Design	Date	January 12, 2022	Court	Intellectual Property High
	Case	2021 (Gyo-Ke) 10067		Court, Second Division
	number			

- A case in which the court rescinded a decision made by the Japan Patent Office (the "JPO Decision") in which the JPO maintained the examiner's decision to refuse an application for design registration.

- It cannot be said that the fact that an applicant changes its allegation in the appeal seeking rescission of the JPO decision from its allegation made in the examination and trial stages is not allowed due to estoppel.

Case type: Rescission of Appeal Decision of Refusal

Results: Granted

References: Article 3, paragraph (1), item (iii) of the Design Act

Related rights, etc.: Design Application No. 2019-017357

Decision of the JPO: Appeal against Examiner's Decision of Refusal No. 2020-11187

## Summary of the Judgment

1. This case is an appeal seeking rescission of the JPO Decision in which the JPO maintained the examiner's decision to refuse an application for design registration. The JPO Decision determined that both the design in the application in question (the "Design in the Application") and the cited design (the design of a syringe for an injector stated in the design of an injector in a South Korean registered design/registration number 30-0309501; the "Cited Design") have the use and function of an external cylinder of a medical injector; therefore, the articles are identical and the shapes are similar; accordingly, the Design in the Application falls under Article 3, paragraph (1), item (iii) of the Design Act and the design cannot be registered.

2. The Plaintiff alleged in the examination proceedings and trial that the articles embodying the Design in the Application and the Cited Design are common; however, the Plaintiff alleged for the first time in this lawsuit that the article embodying the Design in the Application is an "exchangeable drug solution container that is inserted inside an automatic injector, etc." and is different from the article embodying the Cited Design (a syringe for an injector). On the other hand, the Defendant (the "Japan Patent Office") alleged that the fact that the Plaintiff made a different allegation from its allegation up to the trial stage is not allowed due to estoppel.

3. In this judgment, the court held as stated below and rescinded the JPO Decision.

(1) Presence of grounds for refusal of the application for design registration should be

determined by the examiners based on their authority (Article 17 of the Design Act before amendment in 2019) and the statements of the applicant in the stage of examination or in the stage of appeal have no binding effect of admission. In addition, in this case, which is an appeal seeking rescission of the JPO Decision wherein the appropriateness of the establishment of rights is an issue, not the appropriateness of exercise of the right, the Defendant handled the case as an administrative authority. Concerning the article embodying the design of the Design in the Application, there is no relationship that the Defendant's benefits were unjustly harmed by the fact that the Plaintiff's allegation at each stage of examination and appeal differed from its allegation in this lawsuit. Based on these facts, it cannot go so far as to say, in relation to the allegation of the Plaintiff in the written opinion and the written request for appeal in question, that the Plaintiff is not allowed to make a different allegation from its allegation made before the JPO Decision by applying the doctrine of estoppel.

(3) The article embodying the Cited Invention is found to have the use and function of external cylinders for injectors.

(4) Consequently, since the articles embodying the Design in the Application and the Cited Design are not common, the JPO Decision contains errors in its determination concerning the article embodying the Design in the Application and the determination concerning the identicalness between the Design in the Application and the Cited Design, and therefore, the grounds for rescission 1 (errors in determination concerning the article embodying the Design in the Application and the Cited Design, and therefore, the grounds for rescission 1 (errors in determination concerning the article embodying the Design in the Application and the determination concerning the identicalness (similarity) between the Design in the Application and the Cited Design) are well-grounded.

Judgment rendered on January 12, 2022

2021 (Gyo-Ke) 10067, Case of seeking rescission of the JPO decision

Date of conclusion of oral argument: December 16, 2021

Judgment

Plaintiff: Portal Instruments Inc.

Defendant: Commissioner of the Japan Patent Office

## Main text

1. The decision made by the Japan Patent Office (JPO) on January 6, 2021, concerning the case of Appeal against Examiner's Decision of Refusal No. 2020-11187 shall be rescinded.

2. The Defendant shall bear the court costs.

Facts and reasons

No. 1 Claim

Same as the main text.

No. 2 Outline of the case

This case is a lawsuit seeking rescission of a trial decision made by the JPO in which the JPO maintained the examiner's decision to refuse an application for design registration.

