

2004 (Wa) 8557 Case of seeking injunction of infringement of patent right

Date of conclusion of oral argument: October 13, 2004

Judgment

Plaintiff: Canon Inc.

Counsel attorney of the plaintiff: KUBOTA Yutaka

Same as above: MASUI Kazuo

Same as above: HASHIGUCHI Naoyuki

Defendant: Recycle Assist Co., Ltd.

Counsel attorney of the defendant: KAMIYAMA Hiroshi

Same as above: NISHIMOTO Tsuoshi

Sub-agent of a counsel attorney: MATSUYAMA Haruka

Main Text

1. All of the plaintiff's claims shall be dismissed.

2 The court costs shall be borne by the plaintiff.

Facts and reasons

No. 1 Claims

1. The defendant shall not import, sell or display for sale the ink tanks specified in the attached lists of articles (1) and (2).
2. The defendant shall dispose of the ink tanks specified in the attached lists of articles (1) and (2).

No. 2 Outline of the case

In this case, the plaintiff holds a patent right for ink tanks for ink jet printers. The defendant imports products that are manufactured by utilizing the plaintiff's used products, which are manufactured by working the abovementioned patent right. The plaintiff claimed an injunction against the defendant for the import and sales, etc. and disposal of the defendant's products based on the abovementioned patent right. In response to this, the defendant denied such allegation by alleging exhaustion of the patent right, etc.

1. Assumed facts

The facts for which evidence is not stated are those that are undisputed between the parties (including the facts that would obviously not be disputed).

(1) The patent right held by the plaintiff

The plaintiff holds the following patent right (the invention stated in Claim 1 in the scope of claims for the patent shall be referred to as "Invention 1" and the invention stated in Claim 10 shall be referred to as "Invention 10").

Patent number: No. 3278410

Title of the invention: Liquid container, a method of manufacturing the container, the package of the container, an ink jet cartridge in which the container and a recording head are made integral with each other, and a liquid discharge recording apparatus

Application date: April 27, 1999

Registration date: February 15, 2002

Scope of claims: As stated in the relevant column in the attached copy of "Patent Gazette" (hereinafter, the description and drawings published in said patent gazette shall collectively be referred to as the "Description")

(2) Decomposition of the constituent features

A. Invention 1 may be decomposed into the following constituent features. (hereinafter, each constituent feature stated in the relevant item shall be referred to as "Constituent Feature A" and the like).

A. a negative pressure generating member containing chamber which contains therein first and second negative pressure generating members urged against each other and which is provided with a liquid supplying portion and an atmosphere communicating portion;

B. a liquid containing chamber which is provided with a communicating portion that communicates with said negative pressure generating member containing chamber and which forms a substantively hermetically sealed space and stores therein liquid to be supplied to said negative pressure generating members; and

C. a partition wall for partitioning said negative pressure generating member containing chamber and said liquid containing chamber and for forming said communicating portion;

D. in a liquid container having A to C above;

E. the interface of the urged portions of said first and second negative pressure generating members intersects with said partition wall;

F. said first negative pressure generating member communicates with said communicating portion and can communicate with said atmosphere communicating portion only through the interface of said urged portions;

G. said second negative pressure generating member can communicate with said communicating portion only through the interface of said urged portions;

H. the capillary force of the interface of said urged portions is higher than the capillary forces of said first and second negative pressure generating members; and (the letters I and J are not used)

K. the negative pressure generating member containing chamber is filled with an amount of liquid which can be held by the entire interface of said urged portions

irrespective of the posture of the liquid container;

L. a liquid container characterized by E to K above.

B. Invention 10 may be divided into the following constituent features.

A'. a negative pressure generating member containing chamber which contains therein first and second negative pressure generating members urged against each other and which is provided with a liquid supplying portion and an atmosphere communicating portion;

B'. a liquid containing chamber which is provided with a communicating portion that communicates with said negative pressure generating member containing chamber and which forms a substantively hermetically sealed space and stores therein liquid to be supplied to said negative pressure generating members; and

C'. a partition wall for partitioning said negative pressure generating member containing chamber and said liquid containing chamber and for forming said communicating portion; (the letter D' is not used)

E'. the interface of the urged portions of said first and second negative pressure generating members intersects with said partition wall;

F'. said first negative pressure generating member communicates with said communicating portion and can communicate with said atmosphere communicating portion only through the interface of said urged portions;

G'. said second negative pressure generating member can communicate with said communicating portion only through the interface of said urged portions;

H'. the capillary force of the interface of said urged portions is higher than the capillary forces of said first and second negative pressure generating members;

I'. a step of preparing a liquid container having the abovementioned constituent features A' to H'; and

J'. a first liquid injection step of filling said liquid containing chamber with liquid; and

K'. a second liquid injection step of filling said negative pressure generating member containing chamber with an amount of liquid which can be held by the entire interface of said urged portions irrespective of the posture of said liquid container;

L'. a method of manufacturing a liquid container characterized by the abovementioned steps I' to K'.

(3) The plaintiff's products

A. The plaintiff is engaged in manufacturing ink tanks for ink jet printers (product numbers BCI-3eBK, BCI-3eY, BCI-3eM and BCI-3eC; hereinafter referred to as the "plaintiff's products" or "Ink Tanks") in Japan by working Invention 1 and Invention 10

and is selling part of the ink tanks in Japan.

B. The plaintiff's goods are sold overseas by the plaintiff, the plaintiff's associate company or trading companies.

C. Among the plaintiff's products, at least those sold overseas by the plaintiff or the plaintiff's associate company would raise an issue of international exhaustion. In this regard, neither the plaintiff nor the plaintiff's associate company had reached any agreements with the overseas assignees of the plaintiff's products to exclude Japan from the areas where the products could be sold or used, and no such exclusion was clearly indicated on the plaintiff's products, either.

(4) The defendant's products

A. The defendant imported the ink tanks that have the structures stated in the attached lists of articles (1) and (2) from a company located in Macao of the People's Republic of China (hereinafter referred to as "Company A"). The product stated in the attached list of articles (1) and that in the attached list of articles (2) have the same structure, except that the width of the containers is different (hereinafter, these products shall be referred to as the "defendant's products").

B. An associate company of Company A (hereinafter referred to as "Company B") collects in North America, Europe and Asia (including Japan) the used plaintiff's products, which are ink tank cartridges that remain after the ink is used up (hereinafter referred to as the "Ink Tank Cartridges") and sells them to a subsidiary of Company B (hereinafter referred to as "Company C").

C. Company C manufactures the defendant's products from the Ink Tank Cartridges in the following steps.

(i) open a hole for cleaning and ink injection on the upper surface of the liquid containing chamber of the Ink Tank Cartridge;

(ii) clean inside the Ink Tank Cartridge;

(iii) apply measures to prevent ink leakage from the ink supply port of the Ink Tank Cartridge;

(iv) inject ink from the hole mentioned in (i) into the negative pressure generating member containing chamber to a point above the interface of the urged portions between the negative pressure generating members, and into the whole liquid containing chamber;

(v) plug the hole mentioned in (i) above and the ink supply port; and

(vi) fix labels, etc.

