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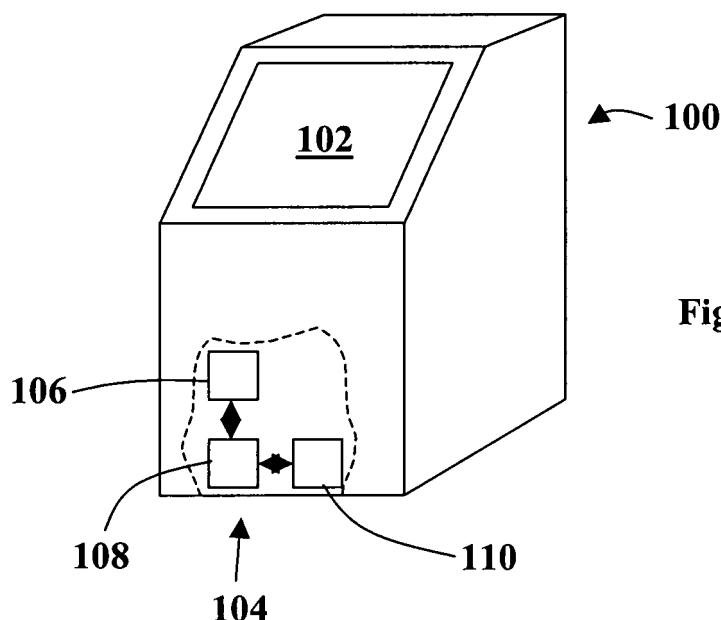
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(54) **An entertainment machine**

(57) An entertainment machine comprising a display and an input, wherein the display is arranged to display a selection of symbols selected from a set of symbols, the machine is arranged to provide a game of bingo such that one or more of the symbols are capable of being

selected during the game, the display is further arranged to display one or more bets, based upon the likelihood of predetermined occurrences during a game of bingo and the machine is arranged to allow a player to select one or more of the bets by using the input.



**Fig. 1**

## Description

### Field of the invention

[0001] This invention relates to an entertainment machine and in particular, but not exclusively, to an entertainment machine that is freed for play by the introduction of credit (such as for example coins, credit card payment, debit from an account, tokens, or the like).

### Background of the invention

[0002] The game of bingo is well known and comprises providing a players with a selection of a predetermined number of numbers (or other symbols but hereinafter referred to as numbers). As the game is played numbers are drawn on a random basis and as a symbol is drawn a player crosses-off (i.e. selects) the number on his/her selection of numbers. The winner of the game is the first person to 'cross-off' (i.e. select) all (or a predetermined combination of numbers) of the numbers in his/her selection of numbers and a prize is generally awarded to the winner.

[0003] Electronic terminals are known which facilitate the provision of the game of bingo and provide an electronic form thereof. Generally a touch screen is provided which displays each of the numbers in the player's selection of numbers. As a number is drawn a player touches the screen to 'cross-off' (i.e. select) that particular number.

[0004] However, such electronic machines are perhaps more limited than may be desired and if extra functionality is required then extra apparatus may also be required. In a fast moving game of bingo it can be difficult to keep track of who has won, which prizes need to be paid out, etc. Such problems are partially ameliorated by known electronic machines but need to be considered for any changes thereto.

[0005] The game of bingo in a manual form, is very popular and has been known for many years.

### Summary of the invention

[0006] According to a first aspect of the invention there is provided an entertainment machine comprising a display and an input, wherein the display is arranged to display a selection of symbols selected from a set of symbols, the machine is arranged to provide a game of bingo such that one or more of the symbols are capable of being selected during the game, the display is further arranged to display one or more bets, based upon the likelihood of predetermined occurrences during a game of bingo and the machine is arranged to allow a player to select one or more of the bets by using the input.

[0007] The advantage of such a machine is that it may provide a machine which is more appealing to players than previous machines. There is a constant drive in the art of entertainment machines to provide machines which

are more appealing and as such the industry is based upon a continued innovation in this respect.

[0008] The display may comprise a screen, such as a CRT (Cathode Ray Tube) screen, an LCD (Liquid Crystal Display), LEP (Light Emitting Polymer) screen or the like. An advantage of providing a screen is that it provides a display upon which a game can readily be displayed and a perhaps a greater range of information can be displayed when compared to other, perhaps mechanical means. However, in other embodiments the display may comprise any other suitable means such as mechanical reels, or the like.

[0009] In one embodiment, the input may be provided by a touch sensitive mechanism used in conjunction with a screen; i.e. a touch sensitive screen. Such an arrangement is convenient since it provides an intuitive input which a player will readily be able to use. However, in other embodiments other inputs may be used which include any of the following: joysticks, buttons, track pads, roller balls, or the like.

[0010] In the preferred embodiment the machine may be arranged such that a player can touch a symbol in order to select that symbol.

