#### 2. Basics of the Depiction in Drawings

Many of the articles, etc. that shall be subject to the protection under the Design Act are in the shape, etc. of a three-dimensional. However, when filing an application for design registration concerning a three-dimensional shape, etc., applicants represent it in drawings depicted on a two-dimensional plane, and so on. In other words, the object of a design right is not a real three-dimensional object, but a threedimensional shape, etc. depicted on such two-dimensional drawings. Therefore, the drawing methods are defined in details so that the third party may also correctly understand the shape, etc., which is the object of the right.

Thus, applicants depict drawings, etc. according to the formulated drawing methods so that the shape, etc., which is the object of a design right, may be understood correctly. It is also necessary to depict necessary drawings (for example, six views, perspective view, sectional view, partial enlarged view, etc. hereinafter referred to as "necessary views") so that the entire shape, etc., which is the object of a design right, may be understood as being specified for design registration.

Where applicants list perspective view or front view at the top of the attached drawings, it will make easier for third parties to understand the design.

In addition, views which include elements other than the design, such as lines or arrows, etc. which indicate the name of parts for describing the shapes, etc. or the state of use can also help in understanding of the design.

These views, to which elements that do not constitute the design are added as reference in order to help the understanding of the design should be indicated as "Reference view of yy" and treated as "reference view", which means they will be treated differently from the necessary views that depict only constituents of the design in the application.

Therefore, the reference views should be listed at the end, that is, after the necessary views.

The basics of how to depict drawings will be explained below.

		600	(d)	<b>@@@</b>
【書類名】	幻面		【平面図】	
			【底面図】	
			【操作部等を説明する参考図】	
【右側面図】				

#### A. Drawings necessary for specifying the shape, etc.

2A.1 Types of drawing formulated in the form and basic points to be noted

(1) The types of drawings necessary for specifying the shape, etc.

- (i) In the case of a design with a three-dimensional shape, etc., it can be represented using the orthographic projection method. Of the front view, rear view, left side view, right side view, top view and bottom view, applicants depict enough views—prepared at the same scale—to clearly show the design for which the design registration is requested. (Form No. 6 Note (8))
- (ii) In the case of a design with a three-dimensional shape, etc., views represented using the isometric projection method or oblique projection method may be substituted for all or part of the above views. (Form No. 6 Note (9))
- (iii) In the case of a design with a flat and thin shape, etc., it can be represented using a surface view and back side view. Of the surface view and back side view, applicants depict enough views—prepared at the same scale—to clearly show the design for which the design registration is requested. (Form No. 6 Note (10))
- (iv) In the case of a "graphic image" design as provided in Article 2, paragraph (1) of the Design Act—that is, if design registration is requested for a graphic image itself, separated from the article or building— applicants depict enough views to clearly show the design for which the design registration is requested, using "graphic image views" if the graphic image is flat and thin, or "... graphic image views" if the graphic image is three-dimensional. (Form No. 6 Note (11))
- (v) In cases where the drawings mentioned above are not sufficient to represent the shape, etc., other types of drawings such as a sectional view, an enlarged view, a perspective view and others are able to be added (These drawings can also be regarded as necessary drawings). (Form No. 6 Note (15))
- (vi) It is also possible to submit a photograph, a model or a specimen that represent the design, instead of drawings.

Please see Part II with regard to a design in which a part of an article etc. is requested for design registration, and to Part III with regard to how to depict drawings when omitting depiction of a part of the article etc. with a continuous shape (omitting the middle part).

- (2) Points to be noted in preparing drawings
  - (i) The thickness of a solid line or a broken line must be approximately 0.4 mm, and that of an oblique parallel line or a chain line that shows cross section must be approximately 0.2 mm. (Form No. 6 Note (5))
  - (ii) Each view (the front view, the rear view, the reference view) must be depicted in the 150 mm (W) x 113 mm (H) rectangular. (Form No. 6 Note (6))
  - (iii) A figure (excluding a reference view) does not contain a centerline, baseline, horizontal line, fine line or shading to express shadows, indication line, code or character to explain the contents, nor any other line, code or character which does not constitute the design. (Form No.6 Note (7)) (As for "shades," please see "2A. 5(8) "Shades" specifying the surface shape of a three-dimensional object")

For example, a hidden-line seen in engineering drawings (a broken line that represents the internal or back-side shape which is not outwardly visible) does not be contained in a necessary view.

