even, or more generally to generate a profit.

[0003] Thus, in the field of entertainment machines there is a continuing drive to develop new machines to provide new games to a player.

[0004] Entertainment machines which rely on a set of reels which are spun in an apparently random, or random, basis are well known in the art and their functionality will be well appreciated. However, for the avoidance of doubt, each reel in the reel set bears a set of symbols about its periphery. Each reel in the set is arranged such that a subset of symbols can be viewed by a player and the set of reels is arranged such that the sub-set of symbols viewable on each reel form one or more lines, which may or may not be straight, of symbols across the set of reels. In such machines a win is generally determined if the viewable symbols within a line of symbols form a predetermined combination of symbols which may generally be referred to as a winning combination of symbols.

Summary of the invention

[0005] According to a first aspect of the invention there is provided an entertainment machine comprising a set of reels arranged, in a first mode, to spin independently of one another and, in a second mode, for at least two of the reels to become joined and spin together.

[0006] Such an entertainment machine is advantageous because when the machine enters the second mode it may be more likely that a player using the machine wins a prize.

[0007] The machine may comprise a detection means arranged to detect the position of the or each reel and output the or each position. The machine may comprise

a controller arranged to process the output of the detection means.

[0008] In one preferred embodiment the controller may be arranged to join the at least two reels such that symbols provided by each reel are arranged to form at least a portion of a winning combination of the symbols. Such an embodiment is advantageous since it is likely that a skilled person will perceive that is easier to win a prize since at least two of the reels are arranged to show a portion of a winning combination.

[0009] Reels that are joined in the second mode may be arranged such that each of the symbols provided by one of the reels is adjacent a symbol of another reel providing a row of symbols which is at least a portion of a winning combination. This would generally mean that a symbol is adjacent an identical symbol or adjacent a wild card symbol, or the like. Thus, if two reels are joined the row of symbols would comprise 2 symbols in a row. If three reels are joined the row of symbols would comprise 3 symbols, etc.

[0010] However, in other embodiments only some of the rows of symbols provided by the reels provide at least a portion of a winning combination. Thus, some of the rows formed by the symbols provided by the two reels may provide a portion of a winning combination whereas in other rows no portion of a winning combination is provided.

[0011] The machine may be arranged such that a predetermined event must occur to cause the spinning of the reels to change from the first mode to the second mode. Such an arrangement may provide a player with a degree of certainty as to how the game proceeds.

[0012] However, in alternative, or additional, embodiments the machine may be arranged to cause spinning of the reels to change from the first mode to the second mode on a random or pseudo-random basis which as such may occur at any time during a game being played. The terms random or pseudo random are intended to cover the use of functions which although repetitive and deterministic give the illusion that the occurrence is random or pseudo random generally because the function repeats over a large interval.

[0013] The controller may be arranged to change spinning of the reels from the first mode to the second mode when one or more reels stops in a predetermined position. The predetermined position may be in a position in which a predetermined symbol is displayed by the reel, may be at a predetermined position such as along the win line.

[0014] In alternative or additional embodiments the controller may be arranged to change spinning of the reels from the first mode to the second mode when more than one reel stops in a predetermined combination. For example, adjacent reels may each be required show a predetermined symbol.

[0015] In some embodiments a player may make an input to the machine which may or may not cost credits. In other embodiments, the outcome of a so-called feature

game (e.g. a sub-game within a game such a trail, a hi/lo gamble or the like) may provide the predetermined event.

[0016] The controller may be arranged to cause a prize to be awarded when the reels stop showing any one or more predetermined combinations of symbols; i.e. winning combinations. The award of a prize may take any suitable form and includes the payment of a cash amount, payment of one or more tokens, tickets, or the like, the crediting of an account, awarding of a non-monetary prize (such as a watch, cuddly toy, or the like.)

[0017] The reels which are arranged to be joined to one another in the second mode may be next to one another. In alternative, and perhaps less preferred embodiments, the reels which are arranged to be joined in the second mode may be separated by one or more other reels.

[0018] The reels may be mechanical or may be a graphical simulation of a set of reels, perhaps provided on a display screen. The graphical simulation of a set of reels may be termed a virtual reel set.

Brief description of the drawings

[0019] There now follows by way of example only a detailed description of the drawings of which:

Figure 1 shows an entertainment machine arranged to provide a game according to an embodiment of the present invention;

Figure 2 shows a set of reels suitable for providing a game according to an embodiment of the present invention; and

Figure 3a to 3d show portions of reels during various stages in a game highlighting the rules being applied by the machine in providing the game.