[0011] The machine may also be arranged such that a player can touch a bet in order to select that bet during before and/or during a game of bingo. It will be appreciated that it is desirable for the machine to be arranged to limit a player to selecting a bet before a game of bingo commences, or at least to alter the odds for a given bet, after commencement of the game and as it progresses in order that the machine remains profitable.

[0012] Conveniently the machine is arranged to display the odds associated with a bet. In some embodiments the odds may be fixed whilst in other embodiments the machine may be arranged to vary the odds. The machine may be arranged to vary the odds for a number of reasons: for example, to keep the machine within predetermined payout ratios for example as required by governing statutes, to make playing the machine more attractive, because the bet is being selected after commencement of the start of the game of bingo or the like.

[0013] The machine is preferably arranged to allow a player to specify the amount they wish to stake on a bet and the input may be arranged to allow the specification of the stake.

[0014] Some embodiments of the invention may be arranged to display an amount which at least one, and desirably a plurality, of amounts that a player can select as a stake. Any suitable selection mechanism may be used to allow to a player to select the stake to be associated with a particular bet. For example, the machine may be arranged to allow a player to select a stake icon and drag it onto a bet. The selection may be via any of the input mechanisms discussed above.

[0015] The machine may be a free standing machine. That is the machine may not be connected to other processing apparatus in order to provide the game of bingo.

**[0016]** In other embodiments the machine comprise a network interface arranged to connect the machine to a network. In such embodiments the machine may be arranged to receive data providing the selection of symbols, for any one game, from the network via the network. The selection of symbols may be thought of as a bingo card.

**[0017]** The machine may also be arranged to transmit via the network interface to the network data identifying any symbol that a player selects during a game of bingo. Likewise, the machine may be arranged to transmit via the network interface to the network data specifying any bet selected by a player.

**[0018]** The machine may be arranged to maintain an account of credit which a player can use in order to pay for games of bingo and/or as stake money for any bet that he/she wishes to make. In other embodiments the machine may be arranged to receive and transmit data in relation to account information over the network interface in order to detail credit that a player can use for a game of bingo and/or as a stake for any bet that he/she wishes to make.

**[0019]** The machine may be arranged to cause the display to indicate that a player has won a bet.

**[0020]** According to a second aspect of the invention there is provided an entertainment system comprising one or more entertainment machines according to the first aspect of the invention which are arranged to communicate with a game server arranged to provide the game of bingo provided by the entertainment machine, wherein the game server is arranged to determine the winner of the game of bingo and/or the winner of any bets made on the entertainment machine.

**[0021]** Such a system is advantageous because it can help to overcome problems of the prior art. Connection of the machines of the first aspect to the network allow a single network to be used thereby reducing the complexity of equipment required for the enhanced functionality. Moreover, the server can be used to track the course of the game and ensure that prizes are paid out appropriately.

**[0022]** The server may a dedicated unit or may be incorporated into a machine according to the first aspect of the invention.

**[0023]** Preferably, the server is arranged to generate the selection of symbols, for each machine connected thereto, for any one game, and to transmit data specifying the selection of symbols to each machine via a network interface.

**[0024]** The server may also be arranged to receive via the network interface data specifying any bets selected by a player of any one of the machines of the network. The server may also be arranged to process, using processing circuitry thereof, data received specifying any bets selected by a player of any one of the machines of the network in order to determine whether a player has won that bet.

**[0025]** Further, the server may be arranged to receive, via the network interface, data identifying symbols se-

lected by a player at any one of the terminals. The server may be arranged to process, using processing circuitry thereof, data received identifying symbols selected a player of any one of the machines in order to determine whether a player has won the game of bingo.

**[0026]** The server may be arranged to arranged to receive and transmit data in relation to account information over the network interface in order to detail credit that a player can use for a game of bingo and/or as a stake for any bet that he/she wishes to make. The server may be arranged to maintain an account of credit in a memory accessible thereby for any player of a machine connected thereto. Further, the server may be arranged to update data in the account in response to data sent or received via the network interface relating to credit.

**[0027]** According to a third aspect of the invention there is provided a machine readable medium containing instructions to cause a processing apparatus to run an entertainment machine according to either the first or second aspects of the invention.

**[0028]** According to a fourth aspect of the invention there is provided a program arranged to cause a processing apparatus to run an entertainment machine according to either of the first or second aspects of the invention.

**[0029]** According to a fifth aspect of the invention there is provided a server arranged to operate as the server in the second aspect of the invention.

