not easily extracted is disclosed in JP 2008-246103 A. Accordingly, a structure in which the radio tag hardly has a defect is implemented.

[0005]

However, when the number of gaming chips disclosed in JP 2008-246103 A is read by the radio tag, since the number of gaming chips is calculated on the basis of the read radio tag information, gaming chip information is unable to be acquired when the radio tag installed in the gaming chip is broken or when no radio tag is installed, and there is a problem in that there is a difference between the actual number of gaming chips and the number of gaming chips calculated by reading the radio tag.

[0006]

Embodiments of the present invention seek to provide an inspection system and an inspecting device which may be capable of detecting whether or not the radio tag is broken.

[0006a]

An aspect of the present invention provides an inspection system of a gaming chip, the inspection system comprising a reading device, wherein the reading device is configured to acquire gaming chip information by reading a respective radio tag of each of one or more of a plurality of gaming chips stored in a storage case; and a determining unit, wherein the determining unit is configured to obtain a physical number of the plurality of gaming chips stored in the storage case; compare a count of the plurality of gaming chips obtained based on the gaming chip information acquired by the reading device with the obtained physical number; determine a presence

of one or more abnormal gaming chips among the plurality of gaming chips stored in the storage case based on a determination that the count does not match the obtained physical number; and output a result associated with an indication of the one or more abnormal gaming chips.

[0006b]

Another aspect of the present invention provides a gaming chip embedding a radio tag storing gaming chip information and that has, on an outer surface of the gaming chip, a color or a display indicating a value, the gaming chip being capable of being inspected by an inspecting device while being stored in a storage case used for a table game, the inspecting device comprising a reading device, wherein the reading device is configured to acquire the gaming chip information of the gaming chip and of one or more additional gaming chips by reading the radio tag of the gaming chip and respective radio tags of the one or more additional gaming chips while the gaming chip and the one or more additional gaming chips are stored in a storage case; and a determining unit, wherein the determining unit is configured to: when the gaming chip and the one or more additional gaming chips are stored in the storage case without gaps, determine, based on the acquired gaming chip information, a count of a number of the gaming chip and the one or more additional gaming chips that are stored in the storage case; based on a determination that the determined count does not match a physical number of the gaming chips in the storage case that was physically obtained, determine that there is an abnormal gaming chip among the gaming chips stored in the storage case; and output a result associated with the abnormal gaming chip.

[0006c]

Another aspect of the present invention provides an inspection system of a gaming chip that is usable for a table game and that has radio tag, the inspection system comprising a reading device, wherein the reading device is configured to acquire gaming chip information by reading respective radio tags of one or more of a plurality of gaming chips stored in a storage case; and a determining unit, wherein the determining unit is configured to: determine, using the reading device based on the acquired gaming chip information, a count of a number of the plurality of gaming chips stored in the storage case; compare the count with an obtained physical number of the gaming chips stored in the storage case; and in response to a result of the comparison being that the determined count does not match the physical number of the gaming chips: determine that there is an abnormal gaming chip among the gaming chips stored in the storage case; and output a result associated with the abnormal gaming chip.

[0007]

There is also disclosed an inspection system that inspects gaming chips each having a color or a display indicating a value on an outer surface in a state where the gaming chips are stored in a case in which a maximum of the number of gaming chips to be stored is limited, a radio tag storing gaming chip information being embedded in each of the gaming chips, the gaming chips being stored in the case capable of containing a row of gaming chips stacked in a thickness direction, the inspection system including: a reading device

that reads the radio tag of the gaming chip in the case and acquires gaming chip information of the gaming chip; and a determining unit that compares the gaming chip information acquired by the reading device with a maximum of the number of gaming chips storable in the case and determines an abnormality of the gaming chip in the case when the number of gaming chips obtained from the gaming chip information acquired by the reading device is different from a maximum of the number of storable gaming chips.

[0008]

As disclosed, the determining unit has a function of comparing a physical characteristic of the case or physical information of the gaming chip obtained from a physical measurement means other than the reading device with the number of physical information of the gaming chip obtained from the gaming chip information acquired by the reading device, determining that there is an abnormal gaming chip among the gaming chips contained in the case when both pieces of information do not coincide with each other, and outputting a determination result.

[0009]

As disclosed, the physical information is a number or height which is obtained optically or a weight which is obtained by measurement.

[0010]

The inspection system as disclosed may further include a radio tag information database which is able to refer to information of the radio tag embedded in the gaming chip, wherein the determining unit is configured to compare the gaming chip information of the gaming chip read by the reading device with the information of the radio tag information database and detect an abnormality of a gaming chip of an inspection target.