Detailed description of the drawings

[0020] In one embodiment of the present invention, an entertainment machine 100 arranged to provide one or more games and as shown in Figure 1, comprises a cabinet 102 which houses a set of reels 104. In the embodiment being described the reels 104 are provided as a set of mechanical reels but other in other embodiments the reels may be provided as a graphical simulation of a set of reels.

[0021] In embodiments in which the mechanical set of reels is replaced by a graphical simulation thereof a display is likely to be provided. Such a display is currently likely to be a Cathode Ray Tube (CRT) but may be provided by any suitable means such as any of the following non-exhaustive list: an LCD (Liquid Crystal Display), back projector, LEP (Light Emitting Polymer), or the like. Such machines having a display in this manner are often referred to as Video Machines within the art.

[0022] The cabinet 102 also houses, at a convenient

user-operable height, a credit input means such as a coin slot 108 arranged to accept coins as a payment for a game and an input means provided by four input buttons 110. The credit input means may additionally comprise any of the following non-exhaustive list: a credit card reader, access to a credit or debit account, or the like.

[0023] The machine 100 further comprises a coin payout tray 112 from which any prize won may be collected and, inside the cabinet 102, processing circuitry 114 arranged to control the set of reels 104 and to accept inputs from the input buttons 110 to control the games provided by the machine. The processing circuitry 114 may be thought of as a controller. The processing circuitry comprises a processor 116 and a memory 118 arranged to hold one or more programs to be processed by the processor 116 thereby allowing the machine to be controlled controls the machine 100 to provide the game described below.

[0024] Since the processing circuitry 114 controls the set of reels 104 is also provides, in the embodiment being described, a detection means to detect the position of the reels. However, in other embodiments a detection means may be provided which actually senses the position of each of the reels within the set of reels 104.

[0025] Figure 2 shows the symbols on a set of reels 104 used by an embodiment of the present invention. It will be appreciated that a reel is a drum about the periphery of which is provided a plurality of symbols. Figure 2 shows the periphery of the drum as a flat rectangle on which the symbols are shown. Since the set of reels 104 comprises three reels, three such rectangles 200, 202, 204 are shown. In this embodiment each of the reels / rectangles 200, 202, 204 has 10 symbols arranged thereon. The first reel represented by rectangle 200 has the following symbols: cherries; orange; bar; cherries; wild; melon; bar; cherries; orange and melon. The second reel represented by rectangle 202 has the following symbols: cherries; orange; bar; wild; orange; melon; bar; cherries; orange and melon. The third reel represented by rectangle 204 has the following symbols: cherries; wild; bar; cherries; orange; melon; bar; cherries; orange and melon. It will be appreciated that number of symbols per reel is not intended to be limiting and that reels with any number of reels may be possible. For example, in other embodiments, a reel may comprise roughly any of the following non-exhaustive list of symbols: 4, 5, 6, 7, 8, 9, 11, 15, 20, 25, 50 or any number in between. It is convenient in the following description to refer to the reels by the reference numbers of the rectangles in Figure 2 - for example to refer to the first reel by the reference number 200, the second reel by the by reference number 202 and the third reel by the reference number 204.

[0026] As is well known in the art the reel set 204 is arranged in the machine 100 such that some of the symbols displayed by the reels are viewable to a user through a win window 206. In this window three symbols from each reel are visible. There is also what is termed a win line which comprises a row 208 of symbols in the middle

of the win window 206.

[0027] In the embodiment shown the reels in the set 204 are arranged such that certain pairs of reels have pairs of symbols at a plurality (possibly all) positions. The symbols may be any symbols, but would commonly be symbols used in the art.

[0028] During playing of a game provided by the machine 100 the reels are spun in a first mode in which the reels spin on a random, or an apparently random, basis by the processing circuitry 114 as is commonly known in the art. A prize may be awarded to a player should predetermined combinations of symbols appear in the win window 206 or along the win line 208 (i.e. winning combinations of symbols). Generally, the predetermined combinations of symbols are limited to identical symbols appearing on neighbouring reels although this need not be the case.

[0029] Figures 3a to 3d show how the processing circuitry 114 is arranged to control the reel set 104 in order to provide an embodiment of the present invention. After the occurrence of a predetermined event at least a pair of the reels may become joined to another reel, which in this embodiment is a neighbouring reel. After such joining of the two reels subsequent spins of the reels occur in a second mode in which at least two reels spin together.

