

DISPENSING MECHANISM AND GAME DEVICE

TECHNICAL FIELD

[0001] The present invention relates to a dispensing mechanism and a game device, and more particularly 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 dispensing mechanism for dispensing objects in connection with a game is known (for example, Patent Document 1). The dispensing mechanism described in Patent Document 1 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 dispensed from the accommodating part and be operable. The first operating part is configured to operate with respect to the second operating part. With such a configuration, various objects are dispensed according to results of the game.

[0003] In such a dispensing mechanism, in order to dispense the various objects with high reliability according to the results of the game, it is preferable that the accommodating part accommodates more objects. From such a viewpoint, it is conceivable to increase a height of the accommodating part. However, as a result of such an improvement, a size of the dispensing mechanism increases. Therefore, due to size constraints of a game device, such an improved dispensing mechanism cannot be incorporated in the game device. Accordingly, there is a demand for

improving the dispensing mechanism while avoiding an increase in the size of the dispensing mechanism, in order to dispense the various objects with the high reliability according to the results of the game.

RELATED ART DOCUMENT

PATENT DOCUMENT

[0004] Patent Document 1 is JP 2021-115172 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 dispensing objects with high reliability 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 inventions (1) to (12) below.

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

an accommodating part for accommodating the objects;

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

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

a pushing mechanism for pushing the objects, the pushing mechanism provided corresponding to the first operating part,

wherein the pushing mechanism includes a first pushing part for pushing the objects in the accommodating part to the second operating part, and a second pushing

part for pushing the objects on the second operating part to an outside of the second operating part, the second pushing part configured to operate in a direction different from an operating direction of the first pushing part, and
wherein the first pushing part is arranged at a predetermined angle with respect to the second pushing part.

[0007] (2) The dispensing mechanism according to the above (1), wherein the first pushing part and the second pushing part are arranged at different heights from each other with respect to the accommodating part.

[0008] (3) The dispensing mechanism according to the above (1), wherein the first pushing part is further configured to push the objects on the second operating part to the outside of the second operating part.

[0009] (4) The dispensing mechanism according to the above (1), wherein the first pushing part and the second pushing part are provided so as to be orthogonal to each other.

[0010] (5) The dispensing mechanism according to the above (1), wherein the second pushing part has a horizontal surface orthogonal to a vertical direction, and
wherein the first pushing part is inclined with respect to the horizontal surface of the second pushing part.

[0011] (6) The dispensing mechanism according to the above (1), wherein the pushing mechanism includes a third pushing part for pushing the objects from the second operating part to the outside of the second operating part by receiving contacts by the first pushing part and the second pushing part.

[0012] (7) The dispensing mechanism according to the above (6), wherein the third pushing part has a tip portion for being in contact with the objects, and a receiving portion for being in contact with the first pushing part and the second pushing part and the receiving portion extending in a vertical direction with respect to the tip portion.

[0013] (8) The dispensing mechanism according to the above (6), wherein the third pushing part is provided adjacent to the accommodating part, and is positioned with respect to the first pushing part or the second pushing part by a displacement of the first operating part.

[0014] (9) The dispensing mechanism according to the above (6), wherein the second operating part includes a plurality of inclined holding portions for holding the objects, and

wherein the plurality of inclined holding portions are positioned together with the third pushing part with respect to the first pushing part or the second pushing part by a relative displacement between the first operating part and the second operating part.

[0015] (10) The dispensing mechanism according to the above (7), wherein the first pushing part and the second pushing part are configured to be in contact with different positions of the receiving portion with each other in the vertical direction.

[0016] (11) The dispensing mechanism according to the above (1), wherein the predetermined angle is 1° to 179°.

[0017] (12) A game device comprising:

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

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

the dispensing mechanism according to any one of the above (1) to (11) for dispensing the objects in connection with the game based on the operation input.

EFFECTS OF THE INVENTION

[0018] According to the present invention, it is possible to provide the dispensing mechanism capable of dispensing the objects with the high reliability according to the results of the game, and the game device including such a dispensing mechanism.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] FIG. 1 is a perspective view schematically showing a game device according to a first embodiment of the present invention.

FIG. 2 is a view 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 a view schematically showing an internal configuration of the game device according to the first embodiment of the present invention.

FIG. 5 is a partially exploded perspective view of the dispensing mechanism provided in the game device according to the first embodiment of the present invention, as viewed from the left side.

FIG. 6 is a perspective view of an accommodating part and a third pushing set included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 7 is a partially exploded perspective view of a foot portion of a stocker included in the dispensing mechanism in the game device according to the first embodiment of the present invention.

FIG. 8 is a perspective view of a first pushing set and a second pushing set of a pushing mechanism included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention.

FIG. 9 is a top view showing the dispensing mechanism provided in the game device according to the first embodiment of the present invention in a state where a part of the accommodating part and a part of the pushing mechanism are omitted.

FIG. 10 is a schematic view for explaining the first pushing part, the second pushing part, and the third pushing part in the game device according to the first embodiment of the present invention.

FIG. 11 is a schematic view for explaining an action of the pushing mechanism in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 11(a) is a schematic view for explaining an action of the first pushing part and the third pushing part. FIG. 11(b) is a schematic view for explaining an action of the second pushing part and the third pushing part.

FIG. 12 is a partially enlarged view of a dispensing-candidate holding part included in the dispensing mechanism in the game device according to the first embodiment of the present invention.

FIG. 13 is a schematic view for explaining an interaction between the third pushing part and a second operating part in the game device according to the first embodiment of the present invention.

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

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

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

FIG. 17 is a schematic view for explaining the action of the pushing mechanism in the dispensing mechanism according to a second embodiment of the present invention. FIG. 17(a) is a schematic view for explaining the action of the first pushing part and the third pushing part. FIG. 17(b) is a schematic view for explaining the action of the second pushing part and the third pushing part.

FIG. 18 is a schematic view for explaining a configuration of the pushing mechanism in the dispensing mechanism according to a third embodiment of the present invention.

MODE FOR CARRYING OUT THE INVENTION

[0020] Prior to describing the dispensing mechanism of the present invention, the game device of the present invention, an outline of a game executed by the game device, and objects used in the game device will be described in detail below based on preferred embodiments shown in the accompanying drawings. For convenience of explanation, the upper side, lower side, left side, right side, front side, and rear side in the plane of the paper of the drawings are respectively referred to as "upper", "lower", "left", "right", "front", and "rear".

[0021] <<First Embodiment>>

[0022] FIG. 1 is a perspective view schematically showing a game device according to a first embodiment of the present invention. FIG. 2 is a view 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.

[0023] 1. Outline of Game

First, an example of a game executed by a game device 1 of the present embodiment will be described. The game device 1 can execute, for example, a battle game using an object (hereinafter sometimes referred to as "recording medium") 100 related to the game. Specifically, the game device 1 acquires information of a character (hereinafter referred to as "character information") recorded on the recording medium 100 by scanning the recording medium 100. Thereafter, 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 battles against an opponent character. After the end of the game, a new recording medium 100 is dispensed from the game device 1. Note that the game executed by the game

device 1 is not limited to the above-described battle game, and may be a role-playing game, a board game, a simulation game, or the like.

[0024] 2. Recording Medium (Object to be dispensed)

The object (recording medium) 100 used in the game device 1 of the present embodiment is configured to be able to store identification information such as character information. Such an object 100 is, for example, a plastic card formed in a plate shape, as shown in FIG. 2. This object 100 has a recorded information part 101 on its surface. The identification information such as character information and item information is recorded on this recorded information part 101. The recorded information part 101 is, for example, a two-dimensional code such as a QR code (registered trademark) or a Zcode (registered trademark). When the recorded information part 101 is the Zcode, the identification information is recorded so as to be readable with invisible light (infrared rays). Based on the character information, the object 100 may include objects classified into a rare object and a normal object as a character object. The rare object is, for example, an object in which a character having a rarity of a predetermined level or higher is recorded. The normal object is, for example, an object in which a character having a rarity lower than the predetermined level is recorded. Further, in addition to the character object, the object 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) that stores information related to the user. The shape of the object 100, and the position and number of the recorded information part 101 are not particularly limited. For example, a plurality of recorded information parts 101 may be provided on the front surface or the back surface of the object 100. The object 100 may have a

gradually decreasing portion whose thickness gradually decreases, a concave portion, a convex portion, or the like.

[0025] 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 (a first sub-game device 1A and a second sub-game device 1B) provided adjacent to each other. This 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. For this reason, the cost required for the entire game device 1 can be reduced. The game device 1 of the present embodiment is not limited to the configuration in which two sub-game devices are provided adjacent to each other (two-in-one configuration). The game device 1 may have a configuration in which, for example, three or more sub-game devices are provided adjacent to each other. Further, the game device 1 of the present invention may be configured by a single game device.

[0026] The game device 1 of the present embodiment looks as if two game devices are arranged adjacent to each other at first glance. However, in the game device 1, the two sub-game devices are connected to configure one game device 1. Therefore, each player (user) can play using each sub-game device, or they can cooperate to execute one game play (cooperative play). As shown in FIGS. 1 and 3, such a game device 1 includes a housing 2, an operation part 3, a reading part 4, a speaker 5, the displaying part 6, a storage part 7, the control part 8, a communication part 9, and a dispensing mechanism 10. The configuration of each part will be described below.

[0027] It should be noted that 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 for the 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 for the second sub-game device 1B, which are the same as each other. Therefore, in the following, each part of the game device 1 will be mainly described as representing the components of the first sub-game device 1A and the second sub-game device 1B.

[0028] <Housing>

The housing 2 has a function of installing or accommodating each part of the game device 1. As shown in FIG. 1, the housing 2 is formed in a substantially rectangular parallelepiped shape, but is not limited thereto. The housing 2 may be configured by a single housing or may be configured by connecting sub-housings for the respective sub-game devices. Further, a dispensing port 21 for the object 100, a coin insertion port 22, and a coin return port 23 are provided on a front surface of each of the sub-housings. The object 100 dispensed by the dispensing mechanism 10 described later is dispensed from the dispensing port 21.

[0029] <Operation Part>

The operation part 3 has a function of receiving an operation input performed by a player to execute a game. Each of the sub-operation parts includes two push buttons 31 and a rectangular operation field 32. The two push buttons 31 are provided symmetrically on a front side of an upper surface of each of the sub-housings. The operation field 32 is provided on a back side of the push buttons 31 on the upper surface of each of the sub-housings. The shape and position of the operation field 32 are not particularly limited. The shape may be a rod shape or a circular shape. The position may be a position between the

push buttons 31 or a position in front of the push buttons 31. Such an operation field 32 is a field in which the player can place and move the objects 100. The operation field 32 is configured such that the reading part 4 described later can read each of the objects 100.

[0030] 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 simultaneously receive different operation inputs. As a result, separate operations can be executed by the first sub-game device 1A and the second sub-game device 1B.

[0031] <Reading Part>

The reading part 4 has a function of reading information on the object 100 placed on the operation field 32. Each of the sub-reading parts is provided below the operation field 32 inside each of the sub-housings. Such a sub-reading part is capable of reading the information in the recorded information part 101. For example, when the recorded information part 101 is the two-dimensional code, the sub-reading part may include an imaging device (camera) and an infrared light source. In this case, the infrared light source of the sub-reading part emits infrared rays to the recorded information part 101 of the object 100 from an underside of the operation field 32. In this state, the imaging device images the recorded information part 101 of the object 100, thereby enabling the information in the recorded information part 101 of the object 100 to be read. It should be noted that the sub-reading part may be arranged anywhere in the sub-housing as long as the imaging

device can image the operation field 32. Further, the sub-reading part may be configured only by the imaging device.

[0032] <Speaker>

The speaker 5 has a function of outputting various sounds. Each of the sub-speakers is provided below the displaying part 6 at a back section of the upper surface of the sub-housing. The number of the sub-speakers is not particularly limited, and may be one or a plurality of two or more. In the present embodiment, two sub-speakers are provided on both sides of the back section of the upper surface of the sub-housing so as to correspond to each sub-game device. The sounds output by the speaker 5 include music, sound effects, and the like stored in a storage part 7.