#### Brief description of the drawings

**[0030]** There now follows, by way of example only, a detailed description of an embodiment of the invention with reference to the accompanying drawings of which:

**Figure 1** shows an entertainment machine according to one embodiment of the invention;

**Figure 2** shows a network of entertainment machines as shown in Figure 1;

**Figure 3** shows a screen shot of the display of a game provided by the entertainment machine of Figure 1;

**Figure 4** shows a screen shot of the display of the machine of Figure 1 in which a bet has been selected; and

**Figure 5** shows a screen shot of the display of the machine of Figure 1 in which a bet has been won.

#### Detailed description of the drawings

**[0031]** The machine 100 comprises a display 102 arranged to display a game being provided by the machine 100 and an example of a screen is shown in Figure 3. In this embodiment the display 102 is provided by a Liquid Crystal Display (LCD) but could equally be any other dis-

play mechanism.

**[0032]** The screen is touch sensitive which provides an input to the machine 100. Such touch sensitive screens are well known and the touch sensitive mechanism generally comprise a resistive or capacitive grid in front of the screen in which electrical changes are measured in order to determine whether and where a user has touched the screen.

**[0033]** However, in other embodiments, an input may be provided by any suitable mechanism.

**[0034]** The machine 100 also comprises processing circuitry 104 arranged to cause the display 102 to display the game and to process inputs made to the machine via the input. The processing circuitry 104 includes a processor 106, a memory 108 and a network interface 110.

**[0035]** The processor 106 may be provided by any suitable device and could for example be any known processor such as an Intel X86 architecture device (for example a Pentium™), a POWERPC™, an AMD Athlon™, or the like or could be a Programmable Logic Array (PLA), an Application Specific Integrated Circuit (ASIC), or any such suitable device.

**[0036]** The memory 108 may comprise any form of memory but is likely to include both volatile memory such as Random Access Memory (RAM) and non-volatile memory such as a hard disk drive. It will be appreciated that the memory need not be located within the machine 100 and could be accessible by the processor via the network interface 110.

**[0037]** The network interface 110, which may be referred to as a Network Interface Controller (NIC), allows the processor 106 to communicate with a network. In this example the network is an Ethernet, but could be any suitable network, whether wired or wireless. Other protocols that may be suitable include: RS485, RS232, Bluetooth, Token Ring, Wifi, or the like.

**[0038]** Figure 2 shows six such machines 200-210 connected to a game server 212 via a network 214. The interfaces 110 of each of the machines is connected to network cabling which also connects to the server 212 in a known manner.

**[0039]** Like the entertainment machine 100 the server comprises processing circuitry which includes a processor, a memory and a network interface. The above discussion about each of these elements of the processing circuitry within the entertainment machine applies equally to these components within the server.

**[0040]** The memory of the server may provide a bet store arranged to store bets made by a player of any one or more of the entertainment machines 200-210.

**[0041]** Although it would be possible for a free standing machine (i.e. one that is not connected to a network) to provide an embodiment of the present invention it is convenient to describe an embodiment of this invention in relation to the network of Figure 2. In such an embodiment the network as a whole is arranged to provide a game of bingo such that each of the machines 200-210 provides a player thereof with a bingo hand which may

be thought of a selection of symbols from a set of symbols. Typically the bingo hand comprises a random selection of numbers from a set of numbers but may equally comprise a selection of any other symbols (such as alphanumeric characters, cartoon characters, playing cards, or the like) from a set of symbols.

**[0042]** Before a game of bingo starts the server 212 is arranged to determine the selection of symbols that each machine 200-210 should display. The processor is arranged to generate data representing the selection of symbols and communicates this to a specific one of the machines 200-210. The processor may also comprise what may be termed a monitoring means which is arranged to monitor data received from the machines 200-210 connected thereto.

**[0043]** A large display 216 is provided in order that the current symbol that is drawn in the bingo game can be communicated to players of the game.

**[0044]** Referring to Figure 3 it can be seen that the display 102 is arranged to display the selection of symbols which can be seen in the grid 300 which contains the numbers: 5, 6, 8, 10, 14, 20, 27, 33, 35, 37, 38, 42, 45, 50 and 55. These numbers have been selected from the set of numbers 1 to 60 and are specific to one of the entertainment machines 200-210. It will be appreciated that each of the other entertainment machines 200-210 will display a different selection of numbers from the set. Each of the numbers displayed on one of the machines is capable of being selected by a player of the machine during the game of bingo provided thereby; i.e. allow a player to 'cross-off' that number if the number is drawn in the game.

**[0045]** Other embodiments of the game may use different sets of numbers and some embodiments may only use numbers which are less than 36 in value.

**[0046]** However, in the embodiment being described each entertainment machine is also arranged to display a number of bets 302 that a player can make on the bingo game together with a number of stake icons 304 representing stakes that a player may select to place on one of the bets. In the embodiment being described four types of bet are displayed, each with a number of possible outcomes which can be bet upon. Each bet allows a player to bet on a predetermined occurrence happening with the following bingo game.

**[0047]** It will be seen from the Figure that this embodiment offers the following bets:

The predetermined occurrence provided in the top line 306 of the display 302 of bets, is how many symbols will be drawn in the bingo game before a full house occurs; i.e. someone wins the game of bingo.

