Patent Right	Date	July 10, 2019	Court	Intellectual Property High Court, First Division
	Case number	2019 (Ne) 10010		
- A case in which, with regard to presence or absence of infringement of the patent right related to the invention titled "lightguide plate and lightguide plate assembly", the electronic book reader (defendant's product) sold by the appellee does not satisfy the constituent feature that "diffraction grating provided on a rear surface of a plate-shaped body" in the description in the scope of claims of the patent and a portion that the diffraction grating is provided on the rear surface of the plate-shaped body in the invention is an essential part in the invention and does not satisfy the first requirement of the doctrine of equivalence.				

Case type: Compensation for unjust enrichment

Result: Appeal dismissed

References: Article 70, paragraphs (1) and (2) of the Patent Act

Number of related rights, etc.: Patent No. 2865618

Summary of the Judgment

1 This case is a case in which, the appellant having the patent right related to the invention titled "lightguide plate and lightguide assembly" alleged that the electronic book reader (defendant's product) sold by the appellee is equivalent to the invention according to the aforementioned patent right and belongs to the technical range thereof, and the appellant suffered a loss corresponding to the profit by the sales thereof and required compensation of 1.5 million yen and delay damages from the appellee on the basis of the compensation for unjust enrichment gained by the infringer in Article 703 of the Civil Code and by clearly indicating that it is a part of an amount corresponding to the royalty of the present patent right.

The court of prior instance judged that the aforementioned product sold by the appellee does not satisfy the requirements of the doctrine of equivalence and dismissed the appellant's request. The appellant instituted this appeal and added the allegation of wording infringement.

2 This judgment dismissed the appeal by finding as follows in brief:

(1) Establishment of wording infringement

A. With regard to propriety of the appellant's new allegation of the wording infringement in addition to the allegation of infringement under the doctrine of equivalence in the court of second instance, the allegation on details of the technical matters related to the technical range of the patent invention and approval or disapproval thereof do not constitute admission of major facts and do not bind the

court or the parties concerned and thus, they are not approved due to confliction with the established admission, and even if the wording infringement is examined in the appeal court for this case, it is not found that completion of the lawsuit would be delayed and thus, dismissal under Article 157, paragraph (1) of the Code of Civil Procedure is not rendered.

B. The constituent feature A is understood to describe the contents of the invention by defining one of the both surfaces of the transparent plate-shaped body as the "rear surface" and the other as the "front surface" from the context of the portion that "diffracted to the front surface side of the plate shaped body by the diffraction grating provided on the rear surface of the plate-shaped body".

Which side of the surface of the transparent plate-shaped body that the constituent feature defines as the "rear surface" or the "front surface" should be interpreted by considering the problem, the solution thereof, and the effect of the present invention in addition to that the constituent feature B describes that "at least one of a sectional shape of the diffraction grating or a ratio of grating part width/non-grating part width in a unit width is characterized to be changed so that brightness on the surface of the lightguide plate increases and is uniformized".

It is found that the present invention is characterized in that, in order to solve the problem of illuminating a liquid crystal display panel or the like uniformly and with high brightness, a diffraction grating is provided on a surface on a side opposite to an illuminated surface in both surfaces of the plate-shaped body which is a lightguide plate so that the light incident to the plate-shaped body which is the lightguide plate exerts uniform and high brightness on the side of the illuminated surface by a diffracting function of this diffraction grating.

From a viewpoint of the role played by the light emitted from the light source in the aforementioned mechanism, the side where the effect of the uniform and high brightness is exerted by advancing of the light emitted from the light source is understood to be the "front surface" side.

Then, it is reasonable to interpret that the "rear surface" referred to in the "diffraction grating provided on the rear surface of the plate-shaped body" of the constituent feature A is the surface located opposite to the illuminated surface which is a surface on which the light emitted from the light source advances and the effect of the uniform and high brightness is exerted occurs. The aforementioned interpretation also follows the description in the embodiment of the present Description.

C. In the defendant's product, the light emitted from the light source is expected to

exert the uniform and high brightness on the display side; that is, on the lower side of the lightguide. Moreover, the light transmitted through a micro-structural body provided on the lightguide is used for illuminating the display. Since the side where this light advances, and where the effect of exerting the uniform and high brightness is generated, is the front surface, the micro-structural body of the defendant's product is assumed to be provided on the "front surface" of the light guide and is not provided on the "rear surface".

