the package of shuffled game cards or any other accidental or fraudulent acts etc.). A package of shuffled game cards is known and is disclosed in Patent Literature 1: (US Patent Publication 2010/0327525).

[Citation List]

[Patent Literature]

[0004]

[Patent Literature 1] US Patent Application Publication No. 2010/0327525

[Summary of Invention]

[Technical Problem]

[0005]

The present ~~invention~~ disclosure seeks to provide~~s~~ a real-time monitoring of the package of shuffled game cards in casinos and enable~~s~~ the casino to stop a game immediately when something unexpected happens by administrating the whole package of shuffled game cards in casinos. This administrating is important because he or she may know the sequence of the shuffled playing cards on the table once it had been lost in the casino.

[0006]

The present ~~invention has been made in view of the above problem, and aims~~disclosure also seeks to provide a package of shuffled game cards monitoring system with which it is possible to allow a casino to stop any suspicious package of shuffled game cards in the casino, by administrating the whole package of shuffled game cards in casinos.

When operating people in casinos distribute the packages of playing cards to game tables for plays, any loss of package or an exchange of packages should not occur. For example, if some of cards or whole package of cards in which the sequence of these cards are preliminary read or exchanged by someone during a delivery of packages to a game table, he or she may win the games at the table to which the exchanged or read package delivered.

[Solution to Problem]

[0007]

An aspect of the present invention provides a management system for managing gaming equipment in a casino equipped with a game table, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising a storage provided at the game table or near the game table to store the gaming equipment to be used at the game table; a first RFID reader provided at the storage to read the RFID tags of the gaming equipment stored in the storage; a second RFID reader provided at the game table to read the RFID tag of the gaming equipment brought of the storage onto the game table; and a management control device is configured to cause the first RFID reader and the second RFID reader to read the RFID tag, and inspect the gaming equipment brought out of the storage onto the game table based on reading results of the second RFID reader.

[0007a]

Another aspect of the present invention provides a management system for managing gaming equipment, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising a storage provided at a game table or near the game table to store the gaming equipment to be used at the game table; an RFID reader provided at the game table to read the RFID tags of the gaming equipment brought out of the storage onto the game table; and a management control device configured to determine whether the gaming equipment whose RFID tag was read by the RFID reader should be brought out of the storage and located on the game table.

[0007b]

Another aspect of the present invention provides a management system for managing gaming equipment in a casino equipped with a game table, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising a storage provided at the game table or near the game table to store the gaming equipment to be used at the game table; a first RFID reader that repeatedly reads the RFID tag of the gaming equipment stored in the storage; a second RFID reader provided at the game table to read the RFID tag of the gaming equipment brought out of the storage onto the game table; and a management control device configured to output an alert when there is a problem based on reading of the second RFID reader.

[0007c]

~~To solve the above conventional problems, the present invention provides~~There is also disclosed a system for administrating a package of shuffled playing cards, wherein

a predetermined number of decks of game cards are shuffled in a random order and individually packaged as one package, an unique ID code is attached to the package of each unique shuffled game cards

the system having

one or more ID code reader(s) for reading all of ID codes of the packages which have been brought into a pit for a game table,

an administrating controller for monitoring each ID code of all existing packages of shuffled game cards at the pit with obtaining each ID codes of all existing packages of shuffled game cards at the pit by the ID code reader(s),

the ID code reader(s) is also disposed at the game table for reading the ID code of the packages at the game table to identify the package which will be the next use for a card dealing shoe,

wherein,

the ID codes of the packages for the next use is examined whether it is the one properly arrived on the game table or the one arrived at proper timing or period of time by the administrating controller.

[0008]

~~To solve the above conventional problems, the present invention provides~~There is also disclosed a method for administrating a package of shuffled playing cards,

wherein

a predetermined number of decks of game cards are shuffled in a random order and individually packaged as one package, an unique ID code is attached to the package of each unique shuffled game cards

and

the packages of shuffled game cards are carried from a backyard to pits for game tables and game tables,

the method having,

a registering step for registering all of ID codes of the packages which have been brought into a back yard in a data base,

an administrating step for reading all of the ID codes of packages which have been brought into a pit and monitoring each ID code of all existing packages of shuffled game cards at the pit by obtaining each ID codes of all existing packages of shuffled game cards at the pit by ID code reader(s),

wherein,

in the administrating step at the pit all of ID codes of the packages is examined whether it is the one preliminarily brought into the back yard and having been registered in the data base or not.