The predetermined occurrence provided in the second line 308 from the top of the display 302 of bets, is how many symbols will be drawn in the game of bingo before a player in a game manages to complete one of the two rows of the grid 300.

The predetermined occurrence provided in the third line 310 from the top of the display 302 of bets, is how long a sequence (i.e. consecutive numbers) will occur in the first 10 numbers drawn in the game of bingo. It will be seen that after this bet a list of the numbers 3 to 10 is provided; i.e. a player can bet that there will be anywhere between 3 and 10 sequences. The odds for this occurring are shown next to the number. Thus, it will be seen that the odds of there being 3 sequences occurring in the first 10 numbers is 4 to 1.

The predetermined occurrence provided in the fourth, and last line 312, of the display 302 of bets, is how long a sequence will occur in the first 20 numbers drawn in the game of bingo. As with the 'Sequences in the first 10 numbers bet' the numbers 3 to 10 are provided and the odds of each number provided adjacent the number. Thus, it will be seen that the odds of there being 6 sequences within the first 20 numbers is gives as 7 to 1.

**[0048]** In other embodiments the machine may be arranged to provide other bets upon which a player may place make a wager. For example, a player may be provided with a '50/50' bet that there are more even numbers called than odd numbers in the game of bingo (or visa versa); predetermined number being called in the first N numbers drawn in the game; or any similar bet.

**[0049]** In the embodiment being described, the odds shown in the display 302 are fixed and do not vary. Therefore, a player must select a bet that they wish to make before the game of bingo starts. In other embodiments, a player may be able to place a bet as the game proceeds although the odds are likely to be varied in such an embodiment to reflect the current odds. In yet further embodiments the machine may be arranged to vary the odds in order to increase the chances of the machine being able to keep it payout within predetermined limits. Machines / servers which are arranged to vary the odds comprise an odds generator which may be provided by the processor thereof. The odds generator need not be provided by the processor and other circuitry may be used.

**[0050]** In use, of this embodiment, a player logs into the machine entering a user identity via the screen. This gives the player access to credit held in an account which they can then use to pay for games of bingo and/or bets that they wish to make.

**[0051]** Once a player is logged in, and before a game starts, a player is able to select any one or more of the bets listed in the display 302 by touching a bet on the display 102. In the current embodiment a player touches the stake icon 304 corresponding to the amount they wish to stake followed by the bet that they wish to make. In the example shown in Figure 4 it can be seen that a player has decided to bet that there will be ten numbers drawn before any player in the bingo game completes a line of

his/her grid 300. It can be seen that the display is modified to place a cross ('X') over the selected bet. A player can make further bets if he/she desires. If a player touches the screen again over the bet the bet is cancelled. Once the game of bingo starts no amendment can be made to the bets placed. A timer or the like may be displayed on the display 102 in order that a player can see how much time he/she has to place further bets / remove bets.

**[0052]** Once the bingo game starts each machine 200-210 communicates with the server 212 and sends data thereto informing the server as to which bets have been placed. The server 212 sends data to each of the machines 200-210 providing the each machine with the selection of symbols for that machine for that game; i.e. the numbers to fill the grid 300.

**[0053]** The game of bingo then proceeds in a known fashion. Symbols (in this case numbers) are drawn at random and displayed on the display 216. Data is also sent to each display so that the drawn number can be displayed thereon. A player of a machine must then touch the display 102 at number, within the grid 300, on his/her machine if that number corresponds to the drawn number in order to select that number on that machine. Each machine generates data which is sent back to the server 212 to indicate that a player has selected a symbol. Each machine is arranged to only allow a player to select a number if that number is a drawn number. In other embodiments a player may simply have to touch the screen at any point and the machine will then select (i.e. cross-off) the correct number within the grid 300.

**[0054]** Thus, the server will maintain data from which it can determine how the game of bingo is progressing on each of the machines 200-210. When any of the bets are won by a player at one of the machines then the display of that machine is caused to display an animation that a bet has been one and the winnings are added to the account of that player. An example screen shot of a player winning a bet is shown in Figure 5.

**[0055]** Likewise when the game of bingo is won the server 212 determines from the data sent to it that this is the case and can credit the account of the player with his/her winnings.

**[0056]** In one embodiment the invention may be thought of as a machine arranged to provide a game according to the following rules:

- provide a player with at least one bet on which he/she can make a wager;
- draw symbols from a set in order to provide a game of bingo; and
- award a player with a winning if a wager made by the player is won.