1. Outline of procedures at the JPO

(1) The Plaintiff filed a design registration application with the details stated in 2. below (the "Application"; the design related to the Application is referred to as the "Design in the Application") on August 2, 2019 (priority date: February 4, 2019 [hereinafter referred to as the "Priority Date"] and priority country: the United States of America under the Paris Convention), and submitted a written opinion (the "Written Opinion"; Exhibit Otsu 5) on March 2, 2020 against a notice of grounds for refusal dated October 24, 2019; however, the application was refused on April 20, 2020.

The Plaintiff submitted a written request for appeal on August 12, 2020 (the "Written Request for Appeal"; Exhibit Otsu 7) and filed a request for an appeal against the examiner's decision of refusal. The JPO examined the request for a trial as a case of Appeal against an Examiner's Decision of Refusal No. 2020-11187 and made the

decision that "the examiner's decision of refusal is maintained" (hereinafter referred to as the "JPO Decision") on January 6, 2021. A certified copy of the decision was delivered to the Plaintiff on the 26th of the same month. Concerning the JPO Decision, ninety days were added for the Plaintiff as the statute of limitations for filing an action. 2. The Design in the Application

The Design in the Application for which the Plaintiff intends to receive a design registration by the Application is as stated in Attachment 1 (Exhibit Otsu 1).

3. Summary of the grounds for the JPO Decision

(1) Comparison of the articles embodying the design and determination concerning the similarity

Concerning the articles embodying the Design in the Application and the design indicated in Attachment 2 (the "Cited Design"), the Design in the Application is an "イ ンジェクターカートリッジ (injector cartridge)" and the Cited Design is an "注射器 用シリンジ (injector syringe)" and their indications are different; however, both of them have the use and function as an external cylinder of a medical injector and, therefore, they are common. Consequently, the articles embodying both designs are identical.

(2) Comparison of the shapes of both designs

A. Shapes of both designs are common in the following points.

(Common point 1) Whole shape

The whole shapes of both designs are common in the following points: they consist of a nozzle unit in the shape of a nearly longitudinal frustum of a cone and a shoulder unit in the shape of a nearly flat frustum of a cone at one end of the main body that is in the shape of a nearly longitudinal cylinder, and a nearly disk-shape flange unit at the other end concentrically with the main body.

(Common point 2) Main body

Both designs share the point that the main body is a nearly longitudinal cylinder shape.

(Common point 3) Nozzle unit

The nozzle units of both designs share the point that they are in the shape of a nearly longitudinal frustum of a cone that is more like a cylinder with a slight slope. (Common point 4) Shoulder unit

The shoulder units of both designs share the point that they are in the shape of a low flat frustum of a cone that is installed between the nozzle unit and the main body. (Common point 5) Flange unit

The flange units of both designs share the point that their top and bottom edges in

the planar view of the nearly disk-shape plate are cutout parallel.

(Common point 6) Taper provided on corners

Both designs share the point that they have a slight taper on the nozzle edge.

B. Shapes of both designs are different in the following points.

#### (Difference 1) Whole shape

The composition ratio of length of the main body: the nozzle unit: the shoulder unit: the flange unit in front vision is different as follows: the ratio in the Design in the Application is approximately 82:12:3:3, while the ratio in the Cited Design is approximately 87:9:2:2.

### (Difference 2) Main body

The composition ratio of the diameter and the length of the main body is different as follows: the ratio in the Design in the Application is approximately 1:6, while the ratio in the Cited Design is approximately 1:5.7.

## (Difference 3) Nozzle unit

The ratio of the diameter of the top end and the back end in the nozzle unit is different as follows: the ratio in the Design in the Application is 11:13, while the ratio in the Cited Design is approximately 3:4.

## (Difference 4) Shoulder unit

The ratio of the diameter on the nozzle unit side and the main body side is different as follows: the ratio in the Design in the Application is approximately 1:2, while the ratio in the Cited Design is approximately 1:3.

