

# YUASA AND HARA

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### Trends in the Judgment of Inventive Step in Japan and Some Points to be Noted for Future Reference

The Japan Patent Office (hereinafter referred to as the “JPO”) Appeals Department published the “Inventive Step Review Meeting Report” in March 2007.

In the opinion of a number of patent practitioners active in the industrial sector and other areas, the appellate decisions issued by the JPO and court decisions rendered by the IP High Court concerning the inventive step have been too strict. In view of these outside opinions, the JPO decided to hold an Inventive Step Review Meeting in July 2006 with the Deputy Director General of the Appeals Department as chairman. The meeting’s participants consisted of Appeal Examiners from the JPO, patent practitioners from the industrial sector, attorneys-at-law, and patent attorneys.

At the Review Meeting, reviews of judgments on Inventive Step were

conducted covering a period of about six months, and the review results were summarized and published in the Report. The publication of the Report is expected to contribute to greater objectivity and clarity regarding the criteria for judgment of Inventive Step. An overview of the Review Meeting is given below.

#### (1) Reviewing Organization

In addition to a meeting of all participants, the different characteristics of the various technological fields on Inventive Step judgment were taken into consideration, and four divisional meetings were also established, covering the fields of physics, machinery, chemistry and electricity.

#### (2) Cases Reviewed

The reviewing members selected two cases from each technological field from among finalized appellate decisions affirmed by the IP High courts (or previously, the Tokyo High Court) in which the court found no Inventive Step, for a total of eight cases (refer to <Table 1>). Only cases about which there was some doubt regarding a judgment on Inventive Step by the courts or Appeals Department (refer to <cases about which some doubts were raised> below) were selected.

<Table 1> Cases Selected for Review

Case No.	Lawsuit No.	Trial No.	Technological Field
Case No.1	(Admin. Ke) No.10199, 2005	Complaint No.2002-24965	Physics (office machines)
Case No.2	(Admin. Ke) No. 444, 2001	Invalidation No. 2000-35087	Machinery (metal processing)
Case No.3	(Admin. Ke) No. 10389, 2005	Complaint No. 2002-3830	Chemistry (pharmaceuticals)
Case No.4	(Admin. Ke) No. 66, 2004	Complaint No. 2001-20818	Electricity (information recording)
Case No.5	(Admin. Ke) No. 10853, 2005	Correction No. 2005-39112	Physics (medical equipment)
Case No.6	(Admin. Ke) No. 10424, 2005	Complaint No. 2003-15149	Machinery (containers)
Case No.7	(Admin. Ke) No. 371, 2004	Complaint No. 2002-7149	Chemistry (pharmaceuticals)
Case No.8	(Admin. Ke) No. 10161, 2005	Complaint No. 2002-19886	Electricity (ATMs)

#### <Presentation of Cases about which Doubt Existed>

- In the identification of claimed inventions, is it not possible to make a restrictive interpretation of the scope of claims?
- In the identification of the cited invention, is it not excessive to require that the described matters be supplemented with technological common knowledge?
- In judging whether features are identical, is it permissible to allow a superordinate conception?
- With respect to design variation matters, what judgment criteria have been applied?
- Regarding motivation, are the relevance of the technological field and the common ground of problems recognized too broadly?
- Can favorable effects not be asserted by providing ex post facto proof?
- Why are hindrance factors not recognized?

### (3) Review of the Technological Field Section Meetings

In the technological field section meetings, the validity of appellate decisions and court decisions, problems with the methods used to judge Inventive Step, and the logical framework of the cases were considered. The results were summarized for each case.

### (4) Review of the Full-Member Meeting

The review results for each case completed at the section meetings were then reported to the full-member meeting, and the problems found in the judgments of Inventive Steps were systematically organized. Also, matters to be noted in making future appellate decisions and matters to be noted by applicants and claimants for appeal were stated.

### (5) Overview of review results

All participants agreed that the conclusions were valid for six of the eight cases. Of the remaining two cases, most of the participants agreed that the conclusion was valid for the 2<sup>nd</sup> case, but some disagreed. Opinions were very divided about the 5<sup>th</sup> case.

The six cases on which the reviewing members agreed were all cases for appeal of a refusal decision by the examiner, which were subsequently affirmed by the IP High Court (Note: The rate of affirmance of JPO appellate decisions is nearly 90%; Cf. YUASA and HARA, Intellectual Property News, Vol. 20, Jan. 2007). The 2<sup>nd</sup> case was an invalidation trial, where after the JPO rendered a decision sustaining a trial decision, the high court vacated the decision, and as a result of the 2<sup>nd</sup> invalidation trial, the invalidation was finalized. The 5<sup>th</sup> case was a trial for correction, but an invalidation trial was instituted before the trial for correction. The sustaining decision of the JPO was vacated by the high court, and the case was instituted during the suit against the 2<sup>nd</sup> trial decision after being remanded.

However, in order for readers to deepen their understanding of the judgment of Inventive Step in Japan, it is more useful to explain the review results of specific cases selected in the Report than it is to explain the outline encyclopaedically. Accordingly, I will introduce an outline of the review results for the cases with an outline of the appellate decision and judgment, taking an example from the field of physics (Patent Application No. 2001-337446; which is both a physics case and also an electricity field case). I personally participated in reviewing this case. This case is interesting in that a corresponding US patent (US Patent No. 6447090) exists, but the US patent's references do not cite publications which are cited in the examination in Japan.

Hereinafter, I will basically explain the implementation cases related to claims based on the corresponding US patent specification. I

would like readers to note that some items from the Reports, etc. have been edited.

In Japan, the judgment of Inventive Step is generally made in accordance with the following procedures.

- Identification of claimed inventions
- Identification of cited inventions
- Finding of identical features and differences
- Review of differences (reasoning to deny Inventive Step, including design matters, motivation, consideration of favorable effect and hindrance factors, etc.)

The appellate decision in this case was rendered according to these basic procedures.