- (iv) When preparing drawings for an article whose front and rear, and whose top and bottom are not interchangeable on a regular use basis, applicants depict a drawing of the article seen from such direction.
- (v) Part of the views can be replaced with photographs. In such cases, however, even black and white photographs show shading of each part of an article. Due to this, the photographs may not be consistent with the views that depict the shape alone, which may cause to regard the design as being not specified. Therefore, applicants need to pay attention to ensure consistency between photographs and drawings.

Please note that a view is not prepared by combining a lined drawing and a photograph (see "C. Photographs substituted for drawings").

(vi) If a design relating to clothes or personal ornaments, etc. cannot be sufficiently represented unless it is depicted in a state in which it is worn on subject matter other than the design for which the design registration is requested, the subject matter other than the design for which the design registration is requested may be depicted. In such cases, applicants ensure that the design for which design registration is requested can be clearly recognized from other subject matter by including an explanation of the subject matter other than the design for which the design registration is requested in "Description of the Design" or by differentiating parts using solid lines and broken lines in drawings. (Form No. 6 Note (23))

(vii) As for the necessary views such as six views, perspective view, sectional view, etc. applicants should list the view which best represents the design(for example, perspective view, front view, enlarged view of the part for which the design registration is requested) at the top of the attached drawings of the application, and list the reference views which help the understanding of the design and have elements that do not constitute the design (for example, reference view indicating the part of transparent, reference view of the state of use, etc.) after the necessary views.

2A.2 Preparing drawings by the orthographic projection method

Through the orthographic projection method, the shape, etc. of a threedimensional shape is depicted by projecting six surfaces, each of which is orthogonal to its neighboring surface, onto the two dimensional plane, as the front view, the rear view, the left side view, the right side view, the top view and the bottom view. It is the same as the orthographic projection prescribed in "Technical Drawings" of the Japanese Industrial Standards (JIS), except that JIS's "Technical Drawings" must not contain hidden lines. As shown in Figure 1.2-1, shape lines, patterns, colors seen on each surface are depicted as part of each view.

- (1) Points to be noted when preparing drawings by the orthographic projection method
  - (i) Each view must be prepared at the same scale.
  - (ii) A view that is identical to or a mirror image of another view contained in the drawing may be substituted for the view contained in the drawing. In such cases, in the column of "Description of the Design," applicants state which view the view is identical to or a mirror image of, for example, "The rear view is a mirror image of the front view."

<Fig. 1.2-1> Example of depicting each surface of a three-dimensional object by the orthographic projection method





#### <Fig. 1.2-2> Preparing drawings by the orthographic projection method



<Fig. 1.2-3> Example of how to depict drawings to be attached to the application

2A.3 Preparing drawings by the isometric projection method and the oblique projection method

The isometric projection method and the oblique projection method are the drawing methods that enable for depicting the contents, in one view, corresponding to three views that are prepared at the same scale by the orthographic projection method.

As shown below, three surfaces out of six surfaces are displayed in one view, and therefore, there are eight ways to display them. By choosing two out of such eight types of views, applicants can describe the whole six surfaces. For example, if you choose two views such as "View showing the front, top and right side" and "View showing the rear, bottom and left side", the whole six surfaces can be represented.

<Fig. 1.2-4> Types of views showing three surfaces (when representing a cube shape)



#### (1) Isometric projection method





#### (2) Oblique projection method

As for the oblique projection method, no drawings other than a cabinet drawing and a cavalier drawing, in which a ratio of width, height and depth is objectively defined, is accepted as drawings that can be attached to the application for design registration.

<Fig. 1.2-6> Example of how to depict a cabinet drawing







- (3) Points to be noted in using the isometric projection method and the oblique projection method
  - (i) Applicants depict enough views to clearly show the design for which the design registration is requested. It does not matter if the same surface is represented in multiple views.
  - (ii) Applicants state the indication of the view, which is corresponding to that represented by the orthographic projection method. For example, in cases where the view corresponds to the front view, the top view and the right side view represented by the orthographic projection method, the statement must be "View showing the front, top and right side". (Form No. 6 Note (9))
  - (iii) In cases where the view is represented by the oblique projection method, applicants state, in the "Description of the Design" of the application, whether it is a cabinet drawing or a cavalier drawing along with the statement of angles in each view. (Form No. 6 Note (9))
  - (iv) In cases where the view is represented by the isometric projection method, it is not necessary to state the name of projection method. If there is no statement of the projection method, it is regarded that the view has been prepared by the isometric projection method.
- (4) Points to be noted in the combine use of the orthographic projection method and other methods
  - (i) Applicants depict enough views to clearly show the design for which the design registration is requested. It does not matter if the same surface is represented in multiple views (for example, when "front view" is represented using the orthographic projection method and "view showing the front, top and right side" is represented using the isometric projection method).
  - (ii) Applicants depict all views at the same scale.