[0030] In the embodiment being described the predetermined event is the occurrence of a wild symbol along the win line 208. In other embodiments the predetermined event but could be any other event, or even a random occurrence.

[0031] Once the predetermined event occurs the reel on which the wild symbols has been displayed locks to the reel on its right. Therefore the first reel would lock to the second reel, the second reel would lock to the third reel and the third reel would lock to the first reel. Further, once the reels have become joined to one another they spin as a pair. However, before the reels spin as a pair one of the reels is rotated so that its symbols are paired with those of the other of the pair. Thus, the joined reels are caused to rotate such that symbols provided by each reel are arranged to form a portion of a winning combination of the symbols along the win line 208.

[0032] In the art, the wild symbol is generally taken to equivalent to any other symbol i.e. row of two oranges and a wild may be thought to be a row of three oranges. Thereby, the wild symbol may be thought of as a mechanism for apparently moving the odds of winning in favour of the player.

[0033] Referring to Figure 3a a player has spun the reels and the first reel 200 displays the cherries symbol 300 on the win line 208. The second reel 202 displays a bar symbol 302 on the win line 208 and the third reel 204 displays a wild symbol 304 on the win line 208. Since the predetermined event is the display of a wild symbol on the win line 208 the third reel 204 becomes joined to the first reel 200 for subsequent spins and the machine switches from the first mode to the second mode.

[0034] Thus, in subsequent spins the first 200 and third

204 reels spin together. However, before this occurs the first reel 200 is rotated by the processing circuitry 114 such that the symbols appearing thereon are match, as near as possible, the symbols on the third reel 204. In the example being described the first 200 and third 204 reels are aligned relative to one another as they are shown in Figure 2. That is starting from the top row of Figure 2, two cherries symbols are paired, an orange is paired with a wild symbol; two bar symbols are paired, etc. Since high prizes are generally awarded from such machines for a player achieving three identical symbols on the win line 208 the chances of a player winning a prize may be increased, or at least be perceived by the player to be increased.

[0035] In a subsequent spin the reels stop in a position such that symbols are displayed along the win line 208 as shown in Figure 3b. Because the first 200 and third 204 reels are now joined these each display a bar symbol 306. However, the second reel 202 is spinning on a random, or apparently random, basis and stops displaying a cherries symbol 308.

[0036] In a subsequent spin the reels stop in a position such that symbols are displayed along the win line 208 as shown in Figure 3c. Because the first 200 and third 204 reels are now joined these each display a cherries symbol 310. However, the second reel 202 is spinning on a random, or apparently random, basis and stops displaying an orange symbol 312.

[0037] In a subsequent spin the reels stop in a position such that symbols are displayed along the win line 208 as shown in Figure 3d. Because the first 200 and third 204 reels are now joined these each display a melon symbol 314. Although the second reel 202 is spinning on a random, or apparently random, basis it also stops displaying a melon symbol 316.

[0038] As is common practise in the art three identical symbols along the win line 208 is a winning combination of symbols and therefore a prize is awarded to the player of a corresponding amount to this combination.

[0039] In the preferred embodiment reels remain joined until a player of the machine has received a prize. However, this may not be the case in other embodiments. For example any of the following situations may prove to be a suitable point for the un-joining of the reels - when a player runs out of credit in the machine; after a predetermined number of spins of the or each reel; after the occurrence of a predetermined symbol on one or more of the reels. There may of course be other possibilities.

[0040] As will be appreciated by a person skilled in the art the processing circuitry 114 controls the machine to implement at least some of the following rules:

- i. spin each of the reels in an apparently random, or random, basis until a predetermined event occurs.
- ii. thereafter rotate at least one reel of a pair of reels so that it is aligned with the other reel of that pair and subsequently spin that pair or reels together whilst spinning other reels in an apparently random, or ran-

dom, basis.

iii. award a prize to a player if predetermined arrangements of symbols appear on the win line whether or not a pair of reels has become joined.

[0041] It will be appreciated that the rules for providing the game described above may be applied to sets of reels (whether virtual or real) that comprise more than three reels. In such set more than two reels may become joined to one another. For example if the reel set comprised 4 reels, 2 reels and subsequently (or at the substantially the same time) 3 reels may become joined as described above.

[0042] In some embodiments it may be possible for all three reels to become joined. In the embodiment described above this would result in a win to a player for each spin of the reels. Such an arrangement may be provide a significant player appeal.

