Trial decision

Correction No. 2015-390067

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The case of trial for correction of Japanese Patent No. 3611154 has resulted in the following decision:

Conclusion

The correction to the Description of Japanese Patent No. 3611154 shall be approved as stated in the corrected Description attached to the request for trail of the case.

Reasons

No. 1 Summary of the request

The object of the request for trial of the case is to "seek a decision to the effect that the correction to the Description of Japanese Patent No. 3611154 shall be approved as described in the corrected Description attached to the request for trail of the case."

The corrections demanded by the demandant (hereinafter referred to as "the

corrections of the case") consist of the Corrections A and B as follows:

1. Correction A

Claim 1 of the Description of Japanese Patent No. 3611154, which originally reads as cited in the following subsection (1), is to be corrected as presented in the following subsection (2).

(Japanese Patent No. 3611154 is hereinafter referred to as "the Patent," the Description of Japanese Patent No. 3611154 prior to corrections made by the corrections of the case is hereinafter referred to as "the Description of the Patent," and the corrected Description attached to the request for trial is hereinafter referred to as "the Corrected Description.")

(1) Claim 1 of the Description of the Patent

"[Claim 1]

A progressive-power multifocal lens characterized by the fact that it comprises, along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther (from a user of the lens) than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas, wherein the center of the near visual correction area is spaced away from the near eye point by 2 mm to 8 mm downward along the principal meridional curve, and the progressive-power multifocal lens is configured to satisfy the following condition: $0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1) where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, and K_B is a refracting power at the center of the near visual correction area."

(2) Corrected Claim 1(The corrected portions are indicated with underlines.)

"[Claim 1]

A progressive-power multifocal lens characterized by the fact that it comprises, along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area

having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas, wherein the center of the near visual correction area is spaced away from the near eye point by 2 mm to 8 mm downward along the principal meridional curve, and the progressive-power multifocal lens is configured to satisfy the following conditions:

$0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1)

$W_F \geq 50 / (K_B - K_A)$ (2)

where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, K_B is a refracting power at the center of the near visual correction area, and W_F (mm) is the maximum width of a clear vision area at the particular visual distance correction area."

2. Correction B

Paragraph [0012] of the detailed description of the invention of the Description of the Patent, which originally reads as cited in the following subsection (1), is to be corrected as presented in the following subsection (2).

(1) Paragraph [0012] of the Description of the Patent

"[0012]

[Solution to Problem]

In order to solve the above problems, the present invention provides a progressive-power multifocal lens characterized by the fact that it comprises, along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther (from a user of the lens) than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas, wherein the center of the near visual correction area is spaced away from the near eye point by 2 mm to 8 mm downward along the principal meridional curve, and the progressive-power multifocal lens is configured to satisfy the following condition:

$0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1)
where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, and K_B is a refracting power at the center of the near visual correction area."

(2) Corrected Paragraph [0012] (The corrected portions are indicated with underlines.)
"[0012]
[Solution to Problem]

In order to solve the above problems, the present invention provides a progressive-power multifocal lens characterized by the fact that it comprises, along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas, wherein the center of the near visual correction area is spaced away from the near eye point by 2 mm to 8 mm downward along the principal meridional curve, and satisfies the following conditions:
$0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1)
$W_F \geq 50 / (K_B - K_A)$ (2)
where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, K_B is a refracting power at the center of the near visual correction area, and W_F(mm) is the maximum width of a clear vision area at the particular visual distance correction area."

No. 2 Decision with regard to the requirements for correction
1 With regard to the purpose of the correction of the case

Since the Correction A (see the above subsection "1" of the section "No. 1") attempts to delimit the maximum width W_F (mm), which is defined arbitrary in the context of the claimed invention according to Claim 1 prior to the correction, of the clear vision area in the particular visual distance correction area so that the maximum width is defined as "$50 / (K_B - K_A)$" or more which is part of the configuration of the matters specifying the invention described in Claim 2 prior to the correction (for reference, with regard to the invention according to Claim 2, since the delimitation of

Claim 1 is also included as one of the matters specifying the invention according to Claim 2 prior to the Corrections made by the correction of the case, the matters specifying the invention according to Claim 2 as a matter of fact remains the same before and after the correction of the case), it is recognized that the Correction A is intended for the purpose of restriction of the scope of claims in accordance with item (i) of the proviso to Article 126(1) of the Patent Act.

Also, since the Correction B (see the above subsection "2" of the section "No. 1") attempts to bring the descriptions of Paragraph [0012] of the detailed description of the invention of the Description of the Patent into conformity with the recitations of Claim 1 as corrected by the correction of the case, it is recognized that the Correction B is intended for the purpose of clarification of an ambiguous statement in accordance with item (iii) of the proviso to Article 126(1) of the Patent Act.

Accordingly, it is recognized that the correction of the case is intended for the matters listed in items (i) to (iii) of the proviso to the Article 126(1) of the Patent Act.

2 With regard to addition of new matters

Since satisfaction of a condition expression "$W_F \geq 50 / (K_B - K_A)$" is described in Claim 2 of the scope of claims and Paragraph [0022] of the detailed description of the invention of the Description of the Patent, the correction of the case, which attempts to add a delimitation to Claim 1 by the Correction A delimiting the maximum width W_F (mm) of the clear vision area in the particular visual distance correction area to be equal to or larger than "$50 / (K_B - K_A)$" and a delimitation by the Correction B bringing the description of Paragraph [0012] into conformity with the recitations of Claim 1 to which the above delimitation has been added, remains within the scope of the matters described in the scope of description or drawings of the Patent of the case and therefore complies with the provision of Article 126(5) of the Patent Act.

3 With regard to enlargement of or alteration to the scope of claims

Since it is clear that the Corrections A and B do not substantially enlarge or alter the scope of claims, the correction of the case complies with the provision of Article 126(6) of the Patent Act.

4 With regard to the independent requirements for patentability

Since the correction of the case contains a matter of correction for the purpose of restriction of the scope of claims listed as item (i) of the proviso to the Article 126(1) of the Patent Act, it should be examined below whether or not it complies with the

provision of Article 126(7) of the Patent Act (whether or not the claimed invention is independently patentable at the time of filing of the patent application). (For reference, the matters specifying the invention according to Claim 2 as a matter of fact remain to be the same before and after the correction of the case, and the independent requirements for patentability of Claim 2 corrected by the correction of the case are not to be examined.)

(1) Invention according to Claim 1 corrected by the correction of the case
A: Invention according to Claim 1 corrected by the correction of the case

The invention according to Claim 1 corrected by the correction of the case (hereinafter referred to as "the Corrected Invention") is as described in above subsection "1" "(2)" of the section "No. 1."

B: With regard to the "near eye point" of the Corrected Invention
(A) In relation to the "near eye point" of the Corrected Invention, the following descriptions are found in the detailed description of the invention of the Corrected Description.
"[0014]
[Description of Embodiments]

FIG. 3 is a diagram that schematically illustrates the refracting power distribution on the principal meridional curve of a traditional progressive-power multifocal lens that lays emphasis on bifocal power functionality. First, the drawback of the traditional progressive-power multifocal lens that lays emphasis on bifocal power functionality is explained with reference to FIG. 3. As illustrated in FIG. 3, the traditional progressive-power multifocal lens that lays emphasis on bifocal power functionality has a small distance along principal meridional curve from the distance eye point E, which serves as the reference point for wearing spectacle lenses, to a lower portion A of the distance portion F. Specifically, according to the design approach of traditional progressive-power multifocal lenses that lay emphasis on bifocal power functionality, the amount of increase in the refracting power at the distance eye point E with reference to the lower portion A of the distance portion F is about five percent of the additional power. As a result, aberration that may be generated is relatively small and good visual characteristics can be obtained, and it is made possible to widen to some extent the clear vision area of the distance portion F. It should be noted that the term "distance eye point" as used herein refers to the passing point of the line of sight on the lens when the user of the eyeglasses sees a distant place in a natural posture,

which may also be called a distance fitting point.