(5) Examples of the statement in the views by various methods



<Fig. 1.2-8> Example of how to depict a drawing by the orthographic projection method

<Fig. 1.2-9> Example of views by the isometric projection method

<Fig. 1.2-10> Example of the combine use of the orthographic projection method and the isometric projection method

[Rear view]



#### <Fig. 1.2-11> Example of cabinet drawings



#### <Fig. 1.2-12> Example of the combine use of the orthographic projection method and cabinet drawings



The view showing the front, top and right side and the view showing the rear, bottom and left side are cabinet drawings with an inclination angle of 45 degrees.

#### <Fig. 1.2-13> Example of cavalier drawings



[Description of the Design] The view showing the front, top and right side and the view showing the rear, bottom and left side are cavalier drawings with an inclination angle of 45 degrees.

## <Fig. 1.2-14> Example of the combine use of the orthographic projection method and cavalier drawings

angle of 45 degrees.



[Description of the Design] The view showing the front, top and right side is a cavalier drawing with an inclination angle of 45 degrees. 2A.4 Preparing drawings for a flat and thin shape, etc. (sheet-like shape, etc.)

In the case of a design with a flat and thin subject matter (sheet-like shape, etc.), it can be represented using a surface view and back side view each prepared at the same scale. (Form No.6 Note(10))

Please note that articles that fall under the category of a flat and thin shape, etc. are limited to single-layered and very thin articles such as woven cloth fabric or handkerchief.

If an article is not single-layered, applicants represent it as a three-dimensional object even though it has hardly any thickness such as an envelope.

<Fig. 1.2-15> Example of a flat and thin handkerchief



#### <Fig. 1.2-16> Example of non-single-layered handkerchief







#### 2A.5 Preparing other drawings

There are cases where views prepared by any of the methods mentioned above are not sufficient to represent the shape, etc. of the design due to, for example, having bumps on the surface.

For example, from the six views in Figure 1.2-18, a variety of shape, etc. as shown in Figure 1.2-19 can be possibly thought of. Therefore, the six views alone do not sufficiently represent the specific shape, etc. in this case. Thus, applicants depict the specific shape, etc. in a sufficient manner by adding a development view, a sectional view, an end elevational view of the cut part, an enlarged view, a perspective view, etc., properly selecting them to suitably represent the shape, etc. of the design in the application. (Form No. 6 Note (15))

The added Drawings that represent the design sufficiently are regarded as necessary drawings for representing the specific shape, etc.



<Fig. 1.2-18> Example of the drawing containing six views alone

<Fig. 1.2-19> Examples of the shape, etc. that can be possibly thought of from the above drawing

(Not considering the nature of the article in this drawing, but purely thinking the possible shape, etc. of the article, a variety of shapes, etc. can be possibly thought of)



(1) "Development view of a pattern"

There are cases where it is difficult to accurately represent patterns on the curved surface through six views. In such cases, if the curved surface can be seen in a development view of its peripheral surface, such as a cylinder shape or a cone shape, applicants represent the pattern utilizing the "Development view of a pattern".

[Points to be noted in preparing development views of a pattern]

- (i) The development view mentioned here refers not to a view that represents the state in which a fold-flat box is unfolded onto the two-dimensional plane, but to a special view prepared for representing patterns alone, as if being printed on transfer paper. Therefore, if there are bumps on the surface where the pattern is, applicants cannot represent the design using the "Development view of patterns" as necessary drawings.
- (ii) As in the example of a "glass" below, drawings which combine the "Development view of a pattern" with views that show only shape with the pattern omitted may be used such as in cases where the design can be represented more accurately than if the pattern is shown in the six views.
- (iii) The "Development view of a pattern" must be depicted, in principle, in a manner that the whole peripheral surface is seen in the flat.
- (iv) In cases where the six views contain a pattern and the "Development view of a pattern" is also added, it is acceptable to depict part of the peripheral surface as the "Development view of a pattern", as seen in the example of "felt-tip pen" below.

<Fig. 1.2-20> Example of using the "Development view of a pattern"





#### <Fig. 1.2-21> Example of using the "Development view of a pattern"

(2) "Sectional view"

Applicants use a sectional view to represent a bumpy mode of the outer surface accurately. In the example of "speaker box" on the next page, six views alone cannot clearly represent the constitution of the space between the top and the bottom clearly. However, a sectional view can clearly represent what a set of six views cannot.