### (Difference 5) Flange unit

The following points are different: concerning the diameter of the nearly diskshaped plate, the diameter in the Design in the Application is approximately 1.5 times the shape of the main body, while the diameter in the Cited Design is approximately 1.7 times the shape of the main body; concerning the ratio of the horizontal size and the vertical size in the planar view, the ratio in the Design in the Application is approximately 4:5, while the ratio in the Cited Design is approximately 5:7; and the Design in the Application has a taper along the inner wall of the cylinder unit on the bottom surface side, while the bottom side in the Cited Design is formed flatly. (Difference 6) Taper provided on corners

Corners other than the nozzle edge are different as follows: all corners are slightly tapered in the Design in the Application, while there is no such taper in the Cited Design. (3) Determination concerning the similarity in the shapes of both designs

A. In both designs, the shape composed by combining (Common point 1) through (Common point 6) forms the basic concept of each design. In particular, (Common point

5) gives a strong common impression to consumers and, therefore, common points have a big impact on the determination concerning the similarity of the two designs. On the other hand, it must be said that the impact of each point, (Difference 1) through (Difference 6), on the aesthetic impression of the whole design is small. Even though these differences are combined, it does not give an impression of difference between the two designs to consumers. Therefore, it can be said that both designs cause a common aesthetic impression as a whole.

Consequently, the shapes of both designs are similar.

B. The demandant (the Plaintiff) alleged that the shape of the flange unit and the composition ratio to the main body in the Design in the Application are different from those in the Cited Design. However, in the field of this type of external cylinders for injectors, it is normal to make changes to alter the composition ratios of some of the whole shape and thereby vary flange thickness, while maintaining the overall basic concept common. Under such circumstance, the shape of the Design in the Application, which has a slightly thick flange, is within the scope of naturally assumed changes in the field of the relevant articles and it is not prominent, and designs with a slightly thick flange in the same way as the Design in the Application have been seen conventionally, as is seen in the design indicated in Attachment 3 (the "Reference Design"). In consideration of these facts, it cannot be said that the shape of the Design in the Application particularly catches the attention of consumers or that it gives a different visual impression as a whole.

#### (omitted)

No. 5 Judgment of this court

1. The JPO Decision determined that the Design in the Application is similar to the Cited Design and falls under Article 3, paragraph (1), item (iii) of the Design Act, and, therefore, the design cannot be registered.

This decision is examined below. Since a design is united with an article, in order to refuse registration pursuant to Article 3, paragraph (1) of the Design Act on the grounds that the relevant design is identical or similar to a design that had been well known in Japan or overseas before the filing of an application for registration or a design that is indicated in a publication distributed in Japan or overseas before the filing of an application for registration, first, it is necessary that the article embodying the design is identical or similar and that the design itself is found to be identical or similar (see 1970 (Gyo-Tsu) 45, the judgment of the Third Petty Bench of the Supreme Court of March 19, 1974, Minshu Vol. 28, No. 2, at 308).

Then, if the determination concerning the identicalness or similarity of an article is in error, it should be said that there is an error in the determination as to whether the design falls under Article 3, paragraph (1) of the Design Act.

2. (1) The Plaintiff alleged that it was an error that the JPO Decision determined that the article embodying the Design in the Application is "an external cylinder of a medical injector." On the other hand, the Defendant alleged that [i] the JPO Decision determined that an article embodying the Design in the Application is "an article that has the use and function of an external cylinder of a medical injector" based on the statement in the written application in question (the "Written Application"), etc. and there is no error in the determination; [ii] the fact that the Plaintiff alleged in the Written Opinion and the Written Request for Appeal that the article of the Design in the Application and the "articles are common," supports the determination mentioned in [i] above, and it is not allowed due to estoppel for the Plaintiff to make an allegation different from its allegation made before the JPO Decision, in this lawsuit.

(2) The aforementioned allegation of the Defendant is examined below. It is found that, in the Written Opinion and the Written Request for Appeal, the Plaintiff alleged that the article of the Design in the Application and that of the Cited Design are both a "cartridge that is used for injectors, etc." and the "articles are common" (Exhibits Otsu 5 and 7). However, presence of grounds for refusal of the application for design registration should be determined by the examiners based on their authority (Article 17 of the former Design Act) and the statements of the applicant in the stage of examination or in the stage of appeal have no binding effect of admission. In addition, in this case, which is an appeal seeking rescission of the JPO Decision wherein the appropriateness of the establishment of rights is an issue, not the appropriateness of exercise of the right, the Defendant handled the case as an administrative authority. Concerning the article embodying the design of the Design in the Application, there is no relationship that the Defendant's benefits were unjustly harmed by the fact that the Plaintiff's allegation at each stage of examination and appeal differed from its allegation in this lawsuit. Based on these facts, it cannot go so far as to say, in relation to the aforementioned allegation of the Plaintiff in the Written Opinion and the Written Request for Appeal, that the Plaintiff is not allowed to make a different allegation from its allegation made before the JPO Decision by applying the doctrine of estoppel.

