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EUROPEAN PATENT APPLICATION

21 Application number: **91105017.7**

51 Int. Cl.⁵: **A63F 3/06**

22 Date of filing: **28.03.91**

30 Priority: **29.03.90 IL 93944**

43 Date of publication of application:
09.10.91 Bulletin 91/41

64 Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

71 Applicant: **Ganot, Zvi**
37 Ha'gefen Street
Omer(IL)

72 Inventor: **Ganot, Zvi**
37 Ha'gefen Street
Omer(IL)

74 Representative: **Vossius & Partner**
Siebertstrasse 4 P.O. Box 86 07 67
W-8000 München 86(DE)

54 **Lottery terminal.**

57 A lottery terminal (1) for playing lottery games and for money and data transmissions is described.

Also described are methods for playing lottery or the like games using the terminal (1).

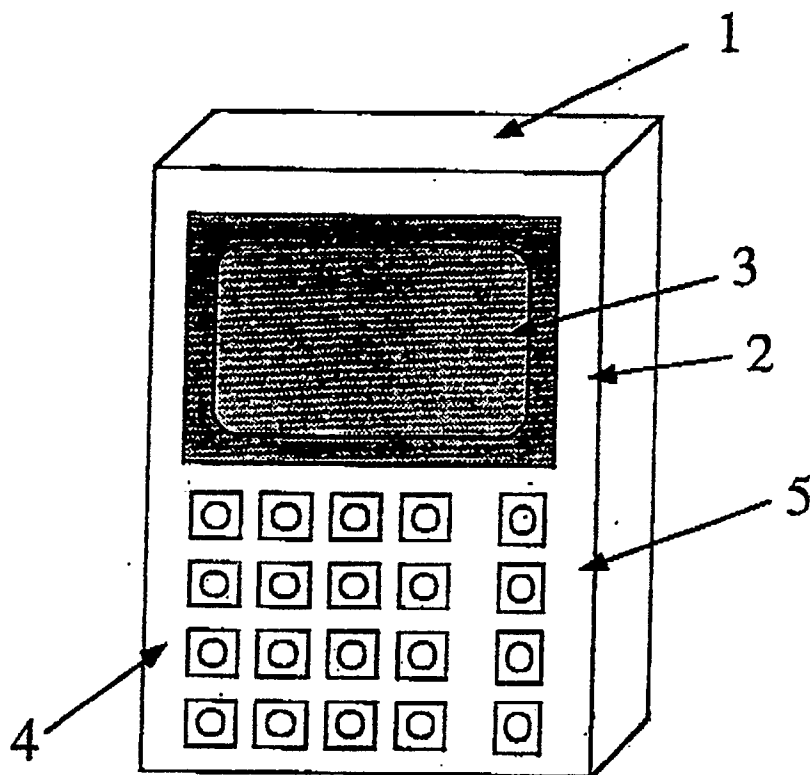


Fig. 1.

The present invention relates to a lottery terminal for playing lottery games and for other purposes involving data and money transmission, and to methods of playing lottery games which employ this terminal.

Lottery games, herein defined, should be taken to include all types of games in which numbers or values are selected by the player, to match sets of numbers or values which are either predetermined or generated during the game, and should be understood to include, e.g., games such as bingo, football pool, horse racing, lotteries, such as national lotteries, and the like.

The art is constantly trying to provide means for playing lottery games which are free from the need and the limitations deriving from the existing system which requires the player to buy tickets, or to physically obtain lotteries, such as in the bingo game, so that lottery games may be played from home, at different times, and without all the existing limitations. For instance, U.K. patent applications GB 2,148,135 and 2,197,971, and European Patent Application EP 310368 describe equipment and methods using remote terminal techniques. These devices and methods, however, have the considerable drawback of requiring direct connection with computer centers or the like, require expensive and complicated equipment and networks, and do not solve all of the aforesaid problems.

It is an object of the present invention to provide an apparatus and method by means of which a player of lottery games will be able to play the game from any location, at any time, and without any substantial limitation.