[0033] <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 on the speaker 5 in the upper surface of the housing 2. The displaying part 6 includes one display panel 61 and a frame 62. The frame 62 is provided on the speaker 5. The frame 62 is formed in a rectangular shape, but is not limited thereto. For example, the frame 62 may be formed in any shape such as a circular shape or an elliptical shape.

[0034] The display panel 61 is provided inside such a frame 62. The display panel 61 may be a touch panel. Further, the display panel 61 is formed in a rectangular shape, but is not limited thereto, and may be formed in a circular shape or a triangular shape. The display panel 61 has a first area 611A, a second area 611B, and a third area (a first partition area 612A and a second partition area 612B) 612 (FIG. 1).

[0035] The first area 611A is an area for displaying the game image for the first sub-game device 1A. The first area 611A is provided so as to correspond to the first sub-operation part 3A of the first sub-game device 1A. The first area 611A is formed in a rectangular shape, but is not limited thereto.

[0036] The second area 611B is an area for displaying a game image for the second sub-game device 1B. The second area 611B is provided so as to correspond to the second sub-operation part 3B of the second sub-game device 1B. The second area 611B is formed in a rectangular shape, but is not limited thereto.

[0037] The third area 612 has the first partition area 612A and the second partition area 612B so as to partition the first area 611A and the second area 611B. The displaying part 6 can display the same image as the appearance of the frame 62 (partition image) in the third area 612. As a result, it can be perceived by the player at first glance that there are two game devices. In this case, the displaying part 6 may display the same image or different images in the first area 611A and the second area 611B. Further, the displaying part 6 may not display the partition image in the third area 612 (FIG. 4). This enables the displaying part 6 to display the game image on the entire display panel 61.

[0038] <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 the game, and is realized in cooperation with hardware. Further, the game data is data related to the game, and includes character data, audio data, image data, sound effect data, predetermined event data, and the like.

[0039] The character data is data such as a character's name, special move, weapon, strength, rarity, image, and the like. That is, the character data corresponds to the above-described character information, and serves as identification information for identifying each character from each other. The audio data is music data that is outputted from the speaker 5. The audio data includes a plurality of music data such as songs, game music, and the like. The image data is game image data. The game image data includes data such as character images, background images, various effect images, and the like. The sound effect data is sound data reproduced during the game play, and is different from the audio data. The sound effect data includes, for example, evaluation sound data that is outputted according to a player's operation result. The predetermined event data includes boss character appearance event data, bonus event data, intrusion battle event data, and the like.

[0040] Further, in the present embodiment, since an accommodating part 11 of the dispensing mechanism 10 described later has a plurality of stockers 111, the storage part 7 may store information related to the plurality of stockers 111 (hereinafter, referred to as "stocker information"). Examples of the stocker information include information on what types of objects 100 are accommodated in the stocker 111, information that the number of the objects 100 in the stocker 111 has become zero, and the like. A specific example of the stocker information is shown in Table 1 below.

[0041] Table 1

Stocker Number	Type of Objects 100	Remaining Amount of Objects 100
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1st stocker 111	Dedicated to memory objects	45 remaining
2nd stocker 111	Dedicated to memory objects	50 remaining
3rd stocker 111	Dedicated to rare objects	0 remaining
4th stocker 111	Dedicated to rare objects	50 remaining
5th stocker 111	Dedicated to rare objects	50 remaining
6th stocker 111	Dedicated to normal objects	50 remaining
7th stocker 111	Dedicated to normal objects	50 remaining
8th stocker 111	Dedicated to normal objects	50 remaining
9th stocker 111	Rare objects and normal objects accommodated randomly	50 remaining
10th stocker 111	20 rare objects / 30 normal objects	30 remaining
11th stocker 111	20 rare objects / 30 normal objects	50 remaining

[0042] Table 1 above shows the following information. Specifically, each of the 1st and 2nd stockers 111 functions as a stocker dedicated to memory objects for accommodating a predetermined number (for example, 0 to 50) of the memory objects 100. Further, each of the 3rd to 5th stockers 111 functions as a stocker dedicated to rare objects for accommodating a predetermined number (for example, 0 to 50) of rare objects 100. Further, each of the 6th to 8th stockers 111 functions as a stocker dedicated to normal objects for accommodating a predetermined number (for example, 0 to 50) of normal objects 100. Further, Table 1 above shows the remaining

amount of the objects 100 in each stocker 111. For example, 45 memory objects 100 remain in the 1st stocker 111, and no rare objects 100 remain in the 3rd stocker 111. Further, a total of 50 objects 100 including the rare objects 100 and the normal objects 100 remain in the 9th stocker 111. That is, the 9th stocker 111 functions as a random stocker for randomly accommodating the rare objects 100 and the normal objects 100.

[0043] Further, each of the 10th and 11th stockers 111 functions as a multi-stocker for accommodating the rare objects 100 and the normal objects 100 at a predetermined ratio (rare object : normal object = 20 : 30 in Table 1). Regarding this accommodation, a shrink (package) in which a set of 20 rare objects 100 and a subsequent set of 30 normal objects 100 are bundled in order from the bottom may be accommodated in the stocker 111. In this case, an acquiring means 81 of the control part 8 described later can acquire information on what types of objects 100 are accommodated in each stocker 111 based on the remaining amount of the objects 100. For example, in Table 1 above, the remaining amount of the objects 100 in the 10th stocker 111 is 30. Therefore, the acquiring means 81 can acquire information that all of the 20 rare objects 100 set in order from the bottom have been dispensed in the 10th stocker 111. That is, the acquiring means 81 can acquire information that the 10th stocker 111 is in a state where 30 normal objects 100 remain, and has become dedicated to the normal objects 100. Further, since the remaining amount of the objects 100 in the 11th stocker 111 is 50, the acquiring means 81 can acquire information that the 11th stocker 111 is in a state where there are 30 normal objects 100 following 20 rare objects 100 from the bottom. That is, the acquiring means 81 can acquire information that the 11th stocker 111 is dedicated to the rare objects 100 until all 20 rare objects 100 are dispensed.

[0044] The information shown in Table 1 above is an example of the stocker information, and the stocker information is not limited to the above-described information. For example, the stocker 111 dedicated to the memory objects may not be provided. Further, each of the 1st to 11th stockers 111 may accommodate a set in which the rare objects 100 and the normal objects 100 are randomly provided therein. Furthermore, as the stocker information regarding the remaining amount of the objects 100, only information regarding the presence or absence of the objects 100 in each stocker 111 may be stored in the storage part 7. Even with such stocker information, the acquiring means 81 can acquire information on which stocker 111 is in an empty state. It should be noted that even when the storage part 7 does not store the stocker information, various objects 100 can be accommodated in the stocker 111 as shown in the above-described stocker information. This can be achieved, for example, by an employee or the like of a store where the game device 1 is installed.

[0045] Further, a dispensing-candidate holding part 131 of the dispensing mechanism 10 described later has a plurality of (1st to 48th in the present embodiment) inclined holding portions 1311. Therefore, the storage part 7 may store information on the ratio at which the memory objects 100, the rare objects 100, or the normal objects 100 are arranged in the plurality of inclined holding portions 1311 (hereinafter, referred to as "inclined holding portion ratio information"). An example of the inclined holding portion ratio information is shown in Table 2 below.

[0046] Table 2

1st to 5th inclined holding portions 1311	Memory objects 100
6th to 25th inclined holding portions 1311	Rare objects 100
26th to 48th inclined holding portions 1311	Normal objects 100

[0047] The inclined holding portion ratio information shown in Table 2 above is an example, and the inclined holding portion ratio information is not limited to the above-described information. For example, only the normal object 100 or only the rare object 100 may be arranged in each of the inclined holding portions 1311.

[0048] <Control Part>

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

[0049] (Acquiring Means)

The acquiring means 81 has a function of acquiring the information on operation inputs by a player, the character information of the object 100, the game information, and the like. The acquiring means 81 acquires the operation input information when the player presses the push button 31. The acquiring 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 related to interrupt play, information related to character selection, and the like. Further, the acquiring means 81 acquires the character information and the like read by the reading part 4. In addition, the

acquiring means 81 acquires various information via the communication part 9 to be described later.

[0050] Further, the acquiring means 81 has a function of acquiring positional information and the like of each part of the dispensing mechanism 10 detected by a detecting part 17 described later. For example, the acquiring means 81 can acquire the positional information of each of the stockers 111, the positional information of each of the inclined holding portions 1311, and the like.

[0051] (Game Processing Means)

The game processing means 82 has a function of processing the information acquired by the acquiring means 81 and controlling progress of the game. For example, the game processing means 82 determines information on the game image stored in the storage part 7 and provides the determined information to the display control means 83. The game processing means 82 determines sound information and provides the determined sound information to the sound output control means 84. Further, the game processing means 82 determines and activates a predetermined event. In this way, the game processing means 82 handles the overall game progress.

[0052] Further, the game processing means 82 can determine or tentatively determine the objects 100 to serve as dispensing candidates based on the player information (the number of players, the character information linked to each player, and the like). Further, the game processing means 82 can identify the type of object 100 that has been dispensed. The game processing means 82 can determine whether or not the predetermined number of objects 100 are present in the dispensing-candidate holding part 131 described later. Furthermore, the game processing means 82 may process the progress of the game based on the number or

type of the objects 100 arranged in the dispensing-candidate holding part 131 and/or based on the type of the dispensed objects 100.

[0053] (Display Control Means)

The display control means 83 has a function of controlling screen display of all images related to the game. That is, the display control means 83 controls the screen display of the game image information provided by the game processing means 82 and the screen display of the partition image. For example, the display control means 83 independently controls the screen display of the game images in both the first area 611A and the second area 611B of the displaying part 6. Further, the display control means 83 controls the screen display of the game image on the entire display panel 61. Further, the display control means 83 controls the screen display of the partition image (FIG. 1) in the third area 612. In this way, the display control means 83 can control the screen display of images so as to separately display a predetermined image in each area of the displaying part 6.

[0054] (Sound Output Control Means)

The sound output control means 84 controls output of all sounds and music related to the game. Specifically, the sound output control means 84 controls the output of the sounds and the music determined by the game processing means 82. The sound output control means 84 provides the information on the sounds and the music to the speaker 5, enabling the speaker 5 to output the sounds and the music.

[0055] (Operation Control Means)

The operation control means 85 has a function of controlling operation of each part of the dispensing mechanism. For example, the operation control means 85 can independently control a first operating part 12, a second

operating part 13, and a pushing mechanism 14 described later. For example, when the first operating part 12 and the second operating part 13 are configured to rotate, the operation control means 85 can rotate the first operating part 12 and the second operating part 13 simultaneously or separately. It should be noted that the rotation direction may be either clockwise or counterclockwise. Further, the operation control means 85 may be configured to freely change these rotational speeds.

[0056] Further, the operation control means 85 has a function of controlling processes related to dispensing the objects 100 of the dispensing mechanism 10 described later. 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 so as to arrange various objects 100 in the 1st to 48th inclined holding portions 1311 described later based on the inclined holding portion ratio information (for example, the ratio shown in Table 2 described above). It should be noted that, in the present embodiment, the operation control means 85 of the control part 8 also controls the processes related to the dispensing mechanism 10, however the dispensing mechanism 10 described later may have a control part separate from the control part 8. In this case, the control part of the dispensing mechanism 10 may execute a part of the process of the control part 8 (for example, the process of the operation control means 85).

[0057] <Communication Part>

The communication part 9 has a function of communicating with an external network (LAN, WAN, Internet, or the like) or device via a wire or wirelessly. The game device 1 of the present invention may perform data communication with other devices such as other game devices or information terminals via the communication part 9. For

example, the communication part 9 can communicate with other devices to obtain audio data and game programs. This enables the game programs to be updated, thereby providing the latest version of the game. It should be noted that the game device 1 may not have the communication part 9.

