Date	March 28, 2011	Court	Intellectual Property High Court, First Division
Case number	2010 (Ne) 10014		
A case in which, in relation to the appeal against the judgment in prior instance denying infringement of the appellant's patent and two registered designs by the appellee's products, the court modified the part of the judgment in prior instance concerning the patent and found that the appellee's products did not infringe the patent literally but constituted infringement under the doctrine of equivalents			

References:
Article 70 and Article 100 of the Patent Act, Article 24, paragraph (2) of the Design Act

In this case, the appellant (plaintiff) alleges that the part of the product manufactured and sold by the appellee (defendant), that is, a receiving frame for a manhole cover, infringes the patent and two registered designs held by the appellant, and based on this allegation, the appellant seeks an injunction against manufacturing, sale, and offer to sale of the accused products, destruction of semi-finished products and the molds used for manufacturing the products, and payment of damages equivalent to the legal fees (about one million yen for each design case, and two million yen for the patent case).

The court of prior instance denied similarity between the designs attached to the accused products manufactured by the appellee and the relevant registered designs held by the appellant, and found that the accused products did not infringe the appellant's patent literally nor under the doctrine of equivalents, and in conclusion, dismissed all of the claims of the appellant.

The Intellectual Property High Court, while maintaining the judgment in prior instance with regard to the dispute on the designs, found infringement of the patent under the doctrine of equivalents, ruling that, although the accused products did not literally infringe the patent, they met all of the first to fifth requirements for applying the doctrine of equivalents, as discussed below. In conclusion, the court upheld the appellant's claims for injunction and destruction, and ordered the appellee to pay one million yen as part of the claimed amount of damages, with delay damages accrued thereon.

(1) First requirement

"…taking into consideration all of the statements in the patent description and the underlying technical idea that supports the means for solving the problem attained by the patented invention, it is clear to see that in the process where the

patented invention brings about intended effect (1) (the cover body can be put into the receiving frame smoothly just by pulling the cover body with a crowbar or pushing forward the cover body into the frame), the convexly curved surface parts of the cover body and of the receiving frame play the most important role (see paragraphs [0009] and [0020], etc.). Accordingly, the appellant's argument, 'the receiving frame should have only concave parts, and it need not have concavely curved surface parts,' is affirmable, and the 'concavely curved surface parts' of the receiving frame are not regarded as an essential element of the patented invention."

(2) Second requirement

"…the patented invention and Accused Product B have nothing different in terms of how the cover moves when it is put on the manhole, in particular, the mechanism where the convexly curved surface parts [of the cover and of the receiving frame] are in contact with each other, whereas the concaved parts (in the case of the patented invention, the concavely curved surface parts; in the case of Accused Product B, the curve surface of the cover or the slope surface of the lower part of the cover, and tiered parts 22 of the receiving frame) are not in contact with each other. The slight difference in simulation results may have arisen from the difference in terms of the size of the convex surface parts or the size of the upper slope surfaces of the cover and of the receiving frame.

Thus, there is no substantial difference between the patented invention and Accused Product B in terms of the intended effect concerning how the cover moves when it is put on the manhole, and Accused Product B is also capable of bringing about intended effect (1)."

(3) Third requirement

"It does not seem that at the time of the manufacturing of Accused Product B (prior to March 2008), a person ordinarily skilled in the art had any particular difficulty in conceiving of the replacement of the concavely curved surface parts of the patented invention with concaved parts (tiered parts). It is reasonable to consider that such replacement was rather easy."

(4) Fourth requirement

"At the time of the filing for the patent (February 14, 2002), in the field dealing with round covers for underground structure (manholes), it may have been well-known art to make the slope surface parts, provided both on the cover body and the receiving frame, fit and support each other. However, a person ordinarily skilled in the art could not have easily conceived of the means of solving the

problems attained by Accused Product B, that is, to make the cover open and close smoothly by making the convexly curved surface parts or upper slope surface parts of the cover and of the receiving frame come in contact with each other instead of providing brims inside, and to prevent unsteadiness of the cover body and the inflow of dirt, rainwater, etc. by making the upper slope surface parts of the cover and of the receiving frame come in contact with each other."

(5) Fifth requirement

"No special circumstances can be found where the appellant, in the patent prosecution process, intentionally removed such constitution like that of Accused Product B (in which the 'concavely curved surface parts' on the receiving frame are replaced with 'tiered parts') from the scope of claims

Judgment rendered March 28, 2011

2010 (Ne) 10014, Appeal Cases of Seeking an Injunction against the Infringement of the Design Right and an Injunction against the Infringement of the Patent Right (court of prior instance: Osaka District Court

2008 (Wa) 14302, Case of Seeking an Injunction against the Infringement of a Design Right (Case A)

2008 (Wa) 16194, Case of Seeking an Injunction against the Infringement of a Patent Right (Case B)

2008 (Wa) 16195, Case of Seeking an Injunction against the Infringement of a Design Right (Case C)

Date of conclusion of oral argument: November 17, 2011

Judgment

Appellant (the plaintiff in the first instance): License and Property Control Corporation

Counsel attorney: MURABAYASHI Ryuichi

Same as above: INOUE Hiroshi

Appellee (the defendant in the first instance): Daimon Co., Ltd.

Counsel attorney: FUJITA Kunihiko

Patent attorney as an assistant in court: TAKAGI Yoshiteru

Main text

1. With respect to the parts related to Case A and Case C

(1) The appeal in question (the "Appeal") shall be dismissed; and

(2) All of the claims made by the appellant in this instance shall be dismissed.

2. With respect to the parts related to Case B

(1) The judgment in prior instance shall be modified as follows.

(2) The appellee shall not manufacture, sell or offer for sale the products stated in attached Product List B.

(3) The appellee shall dispose of the products set forth in the preceding paragraph and the semi-finished products thereof (products that have not been finished after being removed from a mold) as well as the pattern (matrix), which consists of an upper die and a lower die and is used for manufacturing the products.

(4) The appellee shall pay to the appellant 1,000,000 yen with money accrued thereon at the rate of 5% per annum for the period from December 20, 2008 until the completion of payment.

(5) The other claims made by the appellant shall be dismissed.

3. All of the court costs for this instance in relation to Case A and Case C shall be borne by the appellant. The court costs for the first instance and second instance in relation to

Case B shall be divided into four and the appellant shall bear one-fourth of such costs while the appellee shall bear the remaining amounts.

Facts and reasons

No. 1 Judicial decision sought by the appellant (the underlined parts are the new claims made in this instance)

1. The judgment in prior instance shall be revoked.

2. With respect to Case A

(1) The appellee shall not manufacture, sell or offer for sale the products stated in attached Product List A.

(2) The appellee shall dispose of the products set forth in the preceding paragraph and the semi-finished products thereof (products that have not been finished after being removed from the mold) as well as the pattern (matrix), which consists of an upper die and a lower die and is used for manufacturing the products.

(3) The appellee shall pay to the appellant 1,000,000 yen with money accrued thereon at the rate of 5% per annum for the period from November 14, 2008 until the completion of payment.

3. With respect to Case B

(1) The appellee shall not manufacture, sell or offer for sale the products stated in attached Product List B.

(2) The appellee shall dispose of the products set forth in the preceding paragraph and the semi-finished products thereof (products that have not been finished after being removed from the mold) as well as the pattern (matrix), which consists of an upper die and lower die and is used for manufacturing the products.

(3) The appellee shall pay to the appellant 2,000,000 yen with money accrued thereon at the rate of 5% per annum for the period from December 20, 2008 until the completion of payment.

4. With respect to Case C

(1) The appellee shall not manufacture, sell or offer for sale the products stated in the attached Product List C.

(2) The appellee shall dispose of the products set forth in the preceding paragraph and the semi-finished products thereof (products that have not been finished after being removed from the mold) as well as the pattern (matrix), which consists of an upper die and lower die and is used for manufacturing the products.

(3) The appellee shall pay to the appellant 1,000,000 yen with money accrued thereon at the rate of 5% per annum for the period from December 19, 2008 until the completion of payment.

5. The appellee shall bear the court costs for the first instance and second instance.

No. 2 Outline of the case (the abbreviations used in the judgment in prior instance shall be used without any change)

1. The appellant, who is the plaintiff in the first instance, is the holder of the following design rights and patent rights.

Description

(1) Design Right A

Application date: August 5, 2003

Registration date: July 16, 2004

Registration number: No. 1215512

The article to the design: A receiving frame for a manhole cover (partial design)

Details of the design: As stated in the "List of Registered Design A" contained in the judgment in prior instance

(2) Patent Right B (hereinafter this patent right is sometimes referred as the "Patent Right")

Application date: February 14, 2002

Registration date: December 1, 2006

Patent number: No. 3886037

Title of the invention: Round cover for underground structure

(3) Design Right C

Application date: August 5, 2003

Registration date: July 16, 2004

Registration number: No. 1215509

The article to the design: A receiving frame for a manhole cover (partial design)

Details of the design: As stated in the "List of Registered Design C" contained in the judgment in prior instance

2. Meanwhile, the appellee, who is the defendant in the first instance, manufactures and offers for sale the following products to the municipalities in Japan:

(1) the products stated in Product List A attached to the judgment in prior instance ("Defendant Product A") from around March 2008 at the latest;

(2) Product [1], which is among the products stated in Product List B, attached to the judgment in prior instance ("Defendant Product B") from around March 2008 at the latest and Product [2], which is among Defendant Product B, from around October 2008 at the latest; and

(3) Product [1], which is among the products stated in Product List C, attached to the judgment in prior instance ("Defendant Product C") from around March 2008 at the

latest and Product [2], which is among Defendant Product C, from around October 2008 at the latest.

3. From October to December in 2008, the appellant filed against the appellee multiple actions with the Osaka District Court, which is the court of prior instance, by alleging that [i] Defendant Product A manufactured by the appellee infringes the appellant's Design Right A (Case A); [ii] Defendant Product B manufactured by the appellee infringes the appellant's Patent Right (Case B); and [iii] Defendant Product C manufactured by the appellee infringes the appellant's Design Right C (Case C). Based on these allegations, the appellant claimed [a] an injunction against the manufacture, sale and offer for sale of the relevant products; [b] disposal of the semi-finished products and the mold used for manufacturing the relevant products; and [c] compensation for damages in an amount equivalent to the attorneys' fees (1,000,000 yen in Case A, 2,000,000 yen in Case B and 1,000,000 yen in Case C) and the payment of delay damages in each case (the details are as stated in the judgment in prior instance).

4. The issues in the prior instance were [i] whether or not Defendant Design A is similar to Registered Design A (Case A); [ii] whether or not Defendant Product B constitutes literal infringement or infringement under the doctrine of equivalents with respect to Claim 1 of the Patent Right (the "Invention") (Case B); and [iii] whether or not Defendant Design C is similar to Registered Design C (Case C). However, the judgment in prior instance rendered on January 21, 2010 made negative findings for all of the abovementioned issues and dismissed all of the claims made by the appellant.

Dissatisfied with this, the appellant filed the Appeal.

In addition, the appellant filed with the Yamaguchi District Court a petition for provisional disposition for an injunction with respect to Defendant Product A on the grounds of infringement of Design Right A, and on October 6, 2008, the court rendered a decision to uphold the petition on condition of providing a security of 10,000,000 yen (2008 (Yo) 24).

5. In this instance, the appellant amended the claims on November 26, 2010 and December 24, 2010 respectively, and as a result, the contents of the claims made by the appellant in the principal claim were partially amended as stated in 2.(1), (2) and (3), 3.(1), (2) and (3) and 4.(1), (2) and (3) in No. 1 above (the contents of attached Product Lists A, B and C used in the prior instance were limited or modified as shown in attached Product Lists A, B and C used in this instance).

The issues in this instance are the same as those in the prior instance.

No. 3 Allegations of the parties

(omitted)

No. 4 Court decision

With respect to Case A and Case C, both of which are cases of seeking an injunction against an infringement based on design rights, the court decided to dismiss the appellant's claims, as in the case of the judgment in prior instance. However, with respect to Case B, which is a case of seeking an injunction based on a patent right, contrary to the judgment in prior instance, the court upheld in whole the claim for an injunction by finding what is generally called an infringement under the doctrine of equivalents and decided to partially uphold the claim for damages to the extent of 1,000,000 yen and delay damages accrued thereon. The reasons are as follows.