**[0057]** It may not be essential that the game is limited to bingo and other games may be applicable.

**Claims**

1. An entertainment machine comprising a display and an input, wherein the display is arranged to display a selection of symbols selected from a set of symbols, the machine is arranged to provide a game of bingo such that one or more of the symbols are capable of being selected during the game, the display is further arranged to display one or more bets, based upon the likelihood of predetermined occurrences during a game of bingo and the machine is arranged to allow a player to select one or more of the bets by using the input. 5
2. A machine according to claim 1 in which the display comprises any one of the following: as a CRT (Cathode Ray Tube) screen, an LCD (Liquid Crystal Display) screen, LEP (Light Emitting Polymer) screen, one or more mechanical reels. 10
3. A machine according to claim 1 or 2 in which the input is provided by a touch sensitive mechanism used in conjunction with the display. 15
4. A machine according to claim 3 in which the machine is arranged such that a player can touch a symbol in order to select that symbol. 20
5. A machine according to claim 3 or 4 in which the machine is arranged such that a player can touch a bet in order to select that bet before and/or during a game of bingo. 25
6. A machine according to any preceding claim which is arranged to allow a player to specify the amount they wish to stake on a bet. 30
7. A machine according to claim 6 in which the machine is arranged to display at least one of amount, and generally a plurality of amounts, that a player can select as a stake. 35
8. A machine according to any preceding claim which comprises a network interface arranged to connect the machine to a network. 40
9. A machine according to claim 8 which is arranged to receive data providing the selection of symbols, for any one game, from the network via the network. 45
10. A machine according to claim 8 or 9 which is arranged to transmit via the network interface to the network data identifying any symbol that a player selects during a game of bingo and/or data specifying any bet selected by a player. 50
11. An entertainment system comprising one or more entertainment machines according to any of claims 1 to 10 which are arranged to communicate with a game server arranged to provide the game of bingo provided by the entertainment machine, wherein the game server is arranged to determine the winner of the game of bingo and/or the winner of any bets made on the entertainment machine.
12. A system according to claim 11 in which the server is incorporated into a machine according to any of claims 1 to 10.
13. A system according to claim 11 or 12 in which the server is arranged to generate the selection of symbols, for each machine connected thereto, for any one game, and to transmit data specifying the selection of symbols to each machine via a network interface.
14. A system according to any of claims 11 to 13 in which the server is arranged to receive, via the network interface, data specifying any bets selected by a player of any one of the machines of the network.
15. A system according to claim 14 in which the server is arranged to process, using processing circuitry thereof, data received specifying any bets selected by a player of any one of the machines of the network in order to determine whether a player has won that bet.
16. A system according to any of claims 11 to 15 in which the server is arranged to receive, via the network interface, data identifying symbols selected by a player at any one of the terminals.
17. A system according to any of claims 11 to 16 in which the server is arranged to process, using processing circuitry thereof, data received identifying symbols selected a player of any one of the machines in order to determine whether a player has won the game of bingo.
18. A system according to any of claims 11 to 17 in which the server is arranged to receive and transmit data in relation to account information over the network interface in order to detail credit that a player can use for a game of bingo and/or as a stake for any bet that he/she wishes to make.
19. A system according to any of claims 11 to 18 in which the server is arranged to maintain an account of credit in a memory accessible thereby for any player of a machine connected thereto.
20. A system according to claim 19 in which the server is arranged to update data in the account in response to data sent or received via the network interface relating to credit.

**21.** A machine readable medium containing instructions to cause a processing apparatus to run an entertainment machine according to any of claims 1 to 20.

**22.** A program arranged to cause a processing apparatus to run an entertainment machine according to any of claims 1 to 20. 5

**23.** A server as defined in any of claims 11 to 20. 10

**24.** A machine readable medium containing instructions to cause a processing apparatus to run as the server of claim 23.