[Points to be noted in preparing sectional views]

- (i) In cases where a sectional view cannot represent the whole of the bumpy shape, etc., applicants depict multiple kinds of sectional views, including a longitudinal sectional view, a traverse sectional view, sectional views representing different parts, etc.
- (ii) In order to indicate which part of the article is shown in the sectional view, applicants draw a chain line of approximately 0.2-mm thickness at the cut part in one of the six views, put codes at both ends of the chain line, and use an arrow to show the direction in which the cross section is depicted. When doing so, the chain line, etc. must not touch the figure. (Form No. 6 Notes (5, 16))
- (iii) Draw a 0.2-mm oblique parallel line on the surface of cross section (thick surface, etc.) (Form No. 6 Note (16))
- (iv) Since the design is the shape, etc. of outer appearance of an article, the internal shape, etc. can be omitted if it is not necessary to represent the internal mechanism itself. In such cases, the indication of the view should be "Sectional view with the internal mechanism omitted (or "indicating the outline of the internal mechanism")".
- (v) Applicants draw the outer appearance that will be seen from the direction of depicting the cross section (Assuming that you cut the article and you see it with the cross section facing you, you need to draw the outer appearance seen from

that point). (In the example of sectional view of "speaker box", the outline of the four ridge parts of the square pole with round edge type, etc. are drawn as an outer appearance that is seen from the direction of depicting the cross section.



<Fig. 1.2-22> Example of how to depict "Sectional view"

#### (3) "End elevational view of the cut part"

A sectional view must be drawn in a way that the shape, etc. which is seen behind the cross section is also included. On the other hand, in an end elevational view of the cut part, the shape, etc. of the cross section alone is drawn, which will reduce the labor for preparing drawings. Therefore, when it is sufficient to represent the shape, etc. of the cross section alone, applicants use an end elevational view of the cut part.



<Fig. 1.2-23> Example of how to depict "End elevational view of the cut part"

(4) "Combined sectional view" and others

In addition to "Sectional view" and "End elevational view of the cut part" mentioned above, it is possible to represent the shape, etc. of the bumpy surface, etc. using "Combined sectional view", "Combined end elevational view of the cut part", "Half sectional view", "Perspective sectional view", and "Partially-trimmed perspective sectional view". These views represent cross sections that are cut in more than one directions. Therefore, there may be cases where the cut parts need to be depicted along a broken line. In such cases, the view that represents the cross section must be added as a reference view. Please note that as for how to depict chain lines, arrows and codes that indicate the direction of the cut part and cross section, how to depict cross sections, etc., the same rule shall apply as when depicting "Sectional view" mentioned above.

<1> "Combined sectional view" and "Combined end elevational view of the cut part"

[Points to be noted in preparing combined sectional views, etc.]

- (i) These views are made by combining multiple sectional views or end elevational views that were cut along different planes, creating one sectional view or end elevational view.
- (ii) When cutting the object on the center plane along the curved shape, the cut part is shown by depicting a broken chain line (Figure 1.2-24). When cutting the article along the mutually paralleled planes, the chain lines that indicate the cut part need to be connected at an arbitrary point (Figure 1.2-25). In either case, since chain lines are drawn in the views, this is represented in a "reference view" indicating the cut part. (Lines, etc. that do not constitute the design cannot be drawn in the six views or other views (Form No. 6 Note (7)).)
- (iii) At the point where a broken chain line indicating the cut part is bended, codes need to be put. Including codes that are put at both ends of the broken chain line, all codes need to be different.
- (iv) A cross section represented in a sectional view must be drawn as a shape, etc. seen from a right angle against the cross section.
- (v) The same code as that for the bending point on the cut part is also used on the "combined sectional view," etc.

## <Fig.1.2-24> Example of how to depict "Combined sectional views" with a detailed explanation



<Fig. 1.2-25> Example of how to depict "Combined Sectional view"





#### <Fig. 1.2-26> Example of "Combined sectional view"

<2> "Half sectional view"

A half sectional view represents a quarter of the whole. Along the cross sections of a rotor or a three-dimensional shape equivalent thereto, which are mutually at a right angle at the axis of rotation, a quarter of the object is cut out, and one of the two cross sections are represented as a sectional view.

