[0005]

Patent Literature 1: International Publication No. WO 2014/064872

[Summary of Invention]

[Technical Problem]

[0006]

The present invention disclosure seeks to provide a system that uses a card shoe used in a table game to measure, as periods in the course of a game handled by a dealer, particularly, a game play period from the time when a card is drawn from a card accommodating section to the time when a result of the game is displayed, and periods other than the play period including periods spent for bet placement and bet settlement.

[0007]

Further, in addition to the measurement of the detailed periods in a single game, measurement of the detailed periods over a plurality of games allows grasp of the sum and average of the detailed periods and dispersion and progress tendencies thereof, whereby countermeasures can be examined.

[0008]

The present disclosure also seeks to provide a system that can measure a period required to stop

using cards accommodated in the card shoe and replace the cards with a new set or package of cards.

[Solution to Problem]

[0008a]

An aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur; and

a mode switcher that switches a mode to a period measurement omission mode when a card game doesn’t start,

wherein the card shoe includes

a card sensor that senses that one of the cards is drawn and outputs a signal,

a card reading section that reads at least a rank of the drawn card,

a win/loss evaluating section that performs win/loss evaluation of the card game based on information on the rank of the card read by the card reading section, and

a win/loss evaluation result output section that outputs a result of the win/loss evaluation performed by the win/loss evaluating section,

wherein the management control section is configured to be capable of measuring, as an item of the measurement of the period between the points of time when the at least two specific items occur, a period from time when a mode is switched to the period measurement omission mode to time when the card game starts as a measurement omission period.

[0008b]

Another aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur,

wherein the card shoe includes

a card sensor that senses that one of the cards is drawn and outputs a signal,

a card reading section that reads at least a rank of the drawn card,

a win/loss evaluating section that performs win/loss evaluation of the card game based on information on the rank of the card read by the card reading section, and

a win/loss evaluation result output section that outputs a result of the win/loss evaluation performed by the win/loss evaluating section,

an item of the measurement of the period between the points of time when the at least two specific items occur includes

measurement of a period for which shuffle playing cards on a package basis or a set basis are used,

the period starting at

a point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received or

a point of time when a signal representing the start of bets in a new game is received, and

the period ending at

a point of time when a cut card is drawn from the card accommodating section, or

a point of time when a game in which the cut card has been drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends, and

measurement of an in-shoe package exchange period

with the in-shoe package exchange operation starting at

the point of time when a cut card is drawn from the card accommodating section, or

the point of time when a game in which the cut card has been drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends, and

the in-shoe package exchange operation ending at

the point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received, or

the point of time when a signal representing the start of bets in a new game is received.

[0008c]

Another aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur,

wherein the card shoe includes

a card sensor that senses that one of the cards is drawn and outputs a signal,

a card reading section that reads at least a rank of the drawn card,

a win/loss evaluating section that performs win/loss evaluation of the card game based on information on the rank of the card read by the card reading section, and

a win/loss evaluation result output section that outputs a result of the win/loss evaluation performed by the win/loss evaluating section,

an item of the measurement of the period between the points of time when the at least two specific items occur includes

measurement of a period for which shuffle playing cards on a package basis or a set basis are used,

the period starting at

a point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received, or

a point of time when a signal representing the start of bets in a new game is received, and

the period ending at

a point of time when a cut card is drawn from the card accommodating section, or

a point of time when a game in which the cut card is drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends.

[0008d]

Another aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time

when at least two of the specific items occur; and

a mode switcher that switches a mode to a period measurement omission mode when the card game doesn’t start

wherein the management control section is configured to be capable of measuring, as an item of the measurement of the period between the points of time when the at least two specific items occur, a period from time when a mode is switched to the period measurement omission mode to time when the card game starts.

[0008e]

Another aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur,

an item of the measurement of the period between the points of time when the at least two specific items occur includes

measurement of a period for which shuffle playing cards on a package basis or a set basis are used,

the period starting at

a point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received or

a point of time when a signal representing the start of bets in a new game is received, and

the period ending at

a point of time when a cut card is drawn from the card accommodating section, or

a point of time when a game in which the cut card is drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends, and

measurement of an in-shoe package exchange period

with the in-shoe package exchange operation starting at

the point of time when a cut card is drawn from the card accommodating section, or

the point of time when a game in which the cut card is drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends, and

the in-shoe package exchange operation ending at

the point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received, or

the point of time when a signal representing the start of bets in a new game is received.