[0009]

The method for administrating a package of shuffled game cards according to the present disclosure~~this invention~~, the registered ID codes of the packages in the data base may be deleted or acknowledged as after having used when the ID code of the package is read by an ID code reader at the game table. The ID codes of the packages read for the next use may be examined by the administrating controller whether it is the one properly arrived on the game table or the one arrived at proper timing or period of time that may be properly arrived on the game table or the one arrived at proper timing or period of time by judging at least one of the followings;

1) whether it was carried through predetermined delivery rout,

2) whether it was missing one,

3) whether it has not been registered,

4) whether it has been unused in the pit more than predetermined period,

5) whether it was carried from unexpected pit or without passing any pit,

6) whether it had been used at any of game tables in the past.

[0010]

The method for administrating a package of shuffled game cards according to the present disclosure~~this invention~~, the administrating step further may have a step for administrating whether or not all of registered ID codes of the packages in the data base have been deleted or acknowledged as after having used during certain period of time. A pallet ID or a carton ID may be used for registering ID codes of the packages which have been brought into the back yard. The administrating step further may have a step for administrating whether or not there is any package which has not been used at the game tables during certain period of time.

[0011]

A keeping box for containing plurality of packages of shuffled game cards for the method for administrating a package of shuffled game cards according to ~~our invention~~the present disclosure may have reader(s) for reading the ID codes of packages of shuffled game cards in the keeping box, a communication means for sending information obtained by the reader to outside the keeping box and a lock means to prevent taking off the package from the keeping box.

[Brief Description of Drawings]

[0014]

[Figure 1] Fig. 1 is a perspective view of a package and an unpackaged shuffled playing cards to be used in a card dealing shoe of the system for administrating a package of shuffled playing cards according to the embodiment of the present invention.

[Figure 2] Fig. 2 is a diagram schematically showing the entirety of a system for administrating a package of shuffled playing cards according to an embodiment of the present invention.

Claims:

1. A system for administrating a package of shuffled playing cards,

wherein a predetermined number of decks of playing cards are shuffled in a random order and individually packaged as one package, a unique ID code being attached to the package of each unique shuffled playing cards, the system having

an ID code reader for being disposed at a game table configured to obtain the ID code of the packages at the game table to identify the package which will be used on the game table with a card dealing shoe, and

an administrating controller for monitoring the ID code of the package of shuffled playing cards, having a computer readable medium that stores a data base of ID codes of the packages which have been brought into a backyard of a casino, wherein the administrating controller is configured to obtain the ID code of the package to be used on the game table by reading the ID code with the ID code reader and examine whether the ID code read on the game table is the one preliminarily being stored in the data base,

wherein the administrating controller is further configured to examine whether or not the package to be used on the game table is the one which arrived at the backyard at appropriate timing.

2. The system for administrating a package of shuffled playing cards according to claim 1, wherein, the administrating controller is configured to examine whether the package of the ID code read on the game table is the one not expected to be on the game table or the one arrived at unexpected timing.

3. The system for administrating a package of shuffled playing cards according to claim 1, wherein, the administrating controller is configured to be programmed to examine the package by at least one of the followings items;

1) whether it was carried from predetermined delivery route,

2) whether it was not missing one,

3) whether it has not been registered in the data base,

4) whether it has been unused in the pit more than predetermined period,

5) whether it was carried from unexpected pit or without passing any pit,

6) whether it had been used at any game table in the past.

4. The system for administrating a package of shuffled playing cards according to claim 1, wherein, at least one of the following items is stored in the computer readable medium in connection with the ID code of the package of shuffled playing cards and being examined on the game table by one of these items:

(1) the game table to be used;

(2) the dealer, person who draws cards, in charge of the game table to be used;

(3) the expected end time of the use of each package of shuffled playing cards on the game table;

(4) the information concerning the pit or the card room where each package of shuffled playing cards are expected to be carried before it is delivered to the relevant game table.

5. The system for administrating a package of shuffled playing cards according to claim 1, wherein, the ID code of the package being read for the next use will be deleted or acknowledged as the one having been used at the game table by the administrating controller.