1. Regarding the jurisdiction of the court with respect to the appeal case in question

According to the records of this case, the following facts can be found: [i] Case A is an action relating to a design right filed with the Osaka District Court on October 30, 2008, while Case B is an action relating to a patent right filed with the Osaka District Court on December 8, 2008 and Case C is also an action relating to a design right as with the case of Case A and was filed with the Osaka District Court on December 8, 2008; [ii] the Osaka District Court, which is the court of prior instance and conducted the proceedings for the abovementioned cases, merged Cases B and C to Case A, conducted the proceedings for the case so merged on January 23, 2009, and rendered the judgment in prior instance covering all cases on January 21, 2010; [iii] in response to the abovementioned judgment, the appellant, who is the plaintiff in the first instance of the cases, filed the Appeal by submitting a petition for appeal dated February 1, 2010 and addressed to the Intellectual Property High Court, and the statements of the object of such appeal were based on the premise that Cases A, B and C were merged; and [iv] in response to such appeal, the appellee gave an answer on the premise that the cases were merged in the written answer dated April 20, 2010 and these attitudes of the parties did not change until the date of conclusion of oral argument in this instance, January 17, 2011.

On the other hand, according to Article 6, paragraph (3) of the Code of Civil Procedure and Article 2, item (i) of the Act for Establishment of the Intellectual Property High Court, in cases where the Osaka District Court serves as the court of first instance for an action relating to a patent right, an appeal filed against the judgment rendered by the Osaka District Court shall be subject to the exclusive jurisdiction of the Intellectual Property High Court, which is a special branch of the Tokyo High Court. Thus, the appeal filed against the judgment rendered with respect to Case B, which is an

action relating to a patent right, shall be subject to the exclusive jurisdiction of the Intellectual Property High Court (the "Court"). In contrast, Article 6, paragraph (3) of the Code of Civil Procedure mentioned above shall not apply to Cases A and C, which are actions relating to a design right; and as long as the judgment in prior instance was rendered by the Osaka District Court, the high court with jurisdiction over an appeal filed against such judgment shall be the Osaka High Court pursuant to Article 2 and Appended Table 5 of the Act on Establishment of Lower Courts and Determination of Jurisdictional Districts Thereof.

However, as in this case, when the oral proceedings for an action relating to a patent right (Case B) and actions relating to a design right (Cases A and C) were merged in the Osaka District Court, which served as the court of prior instance, and a single judgment was rendered based on such merger and, further, the oral proceedings of Cases A, B and C were conducted in a merged state without any separation in the proceedings in this Court, which is the court of appeal, it is appropriate to construe that this court, which is the court with jurisdiction over the appeal for Case B, may conduct proceedings and make determinations not only on Case B but also Cases A and C in light of the gist of Article 7 of the Code of Civil Procedure (Jurisdiction over Joint Claim) and Article 2, item (iv) of the Act on Establishment of the Intellectual Property High Court (Consolidation of Relevant Ordinary Lawsuits).

As such, this court shall make determination on all of the appeal cases covering Cases A, B and C, as follows.

(omitted)

3. With respect to Case B

(1) Regarding issue B-1 (whether or not Defendant Product B satisfies the constituent features B, C, D, E and G of the Invention)

A. The statements made in lines 1 through 19 of page 30 in the judgment in prior instance shall be cited.

B. The following statements shall be added after line 19, mentioned above, beginning a new line.

"In addition, the appellant alleges that, since the 'tiered part' of Defendant Product B is finished by a turning process, the tip of the 'turning tool' used in the turning process is rounded to have what is generally called nose radius, and, thus, it is obvious that the tiered part is also 'curved' due to the nose radius of the tip of the turning tool. However, even if the corner(s) of the tiered part of Defendant Product B were curved (curved

surface with a radius of about 0.8 mm), it would be obvious that tiered part 22 (the section size of the horizontal plane is 1.5mm as alleged by the appellant) is established as a tiered part in whole and is not a concavely curved surface part)."

(2) Regarding Issue B-2 (whether or not Defendant Product B is equivalent to the Invention)

- The statements made in line 2 of page 31 to line 4 of page 33 in the judgment in prior instance shall be deleted and modified as follows.

- "(1) In a patent-infringement litigation, the determination on whether or not the product manufactured or process used by the other party (hereinafter referred to as the 'subject product, etc.') falls within the technical scope of a patented invention should be made by defining the technical scope of the patented invention based on the statements of the scope of claims contained in the description attached to the patent application (see Article 70, paragraph (1) of the Patent Act). If the structures stated in the scope of claims contain any part that is different from the structure of the subject product, etc., the abovementioned subject product, etc. cannot be found to fall within the technical scope of the patented invention. However, even if the structures stated in the scope of claims were to contain any part that is different from the structure of the subject product, etc., if the following special circumstances are not found, it would be appropriate to construe that the abovementioned subject product, etc. is equivalent to the structure stated in the scope of claims of the patented invention and falls within the technical scope thereof: [i] the abovementioned part is not an essential element of the patented invention; [ii] even if the abovementioned part were replaced with the structure of the subject product, etc., the object of the patented invention may be achieved and the same function and effect would be produced; [iii] a person ordinarily skilled in the art in the technical field to which the relevant invention pertains could have easily conceived of the idea to perform the abovementioned replacement at the time when the subject product, etc. was manufactured: [iv] the subject product, etc. is not identical to the publicly known art at the time of filing of a patent application for the patented invention, nor could it have been easily inferred by a person ordinarily skilled in the art at the abovementioned time of filing of a patent application based on such art; and [v] the subject product, etc. falls under what was intentionally excluded from the scope of claims in the procedures of the patent application for the patented invention (see judgment of the Third Petty Bench of the Supreme Court of February 24, 1998, Minshu Vol. 52, No. 1 at 113).

Moreover, the 'essential element of the patented invention' mentioned in [i] above refers to a characteristic part that constitutes the core of the technical idea that forms the

basis of the means to solve the problem specific to the patented invention and that is among the structures stated in the scope of claims in the description.

(2) Specific examination

A. Significance of the Invention

(A) The Description (Exhibit Ko No. B2) contains the following statements.

- [The technical field to which the invention pertains]

'This invention relates to a round cover for underground structure comprising a round cover body and a receiving frame, which supports this cover body at the upper part of the inner circumferential surface.' (paragraph [0001])

- [State of the art]

'Conventionally, a common, round cover for an underground structure had an inclined receiving structure wherein the outer circumferential side surface of the cover body and the upper part of the inner circumferential surface of the receiving frame formed an inclined surface (slope surface) that expanded the diameter upwards; and thereby, the cover body was wedged into the receiving frame or a flat receiving structure wherein the outer circumferential side surface of the cover body and the upper part of the inner circumferential surface of the receiving frame formed a vertical surface and the cover body was supported by having the bottom surface of the cover body come in contact with the top surface of the platform part that projects toward the inner circumferential surface of the receiving frame.' (paragraph [0003])

- [The problem to be solved by the invention]

'However, as stated above, when closing the cover body, if the cover body were put into the receiving frame by pulling the cover body with a crowbar or pushing in the cover body from behind in an obliquely downward direction, the front part of the cover body might sometimes sink deeply into the receiving frame; and if the cover body were further pushed into the receiving frame in such a state, the right and left side surfaces of the front part of the cover body would come into contact with the inner circumferential surface (vertical wall) of the receiving frame and would be stuck therein, and it would become impossible to push the cover body in further. Figure 4 shows such state and Figure 4(a) shows the cross-sectional view of such state while Figure 4(b) shows the cross-sectional view of the substantial part of the contact area (A-A line part of Figure 4(a)) between the outer circumferential side surface of the cover body and the upper part of the inner circumferential surface of the receiving frame. In the illustrated state, the right and left side surfaces of the front part of cover body 10 are in contact with the upper end of vertical wall 26 of receiving frame 20 and stuck therein. In such a state, a problem arose where the worker would be troubled by the work of closing the cover and

would suffer longer working hours since cover body 10 cannot be further pushed into receiving frame 20 and thus the cover must be closed by lifting the front part of cover body 10 again.' (paragraph [0006])

- 'As such, the problem to be solved by the Invention is to provide a round cover for an underground structure wherein the cover body can smoothly be put into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame.' (paragraph [0007])

- [Means to solve the problem]

'In order to solve the problem, the round cover for the underground structure of the Invention is comprised of a round cover body and a receiving frame supporting this cover body at the upper part of the inner circumferential surface and is characterized by forming convexly curved surface parts of the receiving frame that convex toward the inside of the receiving frame on the upper part of the inner circumferential surface of the receiving frame , while continuously forming concavely curved surface parts of the receiving frame on the upper side of these convexly curved surface parts of the receiving frame; forming concavely curved surface parts that follow said convexly curved surface parts of the receiving frame on the outer circumferential surface side of the cover body while continuously forming convexly curved surface parts of the cover body, which follow said concavely curved surface parts of the receiving frame, on the upper side of the concavely curved surface parts of the cover; continuously forming the upper-slope surface parts of the receiving frame that expand the diameter toward the upper side of the receiving frame on the upper side of said concavely curved surface parts of the receiving frame; continuously forming upper-slope surface parts of the cover that expand the diameter toward the upper side of the cover body on the upper side of said convexly curved surface parts of the cover; and fitting the upper-slope surface parts of the receiving frame and upper-slope surface parts of the cover, thereby avoiding the convexly curved surface parts of the cover and the concavely curved surface parts of the receiving frame as well as the concavely curved surface parts of the cover and the convexly curved surface parts of the receiving frame from coming into contact with each other when the cover body is supported by the receiving frame and the cover is closed.' (paragraph [0008])

- 'As a result of adopting such a structure, when the cover body is to put into the receiving frame by pushing the cover body from behind when closing the cover, the lower side of the convexly curved surface parts of the cover body come into contact with the upper side of the convexly curved surface parts of the receiving frame; and if the cover body is further pushed from behind, the convexly curved surface parts of the

cover would be guided by the convexly curved surface parts of the receiving frame while the contact area between the convexly curved surface parts of the cover body and the convexly curved surface parts of the receiving frame gradually move toward the front part of the cover body. Accordingly, the cover body can be smoothly put into the receiving frame just by pushing the cover body from behind. Furthermore, when the cover is closed, the convexly curved surface parts of the cover and the concavely curved surface parts of the receiving frame as well as the concavely curved surface parts of the cover and the convexly curved surface parts of the receiving frame do not come into contact, and the upper-slope surface parts of the cover formed on the cover body are wedged into the upper-slope surface parts of the receiving frame. Thus, the cover body and receiving frame fit and support each other without fail, thereby preventing unsteadiness of the cover body.' (paragraph [0009])

- 'Next, the cover-closing operation of the round cover for the Invention’s underground structure shall be explained by looking at Figure 3. Figure 3(a) shows a cross-sectional view of the state where, in order to close a cover that had been opened, the cover body is turned horizontally and almost laid on top of the receiving frame. Meanwhile, Figure 3(b) shows a cross-sectional view of the substantial part of the contact area (A-A line part in Figure 3(a)) between the outer circumferential side surface of the cover body and the upper part of the inner circumferential surface of the receiving frame in such a state. As shown in Figure 3(b), in a state where cover body 10 is laid almost on top of receiving frame 20 in order to close the cover, the lower side of convexly curved surface part 12 of the cover comes into contact with the upper side of convexly curved surface part 21 of the receiving frame, and thereby cover body 10 is prevented from substantially sinking in receiving frame 20. If the rear part of cover body 10 (the left end part in Figure 3(a)) were pushed by a leg and cover body 10 were pushed obliquely downward in this state, convexly curved surface part 12 of the cover would be guided by convexly curved surface part 21 of the receiving frame while the contact area between convexly curved surface part 12 of the cover and convexly curved surface part 21 of the receiving frame would gradually move toward the front part of cover body 10 (right end part in Figure 3(a)). In connection with this, the front part of cover body 10 (the right end part in Figure 3(a)) gradually rises, and thereby cover body 10 would eventually completely fit in receiving frame 20. As explained above, in the round cover for the underground structure of the Invention, when closing the cover, cover body 10 can be put into receiving frame 20 smoothly just by pushing cover body 10, since convexly curved surface part 12 of the cover would move while being guided by convexly curved surface part 21 of the receiving frame.' (paragraph [0018])

- [Effect of the invention]

'In the Invention, convexly curved surface parts of the receiving frame that convex toward the inside of the receiving frame are formed on the upper part of the inner circumferential surface of the receiving frame while concavely curved surface parts of the receiving frame are continuously formed on the upper side of these convexly curved surface parts of the receiving frame, and concavely curved surface parts of the cover are formed on the lower part of the outer circumferential side surface of the cover body while convexly curved surface parts of the cover are continuously formed on the upper side of the concavely curved surface parts of the cover. Therefore, when closing the cover, the convexly curved surface parts of the cover move while being guided by the convexly curved surface parts of the receiving frame. Thus the cover body can be put smoothly into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame. Moreover, upper-slope surface parts of the receiving frame and lower-slope surface parts of the receiving frame are formed on the upper part of the inner circumferential surface of the receiving frame while upper-slope surface parts of the cover and lower-slope surface parts of the cover are formed on the outer circumferential side surface of the cover body, and upper-slope surface parts of the receiving frame and upper-slope surface parts of the cover as well as the lower-slope surface parts of the receiving frame and lower-slope surface parts of the cover are a good fit, and the convexly curved surface parts of the cover and the concavely curved surface parts of the receiving frame as well as the concavely curved surface parts of the cover and convexly curved surface parts of the receiving frame are prevented from coming into contact with each other. Thereby, the unsteadiness of the cover body as well as the inflow of dirt, rainwater, etc. inside the underground structure are prevented.' (paragraph [0020])

(B) According to the abovementioned statements, the Invention (Claim 1) intends to solve the problem by providing a round cover for the underground structure wherein the cover body can be put smoothly into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame when the cover is to be closed. In order to solve this problem, the Invention adopted a structure wherein 'convexly curved surface parts of the receiving frame that convex toward the inside of the receiving frame are formed on the upper part of the inner circumferential surface of the receiving frame while concavely curved surface parts of the receiving frame are continuously formed on the upper side of these convexly curved surface parts of the receiving frame, and concavely curved surface parts of the cover that follow the convexly curved surface parts of the receiving frame are formed on the outer

circumferential side surface of the cover body while convexly curved surface parts of the cover that follow the concavely curved surface parts of the receiving frame are continuously formed on the upper side of these concavely curved surface parts of the cover.' As a result of adopting such a structure, the Invention produces the effect that 'the cover body can be put smoothly into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame when the cover is to be closed' ('Function and Effect (1)').