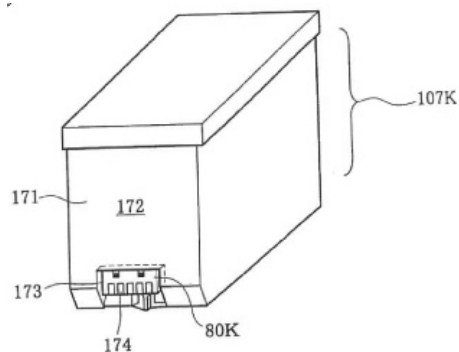


Fig.6A

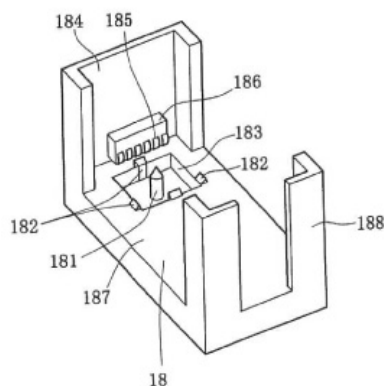


Fig.6B

## 1. Overview of Appellate Decision (Complaint No. 2002-24965)

### (1) Identification of claimed inventions

The identification of claimed inventions will generally be made based on the description of the scope of claims unless there are special circumstances where the technological significance described in the scope of claims is not unambiguous and is clearly understandable (<Lipase Decision> (Admin. Tsu) No. 3, 1987, see March 8, 1991, the Supreme Court, 2<sup>nd</sup> Petty Bench Decision, the Supreme Court Civil Affairs Case Book Vol. 45, No. 3, P. 123).

The first claimed limitation is as follows.

An ink cartridge configured to be detachably mountable on a printer, the ink cartridge comprising: a storage unit storing plural pieces of specific information relating to the ink cartridge and sequentially accessed by the bit unit; wherein the storage unit has a storage area that comprises a first storage area for storing data not to be updated according to use of the ink cartridge and a second storage area for storing data to be updated according to use of the ink cartridge, the first area having a plurality of memory divisions including a storage capacity of minimum bits

Address of Control IC 200	Data Length (byte)	Items of Information	Address of Storage Element 80K	Capacity (bit) in Storage Element
00	1	Remaining quantity of black ink	00	8
01	1	Frequency of cleaning	08	8
02	1	Frequency of attachment	10	8
03	2	Total time period of attachment	18	16
05	1	Year of manufacture	28	7
06	1	Month of manufacture	2F	4
07	1	Date of manufacture	33	5
08	1	Hour of manufacture	38	5
09	1	Minute of manufacture	3D	6
0A	1	Production serial No.	43	8
0B	1	Frequency of recycle	4B	3
0C	2	Ink cartridge name	4E	10
0E	1	Ink type	58	8
0F	1	Term of validity	60	6
10	1	Term of validity after unsealed	66	5

Fig.11

required for storage, and the second storage area having a plurality of memory divisions respectively having a storage capacity of an integral multiple of eight bits.

In this regard, the underlined parts refer to the limitation of the Japanese claim, which is not described in the corresponding US claim. It should also be noted that regarding a first and a second storage area, the names are reversed in the Japanese claim and US claim.

Descriptions appearing in the US Patent Specification will be introduced briefly, with drawings attached, as they are related to matters to be considered hereinafter, with respect to the relevant implementation examples.- (Structure of Storage Elements 80K and 80F)

FIG. 11 shows addresses of the control IC 200 seen from the printer main body 100 and the internal data structure (memory map) of the storage element 80K with regard to items of information on the black ink cartridge 107K. ...The EEPROMs used for the storage elements 80K and 80F respectively include the memory cells 81K and 81F, read/write controllers 82K and 82F that control reading and writing operations of data from and into the memory cells 81K and 81F, and address counters 83K and 83F that count up on the occasions of the reading and writing operations of data between the printer main body 100 and the memory cells 81K and 81F via the read/write controllers 82K and 82F in response to a clock signal CLK, as shown in the block diagram of FIG. 10. The addresses in the storage elements 80K and 80F are specified by the bit unit.....The memory cell 81K (storage element 80K) has addresses 00 through 18, which are allocated to a readable and writable storage area 650, and addresses 28 through 66, which are allocated to a read only storage area 660. In this embodiment, a piece of information on the remaining quantity of black ink is registered at the address 00 in the memory cell 81K having a data length of 8 bits. ....Pieces of information relating to the manufacture of the black ink cartridge 107K are stored at specific addresses that respectively occupy the minimum bits required for storage (storage capacities). ...The correlation between the addresses in the storage elements 80K and 80F and the addresses in the control IC 200 (the print controller 40) are described briefly with reference to FIG. 13. Data is stored in units of 1 byte in the control IC 200, whereas data is stored in units of 1 bit in the storage elements 80K and 80F. In the control IC 200, an area of 1 byte is accordingly allocated even to data having a length of less than 1 byte. In the storage elements

80K and 80F, on the other hand, only the minimum bits required are allocated to each piece of data, so that there is no vacancy in the data area.

- (Reading Operation from Storage Elements 80K and 80F)  
... The specific number of clock pulses corresponds to a desired address, which is output from the print controller 40 and which

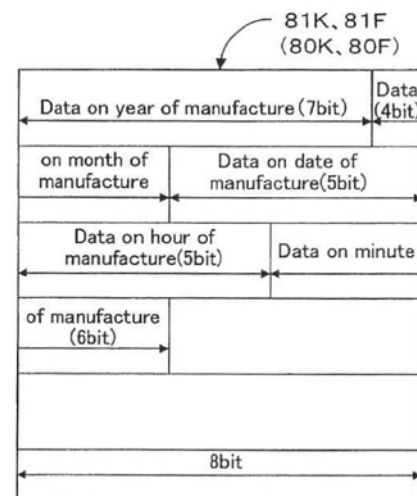
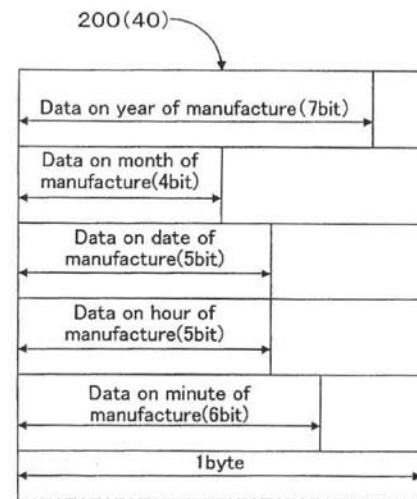


Fig.13

the print controller 40 requires in order to gain access to and read data. In this address conversion process, the control IC 200 converts a first address \*Adf and an end address \*Ade in a desired range of addresses (bit data) in the memory cells 81K and 81F, ...into the corresponding numbers of clock pulses. The control IC 200 successively outputs (\*Adf-1) clock pulses and (\*Ade-\*Adf) clock pulses to the storage elements 80K and 80F. The address counters 83K and 83F in the storage elements 80K and 80F increment the address by the bit unit at a timing of a fall of the clock signal CLK. ...The data stored in the storage elements 80K and 80F are output to a data bus at the timings of the fall of the clock pulse. ...The read-out data are serial data expressed by the bit unit, so that the control IC 200 converts the bit data to the byte data...

