

Trial decision

Invalidation No. 2011-800009

Kanagawa, Japan

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The case of trial regarding the invalidation of Japanese Patent No. 2851237, entitled "BOOK STORING AND MANAGING DEVICE" between the parties above has resulted in the following trial decision.

Conclusion

The correction shall be approved.

The demand for trial of the case was groundless.

The costs in connection with the trial shall be borne by the demandant.

Reasons

1. History of the procedures

(1) A patent application for the inventions according to Claims 1 to 7 of Patent No. 2851237 of the case was filed on April 20, 1994, and the establishment of patent right was registered on November 13, 1998.

(2) Against this Okamura Seisakusho KK (hereinafter referred to as "demandant") demanded a trial for patent invalidation of this case on January 19, 2011 (date of submission), submitted Evidences A No. 1 to 18 as means of proof, submitted a written amendment on March 9, 2011, and corrected the reason for the demand for trial and means of proof (hereinafter, the written demand for trial corrected with the written amendment of March 9, 2011 is referred to as "the written demand for trial after correction").

(3) NIPPON FILING CO., Ltd. (hereinafter referred to as "demandee") submitted a written reply and Evidences B No. 1 and No. 2 and a means of proof on May 16, 2011, submitted Written demand for correction (hereinafter, the correction demanded by the demandee with the written demand for correction is referred to as "the Correction") on May 16, 2011, and submitted a Written statement on May 19, 2011.

(4) Against this, the demandant submitted a Written refutation of the trial case on June 30, 2011, and submitted Evidences A No. 19 to 27 as means of proof.

(5) Thereafter, the demandant submitted an Oral proceedings statement brief on October 24, 2011, and submitted Evidences A No. 28 and No. 29. The demandee submitted an Oral proceedings statement brief on October 24, 2011.

(6) The first oral proceedings were conducted on November 14, 2011. The demandant gave an oral proceeding statement brief on October 24, 2011, and referred to Evidences A No. 12, No. 13, No. 14 and No. 19 submitted as means of proof. The demandee gave an oral

proceeding statement brief on October 24, 2011.

(7) The demandant submitted a Written statement on November 24, 2011. The demandee submitted a Written statement on November 24, 2011 and an addition to Evidence B No. 2.

2. Summary of the demandant's allegation

The demandant demands the decision, "The patent for the inventions according to Claims 1, 2, and 7 of the scope of claims of Patent No. 2851237 (hereinafter referred to as "Patent invention 1," "Patent invention 2," and "Patent invention 3") shall be invalidated. The costs in connection with the trial shall be borne by the demandee," and alleges the reasons therefor roughly as the following A) to C).

A) The Patent inventions 1 to 3 could have been easily invented by a person skilled art on the basis of the invention described in Evidence A No. 4, the invention described in Evidence A No. 1(3), Evidence A No. 2(3), or Evidence A No. 3(3), the invention described in Evidence A No. 5, and well-known technical matters. The demandee should not be granted a patent for the invention in accordance with the provisions of Article 29-2 of the Patent Act (see Written demand for trial after correction p. 3 l.2-10).

B) Since the Correction does not fall under any of the purposes (Article 134-2 (1) (i)-(iii)), 1) the restriction of the scope of claims, 2) the correction of errors, and 3) the clarification of an ambiguous description, the Correction is a violation of correction requirements and cannot be accepted (see Written refutation of the trial case p. 3 l.22-25).

C) Even if the Correction is approved, the Patent inventions after correction could have been easily invented by a person skilled in the art on the basis of the invention described in Evidence A No. 4, the invention described in Evidence A No. 1(3), Evidence A No. 2(3), or Evidence A No. 3(3), the invention described in Evidence A No. 5, and well-known technical matters. The demandee should not be granted a patent for the invention in accordance with the provisions of Article 29-2 of the Patent Act. Therefore the Patent inventions 1 to 3 after the correction should be invalidated (see Written refutation of the trial case p. 6 l.21-25, and Written refutation of the trial case p. 12 l.13-p. 13 l.31).

<Means of proof>

Evidence A No. 1 (1): Notarized written statement of Douglas A Davis as of April 28, 1999 and translation thereof, on California State University Oviatt Library the second stage project specifications, for proving that Evidence A No. 1 (3) is a publication

Evidence A No. 1 (2): Notice to CONTRACOR attached to the above written statement for proving that Evidence A No. 1 (3) is a publication, and translation thereof

Evidence A No. 1 (3): Project specifications attached to the written statement, which is a publication distributed before the application for the Patent invention was filed, and translated abstract

Evidence A No. 2 (1): Notarized written statement of Jack E Bruce as of April 29, 1999 and translation thereof, on California State University Oviatt Library the second stage project specifications, for proving that Evidence A No. 2 (3) is a publication

Evidence A No. 2 (3): Project specifications attached to the written statement, which is a publication distributed before the application for the Patent invention was filed

Evidence A No. 3 (1): Notarized written statement of Kanis A Rogerson as of April 26, 1999 and translation thereof, on California State University Oviatt Library the second stage project specifications, for proving that Evidence A No. 3 (3) is a publication

Evidence A No. 3 (2): Notice to CONTRACOR attached to the above written statement for proving that Evidence A No. 3 (3) is a publication

Evidence A No. 3 (3): Project specifications attached to the written statement, which is a publication distributed before the application for the Patent invention was filed

Evidence A No. 4: Japanese Unexamined Patent Application Publication No. H05-151233

Evidence A No. 5: Japanese Unexamined Patent Application Publication No. S49-080780

Evidence A No. 6: Japanese Unexamined Patent Application Publication No. S50-008270

Evidence A No. 7: Japanese Unexamined Patent Application Publication No. S49-

134075

Evidence A No. 8: Japanese Unexamined Patent Application Publication No. S57-072503

Evidence A No. 9: Japanese Unexamined Patent Application Publication No. S56-056402

Evidence A No. 10: Microfilm of Japanese Utility Model Application No. S47-112063 (Japanese Unexamined Utility Model Application Publication No. S49-067379)

Evidence A No. 11: CD-ROM of Japanese Utility Model Application No. H03-045857 (Japanese Unexamined Utility Model Application Publication No. H05-019210)

Evidence A No. 15: Cover, table of contents, a copy of literature published on p. 13 to p. 22 in LIBRARY HI TEC, Consecutive Issue 20; Vol. 5, No. 4 Winter, 1987 , and translated abstract

Evidence A No. 16: Japanese Unexamined Patent Application Publication No. H03-264396

Evidence A No. 17: Microfilm of Japanese Utility Model Application No. S63-150289 (Japanese Unexamined Utility Model Application Publication No. H02-072225)

Evidence A No. 18: Japanese Unexamined Patent Application Publication No. H02-070603

Evidence A No. 20: Japanese Unexamined Patent Application Publication No. S59-182103

Evidence A No. 21: Japanese Unexamined Patent Application Publication No. H04-256607

Evidence A No. 22: Japanese Unexamined Utility Model Application Publication No. H01-162410 (Note by the body: it is admitted as a clerical error for "Microfilm of Japanese Utility Model Application No. S63-58087 (Japanese Unexamined Utility Model Application Publication No. H01-162410")

Evidence A No. 23: Japanese Utility Model Publication No. S54-001750

Evidence A No. 24: Japanese Utility Model Publication No. S54-001751

Evidence A No. 25: Japanese Unexamined Patent Application Publication No. S54-007741

Evidence A No. 26: Japanese Unexamined Patent Application Publication No. S54-007742

Evidence A No. 27: Japanese Unexamined Patent Application Publication No. S56-149904

Evidence A No. 28: Japanese Unexamined Patent Application Publication No. S59-172306

Evidence A No. 29: Japanese Unexamined Utility Model Application Publication No. S60-072405 (Note by the body: it is admitted as a clerical error for "Microfilm of Japanese Utility Model Application No. S58-161944 (Japanese Unexamined Utility Model Application Publication No. S60-072405")

<Reference Materials>

FIG. 1 attached to the Written refutation of the trial case: Figure showing that the "widths and heights" of shelf areas are classified by size of book (Written refutation of the trial case p. 20 l.19-l.20)

FIG. 2 attached to the Written refutation of the trial case: Figure showing that storage efficiency of books may not be improved, depending on how the books are stored in a container, even when containers are classified by size of book (Written refutation of the trial case p. 20 l.20-l.22)

Evidence A No. 12: Japanese Patent Publication No. 2532820 (trial decision invalidating the patent has become final)

Evidence A No. 13: Trial decision regarding the Invalidation No. 2005-80272 (trial decision of invalidation of Patent No. 2532820) for proving that Evidences A No. 1 (3), No. 2 (3), and No. 3 (3) are publications

Evidence A No. 14: Court decision of 2006 (Gyo-Ke) 10546 (decision upholding

litigation rescinding a trial decision of invalidation of Patent No. 2532820) for proving that Evidences A No. 1 (3), No. 2 (3), and No. 3 (3) are publications

Evidence A No. 19: Court decision of 2010 (Gyo-Ke) 10280 (decision admitting insufficiency of correction requirements)

3. Summary of the demandee's allegation

The demandee submitted Written correction request, and argues roughly as follows A) and B) against 2. Summary of the demandant's allegation B).

A) The object of the correction is restriction of the scope of claims, and satisfies the correction requirements (see Oral proceeding statement brief submitted by the demandee p. 21 1.2-1.14)

B) It is not known whether Evidence A No. 1 (3), No. 2 (3), or No. 3 (3) is a publication distributed before the filing date (April 20, 1994) of the Patent application (see Written reply p. 2 1.26-1.29), and it cannot be said that Patent inventions 1 to 3 after correction could be easily invented by a person skilled in the art on the basis of the invention described in Evidence A No. 4, the invention described in Evidence A No. 1 (3), No. 2 (3), of No. 3 (3), and the invention described in Evidence A No. 5 (see Written reply p. 24 1.8- 1.15 and p. 25 1.21-1.25).

<Means of proof>

Evidence B No. 1: Better Storage No. 122, 1993 "KINMIRAI NO TOSHOKAN (Libraries of near future)"

Evidence B No. 2: Images (captured by the demandee)

4. Regarding the correction

4-1. Contents of the demand for correction request

The correction demanded by the demandee with the Written correction request as of May 16, 2011 is to correct the following contents a) described in Claims 1, 2, and 7 of the scope of claims of the Patent invention to the following contents b) (Hereinafter referred to as "the Matters of correction." Underlines are added by the body to indicate sections that are to be corrected.).

a) "[Claim 1] A book storing and managing device including:

a storeroom having a plurality of shelf areas classified by size of book;

a plurality of containers for storing a plurality of books, which are to be housed in each of the shelf areas of the storeroom, each having a size corresponding to a shelf area where each of the containers is stored;

storage means storing storage locations of the containers in the storeroom and book codes of the books stored in the containers;

conveyance means which takes out a container storing a desired book from the storeroom, upon receipt of a book code of the book to be taken out, on the basis of the information stored in the storage means, to be conveyed to a station, and takes out an available container from the storeroom from among the containers corresponding to the size of a return book, upon receipt of size information of the book to be returned, to be conveyed to the station; and

update means of updating the information stored in the storage means, for the container conveyed to the station by the conveyance means, from which the desired book has been taken out or the container to which the return book has been returned,

the shelf areas in the storeroom storing the containers in a depth direction to a frontage for taking out the container by the conveyance means,

the conveyance means including transfer means for taking out a container behind after taking out a front container with respect to the frontage for taking out the containers.

[Claim 2] The book storing and managing device described in Claim 1, configured so that the transfer means includes a take-out mechanism for taking out the front container from the shelf area and a moving mechanism for moving the container behind to the front, and so that the container behind moved to the front by the moving mechanism is taken out by the

take-out mechanism from the shelf area.

