

SPECIFICATION

DISPENSING MECHANISM AND GAME DEVICE

TECHNICAL FIELD

[0001] The present invention relates to a dispensing mechanism and a game device, and more particularly to a dispensing mechanism for dispensing objects to be dispensed (hereinafter, referred to as "objects") in connection with a game, and a game device including the dispensing mechanism.

BACKGROUND ART

[0002] A game device that dispenses different objects according to results of a game is known (for example, Patent Document 1). The game device described in Patent Document 1 includes accommodating means for accommodating a plurality of objects, dispensing-candidate holding means for holding the objects sent from the accommodating means as dispensing candidates, and identification-information reading means for reading identification information of each of the objects. Further, the identification-information reading means reads the identification information of each of the objects sent from the accommodating means. Based on the read identification information, the object being the target to be dispensed is determined from among the objects held in the dispensing-candidate holding means. As a result, the different objects can be dispensed according to the results of the game.

[0003] The accommodating means of the game device is fixed to the dispensing-candidate holding means, and only has a function of accommodating the objects. The different objects are dispensed according to the results of the game by relying on the dispensing-candidate holding means. For

this reason, there is a case where it is difficult to efficiently dispense the objects according to the results of the game. Therefore, there is a need for a game device that improves such a problem.

RELATED ART DOCUMENT

PATENT DOCUMENT

[0004] Patent Document 1 is JP 2012-157605 A

SUMMARY OF THE INVENTION

PROBLEMS TO BE SOLVED BY THE INVENTION

[0005] An object of the present invention is to provide a dispensing mechanism capable of efficiently dispensing objects according to results of a game, and a game device including such a dispensing mechanism.

MEANS OF SOLVING THE PROBLEMS

[0006] Such an object is achieved by the present invention of the following (1) to (14).

(1) A dispensing mechanism for dispensing objects in connection with a game, the mechanism comprising:

an accommodating part for accommodating the objects;

a first operating part provided with the accommodating part and configured to be operable; and

a second operating part configured to hold the objects sent from the accommodating part and configured to be operable,

wherein the first operating part is configured to operate with respect to the second operating part.

[0007] (2) The mechanism according to the above-mentioned invention (1), wherein the first operating part is formed into a disk shape.

[0008] (3) The mechanism according to the above-mentioned invention (1) or (2), wherein the first operating part is configured to rotate.

[0009] (4) The mechanism according to any one of the above-mentioned inventions (1) to (3), wherein the accommodating part includes a plurality of accommodating parts.

[0010] (5) The mechanism according to the above-mentioned invention (4), wherein the plurality of accommodating parts are provided annularly on the first operating part.

[0011] (6) The mechanism according to any one of the above-mentioned inventions (1) to (5), wherein the accommodating part includes a bottom plate portion, and the bottom plate portion is angled at a predetermined angle with respect to the first operating part.

[0012] (7) The mechanism according to any one of the above-mentioned inventions (1) to (6), wherein the second operating part is configured to surround the first operating part.

[0013] (8) The mechanism according to the above-mentioned invention (6), wherein the second operating part includes a dispensing-candidate holding part for holding the objects.

[0014] (9) The mechanism according to the above-mentioned invention (8), wherein the dispensing-candidate holding part includes a plurality of holding plates, and
wherein each of the holding plates is angled so as to correspond to the predetermined angle of the bottom plate portion.

[0015] (10) The mechanism according to any one of the above-mentioned inventions (1) to (9) further comprising a pushing mechanism for pushing each of the objects and the pushing mechanism is provided in the first operating part.

[0016] (11) The mechanism according to the above-mentioned invention (10), wherein the pushing mechanism includes a first pushing part and a second pushing part,

wherein the first pushing part is configured to push each of the objects accommodated in the accommodating part to the second operating part, and

wherein the second pushing part is configured to push each of the objects held by the second operating part.

[0017] (12) The mechanism according to the above-mentioned invention (11), wherein the second pushing part consists of a pair of pushing parts which are provided apart from each other in the first operating part, and

wherein the first pushing part is provided between the pair of pushing parts.

[0018] (13) A game device comprising:

a displaying part for displaying a predetermined image related to a game;

an operation part for receiving operation input from a user; and

the dispensing mechanism according to any one of the above-mentioned inventions (1) to (12) for dispensing objects related to the game based on the operation input.

[0019] (14) A game device comprising:

a displaying part for displaying a predetermined image related to a game;

an operation part for receiving operation input from a user; and

a dispensing mechanism for dispensing objects related to the game based on the operation input,

wherein the mechanism comprises:

an accommodating part for accommodating the objects;

a first operating part provided with the accommodating part and configured to be operable; and

a second operating part configured to hold the objects sent from the accommodating part and configured to be operable,

wherein the first operating part is configured to operate with respect to the second operating part, and

wherein the objects include an object which stores information related to the user.

EFFECTS OF THE INVENTION

[0020] According to the present invention, it is possible to provide a dispensing mechanism capable of efficiently dispensing objects according to results of a game, and a game device including such a dispensing mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] FIG. 1 is a perspective view schematically showing a game device according to a first embodiment of the present invention.

FIG. 2 is a diagram showing a recording medium used in the game device according to the first embodiment of the present invention.

FIG. 3 is a block diagram showing a configuration of the game device according to the first embodiment of the present invention.

FIG. 4 is an enlarged view showing a configuration of a displaying part of the game device according to the first embodiment of the present invention.

FIG. 5 is an enlarged view showing a configuration of the displaying part of the game device according to the first embodiment of the present invention.

FIG. 6 is an enlarged view showing a configuration of the displaying part of the game device according to the first embodiment of the present invention.

FIG. 7 is a diagram schematically showing an internal configuration of the game device according to the first embodiment of the present invention.

FIG. 8 is a partially exploded perspective view of a dispensing mechanism provided in the game device according to the first embodiment of the present invention when viewed from the rear.

FIG. 9 is a partially exploded perspective view showing a stocker of an accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 10 (a) is a front view of a foot portion of the accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 10 (b) is a side view of the foot portion of the accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 10 (c) is a perspective view of the foot portion of the accommodating part which is

included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 11 is a partially exploded perspective view of a first operating part, the accommodating part and a pushing mechanism which are included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 12 is a partially exploded perspective view of a second operating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 13 is a perspective view of a main part of the pushing mechanism which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 14 is a flowchart showing a method of arranging objects in the game device according to the first embodiment of the present invention.

FIG. 15 is a flowchart showing a process of the game device according to the first embodiment of the present invention.

FIG. 16 is a flowchart showing a method of filling objects in the game device according to the first embodiment of the present invention.

FIG. 17 is a plan view schematically showing a pushing part, the accommodating part and the dispensing-candidate holding part which are included in the dispensing

mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 18 is a plan view schematically showing the pushing part, the accommodating part, the dispensing-candidate holding part and a dispensing path which are included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 19 is a plan view schematically showing the accommodating part and the dispensing-candidate holding part which are included in a dispensing mechanism according to a second embodiment of the present invention.

FIG. 20 is a perspective view showing a dispensing mechanism according to a fourth embodiment of the present invention.

FIG. 21 is a partially exploded perspective view showing the dispensing mechanism according to the fourth embodiment of the present invention.

FIG. 22 is a partially exploded perspective view showing a stocker of an accommodating part included in the dispensing mechanism according to the fourth embodiment of the present invention.

FIG. 23 is a partially exploded perspective view of a first operating part, the accommodating part and a pushing mechanism included in the dispensing mechanism according to the fourth embodiment of the present invention.

MODE FOR CARRYING OUT THE INVENTION

[0022] In the following, prior to the description of the dispensing mechanism of the present invention, the game

device of the present invention, overview of a game executed by the game device, and objects used in the game device will be described in detail based on preferred embodiments shown in the accompanying drawings. For convenience of explanation, the upper side in the figure is explained as "upper", the lower side in the figure is explained as "lower", the left side in the figure is explained as "left", the right side in the figure is explained as "right", the front side of the paper is explained as "front" and the rear side of the paper is explained as "rear".

[0023] << First Embodiment >>

[0024] FIG. 1 is a perspective view schematically showing a game device according to a first embodiment of the present invention. FIG. 2 is a diagram showing an object used in the game device according to the first embodiment of the present invention. FIG. 3 is a block diagram showing a configuration of the game device according to the first embodiment of the present invention. Each of FIGs. 4 to 6 is an enlarged view showing a configuration of a displaying part of the game device according to the first embodiment of the present invention.

[0025] 1. Game overview

First, an example of a game executed by the game device 1 of the present embodiment will be described. The game device 1 can, for example, execute a battle game by using objects (hereinafter, also referred to as "recording mediums") 100 related to the game. Specifically, the game device 1 acquires character information recorded on each of the recording mediums 100 (hereinafter referred to as "character information") by scanning the recording mediums 100. After that, the game device 1 displays an image of the character on a displaying part 6. Accordingly, the

game device 1 can execute the battle game in which the character and an opponent character are played against each other. After the game is finished, a new recording medium 100 is dispensed from the game device 1. The game executed by the game device 1 is not limited to the above-mentioned battle game, but may be a role-playing game, a board game, a simulation game, or the like.

[0026] 2. Recording mediums (objects)

Each of the objects (recording mediums) 100 used in the game device 1 of the present embodiment is configured to store identification information such as character information. Such an object 100 is, for example, a plastic card formed into an oval shape as shown in FIG. 2. The object 100 has a two-dimensional code 101 on its surface. The identification information such as character information and item information are recorded in the two-dimensional code 101. Examples of the two-dimensional code 101 include a QR code (registered trademark) and a Zcode (registered trademark). In the case where the two-dimensional code 101 is the Zcode, the identification information is recorded such that it can be identified under invisible light (infrared light). According to the character information, a rare object and a normal object may be distinguished in the objects 100 as the character objects. The rare object is, for example, an object which stores a character having a rarity of a predetermined level or higher. The normal object is, for example, an object which stores a character having a rarity of less than a predetermined level. Further, in addition to the character object, the objects 100 may include a memory object which stores player (user) information and the character information. For example, the memory object is an IC card (Integrated Circuit Card) which stores information related to the user.

[0027] 3. Game device

Next, the game device will be described. As shown in FIG. 1, the game device 1 of the present embodiment includes two sub-game devices (first sub-game device 1A and second sub-game device 1B) provided adjacent to each other. However, the game device 1 has one displaying part 6 and is controlled by one control part 8. Therefore, the overall size of the game device 1 can be reduced. As a result, the entire cost of the game device 1 can be reduced. The game device 1 of the present embodiment is not limited to the configuration (2-in-1 configuration) in which two sub-game devices are provided adjacent to each other. For example, the game device 1 may have a configuration in which three or more sub-game devices are provided adjacent to each other. Further, the game device 1 of the present invention may consist of a single game device.

[0028] The game device 1 of the present embodiment appears to be two game devices arranged adjacent to each other at first glance. However, in the game device 1, two sub-game devices are connected to form one game device 1. Therefore, each player (user) can execute each play on each sub-game device, or can cooperate to execute one game play (cooperative play). As shown in FIGs. 1, 3 and 7, such a game device 1 includes a housing 2, an operation part 3, a reading part 4, a speaker 5, a displaying part 6, a storage part 7, a control part 8, a communication part 9 and a dispensing mechanism 10. The configuration of each component will be described below.

[0029] In this regard, the housing 2, the operation part 3, the reading part 4 and the speaker 5 of the game device 1 respectively include a sub-housing 2A, a first sub-operation part 3A, a sub-reading part 4A and a sub-speaker 5A of a first sub-game device 1A and a sub-housing 2B, a second sub-operation part 3B, a sub-reading part 4B

and a sub-speaker 5B of a second sub-game device 1B, which are the same from each other. Therefore, in the following, mainly each component of the game device 1 will be described as a representative of the components of the first sub-game device 1A and the second sub-game device 1B.

[0030] <Housing>

The housing 2 has a function of installing or placing each component of the game device 1. As shown in FIG. 1, the housing 2 is formed into a substantially cuboid shape, but is not limited thereto. The housing 2 may be composed of one housing (twin housing) or may be configured by connecting sub-housings for each sub-game device. Further, a dispensing port 21, a coin insertion port 22 and a coin return port 23 for the objects 100 are provided on the front surface of each of the sub-housings. The objects 100 provided by the dispensing mechanism 10 described later are dispensed from the dispensing ports 21.

[0031] <Operation part>

The operation part 3 has a function of receiving operation input performed by the player to execute the game. Each of sub-operation parts is composed of two push buttons 31 and a rectangular operation field 32. The two push buttons 31 are symmetrically provided on the front side of the upper surface of each of the sub-housings. Each operation field 32 is provided on the upper surface of each of the sub-housings and behind the push buttons 31. The shape and position of the operation field 32 are not particularly limited. The shape may include rod-shape or circular shape, and the position may include a position between the push buttons 31 or a position in front of the push buttons 31. Each operation field 32 is a field in which each player can place and move the objects 100. The operation field 32 is configured so that the reading part 4, which will be described later, can read the objects 100.

[0032] As described above, the operation part 3 includes the first sub-operation part (first operation part) 3A for the first sub-game device 1A and the second sub-operation part (second operation part) 3B for the second sub-game device 1B. The first sub-operation part 3A and the second sub-operation part 3B can be operated independently and can receive different operations from each other which are input at the same time. Accordingly, the first sub-game device 1A and the second sub-game device 1B can execute different operations from each other.

[0033] <Reading part>

The reading part 4 has a function of reading the information of the objects 100 placed on the operation field 32. Each of the sub-reading parts is provided inside each of the sub-housings and below the operation field 32. Such a sub-reading part is composed of, for example, an imaging device (camera) and an infrared light source. The infrared light source of the sub-reading part irradiates the two-dimensional code 101 of each of the objects 100 with infrared rays from the lower side of the operation field 32. In this state, the imaging device can take an image of the two-dimensional code 101 of the object 100 to read information stored in the two-dimensional code 101 of the object 100. The sub-reading part may be arranged anywhere in the sub-housing as long as the imaging device can take images of the operation field 32. Further, the sub-reading part may be composed of only an imaging device.