- (Effects of First Embodiment)

This arrangement enables the limited storage capacities of the storage elements 80K and 80F to be utilized effectively. ...This arrangement ensures the efficient storage of more pieces of information in a fixed storage capacity.... the inexpensive EEPROM, which carries out only the sequential access, is applied for the storage elements 80K and 80F ... Such application desirably reduces the cost of the expendable ink cartridges 107K and 107F. ...the readable and writable storage areas 650 and 750 are located at addresses that are sequentially accessed prior to the read only storage areas 660 and 760 in the respective storage elements 80K and 80F...this arrangement ensures completion of the writing operation of data before the power plug is pulled out of the socket.

The underlining has been added by the author for emphasis (the same practice shall apply hereinafter).

The summary of the implementation examples by the author, paying attention to these descriptions, is as follows.

EEPROM of the bit sequential type is used for a storage element of an ink cartridge, and a storage area of the storage element is divided into the R/W area and R area and they are arranged so that the R/W area is first accessed. The data requiring renewal, including the remaining quantity of ink, etc., is stored in the R/W area in units of several bytes and the data not requiring renewal, including the manufacturing date, etc., is stored in the R area in the minimum bits required. With respect to why data requiring renewal is stored in units of several bytes instead of units with the minimum bits required, it is assumed that the method in the implementation example is employed as a result of balancing demerits, as the controller receiving and processing this data is basically a byte machine, and if the renewal data is not prepared in byte units, special processing would be necessary to send data while referring to the bit length of the data requiring renewal in writing this data to the R/W area.

## (2) Identification of Cited Invention

The cited publication is the official gazette of the published, unexamined Japanese patent application, No.Hei-2-279344, distributed before the priority date of the present application. As a corresponding US patent exists (US Patent No. 5049898), its main points will be enumerated as extracted from the the trial decision, on the basis of the description in the corresponding US Patent Specification.

- The present invention relates to printing assemblies, such as ink jet printheads...
- Affixed to the housing of printhead 12 is the memory element 14 which may comprise, for example, a strip of magnetic media, a semiconductor memory... Stored in this memory is data relating to the printhead. Such information

...may characterize some operational characteristic(s) of the printhead (i.e. ... ink color, ink level ..., etc.). This data can then be read from the printhead and used or displayed as desired.

- Coupled to the output of the signal generator circuit 38 is a monitoring circuit 42 that counts the number of ink droplets the printhead is instructed to print. This count is related directly to the quantity of ink consumed by the printhead during a given printing task. The memory 14 on the printhead desirably has a datum thereon that indicates the relative quantity of ink remaining in the ink chamber. ...The count tallied by the monitoring circuit 42 can be used to periodically update this datum.
- The printer's volatile memory 46 is thus updated continuously by its monitoring of signals provided to the printhead; the printhead's magnetic strip memory 14 is updated periodically (i.e. each time it passes the read/write head) by transfer of the datum from memory 46.
- If the printhead is removed from the printer and used in another printer, the datum indicating its remaining charge of ink travels with the printhead to the new printer.

From the above description, we can read in the cited publication that memory element 14 is provided in the printhead of the ink-jet printer, and in the memory element 14, the non-renewable data "ink color" and renewable data "ink level" are housed.

During the appeal decision, the invention (cited invention) described in the cited publication was located, taking into consideration the above description (in particular, the underlined parts) and the structure of the printhead 12 (description of which is omitted).

## (3) Finding of identical features and differences

In the appeal decision, four differences between the invention described in the 1<sup>st</sup> claim and the cited invention are enumerated, but the differences which were regarded as points of contention in the action for cancellation of the appeal decision are the three set forth below.

- 1) While "a storage unit" of the former invention means storage equipment which is sequentially accessed by a one (1) bit unit (although in the latter, semiconductor memory is illustrated as "a storage unit," since it is unclear what kind of structure is employed for said semiconductor memory), it is not certain whether or not "the storage unit" of the latter invention is likewise storage equipment which is sequentially accessed by a one (1) bit unit.
- 2) While the non-renewable data is stored in the minimum bit data size required for storage of each piece of data in the storage unit of the former invention, it is not clear in what data size the non-renewable data is stored in the "storage unit" of the latter invention.
- 3) While in the storage unit of the former invention, renewable data is stored in a data size that is an integral multiple of 8 bits, it is not clear in what data size the renewable data is stored in the "storage unit" of the latter invention.

## (4) Review of Differences

- 1) Concerning the point that a storage unit is "storage equipment sequentially accessed by a one (1) bit unit":  
It is a widely-known technique to adopt serial access-type memory in an ink cartridge in a printing machine to store data about the remaining quantity of ink. In the cited publication, semiconductor memory is illustrated as memory element 14 and the widely-known serial access-type memory is one type of semiconductor memory. Therefore, it is merely a conversion of universally

known technology to adopt serial access-type memory for “a storage unit” of the invention as described in the cited publication. It is obvious to those skilled in the art that storage equipment may be of a type accessed by a one(1) bit unit and of a type accessed by a several bit unit, such as 8 bits, in inputting and outputting data. Therefore, in the invention described in the cited publication, the type of storage equipment to be used and accessed, and by what type of unit, is merely a design matter to be determined by those skilled in the art, taking into consideration cost and processing speed, etc.

- 2) The point that non-renewable data is stored in the minimum number of bits required for storage of each piece data in “the storage equipment.”