D. Company A purchases the defendant's products from Company C and exports them to Japan

(with respect to A. through D. above, undisputed facts, Exhibit Ko No. 8 and Exhibit Otsu No. 30 and the entire import of oral argument)

E. The defendant had been importing and selling the defendant's products until June 2004, but has been suspending such import while this action was pending because Customs commenced the identification procedures for prohibited or restricted goods.
(Exhibit Ko No. 4 and the entire import of oral argument)

(5) The defendant's products' fulfillment of the constituent features

A. Regarding Invention 1

(A) Regarding constituent feature A (negative pressure generating member containing chamber)

According to the structure of the defendant's products ((4)A. mentioned above), the defendant's products fulfill constituent feature A (partially undisputed between the parties).

(B) Regarding constituent feature B (liquid containing chamber)

The defendant's products fulfill constituent feature B.

(C) Regarding constituent feature C (partition wall)

The defendant's products fulfill constituent feature C.

(D) Regarding constituent feature D (liquid container)

The defendant's products fulfill constituent feature D.

(E) Regarding constituent feature E (intersection)

a. According to the structure of the defendant's products, "interface 18" of the defendant's products is equivalent to "the interface of the urged portions of the first and second negative pressure generating members" in Invention 1, and as it touches partition wall 17, the requirement of Invention 1 that "the interface of the urged portion [...] intersects with said partition wall" is satisfied. Accordingly, the defendant's products fulfill constituent feature E.

b. The defendant alleges that, since the term "intersect" means to meet or cross at an angle or at the right angle, the mere fact that interface 18 is in contact with partition wall 17 by touching it does not mean that they intersect each other.

However, under general terminology, the term "intersect" is defined as "two or more linear objects overlapping at one point" (*Daijirin*, second edition) and is used as a "T-intersection." Thus, the term "intersect" includes a state where one line is in contact with another line by touching it. Moreover, paragraph [0043] of the Description contains the statement that the "portion of boundary layer 132C that intersects with partition wall 138 is present above the upper end portion of the atmosphere introduction path 150 in the position of the liquid container during its use, in which the

communicating portion is downward (Figure 2(a))"; and Figure 2(a) graphically illustrates a state in which the interface of the urged portion between the negative pressure generating members is in contact with the partition wall by touching it. Therefore, the phrase "the interface of the urged portion [...] intersects with said partition wall" should be construed as including a structure where the interface is in contact with the partition wall by touching it. Therefore, the defendant's allegation as mentioned above cannot be accepted.

(F) Regarding constituent feature F (communication state of the first negative pressure generating member)

According to the structure of the defendant's products, the defendant's products fulfill constituent feature F (partially undisputed between the parties)

(G) Regarding constituent feature G (communication state of the second negative pressure generating member)

According to the structure of the defendant's products, the defendant's products fulfill constituent feature G (partially undisputed between the parties)

(H) Regarding constituent feature H (capillary force)

According to the structure of the defendant's products, the defendant's products fulfill constituent feature H

(I) Regarding constituent feature K (amount of liquid filled)

The Description contains the following statements. [i] If a liquid container is structured by dividing the ink tank into two chambers, as is the case of the Ink Tank, and filling only the chamber that has an ink supply port with an ink absorbing member and having the other chamber contain ink alone, such liquid container had a defect in that, when the liquid container is placed in an tilted position during transport, ink would excessively flow into the chamber that contains the ink absorbing member and, thereby, overflows from the atmosphere communicating portion ([0010]). [ii] Inventions 1 and 10 have a structure in which two ink absorbing members are provided and the capillary force of the interface portion between such ink absorbing members is higher than the capillary force of each ink absorbing member and these inventions produce a function and effect where, when ink is injected to a point above the interface portion, even if the ink tank is placed in a position under severe conditions as shown in Figure 2(b) in the Description, the ink held by the interface portion would prevent air from flowing into the liquid containing chamber, by blocking the air flow from the atmosphere communicating portion, and would thereby prevent ink from excessively flowing into the negative pressure generating member containing chamber ([0043] through [0048]). Based on the these statements, it can be found that the structure in which "the negative

pressure generating member containing chamber is filled with an amount of liquid that can be held by the entire interface of said urged portions, irrespective of the position of the liquid container" as prescribed in constituent feature K means that ink would be injected to a point above boundary layer 132A. Thus, according to the structure of the defendant's products, the defendant's products fulfill constituent feature K.

(J) Regarding constituent feature L (liquid container)

The defendant's products fulfill constituent feature J.

(K) Conclusion

As found above, the defendant's products fulfill all of the constituent features of Invention 1 and thus fall within the technical scope thereof.

B. Regarding Invention 10

(A) Regarding constituent features A' through C' and E' through H'

Constituent features A' through C' and E' through H' of Invention 10 have the same contents as those of constituent features A through C and E through H of Invention 1 respectively. Thus, the comparison relationships between the defendant's products and the constituent features of Invention 10 are the same as those stated in (A) through (C) and (E) through (H) above.

(B) Regarding constituent feature I' (a step of preparing a container)

As stated in (4)C. above, Company C produces an empty ink tank in which ink can be refilled, by cleaning the used Ink Tank Cartridge. Thus, this step is equivalent to the step of preparing a liquid container.

Accordingly, the method of manufacturing the defendant's products fulfills constituent feature I'.

(C) Regarding constituent feature J' (first liquid injection step)

According to the structure of the defendant's product as well as the facts stated in (4)C. above, the method of manufacturing the defendant's products fulfills constituent feature J'.

(D) Regarding constituent feature K' (second liquid injection step)

The meaning of the phrase "filling said negative pressure generating member containing chamber with an amount of liquid that can be held by the entire interface of said urged portions irrespective of the position of said liquid container" in constituent feature K' is as stated in A(I) above. Thus, according to the structure of the defendant's products and the facts stated in(4)C. above, the method of manufacturing the defendant's products fulfills constituent feature K'.

(E) Regarding constituent feature L' (manufacturing method)

The method of manufacturing the defendant's products fulfills constituent feature

L'.

(F) Conclusion

As found above, the method of manufacturing the defendant's product fulfills all of the constituent features of Invention 10 and, thus, falls within the technical scope thereof.