[0034] <Speaker>

The speaker 5 has a function of outputting various sounds. Each of the sub-speakers is provided at a rear side of the upper surface of each of the sub-housings and below the displaying part 6. The number of the sub-speaker is not particularly limited, and may be one, two or more.

In the present embodiment, two sub-speakers are provided on rear sides of the upper surface of the housing 2 so as to correspond to the sub-game devices. The sound output by the speaker 5 includes music, sound effects, and the like stored in the storage part 7.

[0035] <Displaying part>

The displaying part 6 has a function of displaying a game image (predetermined image). As shown in FIG. 1, the displaying part 6 is provided above the speaker 5 on the upper surface of the housing 2. The displaying part 6 is composed of one display panel, but may be a touch panel. Further, the displaying part 6 is formed into a square shape as shown in FIG. 1, but is not limited thereto, and may be formed into a circular shape or a triangular shape.

[0036] As shown in FIG.5, the displaying part 6 has a full screen area 61 for displaying a game image and a frame body 62 surrounding the full screen area 61. The full screen area 61 includes an individual area 611 and a partition area 612. As shown in FIG. 5, the full screen area 61 has a function of displaying the game image on the entire displaying part 6. When a player of the first sub-game device 1A and a player of the second sub-game device 1B perform cooperative play or competitive play, the game image is displayed in the full screen area 61.

[0037] As shown in FIG.4, the individual area 611 includes two areas which are an area (first area, that is, first screen section) 611A for displaying the game image for the first sub-game device 1A and an area (second area, that is, second screen section) 611B for displaying the game image for the second sub-game device 1B. As shown in FIGs. 4 and 6, these areas 611A and 611B are configured to have the same amount from each other via the partition area 612. This makes it possible to give the players an

impression that there are two game devices at first glance. However, the amount of either one area can be made smaller than that of the other area. For example, when a battle game is executed, if the amount of the area 611A for the first sub-game device 1A is larger, the game image for the first sub-game device 1A can be displayed larger. Therefore, it is possible to give the players an impression that the player of the first sub-game device 1A is superior.

[0038] The first area 611A is provided corresponding to the first sub-operation part 3A of the first sub-game device 1A. The first area 611A is formed into a rectangular shape, but is not limited thereto. The second area 611B is provided corresponding to the second sub-operation part 3B of the second sub-game device 1B. The second area 611B is formed into a rectangular shape, but is not limited thereto. The first area 611A may display the same image as the image displayed in the second area 611B, or may display different images. Further, the first area 611A and the second area 611B can display images independently of each other.

[0039] The partition area (third area, that is, third screen section) 612 has a function of partitioning the first area 611A and the second area 611B. For this reason, the partition area 612 is provided between the first area 611A and the second area 611B. The shape of the partition area 612 is not particularly limited, and may be a long shape (FIG. 4), a rectangular shape, a substantially trapezoidal shape (FIG. 6), or the like. The amount of the partition area 612 is not particularly limited, and may be larger or smaller than that of the first area 611A or the second area 611B. The partition area 612 may be further divided into a plurality of areas.

[0040] For example, as shown in FIG. 4, the partition area 612 may be divided along the widthways direction thereof to have two partition areas. Namely, the partition area 612 may have a first partition area 612A for the first area 611A and a second partition area 612B for the second area 611B. Further, as shown in FIG. 6, the partition area 612 may have two partition areas divided along the lengthways direction thereof. Namely, the partition area 612 may have a third partition area 612C for a game image and a fourth partition area 612D for a text image (see FIG. 6). With such a configuration, a plurality of images including images different from each other can be displayed in the partition area 612.

[0041] The frame body 62 is provided above the speaker 5. The frame body 62 is formed into a rectangular shape, but is not limited thereto. For example, the frame body 62 may be formed into any shape such as a circular shape or an elliptical shape. The frame body 62 has a joint portion 621 formed so as to be recessed inward in the center of the long side. The frame body is formed symmetrically by the joint portion 621. Therefore, the displaying part 6 can appear to be two displaying parts, but which are the sub-displaying part 6A for the first sub-game device 1A and the sub-displaying part 6B for the second sub-game device 1B.

[0042] The frame body 62 may include a first frame member 62A for the first sub-game device 1A and a second frame member 62B for the second sub-game device 1B. As shown in FIGs. 4 to 6, each of the first frame member 62A and the second frame member 62B is formed into a substantially "C" shape. Then, one end and the other end of the first frame member 62A are in contact with one end and the other end of the second frame member 62B, respectively, to form the joint portion 621. With such a configuration, the first frame member 62A and the second

frame member 62B are provided symmetrically with respect to the joint portion 621. Therefore, the displaying part 6 can appear to be two displaying parts.

[0043] As shown in FIG. 4, one end and the other end of the first frame member 62A are provided so as to face each other. Therefore, an image (partition image) which is the same as the appearance of the side of the frame body 62 can be displayed in the first partition area 612A from one end to the other end thereof. As a result, an annular frame member (first frame member 62A) can be made by the first frame member 62A and the partition image. Namely, the partition image appears to be integrally constituted with the first frame member 62A. Therefore, it is possible to make the players recognize that the displaying part 6 has the individual sub-displaying part 6A.

[0044] On the other hand, one end and the other end of the second frame member 62B are provided so as to face each other. Therefore, the same image (partition image) as the appearance of the side of the frame body 62 can be displayed in the second partition area 612B from one end to the other end. As a result, an annular frame member (second frame member 62B) can be formed by the second frame member 62B and the partition image. That is, the partition image appears to be integrally constituted with the second frame member 62B. Therefore, it is possible to make the players recognize that the displaying part 6 has the individual sub-displaying part 6B.

[0045] In this way, the first frame member 62A and the partition image constitute the frame body 62 for the first sub-game device 1A. Further, the second frame member 62B and the partition image constitute the frame body 62 for the second sub-game device 1B. As a result, one frame body 62 can be divided into two frame members 62A and 62B, and

thus one game device 1 can give the players an impression that there are two game devices. The left side components of the first frame member 62A (first area 611A) and the first sub-operation part 3A and the right side components of the second frame member 62B (second area 611B) and the second sub-operation part 3B are symmetrically positioned around the central axis of the partition image. Therefore, it is possible to effectively give the players the impression that there are two game devices.

[0046] <storage part>

Next, the storage part 7 will be described. The storage part 7 stores a game program and game data. The game program is a program for causing the game device 1 to execute a game, which is realized in cooperation with a hardware. Further, the game data is data related to a game, and includes character data, music data, image data, sound effect data, and the like.

[0047] The character data is data of character's names, special moves, weapons, strength, rarity, images and the like. Namely, the character data corresponds to the above-mentioned character information, and thus the character data is the identification information for identifying the characters from each other. The music data is musical composition data to be outputted from the speaker 5. The music data includes a plurality of musical composition data such as musical compositions of a singer and musical compositions of a game. The image data is game image data. The game image data includes, for example, data of character images, background images, various effect images and the like. The sound effect data is sound data to be played during the game play and is different from the music data. The sound effect data includes, for example, evaluation sound data which is outputted according to results of operation of the players.

[0048] The storage part 7 may store predetermined events. The predetermined events include boss character appearance events, bonus events, intrusion battle events and the like. Such predetermined events are stored in association with both the display area on which the game image is to be displayed and the partition image for partitioning the display area. For example, a boss character appearance event A is associated such that the display area is composed of only the full screen area 61, and there is no partition image. Further, a boss character appearance event B is associated such that the display area is composed of the individual area 611 and the partition area 612, and the partition image is composed of an image of the boss character B and a text image of "power 20%". At this time, the partition area 612 displays the partition image as shown in FIG.6.

[0049] Further, for example, if one player is playing on the first sub-game device 1A using the full screen area 61 and another player starts to play on the second sub-game device 1B, an event is triggered. That is, when the second sub-operation part 3B of the second sub-game device 1B receives operation input of an intrusion battle by another player, an event of the intrusion battle B is triggered. At this time, the intrusion battle B is associated such that the display area is the individual area 611 and the partition area 612, and the partition image is a bar image. At this time, the partition area 612 displays the partition image as shown in FIG.4.

[0050] Further, in the present embodiment, since the accommodating part 11 of the dispensing mechanism 10 described later has a plurality of stockers 111, the storage part 7 may store information regarding the plurality of stockers 111 (hereinafter, referred to as

"stocker information"). Examples of the stocker information include information on what kind of objects 100 is stored in the stocker 111, information that the number of objects 100 in the stocker 111 has been reduced to zero, and the like. Specific examples of the stocker information include information shown in Tables 1 to 3 below.

[0051] Table 1

Stocker number	Types of objects 100	Remaining amount of objects 100
1st stocker 111	Memory objects only	50 remaining
2nd stocker 111	Memory objects only	50 remaining
3rd stocker 111	Rare objects only	50 remaining
4th stocker 111	Rare objects only	50 remaining
5th stocker 111	Rare objects only	50 remaining
6th stocker 111	Normal objects only	50 remaining
7th stocker 111	Normal objects only	50 remaining
8th stocker 111	Normal objects only	50 remaining
9th Stocker 111	Normal objects only	50 remaining
10th Stocker 111	Normal objects only	50 remaining

[0052] The following information is shown in the above Table 1. Specifically, each of the 1st and 2nd stockers 111 functions for the memory objects only, which accommodates a predetermined number (for example, 50) of the memory objects 100 only. Further, each of the 3rd to 5th stockers 111 functions for the rare objects only, which accommodates a predetermined number (for example, 50) of the rare objects 100 only. Furthermore, each of the 6th to 10th stockers 111 functions for the normal objects only, which accommodates a predetermined number (for example, 50) of the normal objects 100 only. In addition, according to the above Table 1, 50 memory objects 100 remain in the 1st stocker 111, and 50 memory objects 100 remain in the 2nd stocker 111. Further, 50 rare objects 100 remain in each

of the 3rd to 5th stockers 111. Furthermore, 50 normal objects 100 remain in each of the 6th to 10th stockers 111.

[0053] Table 2

Stocker number	Types of objects 100	Remaining amount of objects 100
1st stocker 111	Memory objects only	45 remaining
2nd stocker 111	Memory objects only	50 remaining
3rd stocker 111	20 Rare objects / 30 Normal objects	0 remaining
4th stocker 111	20 Rare objects / 30 Normal objects	30 remaining
5th stocker 111	20 Rare objects / 30 Normal objects	50 remaining
6th stocker 111	20 Rare objects / 30 Normal objects	50 remaining
7th stocker 111	20 Rare objects / 30 Normal objects	50 remaining
8th stocker 111	20 Rare objects / 30 Normal objects	50 remaining
9th Stocker 111	20 Rare objects / 30 Normal objects	50 remaining
10th Stocker 111	20 Rare objects / 30 Normal objects	50 remaining

[0054] The following information is shown in the above Table 2. Specifically, each of the 1st and 2nd stockers 111 functions for the memory objects only, which accommodates a predetermined number (for example, 50) of the memory objects 100. Further, each of the 3rd to 10th stockers 111 functions for a multi-stocker, which accommodates the rare objects 100 and the normal objects 100 at a predetermined ratio (rare objects: normal objects

= 20:30 in Table 2). Regarding this accommodation, the stocker 111 has a shrink (package) in which a set of 20 rare objects 100 and a set of 30 normal objects 100 are bundled in this order from the bottom. In this case, depending on the remaining amount of the objects 100, an acquisition means 81 of the control part 8 described later can acquire information on which type of objects 100 is accommodated in each stocker 111. For example, in the above Table 2, the remaining amount of the objects 100 of the 4th stocker 111 is 30. For this reason, the acquisition means 81 can acquire information that all of the 20 rare objects 100 accommodated in order from the bottom are already dispensed from the 4th stocker 111. That is, the acquisition means 81 can acquire information that the 4th stocker 111 is in a state where the 30 normal objects 100 remain and is in a state of dedicating to the normal objects. Further, since the remaining amount of the objects 100 in each of the 5th to 10th stockers 111 is 50, the acquisition means 81 can acquire information that these stockers 111 are in a state where there are the 30 normal objects following the 20 rare objects 100 from the bottom. That is, the acquisition means 81 can acquire information that these stockers 111 are in a state of dedicating to the rare objects 100 until all of the 20 rare objects 100 are dispensed.

[0055] Table 3

Stocker number	Types of objects 100	Presence or absence of objects 100
1st stocker 111	Memory objects only	Presence
2nd stocker 111	Memory objects only	Presence
3rd stocker 111	Rare and normal objects randomly accommodated	Absence

4th stocker 111	Rare and normal objects randomly accommodated	Presence
5th stocker 111	Rare and normal objects randomly accommodated	Presence
6th stocker 111	Rare and normal objects randomly accommodated	Presence
7th stocker 111	Rare and normal objects randomly accommodated	Presence
8th stocker 111	Rare and normal objects randomly accommodated	Presence
9th Stocker 111	Normal objects only	Presence
10th Stocker 111	Rare objects only	Presence

[0056] The following information is shown in the above Table 3. Specifically, each of the 1st and 2nd stockers 111 functions for the memory objects only, which accommodates a predetermined number (for example, 50) of the memory objects 100 only. Further, each of the 3rd to 8th stockers 111 functions for a random stocker, which accommodates the rare objects 100 and the normal objects 100 randomly. Furthermore, the 9th stocker 111 functions for the normal objects only, which accommodates a predetermined number (for example, 50) of the normal objects 100 only. Moreover, the 10th stocker 111 functions for the rare objects only, which accommodate a predetermined number (for example, 50) of the rare objects 100 only. In the above Table 3, only the information regarding the presence or absence of the objects 100 in each stocker 111 is stored in the storage part 7 as the stocker information regarding the remaining amount of the objects 100. Such stocker information also allows the

acquisition means 81 to acquire information as to which stocker 111 is empty.