Where multiple pieces of data of different sizes are stored in the storage equipment, there are two widely-known techniques: to store each piece of data having a data size with the same length (generally referred to as “Fixed Length Data”), and to store each piece of data having the minimum data size required for each piece of data (generally referred to as “Variable Length Data”). From the descriptions of the invention in the cited publication, it is not clear which technology is adopted in storing the non-renewable data, but the choice of technology is merely a design matter to be determined by those skilled in the art, taking into consideration cost and processing speed etc.

- 3) The point that renewable data is stored in a data size which is an integral multiple of 8 bits in “a storage unit.”

Those skilled in the art should determine what data size should be used for stored data, taking into consideration the capacity of the storage unit and the minimum bits required for storing the data, etc. This is merely a design matter unless a particular technological effect is generated by the use of a particular data size. In the present application, the relationship between the processing unit of the CPU, which accesses the storage equipment in the ink container, and the data size of renewed data stored in the storage equipment is not defined. In light of this, and considering that no technological effect is generated by setting the data size at a bit length which is an “integral multiple of 8 bits” for renewable data as described in the 1<sup>st</sup> claim of the present application, the scope of the invention in the 1<sup>st</sup> claim of the present application is recognized to be beyond the scope of the effect asserted by the applicant.

Therefore, as no particular technological effect is generated by the choice of data size in the invention described in the cited publication, the size of the stored data is merely a design matter for those skilled in the art to determine, taking into consideration the storage capacity of a storage unit and the minimum bits required for storing the data, etc.

## **2. Assertion of Plaintiff, judgment in the suit against the appeal decision and the review results at the Inventive Step Review Meeting**

The judgment of the appellate decision on the differences set forth in 1) through 3) above were the issues under discussion at the Inventive Step Review Meeting. Since the assertions of Plaintiff on each point of contention partly overlap, I will introduce the judgment of the court and the reviewing results of the Inventive Step Review Meeting after organizing several points.

### **A. Storage Area and Division of Storage Area**

#### **(A-1) Assertions of Plaintiff**

In sequential access, the access order is determined on the basis

of storage area, and therefore the storage area is a very important concept in sequential access. However, in the cited publication, no disclosure or suggestion was made that the storage area is divided on the basis of renewability.

The following characteristics of the invention from the present application invention differ from those of the cited invention: a) placing focus on the renewability of the data as well as b) dividing the storage area between data stored in “the data size of an integral multiple of 8 bits” and data stored in “the data size of the minimum bits required for storing data.”

#### **(A-2) Judgment of the Court**

With regard to the scope of the patent claims, only the type of data stored (whether it is renewable) and the data size are specified in relation to the 1<sup>st</sup> and 2<sup>nd</sup> storage areas, and the arrangement and structure of the 1<sup>st</sup> and 2<sup>nd</sup> storage areas are not specified. Therefore, it is impossible to conclude that the 1<sup>st</sup> and 2<sup>nd</sup> storage areas are designed with a particular arrangement or structure in the present invention. It is likewise impossible to assert that storage equipment sequentially accessed by a one (1) bit unit is designed with a particular arrangement or structure. In fact, all that can be determined about the division of the storage area is that it exists corresponding to the type of stored data.

#### **(A-3) Review Results at the Inventive Step Review Meeting**

Regarding the judgment that “the 1<sup>st</sup> and 2<sup>nd</sup> storage areas are not recognized as being designed to have a particular arrangement and structure” and “division of storage area is not included in the determination,” there was an opinion that cast doubt on the determination that the courts and the JPO cannot make a limited interpretation of the claims, against the assertion by the applicant (claimant for appeal) that a limited interpretation should be applied on the basis of the description in the specification.

However, with respect to the description in the claims, this case does not fall into the category with cases where we have to take into consideration the special circumstances of the Lipase decision or “the definitions or explanations in interpretation of the term” described in the judgment standards. Since there was no reason to make a limited interpretation of the claims, we had to conclude that the applicant’s assertion was unreasonable.

There was also some controversy over the applicant’s assertion that the division of the data storage area into “renewable data” and “non-renewable data” is the novelty of this invention. The appellate decision and the judgment did not address this point. We reached the conclusion that this assertion was groundless because it was made on assumption that the claims should be restrictively interpreted as “dividing the storage area”, and there was no reason for a restrictive interpretation of the claims.

### **B. On adoption of storage equipment sequentially accessed by a one (1) bit unit**

#### **(B-1) Assertions of Plaintiff**

No description of “storage equipment sequentially accessed” was made in any of the widely-known examples enumerated in the trial decision.

Before the date of assertion of the priority right of the present application, we were in a development environment in which random access memory was widespread, but technological information about sequential access memory was difficult to obtain. The function of the storage equipment in the present invention application, which is sequentially accessed by a one (1) bit unit, can be accomplished by random access memory. It is therefore not reasonably conceivable

for one skilled in the art to adopt sequential access memory by customization.

#### (B-2) Judgment of the Court

As “storage equipment sequentially accessed” and “serial access memory” are different, it must be concluded that there was an error in the process by which the trial court reached its judgment. However, in the appellate decision, the court judged that the subject invention’s composition was easy to conceive after identifying that the “storage unit” described in the present application was storage equipment sequentially accessed by a one (1) bit unit.

As “storage equipment sequentially accessed by a one (1) bit unit” was a well-known technology, we cannot say that those skilled in the art would have required particular creativity to use technology as widely-known as that used in the “storage equipment” of the cited invention. It cannot be said that the 1<sup>st</sup> and 2<sup>nd</sup> storage areas are designed with a particular arrangement or structure in the present invention. In light of this, it cannot be argued that it is difficult to conceive of the use of storage equipment sequentially accessed by a one (1) bit unit because of a unique structure or arrangement of the 1<sup>st</sup> and 2<sup>nd</sup> storage areas in the present invention.

It cannot be said that we were in a development environment in which technological information about sequential access memory was difficult to obtain. Even if random access memory is widespread and the function of sequential access memory can be accomplished by random access memory, as there is no technological creativity involved in the adoption of a widely-known technology such as sequential access memory, the assertion of the Plaintiff cannot be sustained.