6. The system for administrating a package of shuffled playing cards according to claim 1, wherein, the ID code reader is directly or indirectly connected to the card dealing shoe on the game table and configured to send the ID code of the packages to the administrating controller to identify the ID code of the package for the next use and the card dealing shoe receives an instruction from the administrating controller.

7. The system for administrating a package of shuffled playing cards according to claim 1, wherein the card dealing shoe has an output means for alarming the examined results of the ID code of the package or identified ID code of the package for preventing the use of the package.

8. The system for administrating a package of shuffled playing cards according to claim 1, wherein the card dealing shoe has a lock means for preventing a usage of the package by the examined results of the ID code of the package or an instruction for not using the next use by a user of a casino.

9. The system for administrating a package of shuffled playing cards according to claim 1, wherein the card dealing shoe has an alarm function for alarming to prevent a usage of the

package by an instruction for not using the next use by a user of a casino according to an instruction from the administrating controller.

10. The system for administrating a package of shuffled playing cards according to claim 1, the administrating controller is configured to search from the each ID code of the package to the place where the package exists.

11. The system for administrating a package of shuffled playing cards according to claim 1, the administrating controller configured to search the ID code of the package identified from a container ID, a pallet ID or a carton ID which has stored the packages and prohibit the packages from being used at the game table.

12. The system for administrating a package of shuffled playing cards according to claim 1, multiple packages are monitored by reading each ID code of the package at predetermined places in the pits and registered in computer readable medium by the administrating controller.

13. The system for administrating a package of shuffled playing cards according to claim 1, multiple packages are carried on a vehicle for transferring the packages of shuffled playing cards from a backyard to the pits for game tables and are monitored while carrying on routes by the administrating controller whether there is any lost package or not by reading each ID code of the package.

14. The system for administrating a package of shuffled playing cards according to claim 1, all of the ID code of the packages which have been brought into the back yard are administrated with a group of packages which have been contained in one container and ID codes of the group of packages are registered and the number or the ID codes of the packages unused in the group of packages are monitored or detected.

15. A method for administrating a package of shuffled playing cards, wherein a predetermined number of decks of playing cards are shuffled in a random order and individually packaged as a set of shuffled playing cards, an ID code is attached to the package of the set; the method having:

a registering step of registering to a data base, all of ID codes of the packages which have been brought into a backyard of a casino,

a carrying step of carrying the packages of the sets of shuffled playing cards by using plural carriers from the backyard to one of the pits or playing tables of the casino, and,

an administrating step of administrating the packages of shuffled playing cards and ID codes of the packages at each of the places which are the backyard and the pits or playing tables by way of monitoring every ID codes of the packages at each of the places, wherein the ID code of the package at the playing tables for the next use in a game is read by the ID code reader and registered to the data base as the one having been used for the game or deleted from the data base,

wherein the administrating step further comprises examining whether or not each package exists at authorized or programmed place at appropriate timing.

16. The method for administrating a package of shuffled playing cards according to claim 15, the method further having, in/out checking step for checking whether or not the ID code read at the place has been existed previously.

17. The method for administrating a package of shuffled playing cards according to claims 15 or 16, the administrating step further having, a reporting step of reporting or alarming about the ID code of any unauthorized, unexpected or deficiency package with the place or the carrier where these fact is found.

18. The method for administrating a package of shuffled playing cards according to claims 15 to 17, the administrating step further having, a reporting step of reporting about the ID code of the package which has been arrived inappropriate timing.

19. The method for administrating a package of shuffled playing cards according to claim 15, the administrating step further having, a movement checking step of obtaining every ID codes of the packages of shuffled playing cards at least two places in predetermined period of times, grasping inventory information at each place from the ID code obtained at each place, and checking whether or not a predetermined movement between at least two places has been carried out.

20. The method for administrating a package of shuffled playing cards according to claim 15, wherein carrying paths of carries for carrying the packages from the backyard are being monitored in the carrying step.