Moreover, as a result of adopting the structure wherein 'upper-slope surface parts of the receiving frame and lower-slope surface parts of the receiving frame are formed on the upper part of the inner circumferential surface of the receiving frame while upper-slope and lower-slope surface parts of the cover are formed on the outer circumferential side surface of the cover body, and upper-slope surface parts of each the receiving frame and cover as well as the lower-slope surface parts of each the receiving frame and cover are good fits, and the convexly curved surface parts of the cover and the concavely curved surface parts of the receiving frame as well as the concavely curved surface parts of the cover and convexly curved surface parts of the receiving frame are prevented from coming into contact with each other,' 'unsteadiness of the cover body as well as the inflow of dirt, rainwater, etc. inside the underground structure are prevented.' ('Function and Effect (2)').

B. The structure of Defendant Product B and state of the art

(A) Exhibit Ko No. C3 (the brochure titled 'New Round Iron Cover for Fire Hydrant: W-series' prepared by the appellee) contains the following statements.

- 'Regarding the cover-supporting structure '

'Inclined receiving structure'

'In a conventional "inclined receiving structure," unsteadiness of the cover was prevented by inclining the entire fitting surface at the same angle and wedging the cover into the receiving frame.

However, it may sometimes become difficult to open the cover due to the excessive wedging of the cover into the receiving frame, depending on the installation environment.'

'New structure (W-series)'

'The "new structure (W-series)" has a structure that achieves compatibility of contradictory performances by dividing the part where the cover gets wedged into the receiving frame and the part for preventing the cover from riding up.'

- 'Regarding the workability of the iron cover'

'Conventional rib structure'

'To prevent unsteadiness of the cover due to the transformation of the receiving frame, stiffening ribs must be provided on the exterior of the receiving frame.
In a conventional rib structure, it was difficult to prevent the receiving frame from transforming unless ribs were affixed to a point near the road surface. These ribs were causing limiting the rolling compaction by disrupting the rolling compaction work at the time of construction.'
'New structure (W-series)'
'In the new rib structure, ribs are arranged both on the exterior and interior of the receiving frame instead of using the concept of "exterior of the receiving frame."
Thanks to this structure, even if the exterior rib were affixed to a place as far from the road surface as possible, the interior rib plays the role of reinforcement. In addition, by curving the shape of the exterior rib, the workability of the rolling compaction is better than ever.'
- 'Regarding the opening and closing operability of the cover'
'A guide that is also serving the role as a rib is attached to the reverse side of the cover on the crowbar hole side; and thus, the cover can be easily opened and turned without being lifted, but instead, is being placed as it is.'
'This guide would be placed on the top surface of the receiving frame and thus will not damage the road surface.
The cover can be closed by lightly kicking in the cover without lifting it.'
(B) Exhibit Ko No. B34 (the materials prepared by the appellant for the explanatory session) contains the following statements.
'Transition in the fitting structure of the cover body and receiving frame'

Flat receiving structure	Steep inclined receiving structure	RV structure
Until around 1970	Since around 1970	Since 2005
A structure wherein the cover body is placed on the inner brim of the receiving frame (there is a gap between the outer circumferential surface of the cover body and the inner circumferential surface of the receiving	A structure wherein the outer circumferential surface of the cover body and the inner circumferential surface of the receiving frame are formed to have the same inclination angle	An innovative structure that is different from the conventional fitting structure

frame)		
There were problems of unsteadiness of the cover and noise generation.	While unsteadiness of the cover could be prevented, there was a problem with the cover body getting wedged into the receiving frame, and it became difficult to open the cover.	Achieved both easy opening of the cover body and prevention of unsteadiness thereof

C. Simulation regarding the effect of the Invention

According to the evidence (Exhibits Ko No. B4, No. B5, No. B7, No. B35 and No. B36) and entire import of oral argument, the following facts can be found.

(A) P, who belongs to the development group at Hinode, Ltd. ('Hinode'), which is an affiliate company of the appellant, implemented an analysis simulation on the contact state of the outer circumferential slope surface of the cover body and inner circumferential slope surface of the receiving frame when the cover is closed with respect to the models of Hinode's product and Defendant Product B based on the finite element analysis using an analysis software (ADINA system) (Exhibits Ko No. B4, No. B5, No. B7, No. B35 and No. B36).

In the abovementioned simulation, a model of Defendant Product B was created by inputting data based on the dimensions stated in the 'detailed drawings of the receiving frame used in Product [1],' 'detailed drawings of the receiving frame used in Product [2]' and 'detailed drawings of the cover,' which were submitted by the appellee as an attachment to brief (1) (which is related to Case B) dated April 2, 2009 in the prior instance.

In addition, the model of Hinode's product was created based on the product in which the Patent is worked (model number: ROES-50G-10L).

(B) In the simulation implemented by P around November 25, 2010 (see Exhibit Ko No. B35), the initial state was set to have the center of the cover body moved 10mm from the center of the receiving frame to the direction to which the cover body shall be pulled from the receiving frame and to have the cover body inclined 10° against the receiving frame. Thereby, an analysis was made on the contact state of the outer circumferential slope surface of the cover body and inner circumferential slope surface of the receiving frame (moves of the cover body), from said initial state until the state where the cover is closed by having the cover body move in the direction in which the cover closes (the state wherein the cover body is put into the receiving frame).

The results of the simulation for both models of Hinode's product and Defendant Product B are shown in drawings, wherein the first figure shows the initial state and the last figure shows the state where the cover is closed by having the cover body move 10mm toward the cover-closing direction. Other figures show the state during the first and last states, where the cover body is moved 1mm, 2mm, 3mm, 6mm and 9mm, respectively, toward the cover-closing direction.

In the 'plan view,' 'front view' and 'magnified perspective view' of the contact point between the cover body and receiving frame, which were all prepared to show the results of the simulation, the parts discolored greenish yellow, yellow and red are the parts where the cover body and receiving frame are in contact with each other; and the contact surface pressure increases in the order of greenish yellow, yellow and red.

In these views, the angles stated in the perspective view of the receiving frame show the points on the receiving frame where the contact took place, when seen from the planar view against the receiving frame's direction of movement.

In addition, on around December 24, 2010, P implemented a simulation on the state where the cover body is moved 8mm to 10mm by 0.1mm toward the cover-closing direction (Attachments 1 and 2 of Exhibit Ko No. B 36) and compiled and prepared a list of 'maximum surface pressures' in the slope parts and convexly curved surface parts that were calculated in the simulation for respective positions of the cover body (Attachment 3 of Exhibit Ko No. B36).

(C) In the simulation mentioned in Exhibit Ko No. B36, the maximum surface pressures on the outer circumferential slope surface of the cover body and inner circumferential slope surface of the receiving frame in Defendant Product B were generally larger than those in the model of Hinode's product (in particular, see the parts between 9.0mm to 10.0mm) (Attachments 1 and 2 of Exhibit Ko No. B36).

In addition, in this simulation, while the cover body and receiving body came into contact with each other in the (upper) slope parts from the convexly curved surface parts at the point where the cover body had moved 8.9mm in Defendant Product B, such point was 9.6mm in the model of Hinode's product (Attachment 3 of Exhibit Ko No. B36).

Furthermore, in the perspective view of the receiving frame, with respect to the model of Hinode's product, an angle of 45° is stated in the position where the cover body had moved 1mm, 30° in the case of 2mm, and 0° in the case of 3 to 9 mm. Meanwhile, with respect to Defendant Product B, an angle of 75° is stated in the position where the cover body had moved 1mm, 70° in the case of 2mm, 65° in the case of 3mm, 35° in the case of 6mm, and 0° in the case of 8mm.

D. The determination on whether or not the first requirement is satisfied to apply the doctrine of equivalents

Based on the abovementioned findings, it may be found that manholes that have a flat receiving structure or steep inclined receiving structure existed prior to the filing of an application for the Patent (RV structure), but the Invention achieved the effect that 'the cover body can be put smoothly into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame' by structuring the receiving frame to have convexly curved surface parts and concaved parts without providing brims (platform parts). Moreover, in light of the overall structure, it can be said that although Defendant Product B does not have concavely curved surface parts, the cover body can also be put smoothly into the receiving frame to a certain extent by adopting a structure similar to that of the Invention.

As explained above, the Invention and Defendant Product B share a common feature: they both structured the receiving frame by convexly curved surface parts and concaved parts without providing brims (platform parts).

The appellee alleges that in Defendant Product B, both the cover body and receiving frame do not have convexly curved surface parts. However, setting aside the question of whether or not Defendant Product B brings about the same function and effect as those of the Invention, it is obvious that "curved surface 12 of the cover" and 'curved surface 21a of the receiving frame' of Defendant Product B are formally equivalent to the "convexly curved surface parts."

In addition, it is obvious that the 'surface A 11 of the cover' of Defendant Product B is equivalent to the "concavely curved surface parts."

Furthermore, the appellee alleges that 'surface A 11 of the cover' and 'curved surface 12 of the cover' of Defendant Product B do not follow the convexly curved surface parts and concavely curved surface parts of the receiving frame. However, such parts are all formed in correspondence to the 'curved surface 21a of the receiving frame' and 'tiered part 22' and thus it should be said that they satisfy the requirement of 'that follow.'

On the other hand, in addition to decompositions B, C and G of the claims of the Invention, paragraphs [0008] and [0020] of the description also state in repetition that the 'convexly curved surface part' and the 'concavely curved surface part' are a pair, and further state that the function and effect that 'the cover body can be put smoothly into the receiving frame just by pulling the cover body with a crowbar or pushing forward the cover body into the frame' (Function and Effect (1)) can be produced as a result of adopting the structure wherein convexly curved surface parts and concavely curved surface parts are both provided in the cover body and the receiving frame.

Based on the abovementioned findings, taking into consideration all of the statements in the patent description and the underlying technical idea that supports the means for solving the problem attained by the Invention, it is clear that, in the process where the Invention brings about Function and Effect (1), the convexly curved surface parts of the cover body and the receiving frame play the most important role (see paragraphs [0009] and [0020], etc.). Accordingly, the appellant’s argument, 'the receiving frame should have only concave parts, and it need not have concavely curved surface parts,' is affirmable, and the 'concavely curved surface parts' of the receiving frame are not regarded as an essential element of the Invention.

In addition, paragraph [0020] in the patent description contains a statement to the effect that Function and Effect (2) would be produced by adopting a structure wherein 'in the state where the cover is closed, the upper-slope surface parts of the receiving frame and the cover as well as the lower-slope surface parts of the receiving frame and the cover are a good fit, and the convexly curved surface parts of the cover and the concavely curved surface parts of the receiving frame as well as the concavely curved surface parts of the cover and the convexly curved surface parts of the receiving frame are prevented from coming into contact with each other.' Although whether the concaved parts of the receiving frame are 'curved surface parts' is not questioned here, it should be said that it is not essential to have the concaved parts of the receiving frame to be 'curved surface parts' in producing Function and Effect (2).