2. Issues

(1) Whether or not the patent granted for Invention 1, which is an invention of a product, has been exhausted as a result of the sales of the plaintiff's products in Japan and overseas

(2) Whether or not the patent granted for Invention 10, which is an invention of a process, has been exhausted as a result of the sales of the plaintiff's products in Japan and overseas; or whether or not an implied license had been granted

3. The parties' allegations concerning Issue (1) (Exhaustion of a patent for a product)

(1) The plaintiff's allegations

A. Legal theory: Recycling by using waste and the exhaustion doctrine

The judgment of the Third Petty Bench of the Supreme Court of July 1, 1997, Minshu Vol. 51, No. 6, at 2299 (hereinafter referred to as the "Supreme Court Judgment on the BBS Case") states that the following are the substantial reasons by which a patent right would be found to have been exhausted in Japan: [i] "Even when a patented product is distributed in the market, such patented product would be traded on the premise that the assignee acquires the right to use and reassign, etc. the object as a business at his/her will, independently of the patentee's exercise of rights. If the assignee is required to obtain an authorization from the patentee each time he/she is to assign, etc. the patented product, the free distribution of goods in the market would be hindered"; and [ii] "There is no necessity for allowing the patentee to gain double profits in the process of distribution of the patented product."

This holding shows that the exhaustion doctrine is a legal theory established to prevent the patent right from impairing the free distribution of goods in the market on the basis of a normal process of transaction and distribution.

(B) According to this legal theory, it is obvious that once a purchaser of a patented product, which is disposable, finishes using it and disposes of it with the belief that it is no longer useful, and then puts it into the resource recovery court, the act of subsequently manufacturing a product using that disposed product would constitute new production and result in infringing the patent. Therefore, it is unnecessary to decide whether the recycling business operator's act is a new production or a repair (Masayoshi Sumida, "Risaikuru to Chiteki Zaisan Ken (Recycling and Intellectual Property Right),"

Annual Report of the Japan Association of Industrial Property Law No. 22, at 98).

B. Structure of the Ink Tank, etc.

(B) Structure of the Ink Tank

a. Liquid inks are chemical products and thus, if they are used too long, they have the risk of causing a concentration change due to chemical alteration or evaporation of a solvent. If the ink tank is refilled after the original ink is used up, this risk increases. Ink deterioration reduces the print quality of the printer and may cause impairment to the printer, such as clogging of the printhead of the printer. Inks used for printers are those with particular characteristics to enable the printing mechanism of the printers to perform the best function according to their designs. Thus, a change in the ink would affect the performance of the printer and thereby cause breakdown.

b. In addition, the Ink Tank Cartridge itself would deteriorate as time passes.

c. Therefore, the plaintiff's products are designed to be disposable and structured so that they cannot be refilled with ink. If the Ink Tank Cartridge is to be reused, it would be required to take the steps of opening a hole, cleaning and removing the ink that is left inside the tank, filling the liquid containing chamber with ink, completely sealing the hole used for cleaning and injecting ink, and wrapping the Ink Tank Cartridge. Among these steps, the step of cleaning the negative pressure generating member which is a fiber body, is especially troublesome and, thus, it can only be done by a business operator who has the necessary equipment and skills.

(B) Essential element of Invention 1

a. The process of filling the product with ink in a specific manner (constituent feature K) is an essential means to securely prevent ink leakage during transportation, in relation to the structure of the negative pressure generating chamber of Invention 1.

b. Therefore, it is obvious that the act of injecting ink in the Ink Tank Cartridge, which fails to meet the requirement of having it filled with ink in a specific manner after the initially contained ink is consumed, constitutes the act of new production.

(C) The plaintiff's intention

a. The plaintiff sells the plaintiff's products as disposable goods for the reasons stated in (A) above.

b. For the purpose of environmental conservation and to notify that the plaintiff's products are disposable goods, the plaintiff indicated on the package of the plaintiff's products (Exhibit Ko No. 9) that "Your cooperation for the collection of used ink tanks and BJ cartridges manufactured by Canon is greatly appreciated," and made a public announcement to the same effect on its website (Exhibit Ko No. 10).

(D) Among the defendant's allegations stated in B.(D) below (Comparison with the

Disposable Camera Case), the plaintiff admits those stated in a. but denies those stated in b.

C. Actual circumstances of the transactions, etc.

(A) Waste

The Ink Tank Cartridges are goods that consumers have disposed of as used goods of no value or have forwarded for collection.

(B) The plaintiff claims ignorance of the defendant's allegations stated in C.(B) (Results of the questionnaire survey).

(C)a. The plaintiff claims ignorance of the defendant's allegations stated in C.(C) (Sale of recycled products).

b. In the article published in Nikkei Sangyo Shimbun dated September 4, 2003 (Exhibit Ko No. 13), it is reported that the business of collecting used ink cartridges and injecting ink in them and selling them under the "Ecorica" brand would be "nearly started." Until autumn in 2003, recycled products of the Ink Tank had not existed in the Japanese market.

(D)a. Among the defendant's allegations stated in C.(D) below (Sale of refill ink), the plaintiff admits those stated in a. but denies those stated in b.

b. The actual refill work is troublesome and the ink may spill and stain the user's hands or desk. Thus, the users of refill ink are limited.

Moreover, in most cases, ink is refilled by the purchasers of ink tanks themselves. The sale of refill ink and that of recycled ink tanks such as the defendant's products are completely different in nature.

(E)a. Among the defendant's allegations stated in C.(E) below (Collection of used ink tanks), the plaintiff admits those stated in a. but denies those stated in b. and claims ignorance of those in stated c. and d.

b. According to the results of a questionnaire survey mentioned by the defendant (Exhibit Otsu No. 3-1), 48.2% of all respondents disposed of the used ink tanks as domestic waste while 46.1% of them returned the used ink tanks to the collection box. Consumers are cooperating in the collection of ink tanks at the collection box, etc. in order to help with the collection of ink tanks as resources instead of reusing them as ink tanks.

c. Even if ink tanks were collected from consumers for value, the amount thereof would be equivalent to cooperation costs for the collection campaign or promotion costs for other products at the store, and thus, there would be no change in the consumers' recognition that they are disposing of used products.

d. Even if money were to be paid to the business operators, such as electronic retail

stores, the reward would be minimal.

(F) The plaintiff claims ignorance of the defendant's allegations stated in C.(F) below (actual circumstances of the transactions overseas).

(G)a. The plaintiff admits the defendant's allegations stated in C.(G) below (Enactment of the Act on the Promotion of Effective Utilization of Resources).

b. The plaintiff is calling on consumers for cooperation for the collection of used ink tanks and recycling the collected ink tanks as resources, as is the case with other manufacturers (Exhibits Ko No. 9 through No. 12 and No. 14). The collected ink tanks have problems, such as the deterioration in their quality or adverse effect of the remaining ink, and thus, are difficult to reuse. Therefore, the purpose of recycling for environmental conservation is sufficiently achieved by recycling the used ink tanks as resources.

D. Conclusion

(A) As stated above, the act of manufacturing the defendant's products by using the Ink Tank Cartridges that have been disposed of by consumers as used products of no value constitutes an act of new production and infringes the patent granted for Invention 1.

(B) This logic also applies to the case where the Ink Tank Cartridges used for manufacturing the defendant's products are first sold overseas.