[Claim 7] The book storing and managing device described in Claim 1, configured so that the transfer means includes first and second take-out means for selectively taking out and holding the front container and the container behind, and so that the container behind is taken out by the second take-out means to be conveyed to the station, with the front container taken out and held by the first take-out means."

b) "[Claim 1] A book storing and managing device including:

a storeroom having a plurality of shelf areas differing in width and height classified by size of book;

a plurality of containers for storing a plurality of books, which are to be housed in each of the shelf areas of the storeroom, each having a size corresponding to a shelf area where each of the containers is stored;

storage means storing storage locations of the containers in the storeroom and book codes of the books stored in the containers, in association with each other;

conveyance means which takes out a container storing a desired book from the storeroom, upon receipt of a book code of the book to be taken out, on the basis of the information stored in the storage means, to be conveyed to a station, and takes out an available container from the storeroom from among the containers corresponding to the size of a return book, upon receipt of size information of the book to be returned, to be conveyed to the station; and

update means of updating the information stored in the storage means, for the container conveyed to the station by the conveyance means, from which the desired book has been taken out or the container to which the return book has been returned,

the shelf areas in the storeroom storing the containers in a depth direction to a frontage for taking out the container by the conveyance means,

the conveyance means including transfer means for taking out a container behind after taking out a front container with respect to the frontage for taking out the containers.

[Claim 2] The book storing and managing device described in Claim 1, configured so that the transfer means includes a take-out mechanism for taking out the front container from the shelf area and a moving mechanism for moving the container behind to the front, and so that the container behind moved to the front by the moving mechanism is taken out by the take-out mechanism from the shelf area.

[Claim 7] The book storing and managing device described in Claim 1, configured so that the transfer means includes first and second take-out means for selectively taking out and holding the front container and the container behind, and so that the container behind is taken out by the second take-out means to be conveyed to the station, with the front container taken out and held by the first take-out means."

4-2. Propriety of the correction

(1) Object of the correction

(1-1) Summary of demandant's allegation

The demandant argues roughly as follows in the Written refutation of the trial case p. 3 l.27-p. 6 l.18 about the statement that since the Correction does not fall under any of the purposes (Article 134-2 (1) (i)-(iii)), 1) restriction of the scope of claims, 2) correction of errors, and 3) clarification of an ambiguous description, the Correction is a violation of correction requirements and cannot be accepted.

A) The "storeroom having a plurality of shelf areas differing in width and height classified by size of book" in Claim 1 of the scope of claims after correction and the "storeroom having a plurality of shelf areas classified by size of book" in Claim 1 before correction are substantially not different from each other, and the matters to be specified by the "shelf areas classified by size of book" is never restricted only by "differing in width and height." It cannot be said that the correction of Claim 1 of the scope of claims aims for restriction of the scope of claims.

B) No error is recognized in the description in Claim 1 of the scope of claims before correction, "a storeroom having a plurality of shelf areas classified by size of book." The correction of Claim 1 of the cope of claims does not aim for correction of errors.

C) The description in Claim 1 of the scope of claims before correction, "a storeroom having a plurality of shelf areas classified by size of book," is semantically clear, and is not ambiguous due to illegitimacy to be caused by a relation with the specification, the scope of claims, or other descriptions in the drawings. The correction of Claim 1 of the scope of claims does not aim for clarification of an ambiguous description.

(1-2) Summary of the demandee's allegation

The demandee argues roughly as follows in the Oral proceedings statement brief p. 21 1.2-1.14 submitted by the demandee about the statement that the object of the correction is restriction of the scope of claims, and satisfies the correction requirements.

A) The correction from the description "a plurality of shelf areas" to the description "a plurality of shelf areas differing in width and height" limits to shelf areas "differing in width and height." There is no doubt that the correction falls under restriction.

(1-3) Judgment by the body

The correction from the description "a storeroom having a plurality of shelf areas classified by size of book" in Claim 1 of the scope of claims of the Patent to the description "a storeroom having a plurality of shelf areas differing in width and height" defines "a plurality of shelf areas" as "a plurality of shelf areas differing in width and height."

The correction limits the shelves in the shelf areas to have different lengths in two dimensions, "width" and "height." It can be said that the correction, "differing in width and height" aims for the restriction of the scope of claims.

(2) Addition of new matters and enlargement or alternation of the scope of claims

The matters of correction are based on: the description in [0041] of the Specification, "Thus, for example, a bookshelf 11a is, as shown in FIG. 11, sequentially classified into, from the side close to discharging and receiving rack stations 14, 29, along a traveling direction of a stacker mast 13a of a stacker crane 13, a shelf area 11A4 where a

container 12 storing a book 30 in A4 format is housed, a shelf area 11B5 where a container 12 storing a book 30 in B5 format is housed, and a shelf area 11A5 where a container 12 storing a book 30 in a format equal to or smaller than A5 is housed. Other bookshelves 11b to 11f are also classified, as with the shelf areas 11A4, 11B5, and 11A5"; the description in [0042] of the Specification, "As shown in FIG. 12, when a length, width, and height of the container 12 are specified as L, W, and H, respectively, the container 12 storing the book 30 in A4 format has L=600mm, W=509mm, and H=313mm,

the container 12 storing the book 30 in A5 format has L=600mm, W=453mm, and H=277mm, and the container 12 storing the book 30 in a format equal to or smaller than A5 has L=600mm, W=385mm, and H=230mm"; and the drawing [FIG. 11].

Thus, the matters of correction are technical matters derived by summing up all the descriptions in the Specification or drawings, and do not introduce a new technical matter. The matters of correction are within the scope of the matters described in the Specification or drawings, and do not substantially enlarge or alter the scope of claims.

(3) Summary

The Correction falls under the provisions of Article 134-2 of the Patent Act before revision by the Act No. 116 of 1994, of which the provisions then in force shall remain applicable, and falls under the provisions of Article 126-2 of the Patent Act before revision which is applied mutatis mutandis pursuant to Article 134-2(5) of the Patent Act. The Correction shall be approved as a legal correction.

5. Correction invention 1, Correction invention 2, and Correction invention 3

Since the scope of claims was corrected by the Correction, it is recognized that the inventions relating to Claims 1 to 7 are specified by the matters described in Claims 1 to 7 of the scope of claims, in light of the substitute specification, substitute scope of claims, and the drawings. The inventions relating to Claims 1, 2, and 7 (hereinafter referred to as "Correction invention 1, Correction invention 2, and Correction invention 3") are described in the above 4-1. b.

6. Regarding the reason for invalidation

The Correction is legitimate. As for the summary of the demandant's allegation, we will discuss whether the Correction inventions 1 to 3 could have been easily invented by a person skilled in the art on the basis of the invention described in Evidence A No. 4, the invention described in Evidence A No. 1 (3), 2 (3), or 3 (3), the invention described in Evidence A No. 5, and well-known technical matters.

6-1. Matters described in Evidences A

(1) Evidences A No. 1 (1) to (3)

(1-1) Evidence A No. 1 (1) is a notarized written statement of Douglas A Davis, who was a manager of the library project. The written statement describes that every member of the general public could obtain a copy of the project specifications (Evidence A No. 1 (3)) as of March 22, 1989.

(1-2) Evidence A No. 1 (2) (or Evidence A No. 3 (2)) is a notice to CONTRACTOR attached to the above written statement, from a manager in California State University. The notice describes that the project specifications can be obtained at California State University, Northridge after a predetermined deposit is paid, after March 22, 1989, and the deposit is to be returned when the specifications are returned in good condition.

(1-3) Evidence A No. 1 (3) (Evidence A No. 2 (3) and Evidence A No. 3 (3) have the same contents) describes the title "Project Specifications California State University Oviatt Library the second stage" (translated abstract P. 1) and the following matters (Note by the body: Translated abstract is used for the matters described).

After the title "Library equipment-automated storage and retrieval system (ASRS)" (Translated abstract p. 4 l.2),

A) In the chapter "Part 1 General" (Translated abstract p. 4 l.3),

the item "1. 01 Contents of application" (Translated abstract p. 4 l.5) includes the following

descriptions.

"A. Included application

A device supplier must supply all required engineering service, labor, materials, and devices for designing, manufacturing, and installing an automated storage and retrieval system (AS/RS) including

1. 6 mini load stacker cranes, while a stacker crane (Omitted) must include a container insertion/drawing mechanism, (Omitted)
2. a shelf structure having 6 passages including storage positions of 13,260 containers in total, (Omitted)
5. a container including a partition, a container address, and a sector label, (Omitted)
7. 6 AS/RS end-of-aisle workstations, (Omitted)
9. ASRS controller, including a computer system, a controller, peripherals, and software, for supplying an interface with inventory check control, conveyor control, and a library computer system. (Omitted)" (Translated abstract p. 4 l.8-p. 5 l.17), and

"C. Definition of terms in this chapter

1. The term "LCS" in the specifications must be always understood to mean "Library Computer System."
2. The term "ASRS" in the specifications must be always understood to mean "automated storage and retrieval system."
3. The term "EAWS" in the specifications must be always understood to means "End of Aisle WorkStation."

(Translated abstract p. 6 l.9-l.18)

B) In the chapter "Part 2 Product" (Translated abstract p. 8 l.12),

the item "2. 02 General description of ASRS system" (Translated abstract p. 11 l.1) includes the following descriptions.

"A. Parameters of AS/RS system (Omitted)

6. Standard system configuration (Omitted)

c. The number of stages: 34 Height of the stage: depth of a container + a maximum of 1.0 inch to the bottom of the next container

7. A bottom drawing of a container of 24 inches × 48 inches (inner dimensions) is employed.

The containers required are as follows.

<u>Size of container</u>	<u>Quantity</u>
24 inches/W × 48 inches/L × 6.0 inches/D	390
24 inches/W × 48 inches/L × 10.0 inches/D	7020
24 inches/W × 48 inches/L × 12.0 inches/D	5070
24 inches/W × 48 inches/L × 15.0 inches/D	390
24 inches/W × 48 inches/L × 18.0 inches/D	<u>390</u>
Total	13260

(Omitted)

10. Standard material to be stored in the system: Library materials, such as books, magazines, or printed matters (Omitted)

(Omitted)

12. The number of parts to be stored

<u>Form</u>	<u>Total quantity</u>	<u>Quantity/Container</u>	<u>Height of container</u>
1. Books and magazines	950,000	96	10 inches
		64	12 inches
		64	15 inches

(Omitted)

3. Children's books	8,115	140	12 and 15 inches
4. Texts	17,095	60	12 inches

(Omitted)" (Translated abstract p. 11 l.2-p. 12 l.22)

"B. Material flow (Omitted)

1. (Omitted) A request for an AS/RS item is issued to the Library Computer System (LCS), an order request input procedure is started in one of six AS/RS workstations.

2. An operator of the workstation takes out a requested item from a container automatically retrieved, and inputs (Omitted) an item to be returned to ASRS when the requested item is to be stored at random. (Omitted)

3. When a request is input, (Omitted) a strip including a bar-code number (Omitted) of an item (Omitted) is created. The operator puts the taken-out item in a container on an ETV delivery car and dispatches the delivery car to various destinations in the library.

4. Items can be transferred between LCS and ASRS in addition to ordinary request and return operations. (Omitted)

5. ASRS items to be returned to the library in a circulation area are stored by category of size (random storage item, for example) (Omitted) in advance manually onto a shelf-mounting wagon so as to be returned to AS/RS workstations. When a request is input, (Omitted) the items are returned to AS/RS storage containers." (Translated abstract p. 13 l.4-p. 14 l.8),

"C. Identification of AS/RS items (Omitted)

All items to be stored in AS/RS use the following identification means for various levels. (Omitted)

b. Bar-code number

A bar-code number is a key field of 14 digits as follows.

3 0700 1014742 0

(Note by the body: "3" is a "label type (always '3' for items)". "0700" is a "library identification number (Omitted)." "1014742" is a "serial number." "0" is a "Modulus 10 complementary check digit.")