E. The decision on whether or not the second requirement is satisfied to apply the doctrine of equivalents

According to Exhibits Ko No. B37 through No. B39 and Exhibits Otsu No. B13 through No. B19 (results of performance), it is true that the performance in court is heavily dependent on the performer's skill for opening and closing the cover. Nevertheless, Defendant Product B may be found to produce Function and Effect (1) to a certain extent, and there is no huge difference according to whether a 'concavely curved surface part' or a 'concaved part' is provided in the receiving frame.

Moreover, as stated in C.(C) above, it may be found from the results of the simulation implemented by the appellant (the simulation was implemented based on drawings submitted by the appellee, and though its accuracy is disputed between the parties, it is found to be accurate to a satisfactory degree) that the contact position of the convexly curved surface parts gradually moves upward when the cover body horizontally moves 3mm to 9mm in Hinode's product, while the contact position vertically moves when the cover body horizontally moves the last 2mm in Defendant Product B.

As such, when closing the cover, the vertical movement of the contact position of the

cover and the receiving frame starts later in Defendant Product B in comparison to that in the Invention.

In addition, based on the results of the simulation mentioned above, it is found that the maximum surface pressures that generate on the upper-slope surface when the cover and receiving frame come into contact with each other are generally larger in Defendant Product B in comparison to the Invention.

These findings may lead to the determination that, in Defendant Product B, since the slope surface parts of the upper parts of the cover and receiving frame are considerably long and the curved surfaces of the cover and receiving frame are short (small), the scope of contact of the curved surfaces is limited and the scope of contact of the slope surface parts of the upper parts of the cover and receiving frame is big; and these factors are affecting the movement distance in the vertical and horizontal directions at the time of opening and closing the manhole and the figure of maximum surface pressure.

However, the Invention and Defendant Product B have no differences in terms of how the cover moves when it is closed, in particular, the mechanism where the convexly curved surface parts [of the cover and the receiving frame] are in contact with each other, whereas the concaved parts (in the case of the Invention, the concavely curved surface parts; in the case of Defendant Product B, the curved surface of the cover or the slope surface of the lower part of the cover, and tiered part 22 of the receiving frame) are not in contact with each other. The slight difference in simulation results may have arisen from the difference in terms of the size of the convex surface parts or the size of the upper-slope surfaces of the cover and the receiving frame.

Thus, there is no substantial difference between the Invention and Defendant Product B in terms of the intended function and effect on how the cover moves when it is closed, and Defendant Product B is also capable of bringing about Function and Effect (1).

In addition, since Defendant Product B is structured to have the upper-slope surfaces of the cover and receiving frame as well as the circular convex surface of the cover and vertical surface of the receiving frame fit with each other and the gap parts existent in between such parts are prevented from coming into contact with each other, it is obvious that Defendant Product B brings about Function and Effect (2).

F. The determination on whether or not the third requirement is satisfied to apply the doctrine of equivalents

The act of replacing the 'concavely curved surface parts' with the 'tiered parts' means replacing the 'curved surface parts' with the two substantially 'straight portions.' Generally, in manufacturing a member, needless to say, it is easier to structure the member in a straight line than in a curved line, and there is no difficulty in making such

replacement.

Based on the abovementioned findings, it does not seem that, at the time of the manufacturing of Defendant Product B (prior to around March 2008), a person ordinarily skilled in the art had any particular difficulty in conceiving of the replacement of the concavely curved surface parts of the Invention with concaved parts (tiered parts). It is reasonable to consider that such replacement was rather easy.

G. The determination on whether or not the fourth requirement is satisfied to apply the doctrine of equivalents

In light of the statements in the brochure (Exhibit Ko No. C3) prepared by the appellee and the statements in the publicly known documents (Exhibits Ko No. B29 through No. B31) mentioned in the notice of reasons for refusal issued by the JPO in the process of the Patent Application (Exhibits Ko No. B28 and Otsu No. B11), at the time of the filing for the patent (February 14, 2002), in the field dealing with round covers for underground structure (manholes), it may have been well-known art to make the slope surface parts, provided both on the cover body and the receiving frame, fit and support each other. However, a person ordinarily skilled in the art could not have easily conceived of the means of solving the problems attained by Defendant Product B, that is, to make the cover open and close smoothly by making the convexly curved surface parts or upper-slope surface parts of the cover and the receiving frame come in contact with each other instead of providing brims inside, and to prevent unsteadiness of the cover body and the inflow of dirt, rainwater, etc. by making the upper-slope surface parts of the cover and the receiving frame come in contact with each other.

H. The determination on whether or not the fifth requirement is satisfied to apply the doctrine of equivalents

In this case, even if the written amendment of procedures (Exhibit Ko No. B32) and written opinion (Exhibit Ko No. B33) submitted by the appellant in the process of the Patent Application are referred to, no special circumstances can be found where the appellant, in the patent application procedures, intentionally removed such constitution like that of Defendant Product B (in which the 'concavely curved surface parts' on the receiving frame are replaced with 'tiered parts') from the scope of claims.

I. Based on the abovementioned findings, it should be said that Defendant Product B is equivalent to the Invention and falls within the technical scope thereof."

(3) Regarding the contents of the injunction and the amount of damages, etc.

A. As stated above, since Defendant Product B is found equivalent to the Invention, the appellant's claims for an injunction against the manufacture of Defendant Product B and disposal of such product, its semi-finished product, and the mold used for the

manufacture of such products are well-grounded pursuant to Article 100, paragraphs (1) and (2) of the Patent Act.

B. In addition, the appellant has claimed payment of damages in an amount equivalent to the attorneys' fees, 2,000,000 yen and delay damages accrued thereon at the rate of 5% per annum for the period from December 20, 2008 until the completion of payment. Taking into consideration all of the circumstances including the relationship between the Invention and Defendant Product B in the abovementioned findings and the details of the court proceedings after the principal action was filed, it is found that 1,000,000 yen is an appropriate amount as the amount equivalent to the attorneys' fee, and thus the claim for damages is well-grounded to the extent of 1,000,000 yen and delay damages accrued thereon at the rate of 5% per annum for the period from December 20, 2008 until the completion of payment. However, the other claims are groundless.

(omitted)

5. Conclusion

As found above, with respect to Cases A and C, the appellant's claims are groundless even after the claim has been amended in this instance; and thus the part of the appeal that overlaps with the judgment in prior instance that is among the claims amended as mentioned above shall be dismissed, and the new claims made in this instance shall also be dismissed.

With respect to Case B, the appellant's claims after amendment in this instance are well-grounded to an extent of claiming for an injunction and disposal as well as the payment of damages in an amount of 1,000,000 yen and delay damages accrued thereon at the rate of 5% per annum for the period from December 20, 2008 until the completion of payment, and thus shall be upheld (a declaration of provisional execution shall not be attached since the appellant has not requested it in this instance) and the other claims shall be dismissed for being groundless and the judgment in prior instance to the contrary to these holdings shall be modified.

Accordingly, the judgment shall be rendered in the form of the main text.

Intellectual Property High Court, First Division

Presiding Judge: NAKANO Tetsuhiro

Judge: SHOJI Tamotsu

Judge: YAGUCHI Toshichika

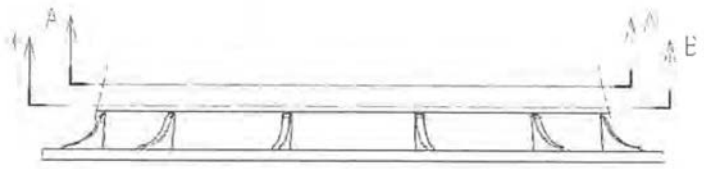
(Attachment)
Product List A
Receiving frame of the round iron cover for fire hydrant No. 3 (SEW50-i)
End

Product Description of Defendant Product A

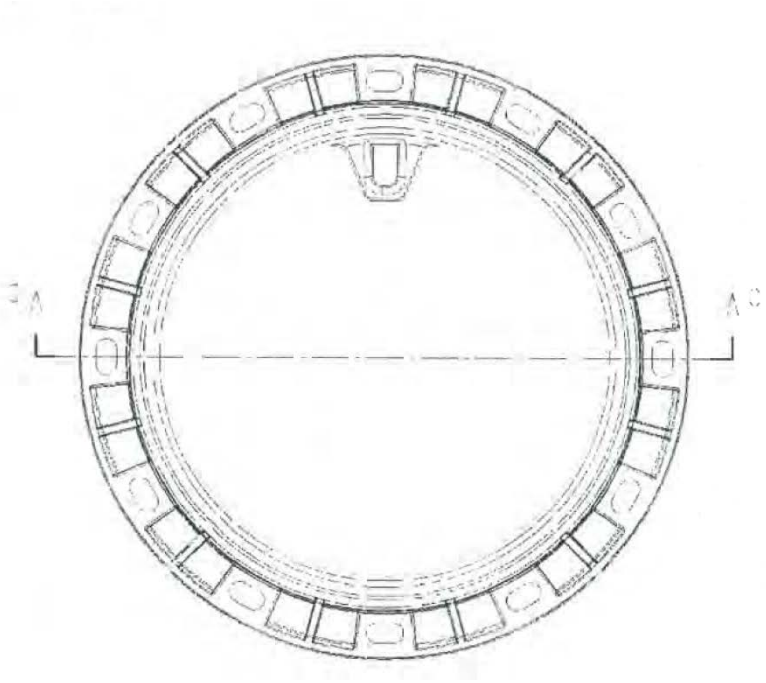
A. Explanation of the product: Receiving frame of a round iron cover for fire hydrant