[0058] <Dispensing Mechanism>

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

[0059] A. Configuration of Dispensing Mechanism

FIG. 4 is a view schematically showing an internal configuration of the game device according to the first embodiment of the present invention. FIG. 5 is a partially exploded perspective view of the dispensing mechanism provided in the game device according to the first embodiment of the present invention, as viewed from the left side. FIG. 6 is a perspective view of an accommodating part and a third pushing set included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 7 is a partially exploded perspective view of a foot portion of a stocker included in the dispensing mechanism in the game device according to the first embodiment of the present invention. FIG. 8 is a perspective view of a first pushing set and a second pushing set of a pushing mechanism included in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 9 is a top view showing the dispensing mechanism provided in the game device according to the

first embodiment of the present invention in a state where a part of the accommodating part and a part of the pushing mechanism are omitted. FIG. 10 is a schematic view for explaining the first pushing part, the second pushing part, and the third pushing part in the game device according to the first embodiment of the present invention. FIG. 11 is a schematic view for explaining an action of the pushing mechanism in the dispensing mechanism provided in the game device according to the first embodiment of the present invention. FIG. 11(a) is a schematic view for explaining an action of the first pushing part and the third pushing part. FIG. 11(b) is a schematic view for explaining an action of the second pushing part and the third pushing part. FIG. 12 is a partially enlarged view of a dispensing-candidate holding part included in the dispensing mechanism in the game device according to the first embodiment of the present invention. FIG. 13 is a schematic view for explaining an interaction between the third pushing part and a second operating part in the game device according to the first embodiment of the present invention.

[0060] FIG. 4 illustrates 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 toward the front-left. It should be noted that, for example, a case for accommodating coins, a CPU of the game device 1, and the like are accommodated inside the housing 2, but are omitted for convenience of explanation.

[0061] As shown in FIGS. 4 and 5, the dispensing mechanism (distribution 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, the detecting part 17, and a pedestal part 18.

[0062] (Accommodating Part)

The accommodating part 11 has a function of accommodating the plurality of objects 100. As shown in FIG. 5, the accommodating part 11 is provided on the first operating part 12. In the present embodiment, the accommodating part 11 includes the plurality of stockers 111, that is, the 1st to 11th stockers 111. Each of the stockers 111 has a tower shape and is capable of accommodating the plurality of objects 100. Since the accommodating part 11 includes the plurality of stockers 111 as a plurality of accommodating parts, various objects 100 can be accommodated at a predetermined ratio for each of the stockers 111. Therefore, it is possible to adjust the ratio of the types of the objects 100 arranged in the dispensing-candidate holding part 131 described later and it is possible to dispense the objects 100 with the high reliability according to the results of the game.

[0063] As shown in FIG. 6, each stocker 111 includes a main body portion 112, a foot portion 113, and a connecting member 114. In FIG. 6, for convenience of explanation, a mounting part 121 of the first operating part 12 and the stocker 111 located on the left side of the third pushing part 147 are omitted.

[0064] The main body portion 112 has a cylindrical shape so as to accommodate the objects 100. Further, the main body portion 112 has a cutout portion 112A on one side surface thereof. Specifically, in a state where the stocker 111 is provided on the first operating part 12, the cutout portion 112A is provided on the outer side surface (surface of dispensing-candidate holding part 131 side) of the main body portion 112 (FIG. 6).

[0065] Through the cutout portion 112A, for example, a part (finger) of a hand can be inserted into the inside of the main body portion 112. As a result, the plurality of objects 100 can be easily accommodated in the stocker 111 while being supported by the hand. Further, even when the plurality of stockers 111 are provided in an annular shape on the first operating part 12, the number of the objects 100 accommodated in each stocker 111 can be easily checked from the outside of the accommodating part 11. Furthermore, by providing a stocker sensor 171 described later on an outer peripheral side of the accommodating part 11, information on the number of the objects 100 accommodated in each stocker 111 can be reliably detected.

[0066] The foot portion 113 is provided along an outer peripheral end portion of the mounting part 121 (FIG. 5). The foot portion 113 has a function of supporting the main body portion 112 in a state where the main body portion 112 is inclined with respect to an upper surface of the mounting part 121. For this reason, the foot portion 113 has an inclined structure as will be described later. Specifically, as shown in FIG. 7, the foot portion 113 has a bottom plate portion 1131 and an inclined support portion 1132.

[0067] The bottom plate portion 1131 is provided on the inclined support portion 1132. In this state, the bottom plate portion 1131 can support the plurality of objects 100 at a lower end of the main body portion 112. That is, the bottom plate portion 1131 has a function of supporting the plurality of objects 100. Further, the bottom plate portion 1131 also has a function of supporting the main body portion 112. Such a bottom plate portion 1131 includes a plate main body 1131a, a side plate portion 1131b, a skirt portion 1131c, and an empty information portion 1131d.

[0068] The plate main body 1131a is configured to be in contact with the lowermost object 100 among the plurality of objects 100 accommodated in the accommodating part 11. The plate main body 1131a has a rectangular shape so as to correspond to the shape of the object 100. In the following description, the longitudinal direction of the bottom plate portion 1131 refers to the longitudinal direction of the plate main body 1131a. An end portion of one long side in the plate main body 1131a is cut away.

[0069] The side plate portion 1131b is provided around the plate main body 1131a except for the cut-away portion of the plate main body 1131a and one short side portion (the end portion on the front side in FIG. 7) of the plate main body 1131a. An upper end of the side plate portion 1131b is configured to fit with the lower end of the main body portion 112. As a result, the main body portion 112 and the foot portion 113 can fit together. In a state where they are fitted together, a gap 113A is formed between the lower end of the main body portion 112 and the plate main body 1131a (FIG. 6). As shown in FIG. 6, the gap 113A is formed continuously with the cutout portion 112A of the main body portion 112.

[0070] Further, a gap 113B is formed in the side plate portion 1131b on the other short side portion of the plate main body 1131a (FIG. 7). The gap 113B faces the gap 113A, and is configured such that a first pushing part 145 described later can be inserted through the gap 113B. On the other hand, the gap 113A is configured such that the object 100 pushed by the first pushing part 145 can be inserted through the gap 113A. Therefore, through the gap 113B, the first pushing part 145 can push the object 100 provided on the plate main body 1131a toward the dispensing-candidate holding part 131 described later.

[0071] The skirt portion 1131c is provided on the one short side portion of the plate main body 1131a. The skirt portion 1131c is configured to protrude downward from the plate main body 1131a. As a result, when the bottom plate portion 1131 and the inclined support portion 1132 are fitted together, the skirt portion 1131c can abut on a first upright member 1132a of the inclined support portion 1132. Such a skirt portion 1131c facilitates alignment between the bottom plate portion 1131 and the inclined support portion 1132.

[0072] The empty information portion 1131d is provided on an upper surface of the plate main body 1131a. The empty information portion 1131d has a function of indicating that there is no object 100 on the plate main body 1131a. The empty information portion 1131d is, for example, a reflective tape that reflects light from the detecting part 17.

[0073] The inclined support portion 1132 is provided on the upper surface of the mounting part 121 of the first operating part 12. The inclined support portion 1132 has a function of supporting the bottom plate portion 1131 and the main body portion 112 in a state where the bottom plate portion 1131 and the main body portion 112 are inclined with respect to the upper surface of the mounting part 121. The inclined support portion 1132 has the first upright member 1132a, a second upright member 1132b, and a roof member 1132c.

[0074] The first upright member 1132a and the second upright member 1132b are provided on the upper surface of the mounting part 121 so as to face each other. Each of the first upright member 1132a and the second upright member 1132b has a trapezoidal shape. A bottom portion of

each of the first upright member 1132a and the second upright member 1132b is fixed to the mounting part 121. Side portions extending vertically from the bottom portion are configured to have different heights on the left and right.

[0075] The roof member 1132c is provided at upper ends of the first upright member 1132a and the second upright member 1132b configured in this way. For this reason, the roof member 1132c is inclined with respect to the upper surface of the mounting part 121.

[0076] With such a configuration, the inclined support portion 1132 has a function of inclining the bottom plate portion 1131 and the main body portion 112. For this reason, the bottom plate portion 1131 and the main body portion 112 are angled at a predetermined inclination angle with respect to the upper surface of the mounting part 121 of the first operating part 12 in a state of being provided in the first operating part 12.

[0077] The inclination angle of the bottom plate portion 1131 (specifically, the plate main body 1131a) 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 part 121 of the first operating part 12. This inclination angle is set to correspond to (preferably match) an inclination angle of the inclined holding portion 1311 described later. As a result, the pushed-out object 100 can be reliably transferred to the dispensing-candidate holding part 131.

[0078] It should be noted that the corresponding or matching inclination angle of each member refers to an angle in a state where the respective members are combined as the dispensing mechanism 10. Further, the corresponding

or matching inclination angle of each member may mean that, in a state where the game device 1 is installed on an installation surface (for example, the ground, the floor surface), the inclination angles of the respective members with respect to the installation surface correspond to or match each other. It can also be said that each member having a corresponding or matching inclination angle has a corresponding inclined structure.

[0079] Further, the main body portion 112 is installed so as to be angled at a constant angle (for example, 45° to 80°) with respect to the upper surface of the mounting part 121 of the first operating part 12.

[0080] The angle of the main body portion 112 means an angle formed by the upper surface of the mounting part 121 and a side surface of the main body portion 112 facing this upper surface in a state where the stocker 111 is installed in the first operating part 12.

[0081] As a result, the weight of the objects 100 is distributed to the side surface of the main body portion 112. Further, the force applied to the bottom plate portion 1131 (and the object 100 in contact with the plate main body 1131a) due to the weight of the objects 100 is reduced. For this reason, the object 100 in contact with the plate main body 1131a can be smoothly transferred to the dispensing-candidate holding part 131.

[0082] In this way, each of the objects 100 accommodated in each stocker 111 of the accommodating part 11 is pushed out by inserting the first pushing part 145 into the gap 113B of the foot portion 113, thereby being arranged in the dispensing-candidate holding part 131. At this time, the object 100 in contact with the plate main body 1131a is sequentially pushed out.

[0083] Further, a part of the roof member 1132c is cut out corresponding to the cut-out portion of the plate main body 1131a. As a result, a gap 113C is formed in a state where the stocker 111 is installed in the first operating part 12. As shown in FIG. 6, the gap 113C is located at the lower end of the main body portion 112. Positional displacement of the object 100 in contact with the bottom plate portion 1131 can be corrected through the gap 113C, and management of the game device 1 can be facilitated. This makes it possible to suppress or prevent clogging of the objects 100 in the accommodating part 11, which contributes to dispensing the objects 100 with the high reliability according to the results of the game. The position, shape, and number of such a gap 113C is not particularly limited, and the gap 113C may be omitted.

[0084] The connecting member 114 is provided at an upper end of the main body portion 112 and has a function of connecting adjacent main body portions 112 to each other. The connecting member 114 has a first connecting portion 1141, a second connecting portion 1142, and a third connecting portion 1143.

[0085] The first connecting portion 1141 is provided between adjacent main body portions 112 and has a function of connecting these main body portions 112 to each other. The second connecting portion 1142 is provided along the upper end of the main body portion 112 and has a function of connecting the first connecting portions 1141 to each other or connecting the first connecting portion 1141 and the third connecting portion 1143. The third connecting portion 1143 is provided between the main body portions 112 of the stockers 111 that are adjacent to each other via the third pushing part 147. Further, the third connecting

portion 1143 has a function of connecting these adjacent stockers 111.

[0086] The shape and position of the connecting member 114 are not particularly limited as long as adjacent main body portions 112 can be connected to each other. Further, the connecting member 114 may be omitted. In this case, it is preferable to increase connection strength between the main body portion 112 and the foot portion 113, such as by joining the main body portion 112 and the foot portion 113.