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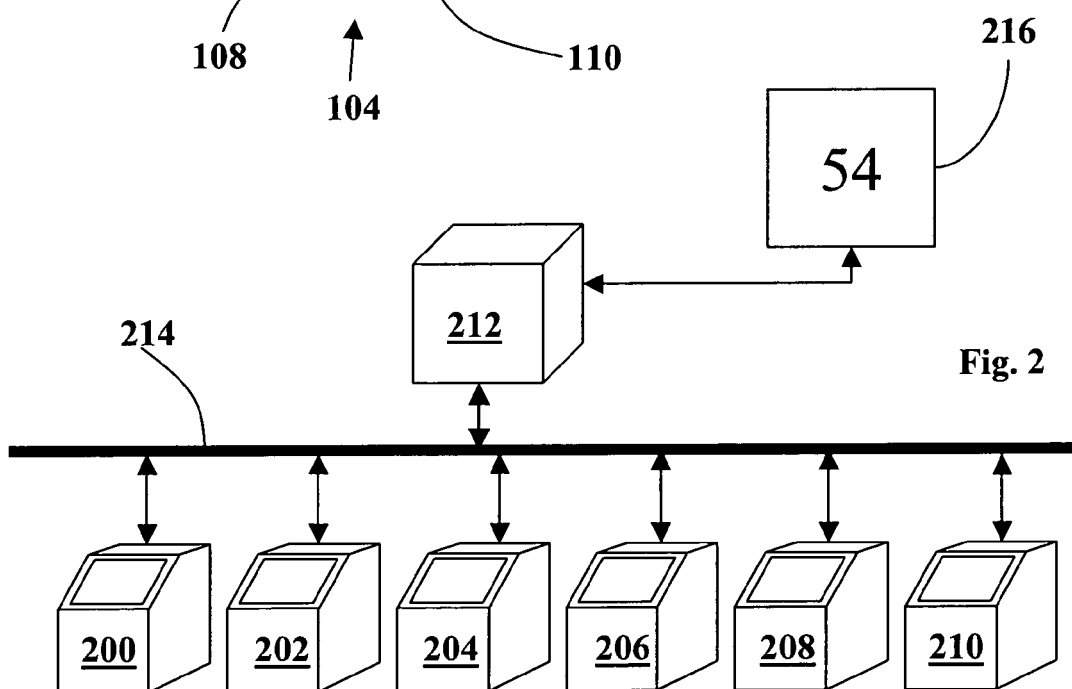
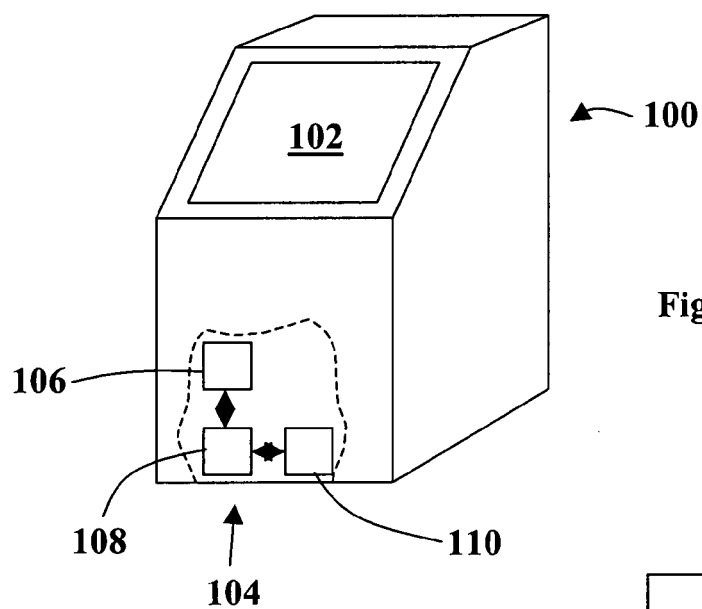
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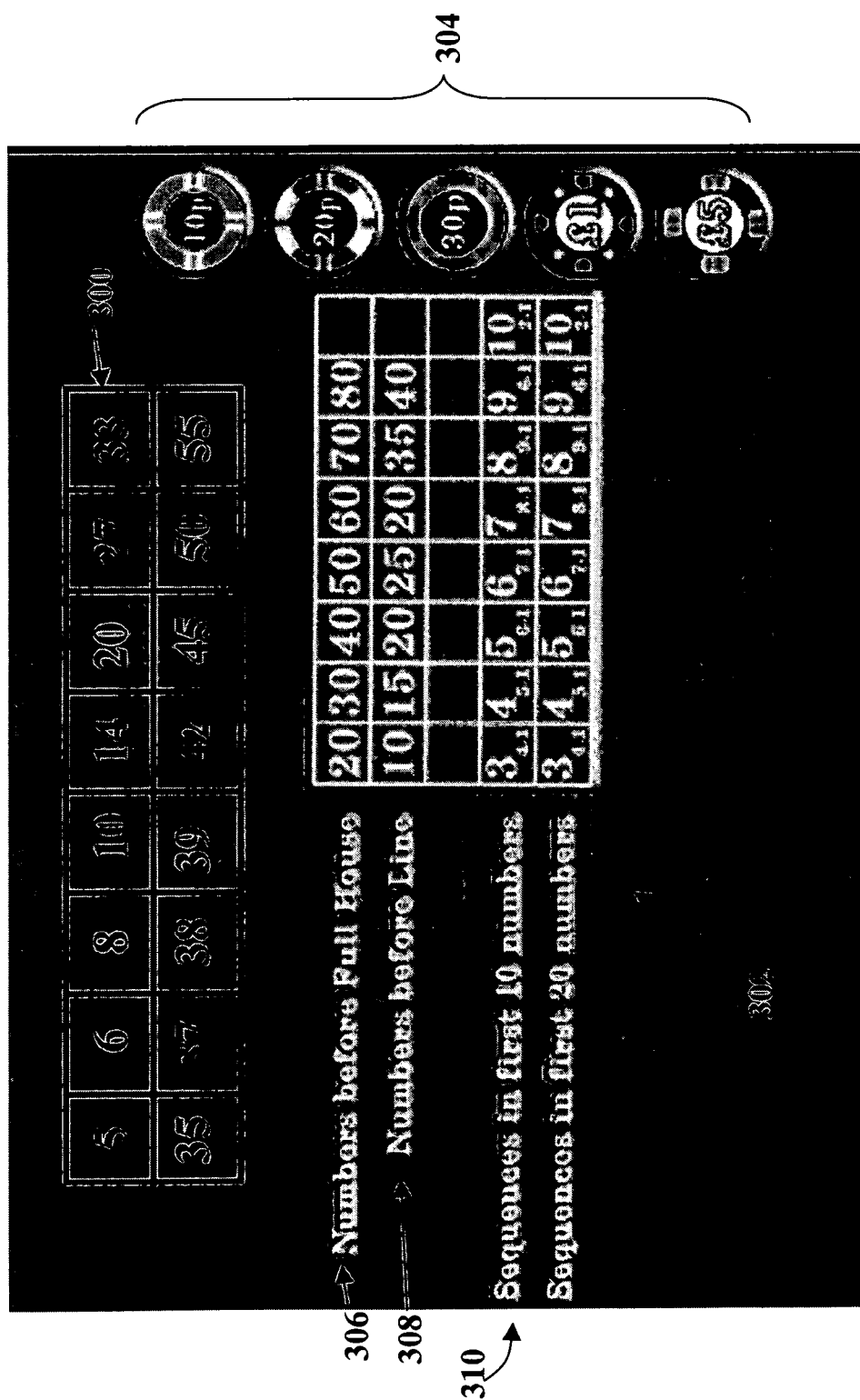
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**Fig. 3**