(2) The defendant's allegations

A. Legal theory: Whether or not the relevant act is a new production or repair.

(A) When a patentee assigns a patented product, the patent right for the patented product, having fulfilled its purpose, would be exhausted, and thus, the effect of the patent right would not extend to the act of using, assigning or leasing the patented product, etc. (Supreme Court Judgment on the BBS Case). Therefore, any person who received the patented product may repair it to maintain or keep the lifespan of the product.

(B) The decision on whether the relevant act falls under an act of new production or repair should be made by taking into consideration the following factors in a comprehensive manner: [i] whether or not the patented product can be regarded as having finished its service by comprehensively taking into consideration the function, structure, quality of material, intended use, mode of usage and the actual circumstances of the transaction, etc. of the relevant product; or [ii] whether or not the identity of the patented product is lost by removing the main component that constitutes the essential part of the patented product and interchanging it with another new component (judgment of the Tokyo District Court of August 31, 2000, *Tokkyo News* (Patent News)

No. 10404 and No. 10405 (hereinafter referred to as the "Judgment on the Disposable Camera Case"); also see the judgment of the Tokyo High Court of November 29, 2001, on the acyclovir case, *Hanrei Jijo* No. 1779 at 89).

B. Regarding the structures, etc. of the Ink Tank

(A) The defendant denies the plaintiff's allegations stated in B(A) (Structure of the Ink Tank). The Ink Tank Cartridge can be physically used even after ink has been used up and its function or intended use has not been worn out. Moreover, general consumers can easily refill it with ink by using the refill ink mentioned in C.(D) below.

(B) The defendant denies the plaintiff's allegations stated in B(B) below (Essential element of Invention 1). The manner of injecting ink (constituent feature K) is an inevitable manner that is defined by the structure of the Ink Tank. In addition, although it is true that ink is one of the constituent features of Invention 1, the ink itself is not patented.

(C) The defendant claims ignorance of the plaintiff's allegations stated in B(C) (the plaintiff's intention).

(D) Comparison with the Disposable Camera Case

a. In the Disposable Camera Case, the relevant cameras were structured in a manner that the consumers who have finished taking pictures with the film contained in the camera would find it difficult to take out the used film from the main body of the film unit without exposing the film. In addition, the coupling members, such as hooks, would be destroyed if the film were taken out at a processing laboratory after the photographing, and further, the hook and ultrasonic welding portion, etc. would be destroyed if the rear cover were removed to put new film in the unit body. Therefore, products made by replacing the film in the disposable cameras with new film and then putting the rear cover on them again were inevitably inferior in quality and performance, i.e., low light blocking effect (see Judgment on the Disposable Camera Case).

b. In contrast, the Ink Tank Cartridge has a structure that allows repeated use.

C. Regarding the actual circumstances of the transactions, etc.

(A) The defendant denies the plaintiff's allegations stated in C.(A) below (Waste). According to the facts stated in (B) below, there is no common understanding in society in general that once the ink is used up, the Ink Tank Cartridge becomes waste.

(B) Results of the questionnaire survey

In April 2004, BCN Soken, which is a marketing research division of BCN Inc., conducted a questionnaire survey with the users of ink cartridge for ink jet printers on its domestic website. The results of this survey are as follows (Exhibit Otsu No. 3-1 and No. 3-2).

(i) With respect to the treatment of used ink cartridges, 46.1% of all respondents answered that they return them to the ink cartridge collection box installed at electronic retail stores, etc., while 4.4% of them answered that they reused them by refilling them with ink.

(ii) 8.8% of all respondents answered that they are currently using recycled ink cartridges, while 8.7% of them answered that they are not currently using recycled ink cartridges. With respect to their intention to use recycled ink cartridges, 33.4% of all respondents answered that they would "really want to use" or "prefer to use" them.

(C) Sale of recycled products

Ecorica Inc. is engaged in the sale of recycled products of the Ink Tanks through electronic retail stores, etc. in Japan (Exhibit Otsu No. 4-1 and No. 4-2) and other manufacturers are also engaged in the sale of such products through electronic retail stores or on websites (Exhibits Otsu No. 5-1 through No. 5-10).

(D) Sale of refill ink

a. Refill ink for the Ink Tanks is also sold in Japan. Some of these goods are sold with accessories, such as a drill to open an injection hole, which would be necessary when injecting ink again and a plug to seal the injection hole.

b. Even consumers may easily inject ink, and even when the Ink Tank is reused by refilling it with ink, the print contrast ratio is not very different from when a genuine product is used.

(E) Collection of used ink tanks

a. Used ink tanks are collected at collection boxes, etc.
b. Consumers who put used ink tanks in the collection box for no value do so because they consider these tanks to have value to be reused instead of deeming them as waste.

c. Moreover, it is not rare for used ink tanks to be collected from consumers for value.

d. Collected used ink tanks have trade value for business operators, such as electronic retail stores, etc., and are assigned to specialized collectors or recycle business operators for value.

(F) Actual circumstances of the transactions overseas

In the U.S. and Germany, recycled ink tanks for ink jet printers are sold in a larger scale than in Japan, and their markets are well-established (Exhibits Otsu No. 1-1 through No. 1-4, No. 2-1 and No. 2-2, and No. 6-1 through No. 6-10).

(G) Enactment of the Act on the Promotion of Effective Utilization of Resources

In recent years, the mass generation of waste has caused serious social and

environmental issues. Amid this situation, it is extremely helpful and important for the entire society to recycle recyclable goods. From such standpoint, the Act on the Promotion of Effective Utilization of Resources (Act No. 48 of 1991) was enacted and its 2002 revision prescribes that the use of recyclable resources and reusable parts is an obligation of the citizen, including enterprises.

D. The defendant denies the plaintiff's allegations stated in D. below (Conclusion). Taking into consideration the function, structure, quality of material, intended use, mode of use and actual circumstances of the transactions of the Ink Tank in a comprehensive manner, the act of refilling the Ink Tank Cartridge with ink is a necessary action to continue using the product by refilling it with ink, which has a shorter life than the product in whole. Thus, the defendant's products do not infringe the patent granted for Invention 1.

4. The parties' allegations concerning Issue (2) (Exhaustion of a patent for the manufacturing method, etc.)

(1) The plaintiff's allegations

A. Legal theory: Exhaustion

(A) In the case of an invention of a product, while a new production constitutes infringement of a patent, there is room to dispute the decision on whether the relevant act is an act of new production or repair.

(B) However, in the case of an invention for a method to produce a product, as long as the relevant manufacturing method is patented, there is no room to argue that the act of working the invention constitutes the manufacture prescribed in the Patent Act.

B. New production

(A) Invention 10 is structured by the steps of preparing an ink tank that has a specific structure and injecting ink therein in a specific manner. The defendant's products are manufactured by newly performing these steps and thus, it is obvious that they infringe the patent right granted for Invention 10.

(B) Even if it is necessary to decide whether or not the relevant act is an act of new production or repair with respect to an invention of a manufacturing method, the act of modifying the used Ink Tanks to manufacture the defendant's products constitutes the manufacture stated in 3(1)B. through D. above.

