CLAIMS

~~1. Substitute currency for gaming in which a stacked structure body formed by a plurality of plastic layers is configured by stacking at least a coloring layer and a white layer or a thin-color layer, a stripe pattern is formed on a side face in a stacking direction, a configuration enabling a type of substitute currency for gaming to be specified by the coloring layer is included, a print layer representing a type of the substitute currency for gaming is applied to a further upper and lower faces of the stacked structure body, and a layer structure is formed by thermo-compressing each interlayer.~~

~~2. The substitute currency for gaming according to claim 1, wherein a side ID that can be individually identified is attached to an outer face of the white layer or the thin-color layer.~~

~~3. The substitute currency for gaming according to claim 2, wherein the side IDs are attached to at least three or more positions spaced apart in a rotation direction of the side face of the substitute currency for gaming.~~

~~4. The substitute currency for gaming according to claim 2 or 3, wherein the side ID is printed using ink that is not visible for visible light.~~

~~5. The substitute currency for gaming according to claim 2 or 3, wherein the side ID is printed using ink absorbing~~

~~infrared rays.~~

~~6. The substitute currency for gaming according to claim 2 or 3, wherein the side ID is disposed in a plurality of rows on each of outer faces of two layers of the white layers or the thin-color layers.~~

~~7. The substitute currency for gaming according to any one of claims 1 to 3, wherein R processing is performed for outer angles of upper and lower faces of the print layer.~~

~~8. The substitute currency for gaming according to any one of claims 1 to 3, wherein at least one layer of the plurality of plastic layers is a heavy layer containing metal powder used for increasing the weight.~~

~~9. The substitute currency for gaming according to claim 8, wherein the metal powder used for increasing the weight is a metal oxide and is one or a plurality of metal oxides, particularly, among a zinc oxide and a titanium oxide.~~

~~10. The substitute currency for gaming according to any one of claims 1 to 3 or claim 9, wherein white layers or thin-color layers are disposed on both sides with the coloring layer interposed therebetween, and thicknesses of upper and lower layers of the white layers or the thin-color layers having the coloring layer interposed therebetween are configured to be different from each other.~~

~~11. The substitute currency for gaming according to any~~

~~one of claims 1 to 3 or claim 9, wherein an RFID is tightly fixed between plastic layers each forming any one of the coloring layer and the white layer or the thin-color layer.~~

~~12. The substitute currency for gaming according to any one of claims 1 to 3 or claim 9, wherein a face code formed using UV emission ink or ink absorbing infrared rays is disposed on the print layer.~~

~~13. The substitute currency for gaming according to any one of claims 1 to 3 or claim 9, wherein a structure in which a side ID is attached to a side face, and an RFID is built is formed, a face code formed using UV emission ink or ink absorbing infrared rays is disposed on the print layer, and information of the side ID attached to the side face and information of the RFID are associated with each other, the information of the side ID and information of the face code are associated with each other, or the information of the side ID, the information of the RFID, and the information of the face code are associated with each other.~~

~~14. An inspection device inspecting the substitute currency for gaming according to claim 11 or 13, the inspection device comprising:~~

~~an RFID reading device that reads information of the RFID of the substitute currency for gaming;~~

~~an ID reading device that reads the side ID disposed~~

~~on the side face; and~~

~~a control device,~~

~~wherein a relation between information of the side ID acquired by the ID reading device and information acquired by the RFID reading device is configured to be inspected.~~

~~15. An inspection device inspecting the substitute currency for gaming according to claim 12 or 13, the inspection device comprising:~~

~~a face code reading device that reads the face code formed using UV emission ink or ink absorbing infrared rays disposed on the surface of the substitute currency for gaming;~~

~~an ID reading device that reads the side ID disposed on the side face; and~~

~~a control device,~~

~~wherein the control device is configured to inspect a relation between information of the side ID acquired by the ID reading device and information acquired by the face code reading device.~~

~~16. An inspection device inspecting the substitute currency for gaming according to claim 13, the inspection device comprising:~~

~~a face code reading device that reads the face code formed using UV emission ink or ink absorbing infrared rays disposed on the surface of the substitute currency for~~

~~gaming;~~

~~an ID reading device that reads the side ID disposed on the side face;~~

~~an RFID reading device that reads information of the RFID of the substitute currency for gaming; and~~

~~a control device,~~

~~wherein the control device is configured to inspect a relation among information of the side ID acquired by the ID reading device, information acquired by the face code reading device, and information acquired by the RFID reading device.~~