[0087] The number of stockers 111 is eleven in the present embodiment, but is not limited thereto. The number of stockers 111 is preferably two or more, and more preferably three or more. Further, the number of the objects 100 that can be accommodated in each stocker 111 is not particularly limited, and can be, for example, 50. The plurality of stockers 111 may accommodate different types of objects 100, respectively, for example, as described in the stocker information described above.

[0088] (First Operating Part)

The first operating part 12 has a function of operating with respect to the second operating part 13 described later in a state where the accommodating part 11 is provided on the first operating part 12. In the present embodiment, the first operating part 12 includes the mounting part 121 formed into a disk shape and a first motor 122 for driving the mounting part 121 (FIGS. 4 and 5).

[0089] The mounting part 121 has a function of mounting various members. Further, the stockers 111 are arranged on an outer peripheral end portion of the mounting part 121 along a circumferential direction. In other words, the plurality of stockers 111 are arranged annularly on the first operating part 12 as the plurality of accommodating

parts. Furthermore, a third pushing part 147 described later is provided on the outer peripheral end portion of the mounting part 121. In addition, the third pushing part 147 is provided between two stockers 111, and is arranged annularly together with the plurality of stockers 111 (FIG. 9).

[0090] Further, the mounting part 121 is configured such that a shaft of the first motor 122 can be inserted and fixed into a central portion of the mounting part 121. This enables the mounting part 121 to rotate by a driving force of the first motor 122. Therefore, the first operating part 12 can efficiently move the accommodating parts 11 provided annularly on the mounting part 121 along the circumferential direction. As a result, the objects 100 can be efficiently arranged from the accommodating part 11 to the second operating part 13, and the objects 100 can be dispensed with the high reliability according to the results of the game.

[0091] The mounting part 121 is formed in a disk shape. This enables the mounting part 121 to rotate efficiently. However, the shape of the mounting part 121 is not limited thereto. For example, the mounting part 121 may be formed in a rectangular shape.

[0092] The first motor 122 is provided on the pedestal part 18. The first motor 122 has a first motor main body 1221, a first belt member (not shown), and a first pulley portion 1222. The first motor main body 1221 has a function of generating the driving force for rotating the mounting part 121. The first motor main body 1221 may be configured by, for example, a stepping motor or a servo motor. The first belt member is wound around the first pulley portion 1222. The first pulley portion 1222 includes a pair of pulleys. One pulley is connected to a

rotation shaft of the first motor main body 1221. The other pulley is connected to the shaft inserted into the center of the mounting part 121. With such a configuration, the driving force of the first motor main body 1221 is transmitted to the mounting part 121 via the first belt member and the first pulley portion 1222.

[0093] (Second Operating Part)

The second operating part 13 has a function of operating in a state of holding the plurality of objects 100 to serve as dispensing candidates that have been pushed out from the accommodating part 11. As shown in FIG. 5, the second operating part 13 includes a dispensing-candidate holding part 131, an arrangement part 132, an arrangement support part 133, a second motor 134, and a covering part 135.

[0094] The dispensing-candidate holding part 131 has a function of holding the plurality of objects 100 to serve as dispensing candidates. As shown in FIG. 12, the dispensing-candidate holding part 131 has a plurality of (48 in the present embodiment) inclined holding portions 1311. For convenience of explanation, FIG. 12 shows the dispensing-candidate holding part 131 in a state where some of the inclined holding portions 1311 are omitted. The greater the number of objects 100 to serve as dispensing candidates held by the dispensing-candidate holding part 131, the higher the effect of the dispensing mechanism 10 dispensing the objects 100 on demand.

[0095] As shown in FIG. 12, each inclined holding portion 1311 has a placement portion 1311a on which the object 100 is placed, a plurality of (three in the present embodiment) connecting portions 131B, and a plurality of (two in the present embodiment) protruding portions 1311c. The placement portion 1311a has a size corresponding to the

object 100 and is formed in a substantially E-shape. Each placement portion 1311a is inclined with respect to the arrangement part 132.

[0096] Further, the two protruding portions 1311c extend from the right side (long side) of the placement portion 1311a over the placement portion 1311a of the adjacent inclined holding portion 1311. Each protruding portion 1311c has a function of preventing the object 100 placed in the placement portion 1311a from falling into the placement portion 1311a of the adjacent inclined holding portion 1311. Accordingly, the protruding portion 1311c has a tip bent portion whose tip is bent upward. The height of this tip bent portion is preferably designed corresponding to the thickness of the object 100. This can prevent the object 100 from unintentionally falling from the inclined holding portion 1311.

[0097] Further, the connecting portion 131B is provided below the long side of the placement portion 1311a, and connects the placement portion 1311a and that of the adjacent inclined holding portion 1311. As a result, the connecting portion 131B constitutes a step portion. The plurality of inclined holding portions 1311 are adjacent to each other via the respective connecting portions 131B. In the following description, the longitudinal direction of the inclined holding portion 1311 refers to the longitudinal direction of the placement portion 1311a. In the present embodiment, the three connecting portions 131B are provided on the placement portion 1311a along this longitudinal direction so as to sandwich the two protruding portions 1311c.

[0098] Further, in a plan view of the dispensing mechanism 10 (for example, in FIG. 9), the placement portion 1311a does not overlap the adjacent placement

portion 1311a. On the other hand, the protruding portion 1311c extends so as to overlap the placement portion 1311a of the adjacent inclined holding portion 1311 in the plan view of the dispensing mechanism 10. For this reason, more inclined holding portions 1311 can be provided in the arrangement part 132 than in a case where the inclined holding portions 1311 do not overlap each other. This enables the dispensing-candidate holding part 131 to hold more dispensing candidates. This enhances the performance of the dispensing mechanism 10 in dispensing the objects 100 on demand, thereby ensuring that the objects 100 can be dispensed with the high reliability according to the results of the game.

[0099] The placement portion 1311a and the upper surfaces of the two protruding portions 1311c constitute a placement surface for placing the object 100. The placement surface (upper surface) is inclined at a predetermined angle with respect to the upper surface of the arrangement 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 arrangement part 132.

[0100] The inclination angle of the placement surface of the inclined holding portion 1311 with respect to the upper surface of the arrangement part 132 and the inclination angle of the bottom plate portion 1131 with respect to the upper surface of the mounting part 121 of the first operating part 12 correspond to (preferably match) each other. In this way, each of the inclined holding portions 1311 is angled to correspond to the inclination angle of the bottom plate portion 1131. As a result, each object 100 can be smoothly and reliably transferred from the stocker 111 provided on the first operating part 12 to the inclined holding portion 1311.

[0101] With such a configuration, the inclined holding portion 1311 can reliably hold the object 100 in a state of being inclined at the predetermined angle. That is, the inclined holding portion 1311 functions as an inclined holding means for the object 100. The plurality of inclined holding portions 1311 may be integrally formed. The plurality of inclined holding portions 1311 are provided on the arrangement part 132.

[0102] The arrangement part 132 is provided directly below the inclined holding portion 1311 (FIG. 12). The arrangement part 132 has a function of arranging and mounting the inclined holding portions 1311. The arrangement part 132 has an annular shape. The inner diameter of the arrangement part 132 is larger than the diameter of the mounting part 121 of the first operating part 12 so as to surround the first operating part 12.

[0103] The arrangement support part 133 has a disk shape and is located below the dispensing-candidate holding part 131 and the arrangement part 132 (FIG. 5). The arrangement support part 133 includes a plurality of pillars 1331. The arrangement part 132 is provided at the upper end of each pillar 1331. As a result, the arrangement part 132 and the dispensing-candidate holding part 131 provided on the arrangement part 132 are supported by the arrangement support part 133. In this way, the arrangement support part 133 has a function of supporting the dispensing-candidate holding part 131 and the arrangement part 132. Further, the arrangement support part 133 is configured to allow a shaft, which receives a driving force of the second motor 134, to be inserted into and fixed at the center of the arrangement support part 133. As a result, the driving force of the second motor 134 is transmitted to the arrangement part 132 via the arrangement

support part 133, thereby causing the dispensing-candidate holding part 131 to operate (rotate in the present embodiment).

[0104] As shown in FIG. 5, the second motor 134 is provided on the pedestal part 18. The second motor 134 has a second motor main body 1341, a second belt member 1342, and a second pulley portion (not shown). The second motor main body 1341 has a function of generating the driving force for rotating the arrangement support part 133. The second motor main body 1341 may be configured by, for example, a stepping motor or a servo motor. The second belt member 1342 is wound around the second pulley portion. The second pulley portion includes a pair of pulleys. One pulley is connected to a rotation shaft of the second motor main body 1341. The other pulley is connected to the shaft inserted into the center of the arrangement support part 133. With such a configuration, the driving force of the second motor main body 1341 is transmitted to the arrangement support part 133 via the second belt member 1342 and the second pulley portion.

[0105] In the present embodiment, the second operating part 13 is provided so as to surround the first operating part 12. For this reason, the first operating part 12 and the second operating part 13 can rotate adjacent to each other. As a result, a predetermined stocker 111 provided on the first operating part 12 can be efficiently aligned with a predetermined inclined holding portion 1311, so that the object 100 in the predetermined stocker 111 can be smoothly and reliably transferred to the predetermined inclined holding portion 1311. In this way, since the first operating part 12 can efficiently operate with respect to the second operating part 13, the objects can be dispensed with the high reliability according to the results of the game.

[0106] The covering part 135 has a function of covering the dispensing-candidate holding part 131, as shown in FIG. 4. The covering part 135 has a cover member 1351 and a support member 1352. The cover member 1351 mainly covers the upper side and outer peripheral side of the dispensing-candidate holding part 131. However, the cover member 1351 is configured not to cover the dispensing-candidate holding part 131 in a portion corresponding to a dispensing path 152 (FIG. 4). An outer peripheral end portion of the cover member 1351 is connected to the support member 1352. The support member 1352 is provided on the pedestal part 18 so as to surround the dispensing-candidate holding part 131. This configuration of the covering part 135 prevents the object 100, which is pushed from the inclined holding portion 1311 of the dispensing-candidate holding part 131 to the dispensing guiding part 15, from straying to a portion other than the dispensing path 152.

[0107] (Pushing Mechanism)

The pushing mechanism 14 has a function of pushing the object 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 outside of the dispensing-candidate holding part 131 (specifically, to a dispensing guiding part 15 described later). In this way, the pushing mechanism 14 is configured to push the object 100 from the accommodating part 11 to the dispensing-candidate holding part 131, and further push the object 100 from the dispensing-candidate holding part 131 to the dispensing guiding part 15. The configuration of the pushing mechanism 14 is not particularly limited as long as the pushing mechanism 14

can exhibit the function of transferring the object 100 between the respective parts as described above.

[0108] As shown in FIG. 8, the pushing mechanism 14 has a multiple structure including a plurality of pushing sets. In the present embodiment, the pushing mechanism 14 has a first pushing set 14a and a second pushing set 14b arranged on the first pushing set 14a. The first pushing set 14a includes a lower mounting plate 141a, a lower motor 142a, a lower belt member 143a, a pair of lower pulleys 144a, a lower pushing part (first pushing part) 145, and a first belt connecting portion 149a. The second pushing set 14b includes an upper mounting plate 141b, an upper motor 142b, an upper belt member 143b, a pair of upper pulleys 144b, an upper pushing part (second pushing part) 146, and a second belt connecting portion 149b. Furthermore, separately from the multiple structure, the pushing mechanism 14 has a third pushing set 14c including the third pushing part 147 (see FIG. 5). Each part of the first pushing set 14a will be described.

[0109] The lower mounting plate 141a has a disk shape, and has a function of mounting each member thereon. The diameter of the lower mounting plate 141a is smaller than the diameter of the mounting part 121 of the first operating part 12. Further, the lower mounting plate 141a is installed corresponding to the central portion of the mounting part 121 so as to be supported by a shaft different from the shaft of the first operating part 12 (FIGS. 9 and 10). As a result, the lower mounting plate 141a is in a fixed state even when the first operating part 12 operates. For this reason, each member on the lower mounting plate 141a is not affected by the operation of the first operating part 12. As described above, in the present embodiment, the lower mounting plate 141a of the

pushing mechanism 14 is fixed, but may be operable, for example, rotatable.