C. Regarding implied license

(A) The plaintiff denies the defendant's allegations stated in C. below.

(B) Whether to decide the limitations of a patent right based on the theory of exhaustion or implied license is nothing but a literal issue, and the same factors would

be taken into consideration. Thus, the same conclusion would be reached even if either basis were used.

(C) The plaintiff had no intention of allowing a third-party business operator to obtain the used plaintiff's products and recycle them and sell the recycled products in the future when it first sold the plaintiff's products. In addition, there were no circumstances that show the plaintiff's intention of giving an implied license.

Although the plaintiff's products contained no explicit statement prohibiting their reuse, the package of the products contains the statement, "Your cooperation for the collection of used ink tanks and BJ cartridges manufactured by Canon is greatly appreciated," (Exhibit Ko No. 9) and further states that they are sold on the premise that they would be collected after being used up.

D. Conclusion

(A) As stated above, the act of manufacturing the defendant's products by using the Ink Tank Cartridge and taking the steps of second liquid injection (constituent feature K), etc. infringes the patent granted for Invention 10.

(B) This logic also applies to the case where the Ink Tank Cartridge used to manufacture the defendant's products is first sold overseas.

(2) The defendant's allegations

A. Regarding the legal theory – Exhaustion

(A) With respect to the relevant product produced by working an invention of a process for producing a product, as with the case of a product manufactured by working an invention of a product, the patent right of the first-mentioned product is exhausted when the product is legally distributed by the patentee, and the effect of the patent right would not extend to such product thereafter.

Accordingly, a person who has received the relevant patented product may repair the patented product to maintain or keep the lifespan of the product, as with the case of a person who has received a product manufactured by working an invention of a product.

(B) The decision on whether or not the relevant act is a new production or a repair should be made by taking into consideration the following factors: [i] whether or not the patented product can be regarded as having finished its service by comprehensively taking into consideration the function, structure, quality of material, intended use, mode of usage and the actual circumstances of the transaction, etc. of the relevant product; or [ii] whether or not the identity of the patented product is lost by removing the main components that constitute the essential part of the patented product and interchanging it with another new component (3(2)A.(B) above).

B. Regarding a new production

The defendant denies the plaintiff's allegations stated in B. above.

C. Implied license

(A) Even when the exhaustion doctrine is not applied to a patent granted for a process to produce a product, when the patented product is distributed in the market, it is traded based on the assignee's acquisition of the right to use and reassign, etc. the object as a business at his/her will, independently of the patentee's exercise of right. Thus, unless special agreements are entered into with respect to the restriction on the use or reassigning of such object, the assignor has implicitly licensed the assignee to transfer its right to use and reassign, etc. the object.

(B) In this case, the plaintiff gave an implied license to transfer the right to use and reassign, etc. the plaintiff's products by selling them without entering into a special agreement on the restriction on the use and reassigning, etc. of the plaintiff's products.

D. Regarding the conclusion

The defendant denies the plaintiff's allegations stated in D. above.

No. 3 Court decision

1. Regarding Issue (1) (Exhaustion of a patent for a product)

(1) Legal theory

A. Regarding national exhaustion

(A) When a patentee assigns a product related to a patented invention in Japan, it should be found that the patent right of the relevant patented product has been exhausted, with its purpose being fulfilled, and thus, the effect of the patent right would not be extended to the act of using, assigning or leasing the patented product (Supreme Court Judgment on the BBS Case).

However, among the effects of a patent right, the right of production would not intrinsically be exhausted, and thus, if a person who has legally purchased a patented product carries out an act that is considered to be a production of a new patented product, such act would constitute infringement of the patent.

(B) The decision on recycled products as in this case concerning whether the relevant act constitutes an act of new production or falls within the scope of repair, which does not constitute an act of new production should be made by comprehensively taking into consideration the objective characteristics of the patented product, such as its function, structure, quality of material, and intended use, as well as the contents of the patented invention, normal use of the patented invention, the degree of modification, and the actual circumstances of the transactions involving the patented product.

The intention of the manufacturer or seller of a patented product may contain an

idea for maintaining the price of the patented product, and thus, such intention should only be taken into consideration as one of the circumstances in allowing the normal use of the patented product.

B. Regarding international exhaustion

(A) If the holder of a Japanese patent or a party equivalent thereto assigns the patented product outside Japan, the patentee is not allowed to exercise his/her patent right against the direct assignee, except in cases where he/she has agreed with the direct assignee that Japan be excluded from the areas of sale or use with regard to the product, or against a third party who has received the patented product from the direct assignee and any subsequent assignee, except in cases where the patentee has made the same agreement with the direct assignee and clearly indicated this on the patented product (Supreme Court Judgment on the BBS Case).

(B) However, even in the abovementioned case, if the same circumstances as those stated in A. above are found, it may be construed that the patentee would be allowed to exercise his/her right.

C. Determination regarding the plaintiff's allegations

The plaintiff alleges that it is unnecessary to determine whether the recycling business operator's act conducted after the disposal of the Ink Tank whose ink has been used up is an act of new production or repair.

However, a person who has received the patented product may use or assign it at his/her will as a result of exhaustion of the patent right. Therefore, the issue of whether the person who conducted the act that is disputed as constituting an act of new production is a direct purchaser from the plaintiff or a subsequent assignee does not affect the decision on whether such act constitutes an act of new production or repair. Only the circumstance that an Ink Tank, whose ink was used up, has been disposed of or passed on by consumers for recycling would be taken into consideration as part of the actual circumstances of the transactions, which is one of the factors to be taken into consideration in determining whether or not the relevant act is a new production or a repair.

Therefore, the plaintiff's abovementioned allegations cannot be accepted.

(2) Fact finding

According to the evidence listed in each item in addition to the assumed facts, the following facts have been found.

A. The structure, etc. of the plaintiff's products

(A) When the plaintiff's products are used in ink jet printers, ink is supplied from liquid supply port 14 as needed, and when ink is used up, only the Ink Tank Cartridge

would be left. Yet, since the negative pressure generating member originally has a nature of absorbing ink, a slight amount of ink would remain therein.

The Ink Tank Cartridge can be reused as an ink container since the shape and nature thereof, including the negative pressure generating member, have not especially changed.

(Assumed facts, entire import of oral argument)

(B) The plaintiff designed the Ink Tank in a manner that it would not be refilled with ink, and thus, the Ink Tank is not provided with an injection hole that allows refilling. Therefore, when one intends to refill the Ink Tank Cartridge with ink, there is no choice but to take the method of opening a hole in the Ink Tank Cartridge, cleaning inside the Ink Tank Cartridge, injecting ink and then sealing the hole.