1. The bar-code number is used in both the LCS system and the ASRS system for uniquely identifying each item. A label of the bar-code number is positioned on an inner cover of an item (Omitted).

c. Size/aisle code

A size code or an aisle code is marked at an upper end of each item. A random storage item has a size code (for example, A, B, or C), while a constant location item has an aisle code (Omitted). The size/aisle code is used for manually sorting library materials in advance before returning to AS/RS for storage.

d. The last two digits of bar-code

In addition to the size code or the aisle code, the last two digits of an item bar-code are marked at the upper end of each item. The two digits are provided for an ASRS operator to easily make an order to take out a material from a container." (Translated abstract p. 14 l.23-p. 17 l.6), and

"D. Definition of full container and full sector (Omitted)

2. Sector is the lowermost storage layer. Container is a storage layer next higher than that. A container includes multiple sectors, for example.

3. The sector has one of "full" state, "non-full" state, and "vacant" state.

4. When an operator declares that a sector is full through a keyboard to the system, ASRS determines that the sector is "full." In random location storage, ASRS allocates return items to sectors in "non-full" state until the operator declares sector-full.

(Omitted)

7. When all sectors in the container are full, ASRS determines that the container is "full." According to the definition, a "partially full" container has at least one "non-full" or "vacant" sector. Sectors in the "vacant" container are all vacant.

8. In random location storage, ASRS employs the following priority rules.

- a. A "non-full" sector has a higher priority than a "vacant" sector.
- b. All of "non-full" sectors in the same container have the same priority.
- c. A "partially full" container has a higher priority than a "vacant" container.
- d. A "partially full" container with a smaller quantity of "vacant" sectors has a higher priority than a "partially full" container with a larger quantity of "vacant" sectors.
- e. "Partially full" containers having the same quantity of "vacant" sectors have the same priority.

9. When a requested item is taken out from a sector, even if "full" state is declared before the requested item is taken out, at any time, the system allows an alternative random storage item to enter the sector." (Translated abstract p. 17 l.7-p. 18 l.19)

C) The item "2. 03 Specifications of software" (Translated abstract p. 18 l.23) includes the following descriptions.

"A. Jurisdictional scope of the control system (Omitted)

2. Functional overview diagram

The diagram CSUN-1 shown in p. 15 (Note: the translation p. 20) illustrates functional overview of ASRS and a desired system configuration on LCS." (Translated abstract p. 18 l.24-p. 19 l.8)

"B. Software (Omitted)

1. This chapter describes functional specifications for AS/RS control system (ASRS). ASRS is a dedicated computer system. (Omitted) The functions thereof are operation controls in six AS/RS workstations: request to write an order, return of an item, transfer of an item, inventory check, and security. The system interfaces with Library Computer System (LCS)." (Translated abstract p. 22 l.16-l.25)

"C. Request procedure (Omitted)

1. (Omitted) A user using On-Line Public Access Catalog (OLPAC) can request an item

having a location in ASRS for loan-out. All ASRS item requests are generated through LCS, excluding a non-LCS item to be requested through an ASRS terminal. LCS confirms a request of a user with an inputted ID number of a borrower. (Omitted) After the confirmation process, an item request transaction is transmitted to ASRS via an interface.

2. Order input procedure (Omitted)

When one of the AS/RS receives the confirmed item request transaction of the user via the interface, the AS/RS automatically starts retrieving a container with the requested item. (Omitted)

3. Delivery of the requested item (Omitted)

a. At an End-of-Aisle WorkStation (EAWS), the container including one or more requested items is delivered. (Omitted)

4. Selection of the requested item (Omitted)

a. An EAWS operator takes the item out of the container with the last two digits of an item number (marked at an upper end of each item) for identifying the item." (Translated abstract p. 23 l.9-p. 25 l.17), and

"D. Material return procedures (Omitted)

1. Scanning a return item in EAWS (Omitted)

a. Return to AS/RS is started by optically scanning an item. (Omitted) Items to be randomly stored are classified by size group (A, B, and C, for example). (Omitted) The size group is indicated at an upper end of an item together with the last two digits of an item number. (Omitted)

b. Transmission of the item return transaction to LCS through the interface is started with the scanning like the above. (Omitted)

3. Allocation of random location (Omitted)

a. At the start of transmitting the item return transaction via the interface, an item with proper size group currently stored at random in a container in EAWS is automatically allocated to a container sector from which an item has been just taken out, by the same scanning (No. 2 03. D. Chapter 1). (Omitted)

c. After the operator inserts the item, ASRS prompts the operator to return the container to a storage location thereof. (Omitted)

e. As an option for the operator, when the container is delivered, the operator may return the item to AS/RS without taking out the item. In this case, a container having an available space (non-full) is retrieved by use of the priority described in No. 2 02. Chapter D."
(Translated abstract p. 28 l.2-p. 29 l.27)

D) Following the original p. 58 in Evidence A No. 1 (3), "California State University, Northridge AS/RS-Oviatt Library typical End-of-Aisle WorkStation" is shown as drawings.

(2) Evidence A No. 2 (1) is a notarized written statement of Jack E Bruce, who is a Los Angeles regional manager of California Building Department (formerly Building Office). The written statement describes that the project specifications (Evidence A No. 2 (3)) had a stamp of the Building Department on August 25, 1988, that the date is indicated by the stamp at a bottom right corner in the specifications p. 2, and that the specifications were publicly known at the time of submission to the Building Department, in accordance with Chapter 24, Section 1, Article 8 4-350 of the California Code of Regulations.

(3) Evidence A No. 3 (1) is a notarized written statement of Kanis A Rogerson, who is a vice-president of LEO A DALY, which is an engineering company having prepared the project specifications (Evidence A No. 3 (3)). The written statement describes that the specifications could be obtained by interested bidders on March 22, 1989, and that the bidders have no duty to keep information confidential.

(4) Evidence A No. 4 (Japanese Unexamined Patent Application Publication No. H05-151233) is a publication distributed before the application, and describes the following matters with the drawings on "BOOK IN/OUT MANAGING DEVICE."

A) "[0001]

[Field of industrial application] This invention relates to a book in/out managing device configured to easily manage lending/returning of a large number of books in a large-scale library, for example." ([0001])

B) "[0003] As described in Japanese Patent Publication No. S61-4723, a system for storing each of books in a case of a standardized size, housing a plurality of cases in a container, and automatically discharging and receiving each container has been invented. Each of the

books is automatically taken out or put into a case for return, thereby facilitating handling and location management, and protecting the book during delivery. A bar-code is attached to each of the cases, and information on which case is housed in which container is stored for all cases.

[0004] In response to a request to take out a book, a container housing a case storing the book is automatically discharged from a storeroom, and the case storing the desired book is automatically discharged from the container. A librarian takes out the book from the case automatically discharged, and passes it to a user, for lending the book.

[0005] In returning a book, a librarian puts a book to be returned, into the former case, which is automatically received into an arbitrary available container. When the container enters the storeroom, bar-codes of all the cases housed in the container are read, and information indicating locations of the cases are updated, for returning the book.

[0006] However, in the above book in/out managing system, books correspond one-to-one with cases. Every time a book is returned, a case for storing the book is retrieved from among a large number of vacant cases, resulting in inefficient operation. Books are lent out internally (the book is returned on the date of lending) or lent out externally (the book is returned on a later date). The number of vacant cases is increased as the number of books lent out is increased. Therefore, if the cases and the books have fixed correspondence, a case corresponding to the book to be returned is retrieved from a large number of cases for return, thereby reducing work efficiency, and there is a need to always prepare a large number of vacant cases near a counter." ([0003]-[0006])

C) "[0008]

[Problem to be solved by the invention] As described above, the conventional book in/out managing system needs to hold correspondence between books and cases, and effects of automation cannot be fully utilized.

[0009] This invention was invented in consideration of the above matters, and aims for providing an excellent book in/out managing device configured to store a book to be returned in an arbitrary case and housed in a storeroom, without fixing the correspondence between books and cases, and to facilitate check-out/return operation.

[0010]

[Means for solving the problem] The book in/out managing device relating to the invention includes: books with identification information; automatic delivery cases with identification information for storing the books; a storeroom for housing the cases; storage means which stores book information including location information for the books stored in the storeroom together with information formed by combining the identification information attached to the books with the identification information attached to the case where the books is stored; automatic delivery means which automatically retrieves a case housing a book to be discharged from the storeroom, on the basis of the information stored in the storage means, and discharges it; generation means which reads identification information attached to a book to be stored in the storeroom and the identification information attached to an arbitrary case which can store the book, to generate new book information for the book; and automatic receiving means which automatically receives the case storing the book to be stored in the storeroom, into the storeroom, on the basis of the book information generated by the generation means." ([0008]-[0010])

D) "[0012]

[Examples] (Omitted) FIG. 1 illustrates an overall configuration of the book in/out managing device described in this example. The symbol 11 in the figure indicates a bookshelf installed in the storeroom on the third floor of the library, for example, and housing a plurality of containers 12, 12, Each of the containers 12, 12, ... contains a plurality of cases 13, 13, Each of the cases 13, 13, ... includes one book. The cases 13, 13, ... are based on a standardized certain size. The cases have multiple kinds of thickness in accordance with a thickness of a book to be stored, with respect to the standard size.

[0013] A stacker crane 15 which is guided by a rail 14 is arranged at the front of the bookshelf 11. The stacker crane 15 takes out a container 12 from the bookshelf 11 for delivering a book, to be transferred to a delivery rack station 16, and transfers a container 12 placed on the delivery rack station 16 to the original position in the bookshelf 11, for storage. The stacker crane 15 takes out a container 12 from the bookshelf 11 for storing a book, to be transferred to a receiving rack station 17, and transfers a container 12 placed on the receiving rack station 17 to the original position in the bookshelf 11, for storage.

[0014] An endless conveyance rail 18 is arranged along the delivery and receiving rack stations 16, 17. On the conveyance rail 18, picking devices 19, 19 ... are supported so as to freely move. The picking devices 19, 19... perform an operation of taking a desired case 13

out of the container 12 arranged on the delivery rack station 16, and moving it onto the conveyance rail 18, to be transferred to one of a 2nd-floor outlet 20 and a 1st-floor outlet 21, and an operation of storing a case 13 conveyed to one of a 2nd-floor inlet 22 and a 1st-floor inlet 23 into a free space in a container 12 placed on the receiving rack station 17."
([0012]-[0014])

E) "[0016] The case 13 transferred to the 1st-floor outlet 21 is conveyed to a case inlet 28 arranged on the first floor of the library via a vertical conveyor (not shown), and transferred to a counter station 30 or a 1st-floor station 31 via a conveyor 29. At the counter station 30, a librarian takes a book out of the case 13 to be lent out to a user. At the 1st-floor station 31, a librarian takes a book out of the case 13 to be provided to a user for browsing. The vacant cases 13 are kept at the counter station 30 and the 1st-floor station 31.

[0017] The books returned and books browsed are stored in cases 13 by librarians at the counter station 30 and the 1st-floor station 31, transferred to a case outlet 32 via the conveyor 29, and transferred to the 1st-floor inlet 23 located on the third floor via the vertical conveyor (not shown), to be returned to the bookshelf 11 in a process opposite to the delivery process.

[0018] FIG. 2 illustrates how a case 13 is taken out from a container 12 conveyed to the delivery rack station 16 to the picking device 19. The container 12 is formed in a substantially box shape with front and top faces opened, and vertically contains a plurality of cases 13, 13, ... each storing a book 33. As shown in FIG. 3, each of the cases 13, 13, ... is formed in a substantially box shape with a top face opened, so as to completely cover the book 33. Each of the cases 13, 13, ... and each book 33 have bar-codes 34, 35, respectively. (Omitted)" ([0016]-[0018])

F) "[0020] FIG. 4 illustrates a control system of the book in/out managing system shown in FIG. 1. The symbol 39 indicates a central processing unit and contains a microprocessor, for example. A hard disk 47 (Omitted) storing book information is connected, via a bus line 40, (Omitted) through a file adapter 46, to the central processing unit 39.