[0110] The lower motor 142a is mounted above the lower mounting plate 141a via an installation base. For this reason, there is a space between the lower motor 142a and the lower mounting plate 141a. The lower motor 142a has a function of applying a driving force to the first pushing part 145. The lower motor 142a can be configured by, for example, a stepping motor or a servo motor.

[0111] The pair of lower pulleys 144a is provided on the lower mounting plate 141a. One lower pulley 144a is positioned in the space between the lower motor 142a and the lower mounting plate 141a. This one lower pulley 144a is connected to a rotation shaft of the lower motor 142a. The other lower pulley 144a is positioned away from the lower motor 142a in a y-axis direction. Further, the other lower pulley 144a is connected to a shaft rotatably provided on the lower mounting plate 141a.

[0112] The lower belt member 143a is stretched around the pair of lower pulleys 144a. This enables the lower belt member 143a to synchronize the rotations of the pair of lower pulleys 144a. The lower belt member 143a has a plurality of convex portions arranged at a predetermined pitch, which are configured to mesh with the pair of lower pulleys 144a. The lower belt member 143a is formed of, for example, an elastic member, but is not particularly limited as long as it can exhibit its function. The lower belt member 143a is, for example, a timing belt.

[0113] The first belt connecting portion 149a has a function of connecting the first pushing part 145 to the lower belt member 143a. The first belt connecting portion 149a is attached to the lower belt member 143a between the

pair of lower pulleys 144a. This enables the first belt connecting portion 149a to move between the pair of lower pulleys 144a.

[0114] The first pushing part 145 has a function of pushing the object 100. For this reason, the first pushing part 145 has a dimension capable of pushing the object 100. In the present embodiment, the first pushing part 145 has a plate shape and a thickness substantially equal to the thickness of the object 100. However, the shape of the first pushing part 145 is not limited thereto as long as it can push the object 100. For example, in the first pushing part 145, only a tip portion configured to be in contact with the object 100 may have a thickness substantially equal to the thickness of the object 100. The first pushing part 145 is provided along the lower belt member 143a. Further, the first pushing part 145 is provided along the central radial direction of the lower mounting plate 141a (FIG. 9). It should be noted that, for convenience of explanation, the upper mounting plate 141b is omitted in FIG. 9. In addition, a base end of the first pushing part 145 is fixed to the first belt connecting portion 149a. As a result, the first pushing part 145 can move linearly in conjunction with operation of the first belt connecting portion 149a. That is, the first pushing part 145 is configured to operate in a constant operating direction (y-axis direction in FIG. 8).

[0115] Specifically, when the lower motor 142a is driven, the pair of lower pulleys 144a, around which the lower belt member 143a is stretched, rotates in one direction. As a result, the lower belt member 143a rotates, and the first belt connecting portion 149a attached to the lower belt member 143a moves forward between the pair of lower pulleys 144a. Along with this, the first pushing part 145 attached to the first belt connecting portion 149a

also moves forward. Similarly, when the lower motor 142a is driven in reverse, the first pushing part 145 moves backward. In this way, the first pushing part 145 can move in both directions along the straight line (along the y-axis in FIG. 8).

[0116] The first pushing part 145 has a first function of pushing the object 100 accommodated in the accommodating part 11 so as to be placed in the dispensing-candidate holding part 131 (second operating part 13). In addition, the first pushing part 145 has a second function of being in contact with the third pushing part 147 so as to push the object 100 held in the dispensing-candidate holding part 131 (second operating part 13) to the outside of the second operating part 13 via the third pushing part 147. In this way, the first pushing part 145 has a plurality of functions, thereby contributing to downsizing of the pushing mechanism 14. As a result, in the dispensing mechanism 10, the space occupied by the pushing mechanism 14 can be reduced, while the space occupied by the accommodating part 11 can be increased. For this reason, the accommodating part 11 can easily accommodate more objects 100, which contributes to highly reliable dispensing of the objects according to the results of the game.

[0117] Further, the first pushing part 145 is provided so as to be inclined at a predetermined angle with respect to an upper surface of the lower mounting plate 141a. This inclination angle is preferably in a range of, for example, 10° to 45°, and more preferably in a range of 15° to 30°, with respect to the upper surface of the lower mounting plate 141a.

[0118] The inclination angle of the first pushing part 145, the inclination angle of the placement surface of the

inclined holding portion 1311 with respect to the upper surface of the arrangement part 132, and the inclination angle of the bottom plate portion 1131 with respect to the upper surface of the mounting part 121 of the first operating part 12 correspond to (preferably match) each other. As a result, the first pushing part 145 can reliably push the object 100 accommodated in the stocker 111 and transfer the object 100 to the inclined holding portion 1311.

[0119] Next, the second pushing set 14b will be described. The upper mounting plate 141b has a function of mounting each member thereon. The upper mounting plate 141b is formed in a partially cut-out disk shape so as to avoid contact with the lower motor 142a. The upper mounting plate 141b is arranged above the lower mounting plate 141a via four pillars. For this reason, the first pushing part 145 is positioned between the upper mounting plate 141b and the lower mounting plate 141a.

[0120] The upper motor 142b is mounted above the upper mounting plate 141b via an installation base. For this reason, there is a space between the upper motor 142b and the upper mounting plate 141b. The upper motor 142b has a function of applying a driving force to the second pushing part 146. The upper motor 142b can be configured by, for example, a stepping motor or a servo motor.

[0121] The pair of upper pulleys 144b is provided on the upper mounting plate 141b. One upper pulley 144b is positioned in the space between the upper motor 142b and the upper mounting plate 141b. This one upper pulley 144b is connected to a rotation shaft of the upper motor 142b. The other upper pulley 144b is positioned away from the upper motor 142b in an x-axis direction. Further, the

other upper pulley 144b is connected to a shaft rotatably provided on the upper mounting plate 141b.

[0122] The upper belt member 143b is stretched around the pair of upper pulleys 144b. This enables the upper belt member 143b to synchronize the rotations of the pair of upper pulleys 144b. The upper belt member 143b has a plurality of convex portions arranged at a predetermined pitch, which are configured to mesh with the pair of upper pulleys 144b. The upper belt member 143b is formed of, for example, an elastic member, but is not particularly limited as long as it can exhibit its function. The upper belt member 143b is, for example, a timing belt.

[0123] The second belt connecting portion 149b has a function of connecting the second pushing part 146 to the upper belt member 143b. The second belt connecting portion 149b has a plate shape (FIGS. 8 and 10). The central portion of the second belt connecting portion 149b is attached to the upper belt member 143b between the pair of upper pulleys 144b. This enables the second belt connecting portion 149b to move between the pair of upper pulleys 144b.

[0124] The second pushing part 146 has a function of being in contact with the third pushing part 147 so as to push the object 100 on the second operating part 13 described later. In the present embodiment, the second pushing part 146 has a plate shape. However, the shape of the second pushing part 146 is not particularly limited as long as it has a dimension capable of pushing the third pushing part 147. For example, the second pushing part 146 may have a cylindrical shape. The second pushing part 146 is provided along the upper belt member 143b on the upper mounting plate 141b. Further, the second pushing part 146 is provided along the central radial direction of the lower

mounting plate 141a (FIG. 9). Furthermore, a base end of the second pushing part 146 is fixed to the second belt connecting portion 149b. As a result, the second pushing part 146 can move linearly in conjunction with operation of the second belt connecting portion 149b.

[0125] Specifically, when the upper motor 142b is driven, the pair of upper pulleys 144b, around which the upper belt member 143b is stretched, rotates in one direction. As a result, the upper belt member 143b rotates, and the second belt connecting portion 149b attached thereto moves forward between the pair of upper pulleys 144b. Along with this, the second pushing part 146 attached to the second belt connecting portion 149b also moves forward. Similarly, when the upper motor 142b is driven in reverse, the second pushing part 146 moves backward. In this way, the second pushing part 146 can move in both directions along the straight line (along the x-axis in FIG. 8). That is, the second pushing part 146 is configured to operate in the operating direction (along the x-axis in FIG. 8) different from the operating direction of the first pushing part 145 (along the y-axis in FIG. 8).

[0126] Further, the second pushing part 146 is arranged at a different height from the first pushing part 145 with respect to the accommodating part 11 (stocker 111). In this way, since the first pushing part 145 and the second pushing part 146 are arranged at different heights from each other with respect to the accommodating part 11, the mounting area of the lower mounting plate 141a can be reduced. As a result, in the dispensing mechanism 10, the space occupied by the pushing mechanism 14 can be reduced, while the space occupied by the accommodating part 11 can be increased. For this reason, the accommodating part 11 can easily accommodate more objects 100, which contributes

to highly reliable dispensing of the objects according to the results of the game.

[0127] In the present embodiment, the second pushing part 146 is provided parallel to the upper surface of the upper mounting plate 141b. In other words, the second pushing part 146 has a horizontal surface (an upper surface or a lower surface of the second pushing part 146) orthogonal to a vertical direction (along the z-axis in FIG. 8). As a result, the height of the pushing mechanism 14 can be suppressed, and the game device 1 can be made compact. Further, since the first pushing part 145 is inclined with respect to such a horizontal surface, the respective functions of the first pushing part 145 and the second pushing part 146 can be clearly distinguished, thereby facilitating maintenance.

[0128] It should be noted that the second pushing part 146 may be provided so as to be inclined at a predetermined angle with respect to the upper surface of the upper mounting plate 141b. In this case, the inclination angle of the second pushing part 146 may be the same as or different from that of the first pushing part 145, but is preferably different. As a result, the respective functions of the first pushing part 145 and the second pushing part 146 can be clearly distinguished, and maintenance also becomes easy.

[0129] Further, the second pushing part 146 is provided so as to be orthogonal to the first pushing part 145 in a plan view of the game device 1 (FIG. 9). This enables the second pushing part 146 to reliably push the third pushing part 147 in a direction different from that of the first pushing part 145. Consequently, the game device 1 having the two-in-one configuration can be operated with the high reliability.

[0130] Further, the second pushing set 14b is provided on the first pushing set 14a such that the first pushing part 145 intersects the second pushing part 146 in the plan view of the game device 1 (for example, FIG. 9). In this way, since the pushing mechanism 14 has the multiple structure, the pushing mechanism 14 can be made compact. Further, because the first pushing part 145 intersects the second pushing part 146 in the plan view of the game device 1, the objects can be dispensed in different directions, enabling a single pushing mechanism to serve the game device 1 having the two-in-one configuration.

[0131] In this way, the first pushing part 145 is arranged to be angled at a predetermined angle with respect to the second pushing part 146. Specifically, in the plan view of the game device 1 (for example, FIG. 9), the first pushing part 145 is preferably angled in a range of 1° to 179° , and more preferably angled in a range of 30° to 150° , with respect to the second pushing part 146. Such an angular range facilitates dispensing of the objects 100 to the front surface of the game device 1, allowing the pushing mechanism 14 to function efficiently. That is, the pushing mechanism 14 can be ideally suited for the game device 1 having the two-in-one configuration. Next, the third pushing set 14c will be described.

[0132] As shown in FIG. 5, the third pushing set 14c is provided on the mounting part 121 of the first operating part 12. For this reason, the third pushing set 14c operates (rotates) together with the first operating part 12, separately from the first pushing set 14a and the second pushing set 14b. Further, as shown in FIG. 6, the third pushing set 14c includes the third pushing part 147, a rail member 1474, a biasing member 1475, and a sliding member 1476.

[0133] The third pushing part 147 has a function of pushing each of the objects 100 held in the second operating part 13 (specifically, the inclined holding portions 1311) to the outside of the second operating part 13 (specifically, the dispensing guiding part 15) upon being pushed by the first pushing part 145 or the second pushing part 146. In this way, the third pushing part 147 has a function different from those of the first pushing part 145 and the second pushing part 146. This makes it possible to avoid the configurations of the first pushing part 145 and the second pushing part 146 from becoming complicated. As a result, durability of each part of the pushing mechanism 14 can be improved.