In addition, in relation with a third party other than the Defendant, even though the Plaintiff may be restricted when exercising the design right related to the Design in the Application due to application of the doctrine of estoppel, since the case of determining appropriateness of restriction on the exercise of rights between specified parties and the case of determining the appropriateness of granting the right are in different situation, it cannot be said immediately that the Design in the Application should not be protected by the registration of the design right.

(3) Furthermore, the subject of examination of the appeal seeking rescission of a JPO decision is whether the determination in the decision is illegal or not and the scope is limited to the grounds for refusal that were concretely argued in the trial proceedings in question (see 1967 (Gyo-Tsu) 28, the judgment of the Grand Bench of the Supreme Court of March 10, 1976, Minshu Vol. 30, No. 2, at 79). Each party is not allowed to allege grounds for refusal that are not concretely argued in the trial proceedings; however, the allegation related to appropriateness of the determination related to the grounds for refusal that were concretely argued in the trial proceedings and the submission of supporting evidence are not restricted. In addition, the allegation of the Plaintiff that the article embodying the design of the Design in the Application is an "exchangeable drug solution container that is inserted inside an automatic injector, etc." and is different from the article embodying the Cited Design that is an "injector syringe" is an allegation related to the "similarity to the Cited Design," which is a ground for refusal argued concerning the trial proceedings in this case, not an allegation related to the matters that are not included in the subject of examination. Therefore, there is no reason to restrict the Plaintiff's allegation from this perspective as well.

(4) Then, based on the assumption that the Plaintiff alleged that the articles embodying the design of the Design in the Application and the design of the Cited Design are different, the article embodying the Design in the Application is examined below.

3. (1) Article 24, paragraph (1) of the Design Act stipulates as follows: "The scope of a registered design must be determined based on the design depicted in the application and in the drawing, or represented in the photograph, model, or specimen attached to the application."

In addition, Article 6, paragraph (1), item (iii) of the former Design Act stipulates that the "article embodying the design" is to be stated in the documents to be submitted when filing an application for design registration, and Appended Table 1 of the Regulation for Enforcement of the Design Act stipulates categories to be stated in the column for the articles embodying the design; however, there is no statement concerning the category of "injector cartridge" in the table (Exhibits Otsu 2, 3, and 15; in the table, there is also no category including "injector"; as a category that includes the term "cartridge," only the category of "cartridge for record player" is stated). In

Remarks 2 of the table, it is stated that "When filing an application for design registration for an article that does not belong to any of the article categories listed in the lower column of this table, the article category shall be stated in the 'articles embodying the design' column in the written application based on the category equivalent to the category of the articles listed in the lower column thereof." Then, in Remarks 39 of Form 2 of said Regulation for Enforcement, it states that "When filing an application for design registration for an article that does not belong to any of the article categories listed in the lower column of Appended Table 1, the purpose of the use of the article, use conditions, and other explanations that aid in understanding the article shall be stated in the '[Explanation of the article embodying the design]' column." (2) Based on the provisions mentioned in (1) above, the article embodying the design of the Design in the Application is examined based on the statement of the Written Application, etc. Looking at the statement in the Written Application, etc. (Exhibit Otsu 1), "インジェクターカートリッジ (injector cartridge)" is stated as the [Article embodying the design] and both [Explanation of the design] and drawings are as stated in Attachment 1. There is no [Explanation of the article embodying the design] column in the Written Application, etc. and explanations of the article embodying the relevant design is not stated in any of the remaining columns. The wording of "インジェクタ  $- \pi - h \cup \psi \psi$  (injector cartridge)" and drawings are the only statements suggesting an article in the Written Application, etc.

(3) Then, the wording "インジェクターカートリッジ (injector cartridge)" is examined. This is found to be a combination of two words, "インジェクター (injector)" and "カートリッジ (cartridge)."