It is another object of the invention to provide an apparatus by means of which transmission of data relating to various transactions, such as bank or stock orders, purchases or the like, can be easily effected.

It is a further object of the invention to provide an apparatus which is simple to operate and inexpensive, while affording a high degree of security against unauthorised uses.

The apparatus according to the invention is, in fact, a terminal, which terminal comprises a housing provided with:

- display means;
- memory means, comprising data storing, recording and retrieving means;
- data input means;
- power source; and
- data transmitting and/or receiving means to transmit data via a telephone line.

The term "wireless", whenever used herein, is meant to indicate that wire connection between the terminal and a receiving station is not necessary, but connections by means of wires to a telephone line is, of course, possible. Thus, the data transmit-

ting and/or receiving means, such as modern means, which are necessary to transmit data through a telephone line, may certainly include direct wire connection to a telephone set or line. However, in many instances, it will be convenient to provide an acoustic coupler in the terminal, by means of which connection can be established and data transmitted through a telephone line, without any direct wire connections.

According to a preferred embodiment of the invention the memory means comprise a removable memory. As will be apparent as the specification proceeds, in many instances it will be convenient and - in some cases, it may be necessary - to provide data which are to be purchased by the player at a selling station, which may include sets of values or of data concerning a specific game or prepaid time or games data. One convenient way of providing such data is to provide removable memory means, such as a chip-card, within the memory means, which may contain prerecorded data and may also be used to store data generated during the game. Alternatively, the memory means may be fixed within the terminal, and data may be fed to it at a purchasing station directly through a connection to terminal means of the said station.

Other means, such as display means which may be, e.g., a liquid crystal display, and the data input means which may be a keyboard, are well within the scope of the skilled technician, and therefore are not described in detail. As will be understood by a skilled person, the device needs be powered, and a power source may be provided, such as an electric battery, but connection to an electric line may also be provided.

As will be understood, in many cases when playing lottery games the player is required to decide upon a very large number of data. For this purpose, a random number generator may be provided in the device of the invention, by means of which, if desired, the player may generate part - or all - of his data.

The invention further embraces a method of playing a lottery or the like game, which method comprises the steps of:

- (a) providing a terminal according to the invention;
- (b) providing credit codes to enable the player to play;
- (c) selecting and feeding to the terminal data to be provided by the player of the game;
- (d) obtaining telephone connection to a receiving center;
- (e) transmitting the data provided by the player and any required identification and/or credit data to the said receiving center; and
- (f) if required, receiving from the said receiving center validation data and storing the said vali-

dation data in the memory means of the terminal.

All the above and other advantages and characteristics of the invention will be better understood through the following illustrative and non-limitative description of preferred embodiments.

In Figs. 1 and 2 a device according to a preferred embodiment of the invention is schematically shown. This device, generally indicated by numeral 1, comprises a housing 2, a display 3, a keyboard 4, which may be used as an input device for numbers or alpha-numeric data, and an additional control board 5, which is optional, and which may be used, e.g., for transmission and/or other control procedures, such as for reading or storing data in the memory. The controls 5 may also be integral with the keyboard 4, and alternation switches may be provided to permit to use one key for more than one function.

In Fig. 2 the back of the device of Fig. 1 is shown, and an acoustic coupler 6 is seen, which has the shape and size adopted to be used for transmitting data through a telephone handset, in a way well known in the art. The said acoustic coupler can be replaced, whenever convenient, by a wire connection, as hereinbefore explained. Appropriate modem means can be provided, as known to persons skilled in the art. Of course, if a bi-directional communication is to be effected, to enable the device to receive and/or record data from the receiving center, appropriate receiving means and communication protocols must be provided, which are well within the scope of the skilled person and which therefore are not described herein for the sake of brevity. Power means 7 are indicated, which may comprise a battery or an input for line current, or both.