B. Drawing (the parts corresponding to Registered Design A are in red)

(1) Front view

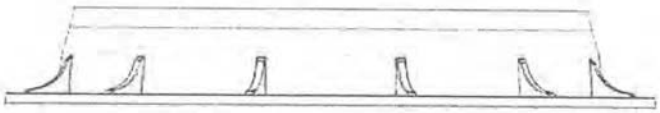


(2) Plan view

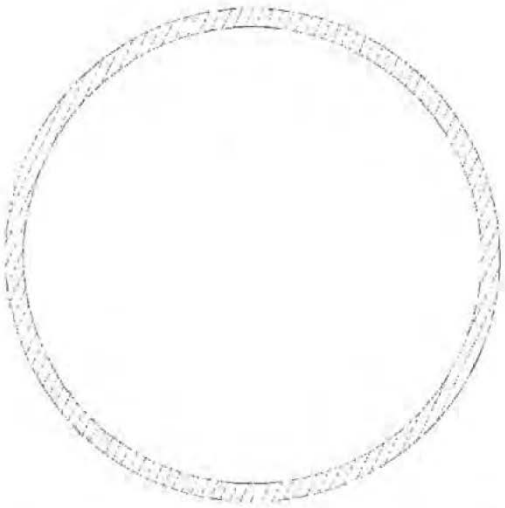


(3) Bottom view

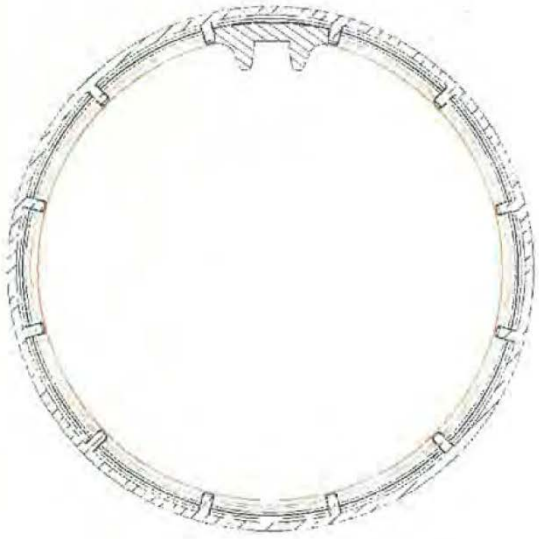
(4) Right side view



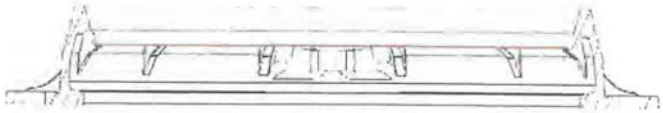
(5) A-A cross-sectional view



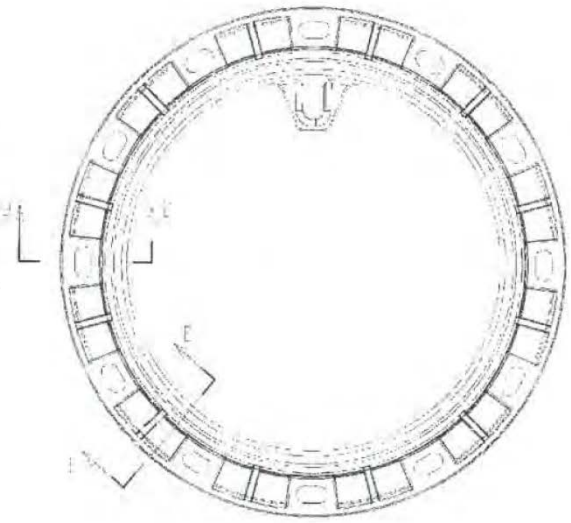
(6) B-B cross-sectional view



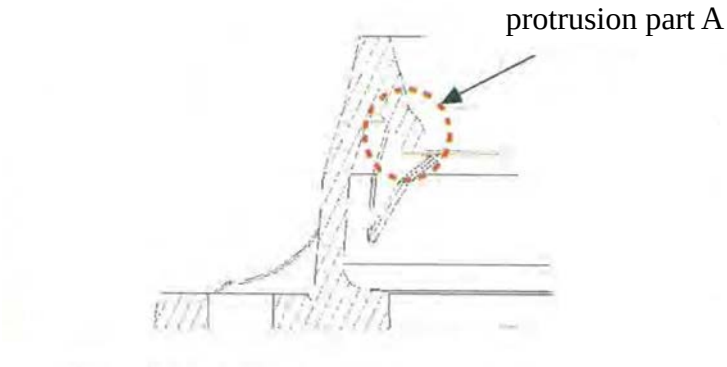
(7) C-C cross-sectional view



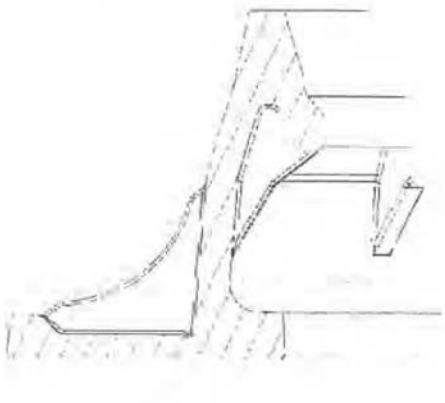
(8) Reference plan view showing the cutaway view



(9) D-D magnified view



(10) E-E magnified view



End

(Attachment)

Product List B

1. Product B[1]: The receiving frame and cover body of the round iron cover for fire hydrant No. 3 (SEW50-i)

2. Product B[2]: The receiving frame and cover body of the round iron cover for fire hydrant No. 3 (SEW50-3)

End

Product Description of Product B[1]

A. Explanation of the product: A round iron cover for a fire hydrant

B. Structure

a. In a round cover for an underground structure comprised of round cover body 10 and receiving frame 20, which supports this cover body 10 at the upper part of the inner circumferential surface;

b. curved surface 21 of the receiving frame that convexes toward the inside of receiving frame 20 is formed on the upper part of the inner circumferential surface of receiving frame 20 while concaved tiered part 22 is continuously formed on the upper side of this curved surface 21 of the receiving frame;

c. concaved surface A 11 of the cover, which follows said curved surface 21 of the receiving frame, is formed on the outer circumferential side surface of cover body 10, while convexly curved surface 12 of the cover, which follows said tiered part 22, is continuously formed on the upper side of surface A 11 of the cover;

d. first slope surface 23, which expands the diameter toward the upper side of receiving frame 20, is continuously formed on the upper side of said tiered part 22;

e. upper-slope surface 13 of the cover, which expands the diameter toward the upper side of cover body 10, is continuously formed on the upper side of curved surface 12 of the cover;

f. first slope surface 23 and upper-slope surface 13 of the cover are fit in a state where the cover is closed by having receiving frame 20 support cover body 10;

g. curved surface 12 of the cover and tiered part 22, as well as surface A 11 of the cover and curved surface 21 of the receiving frame, are prevented from coming into contact with each other;

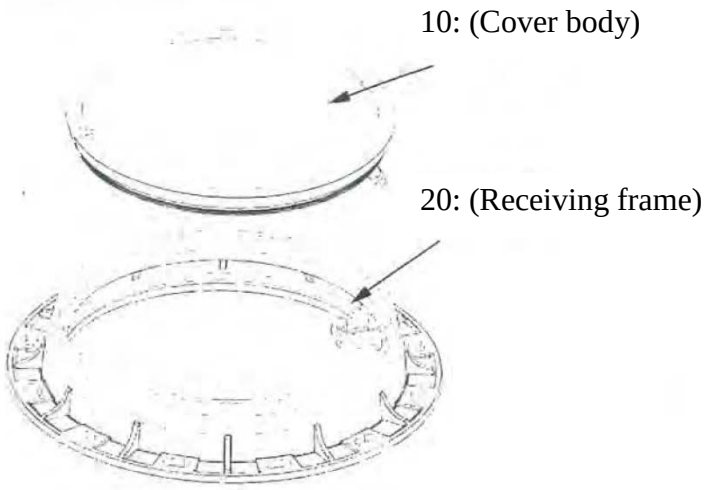
h. a round cover for an underground structure that is characterized by having the structures mentioned in b. through g. above.

C. Explanation of the signs

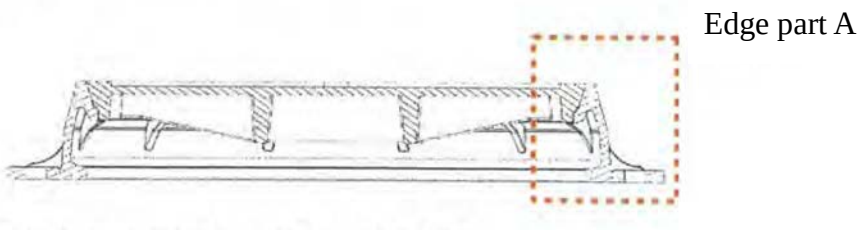
10: cover body, 11: surface A of the cover (concavely curved surface part of the cover), 12: curved surface of the cover (convexly curved surface part of the cover), 13: upper-slope surface of the cover (upper-slope surface part of the cover), 14: surface B of the cover (lower-slope surface part of the cover), 20: receiving frame, 21: curved surface of the receiving frame (convexly curved surface part of the receiving frame), 22: tiered part (concavely curved surface part of the receiving frame), 23: first slope surface (upper-slope surface part of the receiving frame), 24: surface A of the receiving frame (lower-slope surface part of the receiving frame)

D. Drawing

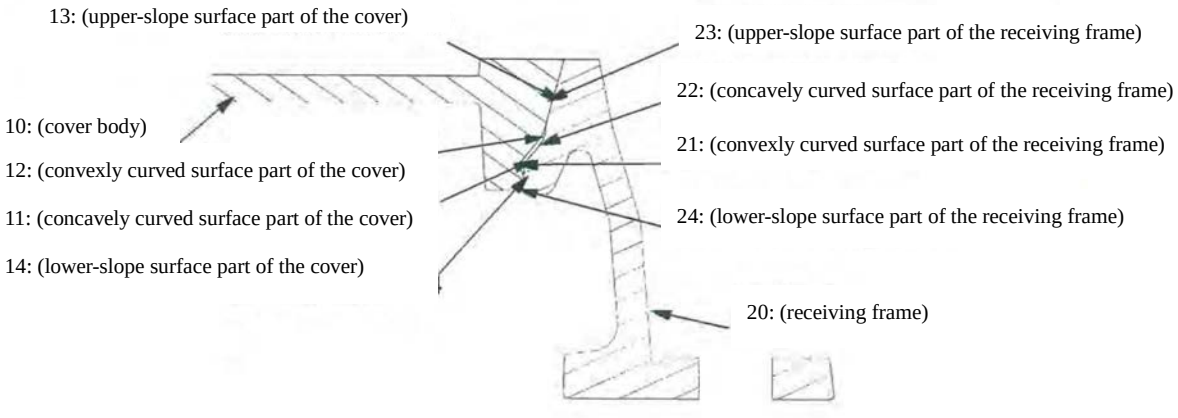
(1) Exploded perspective view of the cover body and receiving frame



(2) Cross-sectional view when the cover is closed



(3) Magnified view of edge part A in the cross-sectional view when the cover is closed



End

Product Description of Product B[2]

A. Explanation of the product: A round iron cover for a fire hydrant

B. Structure

a. In a round cover for an underground structure comprised of round cover body 10 and receiving frame 20, which supports this cover body 10 at the upper part of the inner circumferential surface;

b. curved surface 21 of the receiving frame that convexes toward the inside of receiving frame 20 is formed on the upper part of the inner circumferential surface of receiving frame 20, while concaved tiered part 22 is continuously formed on the upper side of this curved surface 21 of the receiving frame;

c. concaved surface A 11 of the cover, which follows said curved surface 21 of the receiving frame is formed on the outer circumferential side surface of cover body 10, while convexly curved surface 12 of the cover, which follows said tiered part 22 is continuously formed on the upper side of surface A 11 of the cover;

d. first slope surface 23, which expands the diameter toward the upper side of receiving frame 20, is continuously formed on the upper side of said tiered part 22;

e. upper-slope surface 13 of the cover, which expands the diameter toward the upper side of cover body 10, is continuously formed on the upper side of curved surface 12 of the cover;

f. first slope surface 23 and upper-slope surface 13 of the cover are fit in a state where the cover is closed by having receiving frame 20 support cover body 10;

g. curved surface 12 of the cover and tiered part 22, as well as surface A 11 of the cover and curved surface 21 of the receiving frame, are prevented from coming into contact with each other;

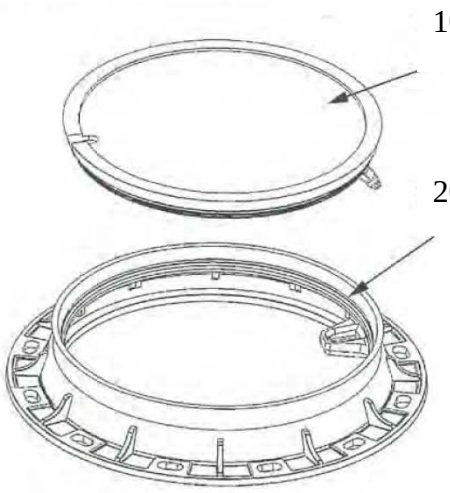
h. a round cover for an underground structure, that is characterized by having the structures mentioned in b. through g. above.

C. Explanation of the signs

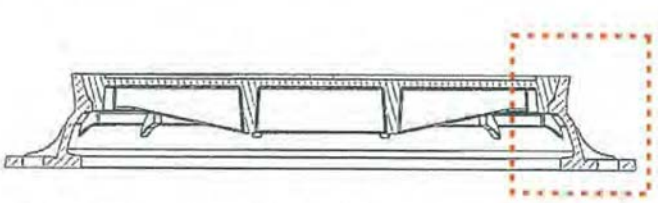
10: cover body, 11: surface A of the cover (concavely curved surface part of the cover), 12: curved surface of the cover (convexly curved surface part of the cover), 13: upper-slope surface of the cover (upper-slope surface part of the cover), 14: surface B of the cover (lower-slope surface part of the cover), 20: receiving frame, 21: curved surface of the receiving frame (convexly curved surface part of the receiving frame), 22: tiered part (concavely curved surface part of the receiving frame), 23: first slope surface (upper-slope surface part of the receiving frame), 24: surface A of the receiving frame (lower-slope surface part of the receiving frame)

D. Drawing

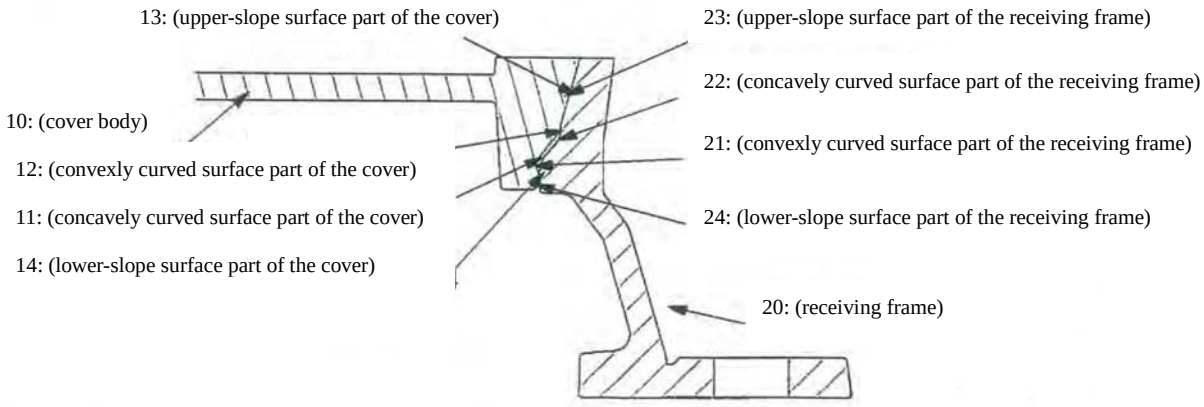
(1) Exploded perspective view of the cover body and receiving frame