[0134] Further, the third pushing part 147 is provided on the mounting part 121 of the first operating part 12, separately from the first pushing part 145 and the second pushing part 146 (FIG. 10). In other words, the first and second pushing parts 145, 146, and the third pushing part 147 are provided in separate locations so as to exhibit their respective functions. This contributes to downsizing of the pushing mechanism 14. As a result, in the dispensing mechanism 10, the space occupied by the pushing mechanism 14 can be reduced, while the space occupied by the accommodating part 11 can be increased. For this reason, the accommodating part 11 can easily accommodate more objects 100, which contributes to highly reliable dispensing of the objects according to the results of the game.

[0135] As shown in FIG. 6, the third pushing part 147 has a tip portion 1470, an intermediate portion 1471, a base end portion 1472, and a receiving portion 1473.

[0136] The tip portion 1470 is formed in a plate shape so as to be in contact with the object 100 held in the inclined holding portion 1311. It should be noted that the shape of the tip portion 1470 is not limited thereto as long as it can come into contact with and push the object 100. In the following description, the longitudinal direction of the third pushing part 147 refers to the longitudinal direction of the tip portion 1470. Similar to the first pushing part 145, the tip portion 1470 is provided so as to be inclined at a predetermined angle with respect to the upper surface of the mounting part 121. This inclination angle is preferably in a range of, for example, 10° to 45°, and more preferably in a range of 15° to 30°, with respect to the upper surface of the mounting part 121.

[0137] The following inclination angles, that is, the inclination angle of the tip portion 1470, the inclination angle of the placement surface of the inclined holding portion 1311 with respect to the upper surface of the arrangement part 132, the inclination angle of the first pushing part 145 and the inclination angle of the bottom plate portion 1131 with respect to the upper surface of the mounting part 121 correspond to (preferably match) each other. In this way, in the present embodiment, the inclination angles of the various members that operate in conjunction are designed to correspond to (preferably match) one another, thereby ensuring highly reliable dispensing of the objects 100. In other words, since the various members have the corresponding inclined structures, the objects 100 can be dispensed with the high reliability.

[0138] The intermediate portion 1471 is provided perpendicular to the longitudinal direction of the tip portion 1470. The intermediate portion 1471 has a plate shape. An upper end of the intermediate portion 1471 is

connected to a base end of the tip portion 1470. A lower end of the intermediate portion 1471 is connected to the base end portion 1472. The intermediate portion 1471 has a function of positioning the tip portion 1470 at a predetermined height with respect to the mounting part 121.

[0139] The base end portion 1472 is provided horizontally with respect to the longitudinal direction of the tip portion 1470. The base end portion 1472 has a plate-shaped body 1472a and two arms 1472b extending laterally from both sides of the plate-shaped body 1472a. The plate-shaped body 1472a is configured to be connected to the sliding member 1476. Each arm 1472b has an L-shape. The arm 1472b is configured to be connected to the biasing member 1475. In this way, the base end portion 1472 serves to couple with the biasing member 1475 and the sliding member 1476.

[0140] The receiving portion 1473 is provided on the intermediate portion 1471 so as to be perpendicular to the longitudinal direction of the tip portion 1470. The receiving portion 1473 has a plate shape. The receiving portion 1473 is in contact with the intermediate portion 1471 from the lower end to the central portion of the receiving portion 1473. Further, the receiving portion 1473 protrudes upward from the intermediate portion 1471. That is, the receiving portion 1473 has an overlapping section overlapping the intermediate portion 1471 and a protruding section protruding from the intermediate portion 1471. In the present embodiment, the overlapping section is a portion for being in contact with the first pushing part 145. The protruding section is a portion for being in contact with the second pushing part 146. However, the contact areas are not limited thereto.

[0141] In this way, the receiving portion 1473 is configured to extend in the vertical direction with respect to the tip portion 1470 to receive the contacts by the first pushing part 145 and the second pushing part 146. This configuration allows the third pushing part 147 to be pushed by the first pushing part 145 and the second pushing part 146 at different heights. This enables the third pushing part 147 to efficiently exhibit its function of dispensing the object 100 while maintaining a simple configuration thereof.

[0142] The rail member 1474 is provided on the mounting part 121 along the radial direction of the mounting part 121. The rail member 1474 has a linear rail body 1474a and a stopper portion 1474b provided on a tip of the rail body 1474a. The rail body 1474a has recesses into which the sliding member 1476 fits. The recesses are provided in side portions of the rail body 1474a along a longitudinal direction of the rail body 1474a. The stopper portion 1474b is provided on the mounting part 121 so as to protrude upward from the tip of the rail body 1474a. For this reason, the stopper portion 1474b can be in contact with the sliding member 1476. This enables the sliding member 1476 to be stopped at the tip of the rail body 1474a.

[0143] The biasing member 1475 extends from each of the two arms 1472b beyond the central portion of the mounting part 121. This enables the biasing member 1475 to exhibit a function of biasing the third pushing part 147 toward the center of the mounting part 121. The biasing member 1475 is formed of an elastic member (for example, a spring member).

[0144] The sliding member 1476 is provided on the rail body 1474a. The sliding member 1476 has a rectangular parallelepiped shape. A bottom portion of the sliding

member 1476 is cut out to form a fitting groove along a longitudinal direction of the sliding member 1476. The fitting groove is configured to receive the rail body 1474a having the recesses. This enables the sliding member 1476 to move on the rail member 1474.

[0145] The operation of the third pushing set 14c having the above configuration will be described with reference to FIGS. 10, 11, and 13. Note that in FIG. 13, for convenience of explanation, some members such as the rail member 1474 are omitted, and the dispensing-candidate holding part 131 holds only one object 100. First, as shown in FIG. 10, the mounting part 121 of the first operating part 12 rotates. As a result, the third pushing part 147 is positioned adjacent to the first pushing part 145 or the second pushing part 146. In this state, as shown in FIG. 11, the first pushing part 145 or the second pushing part 146 comes into contact with the receiving portion 1473 to push the third pushing part 147. As a result, the third pushing part 147 can come into contact with and push the object 100 held in the inclined holding portion 1311 to the outside of the inclined holding portion 1311 (FIG. 13). At this time, the third pushing part 147 moves linearly on the rail member 1474, thereby pushing the object 100 held in the inclined holding portion 1311 to the dispensing guiding part 15.

[0146] In this way, the first pushing part 145 and the second pushing part 146 can be in contact with different positions of the receiving portion 1473 with each other in the vertical direction. Specifically, as shown in FIG. 11(a), the first pushing part 145 comes into contact with the overlapping section of the receiving portion 1473. As shown in FIG. 11(b), the second pushing part 146 comes into contact with the protruding section of the receiving portion 1473. For this reason, it is possible to disperse

stress applied to the receiving portion 1473, and to suppress age-related deterioration of the receiving portion 1473.

[0147] The third pushing part 147 is provided on the upper surface of the mounting part 121 adjacent to the accommodating part 11. More specifically, the third pushing part 147 is provided continuously with the plurality of stockers 111 along the circumferential direction of the disk-shaped mounting part 121 in the first operating part 12. The third pushing part 147 having such a configuration is easily positioned with respect to the first pushing part 145 or the second pushing part 146 by controlling the operation of the first operating part 12. For this reason, it is possible to dispense the objects with the high reliability according to the results of the game.

[0148] Further, through a relative displacement between the first operating part 12 and the second operating part 13, the plurality of inclined holding portions 1311, together with the third pushing part 147, are positioned with respect to the first pushing part 145 or the second pushing part 146. In this way, the plurality of members can be positioned efficiently. This makes it possible to dispense the objects with the high reliability according to the results of the game.

[0149] (Dispensing Guiding Part)

The dispensing guiding part 15 has a function of guiding the object 100 pushed out from the inclined holding portion 1311 to the dispensing port 21. In the present embodiment, since the game device 1 has the two-in-one configuration, two dispensing guiding parts 15 are provided. The number of the dispensing guiding parts 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 outside and adjacent to the dispensing-candidate holding part 131. Each dispensing guiding part 15 has a gate portion 151 and a dispensing path 152.

[0150] The gate portion 151 has a function of reliably guiding the object 100 pushed out from the dispensing-candidate holding part 131 to the dispensing path 152. The configuration of the gate portion 151 is not particularly limited as long as the gate portion 151 has such a function. In the present embodiment, as shown in FIG. 4, the gate portion 151 is provided adjacent to the dispensing-candidate holding part 131.

[0151] Note that the gate portion 151 may include a gate sensor for detecting that the object 100 has passed through the gate portion 151. This enables the detecting part 17 to detect an abnormality or the like in dispensing the object 100. Further, when an abnormality occurs, abnormality information is acquired by the acquiring means 81, and the game processing means 82 is able to temporarily suspend the game. This contributes to dispensing the object 100 with the high reliability.

[0152] 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. The configuration of the dispensing path 152 is not particularly limited as long as the dispensing path 152 has such a function. In the present embodiment, the dispensing path 152 is provided with a surface inclined such that the object 100 slides down to the dispensing port 21 by its own weight.

[0153] As shown in FIG. 9, the two dispensing paths 152 are arranged along the operating direction

(longitudinal direction) of the first pushing part 145 and the operating direction (longitudinal direction) of the second pushing part 146, respectively. For this reason, an intersecting angle between one dispensing path 152 and the other dispensing path 152 is the same as an intersecting angle between the first pushing part 145 and the second pushing part 146. Further, the two dispensing paths 152 are connected to two dispensing ports 21 provided on the front surface of the housing 2, respectively. Accordingly, a user can take out the object 100 from each dispensing port 21.

[0154] (Imaging Part)

The imaging part 16 has a function of reading the identification information of the object 100 held in the inclined holding portion 1311. That is, the imaging part 16 functions as an identification-information reading part. The imaging part 16 has a camera 161 provided above one of the gate portions 151 (FIG. 5). Note that when an identification code (for example, a micro QR code) is provided to the placement surface of the inclined holding portion 1311, the imaging part 16 can also read the identification code.

[0155] Specifically, after the object 100 is transferred from one of the stockers 111 to one of the inclined holding portions 1311, the second operating part 13 rotates such that this inclined holding portion 1311 is positioned below the imaging part 16. This enables the camera 161 to read the identification information of the object 100 from above the inclined holding portion 1311. Further, after the object 100 in the inclined holding portion 1311 is dispensed, the second operating part 13 rotates such that this inclined holding portion 1311 is positioned below the imaging part 16. This also enables the camera 161 to read the identification code of the

placement surface of the inclined holding portion 1311. In this regard, when the imaging part 16 is unable to read either the identification information of the object 100 or the identification code of the placement surface, abnormality information is acquired by the acquiring means 81. Accordingly, the game processing means 82 is able to temporarily suspend the game. The type of camera 161 is not particularly limited as long as it can exhibit the above-described function, and examples thereof include a visible light camera, an infrared camera, a full-spectrum camera, and the like.

[0156] (Detecting Part)

The detecting part 17 has a function of detecting and sensing information related to a state of the dispensing mechanism 10. The information related to the state of the dispensing mechanism 10 includes, for example, the positional information of each part, the information on the number of the objects 100 accommodated in each stocker 111, and the like. For example, the detecting part 17 can detect the positional information of each stocker 111 and the third pushing part 147 provided in the first operating part 12. Furthermore, the detecting part 17 can detect the positional information of each inclined holding portion 1311 provided in the second operating part 13.

[0157] The configuration of the detecting part 17 is not particularly limited as long as the detecting part 17 is configured to detect such positional information and the like. For example, the detecting part 17 may be any sensor such as a reflective photoelectric sensor, a transmissive photoelectric sensor, a magnetic sensor, an infrared sensor, a proximity sensor, a mechanical contact sensor, or the like. Note that the type, number, and installation position of the detecting part 17 are not particularly limited as long as it can exhibit its function. In the

present embodiment, the detecting part 17 includes the stocker sensor 171 for detecting the number of the objects 100 accommodated in the stocker 111.