[0015]

Also, in the case of the traditional progressive-power multifocal lens that lays emphasis on bifocal power functionality, the refracting power on the principal meridional curve from the distance eye point E to the upper portion B of the near portion N is increased by about 95 percent of the additional power. As a result, the clear vision area of the near portion N is much smaller than the clear vision area of the distance portion F. Accordingly, a progressive-power multifocal lens having refracting power distribution as illustrated in FIG. 3 will be of practical use as bifocal lenses supporting distance and near optical powers or bifocal lenses supporting distance and intermediate optical power, but cannot be practically used as a bifocal lens supporting intermediate and near optical powers because it not only has a narrow range of vision as the bifocal lens supporting intermediate and near optical powers but also remains to be subject to a large amount of shaking and distortion of an image. Further, in the traditional progressive-power multifocal lenses that lay emphasis on bifocal power functionality, since the distance from the distance eye point E serving as the reference point for wearing the spectacle lenses to the near portion N is large, it is necessary to significantly lower the line of sight for entry into near vision, which may cause eye strain.

[0016]

In view of the above, the progressive-power multifocal lens according to the present invention compromises to some extent the clear vision area of the distance portion but allows the optical correction to be focused on the range extending to a particular distance that is substantially away from the near view in accordance with the degree of user's presbyopia (e.g., a range covering a distant vision for mild presbyopia). In other words, the present invention ensures a progressive zone length that prevents or mitigates eyeball's fatigue as it rolls with the highest priority given to comfortable wearing feeling for the user engaged in near-vision tasks. Also, wide near portion of the clear vision area is ensured and the maximum astigmatic difference is decreased, the clear vision area in the intermediate portion is also ensured to some extent, and sufficiently wide particular visual distance range is ensured.

It should be noted that, in the context of the present invention, a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view, is referred to as a "particular visual portion;" the distance between the center of the particular visual portion, i.e., the particular center, and the center of the

near portion, i.e., the near center is referred to as a "progressive zone length;" and the amount of increase in the refracting power that is added between the particular center and the near center is referred to as an "additional power."

[0017]

According to the present invention, the near eye point is defined at a distance of 2 mm to 8 mm upward from the near center along the principal meridional curve. Also, according to the present invention, in response to the definition of the distance range from the near eye point to the near center, the following condition expression (1) is satisfied:

$0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1) where:

K_E is a refracting power (diopter) at the near eye point;

K_A is a refracting power (diopter) at the particular center; and

K_B is a refracting power (diopter) at the near center.

It should also be noted that $(K_E - K_A)$ represents an amount of increase in the refracting power at the near eye point with reference to the particular center and $(K_B - K_A)$ represents the additional power.

[0018]

In this manner, according to the present invention, the distance from the near eye point serving as the reference point for user's wearing the spectacle lenses to the near center is reduced, so that the aberration occurring in the area from the near eye point to the near portion is relatively small, and good visual characteristics can be obtained. Also, shift from intermediate vision to near vision can be made without significantly lowering the line of sight and wide clear vision area can also be ensured in the near portion. Also, when the increase in the amount of refracting power $(K_E - K_A)$ at the near eye point with reference to the particular center is defined as 60 to 90 percent of the additional power $(K_B - K_A)$ in accordance with the present invention, it is made possible to mitigate the concentration of astigmatisms in the lateral area extending from the near eye point to the near portion, prevent shaking and distortion of an image, and achieve a wide clear vision area in the near portion and the intermediate portion.

[0019]

Further, the refracting power is reduced by 60 to 90 percent of the additional power from the near eye point to the particular visual portion in accordance with the present invention. By virtue of this feature, it is made possible to improve the visual characteristics from the near eye point to the particular visual portion and mitigate the concentration of aberration in the lateral area of the principal meridional curve. As a result, it is made possible to mitigate shaking and distortion of an image and ensure a

wide clear vision area. Also, since the degree of change in the refracting power is relatively small from the near eye point to the particular visual portion, it is made possible to configure the lens such that the connection between the near eye point and the particular visual portion is continuous and smooth. Accordingly, it is made possible to obtain an intermediate vision state where shaking and distortion of an image is relatively less frequent, and ensure a wide clear vision area of the particular visual portion.

[0020]

In the meantime, when the distance from the near eye point to the near center is made smaller than 2 mm, the refracting power on the principal meridional curve will be significantly decreased from the near eye point to the particular center. As a result, the degree of change in the refracting power from the near eye point to the particular visual portion increases, making it difficult to obtain an intermediate vision state where shaking and distortion of an image occur less frequently. Further, it is also made difficult to ensure the sufficiently wide clear vision in the particular visual portion.

[0021]

Also, when the distance from the near eye point to the near center is made smaller than 2 mm, the distance from the near eye point to the particular visual portion becomes too long, often causing user's glancing up at an object or a person in the particular visual distance state.

On the other hand, when the distance from the near eye point to the near center is made larger than 8 mm, shift to the near vision area will only be possible by significantly lowering the line of sight. As a result, eye strain is caused and it is also made difficult to ensure the to-some-extent wide clear vision area in the near portion.

... (Omitted)...

[0028]

In the meantime, the center of the particular visual portion, i.e., the particular center refers to the position on the principal meridional curve having a predetermined average surface refracting power in the particular visual portion, and practically corresponds to the point regarded as the reference point for measurement of the particular visual portion. Also, the center of the near portion, i.e., the near center refers to a position on the principal meridional curve having a predetermined average surface refracting power in the near portion, and practically corresponds to the point regarded as the reference point for measurement of the near portion.

Also, the near eye point refers to a position that is regarded as the reference point for inserting the lens into the spectacle frame, and will be a near reference point

that coincides with the near line-of-sight passing position in a state where the user wears the spectacle frame. The position of the near eye point is made to correspond to the geometrical center of the lens in the embodiments of the present invention, though it is not necessary."

(B) Paragraphs [0014] and [0015] of the detailed description of the invention of the Corrected Description as identified in the above Section (A) describe a configuration in which traditional progressive-power multifocal lenses that lays emphasis on bifocal power functionality has a "distance eye point," which refers to the passing point of the line of sight on the lens when the user of the eyeglasses sees a distant place in an natural posture and may also be called a distance fitting point, is provided at a position where the amount of increase in the refracting power at the distance eye point E with reference to the lower portion A of the distance portion F is about five percent of the additional power. It is also described therein that the problem of the traditional lens in accordance with this configuration is found in the fact that it not only has a narrow range of vision as the bifocal lens supporting intermediate and near optical powers but also remains to be subject to a large amount of shaking and distortion of an image, making it necessary to significantly lower the line of sight for entry into near vision, which may cause eye strain.

Meanwhile, Paragraphs [0016] and [0017] describe employing a configuration according to which the "near eye point" is defined at a distance of 2 mm to 8 mm upward from the near center along the principal meridional curve and the increase in the amount of refracting power (K_E - K_A) at the "near eye point" with reference to the particular center is defined as 60 to 90 percent of the additional power (K_B- K_A) (in other words, the decrease in the amount of refracting power at the "near eye point" with reference to the particular center is defined as 10 to 40 percent of the additional power) in order to ensure: a progressive zone length that prevents or mitigates eyeball's fatigue as it rolls with the highest priority given to comfortable wearing feeling for the user engaged in the near-vision tasks; a wide near portion of the clear vision area; the clear vision area in the intermediate portion to some extent while decreasing the maximum astigmatic difference ensuring; and sufficiently wide particular visual distance range. Paragraph [0021] identifies and describes the following problems: When the distance from the "near eye point" to the near center is made smaller than 2 mm, the distance from the "near eye point" to the particular visual portion becomes too long, often causing user's glancing up at an object or a person in the particular visual distance state; when the distance from the "near eye point" to the near center is made larger than 8 mm,

shift to the near vision area will only be possible by significantly lowering the line of sight, causing eye strain and making it difficult to ensure the to-some-extent wide clear vision area in the near portion.