[Points to be noted in preparing half sectional views]

- (i) Since the cut part does not need to be included in the drawing, it is allowed to indicate the cut part in one of the six views (Please note that the chain line that indicates the cut part must not touch the figure).
- (ii) Codes need to be put at the cut part, but not at the bending point. Please put codes at both ends of a dash-dotted line, and furthermore, applicants put an arrow at each end to show the direction of the cross section. Please note that the same codes can be put at both ends of a dash-dotted line.
- (iii) A sectional view must be drawn as seen from a right angle against the cross section.



#### <Fig. 1.2-27> Example of how to depict "Half sectional view"

<3> "Half sectional perspective view"

The half sectional perspective view is a perspective view showing a quarter of the whole. Along the cross sections of a rotor or a three-dimensional shape equivalent thereto, which are mutually at a right angle at the axis of rotation, a quarter of the object is cut out, and the object in such state is drawn in a perspective view.

[Points to be noted in preparing half sectional perspective views]

- (i) In cases where a half sectional perspective view is prepared as a necessary drawing to specify the shape, etc., the "Indication of the view" of the "Half sectional perspective view", which is an explanation of the type of the view, must be stated in the same way as in views depicted by the isometric projection method or the oblique projection method. Please note that a sectional view cannot be replaced with six views.
- (ii) The cut part must be indicated in the same way as in half sectional views.





(5) "Enlarged view" and "Enlarged view of a part"

In cases where the figure is too small to represent the shape, etc of the article clearly at the scale at which six views and others are prepared, an enlarged view can be used to enlarge the whole figure at the same proportion.

In cases where part of the figure is too small to represent the shape, etc of the part clearly at the scale at which six views and others are prepared, an enlarged view of a part can be used to enlarge the part.

[Points to be noted in preparing enlarged views of a part]

- (i) The part on which the enlarged view of the part is based is indicated on the original view of the part (any one of the six views). In such cases, an indication line drawn in a dash-dotted line of approximately 0.2-mm thickness is used to indicate the enlarged part. Indication lines must not be depicted within the figure. In addition, arrows are placed at the ends of dash-dotted lines to show the direction in which the enlarged view of the part is depicted, and codes are also put there. (Form No. 6 Notes (5, 17))
- (ii) It is necessary to enlarge the figure without changing its aspect ratio (proportion) in the original drawing. However, in cases where the original drawing is so small that it is difficult to represent the shape, etc. of the part accurately, it is impossible to completely match the original shape, etc. with the partially enlarged form. In such cases, if the part in the original view, which is corresponding to the shape, etc. in the enlarged view of a part, is depicted in a manner that it is overall consistent with the shape, etc. in the enlarged view of a part, it shall not be regarded as inconsistent.
- (iii) The peripheral line of the area separated by an indication line needs to be drawn with solid lines to represent the shape, etc. as if it were actually cut out.



#### <Fig. 1.2-29> Example of how to cut out the part and how to put indication lines



<Fig. 1.2-30> Example of how to "Enlarged view of a part" (Street light)

<Fig. 1.2-31> Example of how to depict "Enlarged view of a part"



(6) "Perspective view" (excluding isometric projection drawings, cabinet drawings, cavalier drawings)

A perspective view simply refers to a general view representing the shape, etc. that can be viewed from an obligue angle. Isometric projection drawings, cabinet drawings and cavalier drawings, which are mentioned above, are all included in a category of perspective views. The "six views" can be replaced with these three types of drawings, but not with other perspective views. However, since perspective views other than these three types of drawings have no rules about skew angle, applicants can freely depict drawings according to the nature of the article, so they are appropriate for identifying the design. They are particularly effective in representing bumpy surfaces, and are necessary when the six views, etc. cannot represent a bumpy surface sufficiently. Although other perspective views have the shortcoming of not being able to represent shape, etc. as accurately as the six views can, their advantage is that they can represent form similar to how an object appears to the human eye. Thus, other perspective views are useful for representing the gist of the design.

[Points to be noted in preparing other perspective views]

- (i) In cases of preparing perspective views for drawings of an application for design registration, applicants need to represent the shape, etc. as is seen when observing the six surfaces of the article that are represented by the orthographic projection method as a set of six views, from an oblique angle.
- (ii) Applicants need to be as consistent as possible with the shape, etc. represented by the six views. Even if the main aim of a perspective view is to represent the bumpy part of a surface, if the whole of the perspective view is not consistent with the six views, it may not be possible to represent the uneven mode of the shape, etc. represented by the six views, and consequently, the shape, etc. may be unclear.



<Fig. 1.2-32> Example of how to depict "Perspective View"

(7) Drawings of an article that has an opening or separable part, or the shape, etc. of which is changeable

[Points to be noted in preparing views of an article having an opening part, etc.]