[0158] The stocker sensor 171 is configured to detect information on the number of the objects 100 via the cutout portion 112A of the main body portion 112 of the stocker 111. In the present embodiment, the empty information portion 1131d is provided in the bottom plate portion 1131 (FIG. 7). The stocker sensor 171 is able to detect the empty information portion 1131d, thereby confirming that no object 100 is accommodated in the stocker 111. Note that the stocker sensor 171 may be configured to be able to detect whether the number of the objects 100 accommodated in the stocker 111 is a predetermined number or more, or a predetermined number or less. This allows the timing for replenishing (replacing) the objects 100 to be easily detected. In the present embodiment, the stocker sensor 171 is provided adjacent to one of the gate portions 151 (FIG. 5), but the installation position and the number of the stocker sensor 171 are not limited thereto.

[0159] (Pedestal Part)

The pedestal part 18 has a function of supporting the 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 detecting part 17 described above. Further, the pedestal part 18 may have a function of accommodating the storage part 7 and the like of the game device 1. The pedestal part 18 may have any shape and configuration as long as such a function can be exhibited.

[0160] B. Method of Operating Dispensing Mechanism

Next, a method of operating the dispensing mechanism of the present invention will be described. FIG. 14 is a

flowchart showing a method of arranging the objects in the game device according to the first embodiment of the present invention. FIG. 15 is a flowchart showing processing of the game device according to the first embodiment of the present invention. FIG. 16 is a flowchart showing a method of replenishing the objects in the game device according to the first embodiment of the present invention.

[0161] (1) Method of Arranging Objects

An example of a method of arranging objects in a state (initial state) where no object 100 is arranged in the dispensing-candidate holding part 131 will be described. In this example, a plurality of objects 100 including rare objects and normal objects are randomly accommodated in the 1st to 11th stockers 111 of the accommodating part 11. The plurality of objects 100 accommodated in this way are respectively arranged in the 1st to 48th inclined holding portions 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 inclined holding portion ratio information. When the storage part 7 stores the stocker information and the inclined holding portion ratio information, the operation control means 85 can also arrange the memory objects 100, the rare objects 100, or the normal objects 100 in the 1st to 48th inclined holding portions 1311 based on the inclined holding portion ratio information. However, in the following description, a case where the storage part 7 does not store such information will be described.

[0162] First, in the initial state, arrangement of the objects 100 is started (S100). "S" means a step. The detecting part 17 detects the positional information of the 1st to 11th stockers 111 and the third pushing part 147 (S101). For example, the detecting part 17 detects the

positional information (index information) of one stocker 111 serving as a reference, and subsequently detects the positional information of each stocker 111 (position relative to the index) and the positional information of the third pushing part 147 (position relative to the index) in order from the stocker 111 serving as the reference. This enables the acquiring means 81 to acquire the positional information of the 1st to 11th stockers 111 and the third pushing part 147. Further, the detected positional information is stored in the storage part 7.

[0163] Similarly, the detecting part 17 detects the positional information of the 1st to 48th inclined holding portions 1311 (S102). For example, the detecting part 17 detects the positional information (index information) of an inclined holding portion 1311 serving as a reference. Subsequently, the detecting part 17 detects the positional information of each inclined holding portion 1311 (position relative to the index) in order from the inclined holding portion 1311 serving as the reference. This enables the acquiring means 81 to acquire the positional information of the 1st to 48th inclined holding portions 1311. Further, the detected positional information is stored in the storage part 7. In this way, the detecting part 17 detects the positional information of each stocker 111, the positional information of the third pushing part 147, and the positional information of each inclined holding portion 1311.

[0164] Thereafter, the operation control means 85 pushes the object 100 from one of the stockers 111 (S103). As a result, the object 100 is arranged in one of the inclined holding portions 1311. Step 103 will be specifically described with reference to FIG. 9. The operation control means 85 controls the operations of the first operating part 12 and the second operating part 13

independently of each other. As a result, a predetermined stocker 111 (for example, the 1st stocker 111) and a predetermined inclined holding portion 1311 (for example, 1st inclined holding portion 1311) are positioned so as to correspond to the first pushing part 145.

[0165] As a result, the 1st stocker 111 is in a state of being positioned at a location corresponding to the first pushing part 145. This corresponding location refers to a position where the first pushing part 145 can push the object 100 accommodated in the 1st stocker 111. Further, the 1st inclined holding portion 1311 is in a state of being positioned at a location where it can receive the object 100 pushed from the 1st stocker 111. Accordingly, the longitudinal direction of the first pushing part 145, the longitudinal direction of the bottom plate portion 1131 provided in the 1st stocker 111 adjacent to the first pushing part 145, and the longitudinal direction of the 1st inclined holding portion 1311 adjacent to the 1st stocker 111 are aligned with each other.

[0166] In this state, the operation control means 85 controls the operation of the pushing mechanism 14, so that the first pushing part 145 is pushed toward the 1st stocker 111. As a result, the object 100 accommodated at the lowermost part of the 1st stocker 111 (that is, the object 100 in contact with the plate main body 1131a) is pushed to the 1st inclined holding portion 1311.

[0167] In this way, a 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 an "arrangement method for inclined holding portions". According to the arrangement method for inclined holding portions, the predetermined stocker 111 and the

predetermined inclined holding portion 1311 respectively correspond to the first pushing part 145. Then, the object 100 accommodated at the lowermost part of the predetermined stocker 111 is pushed to the predetermined inclined holding portion 1311. Further, the longitudinal directions of members adjacent to each other via the predetermined stocker 111 can be made to correspond (be aligned) with each other. That is, the respective longitudinal directions of the first pushing part 145, the bottom plate portion 1131 of the predetermined stocker 111, and the predetermined inclined holding portion 1311 can be made to correspond (be aligned) with each other. Note that when performing the arrangement method for inclined holding portions, the operation control means 85 may control the operation of either one of the first operating part 12 and the second operating part 13, and then control the operation of the other. Alternatively, the operation control means 85 may control the operations of the first operating part 12 and the second operating part 13 simultaneously. In the latter case, the arrangement method for inclined holding portions can be performed more quickly.

[0168] Subsequently, the operation control means 85 controls the operation of the second operating part 13 to move the 1st inclined holding portion 1311 below the imaging part 16. Then, the camera 161 of the imaging part 16 photographs the recorded information part 101 (identification information) of the object 100 arranged in the 1st inclined holding portion 1311. This enables the acquiring means 81 to acquire information associating the 1st inclined holding portion 1311 with the object 100 arranged therein (hereinafter, referred to as "inclined holding portion information") (S104).

[0169] Furthermore, the game processing means 82 determines whether or not the objects 100 are arranged in

all the inclined holding portions 1311 (S105). That is, the game processing means 82 determines whether or not there is a predetermined number (48 in this example) of objects 100 in the dispensing-candidate holding part 131 based on the already acquired inclined holding portion information. When there is not the predetermined number of objects 100 in the dispensing-candidate holding part 131, the process returns to step 103, and steps 103 to 105 are repeated. On the other hand, when the objects 100 are arranged in each of the 1st to 48th inclined holding portions 1311, the process proceeds to step 106, and the arrangement of the objects 100 ends.

[0170] As described above, the objects 100 are arranged in the 1st to 48th inclined holding portions 1311. For example, as shown in Table 3 below, the rare objects 100 and the normal objects 100 are arranged therein. The information in Table 3 below is an example of information on the 1st to 48th inclined holding portions 1311 in which the objects 100 are arranged (hereinafter, referred to as "inclined holding portion table information"). Note that in Table 3, the 9th to 22nd inclined holding portions 1311 and the 26th to 48th inclined holding portions 1311 are omitted for convenience of description. The inclined holding portion table information is acquired by the acquiring means 81 and stored in the storage part 7. The storage part 7 can also store the inclined holding portion information acquired by the acquiring means 81 each time the object 100 is transferred from the stocker 111 to the inclined holding portion 1311.

[0171] Table 3

1st inclined holding portion 1311	Normal object 100A
2nd inclined holding portion 1311	Normal object 100B
3rd inclined holding portion 1311	Normal object 100C

4th inclined holding portion 1311	Normal object 100D
5th inclined holding portion 1311	Normal object 100E
6th inclined holding portion 1311	Rare object 100A
7th inclined holding portion 1311	Rare object 100B
8th inclined holding portion 1311	Rare object 100C
... (Omitted)	... (Omitted)
23rd inclined holding portion 1311	Rare object 100A
24th inclined holding portion 1311	Rare object 100H
25th inclined holding portion 1311	Rare object 100I
... (Omitted)	... (Omitted)

[0172] Note that the type and ratio of the objects 100 accommodated in each stocker 111 can also be determined in advance. Then, each time the object 100 is transferred from the stocker 111 to the inclined holding portion 1311, the imaging part 16 can read the identification information of the object 100 arranged in the inclined holding portion 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 (for example, the ratio shown in Table 2 above).

[0173] (2) Dispensing Method Related to Game Play

An example of a dispensing method related to game play will be described with reference to FIG. 15. Specifically, the following describes how the object 100 is dispensed according to a result of game play after the game play is started. This description is an example of control until a part of the objects 100 held in the 1st to 48th inclined holding portions 1311 is dispensed from the dispensing port 21 via the dispensing guiding part 15.

[0174] First, the game is started (S1). At this time, when a player already possesses the memory object 100, the

reading part 4 reads the identification information of the memory object 100. This enables the acquiring means 81 to acquire the player information included in the read identification information. Note that the game can also be started without using the memory object 100.

[0175] Then, the game processing means 82 tentatively determines objects 100 as dispensing candidates based on the player information (number of players, character information linked to each player, etc.) (S2). Since the game device 1 of the present embodiment has the two-in-one configuration, a case where the game is played by two players will be described in the following description. In the case of two players, based on the inclined holding portion table information (for example, Table 3), the game processing means 82 tentatively determines three objects 100 as dispensing candidates for each player (see Table 4). This tentatively determined information is acquired by the acquiring means 81 and temporarily stored in the storage part 7. When the game is played by a single player, the operation control means 85 may tentatively determine, for example, three objects 100 as dispensing candidates.

[0176] Table 4

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

[0177] Thereafter, the game is played by the players (S3). According to the result of the game, the game processing means 82 selects some or all of the tentatively determined dispensing candidates for each player. Here, it is assumed that all of the dispensing candidates shown in Table 4 are selected by the game processing means 82. Then, the displaying part 6 displays the selected dispensing candidates (S4).

[0178] From the displayed dispensing candidates, each player selects and determines an object 100 to be dispensed (S5). For example, Player 1 selects the rare object 100A (6th inclined holding portion 1311), and Player 2 selects the rare object 100H (24th inclined holding portion 1311).

[0179] 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 third pushing part 147 finally dispenses the rare object 100A from the 6th inclined holding portion 1311, and the rare object 100H from the 24th inclined holding portion 1311 (S6 to S8).

[0180] Steps 6 to 8 will be specifically described. First, in order to dispense the rare object 100A selected by 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 third pushing part 147 and the 6th inclined holding portion 1311 are positioned so as to correspond to the first pushing part 145 (or the second pushing part 146).

[0181] As a result, the longitudinal direction of the first pushing part 145, the longitudinal direction of the third pushing part 147 adjacent to the first pushing part 145, and the longitudinal direction of the 6th inclined

holding portion 1311 adjacent to the third pushing part 147 are aligned with each other. In other words, the longitudinal directions of members adjacent to each other via the third pushing part 147 can be made to correspond (be aligned) with each other. That is, the respective longitudinal directions of the first pushing part 145, the third pushing part 147, and the 6th inclined holding portion 1311 can be made to correspond (be aligned) with each other.

[0182] As a result, the third pushing part 147 is in a state of being positioned at a location corresponding to the first pushing part 145. This corresponding location refers to a position where the first pushing part 145 can push the receiving portion 1473 of the third pushing part 147. Further, the 6th inclined holding portion 1311 is in a state of being positioned at a location where the rare object 100A arranged in the 6th inclined holding portion 1311 can be pushed by the third pushing part 147.