~~21. The method for administrating a package of shuffled playing cards according to claim 15,~~

~~wherein one or more packages are stored in a keeping box at least at one of pits or playing tables, and the keeping box is for containing one or more packages of shuffled playing cards for the method for administrating a package of shuffled playing cards,~~

~~wherein the keeping box is used for keeping or carrying one or more packages, and the keeping box has a reader for reading all of the ID codes of packages in the keeping box, a communication means for sending information obtained by the reader to outside the keeping box and a lock means to prevent taking off the package from the keeping box.~~

~~22. The method for administrating a package of shuffled playing cards according to claim 15, wherein the ID code reader is selected from at least a barcode reader, a 2-dimentional code reader, a camera or RFID tag reading means.~~

1. A management system for managing gaming equipment in a casino equipped with a game table, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising:

a storage provided at the game table or near the game table to store the gaming equipment to be used at the game table;

a first RFID reader provided at the storage to read the RFID tags of the gaming equipment stored in the storage;

a second RFID reader provided at the game table to read the RFID tag of the gaming equipment brought of the storage onto the game table; and

a management control device is configured to cause the first RFID reader and the second RFID reader to read the RFID tag, and inspect the gaming equipment brought out of the storage onto the game table based on reading results of the second RFID reader.

2. The management system according to claim 1, wherein the management control device outputs a report for outputting an alarm.

3. The management system according to claim 1, further comprising a database that stores the ID of the gaming equipment to be transferred from a backyard to a floor for use as a registered ID, wherein the management control device is configured to inspect whether the ID of the gaming equipment read by the second RFID reader is stored as a registered ID in the database.

4. The management system according to claim 1, wherein the management control device is configured to inspect whether the gaming equipment whose RFID tag was read by the second RFID reader is gaming equipment that should be brought out of the storage and located on the game table.

5. The management system according to claim 1, wherein the management control device is configured to inspect whether the gaming equipment whose RFID tag has been read by the second RFID reader is to be read by the first RFID reader.

6. The management system according to claim 1, further comprising a database that records that the RFID tag has been read by the second RFID reader, wherein the management control device is configured to inspect the gaming equipment based on the records in the database for about the gaming equipment when the RFID tag of the gaming equipment is read by the second RFID reader.

7. The management system according to claim 1, wherein the management control device is configured to inspect for inappropriate movement of the gaming equipment between a plurality of locations, including the storage and the game table.

8. The management system according to claim 1, wherein the management control device is configured to inspect whether the timing of the reading of the ID is appropriate when the ID is read from the RFID tag of the gaming equipment by the second RFID reader.

9. The management system according to claim 1, wherein the storage has a cover which, when opened, allows the entry/exit of the gaming equipment to/from the storage, and a locking means which prevents the cover from opening to prevent unauthorized extraction of the gaming equipment stored in the storage.

10. The management system according to claim 1, wherein the first RFID reader repeatedly reads the RFID tag of the gaming equipment stored in the storage.

11. The management system according to claim 1, wherein the second RFID reader reads the RFID tag of the gaming equipment when the gaming equipment is brought out of the storage onto the game table.

12. The management system according to claim 1, wherein the ID read by the second RFID reader is used to subsequently track the gaming equipment.

13. The management system according to claim 1, further comprising a third RFID reader provided in a backyard of the casino to read the RFID tag of the gaming equipment to be transferred from the backyard to the game table, wherein the management control device is configured to inspect whether a movement of the gaming equipment from the backyard to the game table is correct.

14. The management system according to claim 1, wherein the gaming equipment that has been determined by the management control device to be located at the game table are subsequently moved to a predetermined location so that the gaming equipment is available for use by a user at the game table.

15. A management system for managing gaming equipment, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising:

a storage provided at a game table or near the game table to store the gaming equipment to be used at the game table;

an RFID reader provided at the game table to read the RFID tags of the gaming equipment brought out of the storage onto the game table; and

a management control device configured to determine whether the gaming equipment whose RFID tag was read by the RFID reader should be brought out of the storage and located on the game table.

16. A management system for managing gaming equipment in a casino equipped with a game table, wherein the gaming equipment is equipped with an RFID tag storing an ID for identifying the gaming equipment, the management system comprising:

a storage provided at the game table or near the game table to store the gaming equipment to be used at the game table;

a first RFID reader that repeatedly reads the RFID tag of the gaming equipment stored in the storage;

a second RFID reader provided at the game table to read the RFID tag of the gaming equipment brought out of the storage onto the game table; and

a management control device configured to output an alert when there is a problem based on reading of the second RFID reader.