Claims

1. An entertainment machine (100) comprising a set of reels (104) arranged, in a first mode, to spin independently of one another and, in a second mode, arranged for at least a first (200) and a second (202) of the reels to spin together substantially as a single reel.
2. The machine (100) according to Claim 1 which is arranged to join a first reel (200) to a second reel (202) in the second mode.
3. The machine (100) according to Claim 1 which is arranged to control spinning of the first (200) and second (202) reels such that they appear to be joined.
4. The machine (100) according to any preceding claim further comprising a detection means arranged to detect the position of each reel and output each position.
5. The machine (100) according to Claim 4 further comprising a controller arranged to process the output of the detection means.
6. The machine (100) according to Claim 5 wherein the controller is arranged for at least a first (200) and a second (202) of the reels to spin together substantially as a single reel such that symbols provided by the first (200) and second (202) reels are arranged to form at least a portion of a winning combination of the symbols.
7. The machine (100) according to any one of the preceding claims wherein the reels (104) that are arranged for at least a first (200) and a second (202)

of the reels to spin together substantially as a single reel in the second mode are arranged such that each of the symbols provided by one of the reels (104) is adjacent a symbol of another reel providing a row of symbols which is at least a portion of a winning combination.

8. The machine (100) according to Claim 7 further arranged such that only some of the rows of symbols provided by the reels (104) provide at least a portion of a winning combination.
9. The machine (100) according to any one of the preceding claims further arranged such that a predetermined event must occur to cause the spinning of the reels (104) to change from the first mode to the second mode.
10. The machine (100) according to any one of Claims 1 to 8 further arranged to cause the spinning of the reels (104) to change from the first mode to the second mode on a random or pseudo-random basis which as such may occur at any time during a game being played.
11. The machine (100) according to any one of Claims 5 to 9 wherein the controller is further arranged to change the spinning of the reels (104) from the first mode to the second mode when one or more reels (104) stops in a predetermined position.
12. The machine (100) according to Claim 11 further arranged such that the predetermined position requires adjacent reels (104) each to show a predetermined symbol.
13. The machine (100) according to Claim 9 further arranged such that the predetermined event is a player making an input to the machine (100), wherein the machine may (100) be further arranged to charge the player one or more credits for making the input.
14. The machine (100) according to Claim 9 further arranged such that the outcome of a so-called feature game provides the predetermined event.
15. The machine (100) according to any one of the preceding claims further arranged such that the at least first (200) and second (202) reels, which are arranged to spin together substantially as a single reel in the second mode, are next to one another.
16. The machine (100) according to any one of Claims 1 to 20 further arranged such that the at least first (200) and second (202) reels, which are arranged to spin together substantially as a single reel in the second mode, are separated by one or more other reels (104).