(see "Part III, 2. Articles Having an Opening/Closing Member" for more specific information about how to depict views of this type of articles)

- (i) When showing the shape, etc. of an article having an opening part with the opening part remaining open, if showing the article in a separated state (the shape, etc. of each separated part), applicants add necessary views showing the shape, etc., such as "perspective view with the door open," "male member front view," and "female member front view."
- (ii) In cases where the shape, etc. is changeable, when filing an application for design registration for the shape, etc. as it appears before, during and after the said change, applicants specify the mode of change by adding views such as "perspective view during the change," "perspective view after the change" and "front view when electricity is turned on."

(8) "Shades" specifying the surface shape of a three-dimensional object As for the shape, etc. of, for example, a three-dimensional shape having unevenness on a round surface, there may be cases where multiple sectional views are needed if you try to represent the unevenness in a sectional view. One of the drawing methods to handle such a case is to depict "shades" in the drawing.
"Shades" are to be depicted as part of a figure representing a three-dimensional shape, and are different from "shadows."

[Points to be noted in depicting "shades"]

- (i) "Shades" are depicted by lines, dots and other marks. (Form No. 6 Note (7))
- (ii) When depicting "shades," applicants make a statement to that effect and a statement as to which lines, dots, etc. constitute the "shades" in the column of "Description of the Design" (see Figure 1.2-34 and Figure 1.2-35) (Form No. 6 Note (7)). However, such statements may be omitted if it is obvious that the lines, dots, etc. are depicted for the purpose of specifying the shape even without such explanation, in the light of nature and use/function of each part of the article to the design (see Figure 1.2-36 and Figure 1.2-37). If a pattern shown in a figure is difficult to be distinguished from lines, dots, etc. that represent shades, it is recommended to provide an explanation that it is a pattern in the column of "Description of the Design" (see Figure 1.2-38).
- (iii) To depict lines, dots or other marks that represent "shades," it is desirable to imitate the light and dark areas, as closely as possible, that are observed when you actually see the three-dimensional shape. For example, as the light and dark areas that are seen when parallel rays are irradiated on an article obliquely downward from the upper left to the lower right at a 45-degree angle, the applicant needs to draw lines, dots, etc. in a sparse or dense manner to have "shades" in the drawing.
- (iv) In order to be distinguished from shape lines, lines that represent "shades" need to be thinner than the lines of the shape, and dots that represent "shades" need to be smaller in radius than the width of the lines of the shape. Please note that if the lines of the shape and "shading" cannot be distinguished from each other, the shape, etc. may be regarded as unclear.





## <Fig. 1.2-34> Example of a statement in "Description of the Design" when representing "shades" by dots







[Description of the Design] The following are all for specifying the surface shape of the threedimensional object: the approximately horizontal and parallel fine lines that are represented in the approximately lower half part of the front view and the top view, the vertical and parallel fine lines that are represented in the approximately middle, left and right parts of the cylinder of smaller radius in the right portion; the radial fine lines that are represented in the approximately right half part of the left side view; the vertical and parallel fine lines that are represented in the approximately middle of the right side view; and the circular fine lines that are represented near the periphery edge section.

<Fig. 1.2-36> Example where it is clear that the line, dot, etc. is for specifying shape even without a statement in the "Description of the Design"



<Fig. 1.2-37> Example where it is clear that the line, dot, etc. is for specifying shape even without a statement in the "Description of the Design"



## <Fig. 1.2-38> Example where it is not clear that the line, dot, etc. is for specifying shape without an explanation in the "Description of the Design"



(9) Drawings prepared using computer graphics

Although drawings prepared using computer graphics (CG) represent the shape, etc. of the design as if it were a photograph, they are actually drawings that have been manually prepared. Thus, a document that contains such drawings shall be regarded as "drawings." As such, it is necessary, in principle, to prepare CG drawings according to the prescribed form of drawing.