[0021] (Omitted) A general control board 51 (Omitted) is also connected to the central processing unit 39. The general control board 51 generally controls operations of ... the stacker crane 15, the picking device 19, the vertical conveyor, and the conveyors 25, 29."
([0020]-[0021])

G) "[0026] Operation of the book in/out managing system with the above configuration is described as follows. FIG. 6 is a flowchart of a lending operation of a book 33. When a book 33 is lent out, a user begins with telling a librarian at the counter station 30 about the desired book 33 (step S1). The librarian at the counter station 30 operates a console 54 to input a code of the requested book 33 (step S2).

[0027] In response to the input of the code of the requested book 33, the central processing unit 39 determines whether the requested book 33 is present in the bookshelf 11, or whether the book is checked out, on the basis of the book information stored in the hard disk 47, and displays a result on a display 55 (step S3). (Omitted)

[0028] (Omitted) When the requested book 33 is present in the bookshelf 11 (YES), the central processing unit 39 issues a delivery command to the general control board 51 to take out the requested book 33 from the bookshelf 11 (step S5). The general control board 51 actuates (Omitted) the stacker crane 15, the picking device 19, the vertical conveyor 65, and the conveyors 25, 29. The desired book 33 stored in a case 13 is delivered from the bookshelf 11 to the counter station 30 (step S6), to be received by the librarian through an inlet arranged in the counter station 30.

[0029] The librarian at the counter station 30 uses a bar-code reader 56 to read a bar-code 34 attached to the case 13 delivered (step S7). The central processing unit 39 determines whether the read bar-code 34 corresponds to the code of the requested book 33 (step S8). (Omitted)

[0030] (Omitted) When the read bar-code 34 corresponds to the code of the requested book 33 (YES), the librarian uses the bar-code reader 56 to read a bar-code on a user card of the user (step S11), and takes the book 33 out of the case 13 to read the bar-code 35 on the book 33 with the bar-code reader 56 (step S12). The central processing unit 39 registers bar-code data of the user card and data on the bar-code 35 of the book 33 to be lent out, on a book check-out list storage area set in the hard disk 47 (step S13), and deletes the book information, such as a location or a correspondence code between the case 13 and the book 33, stored in the hard disk 47 for the book 33.

[0031] The librarian passes the book 33 and the user card to the user (step S14), and stores the vacant case 13 in a predetermined place (step S15). The lending operation ends (step S16).

[0032] FIG. 7 is a flowchart of a returning operation of a book 33. When a book 33 is returned, a user begins with bringing a book 33 to be returned and a user card to the counter station 30 (step S17). A librarian at the counter station 30 receives the book 33 and the user card brought by the user (step S18), and operates the console 54 to input a code of the book 33 (step S19). In response to the input of the code, the central processing unit 39 deletes check-out registration of the book 33 from the book check-out list set in the hard disk 47.

[0033] After returning the user card to the user (step S20), the librarian selects from a case repository an arbitrary appropriate case 13 for storing the returned book 33 (step S21), and uses the bar-code reader 56 to read a bar-code 34 on the case 13 and a bar-code 35 of the book 33. The central processing unit 39 stores/registers on the hard disk 47 a combination of data on the bar-code 34 read from the case 13 and data on the bar-code 35 read from the book 33 (step S22).

[0034] The librarian sets the case 13 storing the book 33 in an outlet arranged in the counter station 30 (step S23), and sets a location of the case 13 in the bookshelf 11, to be registered on the hard disk 24 (step S24). The central processing unit 39 issues a storage command to the general control board 51 to return the case 13 to the bookshelf 11 (step S25). The general control board 51 actuates (Omitted) the stacker crane 15, the picking device 19, the vertical conveyor 65, and the conveyors 25, 29. The book 33 stored in the case 13 is put into a predetermined container 12, to be stored in the bookshelf 11 (step S26). The returning operation ends (step S27)." ([0026]-[0034])

H) "[0042] FIG. 10 illustrates a book in/out managing system for 12 units of containers, which is added to the book in/out managing system of the example. The container 12 delivered from the bookshelf 74 by a stacker crane 75 is conveyed, via a delivery rack station 76, a conveyor 77, a container outlet 78, and a vertical conveyor (not shown), to a 2nd-floor station 26 via a 2nd-floor container inlet 79 and a conveyor 80, and to the counter station 30 or the 1st-floor station 31 via a 1st-floor container inlet 81 and a conveyor 82.

[0043] A container 12 located in the counter station 30 or the 1st-floor station 31 is conveyed to a 1st-floor container outlet 84 via a conveyor 83. A container 12 located in the 2nd-floor station 26 is conveyed to a 2nd-floor container outlet 86 via a conveyor 85. The container 12 conveyed to the 1st-floor container outlet 84 or the 2nd-floor container outlet 86 is transferred to a 3rd-floor container inlet 87 via the vertical conveyor (not shown), transferred to a receiving rack station 89 via a conveyor 88, and stored in the bookshelf 74

by the stacker crane 75." ([0042]-[0043])

I) In light of the descriptions in , [FIG. 1], and [FIG. 10], it can be understood that the "storeroom" includes a bookshelf 11 and that the bookshelf 11 includes a plurality of shelf areas.

J) In light of the descriptions in D), [FIG. 1], and [FIG. 10], it can be understood that the "container 12" stores a plurality of books stored in each of areas in the storeroom, for delivery.

K) In light of the descriptions in G) and H), [FIG. 1], and [FIG. 10], the "central processing unit 39" executes control for retrieving a book to be lent out, from the storeroom, and executes control for returning a book to be returned. It can be understood that each of the "stacker crane 75, conveyor 77, conveyor 80, and conveyor 82" constituting the conveyance means retrieves a container storing a book to be lent out, from the storeroom, on receipt of a check-out request, to be conveyed to the station, and retrieves a desired container to be conveyed to the station, upon receipt of a return request.

L) In light of the descriptions in G) and H), [FIG. 1], and [FIG. 10], the "central processing unit 39" executes control for retrieving a book to be lent out, and control for returning a book to be returned, stores and registers the bar-code 34 data read from the case 13 and the bar-code 35 data read from the book 33 upon receipt of a return request, and registers a location of the case 13 in the bookshelf 11 on the hard disk 47. It can be said that the central processing unit 39 issues a storage command to the general control board 51 to return the case 13 to the bookshelf 11, to retrieve a desired container from among a plurality of containers to be conveyed to the station.

The location of the case 13 in the bookshelf 11 indicates a storage location in the bookshelf 11, which has been stored and registered before registering the location of the case 13 in the bookshelf 11 on the hard disk 47 by reading the bar-code 35 data obtained from the book 33 together with the bar-code 34 data obtained from the case 13. The position where the container is stored has been determined by registering the bar-code 35 data read from the book 33 and the bar-code 34 data read from the case 13 in association with the location, accordingly. A container corresponding to the location is specified as a storage command, retrieved from the storeroom, and conveyed to the station. It can be seen that the bar-code 35 data read from the book 33 to be returned is input and stored/registered with the bar-code 34 data read from the case 13, and the bar-code 34 data read from the

case 13 and the location are registered in association with each other, so that a desired container is specified from among the containers as a storage command and retrieved from the storeroom, to be conveyed to the station.

M) In light of the descriptions in G) and H), [FIG. 1], and [FIG. 10], it can be seen that the system includes means of updating information stored in the hard disk by deleting the information stored in the hard disk that stores the location of the requested book 33 data on the cases and books stored in each of the containers 12, in association with each other, or additionally storing the location of the case 13 in the bookshelf 11 that stores the book to be returned, to the hard disk 47.

Thus, according to the descriptions in A) to H), and I) to M), prior arts, description of examples in [FIG. 1] to [FIG. 9], and in [FIG. 10], it can be recognized that Evidence A No. 4 describes the following invention (hereinafter referred to as "Invention A-4").

(Invention A-4)

"A book in/out managing device including:

a storeroom having a bookshelf 11; a plurality of containers 12 for storing a plurality of books 33 into the bookshelf 11 arranged in the storeroom together with cases 13; a hard disk 47 which stores locations in the storeroom of the books stored in the containers and data on bar-codes 35 attached to the books stored in the containers 12, together with data on the cases 13, in association with each other; means of retrieving, upon receipt of an input of a code of a book 33 to be lent out, a container 12 containing the book 33 stored in the case 13, on the basis of the information stored in the hard disk 47, from the storeroom, to be conveyed to a station (for example, 26, 30, 31 in FIG. 10) by a stacker crane 75, a conveyor 77, a conveyor 80, and a conveyor 82, retrieving, upon receipt of a return request, a desired container from among the above containers from the storeroom, to be conveyed to the station, and conveying, upon receipt of bar-code 35 data attached to the book to be returned and data on an arbitrary case 13, a container containing the book to be returned stored in the case 13 to the location in the bookshelf 11 by means of the stacker crane 75, the conveyor 77, the conveyor, 80, and the conveyor 82; and means of deleting the information stored in the hard disk storing the location for the requested book 33 conveyed to the station by the conveying means and data on the cases and the books stored in the containers 12 in association with each other, or additionally storing the location of the case 13 storing the book to be returned in the bookshelf 11 on the hard disk 47, to update the information

stored in the hard disk."

(5) Evidence A No. 5 (Japanese Unexamined Patent Application Publication No. S49-080780) is a publication distributed before the application, and describes the following matters with the drawings on "LOADING PALLET CARRY-IN/OUT METHOD."

A) "In carrying out a loading pallet, as shown in FIG. 9, a telescopic fork 3 is extended and moved upward together with a stage 7. A loading pallet 1A in a front shelf space 4A is placed on the telescopic fork 3, the telescopic fork 3 is contracted, and a shelf stacking lift 2 is moved, to convey the loading pallet 1A toward a predetermined location.

The shelf stacking lift is returned to a position opposite to the front shelf space 4A. The telescopic fork 3 is extended and moved upward or downward, to engage a holding part 5 formed at a tip of the telescopic fork 3 with an engaging part 6 formed at a front part of a loading pallet 1B. As shown in FIG. 10, when the telescopic fork 3 is contracted, the loading pallet 1B is pulled forward to be placed on a pallet support 8A of the front shelf space 4A. The telescopic fork 3 is moved upward or downward, to disengage the holding part 5 of the telescopic fork 3 from the engaging part 6 of the loading pallet 1B. As shown in FIG. 11, the telescopic fork 3 is extended below the loading pallet 1B, and moved upward together with the stage 7, to place the loading pallet 1B on the telescopic fork 3. After contracting the telescopic fork 3, the shelf stacking lift 2 is moved, to convey the loading pallet 1B toward a predetermined location." (p. 2 lower left column l.7 to lower right column l.10)

B) "The loading pallets 1A, 1B can be easily carried in and out with respect to the front shelf space 4A and a rear shelf space 4B in a dual shelf, thereby doubling a width of a multi-stacking shelf, while doubling the storage capacity, without increasing a distance between the multi-stacking shelves located at both sides of a lift aisle. Efficient space utilization can be achieved in a storehouse or a factory, accordingly." (p. 3 upper right column l.5-l.12)

(6) Evidence A No. 6 (Japanese Unexamined Patent Application Publication No. S50-008270) is a publication distributed before the application, and describes the following matters with the drawings on "LOADING PALLET CARRYING OUT METHOD".

A) "In carrying out a loading pallet, as shown in FIG. 10, a telescopic fork 4 is extended and moved upward together with a stage 8. A loading pallet 1A in a front shelf space 1A is

placed on the telescopic fork 4, the telescopic fork 4 is contracted, and a shelf stacking lift 3 is moved, to convey the loading pallet 2A toward a predetermined location.