(2) Cross-sectional view when the cover is closed



(3) Magnified view of edge part A in the cross-sectional view when the cover is closed



End

(Attachment)

Product List C

1. Product C[1]: The receiving frame of a round iron cover for fire hydrant No. 3 (SEW50-i)

2. Product C[2]: The receiving frame of a round iron cover for fire hydrant No. 3 (SEW50-3)

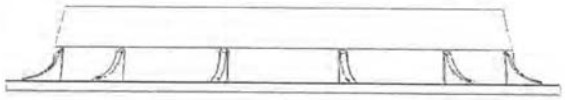
End

Product Description of Product C[1]

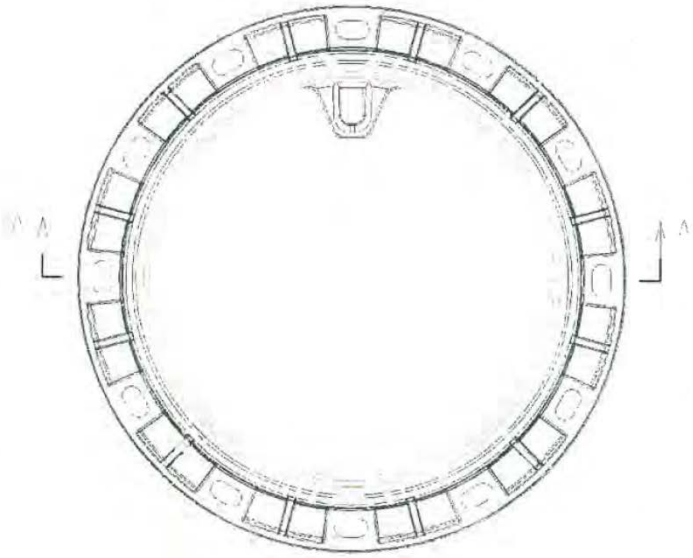
A. Explanation of the product: The receiving frame of a round iron cover for a fire hydrant

B. Drawing (the parts corresponding to Registered Design C are in red)

(1) Front view

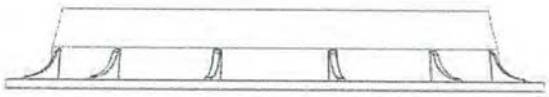


(2) Plan view



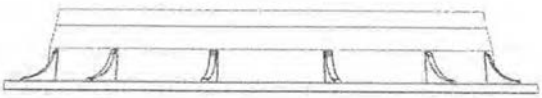
(3) Bottom view

(4) Right side view

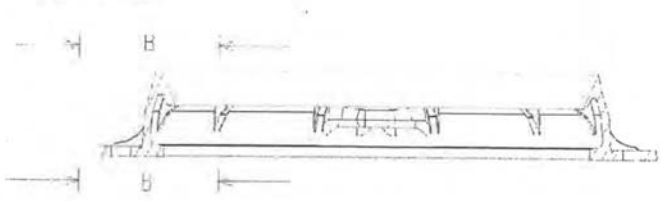


(5) Left side view

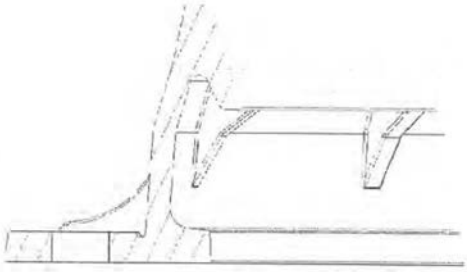
(6) Back view



(7) A-A cross-sectional view



(8) Magnified view of Part B



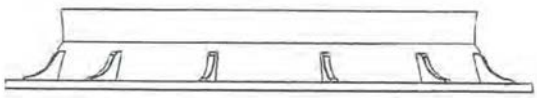
End

Product Description of Product C[2]

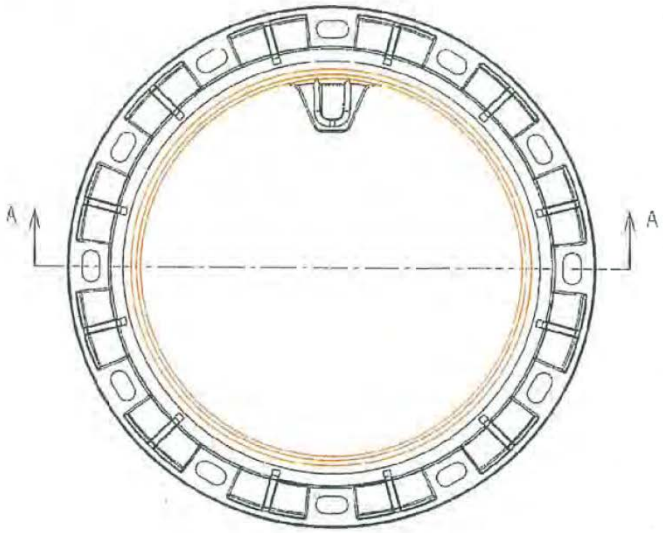
A. Explanation of the product: The receiving frame of a round iron cover for a fire hydrant

B. Drawing (the parts corresponding to Registered Design C are in red)

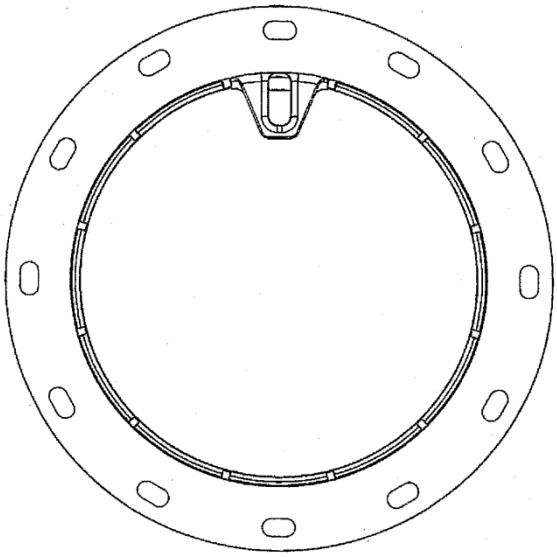
(1) Front view



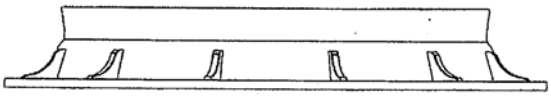
(2) Plan view



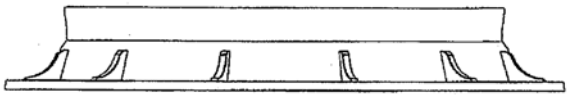
(3) Bottom view



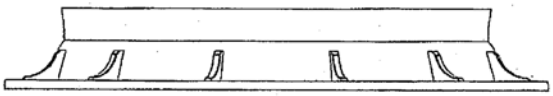
(4) Right side view



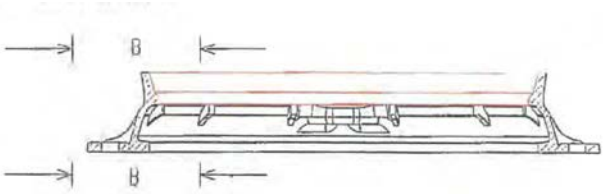
(5) Left side view



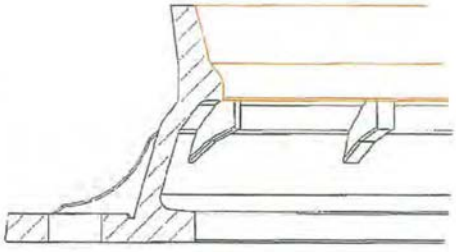
(6) Back view



(7) A-A cross-sectional view

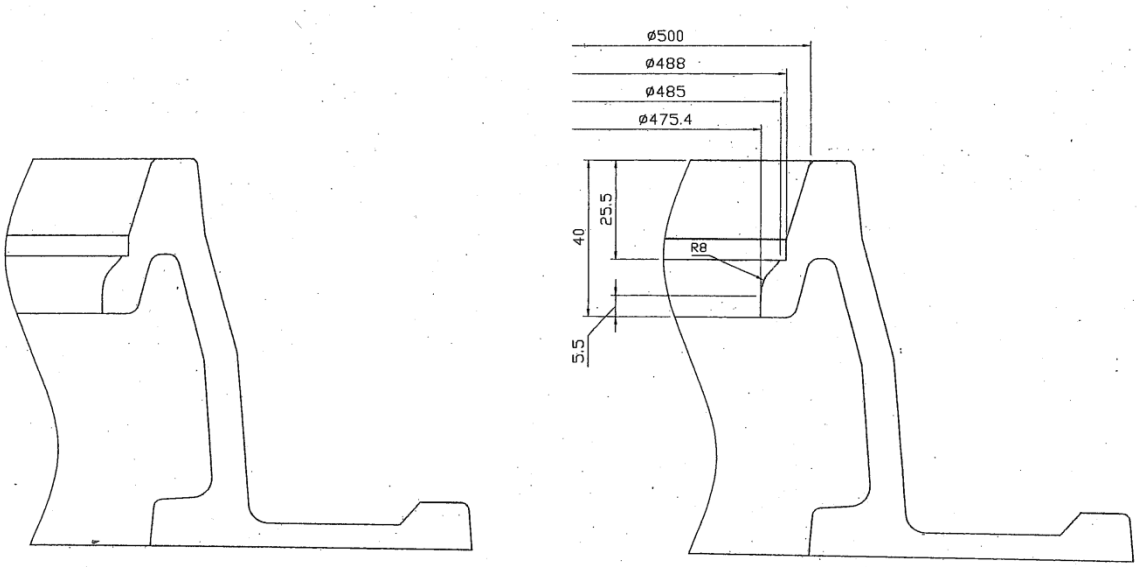


(8) Magnified view of part B

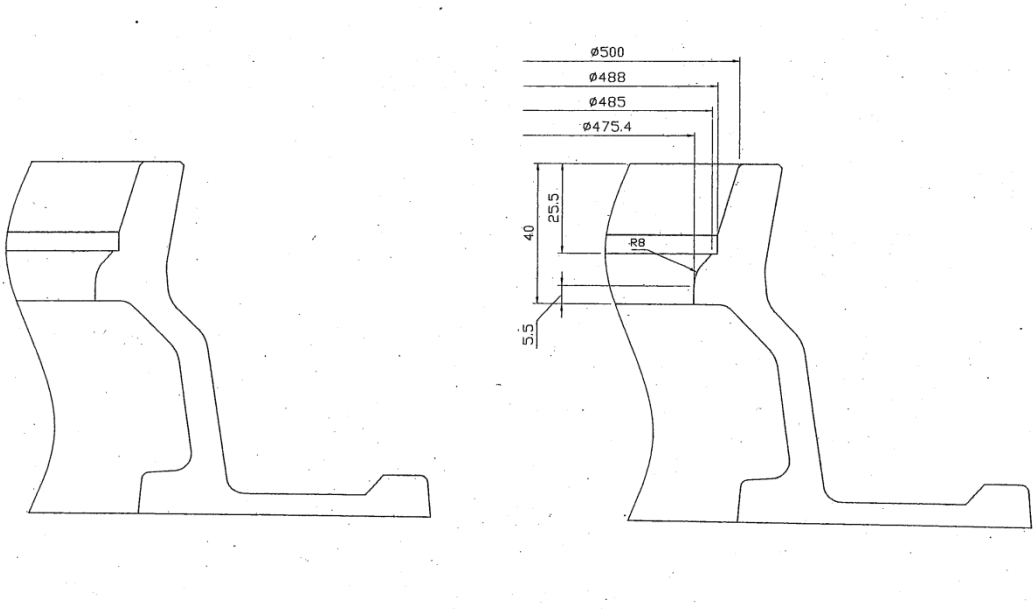


End

Product [1]: Detailed drawing of the receiving frame



Product [2]: Detailed drawing of the receiving frame



(Attachment)