[0057] The information shown in Tables 1 to 3 is an example of the stocker information, and the stocker information is not limited to the above-mentioned information. For example, the stocker 111 for the memory objects only may not be provided. Further, all of the 1st to 10th stockers 111 may accommodate a set in which the rare objects 100 and the normal objects 100 are randomly arranged. Even if the storage part 7 does not store the stocker information, various objects 100 can be actually accommodated in each stocker 111 as shown in the stocker information described above. This can be achieved, for example, by an employee of a store in which the game device 1 is installed.

[0058] Further, a dispensing-candidate holding part 131 of the dispensing mechanism 10 described later has a plurality of holding plates 1311 (1st to 50th holding plates in this embodiment). For this reason, the storage part 7 may store information on the ratio of the memory objects 100, the rare objects 100 or the normal objects 100 to be arranged on the plurality of holding plates 1311 (hereinafter referred to as "holding plate ratio information"). Examples of the holding plate ratio information include information shown in Table 4 below.

[0059] Table 4

1st to 5th holding plates 1311	Memory objects 100
6th to 25th holding plates 1311	Rare objects 100
26th to 50th holding plates 1311	Normal objects 100

[0060] The holding plate ratio information shown in Table 4 is an example, and is not limited to the above.

For example, only the normal objects 100 may be arranged on the holding plates 1311, or only the rare objects 100 may be arranged thereon.

[0061] <Control part>

Next, the control part 8 will be described. The control part 8 controls all the functions related to the execution of the game. As shown in FIG. 3, such a control part 8 includes an acquisition means 81, a game processing means 82, a display control means 83, a sound output control means 84, and an operation control means 85.

[0062] (Acquisition means)

The acquisition means 81 has a function of acquiring information on operation input by the player, the character information of the objects 100, information of the game and the like. The acquisition means 81 acquires the operation input information when the push button 31 is pressed by the player. The acquisition means 81 can simultaneously receive the operation input information from the first sub-operation part 3A and the second sub-operation part 3B. Such operation input information includes, for example, information regarding participated play, information regarding character selection and the like. Further, the acquisition means 81 acquires the character information or the like read by the reading part 4. Furthermore, the acquisition means 81 acquires various information via the communication part 9 described later.

[0063] In addition, the acquisition means 81 has a function of acquiring position information of each component of the dispensing mechanism 10 detected by the detection part 17, which will be described later. For example, the acquisition means 81 can get the position information of each of the stockers 111, the position information of each of the holding plates 1311 and the like.

[0064] (Game processing means)

The game processing means 82 has a function of processing the information acquired by the acquisition means 81 and the progress of the game. For example, the game processing means 82 determines information of the game image stored in the storage part 7 to provide the information to the display control means 83. The game processing means 82 determines sound information to provide the sound information to the sound output control means 84. Further, the game processing means 82 determines a predetermined event to activate the event. In this way, the game processing means 82 processes the progress of the entire game.

[0065] Here, the determination of the predetermined event by the game processing means 82 may be performed randomly, periodically, or by receiving operation input from the player. Further, the game processing means 82 can identify a specific partition image corresponding to the predetermined event. Furthermore, the determination by the game processing means 82 can be made so as to display a predetermined image in addition to the partition image.

[0066] In addition, the game processing means 82 can temporarily select or select the objects 100 as dispensing candidates according to the player information (the number of players, the character information associated with each player, etc.). Further, the game processing means 82 can check what kind of objects 100 has been dispensed. Furthermore, the game processing means 82 can check whether or not a predetermined number of objects 100 are placed on the dispensing-candidate holding part 131, which will be described later. Moreover, the game processing means 82 may process the progress of the game based on the number or type of the objects 100 placed on the dispensing-candidate

holding part 131, and / or based on the type of the objects 100 which has been dispensed.

[0067] (Display control means)

The display control means 83 has a function of controlling the displaying of all images related to the game. Namely, the display control means 83 controls the displaying of the game image and the displaying of the partition image provided by the game processing means 82. For example, as shown in FIG. 4, the display control means 83 independently controls the displaying of the game images in both the first area 611A and the second area 611B of the displaying part 6. Further, as shown in FIG. 5, the display control means 83 controls the displaying of the game image in the full screen area 61. Furthermore, the display control means 83 controls the displaying of the linear partition images (FIG. 4) and the partition images (FIG. 6) such as the game image and the text image in the partition area 612. In this way, the display control means 83 can control the displaying of the images such that the predetermined images are separately displayed in each area of the displaying part 6.

[0068] (Sound output control means)

The sound output control means 84 controls the output of all sounds and musical compositions related to the game. Specifically, the sound output control means 84 controls the output of the musical compositions and the sounds determined by the game processing means 82. The sound output control means 84 provides the speaker 5 with the information of the sounds and the musical compositions, so that the speaker 5 can output the sounds and the musical compositions.

[0069] (Operation control means)

The operation control means 85 has a function of controlling the operation of each component of the dispensing mechanism. For example, the operation control means 85 can independently control the first operating part 12, the second operating part 13, and the pushing mechanism 14, which will be described later. For example, if the first operating part 12 and the second operating part 13 are configured to rotate, the operation control means 85 can allow the first operating part 12 and the second operating part 13 to rotate simultaneously or separately. The rotation direction may be either clockwise or counterclockwise. Further, the operation control means 85 may be able to freely change the speed of these rotations.

[0070] Furthermore, the operation control means 85 has a function of controlling the process related to the dispensing of the objects 100 in the dispensing mechanism 10 described later. For example, the operation control means 85 can control the first operating part 12, the second operating part 13 and the pushing mechanism 14 independently of each other such that various objects 100 are arranged on the 1st to 50th holding plates 1311 described later based on the holding plate ratio information (e.g., the ratio shown in Table 4 described above).

[0071] <Communication Part>

The communication part 9 has a function of communicating with an external network (LAN, WAN, Internet, etc.) or an external device via wired or wireless. The game device 1 of the present invention may perform data communication with other devices such as other game devices and information terminals via the communication part 9. For example, the communication part 9 can communicate with other devices to obtain the music data and the game program. As a result, the game program can be updated to provide the

latest game. The game device 1 does not have to include the communication part 9.

[0072] <Dispensing mechanism>

The game device 1 of the present invention includes the dispensing mechanism 10 capable of efficiently dispensing the objects 100 according to results of the game. The dispensing mechanism 10 is an example of the dispensing mechanism of the present invention. Hereinafter, the configuration of the dispensing mechanism 10 will be described in detail based on the preferred embodiments shown in the accompanying drawings.

[0073] A. Configuration of dispensing mechanism

FIG. 7 is a diagram schematically showing an internal configuration of the game device according to the first embodiment of the present invention. FIG. 8 is a partially exploded perspective view of the dispensing mechanism provided in the game device according to the first embodiment of the present invention when viewed from the rear (back surface thereof). FIG. 9 is a partially exploded perspective view showing a stocker of an accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 10 (a) is a front view of a foot portion of the accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 10 (b) is a side view of the foot portion of the accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 10 (c) is a perspective view of the foot portion of the accommodating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 11 is a

partially exploded perspective view of the first operating part, the accommodating part and the pushing mechanism which are included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 12 is a partially exploded perspective view of the second operating part which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 13 is a perspective view of a main part of the pushing mechanism which is included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

[0074] FIG. 7 shows a state in which a front door of the housing 2 is open and the dispensing mechanism 10 located inside the housing 2 is moved forward to the left. In the housing 2, for example, a case for accommodating coins, a CPU of the game device 1 and the like are accommodated, but they are omitted for convenience of explanation.

[0075] As shown in FIGs. 7 and 8, the dispensing mechanism (distributing mechanism) 10 includes the accommodating part 11, the first operating part 12, the second operating part 13, the pushing mechanism 14, a dispensing guiding part 15, an imaging part 16, a detection part 17 and a pedestal part 18.

[0076] (Accommodating part)

The accommodating part 11 has a function of accommodating the plurality of objects 100. In the present embodiment, as shown in FIG. 7, the accommodating part 11 includes the plurality of stockers 111, that is, 1st to 10th stockers 111. The stocker 111 has a tower shape and is configured to accommodate the plurality of objects 100. In this way, the accommodating part 11 includes the

plurality of stockers 111 as a plurality of accommodating parts. This allows each of the stockers 111 to accommodate various objects 100 in a predetermined ratio. This makes it possible to adjust a ratio of types of the objects 100 to be arranged in the dispensing-candidate holding part 131, which will be described later, and thus the objects 100 can be efficiently dispensed according to results of the game.

[0077] The number of stockers 111 is 10 in the present embodiment, but is not limited thereto. The number of stockers 111 is preferably 2 or more, and more preferably 3 or more. Further, the number of objects 100 that can be accommodated in each stocker 111 is not particularly limited, and may be 50, for example. Each of the stockers 111 may accommodate different types of objects 100, as described in the above stocker information, for example.

[0078] As shown in FIG. 9, each stocker 111 includes a main body portion 112 and a foot portion 113. The main body portion 112 has a cylindrical shape with rounded corners so as to correspond to the shape of the objects 100. Further, the main body portion 112 has a notch portion 112A on one side surface thereof. For example, a part (finger) of a hand can be inserted into the main body portion 112 through the notch portion 112A. As a result, the plurality of objects 100 can be easily accommodated in the stocker 111 while supporting them by the hand. Furthermore, for example, when the front door of the housing 2 is opened, the accommodated objects 100 can be visually observed, so that there is an advantage that the game device 1 can be easily managed. Therefore, it is possible to avoid a state in which the stocker 111 does not accommodate the objects 100 at all, and thus the objects 100 can be more reliably dispensed according to results of the game.

[0079] The main body portion 112 has four beam portions 1121 on each side of the outer peripheral surface along the lengthways direction thereof. The beam portion 1121 is formed over the entire lengthways direction of the main body portion 112, and the lower end of the beam portion 1121 is configured to be fitted with the foot portion 113.

[0080] As shown in FIGs. 9 and 10, the foot portion 113 has a base portion 1131 and a frame-shaped portion 1132 provided on the upper side of the base portion 1131. Further, the foot portion 113 has a bottom plate portion 1133 which is provided so as to be supported inside the base portion 1131.

[0081] The base portion 1131 has a box shape with a top opening and has a front surface 1131a, a rear surface 1131a', a right side surface 1131b and a left side surface 1131b' (see FIGs. 10 (a) and 10 (b)). Upper ends of the base portion 1131 corresponding to the front surface 1131a and the rear surface 1131a' are formed so as to support the frame-shaped portion 1132. On the other hand, upper ends of the base portion 1131 corresponding to the right side surface 1131b and the left side surface 1131b' are formed so that the bottom plate portion 1133 can be projected in an inclined state.

[0082] Further, the base portion 1131 has a groove portion 113A on the inner upper side of the rear surface 1131a'. The groove portion 113A is configured to come into contact with the side portion of each of the objects 100 and the side portion of the bottom plate portion 1133. This makes it possible to reduce friction between them. In this way, the groove portion 113A contributes to efficiently providing each object 100 to the dispensing-candidate holding part 131.

[0083] The frame-shaped portion 1132 is formed so as to project from the base portion 1131. As a result, the frame-shaped portion 1132 can be fitted with the lower end of the beam portion 1121 of the main body portion 112. Further, the frame-shaped portion 1132 has a slit portion 113D corresponding to the notch portion 112A of the main body portion 112 (see FIG. 9). As shown in FIGs. 9 and 10 (c), the slit portion 113D is provided adjacent to the bottom plate portion 1133. For this reason, it is possible to correct misalignment of the object 100 in contact with the bottom plate portion 1133 through the slit portion 113D, thereby facilitating the management of the game device 1. This makes it possible to suppress or prevent clogging of the objects 100 in the accommodating part 11, and thus the objects 100 can be more reliably dispensed according to results of the game. Such a slit portion 113D is provided such that the position of the slit portion 113D corresponds to the notch portion 112A. Therefore, in a state where the stocker 111 is provided in the first operating part 12, the notch portion 112A and the slit portion 113D may be provided on the outer surface of the stocker 111 (the side surface at a position corresponding to the left side surface 1131b' of the base portion 1131). Namely, with the stocker 111 provided in the first operating part 12, the notch portion 112A and the slit portion 113D may be provided in the stocker 111 so as to face opposite to the center of the first operating part 12. As a result, even when the plurality of stockers 111 are provided side by side, the above-mentioned effect can be exhibited more remarkably.

[0084] Further, the frame-shaped portion 1132 has a long skirt portion 1132a and a short skirt portion 1132a' which are provided corresponding to the left and right sides (two short sides) thereof. Namely, in the frame-

shaped portion 1132, the long skirt portion 1132a is provided downward from one side corresponding to the right side surface 1131b of the base portion 1131, and the short skirt portion 1132a' is provided downward from one side corresponding to the left side surface 1132b' of the base portion 1131.

[0085] A lower end of the long skirt portion 1132a is configured to be angled with respect to an upper surface of a mounting portion 121 of the first operating part 12 in a state where the stocker 111 is provided perpendicular to the first operating part 12. As a result, the lower end of the long skirt portion 1132a is configured to correspond to an inclination of the bottom plate portion 1133 described later (see FIG. 10 (b)). Further, as shown in FIG. 10 (b), a gap 113B is formed between the lower end of the long skirt portion 1132a and the bottom plate portion 1133. Through the gap 113B, a first pushing part (pushing part for placement) 144 can push each object 100 provided on the bottom plate portion 1133 to the dispensing-candidate holding part 131 as described later.

[0086] On the other hand, a lower end of the short skirt portion 1132a' is also configured to be angled with respect to the first operating part 12 so as to correspond to the inclination of the bottom plate portion 1133. Further, a gap 113C is formed between the lower end of the short skirt portion 1132a' and the bottom plate portion 1133. The gap 113C is larger than the gap 113B to ensure that the pushed object 100 can be provided to the dispensing-candidate holding part 131.