The Corrected Description does not explicitly describes that the "near eye point" is "the passing point of the line of sight on the lens when the user of the eyeglasses sees an object in a natural posture" (hereinafter referred to as the "the line-of-sight passing point" for simplicity). Meanwhile, if "the line-of-sight passing point" in the context of the Corrected Invention is provided near the particular center as in the case of the "distance eye point" in the traditional progressive-power multifocal lenses that lays emphasis on bifocal power functionality, then there will not occur the problem identified and described in Paragraph [0021] which may cause causing user's glancing up at an object or a person in the "particular visual distance state." Also, the moving distance of the line of sight for near vision is the distance from "the line-of-sight passing point" to the near center, so that it is clear that eye strain is caused as this distance is prolonged. And when it is interpreted that the "near eye point" is in fact the "line-of-sight passing point," then this interpretation is in conformity with the description of Paragraph [0021] which reads: "when the distance from the near eye point to the near center is made larger than 8 mm, shift to the near vision area will only be possible by significantly lowering the line of sight, as a result of which eye strain is caused." Hence, it is clear that the "near eye point" described in the Corrected Description is "the line-of-sight passing point."

As such, the term "distance eye point" and the term "near eye point" as used in the Corrected Description are used to refer to "the line-of-sight passing point" and in view of the fact the refracting power at "the line-of-sight passing point" of the traditional progressive-power multifocal lenses that lays emphasis on bifocal power functionality has a value close to the refracting power in the distance portion (the amount of increase in refracting power is about five percent of the additional power with reference to the lower portion A of the distance portion F), it is interpreted that the term "distance eye point" in which the word "distance" is added is used to refer to "the line-of-sight passing point" of the traditional progressive-power multifocal lenses that lays emphasis on bifocal power functionality. Also, in view of the fact that the refracting power at the "the line-of-sight passing point" of the Corrected Invention has a value close to the refracting power in the near portion (the amount of decrease in the refracting power with reference to the near center is 10 to 40 percent of the additional power), it is interpreted that the term "near eye point" to which the word "near" is added is used to refer to "the line-of-sight passing point" of the Corrected Invention.

This interpretation does not contradict the description of Paragraph [0028] of the detailed description of the invention of the Corrected Description which reads as follows: "the near eye point refers to a position that is regarded as the reference point for inserting the lens into the spectacle frame, and will be a near reference point that coincides with the near line-of-sight passing position in a state where the user wears the spectacle frame."

As discussed in the foregoing, it is reasonable to understand that the term "near eye point" in the Corrected Invention is "the line-of-sight passing point" and refers to "the line-of-sight passing point" where the amount of decrease in the refracting power at this "line-of-sight passing point" with reference to the near center is equal to or less than 40 percent of the additional power.

(2) Cited document and matters described therein

JP H06-090368 B (hereinafter referred to as "the cited document"), which is a publication distributed prior to filing of the patent application for the Patent, includes the following descriptions (the underlined portions are of particular relevance to identification of the Cited Invention as will be later described).

A: "[Scope of Claims]
... (Omitted)...
[Claim 7] A pair of spectacles using a pair of progressive-power multifocal lenses each having a central reference line vertically extending on at least one lens refracting surface from the two refracting surfaces constituting the lens and dividing the at least one refracting surface into right and left portions such that, wherein a predetermined additional power is added between the distance center and the near center on the central reference line, characterized by the fact that the progressive-power multifocal lens is configured to:
A) satisfy the relationship of $G \leq ADD/20$ (diopter/mm) where G is a gradient of the refracting power on the central reference line between the distance center and the near center; and
B) have a clear vision area in a distance-portion area residing at a position higher than the distance center, the clear vision area including the central reference line and being defined in accordance with the following condition: $(n - 1) \times |C_1 - C_2| \leq 0.5(m^{-1})$ and the maximum width W of the clear vision area satisfies the relationship of $5 \leq W \leq 30$ (mm), the progressive-power multifocal lens being processed and inserted in a frame such that the eye point resides at a position away from the distance center on the central reference

line by 5 mm to 15 mm toward the near center (where ADD is an additional power in units of diopters; n is a refractive index C_1 of the lens material; and C_2 is a principal curvature (in units of m^{-1}) at a point on the lens refracting surface)."

B: "[Detailed Description of the Invention]
[Technical Field]

The present invention generally relates to a structure of refracting surface of a progressive-power multifocal lens for use in correction of presbyopia of a presbyopic user and to a structure of spectacles using the same progressive-power multifocal lenses.
... (Omitted)...
[Prior Art]

The progressive-power multifocal lens is first explained.
... (Omitted)... As further explanation of the structure of the convex-surface refracting surface which is the feature of the progressive-power multifocal lens, the refracting surface can be divided into multiple areas as illustrated in FIG. 2. The reference numerals 1, 2, and 3 in the figure correspond to a distance-portion area, an intermediate-portion area, and a near-portion area, respectively, which are portions that provides the lens with appropriate refracting power for distance vision (viewing an object farther by approximately 1 m to 2 m from a viewer), intermediate vision (viewing an object away from the viewer by and (Note to Trial Decision: This "and" seems to be a scribal error which should be read as "approximately" and thus hereinafter so denoted) 50 cm to 1 m or 2 m), and near vision (viewing an object close to the viewer by and (Note to Trial Decision: This "and" seems to be a scribal error which should be read as "approximately" and thus hereinafter so denoted) less than 50 cm), respectively. The reference sign M in the figure represents a central reference line, which extends vertically substantially at the center of the lens and divides the lens into right and left portions. This central reference line may be called a "principal meridional curve" when it divides the lens in a symmetrical manner into right and left portions as illustrated in this figure or otherwise may be called a "principal gaze line." The central reference line has an important role in the structure of the refracting surface of the progressive-power multifocal lens. Specifically, the refracting power (the surface refracting power, to be strict) varies on the central reference line as illustrated in FIG. 3 so that the basic functionality of the progressive-power multifocal lens is realized. In the same figure, the vertical axis represents the position on the central reference line and the horizontal axis represents the refracting power. As illustrated in the figure, the refracting power progressively increases from the point A to the point B while it is

substantially the same value or otherwise only exhibits slight variation in the portions higher than the point A and lower than the point B. These nodes A and B in the variation of the refracting power are referred to as a distance center and a near center, respectively (Note to Trial Decision: the Japanese case particle "wo," which indicates the accusative case, suffixed to "near center" of the original text seems to be a scribal error and the portion at issue of the original text should be correctly read as simple "near center" and thus hereinafter indicated by "(a distance center) and a near center") and the portion higher than the point A as illustrated in FIG. 2 may be interpreted as a distance-portion area, the portion lower than the point B as a near-portion area, and the portion in between (Note to Trial Decision: "them between" in the original text is an error and should be correctly read as "in between," etc. and thus hereinafter so denoted) as an intermediate-portion area ... (Omitted)...

The increment of the refracting power added to the section extending from the distance center to the near center is called an additional power. The additional power generally assumes a range of values from 0.5 diopter (hereinafter indicated by D) for early-stage presbyopia to 3.5 D for extreme presbyopia ... (Omitted)... In this manner, since the curvature changes on the central reference line extending substantially at the center portion the lens, the convex-side surface of the progressive-power multifocal lens has an aspherical shape from the distance-portion area to the near-portion area. As a result, the value of curvature at one point on its surface varies depending on the orientation, and the difference in the surface refracting power occurs on a point on the lens surface amount of which is expressed by the following expression in accordance with the difference between the maximum value of the C_1 and the minimum value thereof C_2 (which are called principal curvatures):

$(n - 1) \times |C_1 - C_2|$ (diopter)