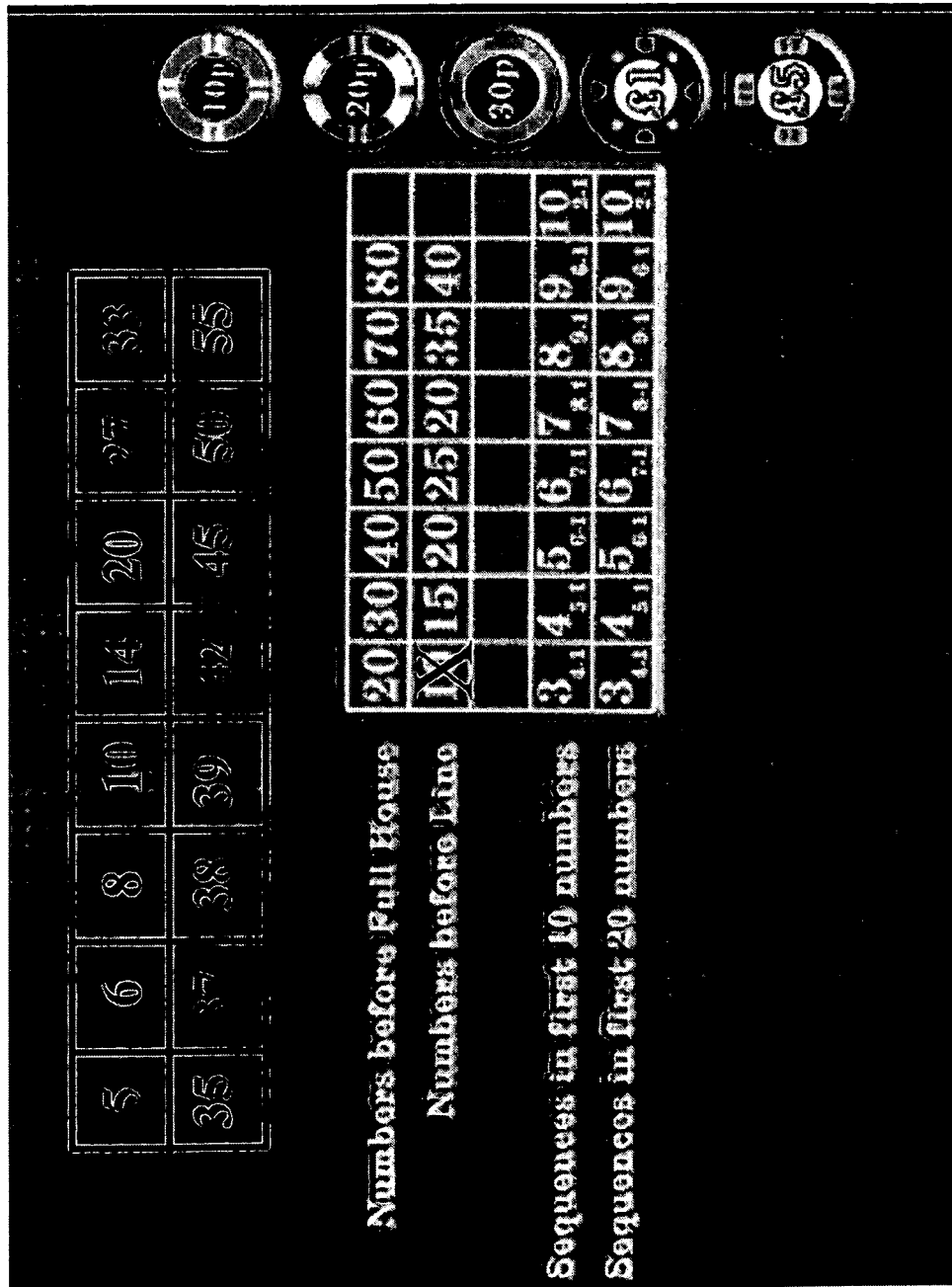


Fig. 4