A. Looking at " $\gamma \vee \tilde{\gamma} \times \gamma \neg \varphi$ — (injector)" in the Kenkyusha's New English-Japanese Dictionary, 6th edition (Exhibit Otsu 9), the meaning of the English term "injector," which is the origin of a foreign word, " $\gamma \vee \tilde{\gamma} \times \gamma \neg \varphi$ — (injector)," is explained as "a person who injects, infuser, syringe." According to evidence (Exhibits Ko 7 and 15), it is found that, before the Priority Date, there were an infuser of GLP-1 receptor agonist called " $\pi$ —  $\wedge \gamma \vee \tilde{\gamma} \times \gamma \neg \varphi$ — (auto-injector)", with which a drug solution for one dose that has been filled in advance is injected automatically only by pressing a button, for injecting a drug that is used for the treatment of diabetes, and an electric medical infuser named " $\gamma \pi \pi \gamma \gamma \vee \gamma \gamma \gamma \gamma \varphi$ —(Apokyn injector)" (it is presumed to mean the automatic syringe that is alleged by the Plaintiff). In addition, both the Plaintiff and the Defendant recognize that " $\gamma \vee \tilde{\gamma} \times \gamma \neg \varphi$ — (injector)" means "syringe." Then, in this case, it is assumed that " $\gamma \vee \tilde{\gamma} \times \gamma \neg \varphi$ — (injector)" means syringe. B. Looking at "カートリッジ (cartridge)," in the Kenkyusha's New English-Japanese Dictionary, 6th edition (Exhibit Otsu 9), the meaning of the English word, "cartridge," which is the origin of a foreign word, "カートリッジ (cartridge)," is explained as "a cylindrical case containing an explosive substance and a bullet for use in a gun, a container for drugs" "a small container (for liquid, gas, etc. that is designed to be exchangeable with part of equipment, devices, etc.)"; in the Wisdom English-Japanese Dictionary (Exhibit Ko 8), the word is explained as "a container for replacement [refill]"; in the New Oxford American Dictionary (Exhibit Ko 9), the word is explained as "a container that includes rolled film for photographs, ink, other items, or substances and that is designed so that it is inserted in equipment," respectively. According to the evidence (Exhibit Ko 13), it is found that, before the Priority Date, there was an insulin preparation called "カートリッジ製剤 (cartridge preparation)" that was used by attaching it in an exclusive injector." It is also found that, in Patent Gazettes that were disclosed before the Priority Date (Exhibits Ko 12, 28 through 32), there are statements concerning "カートリッジ (cartridge)" that means a small container filled with drugs that are used for automatic syringes, syringe devices, spring drive-type injection devices, pen-type syringes, and automatic medical injection devices (in those statements, there are parts mentioning 薬剤カートリッジ (drug cartridge), 薬物充 填カートリッジ (drug filling cartridge), etc.). Then, it is presumed that "カートリッ  $\vec{v}$  (cartridge)" means a small container filled with liquid, gas, etc. for replacement. As long as referring to the aforementioned evidence, it cannot be found that " $\neg \neg \vdash \lor \lor$ " ジ (cartridge)" literally means "external cylinder."

C. Next, the term "インジェクターカートリッジ (injector cartridge)" is examined. The Defendant alleged that the statement in the [Article embodying the design] column in the Written Application is "インジェクターカートリッジ (injector cartridge)," not "インジェクター用カートリッジ (a cartridge for an injector)." However, according to the evidence (Exhibits Ko 17 through 20, 22, and 23), there are cases where the wording "カートリッジ (cartridge)" is used with a wording indicating the content of the cartridge, such as "toner cartridge," "ink cartridge," etc. On the other hand, it is found that there are cases where, concerning a cartridge for a water filter, there is a registered design titled "浄水器用カートリッジ (cartridge for water filter)" and a registered design titled "浄水器カートリッジ (water filter cartridge)" and "浄水器カ ートリッジ (water filter cartridge)" sometimes means a cartridge for a water filter. Therefore, it is not unnatural to understand that the wording "インジェクターカート リッジ (injector cartridge)" means a cartridge for an injector. In consideration of the fact that the Plaintiff, who is an applicant, entered as the article embodying the design of the Design in the Application not only "インジェクター (injector)," which means a syringe, but also "インジェクターカートリッジ (injector cartridge)" as well, it is reasonable to find that "インジェクターカートリッジ (injector cartridge)" means a "cartridge for a syringe."

D. Considering A. through C. above together, it is reasonable to find that "インジェク ターカートリッジ (injector cartridge)" means "a small container filled with liquid, gas, etc. that is exchangeable for a syringe."