This appears as astigmatism in terms of the optical performance of the lens. Accordingly, in the following explanations of the description, the term "astigmatism" is used as meaning this difference of the surface refracting power. FIG. 4 depicts the distribution of astigmatisms in a state of the art progressive-power multifocal lens. This figure expresses the astigmatisms as iso-astigmatism curves in the same manner as contours of a map, and narrower pitches of the hatching corresponds to larger astigmatisms. The smallest iso-astigmatism curve in the figure is the curve of astigmatism of 0.5 D, and the white portion in the figure indicates the portion where the astigmatism is equal to or less than 0.5 D. Since one can see an object, to be empirical, without feeling blurring of an image of the object in this portion having the astigmatism equal to or less than 0.5 D, this portion is called a clear vision area ... (Omitted)... As

illustrated in this figure, in the case of a progressive-power multifocal lens, many astigmatisms occur in the side portion of the lens, in particular the side portions of the intermediate-portion area and the near-portion area. The astigmatisms are visually perceived as blurring of images and at the same time as shaking of images when one's head is moved because images are distorted in this portion, causing unpleasant feeling as the user uses the lens. Accordingly, it is desirable that astigmatisms are eliminated, but it is not possible due to the basic structure of the progressive-power multifocal lens. Specifically, for example, when it is attempted to eliminate astigmatisms in a portion including the distance-portion area and the near-portion area by making the distance-portion area and the near-portion area completely spherical, then this attempt necessitates the rapid change in the shape of the intermediate-portion area that bridges in a smooth manner the distance-portion area and the near-portion area having different curvatures, which in turn causes generation of extremely large astigmatisms within the area. In contrast, when the clear vision areas of the distance-portion area and the near-portion area are made small and the astigmatisms are forced to be distributed within the side portion thereof, lenses can be obtained whose intermediate-portion area is less susceptible to astigmatisms ensuring less shaking of images with wide visual range in the intermediate vision. However, the distance vision and the near vision are compromised. In this manner, it is impossible to obtain an ideal progressive-power multifocal lens that is less susceptible to astigmatisms, which is the major drawback of the progressive-power multifocal lens, and it is necessary to design lenses such that trouble due to astigmatisms is mitigated depending on the specific purposes of the users of the lenses. In view of these aspects, progressive-power multifocal lens that hitherto have been developed may be generally classified into two types as illustrated in FIGS. 4 and 5.

First, referring to FIG. 4, there is depicted a state of the art progressive-power multifocal lens that equally lays emphasis on both the distance vision and the near vision. As explanation of the structure thereof, the length of the interval AB where the additional power is added on the central reference line (this interval AB is referred to as a progressive portion and the length of this interval AB is referred to as the length of the progressive portion) is in normal cases 12 to 16 mm. This is because the interval cannot be prolonged very much when the rolling of an eyeball during the distance vision and the near vision is taken into consideration. The clear vision area of the distance-portion area has a width in the horizontal direction at least in the order of 40 mm so that an object can be clearly seen when eyes are directed in the transverse direction. The width of the clear vision area of the near-portion area varies depending

on the additional power and a clear vision area of a near-portion area having an additional power of 2.00 D has a width in the horizontal direction in the order of 10 mm to 15 mm. The clear vision area of the intermediate-portion area is substantially determined by the gradient of the refracting power in the progressive portion, and a clear vision area of an intermediate-portion area having an additional power of 2.00 D in normal cases has a width in the horizontal direction in the order of 3 mm to 5 mm.

On the other hand, referring to FIG. 5, there is depicted an astigmatism chart of a progressive-power multifocal lens described in JP S58-170647. This lens is designed with emphasis placed upon the distance vision and the intermediate vision, so that it has a structure different than the conventional ones of the type as illustrated in FIG. 4 ... (Omitted) ... the above two types, i.e., the standard one that lays emphasis on both the distance vision and the near vision and maintains overall balance as illustrated in FIG. 4 (this type is hereinafter referred to as the standard type) and the other one that lays emphasis on the distance vision and the intermediate vision as illustrated in FIG. 5 (this type is hereinafter referred to as the distance-intermediate type) are the design types, in terms of the purposes, of the state of the art progressive-power multifocal lenses.

Next, a pair of eyeglasses using the progressive-power multifocal lenses are described.

In the production of eyeglasses, circular lenses as illustrated in FIG. 4 are subjected to an edge grinding process into the form of the lens shape of a frame and the lenses thus processed are inserted into the frame. In the course of this insertion, it is necessary for the eye point to be placed in its correct position. The term "eye point" refers to the passing point on the lens at which the line of sight passes when the user of the eyeglasses is viewing a distant object or view in a natural posture and it may also be called a fitting point. The position of the eye point needs to be precisely defined in particular for progressive-power multifocal lenses. This is because the correction power of the progressive-power multifocal lenses varies, as has been already explained, depending on the positions on the lenses which have individual particular astigmatism distributions, so that failure to precisely define the eye point causes failure to realize the intended performance of the lenses. FIG. 6 is a front view illustrating a structure of the state of the art eyeglasses using the progressive-power multifocal lenses, in which the clear vision area is indicated by dashed lines. In the case of such a state of the art eyeglasses, as illustrated in this figure, the eye point E is defined so as to correspond to the distance center A (the one that is illustrated in FIG. 6 (a)), or alternatively to be placed away upward from the distance center by the order of 2 to 4 mm (the one that is illustrated in FIG. 6 (b)). It should be noted here that FIG. 6 (a) is an example of the

one that is designed to be symmetrical with reference to the central reference line, where it is inserted in the frame such that its central reference line is inclined by approximately 10 degrees so that the near center B is closer to the nose's side than the distance center A in accordance with the convergence of the eye. FIG. 6 (b) illustrates an example of the one that is designed such that the central reference line is bent in advance taking into account the convergence, in which case it is not necessary to incline the central reference line as the lens are inserted in the frame. It should also be noted that the presence or absence of symmetry in the designs of the lenses has no correlation to the positions at which the eye points should reside. The reason why the eye point is defined to reside at the distance center or slightly higher than that is that it is required in the ordinary life for the distance vision to be available when a front side of an object is viewed in a natural posture. In order to ensure that, the eye point is defined to reside near the distance center so that the eye point rests at a position within the distance-portion area ensuring that the rolling of the eyes does not become too large in the near vision. This also applies to the progressive-power multifocal lens of the distance-intermediate type.

[Problem to be solved by the Invention and Object of the Invention]

As described in the foregoing, progressive-power multifocal lenses should be optimally designed to be in accordance with their specific purposes and cause as least troubles as possible. In this sense the state of the art progressive-power multifocal lenses are not sufficiently suited for doing tasks about items of intermediate or close distance, for example, writing, medical operations such as surgery, machining work using a lathe, etc. This is because the standard type lens is readily used as it has wide clear vision areas for the distance-portion area and the near-portion area and it only requires a limited degree of rolling for the eye to shift the line of sight from the distance vision to the near vision, but its intermediate-portion area is narrow and in particular intermediate vision is not easy in the one whose additional power exceeds 2.5 D as the user feels like he/she is viewing an object through a chink in a door. Also, a distance-intermediate type lens has a very wide clear vision area of the distance-portion area and it has good distance vision and intermediate vision as it is wider than that of the standard type of the clear vision area of the intermediate-portion area, but its near-portion area is far from the eye point and narrow, so that near vision is not easy to perform. This is the drawback of the state of the art lenses.

The present invention provides a progressive-power multifocal lens suited for visual tasks mainly of the intermediate and near distance and eyeglasses that solve the above identified problems." (Page 2, Right Column, Line 18 to Page 4, Right Column,

Line 26)

C: "[Solution to Problem]

With regard to the progressive-power multifocal lens, various factors that governs the performance of the lenses were examined based on the state of the art progressive-power multifocal lens and the newly created prototype lens and the following results were obtained.

First, in order to make the clear vision area of the intermediate-portion area wide and ready to use, the gradient G of the refracting power on the central reference line in the same area was defined as:
G ≤ ADD/20 (diopter /mm). It should be noted here that ADD is the additional power of a lens. The clear vision area in a smaller size (including width, breadth, etc.) of the intermediate-portion area is desirable regardless of the magnitude of the additional power. However, the relationship expressed by the above expression resulted taking into account the balance between the two and in view of the need of achieving a desired additional power in the limited space of the eyeglass. Also, when the additional power according to the eyeglasses prescription of the user exceeds 2.5 D in a case where especially wide intermediate vision is necessary such as in the case of surgical operations, it is desirable that the following condition is satisfied:
G ≤ ADD/25 (diopter/mm).

Further, in order to ensure the minimum necessary eyesight at the time of distance vision and to make astigmatism small in the side portion of the intermediate area, the following condition were specified for the maximum width W in the horizontal direction of the clear vision area of the distance-portion area:
5 ≤ W ≤ 30 (mm).

As a result of this, astigmatisms spread in the distance-portion area, in response to which the astigmatisms in the side portion of the intermediate-portion area were significantly reduced.