~~17. The inspection device inspecting the substitute currency for gaming according to any one of claims 14 to 16,~~

~~wherein the side ID is printed using at least one or a combination of ink that is visible for visible light and ink absorbing infrared rays, and~~

~~the ID reading device includes one or a plurality of visible-light cameras or infrared-ray cameras corresponding to the ink used for printing the side ID or a camera capable of performing switching among a plurality of functions of a visible-light camera and an infrared-ray camera corresponding to the ink.~~

~~18. The inspection device inspecting the substitute currency for gaming according to any one of claims 14 to~~

~~17, further comprising:~~

~~a determination device of a type of the substitute currency for gaming that images the side face of the substitute currency for gaming and determines a color of a stripe pattern of the side face in a stacking direction; and~~

~~a print inspecting device that reads a print of a print layer arranged in the substitute currency for gaming,~~

~~wherein a relation between the type of the substitute currency for gaming and a print content of the print layer is inspected.~~

~~19. A method of manufacturing substitute currency for gaming, the method comprising:~~

~~forming a stacked structure body formed by a plurality of plastic layers by stacking at least a coloring layer and a white layer or a thin-color layer;~~

~~arranging a print layer in which a drawing pattern is printed on at least an upper face or a lower face of the stacked structure body of the plurality of plastic layers;~~

~~generating a gaming substitute currency original plate by heating and welding the layers by performing thermo-pressing of the layers of the stacked structure body and the print layer; and~~

~~acquiring a plurality of substitute currencies for gaming having a predetermined shape by performing punching~~

~~processing of the gaming substitute currency original plate using a mold and performing R processing of upper and lower angles of outer sides of the substitute currency for gaming using a mold at the time of performing the punching processing.~~

~~20. A method of manufacturing substitute currency for gaming, the method comprising:~~

~~forming a stacked structure body formed by a plurality of plastic layers by including a coloring layer at least in the middle and stacking a white layer or a thin-color layer on upper and lower sides of the coloring layer disposed in the middle;~~

~~using a layer containing metal powder or a metal oxide used for increasing the weight inside the layer as at least one layer of the plurality of plastic layers;~~

~~arranging a print layer in which a drawing pattern is printed on at least an upper face or a lower face of the stacked structure body;~~

~~generating a gaming substitute currency original plate by heating and welding the layers by performing thermo-pressing of the layers of the stacked structure body and the print layer; and~~

~~acquiring a plurality of substitute currencies for gaming having a predetermined shape by performing punching processing of the gaming substitute currency original plate~~

~~using a mold.~~

~~21. The method of manufacturing substitute currency for gaming according to claim 19 or 20, wherein a side ID is attached through inkjet printing.~~

~~22. The method of manufacturing substitute currency for gaming according to claim 19 or 20,~~

~~wherein an RFID is interposed between the layers of the stacked structure body, and~~

~~the layers having the RFID interposed therebetween are heated and welded when the layers are thermos-compressed, and a periphery of the RFID is tightly fixed by the plastic layers.~~

~~23. The method of manufacturing substitute currency for gaming according to claim 19 or 22, wherein one or a plurality of face codes, security marks, optical variable devices (OVD) are printed in the print layer.~~

~~24. A management system of a table game, the management system comprising:~~

~~a card distributing device that determines and displays a result of winning/losing of each game in a game table;~~

~~a camera device that images and records substitute currency for gaming placed on the game table by using a camera;~~

~~a management control device that specifies and stores~~

~~a position, types, and quantities of the substitute currency for gaming placed on the game table by a game participant by using a result of the imaging performed by the camera device in each game,~~

~~wherein the substitute currency for gaming is formed as a structure body including a coloring layer and a white layer or a thin-color layer at least in an outer appearance to form a stripe pattern on a side face in an axial direction and has a configuration enabling the type of the substitute currency for gaming to be specified using the coloring layer, and~~

~~the management control device has a calculation function of calculating a balance of a casino side on the game table for each game by using the result of winning/losing acquired from the card distributing device and the result of the imaging of the position, the types, and the quantities of the substitute currency for gaming placed by a game participant.~~

~~25. The management system of a table game according to claim 24, wherein the management control device has a function of determining the types and an amount of the substitute currency for gaming by using colors of coloring layers by measuring the numbers of the coloring layers or white layers or thin-color layers of the substitute currency for gaming placed by each game participant.~~