The shelf stacking lift is returned to a position opposite to the front shelf space 1A. The telescopic fork 4 is extended and an end thereof is inserted into a pallet 5. A horizontal moving device 9 horizontally moves the telescopic forks 4 in separating directions. As shown in FIG. 11, holding members 6 arranged on external end surfaces of upper forks 4A are engaged with engaging members 7 arranged on inner front end surfaces of both side frames 11 of the pallet 5. As shown in FIG. 12, when the telescopic fork 4 is contracted, the loading pallet 2B is pulled forward to be placed on a pallet support 13A of the front shelf space 1A. The telescopic forks 4 are horizontally moved in an approaching direction, to disengage the holding parts 6 of the telescopic forks 4 from the engaging members 7 of the pallet 5. As shown in FIG. 13, the telescopic fork 4 is extended below the loading pallet 2B, and moved upward together with the stage 8, to place the loading pallet 2B on the telescopic fork 4. After contracting the telescopic fork 4, the shelf stacking lift 3 is moved, to convey the loading pallet 2B toward a predetermined location." (p. 2 upper right column l.5 to lower left column l.12)

(7) Evidence A No. 7 (Japanese Unexamined Patent Application Publication No. S49-134075) is a publication distributed before the application, and describes the following matters with the drawings on "REAR LOAD UNLOADING METHOD OF STACKER CRANE WITH DOUBLE FORK."

A) "In FIG. 1, (1) is a wall of a storehouse, (2) is a rail for moving a crane. (3) is a crane and includes 2-system forks (A) and (B). (4-1), (4-2), (4-3), and (4-4) are shelves. Front loads (5) and rear loads (6) are placed on the shelves. (7) is a home position where a roller conveyor (8) is arranged to allow automatic loading/unloading. In FIG. 2, the crane is positioned to align a target shelf with a fork A to store an unnecessary front load (5) on the fork A, and the crane is moved and positioned to align the shelf with a fork B to store a target rear load (6) on the fork B. The crane is returned to the initial position to store the load on the fork A into the front part of the shelf, and the crane is moved to the origin, to pass the rear load (6)." (p. 1 lower right column l.6-l.20)

(8) Evidence A No. 8 (Japanese Unexamined Patent Application Publication No. S57-072503) is a publication distributed before the application, and describes the following matters with the drawings on "CONTROL METHOD OF STACKER CRANE."

A) "As shown in FIG. 3, multiple forks are arranged, and shelves are formed in a uniform shape as a unit. Two stations are allocated to each of stacker cranes. A stacker crane 3 picks a pallet from a specified first shelf, and drops it into a second shelf. As shown in the figure, the forks are multi-reach forks (MRF) 5 which extend and contract for multiple pallets, and multiple forks are arranged.

FIG. 4 is an operation diagram of the multi-reach fork 5. In this example, the fork is a double-reach fork. In pick operation, the stacker crane 3 moves up to a stage and column (the stage indicates a coordinate in a direction from a floor to a ceiling, the column indicates a coordinate in a direction from PPS2 to a travel line of the stacker crane, and the row indicates a coordinate in a direction orthogonal to the travel direction of the stacker crane 3) of a predetermined shelf, and stops. Then, MRF 5 extends up to a predetermined pallet position, and picks a pallet, to be received in the stacker crane 3. In drop operation, the stacker crane 3 moves up to the predetermined shelf and drops the pallet in an opposite manner. According to the above description, in any case, it is desirable that no pallet 7 with an article 6 mounted thereon exists in the front row. However, MRF 5 is provided in this invention, so that the pallet 7 in the front row can be picked in advance." (p. 3 upper left column 1.2 to upper right column 1.6)

B) "FIG. 5 and FIG. 6 (a), (b), (c), and (d) are operation diagrams of the stacker crane 3 and MRF 5 in discharging operation. In this example, articles A and C are discharged. A shelf-fix location system is employed, where all shelves have pallets. The stacker crane 3 moves and stops so that a single-reach fork carriage 8 may be located in front of a stage and column of a shelf of the article A. The single fork 3 (Note by the body: it is recognized as an error of the single fork 4) picks a pallet 6 of an article B stored in a shelf at the front of the article A, to be received into the single-fork carriage 8. The stacker crane 3 moves and stops so that a double-reach fork carriage 9 may be located in front of a stage and column of the article A. The MRF 5 picks a pallet 6 of the article A, to be received into the double-reach fork carriage 9. The stacker crane 3 moves and stops so that the single-reach fork carriage 8 may be located in front of a stage and column of the article B. The single fork 4 returns the article B from the carriage 8 into the original shelf. The carriage 8 moves and stops so as to be located in front of a stage and column of the article C. The single fork 4 picks a pallet 6 of the article C, to be received into the carriage 8." (p. 3 upper right column 1.15 to lower left column 1.16)

(9) Evidence A No. 9 (Japanese Unexamined Patent Application Publication No. S56-

056402) is a publication distributed before the application, and describes the following matters with the drawings on "LOADING/UNLOADING METHOD AND DEVICE WITH RESPECT TO SHELF."

A) "When there is a load 3 in the front, as shown in FIG. 1 and by Block 10 in FIG. 4, a single-reach fork 4 scoops the load 3 and stores the load 3 on the single-reach fork 4 onto an elevator 6a, for temporary storage. As shown in FIG. 1 and FIG. 2, the stacker crane 6 is moved in a horizontal A arrow direction by one block, to align a double-reach fork 5 with a shelf block where a load 2 is stored. The double-reach fork 5 is extended and scoops the load 2 to be stored on the elevator 6a. A determination is made as to whether there is a load 3 in the front. When there is a load, the stacker crane 6 moves in a horizontal B direction by one block to align the single-reach fork 4 with the original shelf block. The single-reach fork 4 is extended to scoop the load 3 to be placed on the front shelf block, and the stacker crane 6 conveys only the load 2 to an outlet." (p. 3 upper left column l.10 to upper right column l.6)

(10) Evidence A No. 10 (Microfilm of Japanese Utility Model Application No. S47-112063 (Japanese Unexamined Utility Model Application Publication No. S49-067379) is a publication distributed before the application, and describes the following matters with the drawings on "WAREHOUSE EQUIPMENT."

A) "A delivering tool (13) is moved in/out by integer multiple of a length (1) of a placing surface of the delivering tool (13), to be adapted to loading sections (17A) (17B) configured to be twice or an integer multiple of the placing surface length (1). The delivering tool (13) can treat multiple loads (12) with respect to one sectional storage space (2). A load (12) on the loading section (17B), which has been stored earlier, can be taken out only by taking out a load (12) on the loading section (17A), which has been stored later." (p.5 l.4-l.12)

(11) Evidence A No. 11 (CD-ROM of Japanese Utility Model Application No. H03-045857 (Japanese Unexamined Utility Model Application Publication No. H05-019210) is a publication distributed before the application, and describes the following matters with the drawings on "2-PALLET STORAGE WAREHOUSE."

A) "[0003] When an object X located at the back of a storage shelf 4 is discharged, and an object X located in the front is to remain there, discharging operation is conducted on the assumption of the existence of a "vacant" storage shelf 4. For example, work conveyance

means 3 is actuated to insert a fork part 3 thereof into a pallet of the object X (object B) located in the front, to be drawn out, and, as shown by a dashed line and an arrow in FIG. 2, the object B is transferred to the "vacant" storage shelf (vacant shelf C). The work conveyance means 3 is actuated to draw out the object X (object A) located at the back, as shown by a solid arrow in FIG. 2, to be discharged." ([0003])

(12) Evidence A No. 15 (Cover, table of contents, a copy of literature published in p. 13 to p. 22 in LIBRARY HI TEC, Consecutive Issue 20; Vol. 5, No. 4 Winter, 1987, and translated abstract) is a publication distributed before the application, and describes the following matters on "Industrial storage technology applied to the request of library."

A) "The library can specify arrangement of books in the automated storage and retrieval system, while there is no need for that, since the computer grasps locations of items. In fact, the automated storage and retrieval system requires only information on height and identification information of each of the items, for each of materials to be stored in the system." (Translated abstract p. 2 l.8-l.13)

(13) Evidence A No. 16 (Japanese Unexamined Patent Application Publication No. H03-264396) is a publication distributed before the application, and describes the following matters with the drawings on "LENDING CONTROL APPARATUS."

A. "We will describe the operation of the lending control apparatus using FIG. 6. In lending processing of the procedure (20) in FIG. 6, a book number indicated by a bar-code (2) on the book (1) is read with a bar-code reader (3) in FIG. 7. In the procedure (21), book management data, such as (8a), corresponding to the book number is retrieved from a book management data file (8), in response to an instruction from a CPU (6) in FIG. 1. In the procedure (22), an identification code, such as "9008999," of a borrower is input from a keyboard (7). In the procedure (23), the identification code, such as "9008999," is stored in a "lending destination" field (8a7) of the book management data (8a). At the same time, "date of lending" data automatically given from the system is stored in a field (8a8) and a field (8a10), and "the cumulative number of times the borrower has borrowed books" is stored in a field (8a9).

As shown above, lending operation ends.

In search processing, in the procedure (30) in FIG. 6, a search condition is input from the bar-code reader (3) or the keyboard (7). In the procedure (31), book management data (8a), (8b), (8c), or the like corresponding to the search condition are retrieved from the book management data file (8)." (p. 2 lower left column l.11 to lower right column l.12)

(14) Evidence A No. 17 (Microfilm of Japanese Utility Model Application No. S63-150289 (Japanese Unexamined Utility Model Application Publication No. H02-072225)) is a publication distributed before the application, and describes the following matters with the drawings on "Automated book return device."

A) "FIG. 6 to FIG. 8 illustrate the "automated book return device" for which the applicant applied for a patent on August 30, 1988. (1) is a bar-code attached at the bottom of a back cover of a book (2). The bar-code (1) serves as indicating the type on the specifications of the books (2) in A4 and A5 formats.

FIG. 6 (b) illustrates an overview of the automated book return device. (3) is a reception counter arranged at an entrance of the library, which is not soaked by rain. The reception counter (3) includes a return slot (3a) arranged at the front to receive the book (2). A notice (3b), saying that a book (2) should be inserted in the return slot (3a) with its back cover down, is fixed near the return slot (3a).

(4) is a first conveyance mechanism for horizontally conveying the book (2) received by the return slot (3a) into the library. The first conveyance mechanism (4) includes a first conveyor (41) and a second conveyor (42), and is started when a switch (not shown) arranged at the return slot (3a) is turned on by the book (2) inserted. A bar-code reading mechanism (5) is arranged between the first and second conveyors (41), (42). The bar-code reading mechanism (5) reads the bar-code (1) on the book (2) conveyed. A second conveyance mechanism, which is described below, is started. One storage box (6) corresponding to the type of the book (2) indicated by the bar-code (1), as shown in the same figure, is conveyed and arranged forward of a downstream end of the first conveyance mechanism (4), selectively. (In the figure, a storage box shown by a symbol (62) is arranged). Accordingly, the storage box (6), which is described below, stores only books (2) of the same type, in principle. The reading mechanism (5) outputs information on the bar-code (1) to an information processing apparatus (not shown), to cause a printer (not shown) connected to the information processing apparatus to confirm return of the book lent out." (p. 2 l.17-p. 4 l.10)

(15) Evidence A No. 18 (Japanese Unexamined Patent Application Publication No. H02-070603) is a publication distributed before the application, and describes the following matters with the drawings on "Storage management method and device."

A) "Actually, the method of the invention is characterized by storing an object as a function of size thereof and storage capacity available in the storage.

The object is stored in 'the first' available free space, in consideration of the size thereof.

According to the method, a position where the object has been stored and a position and size of available capacity are recorded by storage.

Therefore, information required for searching for an object in the storage or for storing another object in the storage can be always available." (p. 2 lower left column l.9-l.19)

B) "In conveying an object into the storage, a computer specifies the object, acquires data on the size thereof and full state of the storages, and retrieves various locations where the object can be stored." (p. 3 upper right column l.10-l.13)

C) "We will describe the method below, using a library where books are stored, retrieved, and arranged as an example.

Each of the books is preferably stored in a container for storage. The container is housed in a container unit. The library is composed of a set of the container units.