W is a value (Note to Trial Decision: "W is a value" seems to be a scribal error and should be correctly read as "the value of W" and hereinafter so indicated) needs to be determined within the range expressed by the above expression depending on the degree to which the distance vision is needed and the degree of astigmatism permissible on the side portion of the intermediate-portion area. According to the testing for wearing the prototype in accordance with the present invention, it was observed that users were not satisfied with the size of the distance vision when the portion where the distance vision was available was smaller than about 5 mm and it was also observed that

the users were not satisfied about the blurring or shaking of images in the side portion of the intermediate portion when the portion where the distance vision was available exceeded about 30 mm.
... (Omitted)...

Meanwhile, in a pair of eyeglasses using the progressive-power multifocal lenses, the pair of eyeglasses were produced such that the eye point resides on the central reference line and lower than the distance center by 5 mm to 15 mm in order to facilitate intermediate vision and near vision. By producing the pair of eyeglasses in this manner, the correction power of the lens when seeing a front face is allowed to correspond to the intermediate vision facilitating the intermediate vision. Also, in the near vision, the lens of the present invention has a reduced gradient of the refracting power on the central reference line, so that the distance from the distance center to the near center is prolonged, making near vision almost difficult to be performed because the near-portion area is extremely lowered given the position of the state of the art eye point. However, by setting of the eye point as described above, near vision is possible by orienting the line of sight downward in the substantially same manner as in the state of the art progressive-power multifocal lenses. Also, the position of the eye point is determined in accordance with the need of distance vision, and it needs to be defined to be closer to the distance center to correspond to higher necessity of the distance vision." (Page 4, Right Column, Line 27 to Page 5, Left Column, Line 44)

D: "FIGS. 1(a) and 1(b) depict the astigmatism distribution and the variation in the refracting power on the central reference line, respectively, of the progressive-power multifocal lens according to the first embodiment of the present invention. In these figures, M indicates the central reference line, A indicates the distance center, and B indicates the near center. The numbers appearing in FIG. 1 (a) each represent the magnitude of astigmatisms of the individual iso-astigmatism curve in units of diopters. The additional power of this embodiment is 2.0 D, and the distance center A and the near center B are higher by 10 mm and lower by 15 mm than the geometrical center O of the lens, respectively. The refracting power in the progressive portion on the central reference line M shows substantially linear variation as illustrated in FIG. 1 (b), and its refracting power gradient G is given as G = 2.0/25 = 0.08 (D/mm). It should be noted that variation in the refracting power of the progressive portion of the embodiment of the present invention which will appear in the following descriptions is substantially linear and explanation thereof is omitted. Also, astigmatism is zero on the central reference line. In other words, the central reference line is an umbilical curve. The

maximum width W in the horizontal direction of the distance-portion area is about 18 mm.

For comparison with this lens, the astigmatism distribution of a state of the art progressive-power multifocal lens is illustrated in FIG. 10. The additional power of this lens is 2.0 D, the length of the progressive portion is 16 mm, and addition of the refracting power is provided in a substantially linear manner. Accordingly, the refracting power gradient G in the progressive portion is G = 2.0/16= 0.125 (D/mm). Also, zero astigmatism results on the central reference line, and the maximum width W in the horizontal direction of the distance-portion area is 42 mm. It should be noted that the maximum width in the horizontal direction of the clear vision area in the near-portion area is about 12 mm, which is the same as that of the present invention.
... (Omitted)...

FIG. 7 is a diagram illustrating the astigmatism distribution of the progressive-power multifocal lens according to the second embodiment of the present invention. The additional power of this embodiment is 2.0 D which is identical with that of the first embodiment, and the distance center A and the near center B are on the central reference line and higher and lower by 15 mm than the geometrical center O of the lens, respectively.

The maximum width W in the horizontal direction of the clear vision area of the distance-portion area is about 10 mm ... (Omitted) ...

FIG. 8 is a diagram illustrating the astigmatism distribution of the progressive-power multifocal lens according to the third embodiment of the present invention. The additional power of this embodiment is 2.5 D and the positions of the distance center and the near center are the same as the positions of the first embodiment. Zero astigmatism results on the central reference line. Also, the width W of the distance-portion area is about 13 mm, and the width of the near-portion area in the horizontal direction is about 12 mm.
... (Omitted)...

FIG. 9 (a) is a diagram illustrating the astigmatism distribution of the progressive-power multifocal lens according to the fourth embodiment of the present invention. The additional power of this lens is 2.5 D which is identical with that of the third embodiment, and the positions of the distance center and the near center are higher and lower by 15 mm than the geometrical center O of the lens, respectively. The maximum width W of the clear vision area of the distance-portion area is about 8 mm, and the width of the clear vision area of the near-portion area is about 10 mm. Also, the astigmatisms exist on the central reference line, which are the same or similar as

those of the second embodiment illustrated in FIG. 7 ... (Omitted)...

Next, the pair of eyeglasses according to the present invention is explained in detail by way of exemplary embodiments.

FIG. 1 (c) and FIG. 9 (b) illustrate the embodiments of the pair of eyeglasses according to the present invention. These figures are both a front view of the one half and the other half of the pair of eyeglasses using the progressive-power multifocal lens according to the first to fourth embodiments of the present invention, and the state is depicted where the progressive-power multifocal lens according to the present invention are inserted in the frame F of the pair of eyeglasses. The broken lines in the figures represent the clear vision areas of the lenses. The sign E indicates the position of the eye point, and the eye point of that of FIG. 1 (c) is on the central reference line and is lower than the distance center A by 10 mm, and the eye point of that of FIG. 9 (b) is on the central reference line and lower than the distance center A by 15 mm. The feature of the pair of eyeglasses according to the present invention lies in the fact that the aforementioned progressive-power multifocal lenses according to the present invention are used in these embodiments and the lenses are inserted in the frame such that the eye point resides within the progressive portion, or specifically the eye point resides lower than the distance center by 5 mm to 15 mm." (Page 5, Left Column, Line 48 to Page 6, Right Column, Line 38)

E: "[Advantageous Effects of Invention]

As has been explained by way of the exemplary embodiments, a progressive-power multifocal lens suited for visual tasks mainly performed in the intermediate and near distance and a pair of eyeglasses are provided in accordance with the present invention.

With regard to the progressive-power multifocal lens, since the gradient G of the refracting power in the intermediate-portion area is defined to satisfy $G \leq ADD/20$ (D/mm) (where ADD is the additional power), a wide clear vision area of the intermediate-portion area is made available and thus it is made possible to obtain wide and clear images in the intermediate vision. Also, at the same time, astigmatisms are made to reside in the distance-portion area such that the maximum width W in the horizontal direction of the clear vision area of the distance-portion area is defined to satisfy $W \leq 30$ (mm), which leads to further decrease in the astigmatisms in the intermediate-portion area as well as decrease in the blurring and shaking of images in the side portion of the intermediate-portion area. In the meantime, the width W of the clear vision area of the distance-portion area also required to satisfy the above

mentioned additional condition of W ≥ 5(mm), and the minimum necessary distance vision is ensured.

When the gradient G of refracting power of the intermediate-portion area on the central reference line is defined so as to satisfy G ≤ ADD/25 (D/mm), astigmatisms of the intermediate-portion area are further decreased and excellent intermediate vision can be obtained.