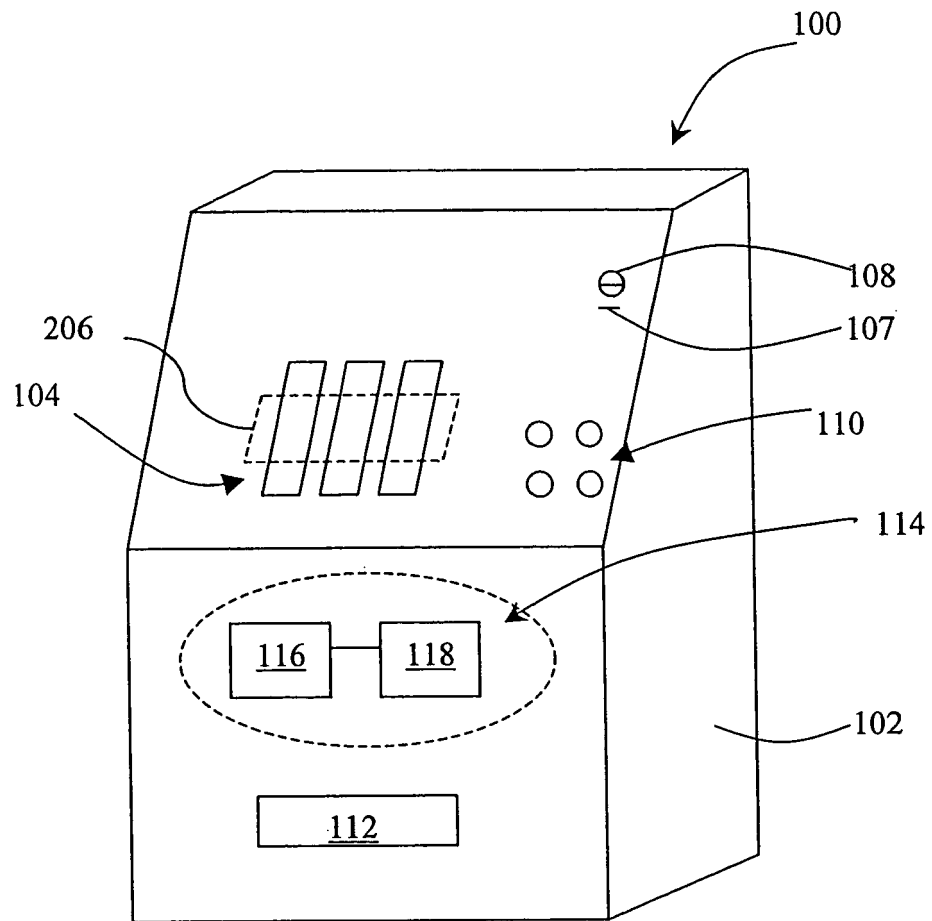


Fig. 1

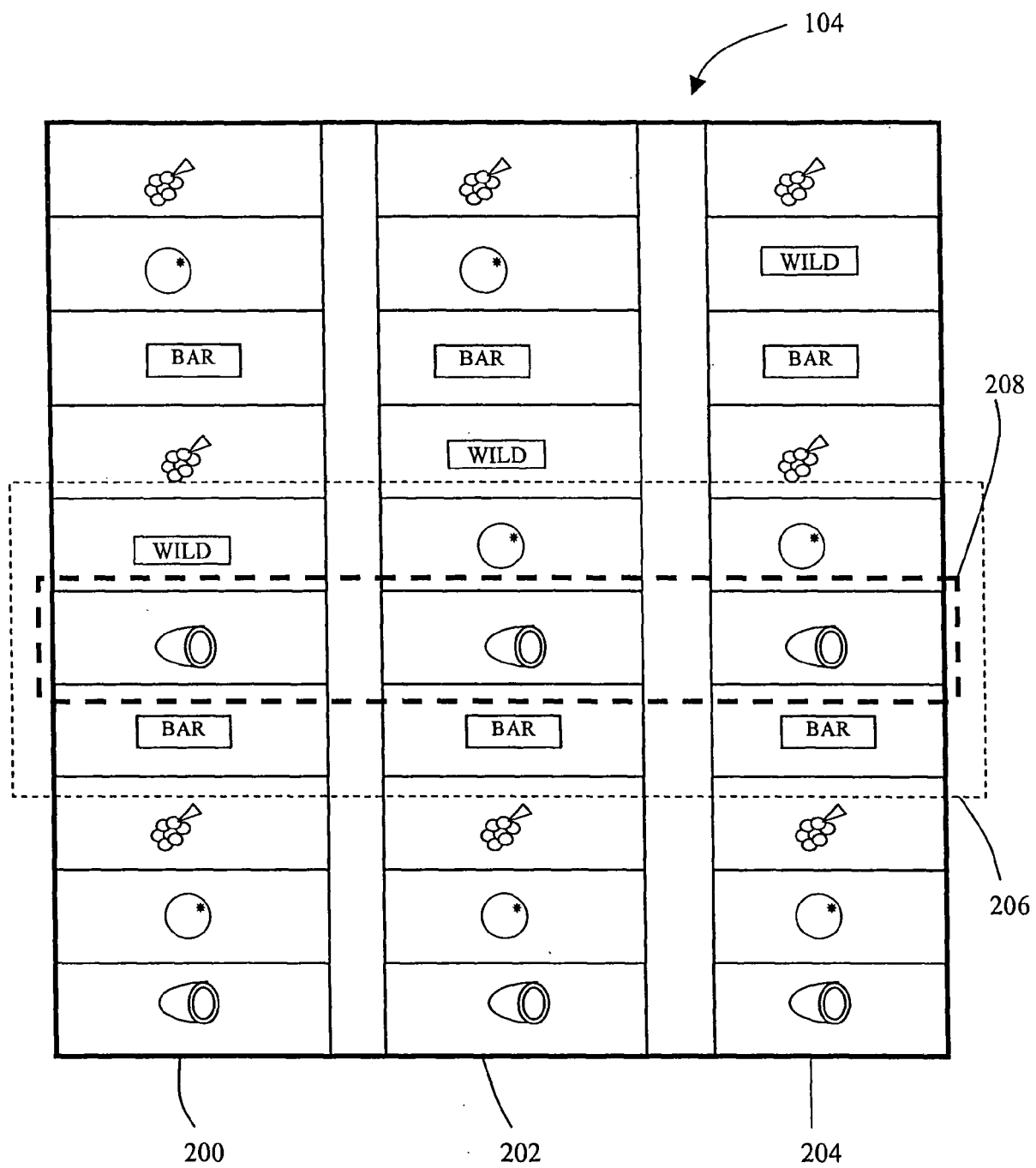


Fig. 2

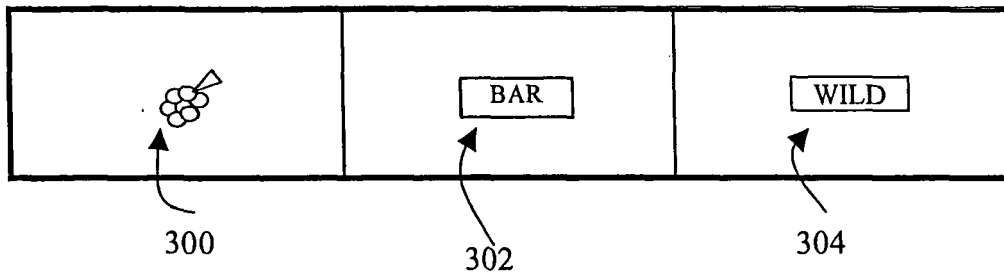


Fig. 3a