(Assumed facts, entire import of oral argument)

(C) One of the reasons that the plaintiff did not design the Ink Tank to be refillable is as follows.

a. Liquid inks are chemical products, so they have the risk of causing a concentration change due to chemical alteration or evaporation of a solvent if they are used too long. If the ink tank is refilled after the initially contained ink is used up, this risk increases.

b. Ink deterioration reduces the print quality of the printer and causes impairment to the printer, such as clogging of the printhead.

c. Inks used for printers have particular characteristics to enable the printing mechanism of the printers to perform the best function according to their designs. Thus, a change in the ink would affect the performance of the printer and thereby cause it to break down.

d. Even if refilling is attempted, the step of cleaning the negative pressure generating member part, which is a fiber body, is an especially troublesome work and cannot be done by consumers.

e. The Ink Tank Cartridge is also considered to deteriorate along with the passage of time.

(Entire import of oral argument)

(D) The plaintiff sells the plaintiff's products by stating on their package to the effect that "Your cooperation for the collection of used ink tanks and BJ cartridges manufactured by Canon is greatly appreciated," including the intention of telling consumers that ink tanks should not be reused. The plaintiff is also calling for cooperation in the collection of used cartridges on its website.

(Exhibit Ko No. 9)

(E) There is no clear evidence showing the degree to which the probability of the printer's impairment would increase, such as the print quality of the printer or clogging of the printhead of the printer. Nor is there clear evidence about the severity of impairment. Moreover, as mentioned in C. below, based on the facts that a considerable number of refill ink and products that are supposed to be refilled with ink, such as the defendant's products, are sold, it must be said that no proof is shown that the risk of clogging, etc. of the printhead, as alleged by the plaintiff, is beyond the level permissible, even when the decision of whether or not to use refilled ink tanks is left up to consumers.

B. Outline of the structure and the function and effect of Invention 1

(A) As in the case of the Ink Tank, when an ink tank is divided into two chambers and structured so that only one chamber, which has the ink supply port, is filled with an ink absorbing member, and the other chamber is only used to store ink, such liquid container had a defect in which the ink excessively flows into the negative pressure generating member containing chamber and thereby, ink overflows from the atmosphere communication portion.

Invention 1 adopts a structure in which two ink absorbing members are provided, and the capillary force of the interface portion between such ink absorbing members is higher than the capillary forces of each ink absorbing. It produces the function and effect that, when ink is injected to a point above the interface portion, even if the ink tank is positioned under severe conditions, as shown in Figure 2(b) of the Description, the ink held by the interface portion would block the flow of air from the atmosphere communicating portion and prevent air from flowing into the liquid containing chamber, thereby preventing ink from excessively flowing into the negative pressure generating member containing chamber. In addition, its main constituent features are the structure of the negative pressure generating member containing chamber and the step of injecting ink in a specific manner.

(B) While the process of injecting ink constitutes part of the constituent features of Invention 1, ink itself is not a patented part.

(Assumed facts, entire import of oral argument)

C. Actual circumstances of the transactions, etc.

(A)a. The associate company of Company A (Company B) collects the Ink Tank Cartridges, which are the plaintiff's products and whose ink has been used up from North America, Europe and Asia (including Japan).

b. Consumers who have used Ink Tank Cartridges dispose of them as domestic waste or return them to the collection boxes installed at electronic retail stores, schools,

or churches, etc. for recycling. In most cases, consumers do not receive any consideration for the Ink Tank Cartridge, but there are an increasing number of cases where a consideration of 10 or 20 yen is paid per one product.

c. Collectors purchase the Ink Tank Cartridges collected at the collection boxes, etc. installed at electronic retail stores by paying a small reward and sell them to the associate company of Company A (Company B) at a price by tacking on interests to the collection costs.

d. The plaintiff is calling on general consumers for their cooperation in collecting used ink tanks, as with the case of other manufacturers, and is recycling the collected ink tanks as resources of plastic materials.

(Assumed facts, Exhibits Ko No. 9 through No. 12 and No. 14, Exhibits Otsu No. 30, No. 31-1, No. 32-1, No. 33-1 through No. 33-3 and No. 34 through No. 36).

(B) In April 2004, BCN Soken, which is a marketing research division of BCN Inc., conducted a questionnaire survey with the users of ink cartridges for ink jet printers on its Japanese domestic website. The results of this survey are as follows.

a. State of use of recycled ink cartridges

Currently used: 8.8%

Not currently used: 8.7%

Not used currently nor in the past: 81.6%

b. Intention of use of recycled ink cartridges

Really want to use: 14.3%

Prefer to use: 19.1%

Don't know: 45.8%

Not very interested in using: 9.8%

No interest in using: 7.0%

c. Treatment of used ink cartridges

Disposed of at home as waste: 48.2%

Returned to the collection box installed at electronic retail stores, etc.:

46.1%

Reused by refilling ink: 4.4%

(Exhibits Otsu No 3-1 and No. 3-2)

(C)a. Until June 2004, the defendant had been engaged in the import of the defendant's products.

b. From around October 2003, Ecorica, Inc. started to sell the same kind of products as the defendant's, to be used for the printers manufactured by the plaintiff or other manufacturers such as Epson at a considerably low price, through electronic retail

stores in Japan or on its website.

c. Nowadays, many other companies are also selling the same kind of products as the defendant's product at low prices.

d. In June 2004, JIT Inc., which is engaged in the manufacture of the products of Ecorica, made a capital investment and increased its capacity to recycle the ink tanks to be used for the printers manufactured by the plaintiff or other manufacturers, including Epson, to a level of 300,000 units per month.

(Assumed facts, Exhibit Ko No. 13, Exhibits Otsu No. 4-1 and No. 4-2, No. 5-1 through No. 5-10, No. 17, No. 20, No. 21, No. 32-2 and No. 38, entire import of oral argument)

(D)a. Refill inks for the plaintiff's ink tanks are also sold in Japan. Some of these goods are sold with accessories, such as a drill to open an injection hole, which would be necessary when injecting ink, and a plug to seal the injection hole.

There is no sufficient evidence to find that, when refill ink is used, the print contrast ratio would be inferior to when a genuine product is used.

b. Refill inks for products manufactured by other manufacturers, including Epson, are also sold.

(Exhibits Otsu No. 20, No. 22-1 and No. 22-2 and No. 37)

(E) In the U.S. and Germany, recycled ink tanks for ink jet printers are sold in a larger scale than in Japan, and their markets are well-established

(Exhibits Otsu No. 1-1 through No. 1-4, No. 2-1 and No. 2-2, No. 6-1 through No. 6-10, No. 9-9 and No. 24)

(F) In recent years, the mass generation of waste has caused serious social and environmental issues. Amid this situation, it is extremely helpful and important for the entire society to recycle recyclable goods. From such standpoint, the Act on the Promotion of Effective Utilization of Resources (Act No. 48 of 1991) was enacted, and its 2002 revision prescribes that the use of recyclable resources and reusable parts is an obligation of the citizen, including enterprises.