[Points to be noted in preparing views using computer graphics (CG)]

- (i) Views that do not contain the lines of the shape are accepted.
- (ii) Views that do not contain the lines of the shape need to have a colored background where necessary. As the color of the background, applicants use a single color that is not used in the design in the application, and also make a statement to the effect that the single color represents the background in the column of "Description of the Design" (Figure 1.2-41). However, such statement is unnecessary if it is obvious that the color represents the background even without such explanation (Figure 1.2-40).
- (iii) When a brightness change is represented as "shading" in drawings, it is necessary to make a statement to the effect that such brightness change is "shading" in the column of "Description of the Design" of the application (Figure 1.2-42). However, such statement is unnecessary if it is obvious that such brightness change is "shading" even without such explanation.
- (iv) When making it clear which part of the design has what color in a drawing that depicts a design having colors with "shading" represented, applicants add the "Front view without shading", etc. (Figure 1.2-43).
- (v) When preparing drawings using photographic data taken by a digital camera (e.g. by trimming a part of the photograph and adding it to a line drawing), such views are treated as "drawings," as in the case of CG.

However, in cases of manipulating photographic data taken by a digital camera by erasing elements that do not constitute the design, or calibrating colors, such views are regarded as "photographs."

- (vi) When sectional views are needed, oblique parallel lines of approximately 0.2-mm thickness must be drawn in the cross section (e.g. the thick surface) as in the case of regular views (Form No. 6 Notes (5) and (16)) (Figure 1.2-44). If an applicant wishes to color the cross section, applicants use a single color that is not used in the design in the application and make a statement to the effect that such colored part represents only the shape of the cross section in the column of "Description of the Design" (Figure 1.2-45).
- <Fig. 1.2-39> Example of how to depict the drawing using CG



<Fig. 1.2-40> Example for which it is obvious that the color represents the background even without the statement in "Description of the Design"



## <Fig. 1.2-41> Example where it is unclear whether the color represents the background without the statement in "Description of the Design"



## <Fig. 1.2-42> Example where it is not obvious whether a brightness change represents "shades" without the statement in "Description of the Design"











<Fig. 1.2-45> Example of how to depict a sectional view using CG (in cases where the shape of the cross section is represented in color)



As for a sectional view prepared using CG for an application for design registration for a part of an article, etc., see Part II Chapter 2.2 (2)(iii) "Sectional View" prepared using computer graphics (CG).

# B. Drawings for helping in understanding the design and drawings that represent the transparent part (reference views)

In cases where it is necessary to use additional views supplementarily in addition to the "six views" and others in order to explain the article or to indicate the transparent part, please add reference views (Form No. 6 Note (15)). The reference views include views that indicate functions, etc. of each part, views that indicate the purpose and method of use of an article, and views that indicate the transparent part or translucent part. Since these reference views are not for representing the actual shape, etc. of the design in the application for design registration, figures can contain centerlines, baselines, horizontal lines, fine lines or shadings to express shadows, indication lines, codes, or characters that are used for explaining the content, or any other lines, codes or characters that do not constitute the design (Form No. 6 Note (7)). Using a view that represents only the shape, etc. of the design in the application as a reference view is not appropriate.

However, the views represented as reference views are used as the basis for finding the design in the application, to help in understanding the material, size, the part that is transparent, the purpose of use, the state of use, etc. of the article to the design. On the other hand, in cases where reference views show a shape, a pattern or a color different from those shown in the six views and the other required drawings, the different elements themselves are not considered to serve as the basis for finding the shape, etc. of the design in the application (see Part II, Chapter 1 of the Examination Guidelines for Design).

#### 2B.1 Reference views indicating functions, etc. of each part

Reference views that represent functions, etc. of each part are used to represent the specific constitution of each part or the method of use of an article. This type of reference view is, in general, depicted by adding indication lines, characters, codes, etc. to a view which corresponds to any of the six views, etc. It is sufficient if it can be understood which part of the shape, etc. represented in the six views, etc. is depicted in the reference view.



<Fig. 1.2-46> Example of how to depict "Reference view indicating functions of each part"

#### 2B.2 Reference views indicating the state of use

In cases where conventional knowledge does not help in understanding the purpose and method of use of the article, which makes it impossible to understand the design, an applicant needs to state an explanation that helps understand the design in the column of "Description of Article to the Design", including the purpose, the method and the state of use. In addition to that, "Reference view showing the state of use", etc. need to be added, where necessary. Since "Reference view showing the state of use", etc. have no restrictions on how they can be depicted, it is possible to include things other than the article to the design (e.g. in cases of filing an application for design registration concerning components of an article, the view in which the whole article is depicted with the components incorporated thereinto can be submitted as "Reference view representing the state of use").