[0087] The bottom plate portion 1133 has a function of supporting the objects 100. The bottom plate portion 1133 is formed so as to slope down from the upper end of the front surface 1131a of the base portion 1131 to the

vicinity of the middle of the rear surface 1131a'. That is, the bottom plate portion 1133 is angled with respect to the first operating part 12 in a state where the stocker 111 is provided perpendicular to the first operating part 12. For example, the inclination angle is preferably in the range of 10° to 45°, and more preferably in the range of 15° to 30° with respect to the upper surface of the mounting portion 121 of the first operating part 12. This inclination angle is set to correspond (preferably coincide) with an inclination angle of a holding plate 1311 described later. As a result, the pushed object 100 can be reliably sent to the dispensing-candidate holding part 131. Further, the bottom plate portion 1133 having such a configuration can support the objects 100 in an inclined state, and this inclined state makes it possible to reduce the width of the stocker 111. As a result, the mechanism itself can be made smaller. This also reduces the cost required for the device. The corresponding or coinciding inclination angle of each of the components refers to the angle of each component when each component is combined together as the dispensing mechanism 10. Further, the corresponding or coinciding inclination angle of each component means that when the game device 1 is installed on an installation surface (e.g., the ground or the floor surface), the inclination angle of each component with respect to the installation surface corresponds to or coincides with each other. In other words, each component having the corresponding or coinciding inclination angle has a corresponding inclination structure.

[0088] The bottom plate portion 1133 can be provided parallel to the first operating part 12 in a state where the stocker 111 is provided perpendicular to the first operating part 12 and the bottom plate portion 1133 does not support the objects 100, so that the bottom plate portion 1133 is configured to move downward by a

predetermined angle due to the weight of the objects 100. Namely, the bottom plate portion 1133 may be configured to be elastically pressed by a spring or the like to slope. When the bottom plate portion 1133 is configured to slope in this way, it is preferable to install each stocker 111 itself at a constant angle (for example, 45° to 80°) with respect to the upper surface of the mounting portion 121 of the first operating part 12. This angle means an angle formed by the upper surface of the mounting portion 121 and the side surface of the stocker 111 (main body portion 112) facing the upper surface in a state where the stocker 111 is provided on the first operating part 12. This reduces the force which is caused by the weight of the objects 100 themselves and is applied to the bottom plate portion 1133 (and the object 100 in contact with the bottom plate portion 1133). This makes it possible to smoothly send the object 100 in contact with the bottom plate portion 1133 to the dispensing-candidate holding part 131, while allowing the bottom plate portion 1133 in a state of supporting the objects 100 to slope at a predetermined angle (for example, 10° to 45°) with respect to the upper surface of the mounting portion 121 of the first operating part 12.

[0089] Further, the bottom plate portion 1133 extends beyond the right side surface 1131b and the left side surface 1132b' of the base portion 1131 to protrude in the left-right directions of the foot portion 113 (FIG. 10 (a)). The edge of the bottom plate portion 1133 protruding at the right side surface 1131b side has a gradually decreasing portion 1133a whose thickness gradually decreases. As a result, the first pushing part 144 can be smoothly guided to the upper surface of the bottom plate portion 1133 to reliably push the object 100 provided on the bottom plate portion 1133.

[0090] In this way, each of the objects 100 accommodated in each stocker 111 of the accommodating part 11 is pushed by inserting the first pushing part 144 into the foot portion 113 via the gap 113B, and is sent to the dispensing-candidate holding part 131. In this process, the object 100 in contact with the bottom plate portion 1133 is sequentially pushed. As shown in FIG. 11, the foot portion 113 is connected to the first operating part 12 via the bottom surface thereof.

[0091] (First operating part)

The first operating part 12 has a function of operating with respect to the second operating part 13, which will be described later, in a state where the accommodating part 11 is provided thereon. In the present embodiment, the first operating part 12 includes the mounting portion 121 formed into a disk shape and a first motor 122 for driving the mounting portion 121. In FIG. 11, for convenience of explanation, only a part of the motor (a first stator and a first bearing) is described as the first motor 122.

[0092] The mounting portion 121 has a function of mounting various components, and each stocker 111 is mounted on the outer edge of the mounting portion 121 along the circumferential direction thereof. In other words, the plurality of stockers 111 as the plurality of accommodating parts are annularly provided on the first operating part 12. Further, second pushing parts (a pair of pushing parts) 145, which will be described later, are provided at the outer edge of the mounting portion 121, and these will be described later. Furthermore, the mounting portion 121 is configured to allow a shaft of the first motor 122 to insert through the center of the mounting portion 121. As a result, the first operating part 12 can rotate by driving force of the first motor 122. Therefore, the first

operating part 12 can efficiently move the accommodating part 11 provided annularly in the mounting portion 121 along the circumferential direction thereof. This makes it possible to efficiently dispense the objects 100 according to results of the game. In addition, since the mounting portion 121 is formed into the disk shape, the operation (rotation) of the first operating part 12 can be efficiently performed. As described above, it is preferable that the mounting portion 121 is formed corresponding to the operation of the first operating part 12. For example, when the first operating part 12 operates in a linear manner, the mounting portion 121 may be formed into a rectangular shape.

[0093] In this regard, the storing and filling of the objects 100 in the plurality of stockers 111 is basically performed in a state where the dispensing mechanism 10 is positioned inside the housing 2. Generally, in this state, it is difficult to fill the stocker 111 at the back inside the housing 2 with the objects 100. However, in the present embodiment, since the first operating part 12 provided with the accommodating part 11 rotates, the filling of the objects 100 can be easily performed. An operation button for automatically rotating the first operating part 12 may be separately provided on the pedestal part 18 or the like of the dispensing mechanism 10. As a result, the objects 100 can be filled easier. The stocker 111 may be detachably provided on the mounting portion 121. This makes it possible to fill the accommodating part 11 with the objects 100 more easily.

[0094] (Second operating part)

The second operating part 13 has a function of operating in a state of holding the plurality of objects 100 which have been sent from the accommodating part 11 to be dispensing candidates. As shown in FIG. 12, the second

operating part 13 includes the dispensing-candidate holding part 131, an arranging part 132, an arm-shaped support part 133 and a second motor 134. In FIG. 12, for convenience of explanation, only a part of the motor (a second stator and a second bearing) is described as the second motor 134.

[0095] The dispensing-candidate holding part 131 has a function of holding the plurality of objects 100 that are to be dispensing candidates. The dispensing-candidate holding part 131 includes holding plates 1311 which hold the plurality of (50 in this embodiment) dispensing candidates. In other words, each of the holding plates 1311 holds the object 100 that is to be a dispensing candidate. As the number of objects 100 as dispensing candidates which are held by the dispensing-candidate holding part 131 increases, it is possible to enhance an effect that the dispensing mechanism 10 dispenses the objects 100 as on demand.

[0096] Each holding plate 1311 has a hoe-shaped placement surface 1311a on which the object 100 is to be placed. In the placement surface 1311a, three placement areas 1311a extend to one side and two placement areas 1311a extend to the other side through the central portion thereof. The configuration having such placement areas can reduce a contact area between the placement surface 1311a and the surface of the object 100. As a result, it is possible to smoothly perform placing the object 100 on the holding plate 1311 and providing (dispensing) the object 100 from the holding plate 1311.

[0097] Further, at the tip of each of the five placement areas 1311a extending in the opposite directions in this way, a bent portion 1311b is provided so as to bend upward. Since the holding plate 1311 has such a bent portion 1311b, the object 100 can be supported by the bent

portion 1311b even when the holding plate 1311 is in an inclined state. Therefore, the holding plate 1311 can reliably hold the object 100 in the inclined state. Each of the holding plates 1311 is provided in the arranging part 132.

[0098] The arranging part 132 has a function of arranging and placing the holding plates 1311. The arranging part 132 has an annular shape, and its inner diameter is larger than the inner diameter of the mounting portion 121 of the first operating part 12 so as to surround the first operating part 12. The plurality of holding plates 1311 are arranged on the upper surface of the arranging part 132 so that the adjacent holding plates 1311 partially overlap each other. In this arranged state, the plurality of holding plates 1311 are inclined by a predetermined angle with respect to the upper surface of the arranging part 132. This inclination angle is preferably in the range of, for example, 10° to 45°, and more preferably in the range of 15° to 30° with respect to the upper surface of the arranging part 132. As a result, more holding plates 1311 can be provided comparing to a case where the objects 100 are placed flat on the upper surface of the arranging part 132 (a case where there is no angle with respect to the upper surface). By holding more dispensing candidates in this way, it is possible to enhance the effect that the dispensing mechanism 10 dispenses the objects 100 as on demand, thereby efficiently dispensing the objects 100 according to results of the game.

[0099] The inclination angle of the holding plate 1311 with respect to the upper surface of the arranging part 132 and the inclination angle of the bottom plate portion 1133 with respect to the upper surface of the mounting portion 121 of the first operating part 12 described above correspond to (preferably coincide with) each other. In

this way, each of the holding plates 1311 is angled so as to correspond to the inclination angle of the bottom plate portion 1133. As a result, the object 100 can be smoothly and reliably sent from the stocker 111 provided in the first operating part 12 to the holding plate 1311.

[0100] The arm-shaped support part 133 has a function of supporting the arranging part 132. The arm-shaped support part 133 includes five arms 1331, and a support plate 1332 is provided at the tip of each arm. The bottom surface of the arranging part 132 is in contact with the upper surface of each support plate 1332, such that the arranging part 132 is supported by the arm-shaped support part 133. The driving force of the second motor 134 is transmitted to the arranging part 132 via the arm-shaped support part 133, thereby the dispensing-candidate holding part 131 operates (rotates in this embodiment).

[0101] In the present embodiment, the second operating part 13 is provided so as to surround the first operating part 12. Therefore, the first operating part 12 and the second operating part 13 can rotate in a state that they are adjacent to each other. As a result, a predetermined stocker 111 of the plurality of stockers 111 provided in the first operating part 12 and a predetermined holding plate 1311 of the plurality of holding plates 1311 can be efficiently made to correspond to each other, thereby smoothly and reliably sending each of the objects 100 in the predetermined stocker 111 to the predetermined holding plate 1311. In this way, the first operating part 12 can efficiently operate with respect to the second operating part 13, so that the objects 100 can be efficiently dispensed according to results of the game.

[0102] (Pushing mechanism)

The pushing mechanism 14 has a function of pushing the objects 100. Specifically, the pushing mechanism 14 has a function of pushing each of the objects 100 accommodated in the accommodating part 11 to the dispensing-candidate holding part 131 and a function of pushing each of the objects 100 held in the dispensing-candidate holding part 131 to the dispensing guiding part 15. In this way, the pushing mechanism 14 is configured to send each object 100 from the accommodating part 11 to the dispensing-candidate holding part 131, and further send the object 100 from the dispensing-candidate holding part 131 to the dispensing guiding part 15. As described above, the configuration of the pushing mechanism 14 is not particularly limited as long as the function of sending the object 100 between the components can be exhibited. Namely, the pushing mechanism 14 has a configuration as a sending part for objects. Such a pushing mechanism 14 can also be referred to as a third operating part.

[0103] As shown in FIG. 13, the pushing mechanism 14 includes a mounting plate 141, a third motor 142, an elastic belt member 143 and the first pushing part (pushing part for placement) 144. Further, the pushing mechanism 14 has the second pushing parts (a pair of pushing parts) 145 (see FIG. 11).

[0104] The mounting plate 141 has a small disk shape and has a function of mounting various components. The diameter of the mounting plate 141 is smaller than the diameter of the mounting portion 121 of the first operating part 12. The mounting plate 141 is placed in the central portion of the mounting portion 121 so as to be supported by a shaft different from the shaft of the first operating part 12. As a result, the mounting plate 141 is in a fixed state even when the first operating part 12 operates. Therefore, each component on the mounting plate 141 is not

affected by the operation of the first operating part 12. In the present embodiment, the mounting plate 141 of the pushing mechanism 14 is fixed as described above, but may be operable, for example, rotatable.

[0105] The third motor 142 has a function of driving the first pushing part 144 via the elastic belt member 143 which is tensioned. When the elastic belt member 143 is operated so as to rotate by the driving force of the third motor 142, the first pushing part 144 can be operated to left and right, that is, in two directions on a straight line. In the present embodiment, the first pushing part 144 operates in a consistent manner. The first pushing part 144 may be configured to operate independently at each end thereof. For example, when one end of the first pushing part 144 operates, the other end may be stopped, and both ends may operate in different directions at the same time.

[0106] The elastic belt member 143 has a function of transmitting the driving force of the third motor 142 to the first pushing part 144. The configuration of the elastic belt member 143 is not particularly limited as long as such a function can be exhibited. For example, the elastic belt member 143 may have a flat inner surface, or may have a plurality of convex portions arranged at a predetermined pitch.

[0107] The first pushing part 144 has a function of pushing each of the objects 100 so that the objects 100 accommodated in the accommodating part 11 are arranged in the dispensing-candidate holding part 131. Both ends of the first pushing part 144 are respectively composed of two plate-shaped members 144a and 144b having dimensions capable of pushing each object 100. The two plate-shaped members 144a and 144b are inclined by a predetermined angle

with respect to the upper surface of the mounting plate 141 in such a way that they have a common axis and face different directions from each other like wings of a bamboo dragonfly. The inclination angle is preferably in the range of, for example, 10° to 45° , and more preferably in the range of 15° to 30° with respect to the upper surface of the mounting plate 141.

[0108] The inclination angle of the first pushing part 144, the inclination angle of the holding plate 1311 with respect to the upper surface of the arranging part 132 described above, and the inclination angle of the bottom plate portion 1133 with respect to the upper surface of the mounting portion 121 of the first operating part 12 described above correspond to (preferably coincide with) each other. As a result, the first pushing part 144 can surely push each of the objects 100 accommodated in the stocker 111 and send it to the holding plate 1311.