The position of a storage unit where a book is stored and the position of the book in the storage unit are known, and the positions of the books are known, accordingly. The positions are defined by different kinds of references, and defined by serial numbers of the books in the storage units. The serial numbers can be determined from the bottom or the front of a unit." (p. 3 lower left column l.13 to lower right column l.5)

D) "It is advantageous that the device includes data processing means of storing data on full state of one storage, size of an object, and position of the object in the storage, and controlling the robot and the transfer means so as to retrieve and store the object."

(p. 4 lower right column 1.8-1.12)

(16) Evidence A No. 20 (Japanese Unexamined Patent Application Publication No. S59-182103) is a publication distributed before the application, and describes the following matters with the drawings on "RETRIEVING SYSTEM FOR STORAGE SHELF."

A) "2. Scope of claims

A retrieving system for storage shelf including an input device, a processor, and a plurality of shelves each having predetermined allowable capacity to be defined by weight limit and volume, and configured to store in the shelves a plurality of objects different in at least one of volume and weight, comprising means of calculating a maximum quantity of objects to be stored, which is less than the allowable capacity of the shelves, for each of multiple kinds of objects (Omitted)." (p. 1 lower left column 1.4-1.17 "Scope of claims")

(17) Evidence A No. 21 (Japanese Unexamined Patent Application Publication No. H04-256607) is a publication distributed before the application, and describes the following matters with the drawings on "AUTOMATED STORAGE AND RETRIEVAL WAREHOUSE DEVICE."

A) "[0005]

[Example] To describe one example of the invention on the basis of attached illustrative drawings, in FIG. 1 and FIG. 2, 1A and 1B are standing bookshelves arranged at an interval, each including a lower zone 3 with four stages of wide load storing blocks 2 arranged vertically, and an upper zone 5 with three stages of narrow load storing blocks 4 arranged vertically.

6A-6D are four stages of carriage running routes arranged vertically, which are set between the standing bookshelves 1A and 1B, for each of the stages of the wide load storing blocks 2 in the lower zone 3 of the standing bookshelves 1A and 1B. In each of the running routes

6A-6D, a mobile carriage 7 for carrying a wide load WL is supported via a pair of left and right guide rails 8.

9A-9C are three stages of carriage running routes arranged vertically, which are set between the standing bookshelves 1A and 1B, for each of the stages of the narrow load storing blocks 4 in the upper zone 5 of the standing bookshelves 1A and 1B. In each of the running routes 9A-9C, a mobile carriage 10 for carrying a narrow load WS is supported via a pair of left and right guide rails 11." ([0005])

B) "[0016] Furthermore, an elevator or a conveyor to be used for both wide load WL and narrow load WS can be arranged. (Omitted)" ([0016])

(18) Evidence A No. 22 (Microfilm of Japanese Utility Model Application No. S63-58087 (Japanese Unexamined Utility Model Application Publication No. H01-162410)) is a publication distributed before the application, and describes the following matters with the drawings on "Automated storage and retrieval system and shelf structure thereof."

A) "This device relates to an automated storage and retrieval system and a shelf structure thereof, which is configured to automatically store and retrieve an object in a warehouse or the like." (p. 2 1.2-1.4)

B) "FIG. 11 is a front view illustrating a general configuration of the automated storage and retrieval system. A storage area 1 includes an area 1a where wide shelves 2 are arranged and an area 1b where narrow shelves 3 are arranged. In a front part of the storage area 1, a column 4 is arranged so as to freely move along a shelf open side of the storage area 1. The column 4 includes a support stage 5 which freely moves upward and downward. On the support stage 5, a picker (not shown) is arranged for inserting and taking out containers 6, 7 between the shelves 2 and 3. The wide shelves 2 are locations exclusively for storing corresponding wide containers 6, while the narrow shelves 3 are locations exclusively for storing corresponding narrow containers 7." (p. 2 1.11-p. 3 1.4)

(19) Evidence A No. 23 (Japanese Utility Model Publication No. S54-001750) is a publication distributed before the application, and describes the following matters with the drawings on "Storage container carrying mechanism in device which automatically inputs/outputs storage container to/from storage shelf."

A) "This device relates especially to a storage container carrying mechanism for drawing or inserting a storage container from/to a storage shelf, in a device (hereinafter referred to as an automated storage device) which automatically stores many storage containers housing documents, books, or mechanical components, into storage shelves, or retrieves a desired storage container from the storage shelves to a predetermined location.

It is inefficient and uneconomical that a person moves to a location of a desired article which is one of many stored articles, such as documents, books, or components, to be taken out." (p. 1 the first column 1.32 to the second column 1.7)

(20) Evidence A No. 24 (Japanese Utility Model Publication No. S54-001751) is a publication distributed before the application, and describes the following matters with the drawings on "Storage container carrying mechanism in device which automatically inputs/outputs storage container to/from storage shelf."

A) "This device relates especially to a storage container carrying mechanism for drawing or inserting a storage container from/to a storage shelf, in a device (hereinafter referred to as an automated storage device) which automatically stores many storage containers housing documents, books, or mechanical components, into storage shelves, or retrieves a desired storage container from the storage shelves to a predetermined location.

It is inefficient and uneconomical that a person moves to a location of a desired article which is one of many stored articles, such as documents, books, or components, to be taken out." (p. 1 the first column 1.35 to the second column 1.10)

(21) Evidence A No. 25 (Japanese Unexamined Patent Application Publication No. S54-007741) is a publication distributed before the application, and describes the following matters with the drawings on "Storeroom."

A) "This invention relates to an open-shelf storeroom." (p. 1 lower right column 1.4-1.5)

B) "This book stand in/out device (13) can be made by applying an arbitrary one of various pallets or a container in/out device to be used for conventional automated warehouses." (p. 2 upper left column 1.9-1.12)

(22) Evidence A No. 26 (Japanese Unexamined Patent Application Publication No. S54-007742) is a publication distributed before the application, and describes the following matters with the drawings on "Storage for book."

A) "This invention provides a storage suitable for an open-shelf storeroom or a storage for parts." (p. 1 lower left column 1.17-1.18)

B) "This invention can be implemented as described above. According to the storeroom of the invention, books in the open-shelf storeroom can be automatically carried in/out, or articles in other small article storages can be automatically carried in/out. Especially, this invention is configured to directly carry an object into/from a container supported on a conveyor. No special peripheral conveyance device is required, and an inexpensive and compact configuration can be attained, while reducing carry-in/out time and improving operation efficiency." (p. 2 lower left column 1.8-1.17)

(23) Evidence A No. 27 (Japanese Unexamined Patent Application Publication No. S56-149904) is a publication distributed before the application, and describes the following matters with the drawings on "APPARATUS FOR INDIVIDUALLY WAREHOUSING AND DELIVERING ITEM."

A) This invention relates to an automated storage for articles, such as books, to be carried in/out in a small unit, which is effective when the articles are carried in/out highly frequently.

In a conventional system, as an automated storage, containers are stored in a shelf

formed in a lattice shape, and each container is carried in/out by a stacker running along the shelf." (p. 1 lower right column 1.4-1.10)

(24) Evidence A No. 28 (Japanese Unexamined Patent Application Publication No. S59-172306) is a publication distributed before the application, and describes the following matters with the drawings on "DELIVERING/STORING CRANE FOR AUTOMATIC WAREHOUSE."

A) "This invention relates to a delivering/storing crane to be used for an automatic warehouse, and provides a simple delivering/storing crane for automatic warehouse configured to safely and properly shift both cargo with small width and cargo with large width guided by a pair of left and right guides, without requiring a movable guide which changes a distance in accordance with a width of a cargo as before.

To describe one example of the invention on the basis of attached illustrative drawings, 1 is a shelf standing by a constant moving route of the delivering/storing crane for automatic warehouse, and includes a compartment 3 for storing a cargo 2 with large width and a compartment 5 for storing a cargo 4 with small width. Each of the compartments 3, 5 includes a pair of left and right cargo receiving pieces 7a, 7b arranged between a pair of front and rear supports 6, and a pair of left and right stoppers 8a, 8b attached to the rear support 6. The delivering/storing crane includes a carriage 10 supported by a support 9 so as to be moved upward/downward. On the carriage 10, cargo shifting means 11 is arranged which can be moved toward/apart from the compartments 3, 5 of the shelf 1 and freely moves upward/downward. At both sides of the moving route of the shifting means 11, there are arranged a pair of left and right lower support surfaces 12 for supporting the cargo 4 with small width, a pair of left and right upper support surfaces 13 for supporting the cargo 2 with large width in a position higher than the lower support surfaces 12, a pair of left and right lower guides 14 located between the upper and lower supporting surfaces 12, 13 and guiding both sides of the cargo 4 with small width, and a pair of left and right upper guides 15 located in a position higher than the upper support surfaces 13 and guiding both sides of the cargo 2 with large width. Since the shifting means 11 is known, a supporting structure and a driving structure are not illustrated or described. In this example, only a locking piece 16a located on the side of the shelf 1, of a pair of front and rear locking pieces 16a, 16b, is employed." (p. 1 lower left column 1.17-p.

2 upper left column 1.9)

(25) Evidence A No. 29 (Microfilm of Japanese Utility Model Application No. S58-161944 (Japanese Unexamined Utility Model Application Publication No. S60-072405)) is a publication distributed before the application, and describes the following matters with the drawings on "Platform of automatic warehouse treating containers different in width."

A) "FIG. 1 illustrates a general configuration of an automatic warehouse using a platform of this invention. A shelf device 1 includes a lot of wide storage shelves 2 and a lot of narrow storage shelves 3. A column 5 to be moved in a lateral direction 4 is arranged at the front of the shelf device 1. The column 5 includes the platform 7 to be moved in a vertical direction 6. The platform 7 moves vertically and laterally along front surfaces of the storage shelves 2 and 3, reads a mark on the shelf device 1 or the column 5 to stop in a position corresponding to a desired storage shelf, and carries a container 8 or 9 into/out of the storage shelf. The container 8 is a wide container to be stored in the wide storage shelf 2, while the container 9 is a narrow container to be stored in the narrow storage shelf 3." (p. 4 l.10-p. 5 l.3)

6-2. Regarding whether Evidence A No. 1 (3) (Evidence A No. 2 (3) and Evidence A No. 3 (3) have the same contents, and they are referred to as simply "Evidences A No. 1 (3) or the like") can be accepted as a publication distributed before the application

As indicated in 3. Summary of the demandee's allegation, regarding the project specifications, such as Evidence A No. 1 (3) or the like, it is not known whether Evidence A No. 1 (3) or the like is a publication distributed before the filing date. We will examine this point, as below.

Evidence A No. 1 (1) is a notarized written statement of Douglas A Davis, who was a manager of the library project. The written statement describes that every member of the general public could obtain a copy of the project specifications (Evidence A No. 1 (3) or the like) as of March 22, 1989.

Evidence A No. 2 (1) is a notarized written statement of Jack E Bruce, who is a Los Angeles regional manager of California Building Department (formerly Building Office).

The written statement describes that the project specifications (Evidence A No. 2 (3)) had a stamp of the Building Department on August 25, 1988, that the date is indicated by the stamp at a bottom right corner in the specifications p. 2, and that the specifications were publicly known at the time of submission to the Building Department, in accordance with Chapter 24, Section 1, Article 8 4-350 of the California Code of Regulations.

Evidence A No. 3 (1) is a notarized written statement of Kanis A Rogerson, who is a vice-president of LEO A DALY, which is an engineering company having prepared the project specifications (Evidence A No. 3 (3)). The written statement describes that the specifications could be obtained by interested bidders on March 22, 1989, and that the bidders have no duty to keep information confidential.

Evidence A No. 1 (2) (or Evidence A No. 3 (2), which has the same contents, is referred to as Evidence A No. 1 (2)) is a notice to CONTRACTOR attached to the above written statement, from a manager in California State University. The notice describes that the project specifications can be obtained at California State University, Northridge after a predetermined deposit is paid, after March 22, 1989, and the deposit is to be returned when the specifications are returned in good condition.