The defendant's product does not satisfy the "diffraction grating provided on the rear surface of the plate-shaped body" of the constituent feature A.

(2) Establishment of infringement under the doctrine of equivalence

In the present invention, the diffraction grating (marked line groove) is worked on the surface (rear surface) opposite to the side where the effect of illumination is generated in the both surfaces of the lightguide plate made of a transparent plate-shaped body at an interval determined appropriately on the basis of an incident angle and a critical angle of the light, whereby the light incident from one end surface of the light guide plate toward the rear surface is diffracted by the diffraction grating toward the surface (the surface where the effect of illumination is generated) of the lightguide plate, and the front surface of the lightguide plate is illuminated extremely brightly by the outgoing light with high intensity orthogonal to that and the total reflection light led into the lightguide plate. (omitted) In view that such mechanism constitutes the technical idea of the present invention, the portion where the diffraction grating is provided on the rear surface of the plate-shaped body in the present invention is the essential part of the present invention.

Since the defendant's product does not include the portion that the diffraction grating is provided on the rear surface of the plate-shaped body as having been already examined in the relationship with the wording infringement, the different point between the present invention and the defendant's product is the essential part in the end and does not satisfy the first requirement of the doctrine of equivalence.

Judgment rendered on July 10, 2019
2019 (Ne) 10010, Appeal case of seeking compensation for unjust enrichment (Court of prior instance: Osaka District Court 2016 (Wa) 4759)
Date of conclusion of oral argument: May 29, 2019

Judgment

Appellant: Shimada Precision, Co., Ltd.

Appellee: Amazon.com Int'l Sales, Inc.

Main text

1. The appeal shall be dismissed.
2. The appellant shall bear the cost of the appeal.

Facts and reasons

No. 1 Gist of the appeal

1. The judgment in prior instance shall be reversed.

2. The appellee shall pay to the appellant 1.5 million yen and 5% interest per annum from June 11, 2016 to completion of the payment.

No. 2 Outline of the case (Abbreviations follow those in the judgment in prior instance unless otherwise specified)

1. This case is a case in which the appellant having the present patent right related to the invention titled "lightguide plate and lightguide plate assembly" (Patent No. 2865618) alleged that the electronic book reader sold by the appellee has a configuration equivalent to that described in the scope of claims according to the aforementioned patent right and belongs to the technical range of the patent invention, and the appellant suffered from a loss corresponding to the profit by the sales thereof, and required compensation of 1.5 million yen from the appellee on the basis of the right to claim compensation for unjust enrichment in Article 703 of the Civil Code and by clearly indicating that it is a part of an amount corresponding to the royalty of the present patent right, and also claimed payment of delay damages at the rate of 5% per annum prescribed under the Civil Code from June 11, 2016, the day following the date of service of the complaint, to completion of the payment.

Since the court of prior instance judged that the aforementioned product sold by the appellee did not satisfy the requirements of the doctrine of the equivalent and dismissed the appellant's claim, the appellant instituted the present appeal.

2. Since the basic facts are as described in No. 2, 2 in the "Facts and reasons" in the judgment in prior instance, they are cited herein.

3. Issues

(1) Whether the defendant's product belongs to the technical range of the present invention (issue 1)

A. Whether the wording thereof belongs to the technical range of the present invention (issue 1-1. Added in this court)

B. Whether the defendant's product is equivalent to the present invention and belongs to the technical range thereof (issue 1-2)

(2) Whether the present patent should be invalidated in the patent invalidation trial (issue 2).

A. Violation of Article 29-2 of the Patent Act by Exhibit Otsu 7 (issue 2-1)

B. Violation of Article 29-2 of the Patent Act by Exhibit Otsu 8 (issue 2-2)

C. Lack of novelty by Exhibit Otsu 9 (issue 2-3)

D. Lack of inventive step with Exhibit Otsu 9 as the primary cited reference (issue 2-4)

E. Violation of support requirements (issue 2-5)

(3) Amounts of appellant's loss and appellee's profits (issue 3)

(omitted)

No. 4 Judgment of this court

1. Establishment of wording infringement (issue 1-1)

(1) Propriety of new allegation of wording infringement in this court

A. The appellant exclusively alleged the infringement under the doctrine of equivalent in the court of prior instance and since it was decided that the first requirement (non-essential part) of the doctrine of equivalent was not fulfilled, the appellant added the allegation of wording infringement in this court that the defendant's product belongs to the technical range of the present invention also in the wording.