<Fig. 1.2-47> Example of how to depict "Reference view representing the state of use"

[Article to the Design] Rear end cap [Description of Article to the Design]	for electrical connectors This article is a cap to be put on the rear end of a housing for an electrical connector, and to be fixed by a pair of locking pieces. Electric wires drawn out from the housing are bent within this article, and pulled out from the cutout part of this article.
[Reference perspective view representing the state of use]	

#### 2B.3 Reference views representing the transparent part

In cases where a part of the shape, etc. has transparency or translucency, and the statement of the "Description of the Design" is not sufficient to make it understood where the transparent part is positioned, it is necessary to clearly show it by adding "Reference view indicating the transparent part" to six views, etc. In the case of representing the transparent part as it is, the figure tends to be more complicated than that of the article without the transparent part, which makes it difficult to represent the shape, etc. accurately. Thus, it is useful to add "Reference view indicating the transparent part" even though the statement about the transparent part in "Description of the Design" is clear enough to understand which part of the article is the transparent part (see "Part III, 4. Articles Having Transparent or Translucent Part" for more specific information about how to depict views of articles having transparent part, etc.).

<Fig. 1.2-48> Example of how to depict "Reference view indicating the transparent part"



#### C. Photographs substituted for drawings

Applicants can file an application for design registration, attaching photographs instead of drawings that depict views. When submitting photographs, the method of representing the shape, etc. is the same as when submitting drawings. In other words, each of the six views is replaced with a photograph of a surface taken from the same angle as the surface represented in the view.

[Points to be noted in taking photographs substituted for drawings]

- (i) Care must be taken not to include the background, shadows that are not shade, images reflected on the mirror surface and other elements that do not constitute the design.
- (ii) In cases where it is difficult to distinguish "shade" that appears on bumpy surfaces (see "2A. 5 (8) "Shades" specifying the surface shape of a threedimensional object") from patterns, applicants include a statement about the distinction in the column of "Description of the Design."
- (iii) To avoid including the background or the surface of the table where the object is put as patterns, etc., applicants need to carefully set up a photographic stage so that patterns, etc. that do not constitute the design may not be shot, by covering the background or the table with the same color material such as a white or black cloth.
- (iv) Please be careful for not photographing by the perspective drawing method, where the front of the object becomes larger and the other end of the object becomes smaller.
- (v) Digital photographs that have been manipulated, such as clearing the shape, etc., eliminating what does not constitute the design, can also be accepted as photographs (Please note that the shape, etc. represented by the manipulated photograph data is regarded as the design in the application).
- (vi) It is possible to combine photographs and views. In such cases, applicants need to make sure that photographs and drawings are consistent with each other. For example, in cases where, while photographs represent shading related to the gist of the design, drawings represent only the shape, it shall be regarded that the specified shape, etc. is not represented since photographs

and drawings are not consistent with each other. Please note that photographs and drawings must be separated in the application, and the "Document Name" should be "Photographs" and "Drawings," respectively.

(vii) It is not allowed to incorporate drawn lines into photographs to claim it one photograph. Please note that a drawing created by computer graphics (CG) with photographic data partially incorporated thereinto shall be deemed as a drawing. (see "2A. 5 (9) Drawings prepared using computer graphics")





#### D. Specimens and models

For some types of articles, applicants may file an application for design registration attaching specimens or models, instead of drawings that depict views. Specimens or models that can be submitted to represent the design shall be limited to those which falls within the scope prescribed by Ordinance for Enforcement in terms of materials, the size and other elements. Please note that the submitted specimens and models are treated as replacement of the drawings and they are **not** returnable.

## [Limitations of specimens and models submitted as a replacement of drawings]

(see Article 5 of the Ordinance for Enforcement of the Design Act).

(i) The size must not be more than length 26 cm x width 19 cm x thickness 7 mm. Specimens or models that are larger than this size cannot be submitted.



However, when using a thin cloth or paper as a specimen or model, applicants can submit it if both length and width are 1 m or less, and if it can be put into the prescribed bag of 7 mm thickness by being folded.

(ii) Specimens and models must be hardly broken, and must not easily change in shape or quality.

For example, things that can be easily chipped, those that are susceptible to natural deterioration, natural discoloration, natural resolution, and those that will be rotten cannot be submitted (e.g. fragile glass products or food).

- (iii) Specimens and models must not be difficult to handle or preserve. For example, things that have a sharp needle or blade, which causes the danger in handling, or those that may break the containing bag cannot be submitted (e.g. sewing needles or blades).
- (Note) Please put a specimen or model into a strong, hard-to-tear bag, and desirably, if possible, put it directly into a transparent bag so that it may be seen (there may be possibility that the content of the design for which the design registration is requested may be deemed as unclear, please do not put a specimen or model into a sealed bag, box or others before putting it into the prescribed bag).

#### (Example)