Accordingly, in light of Evidence A No. 1 (1), Evidence A No. 2 (1), Evidence A No. 3 (1), and Evidence A No. 1 (2), as for the project specifications of Evidence A No. 1 (3) or the like, it can be guessed that the original thereof was disclosed publicly to be freely browsed and that a copy thereof could be issued in response to a request from the public without delay. It can be guessed that in this situation the original could be copied in response to a request from the public. Therefore, it can be said that Evidence A No. 1 (3) or the like could be a publication distributed on March 22, 1989 after at least the specifications are submitted to the state building department, or before the filing date of the patent (April 20, 1994).

The same judgment was given to the same evidences in the trial decision regarding the invalidation No. 2005-80272 (see Evidence A No. 13 as a reference), and Court decision of 2006 (Gyo-Ke) 10546 (see Evidence A No. 14 as a reference).

6-3. Regarding Correction invention 1

(1) Comparison

Comparing Correction invention 1 with Invention A-4,

it can be said that, in light of the function and technical significance thereof, the terms in Invention A-4, "location," "bar-code 35 attached to the book," "hard disk 47," "lent-out," and "book in/out managing device" correspond to the terms in Correction invention 1, "storage location," "book code," "storage means," "take out," and "book storing and managing device," respectively.

The description in Invention A-4, "a hard disk 47 which stores locations in the storeroom of the books stored in the containers and data on bar-codes 35 attached to the books stored in the containers 12, together with data on the cases 13, in association with each other" corresponds, only in the case of "the storage means storing storage locations in the storeroom and book codes of the books stored in the containers, in association with each other, to the description in Correction invention 1, "storage means storing storage locations of the containers in the storeroom and book codes of the books stored in the containers, in association with each other."

The description in Invention A-4, "retrieving, upon receipt of an input of a code of a book 33 to be lent out, a container 12 containing the book 33 stored in the case 13, on the basis of the information stored in the hard disk 47, from the storeroom, to be conveyed to a station (for example, 26, 30, 31 in FIG. 10) by a stacker crane 75, a conveyor 77, a conveyor 80, and a conveyor 82" corresponds, only in the case of "taking out a container storing a desired book from the storeroom, upon receipt of a book code of the book to be taken out, on the basis of the information stored in the storage means, to be conveyed to a station," to the description in Correction invention 1, "takes out a container storing a desired book from the storeroom, upon receipt of a book code of the book to be taken out, on the basis of the information stored in the storage means, to be conveyed to a station."

Likewise, the description in Invention A-4, "means of retrieving, upon receipt of a return request, a desired container from among the above containers from the storeroom, to be conveyed to the station, and conveying, upon receipt of bar-code 35 data attached to the book to be returned and data on an arbitrary case 13, a container containing the book to be returned stored in the case 13 to the location in the bookshelf 11 by means of the stacker crane 75, the conveyor 77, the conveyor, 80, and the conveyor 82" corresponds, only in the case of "taking out, upon receipt of a return request, a container from among the containers, upon receipt of information on the book to be returned, to be conveyed to the station" to the

description in Correction invention 1, "conveyance means which takes out an available container from the storeroom from among the containers corresponding to the size of a return book, upon receipt of size information of the book to be returned, to be conveyed to the station."

In Correction invention 1, since the information stored is updated in response to an input of book information of a book to be taken out (desired book) or a book to be returned (return book), the description in Invention A-4, "means of deleting the information stored in the hard disk storing the location for the requested book 33 conveyed to the station by the conveying means and data on the cases and the books stored in the containers 12 in association with each other, or additionally storing the location of the case 13 storing the book to be returned in the bookshelf 11 on the hard disk 47, to update the information stored in the hard disk" corresponds, only in the case of "the update means of updating the information on the desired book or return book stored in the storage means, upon receipt of an input of book information of the desired book or return book, when conveyed by the conveyance means, to the description in Correction invention 1, "update means of updating the information stored in the storage means, for the container conveyed to the station by the conveyance means, from which the desired book has been taken out or the container to which the return book has been returned."

Accordingly, the two correspond to each other in the following points: "A book storing and managing device including: a storeroom having a plurality of shelf areas; a plurality of containers for storing a plurality of books stored in each of the shelf areas of the storeroom; storage means storing storage locations of the containers in the storeroom and book codes of the books stored in the containers, in association with each other; conveyance means which takes out a container storing a desired book from the storeroom, upon receipt of a book code of the book to be taken out, on the basis of the information stored in the storage means, to be conveyed to a station, and takes out a container from the storeroom from among the containers, upon receipt of information on the book to be returned, to be conveyed to the station; and update means of updating the information on the desired book or return book stored in the storage means, upon receipt of information on the desired book or return book." They are different from each other in the following points.

(Different feature 1)

Regarding the shelf areas in the storeroom and the containers storing books, Correction invention 1 employs "a storeroom having a plurality of shelf areas differing in width and height classified by size of book" and "a plurality of containers for storing a plurality of books, each having a size corresponding to a shelf area where each of the containers is stored," while Invention A-4 does not employ the shelf areas differing in width and height classified by size of book or the containers for storing books each having a size corresponding to a shelf area (hereinafter referred to as "Different feature 1").

(Different feature 2)

Regarding the storage means which stores information on conveying a desired book to be taken out or conveying a return book to be returned, storage locations in the storeroom, and book codes of the books stored in the containers, in association with each other, Correction invention 1 is designed to "update the information stored in the storage means, for the container from which the desired book has been taken out" in taking out the desired book, and to "take out an available container from the storeroom from among the containers corresponding to the size of a return book, upon receipt of size information of the book to be returned, to be conveyed to the station, to update the information stored in the storage means, for the container where the return book has been stored" in returning the return book, while Invention A-4 does not include a configuration of taking out an available container from the storeroom from among the containers corresponding to the size of a return book, upon receipt of size information of the book, or a configuration of updating the information stored in the storage means for the container corresponding to the size of the book (hereinafter referred to as "Different feature 2").

(Different feature 3)

Correction invention 1 has "the shelf areas in the storeroom storing the containers in a depth direction to a frontage for taking out the container by the conveyance means, the conveyance means including transfer means for taking out a container behind after taking out a front container with respect to the frontage for taking out the containers." However, Invention A-4 is designed to take out a container from the shelf areas in the storeroom by means of the conveyance means, while it is unclear whether the containers are stored in a depth direction and whether the conveyance means includes transfer means for taking out a container behind after taking out a front container with respect to the frontage for taking out the containers (hereinafter referred to as "Different feature 3").

(2) Judgment

(2-1) Examination on Different feature 1

(2-1-1) Invention described in Evidence A No. 1 (3) or the like (Invention A-1)

Evidence A No. 1 (3) or the like, which is a publication distributed before the filing date, describes that the book in/out managing device (Library equipment- automated storage and retrieval system (ASRS)) which is a technology belonging to the same technical field as Correction invention 1 employs 5 types of containers having a bottom face of 24 inches by 48 inches and different heights (6.0-18.0 inches) (translated abstract p. 11 l.19-l.27), and that a plurality of books (or magazines) are stored in the containers differing in height (translated abstract p. 12 l.11-p. 13 l.1).

It is also described that the books, "random storage items," are classified by size thereof (size code, for example, A, B, or C) (translated abstract p. 16 l.21-p. 17 l.1) and p. 28 l.8-l.9).

Thus, it can be said that Evidence A No. 1 (3) or the like describes that the book in/out managing device employs multiple types of containers of sizes corresponding to the books classified by size of book.

Evidence A No. 1 (3) or the like describes the structure of the book shelf as follows: "2. a shelf structure having 6 passages including storage positions of 13,260 containers in total," (Translated abstract p. 4 l.14-l.15), "The number of stages: 34, Height of the stage: depth of a container + a maximum of 1.0 inch to the bottom of the next container" (Translated abstract p. 11 l.17-l.18). Since there are 34 stages having a height of "depth of a container + a maximum of 1.0 inch to the bottom of the next container," it can be said that multiple stages classified by size of the containers constitute multiple shelf areas, and that a set of the shelf areas is a storeroom.

Since the multiple shelf areas to be used in the storeroom described in Evidence A No. 1 (3) or the like employ 5 types of containers differing only in height (6.0-18.0 inches), the shelf areas are different in height.

As described above, it can be said that Evidence A No. 1 (3) or the like describes

the following invention (Invention A-1).

(Invention A-1)

"A storeroom, in a book in/out managing device, including multiple shelf areas classified by size of book and differing in height, for housing multiple types of containers of sizes corresponding to the books classified by size of book."

(2-1-2) Summary of the demandant's allegation

The demandant argues roughly as follows, against Different feature 1, in Written refutation of the trial case p. 12 l.13-p. 13 l.24, Oral proceedings statement brief submitted by the demandant p. 19 l.4-p. 21 l.14, and Written statement submitted by the demandant on November 24, 2011 p. 4 l.17-p. 5 l.5.

A) Evidence A No. 1 (3) or the like describes a storeroom, in a book in/out managing device, having multiple shelf areas classified by size of book and differing in height, and a plurality of containers housing books, which are same in width and differ in height, classified by size of book. As described in Evidence A No. 20 Japanese Unexamined Patent Application Publication No. S59-182103, Evidence A No. 21 Japanese Unexamined Patent Application Publication No. H04-256607, Evidence A No. 22 Microfilm of Japanese Utility Model Application No. S63-58087 (Japanese Unexamined Utility Model Application Publication No. H01-162410), Evidence A No. 28 Japanese Unexamined Patent Application Publication No. S59-172306, Evidence A No. 29 Microfilm of Japanese Utility Model Application No. S58-161944 (Japanese Unexamined Utility Model Application Publication No. S60-072405), it is well known that the containers are moved into/out of a shelf with multiple shelf areas different in width provided in accordance with multiple kinds of articles or containers differing in width, and it is also well known that "a plurality of shelf areas differing in width and height are provided in accordance with multiple types of containers different in width and height" as described in Evidence A No. 21 Japanese Unexamined Patent Application Publication No. H04-256607 and Evidence A No. 28 Japanese Unexamined Patent Application Publication No. S59-172306. The technology of the storeroom in Correction invention 1 is in common with the technology of the automatic warehouse. In the storeroom of the Correction invention 1, it can be said that a person skilled in the art could easily adopt the idea of forming a plurality of shelf areas differing in width and height in accordance with multiple types of containers differing in width and height, using the well-known arts in the automatic warehouse, in applying the

invention described in Evidence A No. 1 (3) or the like to the invention described in Evidence A No. 4.

B) The constituent components of "a storeroom having a plurality of shelf areas differing in width and height classified by size of book, and a plurality of containers for storing a plurality of books, which are to be housed in each of the shelf areas of the storeroom, each having a size corresponding to a shelf area where each of the containers is stored" do not specify in the Claims how the "width and height" of the shelf areas and containers corresponding to that correspond to the size of the books. For example, as shown in FIG. 2 in the reference material attached to the Written refutation of the demandant, the Claims do not exclude the case where containers different in "width and height," which do not correspond to the size of books, (the container for A4 format is the smallest, followed by the container for B5 format and the container for A5 format) are stored in the shelf areas.

The configurations shown in FIG. 2 and FIG. 11 in the patent publication are not specified in Claims 1, 2, and 7 of the case. The demandee's allegation is not based on the description in the scope of claims, and is groundless.

(2-1-3) Summary of the demandee's allegation

The demandee argues roughly as follows, against Different feature 1, in the Written reply p. 12 l.5-l.20 and p.17 l.12-p. 19 l.13, the Oral proceedings statement brief submitted by the demandee p. 16 l.3- p. 17 l.19, and the Written statement submitted by the demandee on November 24, 2011 p. 17 l.9-p. 18 l.18.

A) Since Invention A-4 (the invention described in Evidence A No. 4) and Invention A-1 (the invention described in Evidence A No. 1 (3) or the like) have different preconditions, Invention A-1 cannot be applied to Invention A-4. Even in Invention A-1 or the inventions on management technology of the automatic warehouse described in Evidences A No. 20 to No. 22 or Evidences A No. 28 and No. 29 to Invention A-4, the "storeroom having a plurality of shelf areas different in width and height classified by size of book" in Correction invention 1 cannot be obtained.