#### (B-3) Review Results at the Inventive Step Review Meeting

There was an opposing opinion concerning the fact that the judgment described many technologies concerning memory as widely-known technologies. These participants believed that with respect to the judgment that found “storage equipment sequentially accessed by a one (1) bit unit” to be widely-known technology, printer technology and memory technology have little relation to each other, and one skilled in the art in the printer field is not necessarily familiar with memory technology. On the other hand, there was an opinion that “sequential access memory in one (1) bit units” has been applied to many products regardless of the technological field, and can be said to be universally known, and therefore familiar to one skilled in the art in the printer field.

In addition, the judgment recognized a “storage unit sequentially accessed by a one (1) bit unit” as the basis of the level of technology known to one skilled in the art, and that one skilled in the art does not require any particular creativity to use a “storage unit sequentially accessed by a one (1) bit unit” in the cited example. Because of this, and judging from the fact that effective arguments or proof were not introduced maintaining that a “storage unit sequentially accessed by a one (1) bit unit” was unable to be used on the basis of the knowledge and ability of one skilled in the art in the field of printer technology, we believe that such an opposing opinion would not have been accepted in the action for cancellation of a trial decision suit even if it had been asserted.

### C. On particular effects based on the relationship between the existence of renewal of data and data size

#### (C-1) Assertion of Plaintiff

In the present invention, it is decided whether to store data in a “data size of an integral multiple of eight (8) bits” or a “data size of the minimum bits required for storage of the data” based on whether the

data is renewable. The composition of the method used to switch between these plural storage methods based on such a distinction cannot be called a design matter.

The present invention dares to incorporate the mixing of the storage areas for data stored in an integral multiple of eight (8) bits (which is not conducted in the usual design) and data in the minimum bits required for storage of the data. As a result, it generates the particular effects of compatibility between speedy data processing and low memory consumption.

In the present invention, data in an integral multiple of eight (8) bits on the printer side can be transferred to memory without any change. As a result, because the data can be transferred to the memory without changing the data size on the printer side, the time required for processing changes in data size can be eliminated, and errors as a result of this processing can be prevented.

#### (C-2) Judgment of the Court

It is well-known that data is stored in a “data size of the minimum bits required for storage of the data” and in a “data size of an integral multiple of eight (8) bits.” Data sizes stored in the storage equipment are not necessarily unified, and it is a widely-used technology to store data with different sizes in the same storage equipment as appropriate.

Whether it is renewable data or not, in order to store the data accurately in the storage equipment, it is clear that it is necessary to determine the size of each piece of data.

As is the case with the implementation example, if a composition is employed in which data is housed sequentially in each address along with the areas with the minimum bits, it is recognized that the effects described by the Plaintiff are generated by this more efficient housing. It is clear that this effect is not generated by the switching of data sizes depending on the renewability of the data, but is instead generated only by housing data on the basis of the size of each piece of data. Therefore, since there is no particular technological significance in switching the type of data size based on the difference in data renewability, it cannot be said that it is difficult for an entrepreneur to conceive of the said composition.

With regard to the scope of the patent claim (Claim 1) in the present invention, in relation to the 1<sup>st</sup> and 2<sup>nd</sup> storage areas, only the type of data stored (existence of renewal) and the data size are specified, and the relationship between the storage area and renewable processing is not specifically described. It is therefore not specified in the scope of the patent claim that the storage area used for data with a size of an integral multiple of eight (8) bits is the writing area requiring speedy processing. Likewise, the storage area used for data with a size of the minimum bits required for storage of the data is not designated as the writing area requiring reduction of memory consumption rather than speedy processing.

For these reasons, the manner of data transfer is not a structural element of the present application invention.

#### (C-3) Review Results at the Inventive Step Review Meeting

Concerning the judgment holding that storage in the “data size of the minimum bits required for storage of the data” and storage in the “data size of an integral multiple of eight (8) bits” are widely known, a doubt was raised regarding the analogy of printer memory to the abbreviated dialing of a FAX machine, because the technological fields are so different. On the other hand, there were opinions that if the products using these types of memory are different, but there is no difference in the memory itself or in the function of the storage unit, it is acceptable to use FAX machines as an example of the fact that these types of memory are widely used technology, and that

it is natural to pack a by-bit unit in a package to use memory more efficiently. We reached the conclusion that the judgment, which determined that said widely-known technology is at the level of basic knowledge of those skilled in the art, was appropriate.

The court also determined that the effect of “compatibility of speedy data processing and small quantity of memory consumption” and “the ability of data in a data size of an integral multiple of eight (8) bits on the printer side to be transferred to memory without change” asserted by the Plaintiff were not significant. We also came to the conclusion that this judgment was appropriate.

- It is not described in the claim that the address comes first in the 2<sup>nd</sup> storage area (storage area for renewable data).
- The claim and specification do not describe a clearly understandable merit (effect) of the “division of storage area”.
- Control on the printer side is also relevant to data renewability, and since the control on the printer side is not specified in the claim and only “ink container” is specified, the effect cannot be approved.
- “Speedy data processing” is an effect not based on the claim and “small quantity of memory consumption” is merely an effect of the widely known technology.

In any event, we agreed with the finding that no assertion of favorable effect is supported by the description in the claim.

There was an opposing opinion that if the claim is read, taking into consideration the purpose and effect described in the specification, the “division of storage area” asserted by the plaintiff can be read into the description in the claim. However, since there is no reason to interpret the claim restrictively, such an opinion seems unreasonable. Setting the data size depending on the type of data is a matter naturally considered by one skilled in the art of designing memory. We could not find any particular technological significance in switching the data size depending on data renewability in the description in the specification, and we therefore came to the conclusion that this is unavoidably determined as a design matter.

On the other hand, there were opinions that if part of the composition of the invention is determined as a design matter, there is no way to refute the determination, or it is unpersuasive unless it is explained in the literature that it is a design matter by suggestion or motivation. However, whether a claim is in fact a design matter should be considered without suggestion or motivation from the literature in connection with the specific application of technologies, and the existence of operations or functions that exceed the level of a design matter is sufficient to prove that point.

Although they are not directly related to the judgment on the Inventive step in this case, with respect to the claim in this case, the following matters were pointed out at the Inventive Step Review Meeting.