In Fig. 2 numeral 8 schematically indicates an opening for detachable memory means, e.g., a chip-card. This chip-card, indicated in the figure by numeral 9, may be introduced through slot 8, and appropriate security means may be provided to avoid the unauthorized removal or tampering with the card.

Furthermore, for various applications it may be useful to provide data input devices, such as a barcode or optical reader, e.g., to read price lists into the memory of the terminal, for telemarketing or other use. Additionally, it may be desired to print out displayed or memorized data for future reference, record keeping, etc., and a suitable printer can be added, which may be external or built-in. The addition of such devices is, of course, within the skill of the routineer, and therefore such devices are not described here in detail, for the sake of brevity.

The device described in Figs. 1 and 2, with appropriate modifications, may be used for a vari-

ety of games. A number of games will be listed below.

Bingo game

The bingo game can be interactively played in front of a television set. The numbers are broadcast from the studio and are seen on the television screen. The device may operate in two modes: (1) a set of numbers such as on a bingo board, may appear on the display 3 and can be marked by means of the keyboard, and the player may follow the numbers broadcasted to see whether one or more of the broadcasted numbers are included in the board appearing on the display 3. (2) alternatively the player may listen to the broadcasted numbers, feed them to the device through keyboard 4, and may be alerted by the device if one of these numbers is included in the boards he has. Different boards may be retrieved from the chip-card, which card may include a number of games as purchased previously by the player. Thus, a chip-card containing a large number of different boards may be purchased and used in subsequent games. The chip-card may also contain a security number which identifies it, to avoid tampering with the data therein. When a player has "filled" his board with the broadcasted number, viz., has obtained bingo, he may dial to a receiving center which would normally be located at the studio, and inform the studio of his winning. This may be done by voice, but alternatively, the invention conveniently permits to communicate automatically with the receiving center. In this case, the player will dial the number of the receiving center, and will transmit by appropriate transmitting switches through modem 6 the data presently existing in the device. This data will include his board and the security number of the board and/or of the chip-card, and may include additional data, such as the identity number of the player or the like identification data. The receiving center may receive the board, review the data, validate the winning and, if desired, may transmit back to the transmitting device a validation number to be registered in the memory, whether in the device or in the chip-card, which will serve as proof of the winning at a later date, and may announce the winning by immediate broadcasting and, if desired, the name of the winner.

Loto game

The loto game will slightly differ from the bingo game. In the loto game the chip-card will contain prepaid games or values or numbers, which may represent the games and/or the credit of the player, and the player will select, either manually or by

using a random number generator, which may be integral with the device, a number or a plurality of numbers and transmit them through a telephone line as above to the receiving center, at which time the prepaid game will be detracted from the pre-paid amount found on the chip-card. Alternatively, if the prepaid games or values or numbers are not sufficient, the player may transmit credit data, such as the number of a credit card, and may play even if the prepaid games or values or numbers on the chip-card are finished.

Validation of the transmission to a receiving center may be done together with the registration of the number on the chip-card, and the data transmitted to the receiving center will be kept on record in the memory of the device, e.g., in the chip-card, for later reference. When the right numbers are broadcasted or otherwise published, the player will feed the right numbers to the device, and the device will automatically search through all games he has played, to determine whether any winnings have occurred. The numbers may be fed by the player one by one, through the keyboard, or sets of numbers can be generated by a random number generator, provided for the convenience of the player in the device. Unlike in existing games, if a set of numbers is to be used for the game, different numbers of the same set may be decided upon and transmitted to the receiving center at different times. Thus, for instance, a partial broadcasting of winning numbers may be done at different times, and the winnings may be different depending on the time and on the stage at which the bet is placed through the receiving center.

Football pool (Toto)

The same device, with small modifications, may be employed for playing football pool or different gambling games, such as horse racing, etc.. In this case a matrix of games and odds (1, 2 and X) must be provided, to enable the player to select his bets. This may be provided on the display of the device already in matrix form, or data as to the games may be supplied separately and fed linearly to the device. Here, again, random number generators may be employed to decide which values to use for a given game or sets of games. The games is then continued by transmitting and/or receiving data to and from a receiving center, as explained above with respect to the Loto game, and with the required modifications, as appropriate.