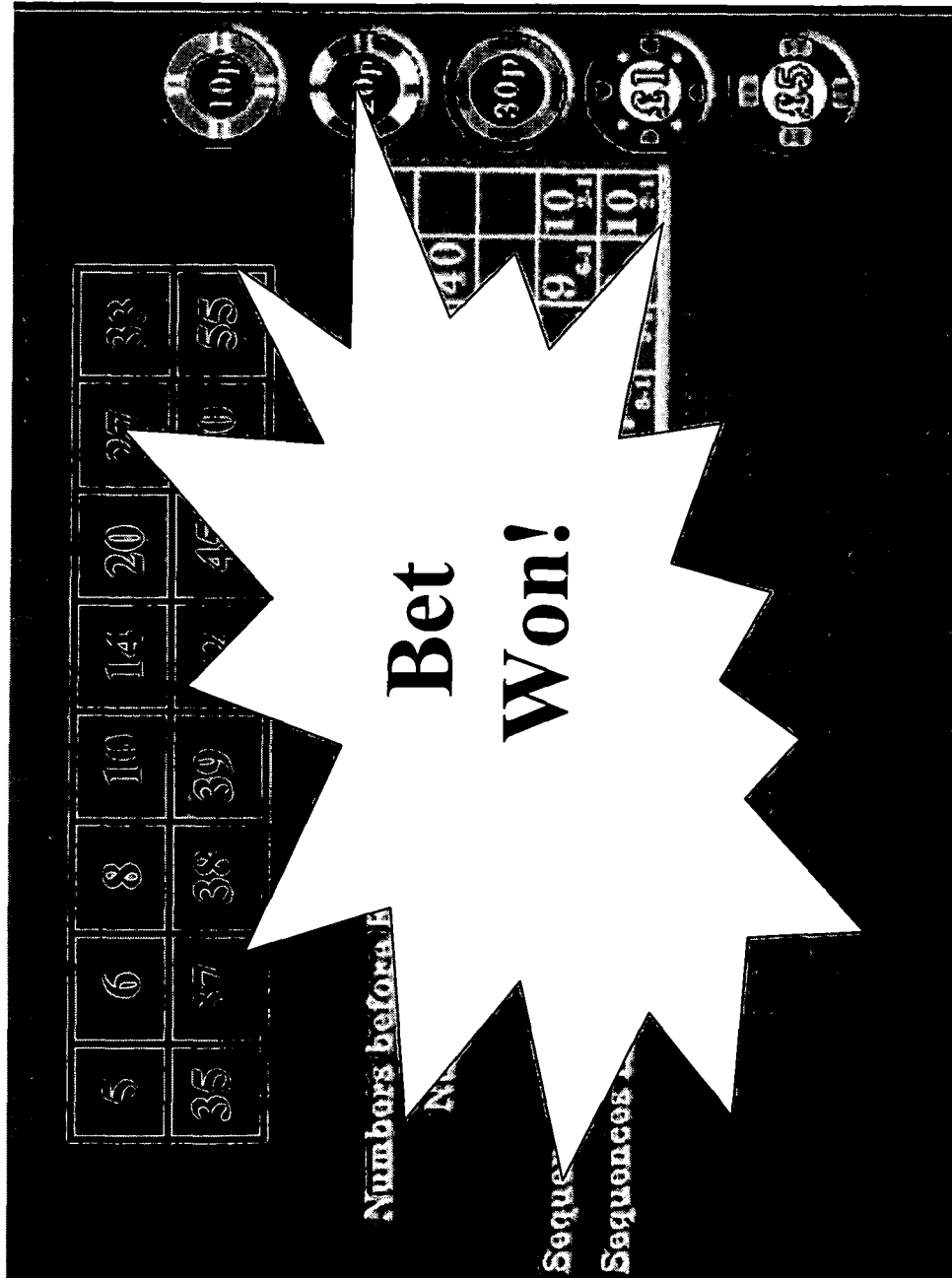


Fig. 5