[0109] Next, the second pushing parts 145 will be described. Each of the second pushing parts 145 has a function of pushing each of the objects 100 held by the holding plate 1311 to the dispensing guiding part 15 by being pushed by the first pushing part 144. The second pushing parts 145 are provided on the mounting portion 121 so as to be separated from each other. More specifically, the second pushing parts 145 are provided apart on the same straight line. In other words, in the first operating part 12, the two second pushing parts 145 are provided along the diameter of the disk-shaped mounting portion 121. Further, these second pushing parts 145 are continuously provided with the plurality of stockers 111 along the circumferential direction. With such a configuration, if the operation of the first operating part 12 is controlled, the positioning between the second pushing parts 145 and the plurality of stockers 111 can be performed. In this

way, the positioning of the plurality of components can be performed efficiently.

[0110] As shown in FIG. 11, each of the second pushing parts 145 includes a rail member 1451, a contact member 1452 and a dispensing-pushing member 1453. The dispensing-pushing member 1453 is provided on the rail member 1451 together with the contact member 1452 in a state of being pressed toward the center of the mounting portion 121. Further, the first pushing part 144 is provided between the second pushing parts (the pair of pushing parts) 145. Therefore, by rotating the mounting portion 121 of the first operating part 12, the dispensing-pushing member 1453 is positioned adjacent to the plate-shaped member 144a or 144b of the first pushing part 144. From this state, when the first pushing part 144 comes into contact with the contact member 1452, the dispensing-pushing member 1453 is pushed toward the holding plate 1311.

[0111] In this way, each of the second pushing parts 145 performs its function by being pushed by the first pushing part 144. The second pushing parts 145 and the first pushing part 144 preferably correspond to each other (they are positioned on the same straight line) so as to reliably exert this mechanism. In the present embodiment, the two second pushing parts 145 are provided in the first operating part 12 so as to be separated from each other, and the first pushing part 144 is further provided between the two second pushing parts 145. As a result, if either one of the two second pushing parts 145 is made to correspond to the first pushing part 144 (these are made to be located on the same straight line), the function thereof can be surely exhibited. Therefore, the function of the second pushing parts 145 can be efficiently exhibited. The second pushing parts 145 may be provided with a dedicated motor so as to drive them. In this case, the first pushing

part 144 may be referred to as a third operating part, and the second pushing parts 145 may be referred to as fourth operating parts.

[0112] The dispensing-pushing member 1453 of each of the second pushing parts 145 is provided so as to incline at a predetermined angle with respect to the upper surface of the mounting portion 121, similarly to the two plate-shaped members 144a and 144b of the first pushing part 144 described above. The inclination angle is preferably in the range of, for example, 10° to 45°, and more preferably in the range of 15° to 30° with respect to the upper surface of the mounting portion 121.

[0113] The inclination angle of the dispensing-pushing member 1453, the inclination angle of the holding plate 1311 with respect to the upper surface of the arranging part 132 described above, the inclination angle of the first pushing part 144 with respect to the upper surface of the mounting portion 121 and the inclination angle of the bottom plate portion 1133 with respect to the upper surface of the mounting portion 121 correspond to (preferably coincide with) each other. As a result, the first pushing part 144 can reliably push each of the objects 100 accommodated in the stocker 111 and send it to the holding plate 1311. In addition, the first pushing part 144 reliably can push each object 100 held by the holding plate 1311 via the second pushing parts 145 and provide (dispense) it to the dispensing guiding part 15. As described above, in the present embodiment, the inclination angles of the plurality of (at least two) components correspond to (preferably coincide with) each other in the plurality of operating parts that operate in a cooperative manner. This makes it possible to efficiently dispense the objects 100. In other words, the plurality of components

have the corresponding inclined structures, thereby efficiently dispensing the objects 100.

[0114] (Dispensing guiding part)

The dispensing guiding part 15 has a function of guiding the object 100 pushed from the holding plate 1311 to the dispensing port 21. In the present embodiment, since the game device 1 has the 2-in-1 configuration, the two dispensing guiding parts 15 are provided therein. The number of dispensing guiding part 15 can be appropriately selected according to the configuration of the game device 1. In the present embodiment, the two dispensing guiding parts 15 are provided on both sides of the dispensing mechanism 10 adjacent to the dispensing-candidate holding part 131. Each dispensing guiding part 15 has a gate portion 151 and a dispensing path 152.

[0115] The gate portion 151 has a function of reliably guiding the object 100, which has been pushed from the dispensing-candidate holding part 131 to the dispensing guiding part 15, to the dispensing path 152. As long as the gate portion 151 has such a function, its configuration is not particularly limited thereto. In the present embodiment, the gate portion 151 is provided adjacent to the dispensing-candidate holding part 131 as shown in FIG.8. However, a part of the gate portion 151 may be configured to cover the top of the dispensing-candidate holding part 131. In other words, the dispensing guiding part 15 may have a cover portion above the dispensing-candidate holding part 131. This makes it possible to prevent the object 100 pushed from the holding plate 1311 from escaping to a portion other than the dispensing path 152.

[0116] The gate portion 151 may be provided with a gate sensor to detect whether each of the objects 100 has passed therethrough. This allows the detection part 17 to

detect an abnormality in the dispensing of the objects 100. Then, when the abnormality occurs, the abnormality information is obtained by the acquisition means 81, and the game processing means 82 can temporarily suspend the game. As a result, the objects 100 can be efficiently dispensed.

[0117] The dispensing path 152 has a function of guiding the object 100 that has passed through the gate portion 151 to the dispensing port 21. As long as the dispensing path 152 has the function, the configuration thereof is not particularly limited. In the present embodiment, the dispensing path 152 is configured to have an inclined surface in which the object 100 slides down to the dispensing port 21 due to its own weight.

[0118] (Imaging part)

The imaging part 16 has a function of reading the identification information of the object 100 held in the holding plate 1311. That is, the imaging part 16 functions as an identification information reading part. The imaging part 16 has a camera 161 provided above the arranging part 132. When an identification code (e.g., a micro QR code) is attached to the placement surface 1311a of the holding plate 1311, the imaging part 16 can also read the identification code.

[0119] Specifically, after the object 100 is sent from the stocker 111 to the holding plate 1311, the second operating part 13 rotates so that the holding plate 1311 is located below the imaging part 16. As a result, the camera 161 can read the identification information of the object 100 from above the holding plate 1311. Further, after the object 100 of the holding plate 1311 is dispensed, the second operating part 13 rotates so that the holding plate 1311 is located below the imaging part 16. As a result,

the camera 161 can also read the identification code of the holding plate 1311 (the placement surface 1311a). In this regard, if the imaging part 16 is unable to read both the identification information of the object 100 and the identification code of the placement surface 1311a, the abnormality information is obtained by the acquisition means 81. Then, the game processing means 82 can suspend the game.

[0120] The type of the camera 161 is not particularly limited, and examples thereof include a visible light camera, an infrared camera and a full spectrum camera. In this embodiment, the camera 161 is composed of the infrared camera.

[0121] (Detection part)

The detection part 17 has a function of detecting and sensing information regarding the state of the dispensing mechanism 10. The information regarding a state of the dispensing mechanism 10 includes, for example, position information of each component, information of the number of objects 100 accommodated in each stocker 111 and the like. For example, the detection part 17 can detect the position information of each stocker 111 and the second pushing parts 145 provided in the first operating part 12. Further, the detection part 17 can detect the position information of each holding plate 1311 provided in the second operating part 13. In order to detect the above position information, in the present embodiment, the detection part 17 has first to fourth sensors 171 to 174.

[0122] Specifically, the detection part 17 has the first sensor (index sensor) 171 for detecting a reference stocker 111 among the stockers 111, and the second sensor 172 for detecting the position information of each stocker 111 in order from the reference stocker 111 (see FIGs. 8

and 13). As shown in FIGs. 8 and 13, the first sensor 171 and the second sensor 172 are provided on the mounting plate 141 of the pushing mechanism 14.

[0123] Further, the detection part 17 includes the third sensor (index sensor) 173 for detecting a reference holding plate 1311 among the holding plates 1311 and the fourth sensor 174 for detecting the position information of each holding plate 1311 in order from the reference holding plate 1311 (see FIG. 8). In FIG. 8, the third sensor 173 and the fourth sensor 174 are provided so that the position information of each holding plate 1311 can be detected from below each holding plate 1311.

[0124] The first to fourth sensors 171 to 174 may be reflection type photoelectric sensors, transmission type photoelectric sensors, magnetic sensors, infrared sensors, proximity sensors, mechanical contact sensors or any other sensors. The types, numbers and locations of the first to fourth sensors 171 to 174 are not particularly limited as long as the functions can be exhibited. Further, the detection part 17 may include a fifth sensor for detecting the number of objects 100 accommodated in the stocker 111. The fifth sensor may be configured to detect the number of objects 100 via the notch portion 112A of the main body portion 112 of the stocker 111. Further, the fifth sensor can detect, for example, whether the number of objects 100 accommodated in the stocker 111 is a predetermined number or more or a predetermined number or less. This facilitates the filling (replacing) of the objects 100. The location and number of such a fifth sensor may be adjusted according to the position of the notch portion 112A.

[0125] (Pedestal part)

The pedestal part 18 has a function of supporting the above-mentioned accommodating part 11, the first operating part 12, the second operating part 13, the pushing mechanism 14, the dispensing guiding part 15, the imaging part 16, and the detection part 17. Further, the pedestal part 18 may have a function of accommodating the first motor 122, the second motor 134, the storage part 7 of the game device 1, and the like. The pedestal part 18 may have any shape and configuration as long as it can exhibit such functions.

[0126] B. How the dispensing mechanism operates

Next, the operation method of the dispensing mechanism of the present invention will be described. FIG. 14 is a flowchart showing a method of arranging objects in the game device according to the first embodiment of the present invention. FIG. 15 is a flowchart showing a process of the game device according to the first embodiment of the present invention. FIG. 16 is a flowchart showing a method of filling objects in the game device according to the first embodiment of the present invention. FIG. 17 is a plan view schematically showing a pushing part, the accommodating part and the dispensing-candidate holding part which are included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 18 is a plan view schematically showing the pushing part, the accommodating part, the dispensing-candidate holding part and the dispensing path which are included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. In FIGs. 17 and 18, a part of the components (including the objects 100) is omitted in order to facilitate the explanation.

[0127] (1) How to arrange the objects

With reference to Table 1, Table 4, FIGs. 14 and 17, an example of a method of arranging the objects 100 in a state (initial state) where the objects 100 are not arranged at all in the dispensing-candidate holding part 131 will be described. In this example, the objects 100 accommodated in the 1st to 10th stockers 111 of the accommodating part 11 are arranged on the 1st to 50th holding plates 1311 of the dispensing-candidate holding part 131. As described above, the storage part 7 may or may not store the stocker information and the holding plate ratio information. In the following description, the case where the storage part 7 stores such information will be described.

[0128] First, in the initial state, arranging the objects 100 is started (S100). "S" means a step. At this time, the acquisition means 81 acquires specific stocker information (e.g., the stocker information shown in Table 1) from the stocker information stored in the storage part 7.

[0129] Then, the detection part 17 detects the position information of the 1st to 10th stockers 111 and the second pushing parts 145 (S101). For example, the detection part 17 detects the position information (index information) of the reference stocker 111 by the first sensor 171 and detects the position information (each position with respect to the index) of each stocker 111 and the second pushing parts 145 in order from the reference stocker 111 by the second sensor 172. As a result, the acquisition means 81 can acquire the position information of the 1st to 10th stockers 111 and the second pushing parts (the pair of pushing parts) 145. The method for detecting the position information of each stocker 111 and the second pushing parts 145 is not limited thereto.

Further, the detected position information is stored in the storage part 7.

[0130] Similarly, the detection part 17 detects the position information of the 1st to 50th holding plates 1311 (S102). For example, the detection part 17 detects the position information (index information) of the reference holding plate 1311 by the third sensor 173. Subsequently, the detection part 17 detects the position information (each position with respect to the index) of each holding plate 1311 in order from the reference holding plate 1311 by the fourth sensor 174. As a result, the acquisition means 81 can acquire the position information of the 1st to 50th holding plates 1311. The method for detecting the position information of each holding plate 1311 is not limited thereto. Further, the detected position information is stored in the storage part 7.

[0131] In this way, the detection part 17 detects the position information of each of the stockers 111 and the second pushing parts 145 and the position information of each of the holding plates 1311. After that, the memory objects 100, the rare objects 100 or the normal objects 100 are arranged on the 1st to 50th holding plates 1311 by the operation control means 85 based on the holding plate ratio information (e.g., the ratio shown in Table 4 described above).

[0132] For this purpose, in the step 103, the operation control means 85 functions to push a memory object 100 from a memory object stocker (e.g., the 1st stocker 111 in Table 1). As a result, the memory object 100 is placed on a predetermined holding plate 1311 (e.g., the 1st holding plate 1311 in Table 4).

[0133] The step 103 will be specifically described with reference to FIG. 17. The operation control means 85 independently controls the operations of the first operating part 12 and the second operating part 13. As a result, both a predetermined stocker 111 (e.g., the 1st stocker 111 in Table 1) and a predetermined holding plate 1311 (e.g., the 1st holding plate 1311 in Table 4) are positioned so as to correspond to the plate-shaped member 144a or 144b which is one end of the first pushing part 144.

[0134] In FIG. 17, the 1st stocker 111 and the 1st holding plate 1311 are positioned along the lengthways direction of the plate-shaped member 144a. As a result, the lengthways direction of the plate-shaped member 144a, the lengthways direction of the bottom plate portion 1133 provided on the 1st stocker 111 adjacent to the plate-shaped member 144a and the lengthways direction of the 1st holding plate 1311 adjacent to the 1st stocker 111 align with each other. In other words, the lengthways directions of the components adjacent to each other through the 1st stocker 111 can coincide with each other. Namely, the lengthways directions of the plate-shaped member 144a, the bottom plate portion 1133 of the 1st stocker 111 and the 1st holding plate 1311 can coincide with each other.