B. In this regard, although the appellant stated in the court of prior instance that "the fact that the diffraction grating of the defendant's product is provided on the guideline surface", the appellee alleges that the allegation of the fact that the

diffraction grating of the defendant's product is provided on a rear surface of the guideline in this court conflicts with the established admission and is not allowed. However, the allegation on details of the technical matters related to the technical range of the patent invention and approval or disapproval thereof do not constitute admission of major facts and thus, do not bind the court or parties concerned.

Thus, it is not said that the aforementioned allegation by the appellant is not approved due to confliction with the established admission.

C. The appellee alleges that the appellant's aforementioned allegation mentioning establishment of the wording infringement falls under a belated attack method and should be dismissed under Article 157, paragraph (1) of the Code of Civil Procedure, but since it is not found that completion of the lawsuit is delayed by examination of wording infringement in this court, the appellant's aforementioned allegation shall not be dismissed under Article 157, paragraph (1) of the Code of Civil Procedure even on the ground of the examination history of the court of prior instance.

(2) Establishment of wording infringement

A. Description of scope of claims

The constituent features of the description of the scope of claims in this case are separately described as follows:

C. A lightguide plate

A. which is a lightguide plate for diffracting light from a light source incident at least within a range from one end surface of a transparent plate-shaped body to a front surface side of the plate-shaped body by a diffraction grating provided on a rear surface of the plate-shaped body,

B. characterized in that at least one of a sectional shape of the diffraction grating and a ratio of a grating portion width/non-grating portion width in a unit width is caused to be changed so that brightness on the front surface of the lightguide plate increases and is uniformized.

B. Description in Description of this case

The "Detailed Description of the Invention" in Description of this case has the following description (Exhibit Ko 6). (For the drawings, see the attached list of drawings.)

(A)Technical field of the invention

The present invention relates to a lightguide plate used for a backlight of a liquid crystal display device and the like or a light emission inductive plate ([0001]).

(B) Prior Art

In conventionally known planar illuminating devices used for a backlight of a

liquid crystal display device, a lightguide plate made of a transparent acrylic resin having a large number of multi-surface prisms on a lower surface is provided ([0002]), and when the light source of the liquid crystal display device is turned on in a dark place, light incident toward the lower surface of the lightguide plate from the light source is led to a far place by reflection on the multi-surface prism while most of it is totally reflected in the lightguide plate and thus, the liquid crystal display panel can be illuminated brightly from below with less uneven brightness ([0003]).

(C) Problem to be Solved by the Invention

However, in the aforementioned planar illuminating device, the multi-surface prisms provided in a large number on the lower surface of the lightguide plate have one side of approximately 0.16 mm, for example, which is considerably larger than a wavelength of the light, and since each prism individually and totally reflects the light without collaboration, if the brightness of the lightguide plate is to be improved as a whole, there have been problems that irregular reflection occurs at a spot corresponding to a valley between each of the prisms, a light amount toward an upper surface decreases, and extreme light/dark contrast occurs on the upper surface which is an illuminated surface. Moreover, when this planar illuminating device is used for the liquid crystal display device driven by a battery cell, the light source needs to be illuminated with a large electric current in order to compensate for the decrease in the light amount toward the illuminated surface and to obtain high brightness and thus, a life of the battery cell becomes short and long-time use cannot be obtained, which is also a problem ([0004]).

An object of the present invention is to provide a lightguide plate which can obtain brightness which is considerably higher and more uniform than that of the conventional planar illuminating device across the entire illuminated surface by using a diffraction phenomenon based on the property of light wave and not the total reflection by the prism using geometrical optics of the light and thus, longer life of the battery can be realized by reduction in power consumption of the light source ([0005]).