All the above has been provided for the purpose of illustration, and is not intended to constitute a limitation of the invention. It will be apparent to a skilled person that a large variety of games may be played by means of the invention, and small modifications in the device, input and output thereof and

method of using it will not exceed the invention.

Likewise, additional uses can be devised, as will be apparent to a skilled person, such as telemarketing, bank or stock transactions and the like operations, with the changes in operation methods that will easily be effected by the skilled person.

Claims

1. A lottery terminal, comprising a housing provided with:
 - display means;
 - memory means comprising data storing, recording and retrieving means;
 - data input means;
 - power source; and
 - data transmitting and/or receiving means to transmit data via a telephone line.
2. A terminal according to claim 1, wherein the memory means comprise a removable memory.
3. A terminal according to claim 2, wherein the removable memory is a chip-card.
4. A terminal according to claim 2 or 3, wherein the removable memory comprises prepurchased credit in the form of data, values or games.
5. A terminal according to any one of claims 1 to 4, wherein the data transmitting and/or receiving means comprise an acoustic coupler.
6. A terminal according to any one of claims 1 to 5, wherein the display means comprise a liquid crystal display.
7. A terminal according to any one of claims 1 to 6, further comprising a random number generator.
8. A terminal according to any one of claims 1 to 7, further comprising a data input device, such as a bar-code or optical reader or the like.
9. A terminal according to any one of claims 1 to 8, further comprising print-out means to print out displayed or memorized data.
10. A method of playing a lottery or the like game, comprising the steps of:
 - a) providing a terminal according to any one of claims 1 to 9,
 - b) providing credit codes to enable the player to play;
 - c) selecting and feeding to the terminal data

to be provided by the player of the game;
d) obtaining telephone connection to a receiving center;
e) transmitting the data provided by the player and any required identification and/or credit data to the said receiving center; and
f) if required, receiving from the said receiving center validation data and storing the said validation data in the memory means of the terminal.

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11. A method according to claim 10, wherein the game is selected from among the game of bingo, football pool, horse-racing and national lotteries.

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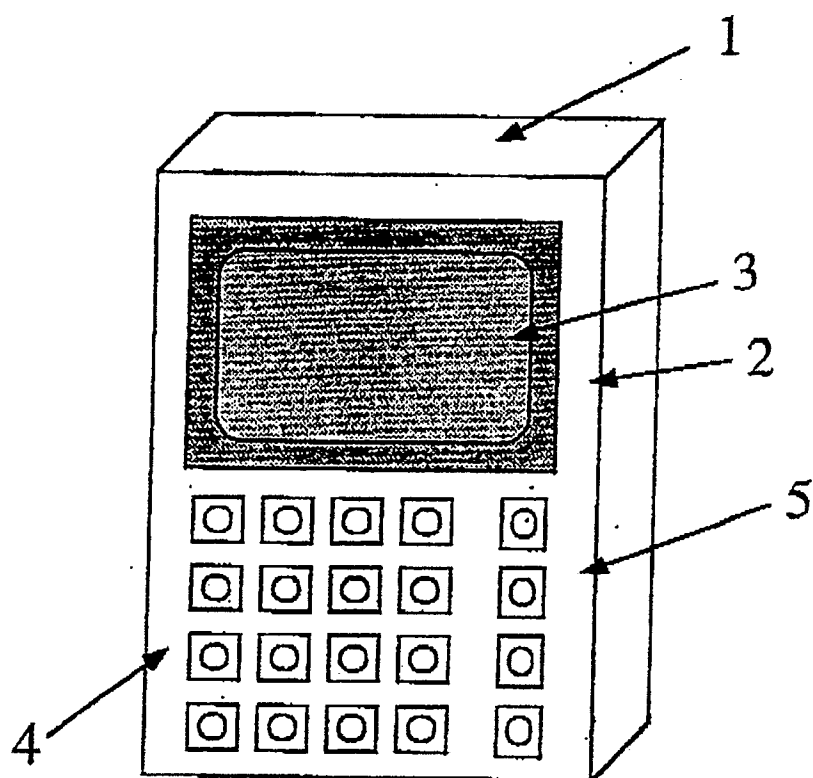


Fig. 1.