[0135] As a result, the 1st stocker 111 is in a state of being moved to a position corresponding to the plate-shaped member 144a. This corresponding position refers to a position where the plate-shaped member 144a can push the object 100 accommodated in the 1st stocker 111. Further, the 1st holding plate 1311 is in a state of being moved to a position where the 1st holding plate 1311 can receive the object 100 pushed from the 1st stocker 111.

[0136] In this state, the operation control means 85 controls the operation of the pushing mechanism 14, so that

the plate-shaped member 144a of the first pushing part 144 is pushed toward the 1st stocker 111. As a result, the memory object 100 accommodated in the lowest part of the 1st stocker 111 (that is, in contact with the bottom plate portion 1133) is sent to the 1st holding plate 1311.

[0137] As described above, the method in which the operation control means 85 independently controls the operations of the first operating part 12, the second operating part 13, and the pushing mechanism 14 is referred to as a "placement method for holding plate". According to the placement method for holding plate, both the predetermined stocker 111 and the predetermined holding plate 1311 correspond to the plate-shaped member 144a (or the plate-shaped member 144b) of the first pushing part 144. Then, the object 100 accommodated in the lowest part of the predetermined stocker 111 is sent to the predetermined holding plate 1311. Further, the lengthways directions of the components which are adjacent to each other through the predetermined stocker 111 can correspond (coincide) with each other. That is, the lengthways directions of the plate-shaped member 144a or 144b of the first pushing part 144, the bottom plate portion 1133 of the predetermined stocker 111 and the predetermined holding plate 1311 can correspond (coincide) with each other. In performing the placement method for holding plate, the operation control means 85 may control the operation of either the first operating part 12 or the second operating part 13 and then control the other operation. Alternatively, the operation control means 85 may simultaneously control the operations of the first operating part 12 and the second operating part 13. In the latter case, the placement method for holding plate can be performed more quickly.

[0138] The memory object 100 is placed by this placement method for holding plate. Subsequently, the

operation control means 85 controls the operation of the second operating part 13 to move the 1st holding plate 1311 below the imaging part 16. Then, the camera 161 of the imaging part 16 takes an image of the identification information (the two-dimensional code 101) of the memory object 100 placed on the 1st holding plate 1311. As a result, the acquisition means 81 acquires information that the memory object 100 is placed on the 1st holding plate 1311 (hereinafter, referred to as "holding plate information") (S104).

[0139] Further, based on the holding plate information already acquired, the game processing means 82 checks whether or not the dispensing-candidate holding part 131 has a predetermined number (five in Table 4) of memory objects 100 (S105). If the dispensing-candidate holding part 131 does not have the predetermined number of memory objects 100, the process returns to the step 103, and the steps 103 to 105 are repeated.

[0140] On the other hand, if the dispensing-candidate holding part 131 has the predetermined number of memory objects 100, the process proceeds to the step 106. Namely, in the example, if the memory objects 100 are arranged on all of the 1st to 5th holding plates 1311 (shown in Table 4), the process proceeds to the step 106. Then, the operation control means 85 pushes a rare object 100 from a rare object stocker (e.g., the 3rd stocker 111 in Table 1) by the placement method for holding plate described above (S106). As a result, this rare object 100 is placed on a predetermined holding plate 1311 (e.g., the 6th holding plate 1311 in Table 4).

[0141] Specifically, the operation control means 85 independently controls the operations of the first operating part 12 and the second operating part 13. As a

result, both the 3rd stocker 111 accommodating the rare objects 100 and the 6th holding plate 1311 are positioned so as to correspond to the plate-shaped member 144a. As a result, the 3rd stocker 111 is in a state of being moved to a position corresponding to the plate-shaped member 144a. This corresponding position refers to a position where the plate-shaped member 144a can push the object 100 accommodated in the 3rd stocker 111. Further, the 6th holding plate 1311 is in a state of being moved to a position where the 6th holding plate 1311 can receive the object 100 pushed from the 3rd stocker 111. In this state, the operation control means 85 controls the operation of the pushing mechanism 14. This allows the plate-shaped member 144a to be pushed toward the 3rd stocker 111. Then, the rare object 100 accommodated in the lowest part of the 3rd stocker 111 is sent to the 6th holding plate 1311.

[0142] In this way, the rare object 100 is placed on the 6th holding plate 1311. Subsequently, the operation control means 85 controls the operation of the second operating part 13 to move the 6th holding plate 1311 below the imaging part 16. Then, the camera 161 of the imaging part 16 takes an image of the identification information of the rare object 100 placed on the 6th holding plate 1311. As a result, the acquisition means 81 acquires the holding plate information (including the character information related to the rare object 100) that the rare object 100 is placed on the 6th holding plate 1311 (S107).

[0143] Further, based on the holding plate information already acquired, the game processing means 82 checks whether or not the dispensing-candidate holding part 131 has a predetermined number (20 in Table 4) of rare objects 100 (S108). If the dispensing-candidate holding part 131 does not have the predetermined number of rare objects 100,

the process returns to the step 106, and the steps 106 to 108 are repeated.

[0144] On the other hand, if the dispensing-candidate holding part 131 has the predetermined number of rare objects 100, the process proceeds to the step 109. That is, in this example, if the rare objects 100 are placed on all of the 6th to 25th holding plates 1311 (shown in Table 4), the process proceeds to the step 109. Then, the operation control means 85 functions to push a normal object 100 from a normal object stocker (e.g., the 6th stocker 111 in Table 1) by the placement method for holding plate (S109). As a result, the normal object 100 is placed on a predetermined holding plate 1311 (e.g., the 26th holding plate 1311 in Table 4).

[0145] Specifically, the operation control means 85 independently controls the operations of the first operating part 12 and the second operating part 13. As a result, both the 6th stocker 111 accommodating the normal objects 100 and the 26th holding plate 1311 are positioned so as to correspond to the plate-shaped member 144a. As a result, the 6th stocker 111 is in a state of being moved to a position corresponding to the plate-shaped member 144a (a position where the plate-shaped member 144a can push the object 100 accommodated in the 6th stocker 111). This corresponding position refers to a position where the plate-shaped member 144a can push the object 100 accommodated in the 6th stocker 111. Further, the 26th holding plate 1311 is in a state of being moved to a position where the 26th holding plate 1311 can receive the object 100 pushed from the 6th stocker 111. In this state, the operation control means 85 controls the operation of the pushing mechanism 14. This allows the plate-shaped member 144a to be pushed toward the 6th stocker 111. As a result, the normal object 100 accommodated in the lowest

part of the 6th stocker 111 is sent to the 26th holding plate 1311.

[0146] In this way, the normal object 100 is placed on the 26th holding plate 1311. Subsequently, the operation control means 85 controls the operation of the second operating part 13 to move the 26th holding plate 1311 below the imaging part 16. Then, the camera 161 of the imaging part 16 takes an image of the identification information of the normal object 100 placed on the 26th holding plate 1311. As a result, the acquisition means 81 acquires the holding plate information (including the character information related to the normal object 100) that the normal object 100 is placed on the 26th holding plate 1311 (S110).

[0147] Finally, the game processing means 82 checks whether or not the objects 100 are placed on all of the holding plates 1311 (S111). That is, the game processing means 82 checks whether or not the dispensing-candidate holding part 131 has a predetermined number (50 sheets) of the objects 100 (S111). If the dispensing-candidate holding part 131 does not have the predetermined number of objects 100, the process returns to the step 109, and the steps 109 to 111 are repeated.

[0148] On the other hand, if the dispensing-candidate holding part 131 has the predetermined number of objects 100, the step of arranging the objects 100 ends (S112). That is, when the memory objects 100 are arranged on the 1st to 5th holding plates 1311, the rare objects 100 are arranged on the 6th to 25th holding plates 1311, and the normal objects 100 are arranged on the 26th to 50th holding plates 1311 (as shown in Table 4), the step of arranging the objects 100 ends (S112).

[0149] From the above, the memory objects 100, the rare objects 100 and the normal objects 100 are arranged on the 1st to 50th holding plates 1311 at the ratio shown in Table 4 above. Table 5 below shows an example of information of the 1st to 50th holding plates 1311 on which the objects 100 are arranged (hereinafter, referred to as "holding plate table information"). In Table 5, the 12th to 22nd holding plates 1311 and the 32nd to 44th holding plates 1311 are omitted for convenience of explanation. The holding plate table information is obtained by the acquisition means 81 and stored in the storage part 7. The storage part 7 can also store the holding plate information obtained by the acquisition means 81 each time the object 100 is sent from the stocker 111 to the holding plate 1311.

[0150] Table 5

1st holding plate 1311	Memory object 100A
2nd holding plate 1311	Memory object 100B
3rd holding plate 1311	Memory object 100C
4th holding plate 1311	Memory object 100D
5th holding plate 1311	Memory object 100E
6th holding plate 1311	Rare object 100A
7th holding plate 1311	Rare object 100B
8th holding plate 1311	Rare object 100C
9th holding plate 1311	Rare object 100D
10th holding plate 1311	Rare object 100E
11th holding plate 1311	Rare object 100F
Omitted	Omitted
23rd holding plate 1311	Rare object 100A
24th holding plate 1311	Rare object 100H
25th holding plate 1311	Rare object 100I
26th holding plate 1311	Normal object 100A
27th holding plate 1311	Normal object 100B
28th holding plate 1311	Normal object 100C

29th holding plate 1311	Normal object 100D
30th holding plate 1311	Normal object 100E
31st holding plate 1311	Normal object 100F
Omitted	Omitted
45th holding plate 1311	Normal object 100G
46th holding plate 1311	Normal object 100H
47th holding plate 1311	Normal object 100I
48th holding plate 1311	Normal object 100J
49th holding plate 1311	Normal object 100B
50th holding plate 1311	Normal object 100C

[0151] Further, for example, the type and ratio of the objects 100 to be accommodated in each stocker 111 can be determined in advance. Then, each time the object 100 is sent from the stocker 111 to the holding plate 1311, the imaging part 16 can get the identification information of the object 100 placed on the holding plate 1311. As a result, even when the storage part 7 does not store the stocker information, the memory objects 100, the rare objects 100 and the normal objects 100 can be arranged in the dispensing-candidate holding part 131 at a predetermined ratio (e.g., the ration shown in Table 4 above).

[0152] (2) Process method of dispensing according to game play

An example of the process method of dispensing according to the game play will be described with reference to Table 5, FIG. 15, FIG. 17, and FIG. 18. Specifically, the following is a description that how the objects 100 are dispensed according to results of the game play, after the game play is started. This description is an example of control on which some of the objects 100 held by the 1st to 50th holding plates 1311 are dispensed from the dispensing ports 21 via the dispensing guiding part 15.

[0153] First, the game is started (S1). At this time, if the player already has the memory object 100, the identification information of the memory object 100 can be read by the reading part 4. As a result, the acquisition means 81 can obtain the player information included in the read identification information. It is also possible to start the game without using the memory object 100.

[0154] Then, the game processing means 82 temporarily selects the objects 100 as dispensing candidates based on the player information (including the number of players, the character information associated with each player) (S2). Since the game device 1 of the present embodiment has the 2-in-1 configuration, the case where the game is played by two players will be described in the following description. In the case of two players, the game processing means 82 temporarily selects six objects 100 as dispensing candidates for each player based on the holding plate table information (e.g., the holding plate table information of Table 5) as shown in Table 6 below. This temporarily selected information is obtained by the acquisition means 81 and temporarily stored in the storage part 7. If the game is played by one player, the game processing means 82 may temporarily select, for example, six objects 100 as dispensing candidates.

[0155] Table 6

Player 1	Player 2
Rare object 100A (6th holding plate 1311)	Rare object 100A (23rd holding plate 1311)
Rare object 100B (7th holding plate 1311)	Rare object 100H (24th holding plate 1311)
Rare object 100C (8th holding plate 1311)	Rare object 100I (25th holding plate 1311)
Normal object 100A	Normal object 100D

(26th holding plate 1311)	(29th holding plate 1311)
Normal object 100B (27th holding plate 1311)	Normal object 100E (30th holding plate 1311)
Normal object 100C (28th holding plate 1311)	Normal object 100C (50th holding plate 1311)

[0156] After that, the game is played by the players (S3). Depending on results of the game, the game processing means 82 selects some or all of the temporarily selected dispensing candidates for each player. Here, it is assumed that all of the dispensing candidates shown in Table 6 are selected by the game processing means 82. Then, the displaying part 6 displays the selected dispensing candidates (S4).

[0157] From the displayed dispensing candidates, each player selects and determines the object 100 to be dispensed (S5). For example, the player 1 selects the rare object 100A (6th holding plate 1311), and the player 2 selects the rare object 100H (24th holding plate 1311).

[0158] Then, the operation control means 85 independently controls the operations of the first operating part 12, the second operating part 13 and the pushing mechanism 14. As a result, the rare object 100A is dispensed from the 6th holding plate 1311 by either one of the second pushing parts 145, and the rare object 100H is dispensed from the 24th holding plate 1311 by either one of the second pushing parts 145 (S6 to S8).

[0159] The steps 6 to 8 will be specifically described with reference to FIG. 18. First, in order to dispense the rare object 100A selected by the player 1, the operation control means 85 independently controls the operations of the first operating part 12 and the second operating part 13 (S6). As a result, both the second pushing part 145 and

the 6th holding plate 1311 are positioned so as to correspond to the plate-shaped member 144a of the first pushing part 144 as shown in FIG. 18. In this regard, in FIG. 18, the dispensing-pushing member 1453 of the second pushing part 145 and the 6th holding plate 1311 are positioned along the lengthways direction of the plate-shaped member 144a.

[0160] As a result, the lengthways direction of the plate-shaped member 144a, the lengthways direction of the second pushing part 145 adjacent to the plate-shaped member 144a and the lengthways direction of the 6th holding plate 1311 adjacent to the second pushing part 145 coincide with each other. In other words, the lengthways directions of the components adjacent to each other via the second pushing part 145 can be made to correspond (coincide) with each other. That is, the lengthways directions of the plate-shaped member 144a, the second pushing part 145 and the 6th holding plate 1311 can correspond (coincide) with each other.