~~26. The management system of a table game according to claim 24, wherein the management control device images the position, the types, and the quantities of the substitute currency for gaming placed by each game participant in each game when the card distributing device detects drawing of a first card, before and after the drawing, or after recognition of a dealer's signal representing an end of betting in the management control device.~~

~~27. A management system of a table game, the management system comprising:~~

~~a gaming substitute currency tray that is disposed on a game table and holds substitute currency for gaming for each type;~~

~~a camera device that images the substitute currency for gaming placed in the gaming substitute currency tray by using a camera; and~~

~~a management control device that specifies and stores types and quantities of substitute currency for gaming disposed on the gaming substitute currency tray by using a result of the imaging performed by the camera device,~~

~~wherein the substitute currency for gaming is formed as a structure body including a coloring layer and a white layer or a thin-color layer at least in an outer appearance to form a stripe pattern on a side face in an axial direction and has a configuration enabling the type of the~~

~~substitute currency for gaming to be specified using the coloring layer, and~~

~~the management control device is configured to be able to measure a total amount of the substitute currency for gaming disposed on the gaming substitute currency tray by using a result of the imaging of the types and the quantities of the substitute currency for gaming disposed on the gaming substitute currency tray.~~

~~28. The management system of a table game according to claim 27, wherein the management control device has a function of determining the types and an amount of the substitute currency for gaming by using colors of coloring layers by measuring the numbers of the coloring layers or white layers or thin-color layers of substitute currency for gaming placed by each game participant.~~

~~29. The management system of a table game according to claim 27, wherein the management control device is configured to be able to determine a difference of a real total amount of substitute currency for gaming after end of a game that is perceived in the gaming substitute currency tray of a dealer of the game table that does not correspond to an increased/decreased amount of substitute currency for gaming calculated based on an amount of substitute currency for gaming bet by all the players and a result of winning/losing of the game.~~

~~30. The management system of a table game according to claim 29, wherein the acquisition of the total amount of the substitute currency for gaming in the gaming substitute currency tray through the management device after a settlement at the time of end of a game is performed at one of:~~

~~1) time when re-payment for winning substitute currency for gaming ends;~~

~~2) time when cards used in the game are collected and are disposed in a disposal area of the table;~~

~~3) time when a predetermined button accompanying a winning/losing result determining device is pressed; and~~

~~4) time when a marker representing winning/losing is returned to the original state.~~

~~31. The management system of a table game according to any one of claims 27 to 30,~~

~~wherein the camera device can also image bills used for exchange of the substitute currency for gaming, and~~

~~the management control device is configured to specify types and quantities of substitute currency for gaming disposed on the gaming substitute currency tray to be decreased according to exchange of the substitute currency for gaming disposed on the gaming substitute currency tray and bills by using a result of the imaging of the bills and be able to perform a comparison/measurement~~

~~with a real total amount of the substitute currency for gaming disposed on the gaming substitute currency tray.~~

~~32. The management system of a table game according to any one of claims 27 to 30, wherein the management control device can determine through a comparison whether a total amount of substitute currency for gaming perceived in the gaming substitute currency tray of a dealer of a game table corresponds to an increase/decrease according to a paid amount of substitute currency for gaming corresponding to exchanged bills after the exchange of the bills and substitute currency for gaming is performed and an increase/decrease in substitute currency for gaming calculated based on an amount of substitute currency for gaming bet by all the players and a result of winning/losing of the game.~~

~~33. The management system of a table game according to any one of claims 27 to 30, wherein the management control device has an artificial intelligence-utilizing or deep-learning structure capable of acquiring information of types and quantities of substitute currency for gaming also in a state in which a part or one unit of the substitute currency for gaming is hidden due to a blind area of the camera when the types and the quantities of the substitute currency for gaming are measured and determined.~~

~~34. The management system of a table game according to~~

~~any one of claims 27 to 30,~~

~~wherein a side ID is attached to the white layers or the thin-color layers of the side face of the substitute currency for gaming at least at three or more positions spaced apart in a rotation direction, types and manufacturing information of substitute currency for gaming can be specified by reading the side ID by using an ID reading device, and the specified information specified through measurement has a configuration that can be collated and managed with a predetermined database.~~

~~35. The management system of a table game according to claim 34,~~

~~wherein the side ID is printed using at least one of or both ink that is visible for visible light and ink absorbing infrared rays, and~~

~~the ID reading device includes one or a plurality of visible-light cameras or infrared-ray cameras corresponding to the ink used for printing the side ID or a camera capable of performing switching among a plurality of functions of a visible-light camera and an infrared-ray camera corresponding to the ink.~~