(Undisputed facts)

(3) Regarding national exhaustion

A. The summary of the facts explained in (2) above is as follows.

(A) Structure, etc. of the patented product

The Ink Tank Cartridge is not damaged even after the ink has been used up. It is sufficiently available for reuse as an ink container and enjoys a longer life than the ink, which is a consumable component. This is a huge difference with the case of the Judgment on the Disposable Camera Case, where the parts, including the hook between the rear cover and the main body and the ultrasonic welding portion, would be

destroyed if the film were removed after finishing taking pictures and a new film were put into the unit body.

In addition, if an injection hole is opened on the upper surface of the liquid containing chamber, ink can be injected again.

From the viewpoint of preventing any impairment caused by ink deterioration, etc., the best option is to avoid reusing the Ink Tank Cartridge, as suggested by the plaintiff. Nevertheless, no proof has been shown that the abovementioned impairment is significant, and the decision to use a genuine product or a recycled product is a matter that should normally be decided by the owner of the printer, who would take into consideration the balance between the prices of the printer and ink tanks.

(B) Contents of the patented invention

a. As alleged by the plaintiff, Invention 1 produces the effect to prevent ink leakage during transportation by making use of the combination of the structure of having an interface portion with a high capillary force and the step of injecting ink to a point above the interface portion. Yet, the important part is the structure where an interface portion with a high capillary force is formed, and it must be said that the step of injecting ink to a point above the interface portion is an inevitable injection method defined by the abovementioned structure. In addition, in the Ink Tank Cartridges, the structure of an interface portion with a high capillary force remains even after the ink has been used up.

b. Moreover, in Invention 1, while the step of injecting ink constitutes part of the constituent features, ink itself is not a patented part.

(C) Actual circumstances of the transactions, etc.

Originally, Ink Tank Cartridges tended to be disposed of as waste after their use. However, from the perspective of environmental conservation and cost reduction, low-priced recycled ink tanks are increasingly preferred. As a result, in recent years, there have been a number of business operators engaged in the sale of used products refilled with ink, such as the defendant's products. According to the results of the questionnaire survey conducted in April 2004, 8.8% of respondents were currently using recycled ink cartridges. Furthermore, preference for low-priced recycled ink tanks is expected to further increase in the future.

B. Based on the abovementioned facts, the act of manufacturing the defendant's products by refilling the Ink Tank Cartridges with ink cannot be found to be an act of new production, and thus, the patent right for the plaintiff's products sold in Japan can be found to have been exhausted in Japan with respect to the defendant's products manufactured by using the plaintiff's products.

(4) Regarding international exhaustion

In addition, according to the facts stated in (2) and (3)A. above, the patent right for the plaintiff's products assigned overseas can also be found to have been exhausted internationally with respect to the defendant's products manufactured by using the plaintiff's products.

2. Regarding Issue (2) (Exhaustion of a patent for the manufacturing method, etc.)

(1) Legal theory

A. Regarding national exhaustion

A patent granted for a process to produce a product may also be found to have been exhausted at the national level, as with the case of a patent for a product (see 1(1)A. above). Thus, the effect of a patent right would not extend to the act of using, assigning or leasing the patented product. However, among the effects of a patent right, the right of production would not intrinsically be exhausted. Thus, if a person who has legally purchased a patented product carries out an act that is considered to be a production of a new patented product, such act would constitute infringement of the patent right. The decision on whether the relevant act constitutes an act of new production or falls within the scope of repair that does not constitute an act of new production, should be made by comprehensively taking into consideration the objective characteristics of the patented product, such as its function, structure, quality of material, and intended use as well as the contents of the patented invention, normal use of the patented product, the degree of modification and the actual circumstances of the transactions involving the patented product.

B. Regarding international exhaustion

A patent granted for a process to produce a product may also be found to have been internationally exhausted, as with the case of a patent for a product (see 1(1)B. above). Thus, the effect of a patent right would not extend to the act of using, assigning or leasing the patented product. However, among the effect of a patent right, the right of production would not intrinsically be exhausted. Thus, if a person who has legally purchased a patented product carries out an act that is considered to be a production of a new patented product, such act would constitute infringement of the patent right. The decision on whether the relevant act constitutes an act of new production or falls within the scope of repair that does not constitute an act of new production should be made by comprehensively taking into consideration the various circumstances listed in A. above, as with the case of national exhaustion.

C. Decision on the plaintiff's allegations

The plaintiff alleges that, in the case of an invention of a process to produce a

product, as long as the relevant manufacturing method is patented, there is no room to dispute that the act of working the invention constitutes the act of manufacture prescribed in the Patent Act and thus it is unnecessary to decide whether the relevant act is a new production or a repair based on the structure of the patented products, contents of the patented invention and the actual circumstances of the transaction, etc.

However, a person who has received a product produced by the patented manufacturing method may repair the relevant patented product in order to maintain or keep the lifespan of such product based on the right to use or assign, etc. the product, as with the case of a patent granted for a product. Thus, there is no reason to construe that any act that satisfies part of the constituent features infringes the relevant patent right, only with regard to a patent granted for a manufacturing method. Accordingly, even in the case of a patent granted for a process to produce a product, it is necessary to decide whether the relevant act is an act of new production or repair by taking into consideration the same factors as in the case of a patent granted for a product, and therefore, the plaintiff's allegations, which are contrary to this, cannot be accepted.

(2) Regarding national exhaustion

A. The structure, etc. of the plaintiff's products as well as the actual circumstances of the transactions, etc. thereof are as found in 1(2)A. and C. and (3)A.(A) and (C) above.

B. In addition, the outline of the structure and the function and effect of Invention 10 are no different from those of Invention 1 found in 1(2)B. above. Therefore, the findings stated in 1(3)A.(B) above apply to Invention 10 as they are.

C. Accordingly, the act of manufacturing the defendant's products by preparing the Ink Tank Cartridge and refilling it with ink in a specific manner cannot be found to constitute an act of new production in relation to a patent granted for Invention 10. Thus, the patent right for the plaintiff's products sold in Japan can be found to have been exhausted in Japan with respect to the defendant's products manufactured by using the plaintiff's products.

(3) Regarding international exhaustion

In addition, the patent right of the plaintiff's products assigned overseas can also be found to have been exhausted internationally with respect to the defendant's products manufactured by remanufacturing the plaintiff's products based on the same reasons stated in (2) above.

3. Conclusion

Therefore, all of the plaintiff's claims are groundless and thus should be dismissed, and the judgment shall be rendered in the form of the main text.

Tokyo District Court 40th Civil Division

Presiding Judge: ICHIKAWA Masami

Judge: RAI Shinichi

Judge: TAKASHIMA Suguru

(Attachment)

List of articles (1)

Ink tank manufactured by filling the Ink Tank Cartridge that has the structure stated in the item titled "Explanation of the structure" and Figures 1 through 5 stated below with black ink and attaching thereto the indications stated in the item titled "Indications on goods and type of ink" stated below

No. 1 Indications on goods and type of ink

The Ink Tank (containing black ink) carries the following indications.