(Omitted)

With regard to the pair of eyeglasses, progressive-power multifocal lenses having good performance associated with the intermediate vision are used as described above, and are inserted in the frame such that the eye point resides at a position displaced by 5 mm to 15 mm toward the near center with respect to the distance center on the central reference line, intermediate view is possible on the front face, so that the pair of eyeglasses can be very comfortably used when the user is engaged in visual tasks mainly associated with the intermediate and near distance." (Page 7, Left Column, Lines 7 to 43)

(3) Invention described in the cited document

In view of the descriptions A to E of the above section (2), the following invention can be identified: A circular progressive-power multifocal lens that is yet to be subjected to edge grinding into a lens shape to be inserted in a frame ("a circular progressive-power multifocal lens that is yet to be subjected to edge grinding into a lens shape" is hereinafter referred to as a "progressive-power multifocal uncut lens" for simplicity) which is for use in the pair of eyeglasses as described in claim 7. It is also clear from the descriptions of the section (2) C to E of the cited document that at least one lens refracting surface of the progressive-power multifocal uncut lens comprises, in the same or similar manner as in the state of the art progressive-power multifocal lens described in Page 3, Left Column, Lines 20 to 26 of the cited document:

a distance-portion area residing above the distance center, a surface refracting power of the distance-portion area being substantially constant or only exhibiting a slight change, wherein the distance-portion area is adapted to provide the lens with a refracting power suited for distance vision;

an intermediate-portion area provided between the distance center and the near center, a surface refracting power of the intermediate-portion area progressively increasing from the distance center to the near center, wherein the intermediate-portion area is adapted to provide the lens with a refracting power suited for intermediate vision; and

a near-portion area below the near center, a surface refracting power of the near-portion

area being substantially constant or only exhibiting a slight change, wherein the near-portion area is adapted to provide the lens with a refracting power suited for near vision. Hence, it is recognized that the following invention is described in the cited document:

"A progressive-power multifocal uncut lens comprising having a central reference line on at least one lens refracting surface of two refracting surfaces constituting a lens, the central reference line extending in a vertical direction on the lens refracting surface and dividing the lens refracting surface into right and left portions, wherein a predetermined additional power is applied between a distance center and a near center on the central reference line, the progressive-power multifocal uncut lens further comprising:

a distance-portion area residing above the distance center, a surface refracting power of the distance-portion area being substantially constant or only exhibiting a slight change, wherein the distance-portion area is adapted to provide the lens with a refracting power suited for distance vision to view an object away from a viewer by approximately 1 m to 2 m;

an intermediate-portion area provided between the distance center and the near center, a surface refracting power of the intermediate-portion area progressively increasing from the distance center to the near center, wherein the intermediate-portion area is adapted to provide the lens with a refracting power suited for intermediate vision to view an object away from the viewer by 50 cm to 1 m or 2 m;

a near-portion area below the near center, a surface refracting power of the near-portion area being substantially constant or only exhibiting a slight change, wherein the near-portion area is adapted to provide the lens with a refracting power suited for near vision to view an object approximately less than 50 cm away from the viewer,

wherein the gradient G of refracting power on the central reference line between the distance center and the near center satisfies the relational expression (1): $G \leq ADD/20$ (diopter/mm); and

a clear vision area provided in the distance-portion area is positioned above the distance center, the clear vision area including the central reference line and being defined by the following condition expression:

$(n - 1) \times |C_1 - C_2| \leq 0.5\ (m^{-1})$

wherein the maximum width W of the clear vision area satisfies the relational expression (2): $5 \leq W \leq 30$ (mm), the maximum width W being determined within the

range expressed by the relational expression (2) in accordance with the degree to which the distance vision is needed and the degree of astigmatism permissible on the side portion of the intermediate-portion area,
wherein the eye point is defined to reside on the central reference line and away from the distance center by 5 mm to 15 mm toward the near center, the position of the eye point being determined in accordance with the need of distance vision, and being defined to be closer to the distance center to correspond to higher need of the distance vision, and
wherein the progressive-power multifocal uncut lens is configured as a progressive-power multifocal lens suited for visual tasks mainly of the intermediate and near distance
(where ADD is the additional power in units of diopters;
n is a refractive index of the lens material;
C_1 and C_2 are principal curvatures (in units of m^{-1}) at a point on the lens refracting surface, respectively)" (hereinafter referred to as "the Cited Invention").

(4) Comparison
A: (A) In light of the description of Page 3, Left Column, Lines 12 to 14 of the cited document, "the central reference line extending in a vertical direction on the lens refracting surface and dividing the lens refracting surface into right and left portions" of the Cited Invention is a reference line which may be called a "principal meridional curve" when it divides the lens in a symmetrical manner into right and left portions or otherwise may be called a "principal gaze line" (see the subsection B of the section (2) above). Since the one portion closer to the nose of the user of the two portions of the lens refracting surface divided into right and left portions by the central reference line can be identified as the "nose-side region" and the other potion closer to the ear of the user as the "ear-side region," "the central reference line extending in a vertical direction on the lens refracting surface and dividing the lens refracting surface into right and left portions" of the Cited Invention corresponds to the "principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region" of the Corrected Invention.

(B) Also, the "near-portion area" of the Cited Invention whose "surface refracting power is substantially constant or only exhibiting a slight change, wherein the near-portion area is adapted to provide the lens with a refracting power suited for near vision to view an object approximately less than 50 cm away from the viewer" corresponds to "a near

visual correction area having a surface refracting power that corresponds to a near view" of the Corrected Invention.

(C) Also, with regard to the "particular distance" in the Corrected Invention, Claim 1 after the correction of the case contains no limitations other than the feature that the particular distance at issue is the distance "being substantially farther than the near view." An object to be viewed in the course of the "near vision to view an object close to the viewer by less than 50 cm" of the Cited Invention corresponds to the "near view" of the Corrected Invention, and the distance to an object to be viewed in the course of the "distance vision," i.e., being "farther by approximately 1 m to 2 m" of the Cited Invention corresponds to the "particular distance" of the Corrected Invention.

Accordingly, "a distance-portion area" whose "surface refracting power of the distance-portion area" is "substantially constant or only exhibiting a slight change, wherein the distance-portion area is adapted to provide the lens with a refracting power suited for distance vision to view an object away from a viewer by approximately 1 m to 2 m" of the Cited Invention corresponds to "a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view" of the Corrected Invention.

(D) Also, the "intermediate-portion area" of the Cited Invention resides between the distance center and the near center, the distance-portion area resides above the distance center, and the near-portion area resides below the near center. Accordingly, the "intermediate-portion area" is an area that resides between the "distance-portion area" and the "near-portion area."

In addition, since the surface refracting power progressively increases from the distance center to the near center in the "intermediate-portion area" of the Cited Invention, the "intermediate-portion area" at issue can be said to be an area that continuously connects the surface refracting powers of the "distance-portion area" (particular visual distance correction area) and the "near-portion area" (near visual correction area).

Accordingly, "an intermediate-portion area provided between the distance center and the near center, a surface refracting power of the intermediate-portion area progressively increasing from the distance center to the near center, wherein the intermediate-portion area is adapted to provide the lens with a refracting power suited for intermediate vision to view an object away from the viewer by 50 cm to 1 m or 2 m"

of the Cited Invention corresponds to the "progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas" of the Corrected Invention.

(E) In addition, the "near-portion area," the "distance-portion area," and the "intermediate-portion area" of the Cited Invention are separately provided in a vertical direction, and the "central reference line" extends in the vertical direction. Accordingly, it can be said that the "near-portion area" (near visual correction area), the "distance-portion area" (particular visual distance correction area), and the "intermediate-portion area" (progressive area) of the Cited Invention are positioned along the "central reference line" (principal meridional curve).

Hence, the Cited Invention has the configuration that corresponds to the matters specifying the invention of "comprising, along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas" of the Corrected Invention.

B: (A) The center of the near visual correction area of the Corrected Invention resides at a position "at a distance of 2 mm to 8 mm downward from the near eye point along the principal meridional curve." As discussed in the above section (1) B, the "near eye point" is understood as being "the line-of-sight passing point," so that "the line-of-sight passing point" (near eye point) of the Corrected Invention is provided at a predetermined position on the principal meridional curve in the progressive area (the position by 2 mm to 8 mm upward from the center of the near visual correction area along the principal meridional curve).