~~36. The management system of a table game according to any one of claims 24 to 26, wherein the camera device imaging and recording substitute currency for gaming disposed on the game table is configured to image the~~

~~substitute currency for gaming by using one or a plurality of cameras having different heights arranged at predetermined positions.~~

~~37. Substitute currency for gaming comprising:~~

~~a first layer having a first color different according to a type of the substitute currency for gaming on a side face; and~~

~~a second layer having a second color regardless of the type of the substitute currency for gaming.~~

~~38. Substitute currency for gaming that has a layered structure acquired by performing thermo-compressing a plurality of plastic layers having difference colors, wherein a type of the substitute currency for gaming can be specified by using a color of a side face.~~

~~39. Substitute currency for gaming that has a side face on which information representing types of the substitute currency for gaming is inkjet-printed.~~

~~40. Substitute currency for gaming comprising:~~

~~two first layers to which a first color is applied;~~

~~a second layer, to which a second color is applied, interposed between the two first layers; and~~

~~transparent outermost layers.~~

1. A management system for managing chips having respective radio frequency identifications (RFID) storing information for at least identifying an amount and

identification information, the management system comprising:

a chip tray that has a temporary storage section used to store at least betting chips collected from players who have lost the game, a storage section used to store chips to be redeemed, and a lower storage section used to store chips to be replenished in the storage section when chips in the storage section are insufficient and chips to be transferred from the storage section when chips in the storage section are in excess;

a first RFID reading means for repeatedly reading the information for identifying at least the amount and the identification information on the RFID of the chips in the temporary storage section during at least a game;

a second RFID reading means for reading the information for identifying at least the amount on the RFID of the chips in the storage section and the lower storage section;

a control device that determines the amount and number of the chips and/or a total amount of the chips in the temporary storage section based on the results of reading by the first RFID reading means, and determines the amount and number of the chips and/or a total amount of the chips in the storage section and the lower storage section based on the results of reading by the second RFID reading

means; and

a display device that makes a display according to the result of the determination based on the results of the reading by the first RFID reading means and/or the results of the determination based on the results of the reading by the second RFID reading means;

wherein the control device further determines a fraud of the chips in the temporary storage section based on the identification information read by the first RFID reading means.

2. The management system according to claim 1, wherein the first RFID reading means reads the RFID of the chips in the temporary storage section while the chips are being redeemed from the storage section.

3. The management system according to claim 1, wherein the control device further determines a fraud of the chips in the storage section and the lower storage section based on the identification information read by the second RFID reading means.

4. The management system according to claim 1, further comprising:

a camera that captures the chips in the temporary

storage section, the storage section, and/or the lower storage section to generate an image; and

an image analyzing device that identifies the number of the chips in the temporary storage section by analyzing the image;

wherein the control device determines the fraud of the chips by comparing the number of the chips whose RFIDs are read by the first RFID reading means and/or the second RFID reading means with the number of the chips identified by the image analyzing device.

5. The management system according to claim 1, wherein the chip has at least the amount information appearing on a side surface of the chip, the management system further comprising:

a camera that captures the side faces of the chips in the temporary storage section, the storage section, and/or the lower storage section to generate an image; and

an image analyzing device that identifies the amount of the chips in the temporary storage section, the storage section, and/or the lower storage section by analyzing the image;

wherein the control device determines the fraud of the chips by comparing the amount of the chips whose RFIDs are read by the first RFID reading means and/or the second

RFID reading means with the amount of the chips identified by the image analyzing device.

6. The management system according to claim 1, wherein the chip has at least the identification information marked on a side surface of the chips, the management system further comprising:

a camera that captures the side surfaces of the chips in the temporary storage section, the storage section, and/or the lower storage section to generate an image; and

an image analyzing device that identifies the identification information marked on the side surface by analyzing the images;

wherein the first RFID reading means reads the identification information from the RFID, and

the control device determines the fraud of the chip by inspecting the relationship between the identification information read from the RFID by the first RFID reading means and/or the second RFID reading means and the identification information identified by the image analyzing device.

7. The management system according to claim 1, wherein the second RFID reading means comprises: an RFID reading means that reads at least the amount information of the

RFIDs of the chips in the storage section and an RFID reading means that reads at least the amount information of the RFIDs of the chips in the lower storage section.

8. The management system according to claim 1, wherein the second RFID reading means reads the information for each game in accordance with information from a game judging device that judges game results.

9. The management system according to claim 1, wherein the chips housed in the temporary storage section are subsequently transferred to the storage section.