[0161] As a result, the second pushing part 145 is in a state of being moved to a position corresponding to the plate-shaped member 144a. This corresponding position refers to a position where the plate-shaped member 144a can push the contact member 1452 of the second pushing part 145. Further, the 6th holding plate 1311 is in a state of being moved to a position where the rare object 100A placed thereon is able to be pushed by the dispensing-pushing member 1453 of the second pushing part 145.

[0162] In this state, the operation control means 85 controls the operation of the pushing mechanism 14 (S7) to push the plate-shaped member 144a toward the contact member 1452. This allows the dispensing-pushing member 1453 to be pushed toward the 6th holding plate 1311. As a result, the

rare object 100A placed on the 6th holding plate 1311 is sent to the dispensing guiding part 15 by the dispensing-pushing member 1453. After that, the rare object 100A moves to the dispensing port 21 due to its own weight and is dispensed (S8).

[0163] As described above, the method in which the operation control means 85 independently controls the operations of the first operating part 12, the second operating part 13, and the pushing mechanism 14 is referred to as a "dispensing method for holding plate". According to the dispensing method for holding plate, both the second pushing part 145 and the predetermined holding plate 1311 can be made to correspond to the plate-shaped member 144a (or the plate-shaped member 144b) of the first pushing part 144. Further, the object 100 placed on the predetermined holding plate 1311 can be dispensed. Furthermore, the lengthways directions of the components adjacent to each other via the second pushing part 145 can correspond (coincide) with each other. That is, the lengthways directions of the plate-shaped member 144a, the second pushing part 145, and the predetermined holding plate 1311 can correspond (coincide) with each other. In performing the dispensing method for holding plate, the operation control means 85 may control the operation of either the first operating part 12 or the second operating part 13 and then control the other operation. Further, the operation control means 85 may simultaneously control the operations of the first operating part 12 and the second operating part 13. In the latter case, the dispensing method for holding plate can be performed more quickly.

[0164] With such a dispensing method for holding plate, the rare object 100A selected by the player 1 can be dispensed.

[0165] Similarly, in order to dispense the rare object 100H selected by the player 2, the operation control means 85 independently controls the operations of the first operating part 12, the second operating part 13 and the pushing mechanism 14 according to the dispensing method for holding plate. As a result, the rare object 100H is dispensed from the 24th holding plate 1311 (S6 to S8). After that, the game ends (S9). Depending on the content of the game, the players may be able to select a plurality of objects 100, in which case the steps 6 to 8 are repeated. Further, as shown in Table 6, when the same type of object 100 is temporarily selected for the player 1 and the player 2 (for example, each rare object 100A is temporarily selected for each player), the game processing means 82 may execute cooperative play and, for example, with the game image displayed in the full screen area 61 (see FIG. 5). Furthermore, if a player does not have the memory object 100, the player can make a request for dispensing the memory object 100. If there is such a request, the operation control means 85 can dispense the memory object 100 by the dispensing method for holding plate.

[0166] From the above, the rare object 100A has been dispensed from the 6th holding plate 1311, and the rare object 100H has been dispensed from the 24th holding plate 1311. Therefore, each of the 6th holding plate 1311 and the 24th holding plate 1311 is in a state (empty state) in which the object 100 is not placed. Further, if the memory object 100 has been dispensed at the start of the game, there is the additional holding plate 1311 that is in an empty state. The information regarding this empty state can be obtained by the acquisition means 81, for example, by making the imaging part 16 take an image of the holding plate 1311 which is in the empty state. In this regard, it is preferable to attach the identification code (e.g., a micro QR code) to the placement surface 1311a of each

holding plate 1311. As a result, each holding plate 1311 can be identified by taking an image of the code with the imaging part 16, and thus it is possible to more reliably manage information on which holding plate 1311 is in an empty state (hereinafter, referred to as "holding plate empty information"). The holding plate empty information obtained by the acquisition means 81 is stored in the storage part 7.

[0167] In such a case, it is preferable to fill the objects 100 after each game. The method of filling the objects 100 will be described below. The objects 100 may not be filled after each game. For example, the filling of the objects 100 may be appropriately performed according to the number of remaining objects 100 held in the dispensing-candidate holding part 131. Specifically, when the number of objects 100 held in the dispensing-candidate holding part 131 is reduced to half or less (25 or less), the objects 100 may be filled.

[0168] (3) Method of filling objects

An example of the method of filling objects will be described with reference to Table 1, Table 4, Table 5 and FIG. 16. The filling of the objects 100 is started (S201). Then, the game processing means 82 checks whether or not the memory object 100 has been dispensed based on the holding plate table information and the holding plate empty information (S202).

[0169] If the memory object 100 has been dispensed, the process proceeds to the step 203. Then, the operation control means 85 performs the placement method for holding plate. This allows the first pushing part 144 to push a new memory object 100 of the memory object stocker (e.g., the 1st stocker 111 in Table 1) (S203). As a result, the

memory object 100 is placed on the empty holding plate 1311 (e.g., the 1st holding plate 1311).

[0170] In this way, the new memory object 100 is placed on the 1st holding plate 1311. After that, the operation control means 85 controls the operation of the second operating part 13 to move the 1st holding plate 1311 below the imaging part 16. After that, the camera 161 of the imaging part 16 takes an image of the identification information (the two-dimensional code 101) of the new memory object 100 placed on the 1st holding plate 1311. As a result, the acquisition means 81 obtains the holding plate information that the new memory object 100 is placed on the 1st holding plate 1311 (S204).

[0171] Further, the game processing means 82 checks whether or not a predetermined number (5 in Table 4) of memory objects 100 are placed on the dispensing-candidate holding part 131 based on the holding plate table information and holding plate empty information (S205). If the predetermined number of memory objects 100 are not placed on the dispensing-candidate holding part 131, the process returns to the step 203, and the steps 203 to 205 are repeated.

[0172] On the other hand, if the predetermined number of memory objects 100 are placed on the dispensing-candidate holding part 131, the process proceeds to the step 206. Further, in the step 202, the process proceeds to the step 206, if the memory object 100 has not been dispensed. In the step 206, the game processing means 82 checks whether or not the rare object 100 has been dispensed based on the holding plate table information and the holding plate empty information.

[0173] If the rare object 100 has not been dispensed, the process proceeds to the step 207. In the step 207, the operation control means 85 performs the placement method for holding plate. This allows the first pushing part 144 to push a new normal object 100 of the normal object stocker (e.g., the 6th stocker 111 in Table 1). As a result, the normal object 100 is placed on the empty holding plate 1311 (e.g., the 26th holding plate 1311).

[0174] In this way, the new normal object 100 is placed on the 26th holding plate 1311. After that, the operation control means 85 controls the operation of the second operating part 13 to move the 26th holding plate 1311 below the imaging part 16. Further, the camera 161 of the imaging part 16 takes an image of the identification information (the two-dimensional code 101) of the new normal object 100 placed on the 26th holding plate 1311. As a result, the acquisition means 81 obtains the holding plate information that the new normal object 100 is placed on the 26th holding plate 1311 (S209).

[0175] Returning to the step 206, if the rare object 100 has been dispensed, the process proceeds to the step 208. In the step 208, the operation control means 85 functions to push a new rare object 100 of the rare object stocker (e.g., the 3rd stocker 111 in Table 1) by the placement method for holding plate. Then, the rare object 100 is placed on the empty holding plate 1311 (e.g., the 23rd holding plate 1311).

[0176] In this way, the new rare object 100 is placed on the 23rd holding plate 1311. After that, the operation control means 85 controls the operation of the second operating part 13 to move the 23rd holding plate 1311 below the imaging part 16. Further, the camera 161 of the imaging part 16 takes an image of the identification

information (the two-dimensional code 101) of the new rare object 100 placed on the 23rd holding plate 1311. As a result, the acquisition means 81 obtains the holding plate information that the new rare object 100 is placed on the 23rd holding plate 1311 (S209).

[0177] Next, the game processing means 82 checks whether or not a predetermined number (20 in Table 4) of rare objects 100 are placed on the dispensing-candidate holding part 131 based on the holding plate table information and the holding plate empty information (S210). If the predetermined number of rare objects 100 are not placed on the dispensing-candidate holding part 131, the process returns to the step 208, and the steps 208 to 210 are repeated.

[0178] On the other hand, if the predetermined number of rare objects 100 are placed on the dispensing-candidate holding part 131, the process proceeds to the step 211. In the step 211, the game processing means 82 checks whether or not the objects 100 are placed on all of the holding plates 1311 based on the holding plate table information and the holding plate empty information.

[0179] If the objects 100 are not placed on all of the holding plates 1311, the process returns to the step 207. On the other hand, if the objects 100 are placed on all of the holding plates 1311, the filling method is completed (S212).

[0180] When performing the filling method with respect to the holding plate 1311 from which the rare object 100 has been dispensed, the normal object 100 may be filled instead of the rare object 100. However, it is preferable to provide the rare object 100. This makes it possible to keep the certain number of rare objects 100 on the

plurality of holding plates 1311, that is, the dispensing-candidate holding part 131. In other words, it is possible to control the ratio of the types of objects 100 placed on the dispensing-candidate holding part 131. As a result, the objects 100 can be efficiently dispensed according to results of the game.

[0181] On the other hand, the conventional game device does not control the types of objects 100 as dispensing candidates. For this reason, it may be difficult to dispense the objects 100 according to results of the game. For example, even if there is a case of dispensing the rare object 100 according to the result of the game, the rare object 100 may not be included in the objects 100 to be the dispensing candidates.

[0182] The above-mentioned process method can be created by a program executed by a computer. Such a program is realized by a CPU (Central Processing Unit), a microprocessor (Micro Processor), a GPU (Graphic Processing Unit), a RAM (Random Access Memory), a ROM (Read Only Memory) and the like.

[0183] << Second Embodiment >>

Next, a second embodiment of the dispensing mechanism of the present invention will be described with reference to the attached drawings.

[0184] FIG. 19 is a plan view schematically showing the accommodating part and the dispensing-candidate holding part which are included in a dispensing mechanism according to the second embodiment of the present invention. Hereinafter, the second embodiment will be described, but the differences from the first embodiment described above will be mainly described, and the description of the same matters will be omitted. The same reference numerals are

given to the same configurations as those in the first embodiment described above.

[0185] The dispensing mechanism 10A of the present embodiment is different from the dispensing mechanism 10 of the first embodiment in that it does not have the pushing mechanism. Specifically, in the dispensing mechanism 10A of the present embodiment, the accommodating part 11 is configured to include a slider portion 1133A on the upper surface of the bottom plate portion 1133 provided on each stocker 111 as shown in FIG. 19. The slider portion 1133A has a first slider member 1133b having a width similar to the width of the object 100, and a second slider member 1133c which is narrower than the first slider member 1133b and is provided internally in the bottom plate portion 1133. The first slider member 1133b and the second slider member 1133c are configured to be independently operable.

[0186] The first slider member 1133b is configured to slide toward the dispensing-candidate holding part 131 and immediately return to the original position after sliding. This makes it possible to sequentially send the object 100 in contact with the bottom plate portion 1133 to the dispensing-candidate holding part 131.

[0187] Further, the second slider member 1133c can slide separately from the first slider member 1133b. Furthermore, the second slider member 1133c is configured to slide toward the dispensing-candidate holding part 131 and immediately return to the original position after sliding. The second slider member 1133c is internally provided in the bottom plate portion 1133 so as to be slidable while the object 100 in contact with the bottom plate portion 1133 is maintained in the stocker 111. Therefore, when the second slider member 1133c slides, the object 100 placed on the holding plate 1311 is pushed and

sent to the dispensing guiding part 15 by the second slider member 1133c.

[0188] As described above, the dispensing mechanism 10A of the present embodiment has the same effect as that of the dispensing mechanism 10 of the first embodiment. In other words, the accommodating part 11 has a function similar to that of the pushing mechanism 14 of the first embodiment. However, the accommodating part 11 and the dispensing-candidate holding part 131 may have the same functions as those of the first pushing part 144 and the second pushing parts 145 of the pushing mechanism 14 of the first embodiment, respectively.

[0189] Since the dispensing mechanism 10A of the present embodiment does not have the pushing mechanism 14, the mechanism itself can be made smaller. As a result, the cost required for the device can be reduced. Further, by operating the first operating part 12 and the second operating part 13, the placement method for holding plate and the dispensing method for holding plate can be performed. This makes it possible to efficiently dispense the objects according to results of the game.

[0190] << Third Embodiment >>

Next, a third embodiment of the dispensing mechanism of the present invention will be described.

[0191] Hereinafter, the third embodiment will be described, but the differences from the first embodiment described above will be mainly described, and the description of the same matters will be omitted. The same reference numerals are given to the same configurations as those in the first embodiment described above.

[0192] The dispensing mechanism 10B of the present embodiment is configured such that the first operating part 12, the second operating part 13 and the pushing mechanism 14 operate linearly. Further, each component is configured according to this configuration. For example, the mounting portion 121 of the first operating part 12 and the arranging part 132 of the second operating part 13 have long shapes. In these respects, the dispensing mechanism 10B of the present embodiment is different from the dispensing mechanism 10 of the first embodiment. In particular, the plurality of stockers 111 and the second pushing parts 145 are linearly aligned and provided in the first operating part 12. Furthermore, the second operating part 13 is provided along one side of the first operating part 12. Moreover, the first pushing part 144 is provided on the other side of the first operating part 12. As a result, the first pushing part 144 is operable (operable in parallel) adjacent to the first operating part 12 and the second pushing parts 145. The dispensing mechanism 10B of the present embodiment also has the same effect as that of the dispensing mechanism 10 of the first embodiment.

[0193] << Fourth Embodiment >>

Next, a fourth embodiment of the dispensing mechanism of the present invention will be described with reference to the attached drawings.