(B) On the other hand, in view of the statement in the cited document as mentioned in the above section (2) B that "the eye point refers to the passing point of the line of sight on the lens when the user of the eyeglasses sees a distant place in an natural posture and may also be called a fitting point" (Page 4, Left Column, Lines 28 to 31 of the cited document); the statement that the "reason why the eye point is defined to reside at the

distance center or slightly higher than that is that it is required in the ordinary life for the distance vision to be available when a front side of an object is viewed in an natural posture" (Page 4, Left Column, Last line to Right Column, Line 3 of the cited document); the statement in the cited document as mentioned in the above section (2) C which reads that "meanwhile, in a pair of eyeglasses using the progressive-power multifocal lenses, the pair of eyeglasses are produced such that the eye point resides on the central reference line and lower than the distance center by 5 mm to 15 mm in order to facilitate intermediate vision and near vision. By producing the pair of eyeglasses in this manner, the correction power of the lens when seeing a front face is allowed to correspond to the intermediate vision facilitating the intermediate vision" (Page 5, Left Column, Lines 30 to 35 of the cited document); and the statement in the cited document as mentioned in the above section (2) E that "insertion in the frame such that the eye point resides at a position displaced by 5 mm to 15 mm toward the near center with respect to the distance center on the central reference line makes it possible to perform intermediate view on the front face" (Page 7, Left Column, Lines 39 to 42 of the cited document) and other relevant statements, it is clear that the "eye point" in the context of the Cited Invention is a passing point of the line of sight on the lens while the user of the eyeglasses sees an object in an natural posture (seeing the front face of the object), i.e., the "the line-of-sight passing point."

Also, the "eye point" in the Cited Invention is defined "to reside on the central reference line and away from the distance center by 5 mm to 15 mm toward the near center."

Accordingly, in the context of the Cited Invention, "the line-of-sight passing point" (eye point) is provided at a predetermined position on the central reference line in the intermediate portion progressive area (the position by 5 mm to 15 mm lower than the distance center on the central reference line).

(C) In light of the above subsections (A) and (B), the "eye point" in the Cited Invention and the "near eye point" of the Corrected Invention correspond to each other in that they are "the line-of-sight passing point," and the Cited Invention and the Corrected Invention correspond to each other in that the position of "the line-of-sight passing point" is defined to reside at any position on the "principal meridional curve" (central reference line) in the "progressive area" (intermediate-portion area) between "the center of the particular visual distance correction area" (distance center) and "the center of the near visual correction area" (near center).

C: It is stated in Paragraph [0024] of the detailed description of the invention of the Corrected Description that "in general, a progressive-power multifocal lens is processed to be adapted to its spectacle frame ... (Omitted)... a progressive-power multifocal lens that is yet to be processed is in general a circular lens having a diameter in the order of 60 m (Note to Trial Decision: "60 m" seems to be a scribal error and should be correctly read as "60 mm" and hereinafter so indicated) and it is delivered in this circular shape to retail stores of eyeglasses, and processed in the desired shape of the spectacle frame at the retail stores. Accordingly, in the context of the specifications associated with the spherical shape of the progressive-power multifocal lens according to the present invention, the circular shape prior to the desired shaping process is regarded as the standard shape." Also, Paragraph [0029] reads as follows: "FIG. 1 is a diagram that schematically illustrates the area portion of the progressive-power multifocal lens according to one embodiment of the present invention. As illustrated in FIG. 1, the progressive-power multifocal lens according to this embodiment includes a particular visual portion F that resides in an upper portion when worn by a user; a near portion N residing in a lower portion; and an intermediate portion P residing between these areas wherein the refracting power of the intermediate portion P continuously changes between these two areas." Since FIG. 1 depicts a circular progressive-power multifocal lens, it is clear that the "progressive-power multifocal lens "of the Corrected Invention is at least a concept that covers "a circular progressive-power multifocal lens that is yet to be subjected to edge grinding into a lens shape."

Accordingly, the "progressive-power multifocal uncut lens" of the Cited Invention corresponds to the "progressive-power multifocal lens" of the Corrected Invention.

E: In view of the above subsections A to C, the Corrected Invention and the Cited Invention correspond to each other in that they are "a progressive-power multifocal lens" that comprise, "along a principal meridional curve dividing a lens refracting surface into a nose-side region and an ear-side region, a near visual correction area having a surface refracting power that corresponds to a near view; a particular visual distance correction area having a surface refracting power that corresponds to a particular distance to a particular view, the particular view being substantially farther than the near view; and a progressive area provided between the near visual correction area and the particular visual distance correction area and continuously connecting the surface refracting powers of these areas, wherein

the line-of-sight passing point is defined to reside at any position on the

principal meridional curve in the progressive area," and differ from each other in the following features:

The different feature 1:

The "line-of-sight passing point" (near eye point) of the Corrected Invention is defined at a position where the center of the near visual correction area resides at a position away from the "line-of-sight passing point" downward by 2 mm to 8 mm along the principal meridional curve (i.e., a position away from the center of the near visual correction area upward by 2 mm to 8 mm along the principal meridional curve), in contrast to which:

The "line-of-sight passing point" (eye point) of the Cited Invention is defined to reside at a position on the central reference line and away from the distance center toward the near center by 5 mm to 15 mm, and the position of the eye point is determined in accordance with the need of distance vision and defined to be closer to the distance center to correspond to higher need of the distance vision.

The different feature 2:

The refracting power K_E of the "the line-of-sight passing point" of the Corrected Invention is a value that satisfies the following condition: $0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$ (1) where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, and K_B is a refracting power at the center of the near visual correction area, and "the line-of-sight passing point" is the near eye point, in contrast to which:

the Cited Invention does not define the refracting power at "the line-of-sight passing point," so that it is not defined whether or not "the line-of-sight passing point" is the near eye point.

The different feature 3:

The maximum width W_F of the clear vision area in the "particular visual distance correction area" of the Corrected Invention is a value that satisfies the following condition: "$W_F \geq 50 / (K_B - K_A)$ (2)" where K_E is a refracting power at the near eye point, K_A is a refracting power at the center of the particular visual distance correction area, K_B is a refracting power at the center of the near visual correction area, in contrast to which:

The maximum width W of the clear vision area in the "distance-portion area" (which corresponds to the "particular visual distance correction area" of the Corrected

Invention) of the Cited Invention is a value that satisfies the "relational expression (2): 5 ≤ W ≤ 30 (mm)" and is determined within the range expressed by the relational expression (2) in accordance with the degree to which the distance vision is needed and the degree of astigmatism permissible on the side portion of the intermediate-portion area.

(5) Judgment

A: With regard to the Different Feature 1

(A) With regard to the Cited Invention, the gradient G of refracting power on the central reference line between the distance center and the near center is defined to satisfy G ≤ ADD/20 (diopter/mm). The additional power ADD refers to the difference in the refracting power between the refracting power at the near center and the refracting power at the distance center, and the gradient G of refracting power on the central reference line is expressed by a value obtained by dividing the refracting power difference (i.e., the additional power ADD) by the distance on the central reference line between the near center and the distance center. Accordingly, what is meant by the above definition of the gradient by the Cited Invention is that the distance on the central reference line between the distance center and the near center (hereinafter referred to as "intermediate-portion area length" for simplicity) is made to be 20 mm or more.

Meanwhile, the eye point in the context of the Cited Invention resides at a position displaced by 5 mm to 15 mm toward the near center with respect to the distance center on the central reference line, so that the distance of the eye point from the near portion on the central reference line is, for example, a value between 5 mm and 15 mm for intermediate-portion area length of 20 mm, and a value between 8 mm and 18 mm for the intermediate-portion area length of 23 mm.

In other words, when a value near "ADD/20," which is the upper limit of the specified range of the gradient G of refracting power, is selected (i.e., when a value in the order of 20 mm is selected as the intermediate-portion area length) and a value near "15 mm," which is a upper limit of the specified range, is selected as the distance between the eye point and the distance center in the context of the Cited Invention, then the position of the eye point will reside upper than the near center by about 5 mm, satisfying the condition of the position of "the line-of-sight passing point" (near eye point) of the Different Feature 1 as specified by the matters specifying the invention of the Corrected Invention.

As such, if the above selection of "the gradient G of refracting power" and the "distance between the eye point and the distance center" is a kind of selection that

would have been easily made by a person skilled in the art, then the matters specifying the invention of the Corrected Invention regarding the Different Feature 1 is merely a matter of design variation that would have been made by a person skilled in the art to effectuate the Cited Invention, so that the Different Feature 1 is not a substantial different feature, or at least it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 1.

(B) In this context and in contrast, if the above selection is the one that cannot be conceived even by a person skilled in the art because of the above selection involving technical contradiction or any other reason, then the Different Feature 1 is a substantial different feature and it cannot be concluded that it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 1.