(2-1-4) Judgment by the body

Since the shelf areas to be used in the storeroom of Invention A-1 employ 5 types of

containers differing only in height (6.0-18.0 inches), the shelf areas are not configured to differ in width in addition to height.

Even if, as described in Evidences A No. 20 to No. 22, and Evidences A No. 28 and No. 29, it is well known that shelf areas differing in width are provided in an automatic warehouse and that shelf areas differing in width and height are provided in the automatic warehouse, as alleged by the demandee, and if it is well known that the automatic warehouse is in the same technical field as the storeroom, it cannot be said that it is well known that the shelf areas to be used in the storeroom differ in width and height.

Thus, even when Invention A-1 can be applied to the shelf areas of the storeroom and the containers storing a plurality of books in Invention A-4, the shelf areas in the storeroom might not differ in width and height.

Examining the above (2-1-2) Summary of the demandant's allegation B), it is natural to understand that the "storeroom having a plurality of shelf areas differing in width and height classified by size of book" is not configured as shown in FIG. 2 of the reference material alleged by the demandant, but is configured as shown in [FIG. 2] and [FIG. 11] which are drawings of Correction invention 1. With this configuration, the effect of "improving storage efficiency of books in the storeroom" described in [0089] in the substitute specification can be provided, and the demandant's allegation cannot be accepted.

As described above, it cannot be said that the matters specifying the invention of Correction invention 1 relating to the Different feature 1 could have been easily conceived by a person skilled in the art on the basis of Invention A-4, Invention A-1, and well-known technical matters.

The demandee submitted Evidence B No. 1 and Evidence B No. 2, and alleges that Evidence B No. 2 was captured at the same time of acquiring Evidence B No. 1 (Written reply p. 8 margin 1 and Written statement submitted by the demandee as of November 24, 2011 p. 4 1.4-1.6). Even if the above allegation is correct, the specifications, such as Evidence A No. 1 (3) or the like, are evidence as publications, and are not evidence proving that the library system manufactured by the specifications, such as Evidence A No. 1 (3) or the like, has been implemented. Since the subjects in the images of Evidence B No. 2 do not have any influence on the matters described in the specifications, such as Evidence A

No. 1 (3), the contents of technology of Evidence A No. 1 (3) or the like cannot be approved with Evidence B No. 2.

(2-2) Examination on Different feature 3

(2-2-1) Invention described in Evidence A No. 5 (Invention A-5)

According to the descriptions A) and B), it can be said that Evidence A No. 5 describes the following matters (hereinafter referred to as "Invention A-5").

(Invention A-5)

"A multi-stacking shelf having a plurality of shelf spaces where a plurality of loading pallets are stored in a depth direction with respect to the frontage from which the loading pallets are taken out by a telescopic fork 3."

(2-2-2) Summary of the demandant's allegation

The demandant argues roughly as follows, against Different feature 3, in Written demand for trial after correction p. 31 1.34-p. 32 1.26, Written refutation of the trial case p. 16 1.5-p. 17 1.27, and Oral proceedings statement brief submitted by the demandant p. 21 1.26-p.22 1.18.

A) Evidence A-4 (the invention described in Evidence A No. 4) including a plurality of containers 12 in a bookshelf 11 arranged in the storeroom aims for providing an excellent book in/out managing device configured to store a book to be returned in an arbitrary case and housed in a storeroom, and to facilitate check-out/return operation, as described in [0009].

Evidence A No. 5 describes that front and rear containers are arranged in the depth direction with respect to the frontage, and also describes the effect thereof, "The loading pallets 1A, 1B can be easily carried in and out with respect to the front shelf space 4A and a rear shelf space 4B in a dual shelf, thereby doubling a width of a multi-stacking shelves located at both sides of a lift aisle, while doubling the storage capacity, thereby achieving efficient space utilization in a storehouse or a factory." Since the loading pallet described

in Evidence A No. 5 is configured to allow an article to be placed and to move/transfer with the article placed thereon, the loading pallet corresponds to a container. Evidences A No. 5-No. 11 describe that, although it is natural and conventional, a rear container is taken out after taking out a front container which blocks the frontage, when a container, such as a pallet on which an article is placed, is taken out from the frontage. Thus, the Patent invention 1 relating to the Different feature 3 is configured only by arranging a plurality of containers at the front and rear in the depth direction, as described in Evidence A No. 5, in taking out a container by conveyance means from a plurality of shelf areas in the storeroom of Invention A-4, and by employing the conventional means for taking out the container. Therefore, the configuration of the Patent invention 1 relating to the Different feature 3 could have been invented by a person skilled in the art, on the basis of the inventions described in Invention A-4 and Invention A-5.

B) A storeroom is a branch of the technology of storehouse. The technology of automatic warehouse is a technology common in the field of technology of warehouse. Specifically, it is described that the storeroom is applied in common to "Storage management method and device" in Evidence A No. 18, to "Storage container carrying mechanism in device which automatically inputs/outputs storage container to/from storage shelf" in Evidence A No. 24, to an in/out device of "Storeroom" in Evidence A No. 25, to automated carrying in/out of an article in "Storage for book" in Evidence A No. 26, and to "APPARATUS FOR INDIVIDUALLY WAREHOUSING AND DELIVERING ITEM" in Evidence A No. 27, for books, documents, cassettes, records, or components. It is a common, well-known problem, in the technology of automatic warehouse as well as the technology of automatic storeroom, to improve storage efficiency and efficiency in carrying in/out operation. The transfer means, moving means, and take-out means in Correction invention 1 are well known in the automatic warehouse described above. It is clear that the concrete structure is not specified to be specific to a store room, in the scope of claims. A significant effect specific to a storeroom cannot be found in Correction invention 1. Thus, Correction invention 1 could have been easily conceived by a person skilled in the art by applying the above well-known arts to the invention described in Evidence A No. 4.

(2-2-3) Summary of the demandee's allegation

The demandee argues roughly as follows, against Different feature 3, in Written reply p. 14 l.25-p.17 l.9, and Oral proceedings statement brief submitted by the demandee p. 23 l.13-p. 24-l.12.

A) Both Invention A-4 (the invention described in Evidence A No. 4) on an automatic storeroom and the inventions described in Evidences A No. 5-No. 11 on an invention of a storehouse are merely systems which carry in/out an article. Even if the description about the automatic warehouse treating books in Evidences A No. 23-No. 27 is taken into consideration, the invention of the storehouse described in Evidences A No. 5-No. 11 cannot be applied.

(2-2-4) Judgment by the body

Comparing Correction invention 1 with Invention A-5, the "shelf space," "telescopic fork 3," and "loading pallet" in Invention A-5 correspond, in light of the function and technical significance thereof, to the "shelf area," "conveyance means," and "container" in Correction invention 1, respectively.

The "multi-stacking shelf" in Invention A-5 corresponds, only as a "storehouse," to the "storeroom" in Correction invention 1.

Therefore, when Invention A-5 is expressed by the term in Correction invention 1, it can be said that the Invention A-5 is a "storehouse having a plurality of shelf areas where a plurality of containers are stored in a depth direction with respect to a frontage from which the containers are taken out by conveyance means."

It can be also said that it is a conventional well-known technical matter, as alleged by the demandee, in the field of warehouse, as described in Evidences A No. 5 to No. 11, to take out a container, such as a pallet on which an article is placed, located behind after taking out a front container which blocks the frontage, when a plurality of containers are stored in a depth direction.

We will examine whether the technology of warehouse in Invention A-5 can be applied to the storeroom of Invention A-4.

According to the description in Evidence A No. 4 (D), "[0013] (Omitted) The stacker crane 15 takes out a container 12 from the bookshelf 11 for delivering a book, to be transferred to a delivery rack station 16, and transfers a container 12 placed on the delivery

rack station 16 to the original position in the bookshelf 11, for storage. The stacker crane 15 takes out a container 12 from the bookshelf 11 for storing a book, to be transferred to a receiving rack station 17, and transfers a container 12 placed on the receiving rack station 17 to the original position in the bookshelf 11, for storage," it can be said that Invention A-4 is configured to store a book to an original position of a bookshelf 11 (which corresponds to the "shelf area" in Correction invention 1). However, it cannot be said that the "loading pallet" in Invention A-5 (which corresponds to the "container" in Correction invention 1) is configured to be stored in a specific storage location in the shelf area (which corresponds to the "shelf area").

There is no motivation to apply the technology of warehouse in Invention A-5 which employs the "loading pallet" (which corresponds to the "container" in Correction invention 1) without specific storage location to the storeroom in Invention A-4 in which the "container 12" (which corresponds to the "container" in Correction invention 1) is stored in a specific storage location.

As described in Evidences A No. 18, No. 23- No. 27, even if, as alleged by the demandee, it is a conventional well-known technical matter that the automatic warehouse has a common technical field with the storeroom, it could not be well known in the field of storeroom that rear and front containers are arranged in a depth direction.

By employing the matters specifying the invention relating to the Different feature 3 of Correction invention 1, the effect described in [0089] of the substitute specifications, "improving storage efficiency of books in the storeroom," can be obtained.

Therefore, it cannot be accepted that the technology of warehouse of Invention A-5 can be applied to the storeroom of Invention A-4. It cannot be said that the matters specifying invention of Correction invention 1 relating to the Different feature 3 could have been easily conceived by a person skilled in the art on the basis of Invention A-4, Invention A-5, and well-known technical matters.

(3) Summary

It can be recognized that Correction invention 1, including the matters specifying the invention of Correction invention 1 relating to the Different feature 1 and the matters specifying the invention of Correction invention 1 relating to the Different feature 3, can

produce the effect of "improving storage efficiency of books in the storeroom," which cannot be expected from well-known technical matters based on Invention A-4 (invention described in Evidence A No. 4), Invention A-1 (invention described in Evidence A No. 1 (3), 2 (3), or 3 (3)), Invention A-5 (invention described in Evidence A No. 5), and Evidences A No. 6-No 11, No. 20-No. 29.

It cannot be accepted that Correction invention 1 could have been easily invented by a person skilled in the art on the basis of well-known technical matters based on Invention A-4 (invention described in Evidence A No. 4), Invention A-1 (invention described in Evidence A No. 1 (3), 2 (3), or 3 (3)), Invention A-5 (invention described in Evidence A No. 5), and Evidences A No. 6-No 11, No. 15-No. 18, No. 20-No. 29, without examining the well-known matters based on the Different feature 2 and Evidences A No. 15-No. 18, which are means of proof on the Different feature 2.

6-4. Regarding Correction inventions 2 and 3

Correction inventions 2 and 3 are part of the configuration of Correction invention 1. For the same reason as that above, it cannot be accepted that Correction inventions 2 and 3 could have been easily invented by a person skilled in the art on the basis of the well-known technical matters based on Invention A-4 (invention described in Evidence A No. 4), Invention A-1 (invention described in Evidence A No. 1 (3), 2 (3), or 3 (3)), Invention A-5 (invention described in Evidence A No. 5), and Evidences A No. 6-No 11, No. 15-No. 18, and No. 20-No. 29.

Therefore, Correction inventions 1 to 3 do not fall into inventions which cannot be entitled to a patent in accordance with the provisions of Article 29-2 of the Patent Act, and have no reason for invalidation (Article 123-1 (2) of the Patent Act) regarding the patent for the reason of violation of the article.

7. Closing

As described above, the reasons and the means of proof alleged by the demandant cannot invalidate the patent regarding Correction inventions 1 to 3.

No reasons for invalidating the patent regarding Correction inventions 1 to 3 were found.

The costs in connection with the trial shall be borne by the demandee under the provisions of Article 61 of the Code of Civil Procedure which is applied mutatis mutandis in the provisions of Article 169-2 of the Patent Act.

December 21, 2011

Chief administrative judge: NAKAMURA, Tatsuyuki

Administrative judge: NAKAGAWA, Ryuji

Administrative judge: KOTANI, Ichiro