(D) Means for Solving the Problem

The present invention is a lightguide plate for diffracting light from a light source incident within a range from at least one end surface of a transparent plate-shaped body to a front surface side of the plate-shaped body by a diffraction grating provided on a rear surface of the plate-shaped body, characterized in that at least one of the sectional shape of the diffraction grating and a ratio of a grating portion width/non-grating portion width in a unit width is caused to be changed so that brightness on the

front surface of the lightguide plate increases and is uniformized ([0006]).

Figure 1 shows an embodiment of the present invention, in which diffraction gratings (marked line grooves) are worked at an interval d on the rear surface of the lightguide plate made of a transparent plate-shaped body.

The light incident toward the rear surface from the one end surface of the lightguide plate is diffracted by the diffraction grating toward the front surface of the lightguide plate, and the light with an incident angle larger than a critical angle φ is totally reflected by the front surface and led to a far place through the lightguide plate, while the light with the incident angle smaller than the critical angle φ exits outward from the front surface. Therefore, by adjusting the incident angle of the light to the rear surface and by appropriately determining the interval d of the grating in a relationship with the wavelength of the light source, the front surface of the lightguide plate is illuminated extremely brightly by outgoing light with high intensity orthogonal thereto and the totally reflected light is led into the lightguide plate (see [0007], Figure 1 in the attached list of drawings).

(E) Embodiment of the Invention

Figure 2 in the attached list of drawings illustrates an embodiment of the lightguide plate used for the backlight of the liquid crystal display device in a working example of the present invention.

The aforementioned liquid crystal display device is made of a liquid crystal display panel 10 and a planar illuminating device 1 provided on a lower part thereof. The planar illuminating device 1 is constituted by a lightguide plate 2 made of a transparent plastic resin on which a diffraction grating 3 is provided on a rear surface 2b, a fluorescent tube 4 having a cold cathode or a semi-hot electrode as a light source arranged along a thick-side end side 2c of this lightguide plate 2, a reflector 5 which covers a surface other than a front surface 2a of the lightguide plate 2 and the fluorescent tube 4 so as to surround them and reflects the light, a diffusion plate 6 arranged in parallel on the front surface 2a side of the lightguide plate 2, and a prism sheet 7 for collecting light and arranged in parallel on the front surface side of this diffusion plate 6 ([0013]).

The rear surface 2b of the lightguide plate 2 is inclined at an angle of 0.5° to 5° with respect to the front surface 2a so that the light incident substantially in parallel from the fluorescent tube 4 can be received on the whole surface and has the diffraction grating 3 molded/worked as a fine marked line groove. The grating interval d of the diffraction grating 3 is set so that lower-order diffraction light is emitted substantially perpendicularly from the front surface 2a and matched with a

direction of total reflection. Moreover, the ratio of grating portion width/non-grating portion width in a unit width of the diffraction grating 3 is set so as to gradually become larger with increasing distance from the end side 2c so that a diffraction light amount increases in accordance with a decrease in an amount of light reaching the grating from the fluorescent tube 4. The unit width here refers to the sum of one grating portion width and one non-grating portion width and is a width of a unit section. On the rear surface 2b of the lightguide plate 2 in Figure 2, 11 sections each having a unit width illustrated schematically are provided and are indicated by a bold line portion for each section of the grating portion width and a thin line portion for each section of the non-grating portion width, and it can be understood that the diffraction light amount increases since a rate of the bold line portion in each section; that is, the grating portion width, increases with increasing distance from the end side 2c ([0014]).

The planar illuminating device 1 having the lightguide plate 2 with the aforementioned configuration illuminates the liquid crystal display panel 10 as follows. White light emitted from the fluorescent tube 4 enters the lightguide plate 2 substantially horizontally from the end side 2c, hits the entire surface of the rear surface 2b inclined at an angle of 0.5° to 5°, and is diffracted by collaboration with adjacent smooth surfaces between the large number of marked line grooves of the diffraction grating 3 provided on this entire surface, and the lower-order (1 to 3 order, for example) diffraction light with high intensity is emitted substantially perpendicularly from the front surface 2a of the lightguide plate 2 as an arrow in the figure. In the diffraction grating 3, since the fine and large number of marked line grooves collaborate and synergistically act on the order of 1/100, emission light with intensity extremely higher than a conventional triangular-pyramid prism can be obtained. The grating portion width/non-grating portion width in a unit width of the diffraction grating 3; that is, diffraction efficiency of the grating (a ratio of the diffraction light intensity to incident light intensity) becomes larger with increasing distance from the end side 2c on the fluorescent tube 4 side and thus, the diffraction light amount increases in accordance with a light amount decrease with increasing distance from the light source, and the front surface 2a of the lightguide plate 2 which is the illuminated surface is illuminated with high brightness and extremely uniformly ([0016]).