[0194] FIG. 20 is a perspective view showing a dispensing mechanism according to the fourth embodiment of the present invention. FIG. 21 is a partially exploded perspective view showing the dispensing mechanism according to the fourth embodiment of the present invention. FIG. 22 is a partially exploded perspective view showing a stocker of an accommodating part included in the dispensing mechanism according to the fourth embodiment of the present invention. FIG. 23 is a partially exploded perspective

view of a first operating part, the accommodating part and a pushing mechanism included in the dispensing mechanism according to the fourth embodiment of the present invention. Hereinafter, the fourth embodiment will be described, but the differences from the first embodiment described above will be mainly described, and the same matters will be omitted. In addition, the same and similar reference numerals are given to the same configurations as those of the first embodiment described above.

[0195] The dispensing mechanism 10C of the present embodiment is mainly different from that of the dispensing mechanism 10 of the first embodiment in the configuration of the accommodating part 11'. Further, the dispensing mechanism 10C of the present embodiment is different from the dispensing mechanism 10 of the first embodiment in that the dispensing guiding part 15 has a cover portion 153 above the dispensing-candidate holding part 131. Furthermore, the dispensing mechanism 10C of the present embodiment is different from the dispensing mechanism 10 of the first embodiment in that it includes an operation button 19 provided on the pedestal part 18. Moreover, the dispensing mechanism 10C of the present embodiment is different from the dispensing mechanism 10 of the first embodiment in that the detection part 17 includes a fifth sensor 175 for detecting information on the number of objects 100 accommodated in the stocker 111'. Hereinafter, these different points will be specifically described.

[0196] As shown in FIGs. 20, 21 and 23, each of the plurality of stockers 111' of the accommodating part 11', that is, each of the 1st to 10th stockers 111' is installed at a constant angle (for example, 45° to 80°) with respect to the upper surface of the mounting portion 121 of the first operating part 12. The angle means an angle which is formed by the upper surface of the mounting portion 121 and

the side surface of the stocker 111' (a main body portion 112') facing the upper surface in a state where the stocker 111' is installed on the first operating part 12. The stocker 111' installed in this way includes the main body portion 112', a foot portion 113' and a clog portion 114.

The position of the notch portion 112A of the main body portion 112' is different from that of the first embodiment. Namely, in a state where the stocker 111' is provided on the first operating part 12, the notch portion 112A is provided on the outer surface (dispensing-candidate holding part 131 side) of the main body portion 112'. A slit portion 113E is formed in the frame-shaped portion 1132 of the foot portion 113' so as to correspond to the position of the notch portion 112A (see FIG. 22). As a result, even if the plurality of stockers 111' are provided in an annular shape on the first operating part 12, the number of objects 100 accommodated in each stocker 111' can be easily checked from the outside of the accommodating part 11'. For example, it is possible to detect the number information of the objects 100 accommodated in each stocker 111' by the fifth sensor 175 provided on the outer peripheral side of the accommodating part 11'.

[0197] Further, the bottom plate portion 1133 of the first embodiment is formed so as to slope down from the upper end of the front surface 1131a of the base portion 1131 to the vicinity of the middle of the rear surface 1131a'. On the other hand, the bottom plate portion 1133' of the present embodiment is formed so as to constitute the bottom surface of the foot portion 113' along the direction orthogonal to the lengthways direction of the stocker 111' without such a slope (See FIG. 22). Accordingly, the long skirt portion 1132a and the short skirt portion 1132a' of the frame-shaped portion 1132 are omitted. In this regard, a gap 113B through which the first pushing part 144 can be inserted and a gap 113C through which the object 100 pushed

by the first pushing part 144 can be inserted are formed between the frame-shaped portion 1132 and the bottom plate portion 1133'.

The clog portion 114 is connected to the lower side of such a foot portion 113'. The clog portion 114 is configured to angle the stocker 111' (including the main body portion 112' and the foot portion 113') at a constant angle (for example, 45° to 80°) with respect to the upper surface of the mounting portion 121 of the first operating part 12. This configuration allows the bottom plate portion 1133' to be angled at a predetermined inclination angle (for example, 10° to 45°) with respect to the upper surface of the mounting portion 121 of the first operating part 12 in a state where the stocker 111' is provided on the first operating part 12.

[0198] Since the plurality of components of the dispensing mechanism 10C of the present embodiment also have the corresponding inclination structure, the dispensing mechanism 10C has the same effect as that of the dispensing mechanism 10 of the first embodiment. Further, according to the dispensing mechanism 10C of the present embodiment, it is possible to reduce the force which is caused by the weight of the objects 100 themselves and is applied to the bottom plate portion 1133' (and the object 100 in contact with the bottom plate portion 1133'). Therefore, it is possible to smoothly send the object 100 in contact with the bottom plate portion 1133' to the dispensing-candidate holding part 131, while the bottom plate portion 1133' in a state of supporting the objects 100 is made to slope at a predetermined angle (for example, 10° to 45°) with respect to the upper surface of the mounting portion 121 of the first operating part 12.

[0199] In addition, in the dispensing mechanism 10C of the present embodiment, the dispensing guiding part 15 has

the cover portion 153 above the dispensing-candidate holding part 131. The cover portion 153 is formed so as to cover the upper side and the outer peripheral side of the dispensing-candidate holding part 131. This makes it possible to prevent the object 100 pushed from the holding plate 1311 of the dispensing-candidate holding part 131 to the dispensing guiding part 15 from escaping to a portion other than the dispensing path 152.

Further, the dispensing mechanism 10C of the present embodiment includes the operation button 19 provided on the pedestal part 18. The operation button 19 functions to automatically rotate the first operating part 12 when filling the accommodating part 11' with the objects 100. In order to exhibit such a function, the operation button 19 has a first operation button 19a, a second operation button 19b and a third operation button 19c so as to assign the function thereto. For example, the function of rotating the first operating part 12 clockwise can be assigned to the first operation button 19a. Further, the function of rotating the first operating part 12 counterclockwise can be assigned to the second operation button 19b. Furthermore, the lock function / unlock function for the first operation button 19a and the second operation button 19b can be assigned to the third operation button 19c. The operation button 19 is operated (pressed), thereby automatically rotating the first operating part 12. This makes it easier to fill the stocker 111' at the back inside the housing 2 with the objects 100. The configuration of the operation button 19 is not limited to that described above, and for example, the number of buttons may be one.

Further, in the dispensing mechanism 10C of the present embodiment, the detection part 17 includes the fifth sensor 175 for detecting the number information of the objects 100 accommodated in the stocker 111. The fifth sensor 175 is configured to detect the number information

of the objects 100 via the notch portion 112A of the main body portion 112' of the stocker 111'. Therefore, the fifth sensor 175 can detect whether the number of objects 100 accommodated in the stocker 111 is a predetermined number or more or a predetermined number or less. This makes it possible to easily detect the timing of filling (replacing) of the objects 100. In the present embodiment, the fifth sensor 175 is attached to the gate portion 151, but the location and number are not limited thereto.

[0200] The game device and the dispensing mechanism of the present invention have been described above based on the preferred embodiments, but the present invention is not limited thereto. The configuration of each component can be modified or replaced with any configuration having the same function. In addition, any other means or constituents may be added to the present invention. In addition, the present invention may include a combination of any two or more configurations (features) in each of the above embodiments.

[0201] For example, the bottom plate portion of the accommodating part may be configured to be elastically pressed by a spring member. In this case, depending on the number of objects accommodated in the stocker of the accommodating part, the bottom plate portion may not tilt at a predetermined angle. Therefore, a weight member may be provided on the top of the stocker. Further, the configuration of each component is not particularly limited as long as the function can be appropriately exhibited. For example, each component can be formed of a hard resin material, a metal material, a ceramic material, or the like. In addition, each motor can be defined as a driving part separately from the operating part.

INDUSTRIAL APPLICABILITY

[0202] The dispensing mechanism of the present invention is configured to dispense objects related to a game. The mechanism includes an accommodating part for accommodating the objects, a first operating part provided with the accommodating part and configured to be operable and a second operating part configured to hold the objects sent from the accommodating part and configured to be operable. The first operating part operates with respect to the second operating part. This makes it possible to provide the dispensing mechanism capable of efficiently dispensing the objects according to results of the game and the game device including such a dispensing mechanism. Therefore, the present invention has industrial applicability.

EXPLANATION OF REFERENCE NUMERALS

[0203] 1: Game device
1A: First sub-game device
1B: Second sub-game device
2: Housing
2A: Sub-housing
2B: Sub-housing
3: Operation part
3A: First sub-operation part
3B: Second sub-operation part
4: Reading part
4A: Sub-reading part
4B: Sub-reading part
5: Speaker
5A: Sub-speaker
5B: Sub-speaker
6: Displaying part
6A: Sub-displaying part
6B: Sub-displaying part
7: Storage part
8: Control part

9: Communication part
10: Dispensing mechanism
10A: Dispensing mechanism
10B: Dispensing mechanism
10C: Dispensing mechanism
11: Accommodating part
11': Accommodating part
12: First operating part
13: Second operating part
14: Pushing mechanism
15: Dispensing guiding part
16: Imaging part
17: Detection part
18: Pedestal part
19: Operation button
19a: First operation button
19b: Second operation button
19c: Third operation button
21: Dispensing port
22: Coin insertion port
23: Coin return port
31: Push button
32: Operation field
61: Full screen area
62: Frame body
62A: First frame member
62B: Second frame member
81: Acquisition means
82: Game processing means
83: Display control means
84: Sound output control means
85: Operation control means
100: Object (recording medium)
101: Two-dimensional code
111: Stocker
111': Stocker

112: Main body portion
112': Main body portion
112A: Notch portion
113: Foot portion
113': Foot portion
113A: Groove portion
113B: Gap
113C: Gap
113D: Slit portion
113E: Slit portion
114: Clog portion
121: Mounting portion
122: First motor
131: Dispensing-candidate holding part
132: Arranging part
133: Arm-shaped support part
134: Second motor
141: Mounting plate
142: Third motor
143: Elastic belt member
144: First pushing part (pushing part for placement)
144a: Plate-shaped member
144b: Plate-shaped member
145: Second pushing parts
151: Gate portion
152: Dispensing path
153: Cover portion
161: Camera
171: First sensor
172: Second sensor
173: Third sensor
174: Fourth sensor
175: Fifth sensor
611: Individual area
611A: First area
611B: Second area

612: Partition area
612A: First partition area
612B: Second partition area
612C: Third partition area
612D: Fourth partition area
621: Joint portion
1121: Beam portion
1131: Base portion
1131a: Front surface
1131a': Rear surface
1131b: Right side surface
1131b': Left side surface
1132: Frame-shaped portion
1132a: Long skirt portion
1132a': Short skirt portion
1132b': Left side surface
1133: Bottom plate portion
1133A: Slider portion
1133a: Gradually decreasing portion
1133b: First slider member
1133c: Second slider member
1311: Holding plate
1311a: Placement surface
1311b: Bent portion
1331: Arm
1332: Support plate
1451: Rail member
1452: Contact member
1453: Dispensing-pushing member

WHAT IS CLAIMED IS:

1. A dispensing mechanism for dispensing objects in connection with a game, the mechanism comprising:

an accommodating part for accommodating the objects;

a first operating part provided with the accommodating part and configured to be operable;

a second operating part configured to hold the objects sent from the accommodating part and configured to be operable; and

a pushing mechanism for pushing each of the objects, and provided in the first operating part,

wherein the pushing mechanism includes a first pushing part for pushing each of the objects from the accommodating part to the second operating part, and a second pushing part for pushing each of the objects from the second operating part to an outside of the second operating part, and

wherein the first operating part is configured to operate with respect to the second operating part.

2. The dispensing mechanism according to claim 1, wherein the first operating part is formed into a disk shape.

3. The dispensing mechanism according to claim 1 or 2, wherein the first operating part is configured to rotate.

4. The dispensing mechanism according to any one of claims 1 to 3, wherein the accommodating part includes a plurality of accommodating parts.

5. The dispensing mechanism according to claim 4, wherein the plurality of accommodating parts are provided annularly on the first operating part.

6. The dispensing mechanism according to any one of claims 1 to 5, wherein the accommodating part includes a bottom plate portion, and the bottom plate portion is angled at a predetermined angle with respect to the first operating part.

7. The dispensing mechanism according to any one of claims 1 to 6, wherein the second operating part is configured to surround the first operating part.

8. The dispensing mechanism according to claim 6, wherein the second operating part includes a dispensing-candidate holding part for holding the objects.

9. The dispensing mechanism according to claim 8, wherein the dispensing-candidate holding part includes a plurality of holding plates, and

wherein each of the holding plates is angled so as to correspond to the predetermined angle of the bottom plate portion.

10. The dispensing mechanism according to claim 4 or 5, wherein a part of the pushing mechanism is provided between the plurality of accommodating parts.

11. The dispensing mechanism according to any one of claims 1 to 10, wherein the second pushing part consists of a pair of pushing parts which are provided apart from each other in the first operating part, and

wherein the first pushing part is provided between the pair of pushing parts.

12. A game device comprising:

a displaying part for displaying a predetermined image related to a game;

an operation part for receiving operation input from a user; and

the dispensing mechanism according to any one of claims 1 to 11 for dispensing the objects related to the game based on the operation input.

13. A game device comprising:

a displaying part for displaying a predetermined image related to a game;

an operation part for receiving operation input from a user; and

a dispensing mechanism for dispensing objects related to the game based on the operation input,

wherein the dispensing mechanism comprises:

an accommodating part for accommodating the objects;

a first operating part provided with the accommodating part and configured to be operable;

a second operating part configured to hold the objects sent from the accommodating part and configured to be operable; and

a pushing mechanism for pushing each of the objects, and provided in the first operating part,

wherein the pushing mechanism includes a first pushing part for pushing each of the objects from the accommodating part to the second operating part, and a second pushing part for pushing each of the objects from the second operating part to an outside of the second operating part,

wherein the first operating part is configured to operate with respect to the second operating part, and

wherein the objects include an object which stores information related to the user.