The claim only describes the composition of the “ink container” and as the applicant asserted the effect of the operation of the “controlling system” including the printer, it seems that it is unreasonable to assert Inventive Step. Applicant might have wanted to acquire the right not as the system combining an ink container and printer, but as an “ink container” which is transacted as a single item, but there remains a doubt as to whether the composition of the ink container alone was precisely described in the claim in relation to the operational effects it produces.

As stated above, I have introduced the results of the reviews of specific cases. Based on our review, we believe that the claim could have been patented in this case, if it had been specified that the storage area is divided into a 1<sup>st</sup> storage area and a 2<sup>nd</sup> storage area, and

that the address of the 2<sup>nd</sup> storage area (the storage area for renewable data) is on top.

Based on this example, if a court determines that a composition sufficient to generate a particular operational effect was not described in the claim, it will not be approved even if a superior operational effect is asserted as compared to the cited invention, and the court is likely to determine that it is a universally known technology or does not have an Inventive Step because it is a design matter. Therefore, in order to assert that a particular operational effect is generated, which is different from the cited invention, it is necessary to elicit a particular effect naturally from the composition described in the claim, and it is important to make an appropriate correction in response to an Office Action, including a notice of refusal. In decisions of refusal issued due to an inadequate correction, the failure ratio of Plaintiffs in actions for cancellation of a trial decision reviewing the examiner’s decision is nearly 90%. In the interest of avoiding risk, it is important to make a divisional application at the time a trial is requested. In particular, as a result of the recent amendment to the Law, the time limitation on the filing of a divisional application was relaxed for applications filed after April 2007, and a divisional application is now acceptable within the prescribed time from the decision of refusal. It is now possible to make a divisional application only, without having to request a trial after receiving a decision of refusal, and if this is actively used, it is expected that it will significantly mitigate the risk of final refusal.

For your reference, it is expected that the tendency in the United States will be to recognize widely known matters and technological common knowledge more broadly in the near future as a result of the Supreme Court decision, *KSR v. Teleflex*. The CAFC itself, in the *In re Kahn* decision and the *DyStar* decision, tried to relax the stringent application of “TSM (teaching, suggestion, motivation to combine)” standards before *KSR v. Teleflex* by taking TSM into account in advance. For example, in the *Teleflex* decision by the CAFC, the same problem was required for motivation in combination, but in the *Kahn* decision, it was stated that general problems are sufficient and it seems that proof of motivation will become easier. In the *DyStar* decision, it was pointed out that the motivation test not only allows, but requires consideration of widely-known matters and technological common knowledge from the viewpoint of those skilled in the art. This shows a commonality with the judgment of Inventive Step in Japan.

In judging an Inventive Step, based on a global trend which recognizes consideration of widely known matters and technological common knowledge more broadly, I believe appropriate descriptions in the claim, which will assert a significant difference between the claimed invention and a cited invention, will be greatly expanded in the future.

Makoto Ueda (Mr.);  
Patent Attorney of the Patent Division

## Case review: Co-Inventorship under the Japanese Patent Law - Biologist cannot be the co-inventor of a pharmaceutical chemical compound-

Case no: (Ne)10074/2006, Intellectual Property High Court decision of March 15, 2007  
Plaintiff: Ex-worker of the Defendant  
Defendant: Otsuka Pharmaceutical Co., Ltd.

### 1. Introduction

#### Inventorship under the Japanese Patent Law

Under the Japanese Patent Law, the “Inventor” must be listed in a patent application (Item 2, Sec.1 Art.36 of the Patent Law). If a patent application is filed by a person who is not the inventor, and who has not been assigned the right to apply for the patent by the inventor, the patent application shall be rejected by the Japan Patent Office (Item 7, Art.49 of the Patent Law) and a registered patent issued pursuant to such an application shall be invalidated (Item 6, Sec.1, Art. 123 of the Patent Law), because the right to apply for a patent originally belongs to an inventor.

However, the Japanese Patent Law does not provide any clear definition of “Inventor” and “co-inventor”. Therefore, the court was left to establish the definition of “inventor” and “co-inventor” for a long time. The court precedents said that a “co-inventor” must actually take part in creative acts regarding the technical conception of an invention. Accordingly, a person who merely worked as a general administrator, as an assistant under an inventor’s instruction, or as a patron cannot be a co-inventor.

### 2. Background of the case

Otsuka Pharmaceutical Co., Ltd. (“Otsuka”) is the owner of U.S. Patent (Reg. No.:4,277,479, Titled: Tetrazolylalkoxycarbostyryl derivatives and pharmaceutical compositions containing them)(“Invention”).

Many of Otsuka’s chemists and biologists worked to develop the Invention and they were ultimately successful. A former employee of Otsuka (“Mr. A”) brought an action against Otsuka seeking 100,000,000 Japanese Yen as remuneration for transferring his right to apply for a patent for the Invention as a co-inventor under Sec.3, Art.35 of the Patent Law.

### 3. Judgment of the court

#### 3.1 Tokyo District Court

The Tokyo District Court concluded that Mr. A was not a co-inventor of the Invention under the Patent Law on September 8, 2006. Mr. A appealed to the Intellectual Property High Court.

#### 3.2 Intellectual Property High Court (Court of Appeal)

The Intellectual Property High Court sustained the Tokyo District Court’s decision and dismissed Mr. A’s appeal on March 15, 2007. The reasons for the IPHC’s decision are as follows:

#### 3.2.1 General requirements for an inventor

At the beginning of the opinion, the IPHC followed court precedents regarding the requirements for an inventor as follows:

“‘Invention’ shall mean the highly advanced creation of technical ideas by which a law of nature is utilized (Sec.1, Art.2 of the Patent Law). The technical scope of a patented invention shall be determined on the basis of the statements of patent claims attached to the request (Sec.1, Art.70 of the Patent law). Accordingly, in order to be an inventor under the Patent Law, it is necessary to substantially join the creative activity of the technical ideas described in the claims. Although a person performed as an assistant to an inventor during the course of creating an invention, including participation in the creative activity, performing tests, and collecting and analyzing data, that person can not be a inventor unless he or she joined the creative activity substantially.”