(F) Advantageous Effect of the Invention

Since, in the lightguide plate of the present invention, at least one of the sectional shape and a ratio of the grating portion width/non-grating portion width in a unit

width of the diffraction grating provided on the rear surface of the transparent plate-shaped body to which the light from the light source is incident within a range at least from the one end surface is caused to be changed so that the brightness on the front surface of the lightguide plate increases and is uniformized, unlike the prism on the conventional lightguide plate rear surface in which a dimension is larger than the wavelength of the light and the light is geometrically-optically and totally reflected individually without mutual collaboration, the fine gratings adjacent to each other by the unit of micron collaborate and are synergized, and the light as wave can be diffracted extremely strongly and moreover, the sectional shape or the ratio of the grating portion width/non-grating portion width in a unit width is adjusted so that the greater the decrease in the light amount reaching from the light source with increasing distance from the one end surface, the stronger the diffraction of the light and thus, the front surface of the lightguide plate is illuminated with high brightness and extremely uniformly. By applying this lightguide plate to the liquid crystal display device driven by a battery cell, a liquid crystal television, a light emission inductive plate displaying an emergency exit, or the like, bright and uniform illumination can be obtained with power consumption extremely lower than before ([0023]).

C. Interpretation of "diffraction grating provided on a rear surface of the plate-shaped body"

The constituent feature A is understood to describe the contents of the invention by defining one of the both surfaces of the transparent plate-shaped body as the "rear surface" and the other as the "front surface" from the context of the portion that "diffracted to the front surface side of the plate-shaped body by the diffraction grating provided on the rear surface of the plate-shaped body".

Which side of the surface of the transparent plate-shaped body that the constituent feature defines as the "rear surface" or the "front surface" should be interpreted by considering the problem, the solution thereof, and the effect of the present invention in addition to that the constituent feature B describes that "at least one of the sectional shape of the diffraction grating or a ratio of the grating part width/non-grating part width in a unit width is characterized to be changed so that brightness on the surface of the lightguide plate increases and is uniformized".

The problem and the solution thereof of the present invention, and its advantageous effect are as described in the aforementioned B, and in short, it is found that the present invention is characterized in that, in order to solve the problem of illuminating a liquid crystal display panel or the like uniformly and with high brightness, a diffraction grating is provided on a surface on a side opposite to an

illuminated surface in the both surfaces of the plate-shaped body which is a lightguide plate so that the light incident to the plate-shaped body which is the lightguide plate exerts uniform and high brightness on the side of the illuminated surface by a diffraction function of this diffraction grating.

From a viewpoint of the role played by the light emitted from the light source in the aforementioned mechanism, the side where the effect of the aforementioned uniform and high brightness is exerted by advancing of the light emitted from the light source is understood to be the "front surface" side.

Then, it is reasonable to interpret that the "rear surface" referred to in the "diffraction grating provided on the rear surface of the plate-shaped body" of the constituent feature A is the surface located opposite to the illuminated surface which is a surface on which the light emitted from the light source advances and the effect of exerting the uniform and high brightness occurs.

The aforementioned interpretation also follows the description in the embodiment of the present Description (aforementioned B (D) and (E)).

D. Configuration of defendant's product

All the defendant's products have a structure made of three layers; that is, [i] lightguide, [ii] touch screen, and [iii] display from above between upper and lower frame bodies, and the structures and features of the lightguides do not have particular difference among the first to third generation products (the product of the third generation is as illustrated in the attached Figure 1 in the judgment in prior instance; there is no dispute).