[0183] In this state, the operation control means 85 controls the operation of the pushing mechanism 14 (S7), so that the first pushing part 145 is driven toward the receiving portion 1473 as shown in FIG. 11(a), for example. This enables the third pushing part 147 to be pushed toward the 6th inclined holding portion 1311 as shown in FIG. 13, for example. As a result, the rare object 100A arranged in the 6th inclined holding portion 1311 is pushed to the dispensing guiding part 15 by the third pushing part 147. Thereafter, the rare object 100A moves to the dispensing port 21 by its own weight to be dispensed (S8).

[0184] In this way, a 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 inclined holding portions". According to the dispensing method for inclined holding portions, both the third pushing part 147 and a predetermined inclined holding portion 1311 can correspond to the first pushing part 145 (or the second pushing part 146). Then, the object 100 arranged in the predetermined inclined holding portion 1311 can be dispensed. Further, the longitudinal directions of members adjacent to each other via the third pushing part 147 can be made to correspond (be aligned) with each other. That is, the respective longitudinal directions of the first pushing part 145 (or the second pushing part 146), the third pushing part 147, and the predetermined inclined holding portion 1311 can be made to correspond (be aligned) with each other. Note that when performing the dispensing method for inclined holding portions, the operation control means 85 may control the operation of either one of the first operating part 12 and the second operating part 13, and then control the operation of the other. Also, the operation control means 85 may control the operations of the first operating part 12 and the second operating part 13 simultaneously. In the latter case, the dispensing method for inclined holding portions can be performed more quickly. By such a dispensing method for inclined holding portions, the rare object 100A selected by Player 1 can be dispensed.

[0185] Similarly, in order to dispense the rare object 100H selected by 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 inclined holding portions. As a result, the rare object 100H is dispensed from the 24th inclined holding portion 1311 (S6 to S8). Thereafter, the game ends (S9). Note that depending on the content of the game, the player may

be able to select a plurality of objects 100, and in such a case, steps 6 to 8 are repeated. Further, as shown in Table 4, when the same type of object 100 is tentatively determined for Player 1 and Player 2 (for example, when the rare object 100A is tentatively determined for each player), the game processing means 82 may execute cooperative play. In such a case, for example, a game image may be displayed on the entire display panel 61. Further, when the player does not possess the memory object 100, the player can make a request to dispense the memory object 100. If there is such a request and the memory object 100 is arranged in the dispensing-candidate holding part 131, the operation control means 85 can dispense the memory object 100 according to the dispensing method for inclined holding portions.

[0186] As described above, the rare object 100A is dispensed from the 6th inclined holding portion 1311, and the rare object 100H is dispensed from the 24th inclined holding portion 1311. For this reason, the 6th inclined holding portion 1311 and the 24th inclined holding portion 1311 are in a state where no object 100 is arranged (empty state). The acquiring means 81 can acquire information on this empty state, for example, based on an image of the inclined holding portion 1311 in the empty state obtained by the imaging part 16. In this regard, it is preferable to provide the identification code (for example, the micro QR code) to the placement surface of each inclined holding portion 1311. This enables each inclined holding portion 1311 to be individually identified based on an image obtained by the imaging part 16. As a result, information on which inclined holding portion 1311 is in an empty state (hereinafter, referred to as "inclined holding portion empty information") can be managed more reliably. The inclined holding portion empty information acquired by the acquiring means 81 is stored in the storage part 7.

[0187] In such a case, it is preferable to replenish the objects 100 each time the game ends. Hereinafter, a method of replenishing the objects 100 will be described. Note that the replenishment of the objects 100 does not have to be performed each time the game ends. For example, the replenishment 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 becomes half or less (24 or less), the objects 100 may be replenished.

[0188] (3) Method of Replenishing Objects

An example of a method of replenishing objects will be described with reference to FIG. 16. When the replenishment of the objects 100 is started (S201), the operation control means 85 performs the arrangement method for inclined holding portions (S202). This enables the first pushing part 145 to push a new object 100 from one of the stockers (for example, the 1st stocker 111) (S203). As a result, this object 100 is arranged in the empty inclined holding portion 1311 (for example, the 1st inclined holding portion 1311).

[0189] In this way, the new object 100 is arranged in the 1st inclined holding portion 1311. Thereafter, the operation control means 85 controls the operation of the second operating part 13 to move the 1st inclined holding portion 1311 below the imaging part 16. Thereafter, the camera 161 of the imaging part 16 photographs the identification information of the new object 100 arranged in the 1st inclined holding portion 1311. This enables the acquiring means 81 to acquire the inclined holding portion information that the new object 100 is arranged in the 1st inclined holding portion 1311 (S204).

[0190] Furthermore, the game processing means 82 determines whether or not the objects 100 are arranged in all the inclined holding portions 1311 based on the inclined holding portion empty information (S205). At this time, the game processing means 82 may also refer to the inclined holding portion table information.

[0191] When the objects 100 are not arranged in all the inclined holding portions 1311, the process returns to step 203. On the other hand, when the objects 100 are arranged in all the inclined holding portions 1311, the replenishment ends (S206).

[0192] The processing method described above 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 (Graphics Processing Unit), a RAM (Random Access Memory), a ROM (Read Only Memory), or the like.

[0193] <<Second Embodiment>>

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

[0194] FIG. 17 is a schematic view for explaining the action of the pushing mechanism in the dispensing mechanism according to a second embodiment of the present invention. FIG. 17(a) is a schematic view for explaining the action of the first pushing part and the third pushing part. FIG. 17(b) is a schematic view for explaining the action of the second pushing part and the third pushing part. Hereinafter, the second embodiment will be described. Note that the description will focus on differences from the first embodiment, and the description of the same matters

will be omitted. Configurations similar to those of the first embodiment are denoted by the same reference numerals.

[0195] In the present embodiment, part of the configuration of the pushing mechanism is different from the configuration of the pushing mechanism of the first embodiment. Specifically, in the present embodiment, as shown in FIG. 17, the second pushing part 146 is provided as a lower pushing part, and the first pushing part 145 is provided as an upper pushing part. Further, the third pushing part 147 does not include the receiving portion 1473 as an independent member. Accordingly, in the present embodiment, the intermediate portion 1471 of the third pushing part 147 functions in the same manner as the receiving portion 1473. Even with such a configuration, the first pushing part 145 or the second pushing part 146 can come into contact with and push the third pushing part 147. For this reason, the pushing mechanism 14 can be downsized and simplified, which contributes to highly reliable dispensing of the objects according to the results of the game.

[0196] <<Third Embodiment>>

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

[0197] FIG. 18 is a schematic view for explaining a configuration of the pushing mechanism in the dispensing mechanism according to a third embodiment of the present invention. Hereinafter, the third embodiment will be described. Note that the description will focus on differences from the first embodiment, and the description of the same matters will be omitted. Configurations similar to those of the first embodiment are denoted by the same reference numerals.

[0198] In the present embodiment, the configuration of the pushing mechanism is different from the configuration of the pushing mechanism of the first embodiment in that the pushing mechanism further includes a fourth pushing set 14d. Specifically, in the present embodiment, the fourth pushing set 14d includes a fourth pushing part 148. The fourth pushing part 148 is configured in the same manner as the first pushing part 145. Further, the fourth pushing part 148 is provided so as to be orthogonal to the second pushing part 146 in the plan view of the game device 1. Along with this, the first pushing part 145 is provided so as to intersect the second pushing part 146 at an angle of less than 90 degrees (45 degrees in the present embodiment). The pushing mechanism having such a configuration can be used in the game device 1 having three dispensing ports 21. That is, the pushing mechanism of the present embodiment is designed to adapt to a configuration in which three sub-game devices are provided adjacent to each other (three-in-one configuration). The dispensing mechanism 10 of the present embodiment as described above also has effects similar to those of the dispensing mechanism 10 of the first embodiment.

[0199] As described above, the game device and the dispensing mechanism of the present invention have been described based on the preferred embodiments, but the present invention is not limited thereto. The configuration of each part can be modified or replaced with any configuration having a similar function. Note that the configuration of each part is not particularly limited as long as it can appropriately exhibit its function. For example, each part can be formed of a hard resin material, a metal material, a ceramic material, or the like. Further, the components of each part may be integrally formed as necessary.

[0200] Further, any other means or structures may be added to the present invention. Furthermore, the present invention may include a combination of any two or more configurations (features) of the above-described embodiments. For example, the third pushing part 147 may include a dedicated motor, as in the case of the first pushing part 145, so as to be driven independently.

INDUSTRIAL APPLICABILITY

[0201] The present invention provides a dispensing mechanism for dispensing objects in connection with a game. The dispensing mechanism includes an accommodating part for accommodating the objects, a first operating part provided with the accommodating part and configured to operate the accommodating part, a second operating part configured to hold the objects pushed from the accommodating part and be operable, and a pushing mechanism for pushing the objects, the pushing mechanism provided corresponding to the first operating part. The pushing mechanism includes a first pushing part for pushing the objects in the accommodating part to the second operating part, and a second pushing part for pushing the objects on the second operating part to an outside of the second operating part, the second pushing part configured to operate in a direction different from an operating direction of the first pushing part. The first pushing part is arranged at a predetermined angle with respect to the second pushing part. This makes it possible to provide a dispensing mechanism capable of dispensing the objects with the high reliability according to the results of the game. Therefore, the present invention has industrial applicability.

WHAT IS CLAIMED IS:

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

an accommodating part for accommodating the objects;

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

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

a pushing mechanism for pushing the objects, the pushing mechanism provided corresponding to the first operating part,

wherein the pushing mechanism includes a first pushing part for pushing the objects in the accommodating part to the second operating part, and a second pushing part for pushing the objects on the second operating part to an outside of the second operating part, the second pushing part configured to operate in a direction different from an operating direction of the first pushing part, and

wherein the first pushing part is arranged at a predetermined angle with respect to the second pushing part.

2. The dispensing mechanism according to claim 1, wherein the first pushing part and the second pushing part are arranged at different heights from each other with respect to the accommodating part.

3. The dispensing mechanism according to claim 1, wherein the first pushing part is further configured to push the objects on the second operating part to the outside of the second operating part.

4. The dispensing mechanism according to claim 1, wherein the first pushing part and the second pushing part are provided so as to be orthogonal to each other.

5. The dispensing mechanism according to claim 1, wherein the second pushing part has a horizontal surface orthogonal to a vertical direction, and

wherein the first pushing part is inclined with respect to the horizontal surface of the second pushing part.

6. The dispensing mechanism according to claim 1, wherein the pushing mechanism includes a third pushing part for pushing the objects from the second operating part to the outside of the second operating part by receiving contacts by the first pushing part and the second pushing part.

7. The dispensing mechanism according to claim 6, wherein the third pushing part has a tip portion for being in contact with the objects, and a receiving portion for being in contact with the first pushing part and the second pushing part and the receiving portion extending in a vertical direction with respect to the tip portion.

8. The dispensing mechanism according to claim 6, wherein the third pushing part is provided adjacent to the accommodating part, and is positioned with respect to the first pushing part or the second pushing part by a displacement of the first operating part.

9. The dispensing mechanism according to claim 6, wherein the second operating part includes a plurality of inclined holding portions for holding the objects, and

wherein the plurality of inclined holding portions are positioned together with the third pushing part with

respect to the first pushing part or the second pushing part by a relative displacement between the first operating part and the second operating part.

10. The dispensing mechanism according to claim 7, wherein the first pushing part and the second pushing part are configured to be in contact with different positions of the receiving portion with each other in the vertical direction.

11. The dispensing mechanism according to claim 1, wherein the predetermined angle is 1° to 179° .

12. A game device comprising:
a displaying part for displaying a predetermined image related to a game;
an operation part for receiving an operation input from a user; and
the dispensing mechanism according to any one of claims 1 to 11 for dispensing the objects in connection with the game based on the operation input.