(5) The Defendant alleged that the JPO Decision determined that the article embodying the design of the Design in the Application is "an injector cartridge that has the use and function of an external cylinder of a medical injector," not "an external cylinder for a medical injector" and, therefore, the allegation of the Plaintiff lacks its premise. The identicalness and similarity of articles should be judged substantially by comparing the use, function, etc. thereof. However, the JPO Decision determined the relevant article as an "article that has the use and function of an external cylinder for a medical injector" and it can be said that the JPO Decision determined it substantially as "an external cylinder for a medical injector" as alleged by the Plaintiff as above. The aforementioned allegation of the Defendant only concerns the form but overlooked the essence and is not reasonable.

The Defendant also alleged that it was necessary to create an [Explanation of the article embodying the design] column in the Written Application and provide an explanation that helps understanding of the article, and to also submit reference figures. As mentioned in 3 (1) above, Appended Table 1 of the Regulation for Enforcement of the Design Act contains no category for  $(\neg \forall \forall x \forall x \forall x \neg \forall - \forall - \forall \forall \psi)$  (injector cartridge)" and it cannot be said that the term  $(\neg \forall \forall x \forall x \neg \forall - \forall - \forall - \forall \psi)$  (injector cartridge)" is a general term. Based on these facts, it can be said that it was appropriate to provide an [Explanation of the article embodying the design] as alleged

by the Defendant; however, it cannot be found immediately based on the fact above that the article embodying the Design in the Application is an "article that has the use and function of an external cylinder for a medical injector" and the allegation of the Defendant above does not have an impact on the aforementioned finding of the article embodying the Design in the Application.

4. On the other hand, the JPO Decision determined that the design of "注射器用シリ ンジ (syringe for an injector)" is the Cited Design from among the designs of syringes indicated in Attachment 2. The articles related to the part in question are found to have the use and function of external cylinders for injectors.

Then, the article embodying the design of the Design in the Application and the article embodying the design of the Cited Design are not common.

5. Consequently, there is an error in the determination concerning the article embodying the Design in the Application and the determination concerning the identicalness between the Design in the Application and the Cited Design in the JPO Decision, and therefore, the grounds for rescission 1 (errors in determination concerning the article embodying the Design in the Application and the determination concerning the identicalness (similarity) between the Design in the Application and the Cited Design) are well-grounded.

## No. 6 Conclusion

As mentioned above, without the need to make determinations on the remaining points, the JPO Decision shall be rescinded and the judgment is rendered as indicated in the main text.

Intellectual Property High Court, Second Division Presiding judge: HONDA Tomonari Judge: ASAI Ken Judge: KATSUMATA Kumiko Attachment 1: Design in the Application (Design Application No. 2019-017357) C/P [Article embodying the design]  $\mathcal{A} \vee \mathcal{V} \times \mathcal{A} - \mathcal{A} - \mathcal{H} \cup \mathcal{V} \mathcal{V}$  (Injector cartridge) [Explanation of the design] Left side view is symmetrical to right side view and, therefore, it is omitted. Back view is symmetrical to front view and, therefore, it is omitted. All of the nearly horizontal and parallel thin lines, vertical and parallel thin lines, radial thin lines, and arc-shaped thin lines on the drawings are to identify the shape of the three-dimensional cube surface.



Bottom side view



Attachment 2 Cited Design

South Korea's Design and Trademark Gazette that the Patent Information Division of the Japan Patent Office received on January 23, 2003

Issued on October 30, 2002 (CD-ROM No.: 2002-49)

Design of syringe for injector stated in the design of the injector in Registration No. 30-0309501

(Japan Patent Office, Design Division, Well-Known Reference No.HH14693711)



### Attachment 3 Reference Design

Design Registration No. 1421330 stated in the Design Gazette issued by the Japan Patent Office on August 11, 2014

[Article embodying the design] 医療用針付シリンジ (Syringe with medical needle) [Explanation of the design] The part shown in a solid line is the part for which design registration is applied for as a partial design. The dash-dot-dash line shows the border only between the part for which design registration is applied as partial design and other parts. Back view is symmetrical to planar view and, therefore, it is omitted. The article is transparent except for the needle. In the perspective view and A-A part enlarged view, the thin line is to identify the shape of the three-dimensional cube surface.



# A-A part enlarged view

# B-B line enlarged cross-section view









E-E part enlarged view