In the lightguide, a large number of fine structural bodies configured irregularly by nano-imprinting in a unit pixel of 200 μm x 200 μm are provided diagonally with a width XXXX of a projecting part and a width YYYY of a recess part. They are provided so that the length and/or the number of fine structural bodies in the unit pixel increase with increasing distance from the light source, and an area of the fine structural body portion increases (the outline thereof is as in the attached Figure 2 in the judgment in prior instance; there is no dispute).

In the defendant's product, the light emitted from the light source is expected to exert uniform and high brightness on the display side; that is, on a lower side of the lightguide. Moreover, the light transmitted through a micro-structural body provided on the lightguide is used for illuminating the display. Since the side where this light advances, and where the effect of exerting the uniform and high brightness is generated, is the front surface, the micro-structural body of the defendant's product is assumed to be provided on the "front surface" of the lightguide, and is not provided

on the "rear surface".

E. Fulfillment of constituent feature

(A) As described above, the defendant's product is considered not to satisfy the "diffraction grating provided on the rear surface of the plate-shaped body" of the constituent feature A.

(B) Appellant's allegation

The appellant pointed out that the light diffracted to the front surface side of the plate-shaped body by the fine structural body of the defendant's product includes transmitted diffraction light and reflected diffraction light and tried to make interpretation on front/rear on the basis of the reflected diffraction light, but since the display of the defendant's product is illuminated only by the transmitted light, the appellant's allegation is not grounded.

(3) Summary

Therefore, it should be considered even with the new allegation by the appellant that the defendant's product cannot be found to belong to the technical range of the present invention in view of the wording thereof.

2. Establishment of infringement under the doctrine of equivalent (issue 1-2)

(1) As described above, in the defendant's product, since the fine structural body is provided on the "front surface" of the lightguide, it has a portion different from the present invention.

The technical range of the patent invention is established by wording interpretation of the configuration described in the scope of claims in principle, but even if there is a portion different from the product manufactured or the like by the counterpart in the configuration described in the scope of claims, when [i] the portion is not an essential part of the patent invention (first requirement); [ii] the object of the patent invention can be achieved and the same working effects are exerted even if the portion is replaced with the target product or the like (second requirement); [iii] by means of the replacement as above, a person having ordinary knowledge in the technical field to which the invention belongs (a person ordinarily skilled in the art) could have easily conceived of the patent invention at the time of manufacture or the like of the target product or the like (third requirement); [iv] the target product or the like is not identical to a well-known art at the time of filing of the patent invention or it could not have been easily conceived of by the person ordinarily skilled in the art from this at the filing (fourth requirement); and [v] there are no special circumstances such that the target product or the like is intentionally excluded from the scope of claims in the filing procedure of the patent invention (fifth requirement), it is

reasonable to consider that the target product or the like is equivalent to the configuration described in the scope of claims and belongs to the technical range of the patent invention (Supreme Court 1994 (O) 1083, the same on February 24, 1998, Third Petty Bench Judgment/Collection of Court Precedents of Civil Cases ,Vol 52, No. 1, page 113).

(2) First requirement of the doctrine of equivalent (non-essential part)

A. Finding of essential part in the patent invention

An essential value of the invention to be protected by the Patent Act is a point that a solution based on a unique technical idea not found in the prior art for realizing solution of the technical problem which could not be achieved by the prior art was disclosed with specific configuration to society and thus, the essential part in the patent invention is interpreted to be a feature part constituting the unique technical idea not found in the prior art in the description of the scope of claims of the patent invention.

Moreover, it is reasonable to approve the essential part by finalizing the feature portion constituting the unique technical idea not found in the prior art in the description of the scope of claims of the patent invention by grasping the problem and the solution of the patent invention and the effect thereof on the basis of the description in the scope of claims and Description.

In finding of the above, since the essential value of the patent invention is determined in accordance with a degree of contribution in comparison with the prior art in the technical field, it is reasonable to find the same from comparison in the description of the scope of claims and Description and particularly with the prior art described in the Description.

In determination on the first requirement; that is, in determination on whether or not the different part from the target product or the like is a non-essential part, it is reasonable to determine whether the target product or the like includes in common the essential part of the patent invention finalized as above, and if it is found to be included, to determine that the different part is not the essential part.