#### 3.2.2 Inventorship of Mr. A for the Invention

The IPHC then found that Mr. A did not synthesize the pharmaceutical compounds, but as a biologist only monitored the bioactivity of the pharmaceutical compositions during the course of creating the Invention. The court apparently believed that this monitoring activity was not a direct contribution by Mr. A to the Invention.

Subsequently, the IPHC indicated that the following three factors would be considered in order to find whether Mr. A had substantially joined the creative activity for the technical ideas described in the claims and thus had become a co-inventor of the Invention:

- (1) Contribution to research and development regarding the structure of the pharmaceutical compositions;
- (2) Contribution to the methods of monitoring the bioactivity of the pharmaceutical compositions; and
- (3) Contribution to the setting and adjustment of the objects of a study regarding the Invention.

Regarding (1) and (3), the IPHC found that Mr. A did not satisfy these requirements for the following reasons:

“During the course of creating the Invention, Chemists handled the very procedure of the pharmaceutical components. Given such circumstances, in order for Mr. A to be considered a co-inventor of the Invention, it is not enough that Mr. A conducted monitoring and analysis of the bioactivity of the pharmaceutical compositions. It is necessary for Mr. A to have substantially contributed to the creation of the pharmaceutical compositions, in such ways as providing data which would allow the selection or decision about some structure of the new compositions based on the result of the monitoring and analysis.”

“The Invention was created by the following steps: (a) finding that carteolol had antiplatelet properties; (b) synthesizing pharmaceutical compounds having an ester group in the carbostyryl structure’s chain, (c) synthesizing amide bodies including cilostamide in which an amide group was substituted for the ester group in order to deal with the ester group’s nephrotoxic potential (d) and (e). In this case, only chemists, not Mr. A, performed all these steps. Mr. A only monitored and analyzed bioactivities during all these steps and did not make any substantial contribution to the Invention such as providing a clue to the Invention, or indications allowing a selection or decision about the structure of the new pharmaceutical compounds.”

Regarding (2), the IPHC found that Mr. A did not satisfy this require-



ment for the following reasons:

*“It is true that Mr. A personally improved the monitoring and analysis methods and performed them. However, Mr. A’s improvement of these methods is a common improvement for a person of ordinary skill in the art in order to upgrade repeatability, efficiency and swiftness. The IPHC could not evaluate that Mr. A personally invented the monitoring and analyzing methods.”*

### 3.2.3 Conclusion

Accordingly, the IPHC concluded that Mr. A’s contribution to the Invention did not constitute actual creative acts regarding the technical ideas for the Invention. Therefore, Mr. A was found not to be a co-inventor of the Invention.

## 4. Comments

### 4.1 Inventorship in the Patent Law

As I mentioned, under the Patent Law, the right to file a patent application belongs only to an inventor. A patent application filed by a person who is not the inventor and who merely inherits the right to file a patent application from an inventor shall be rejected. If such a patent application is registered, the registered patent shall be invalidated.

In addition, if an invention was created by a number of inventors, the right to file a patent application shall belong to all inventors jointly. Therefore, all inventors must file such a patent application. If a part, but not all, of the inventors filed a patent application, the patent application shall be rejected. If such a patent application is registered, the registered patent shall be invalidated.

Although there are such strict attitudes regarding inventorship under the Patent Law, for many years it was common for Japanese companies to pay lip service to the inventorship of their employees’ inventions by nominating a person who did not actually perform creative acts regarding the technical ideas for the Invention as the “inventor”. However, because companies have faced the risk of legal action seeking huge remuneration for transferring their employees’ right to file patent applications in recent years, companies have changed their attitudes and changed this slapdash treatment of inventorship.

### 4.2 Meaning of this case

Given this situation in Japan, the IPHC issued this important case for all companies possessing employees’ inventions, especially pharmaceutical companies. This case establishes a test to guide analysis of whether or not an employee can be co-inventor of an employee’s invention.

In a pharmaceutical company, it seems generally that biologists, who aren’t co-inventors under this test, and chemists are involved in the invention of pharmaceutical products such as employee’s invention. For this reason, companies listed not only chemists but also biologists, such as Mr. A, as inventors in patent applications for pharmaceutical compositions such as the Invention.

After this case, a pharmaceutical company should pay attention to the following risks: (1) if a patent application lists biologists, who aren’t co-inventors under the test from this case, the patent application may be rejected, and if it is registered, the registered patent may be held invalid.

(2) If biologists cannot be treated as co-inventors under the internal

rule regarding employee invention, biologists can not receive any remuneration for their contributions. Biologists may lose their motivation to create and develop new pharmaceutical compositions. Also, they may demand reasonable remuneration from companies for their contributions although their contributions cannot clear the hurdles set by this case.

Norimasa Shimoda (Mr.);  
Attorney-at-law of the Law Division

# Lawsuit against Trial Decision: Case No. (Gyo-Ke) 10061, 2007

## Overview

The plaintiff (Major League Baseball Properties, Inc.) had filed an appeal against the examiner's decision to reject registration of the plaintiff's subject trademark (see below) for goods and services in classes 9, 16 and 41.

The trial examiners dismissed the plaintiff's appeal pursuant to Article 4-1-11 of the Trademark Law, on the grounds that the subject trademark could be pronounced as "[ju:bi:es]" and thus was similar to the cited trademarks 1, 2 and 3 (see below).

The plaintiff filed a suit against the commissioner of the Japan Patent Office (JPO) seeking cancellation of the trial decision. The court ruled in favor of the plaintiff, holding that the sound of the subject trademark was "[kʌbs]" only and could not be pronounced as "[ju:bi:es]".



Subject Trademark:

1.

U B S

2.



3.



Cited Trademarks:

### Article 4-1-11:

This article stipulates that a trademark similar to prior registered trademark(s) should not be registered to avoid confusion as to the origin of goods.

### Concept of Similarity:

In practice, the concept of similarity is used in defining the scope of a trademark, since it is difficult to determine the point at which confusion occurs as to the origin of goods. The defined scope of a trademark is deemed to extend to the point where confusion occurs as to the origin of goods.

### Judgment of Similarity:

Whether a trademark is similar to another is determined considering the elements of similarity of a trademark comprehensively, namely, the appearance, sound and idea thereof.