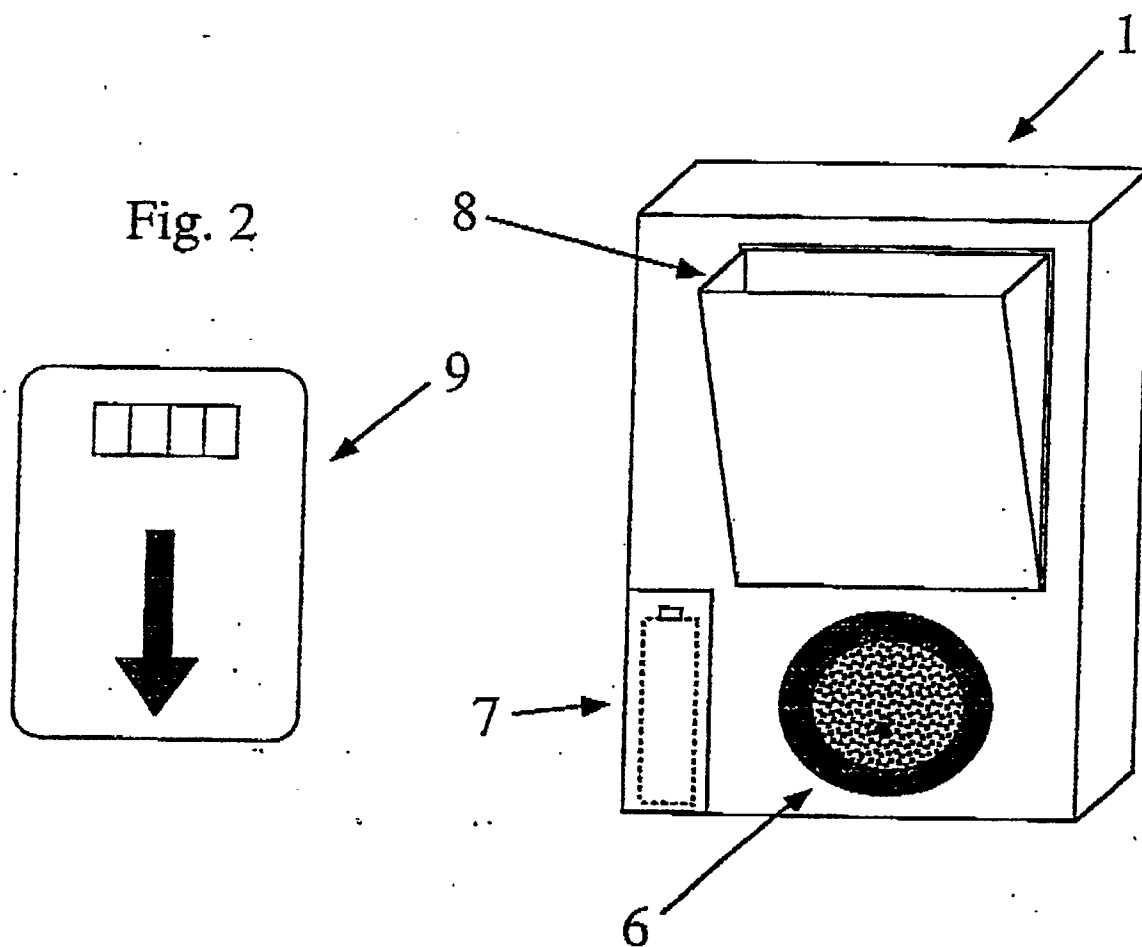


Fig. 2