[0011]

As disclosed, the determining unit has a function of comparing, when it is determined that there is an abnormal gaming chip among the gaming chips in the case, the information of the radio tags of all the gaming chips in the case with the radio tag information database registered in advance and specifying the presence of an abnormal radio tag which is not stored in the radio tag information database.

[0012]

As disclosed, the determining unit has a function of specifying, when it is determined that there is an abnormal gaming chip among the gaming chips in the case, the presence of an abnormal gaming chip in which information from the radio tag is unable to be obtained among the gaming chips in the case.

[0013]

As disclosed, the determining unit has a function of analyzing the information of the radio tag acquired by the reading device and issuing a signal when two or more gaming chips having the same information obtained from the radio tag are contained in the case.

[0014]

As disclosed, the radio tag information database is an information database of radio tags of gaming chips being stored or used in a game hall, and the determining unit has a function of analyzing the information of the radio tag acquired by the reading device and issuing a signal when information obtained from the radio tag coincides with information of a radio tag of a gaming chip placed in a different place in the game hall.

[0015]

There is also disclosed an inspecting device that inspects gaming chips each having a color or a display indicating a value on an outer surface, a radio tag storing gaming chip information being embedded in each of the gaming chips, the inspecting device including: an inspection table capable of inspecting the gaming chips in a state where the gaming chips are stacked in a row in a thickness direction, and a maximum of the number of stackable gaming chips is limited; a reading device that reads the radio tags of the row of gaming

chips and acquires the gaming chip information of the row of gaming chips; and a determining unit that compares the gaming chip information acquired by the reading device with a maximum of the number of stackable gaming chips of the inspection table and determines an abnormality of the gaming chip placed on the inspection table when the number of gaming chips obtained from the gaming chip information acquired by the reading device is different from a maximum of the number of stackable gaming chips.

[0016]

As disclosed, the determining unit has a function of determining, when the gaming chip information of the gaming chip acquired by the reading device does not coincide with physical information of the gaming chip, the presence of an abnormal gaming chip among the gaming chips placed on the inspection table and outputting a determination result.

[0017]

As disclosed the physical information is a number or height which is obtained optically or a weight which is obtained by measurement.

[0018]

The inspecting device as disclosed may further include a radio tag information database which is able

to refer to information of the radio tag embedded in the gaming chip, wherein the determining unit is configured to compare the gaming chip information of the gaming chip read by the reading device with the information of the radio tag information database and detect an abnormality of a gaming chip of an inspection target placed on the inspection table.

[0019]

As disclosed, the determining unit has a function of comparing, when it is determined that there is an abnormal gaming chip among the gaming chips on the inspection table, the information of the radio tags of all the gaming chips on the inspection table with the radio tag information database registered in advance and specifying the presence of an abnormal radio tag which is not stored in the radio tag information database.

[0020]

As disclosed, the determining unit has a function of specifying, when it is determined that there is an abnormal gaming chip among the gaming chips in the case, the presence of an abnormal gaming chip in which information from the radio tag is unable to be obtained among the gaming chips in the case.

[0021]

As disclosed, the determining unit has a function of analyzing the information of the radio tag acquired by the reading device and issuing a signal when two or more gaming chips having the same information obtained from the radio tag are contained in the case.

[0022]

As disclosed, the radio tag information database is an information database of radio tags of gaming chips being stored or used in a game hall, and the determining unit has a function of analyzing the information of the radio tag acquired by the reading device and issuing a signal when information obtained from the radio tag coincides with information of a radio tag of a gaming chip placed in a different place in the game hall.

[0023]

There is also disclosed a gaming chip that is inspectable by the inspection system according to any one of the first to eighth aspects in a state where the gaming chip is stored in a case in which a maximum of the number of gaming chips is limited, a radio tag storing gaming chip information embedded in the gaming chip, a color or a display indicating a value being arranged on an outer surface of the gaming chip.

[0024]

The foregoing and other objects, features, aspects and advantages of the exemplary embodiments will become more

CLAIMS

1. An inspection system of a gaming chip, the inspection system comprising:

a reading device, wherein the reading device is configured to acquire gaming chip information by reading a respective radio tag of each of one or more of a plurality of gaming chips stored in a storage case; and

a determining unit, wherein the determining unit is configured to:

obtain a physical number of the plurality of gaming chips stored in the storage case;

compare a count of the plurality of gaming chips obtained based on the gaming chip information acquired by the reading device with the obtained physical number;

determine a presence of one or more abnormal gaming chips among the plurality of gaming chips stored in the storage case based on a determination that the count does not match the obtained physical number; and

output a result associated with an indication of the one or more abnormal gaming chips.