### Examples of Similar Sounds:

"VANCOCIN" and "BUNCOMIN"; "VULKENE" and "VALCAN"; "HETRON" and "PETRON"; "DANNEL" and "DYNEL"; "VINYLA" and "Binilus"; "CAMPBELL" and "Cambell"; "TYREX" and "TWYLEX"

### JPO's Judgment in the Trial

JPO (defendant in the lawsuit) judged as follows in the appeal trial: "The subject trademark includes a circle and a circular figure of the same thickness enclosed in the circle. The circular figure is made by partly cutting out the right side of a circle. Alphabetical letters "UBS" in a bold font are disposed within the circular figure such that they extend to the cut-out portion. It can hardly be understood that those figurative elements and the letter portion "UBS" are always recognized as inseparable. Observers would rather focus on the letter portion "UBS" as it is easier to read. Thus, it is natural to determine that the subject trademark is simply pronounced as "[ju:bi:es]"."

### Main Issue in the Lawsuit

The main issue to consider with respect to the court decision is whether the sound of the subject trademark is "[kʌbs]" only (inseparable) or it can also be pronounced as "[ju:bi:es]" (separable).

To be more specific, if the subject trademark is pronounced only as "[kʌbs]", it is not similar to the cited trademarks "UBS" and thus the plaintiff's claim should be regarded as reasonable. On the other hand, if the subject trademark is pronounced only as "[ju:bi:es]" or it can be pronounced as both "[kʌbs]" and "[ju:bi:es]", the subject trademark and the cited trademarks have the same sound. In this case, these trademarks are similar and the plaintiff's claim is accordingly considered to be unreasonable.

### Examples of Trademark Elements Determined to be Inseparable:

1. "ESI[tronic]" (No. (Gyo-Ke) 10225, 2005)

The part "tronic" is not distinctive with respect to the designated service "repair of automobiles" and thus does not generate a sound independently.

2. "USBEAR" (No. (Gyo-Ke) 10829, 2005)

The letters are all written in capitals, and the mark does not include a figure of a bear. Accordingly, the person who sees the trademark is likely to recognize it as a unified mark.

### Examples of Trademark Elements Determined to be Separable:

1. "MAGICALSHOESOURCE" (No. (Gyo-Ke) 10497, 2006)

The mark can be divided into "MAGICAL" and "SHOESOURCE", and has the sound "[shu:sors]" other than "[majikl shu:sors]".

2. "privateid" (No. (Gyo-Ke) 10589, 2005)

This trademark can be read as "[praivet]".

The term "privateid" is not known as a foreign word having a particular meaning. In contrast, "private" is widely known as a word meaning "individual, not public".

### Judgment by the Court

#### Recognition of Major League in Japan:

Since 1986 to date, all-star games between Major League teams

and Japanese teams have been held in Japan every two years and broadcast on TV.

Moreover, more than a few Japanese baseball players have moved to the U.S. to play in the Major League in recent years, which has increased Japanese people's interest therein.

Since 2001, Major League baseball games and programs featuring the Major League have been broadcast in Japan. The game results etc. are reported in Japanese newspapers, on the Internet as well as in sport magazines. Further, some travel agencies have released package tours to watch Major League games.

**Recognition of the Chicago Cubs in Japan:**

Sammy Sosa was a member of Chicago Cubs when he was selected as MVP of the Japan-U.S. All-Star Series 1998.

The Chicago Cubs played friendly matches against the Seibu Lions and the Yomiuri Giants in 2000, which were reported in sports magazines.

**Logo of the Chicago Cubs and Use thereof:**

The logo of the Chicago Cubs is identical to the subject trademark in shape. The logo has been used on the front side of the team uniform since 1909, and still now it can be seen in the images and videos showing the Chicago Cubs players in their uniform.

Japanese companies such as K. K. Sega, K. K. Takara, and Uniqlo have licenses to sell goods bearing the MLB trademarks including team logos. There are also specialty stores called "Major League Baseball Japan Shops" in several cities, where they sell Major League related goods such as baseball hats, uniforms, and T-shirts. Konami manufactures and sells Major League related game software.

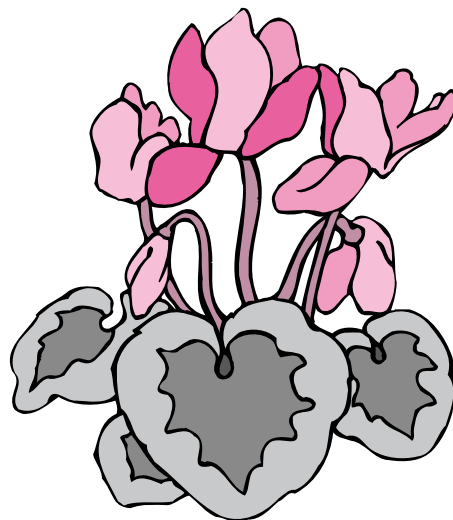
Major League goods can also be purchased through the official website of the Chicago Cubs.

In general, with respect to trademarks, (1) there are more than a few examples of marks consisting of characters in English etc. such as "Orange", "ORANGE" and "LAUREL STAR", with the first letter thereof stylized or depicted in a bigger size, and (2) in case of a mark whose first character is "C", it is often seen that the "C" in such as "CAMAT" or "Carawit" is written in a bigger size, or that the "C" in such as "CPOP" or "CSV" is expanded to embrace the other letters.

**Conclusion**

The subject trademark is identical to the logo of the Chicago Cubs in shape. In view of the facts that (1) the name of Chicago Cubs is well known in Japan and the logo thereof is also known to a significant degree, and that (2) in case of trademarks consisting of characters in English etc., it is not rare that the first letter "C" is expanded to embrace the other letters, it is natural to understand that the "circular figure", or the "C" part in other words, and the "UBS" part of the subject trademark are inseparable and thus the mark is recognized as "CUBS". It is therefore reasonable to consider that the sound of the subject trademark is "[kʌbs]" only and the mark cannot be pronounced as "[ju:bi:es]". Thus, the court accepted the plaintiff's claim that the subject trademark and the cited trademarks are not similar.

Yuichiro Takata (Mr.);  
Patent Attorney of the Trademark & Design Division



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