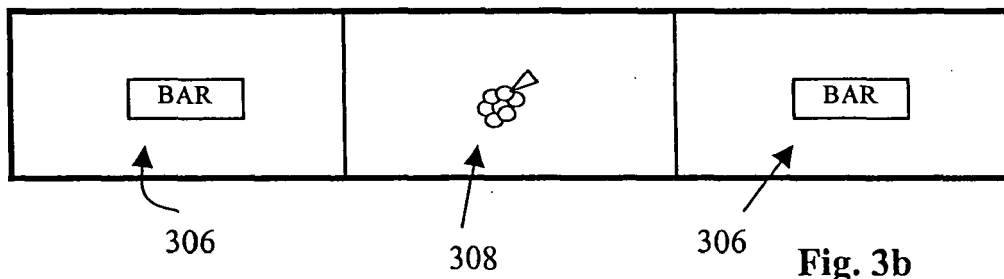


Fig. 3b

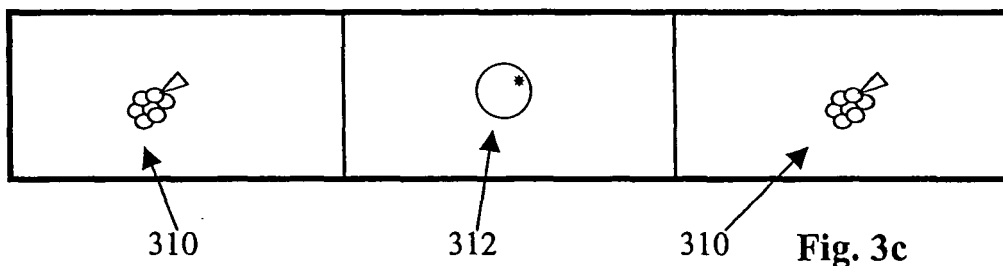


Fig. 3c

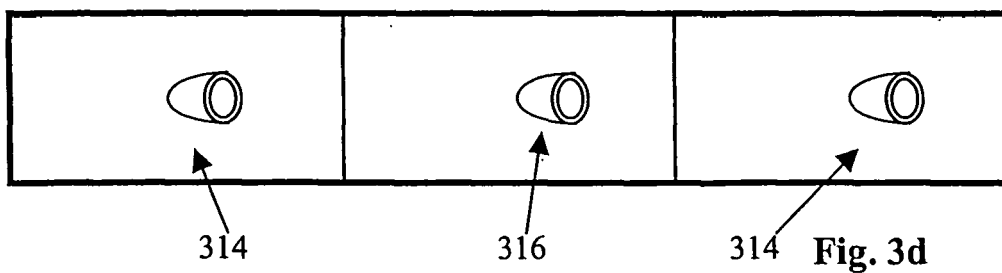


Fig. 3d