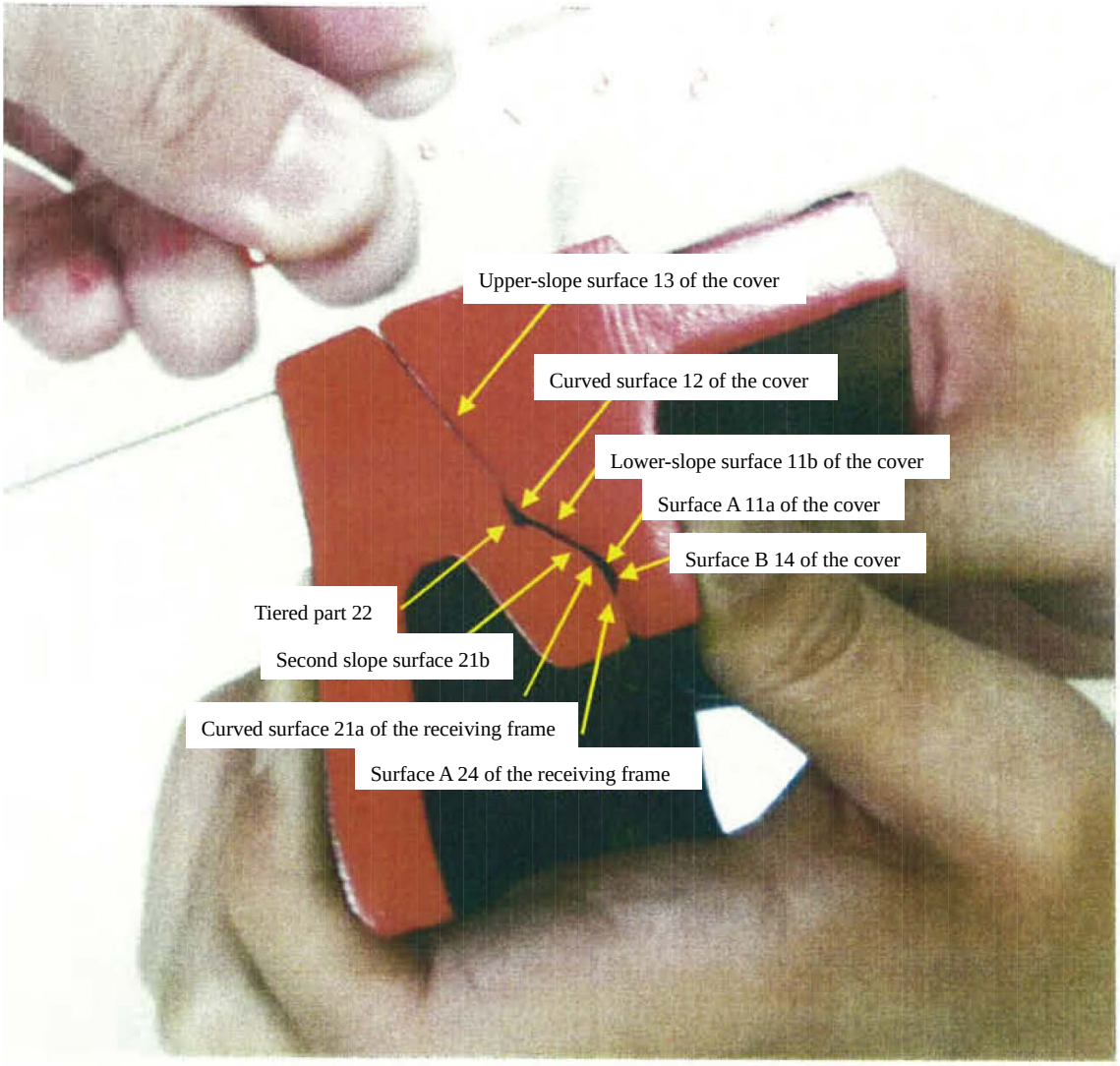
Picture explanation of Defendant Product B

1. Product [1]

(1) Receiving frame

(2) Cover

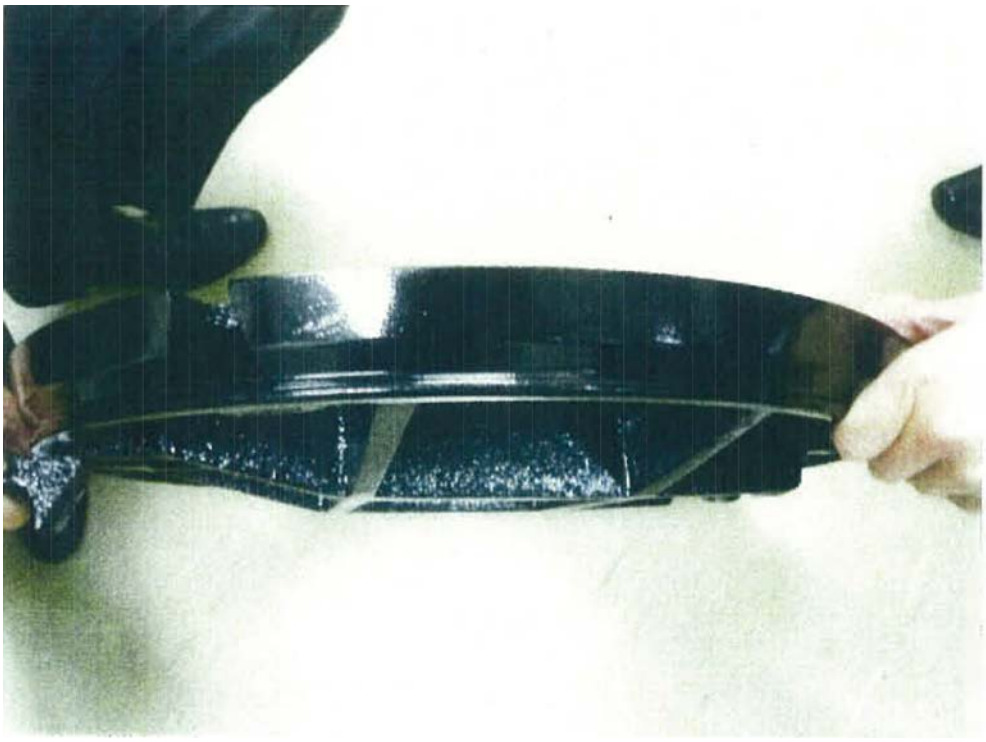
(3) State of fitting of the cover and the frame (cut model prepared by the defendant)
The coating film is thin in comparison to Product [1].



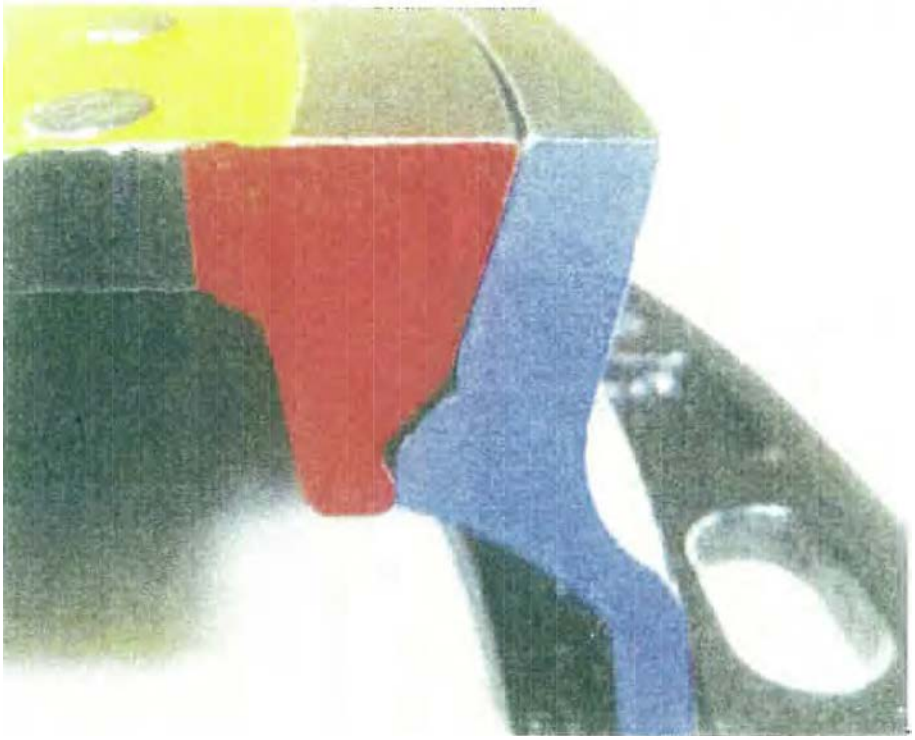
2. Product [2]

(1) Receiving frame

(2) Cover (same as that of Product [2])



(3) Fitting of the cover and the frame (cut model prepared by the defendant)
The coating film is thin in comparison to that of Product [2].



End

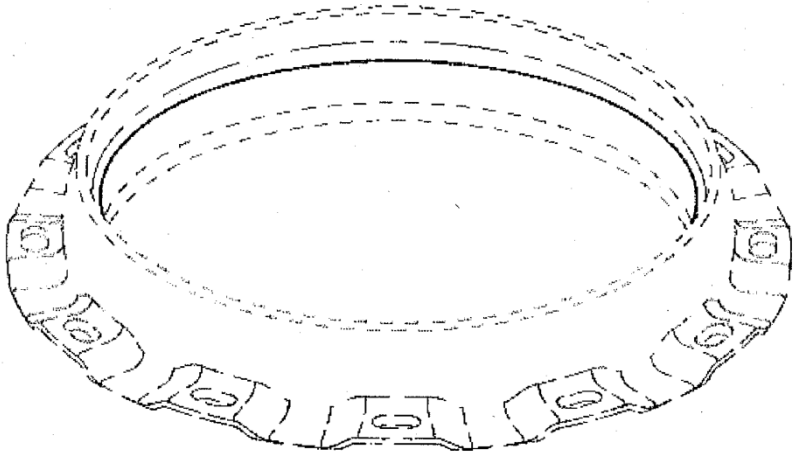
(Attachment)

List of Registered Design A

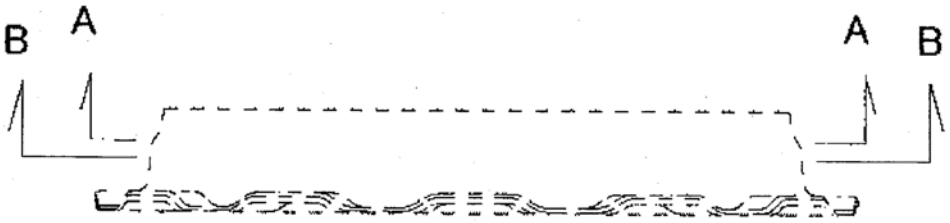
[Explanation of the design]

The back view and left side view shall be omitted since they would be identical to that of the front view and right side view respectively. The parts shown in solid lines are the parts for which design registration as a partial design is sought. The dashed-dotted line only shows the boundary between the parts for which design registration as a partial design is sought and other parts.

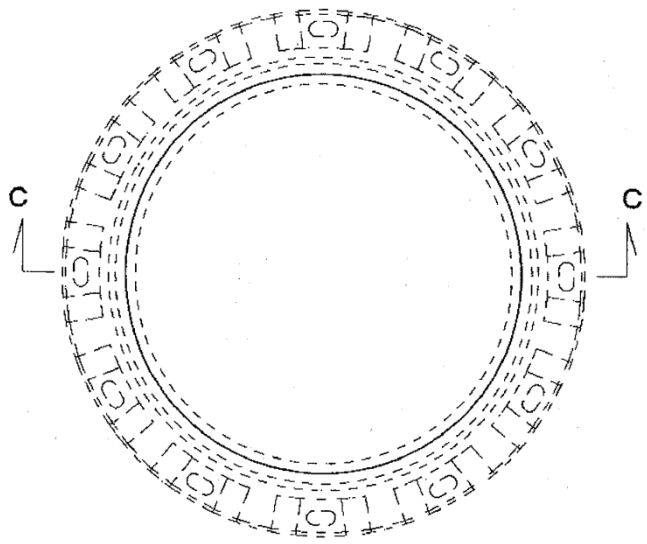
[Perspective view]



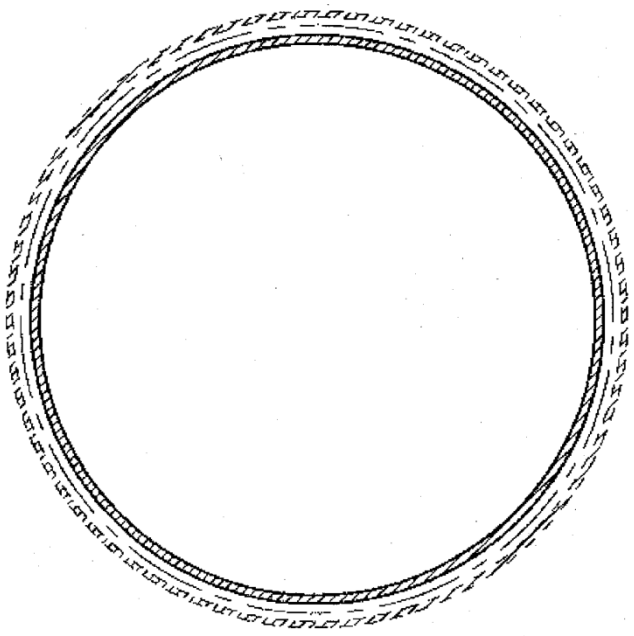
[Front view]