2. The inspection system according to claim 1, wherein the physical number of the plurality of gaming chips in the storage case is associated with physical information.

3. The inspection system according to claim 2, wherein the physical information indicates a number or height obtained optically.

4. The inspection system according to claim 2, wherein the physical information indicates a height obtained optically.

5. The inspection system according to claim 2, wherein the physical information indicates a weight obtained by measurement.

6. The inspection system according to claim 1, wherein the determination of the presence of the one or more abnormal gaming chips includes determining presence of an abnormal gaming chip from which information cannot be obtained via radio tag.

7. The inspection system according to claim 1, wherein the determination, in response to which the result is output, includes determining that the gaming chip information of the radio tags of two or more of the plurality of gaming chips is the same as each other.

8. The inspection system according to claim 1, further comprising:

a radio tag information database configured to store information associated with the respective radio tags of the one or more of the plurality of gaming chips;

wherein the determining unit is further configured to:

compare the gaming chip information of the gaming chip acquired by the reading device with the information of the radio tag information database; and

based on a result of the comparison with the information of the radio tag information database, detect an abnormality of one or more of the plurality of gaming chips.

9. The inspection system according to claim 1, further comprising:

a radio tag information database configured to store information associated with the respective radio tags of the one or more of the plurality of gaming chips;

wherein the determining unit is configured to, based on the determination of the presence of the one or more abnormal gaming chips:

compare all of the gaming chip information obtained by the reading device reading the respective radio tags of the plurality of gaming chips with the information of the radio tag information database; and

based on a result of the comparison, determine presence of an abnormal radio tag whose information is not stored in the radio tag information database.

10. The inspection system according to claim 1, further comprising:

a radio tag information database of radio tags of gaming chips being stored or used in a game hall, wherein the determining unit is configured to issue a signal when any of the acquired gaming chip information obtained by the reading of the radio tags coincides with information of a radio tag of a gaming chip that the radio tag information database indicates to be placed in a different place in the game hall than the place of the plurality of gaming chips.

11. The inspection system according to claim 1, wherein the determining unit is further configured to compare the count to a number of gaming chips that the storage case is predetermined to be capable of holding.

12. A gaming chip embedding a radio tag storing gaming chip information and that has, on an outer surface of the gaming chip, a color or a display indicating a value, the gaming chip being capable of being inspected by an inspecting device while being stored in a storage case used for a table game, the inspecting device comprising:

a reading device, wherein the reading device is

configured to acquire the gaming chip information of the gaming chip and of one or more additional gaming chips by reading the radio tag of the gaming chip and respective radio tags of the one or more additional gaming chips while the gaming chip and the one or more additional gaming chips are stored in a storage case; and

a determining unit, wherein the determining unit is configured to:

when the gaming chip and the one or more additional gaming chips are stored in the storage case without gaps, determine, based on the acquired gaming chip information, a count of a number of the gaming chip and the one or more additional gaming chips that are stored in the storage case; and

based on a determination that the determined count does not match a physical number of the gaming chips in the storage case that was physically obtained, determine that there is an abnormal gaming chip among the gaming chips stored in the storage case; and

output a result associated with the abnormal gaming chip.

13. The gaming chip according to claim 12, wherein the determining unit is further configured to compare the count to a number of gaming chips that the storage case is predetermined to be capable of holding.

14. An inspection system of a gaming chip that is usable for a table game and that has radio tag, the inspection system comprising:

a reading device, wherein the reading device is configured to acquire gaming chip information by reading respective radio tags of one or more of a plurality of gaming chips stored in a storage case; and

a determining unit, wherein the determining unit is configured to:

determine, using the reading device based on the acquired gaming chip information, a count of a number of the plurality of gaming chips stored in the storage case;

compare the count with an obtained physical number of the gaming chips stored in the storage case; and

in response to a result of the comparison being that the determined count does not match the physical number of the gaming chips:

determine that there is an abnormal gaming chip among the gaming chips stored in the storage case; and

output a result associated with the abnormal gaming chip.

15. The inspection system according to claim 14, wherein

the physical number of gaming chips in the storage case is associated with physical information.

16. The inspection system according to claim 15, wherein the physical information indicates a number or height obtained optically.

17. The inspection system according to claim 15, wherein the physical information indicates a height obtained optically.

18. The inspection system according to claim 15, wherein the physical information indicates a weight obtained by measurement.