Indications: "for Canon," "recycle ink cartridge" and "BCI-3eBK"

No. 2 Explanation of the drawings

Figures 1 through 5 are drawings showing the Ink Tank; Figure 1 shows a plan view, Figure 2 shows a bottom view, Figure 3 shows a top view, Figure 4 shows a left side view and Figure 5 shows a right side view.

No. 3 Explanation of the structure

1. As shown in Figure 1, ink tank 1 comprises container 2, lid member 3, ink supply member 4, first negative pressure generating member 5 and second negative pressure generating member 6.

2. Container 2 is formed by having its upper side opening part covered by lid member 3 and welded.

3. As shown in Figure 3, on the upper surface of ink tank 1 is formed atmosphere communicating portion 10, which comprises atmosphere communicating port 8 and atmosphere communicating passage 9, and through which the inside of ink tank 1 communicates with the atmosphere.

4. Structure of the inside of the ink tank

(1) Ink tank 1 is provided with negative pressure generating member containing chamber 14 which contains first negative pressure generating member 5 and second negative pressure generating member 6, which are urged against each other and which is provided with liquid supply portion 7 and atmosphere communicating portion 10.

(2) Ink tank 1 is provided with liquid containing chamber 1, which has communicating portion 16 that communicates with negative pressure generating member containing chamber 14, forms a hermetically sealed space except for communicating portion 16 and stores ink.

(3) Ink tank 1 is further provided with partition wall 17, which separates negative pressure generating member containing chamber 14 and liquid containing chamber 15 and forms communicating portion 16.

5. Structure of the negative pressure generating member

(1) First negative pressure generating member 5 and second negative pressure generating member 6 are both fiber assembly with a capillary force, and the capillary force of first negative pressure generating member 5 is relatively higher than the capillary force of second negative pressure generating member 6. In addition, second negative pressure generating member 6 is formed relatively harder than first negative pressure generating member 5.

(2) The lateral surfaces of first negative pressure generating members 5 and second negative pressure generating member 6 are closely attached without any space to the internal surface of the negative pressure generating member containing chamber 14, and the upper surface of second negative pressure generating member 6 is pressed by rib 23 provided in the inner surface of lid member 3. Due to this suppressing strength, an urged portion is formed by a compressed upper surface of first negative pressure generating member 5 in interface 18, which is located between first negative pressure generating member 5 and second negative pressure generating member 6.

(3) Interface 18 including the urged portion mentioned above has a higher capillary force than those of first negative pressure generating member 5 and second negative pressure generating member 6.

(4) Interface 18 including the urged portion mentioned above intersects without any space with the side surface of negative pressure generating member containing chamber 14 which includes partition wall 17.

(5) First negative pressure generating member 5 communicates with communicating portion 16 and can communicate with atmosphere communicating portion 10 only through interface 18.

(6) Second negative pressure generating member 6 can communicate with communicating portion 16 only through interface 18.

6. Amount of ink to be injected

- (1) Liquid containing chamber is nearly filled with ink.
- (2) Negative pressure generating member containing chamber 14 is filled with ink to a point above interface 18 of the urged portion.

List of articles (2)

Ink tank manufactured by filling the Ink Tank Cartridge that has the structure stated in the item titled "Explanation of the structure" and Figures 1 through 5 stated below with black ink and attaching thereto either of the indications (1) through (3) stated in the item titled "Indications on goods and type of ink" stated below

No. 1 Indications on goods and type of ink

The Ink Tank (containing color ink) carries either of the following sets of indications (1) through (3) and is filled with ink.

(1) Indications: "for Canon," "recycle ink cartridge" and "BCI-3eY"

Filled ink: Yellow ink

(2) Indications: "for Canon," "recycle ink cartridge" and "BCI-3eM"

Filled ink: Magenta ink

(3) Indications: "for Canon," "recycle ink cartridge" and "BCI-3eC"

Filled ink: Cyan ink

No. 2 Explanation of the drawings

Figures 1 through 5 are drawings showing the Ink Tank; Figure 1 shows a plan view, Figure 2 shows a bottom view, Figure 3 shows a top view, Figure 4 shows a left side view and Figure 5 shows a right side view.

No. 3 Explanation of the structure

1. As shown in Figure 1, ink tank 1 comprises container 2, lid member 3, ink supply member 4, first negative pressure generating member 5 and second negative pressure generating member 6.

2. Container 2 is formed by having its upper side opening part covered by lid member 3 and welded.

3. As shown in Figure 3, on the upper surface of ink tank 1 is formed atmosphere communicating portion 10 which comprises atmosphere communicating port 8 and atmosphere communicating passage 9 and through which the inside of ink tank 1 communicates with the atmosphere.

4. Structure of the inside of the ink tank

(1) Ink tank 1 is provided with negative pressure generating member containing chamber 14 which contains first negative pressure generating member 5 and second negative pressure generating member 6 which are urged against each other and which is provided with liquid supply portion 7 and atmosphere communicating portion 10.

(2) Ink tank 1 is provided with liquid containing chamber 15 which has communicating portion 16 that communicates with negative pressure generating member containing chamber 14, forms a hermetically sealed space except for communicating portion 16, and stores ink.

(3) Ink tank 1 is further provided with partition wall 17, which separates negative pressure generating member containing chamber 14 and liquid containing chamber 15 and forms communicating portion 16.

5. Structure of the negative pressure generating member

(1) First negative pressure generating member 5 and second negative pressure

generating member 6 are both fiber assembly with a capillary force and the capillary force of first negative pressure generating member 5 is relatively higher than the capillary force of second negative pressure generating member 6. In addition, second negative pressure generating member 6 is formed relatively harder than first negative pressure generating member 5.

(2) The lateral surfaces of first negative pressure generating members 5 and second negative pressure generating member 6 are closely attached without any space to the internal surface of negative pressure generating member containing chamber 14 and the upper surface of second negative pressure generating member 6 is pressed by rib 23 provided in the inner surface of lid member 3. Due to this suppressing strength, an urged portion is formed by a compressed upper surface of first negative pressure generating member 5 in interface 18, which is located between first negative pressure generating member 5 and second negative pressure generating member 6.

(3) Interface 18 including the urged portion mentioned above has a higher capillary force than those of first negative pressure generating member 5 and second negative pressure generating member 6.

(4) Interface 18 including the urged portion mentioned above intersects without any space with the side surface of negative pressure generating member containing chamber 14 which includes partition wall 17.

(5) First negative pressure generating member 5 communicates with communicating portion 16 and can communicate with atmosphere communicating portion 10 only through interface 18.

(6) Second negative pressure generating member 6 can communicate with communicating portion 16 only through interface 18.

6. Amount of ink to be injected

(1) The liquid containing chamber is nearly filled with ink.

(2) Negative pressure generating member containing chamber 14 is filled with ink to a point above interface 18 of the urged portion.