[0008f]

Another aspect of the present invention provides a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur,

an item of the measurement of the period between the points of time when the at least two specific items occur includes

measurement of a period for which shuffle playing cards on a package basis or a set basis are used,

the period starting at

a point of time when a signal representing a first card is drawn at the start of use of new shuffle playing cards is received, or

a point of time when a signal representing the start of bets in a new game is received, and

the period ending at

a point of time when a cut card is drawn from the card accommodating section, or

a point of time when a game in which the cut card is drawn from the card accommodating section or a last game of a predetermined number of games that follow a game in which the cut-card has been drawn ends.

[0009]

There is also disclosed a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

a management control section that measures, based on points of time when specific items in a card game occur, a period between points of time when at least two of the specific items occur,

wherein the card shoe includes

a card sensor that senses that one of the cards is drawn and outputs a signal,

a card reading section that reads at least a rank of the drawn card,

a win/loss evaluating section that performs win/loss evaluation of the card game based on information on the rank of the card read by the card reading section,

a win/loss evaluation result output section that outputs a result of the win/loss evaluation performed by the win/loss evaluating section, and

a result output start control section that controls start of the win/loss evaluation result output performed by the win/loss evaluation result output section for an instruction to start of the output,

the management control section is configured to be

capable of receiving, from the card sensor, a signal representing that a card has been drawn and sensed and further measuring how many cards have been drawn in each game, and

capable of receiving a signal from the result output start control section and memorizing time when the win/loss evaluation result output starts, and

as an item of the measurement of the period between the points of time when the at least two specific items occur, a period from time when a first card is drawn to time when the win/loss evaluation result output starts is measured as a play period.

[0010]

There is also disclosed a table game system comprising:

operation is received from the package exchange detecting section or a point of time when the card shoe is powered off, and

measurement of an in-shoe package exchange period

with the in-shoe package exchange operation starting at the point of time when the signal representing the start of the in-shoe package exchange operation is received from the package exchange detecting section or the point of time when the card shoe is powered off, and

the in-shoe package exchange operation ending at the point of time when the signal representing the end of the in-shoe package exchange operation is received from the package exchange detecting section or the point of time when the card shoe is powered on.

[0011]

There is also disclosed a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

a card shoe including

a card accommodating section that accommodates the shuffle playing cards, and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table; and

the table game system further comprises a package exchange detecting section that detects start and end of in-shoe package exchange operation of exchanging the playing cards accommodated in the card accommodating section, and

an item of the measurement of the period between the points of time when the at least two specific items occur includes

measurement of a period for which shuffle playing cards on a package basis or a set basis are used,

the period starting at a point of time when a signal representing the end of the in-shoe package exchange operation is received from the package exchange detecting section or a point of time when the card shoe is powered on, and

the period ending at a point of time when a signal representing the start of the in-shoe package exchange operation is received from the package exchange detecting section or a point of time when the card shoe is powered off.

[0012]

There is also disclosed a table game system comprising:

shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set;

detecting section or the point of time when the card shoe is powered off, and

the period ending at the point of time when the signal representing the end of the in-shoe package exchange operation is received from the package exchange detecting section or the point of time when the card shoe is powered on,

[3] measurement of a game period that starts at a point of time when the win/loss evaluation result output in a preceding game stops and ends at a point of time when the win/loss evaluation result output in a current game stops, and

[4] calculation of a sum, an average, or dispersion of the game periods in a plurality of games in the period for which the shuffle playing cards on a package basis or a set basis are used.

[0013]

There is also disclosed a card shoe comprising:

a card accommodating section that accommodates shuffle playing cards that are playing cards formed of a multiple number of decks and shuffled and packaged or set; and

an opening through which the cards are drawn one by one from the card accommodating section onto a game table,

wherein the card shoe further includes

[Advantageous Effects]

[0014]

According to the table game system of the present disclosure, the card shoe used in a table game can be used to perform detailed analysis of a period particularly from the time when a card is drawn from a card accommodating section to the time when a result of the game is displayed, as periods associated with the progress of the game handled by a dealer, and grasp of the sum and average of the periods and dispersion and progress tendencies thereof, whereby countermeasures can be examined.

[Brief Description of Drawings]

[0015]

[Figure 1] Figure 1 is a side view of a card shoe and a management control section connected to the card shoe in an embodiment of the present invention.

[Figure 2] Figure 2 shows an overview of an entire casino in the embodiment of the present invention.

[Figure 3] Figure 3 shows an overview of a game of baccarat on a game table in the embodiment of the present invention.

[Figure 4] Figure 4 is a block diagram showing the progress of baccarat in the embodiment of the present invention.