B. Establishment of first requirement in this case

The description of the scope of claims and Description according to the present invention is as above (1(2), A and B) and in summary, the present invention relates to the planar illuminating device used for the liquid crystal display device, and with the prior art in which a large number of multi-surface prisms are provided on the lower surface of the lightguide plate, there have been problems that irregular reflection occurs and the light amount toward the upper surface decreases, and extreme

dark/bright contrast is generated on the upper surface which is the illuminated surface and the like, and in order to solve the problem of illuminating the liquid crystal display device with uniform and high brightness, a diffraction grating is provided on a surface on the side opposite to the illuminated surface in the both surfaces of the plate-shaped body which is the lightguide plate, and the light incident to the plate-shaped body which is the lightguide plate is allowed to exert uniform and high brightness on the side of the illuminated surface by the diffraction function of this diffraction grating.

The diffraction grating is provided on the surface on the side opposite to the illuminated surface because, according to the description in Description of this case(1(2)B (D), (E), and (F)), in the present invention, the diffraction grating (marked line grooves) is worked on the surface (rear surface) opposite to the side where the effect of illumination is generated in the both surfaces of the lightguide plate made of a transparent plate-shaped body at an interval determined appropriately on the basis of an incident angle and a critical angle of the light, whereby the light incident from the one end surface of the lightguide plate toward the rear surface is diffracted by the diffraction grating toward the surface (the surface where the effect of illumination is generated) of the lightguide plate so that the front surface of the lightguide plate is illuminated extremely brightly by the outgoing light with high intensity orthogonal to that and the total reflection light led into the lightguide plate, and it is found that the above is the mechanism of the diffraction function in the present invention.

In view that such mechanism constitutes the technical idea of the present invention, provision of the diffraction grating on the surface on the side opposite to the illuminated surface; that is, the portion where the diffraction grating is provided on the rear surface of the plate-shaped body in the present invention should be considered to be an essential part in the present invention.

Since the defendant's product does not include the portion that the diffraction grating is provided on the rear surface of the plate-shaped body as having been already examined in the relationship with the wording infringement, the different point between the present invention and the defendant's product is the essential part in the end and thus, it should be considered that the first requirement of the doctrine of equivalent is not satisfied.

(3) Summary

As described above, it cannot be considered that the defendant's product is equivalent to the present invention and belongs to the technical range thereof, and infringement under doctrine of equivalent of the present patent right cannot be

approved, either.

3. Conclusion

As described above, neither the wording infringement nor the infringement under doctrine of equivalent is established in this case. Then, the claim for compensation of unjust enrichment in this case is not grounded, without even determining on propriety of defense of patent invalidation, since the cause of claim is not approved.

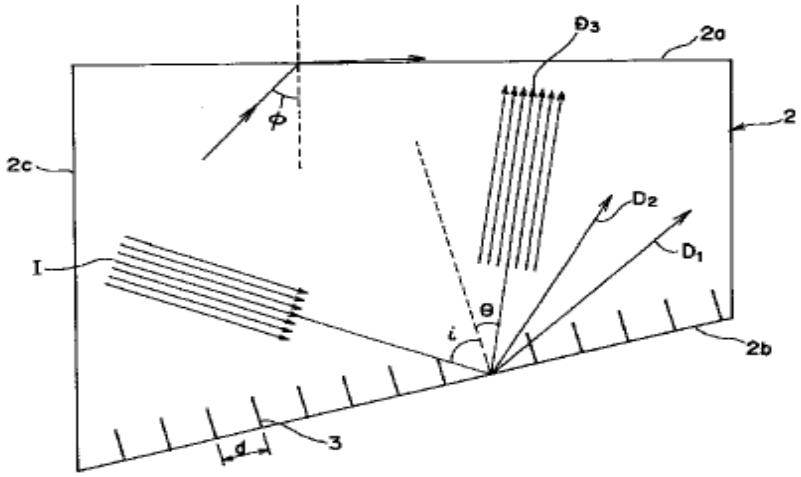
Thus, the judgment in prior instance which dismissed the appellant's claim is reasonable and the appeal shall be dismissed since the appeal is not grounded, and the judgment shall be rendered as in the main text.

Intellectual Property High Court, First Division
Presiding Judge: TAKABE Makiko
Judge: KOBAYASHI Yasuhiko
Judge: SEKINE Sumiko

Attachment

List of drawings

【図１】



【図２】