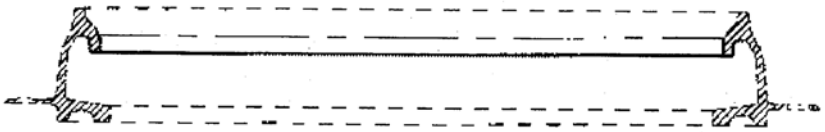
[Plan view]



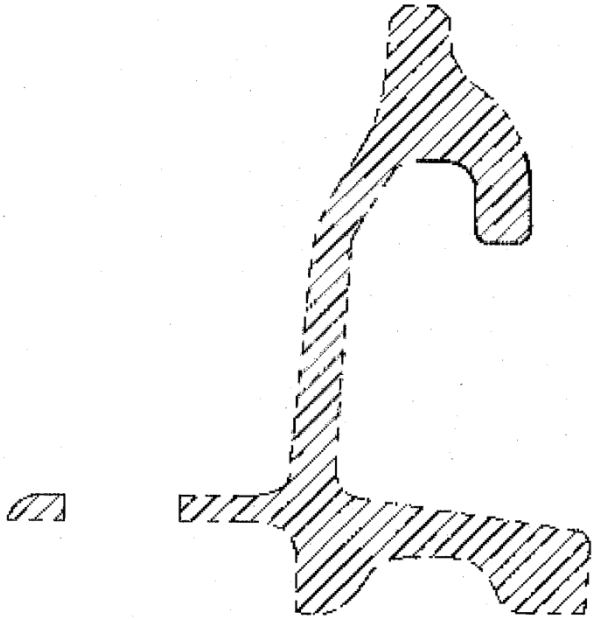
[A-A cross-sectional view]



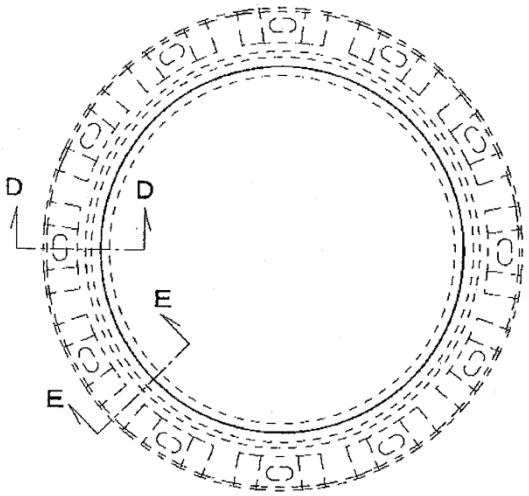
[C-C cross-sectional view]



[D-D magnified end view]

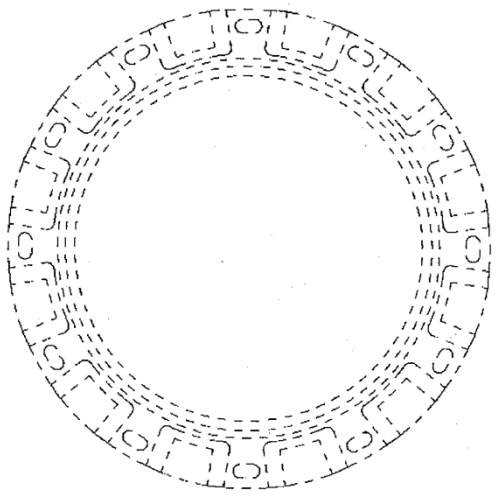


[Reference plan view showing the cut area]

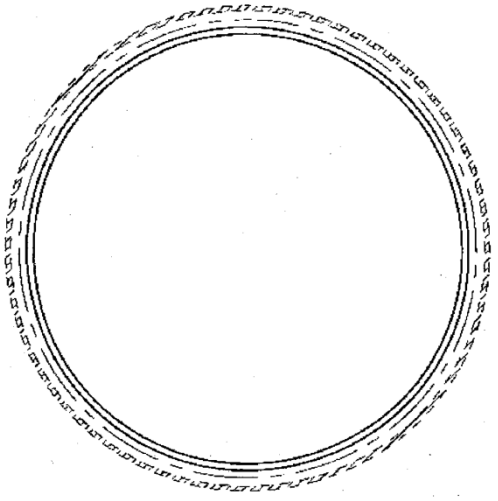


[Right side view]

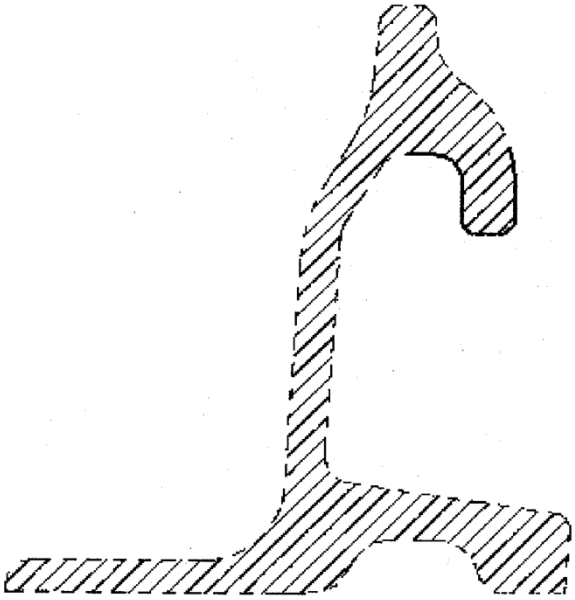
[Bottom view]



[B-B cross-sectional view]



[E-E magnified end view]



End

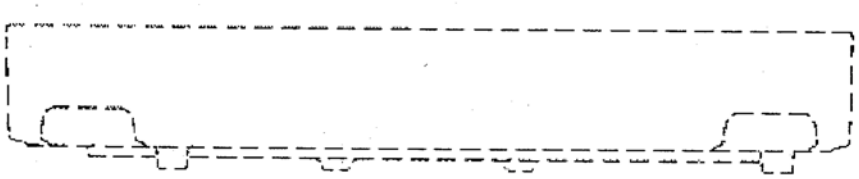
(Attachment)

List of Registered Design C

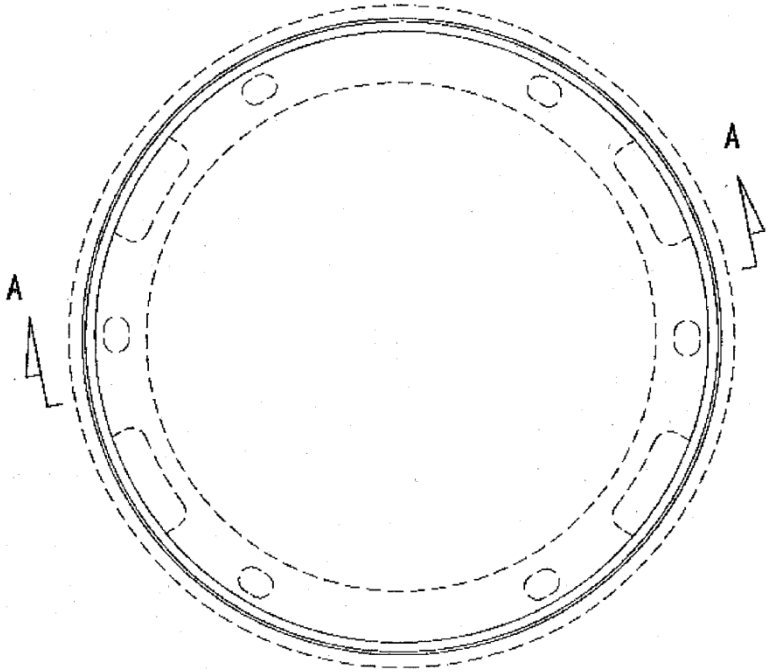
[Explanation of the design]

The parts shown in solid line are those for which design registration as a partial design is sought.

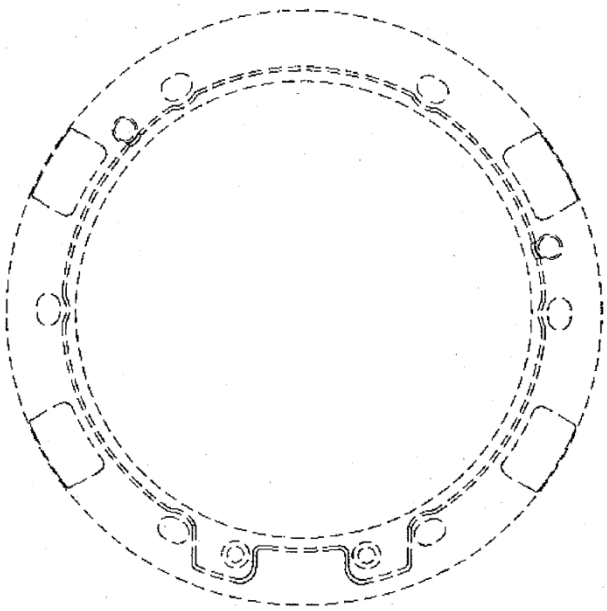
[Front view]



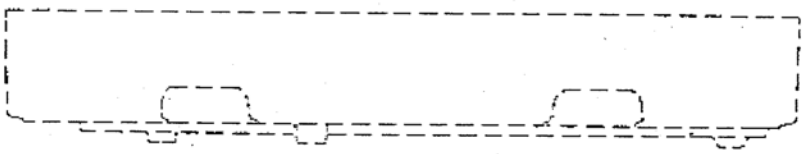
[Plan view]



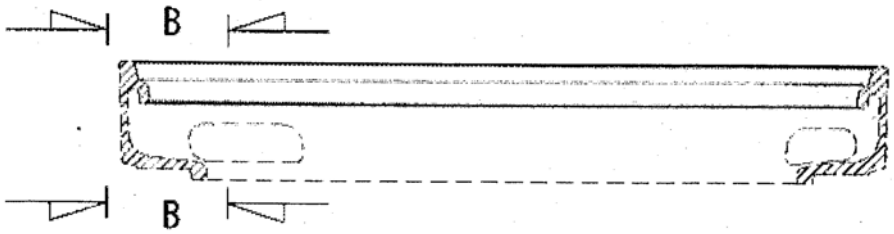
[Bottom view]



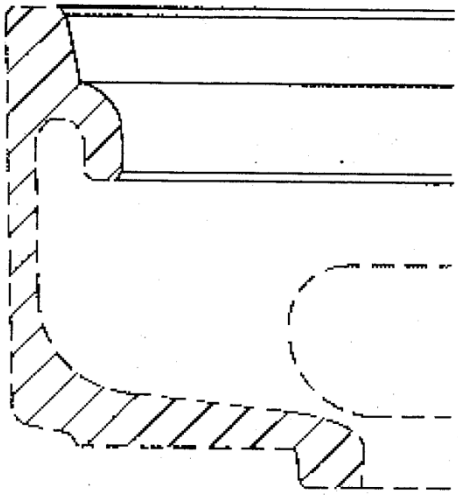
[Right side view]



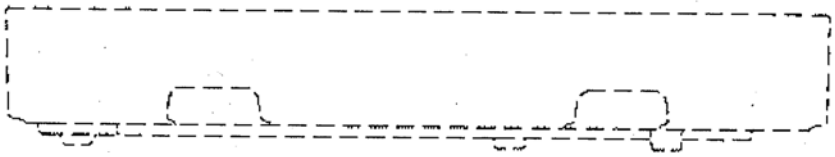
[A-A cross-sectional view]



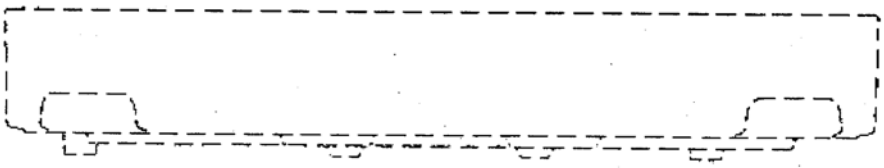
[Magnified view of Part B-B]



[Left side view]



[Back view]



End