In view of the above, it is to be examined below whether or not the above selection (selecting, as the gradient G of refracting power, a value near "ADD/20" which is the upper limit of the specified range of the gradient G of refracting power and selecting, as the distance between the eye point and the distance center, a value near "15 mm," which is a upper limit of the specified range) would have been easily made by a person skilled in the art.

(C) First, "the gradient G of refracting power" in the context of the Cited Invention is examined.

Page 4, Right Column, Lines 32 to 39 of the cited document describes as follows in relation to the numerical range of the gradient G of refracting power: "In order to make the clear vision area of the intermediate-portion area wide and ready to use, the gradient G of the refracting power on the central reference line in the same area is defined as G ≤ ADD/20 (diopter /mm) ... (Omitted)... The clear vision in a smaller size of the intermediate-portion area is desirable regardless of the additional power. However, the relationship expressed by the above expression resulted taking into account the balance between the two and in view of the need of achieving a desired additional power in the limited space of the eyeglass" (see the subsection C of the section (2) above). This explanation can be construed as meaning that the gradient of the refracting power in the intermediate-portion area is made to be smooth to the extent

possible in view of ensuring the additional power, and thereby the astigmatism that occurs in the intermediate-portion area is made small, and the clear vision area in the intermediate-portion area is widened.

Also, Page 4, Right Column, Lines 39 to 43 of the cited document reads as follows: "When the additional power according to the eyeglasses prescription of the user exceeds 2.5 D in a case where especially wide intermediate vision is necessary such as in the case of surgical operations, it is desirable that the following condition is satisfied: G ≤ ADD/25 (diopter /mm)" (see the subsection C of the section (2) above). When it is assumed that the recitation regarding the magnitude of the additional power and the gradient G of refracting power in the above description presupposes that the intermediate-portion area length is constant in the progressive-power multifocal uncut lens, then it is clear that the above description explains that adopting a larger additional power will result in a larger gradient G of the refracting power and thus astigmatism that may occur in the intermediate-portion area becomes large and that, in order to respond to this, it is necessary to suppress the increase in the astigmatisms by making large the intermediate-portion area length for the larger additional power that has been adopted. Accordingly, it is obvious to a person skilled in the art that it is not necessary to make the intermediate-portion area length large when the adopted additional power is not so large.

As such, in the context of the Cited Invention, which value should be adopted as the gradient G of refracting power within the range expressed by G ≤ ADD/20 (diopter /mm) is a matter that should be determined in accordance with the additional power necessary for the user of the pair of eyeglasses using the Cited Invention, i.e., the magnitude of the additional power defined by the prescription for the user of the pair of eyeglasses. It is thus clear that a large value has to be selected within the above range as the gradient G in response to a large prescription additional power and that a small value may be selected within the above range as the gradient G in response to small prescription-dependent additional power. Accordingly, in the context of the Cited Invention, it would have been easily made by a person skilled in the art to select a value in the order of ADD/20 as the value of the gradient G of refracting power in accordance with the specific prescription additional power in view of a case where a user of the pair of eyeglasses whose prescription additional power is small (i.e., to select a value of about 20 mm as the intermediate-portion area length).

(D) Next, "the distance between the eye point and the distance center" in the context of the Cited Invention is examined.

The Cited Invention is a progressive-power multifocal lens suited for visual tasks mainly of the intermediate and near distance. Page 4, Right Column, Lines 11 to 13 of the cited document mentions, by way of example, "writing, medical operations such as surgery, machining work using a lathe, etc." regarding the above visual tasks mainly of the intermediate and near distance (see the subsection B of the section (2) above).

Among the above exemplary visual tasks mentioned, for example, in the context of the task of "writing," the task as such of writing texts is the one that is performed with "near vision to view an object close to the viewer by less than 50 cm" and it is clear that generally this task will not require, or at least requires less frequently, the "distance vision to view an object farther by approximately 1 m to 2 m from a viewer." Accordingly, in view of the above description of the cited document, it would have been easily made by a person skilled in the art to contemplate, as one of the modes of usage of the Cited Invention, a visual task that involves less need of the distance vision to view an object farther by approximately 1 m to 2 m from a viewer and solely involves the near vision to view an object close to the viewer by less than 50 cm.

Meanwhile, in the context of the Cited Invention, the eye point is defined to reside at a position on the central reference line and away from the distance center toward the near center by 5 mm to 15 mm, and the position of the eye point is determined in accordance with the need of distance vision and defined to be closer to the distance center to correspond to higher need of the distance vision.

As such, in the context of the Cited Invention, it would have been easily made by a person skilled in the art to contemplate, as one of the modes of usage of the Cited Invention, a visual task that involves less need of the distance vision and solely involves the near vision and to select a value near 15 mm within the range of "5 mm to 15 mm."

(E) It is clear that there is no technical contradiction or the like between the assumption as described in the above subsection (C) that there is a user of the pair of eyeglasses whose prescription additional power is small and the assumption as described in the above subsection (D) that a visual task that involves less need of the distance vision and solely involves the near vision is contemplated as one of the modes of usage of the Cited Invention, and that they are consistent with each other.

As such, in the context of the Cited Invention, a person skilled in the art definitely would have easily contemplated that the invention is used by a user whose prescription additional power is small to perform a visual task that involves less need of the distance vision and solely involves the near vision; selected a value in the order of

ADD/20 as the value of the gradient G of refracting power; and selected a value near 15 mm within the range of 5 mm to 15 mm as the distance between the eye point and the distance center.

Accordingly, the matters specifying the invention of the Corrected Invention regarding the Different Feature 1 is merely a matter of design variation that would have been made by a person skilled in the art to effectuate the Cited Invention, so that the Different Feature 1 is not a substantial different feature or at least it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 1.

B: With regard to the Different Feature 2

It is clear that the refracting power at the eye point of the Cited Invention, which contemplates a visual task that involves less need of the distance vision and solely involves the near vision; selects a value in the order of ADD/20 as the value of the gradient G of refracting power in accordance with the specific prescription additional power in view of a case where a user of the pair of eyeglasses whose prescription additional power is small; and selects a value near 15 mm as the distance between the eye point and the distance center as described in the above subsections A (E), will become a value obtained by adding about 75 percent (= 15/20) of the additional power ADD to the refracting power of the distance center. Specifically, the value of "$(K_E - K_A) / (K_B - K_A)$" will be in the order of 0.75, where K_E is a refracting power at the eye point, K_A is a refracting power at the distance center, and K_B is a refracting power at the near center. Meanwhile, the value in the order of 0.75 of "$(K_E - K_A) / (K_B - K_A)$" satisfies "$0.6 < (K_E - K_A) / (K_B - K_A) < 0.9$" (relational expression (1)), which is the condition specified in the matters specifying the invention of the Corrected Invention in relation to the Different Feature 2.

In addition, since the refracting power at the eye point satisfies the condition at issue, the eye point of the Cited Invention, which contemplates a visual task that involves less need of the distance vision and solely involves the near vision; selects a value in the order of ADD/20 as the value of the gradient G of refracting power in accordance with the specific prescription additional power in view of a case where a user of the pair of eyeglasses whose prescription additional power is small; and selects a value near 15 mm as the distance between the eye point and the distance center as described in the above subsections A (E), corresponds to the "near eye point" in the context of the Corrected Invention" (see the subsection B (B) of the section (4)).

Specifically, in the context of the Cited Invention, when the visual task is contemplated that involves less need of the distance vision and solely involves the near vision; the value in the order of ADD/20 is selected as the value of the gradient G of refracting power in accordance with the specific prescription additional power in view of a case where a user of the pair of eyeglasses whose prescription additional power is small; and the value near 15 mm is selected as the distance between the eye point and the distance center as described in the above subsections A (E) ("selecting the value in the order of ADD/20 as the value of the gradient G of refracting power" and "selecting the value near 15 mm is selected as the distance between the eye point and the distance center" may hereinafter be referred to as "the selection in accordance with the Different Features 1 and 2"), then the Cited Invention will includes a configuration that corresponds to the matters specifying the invention of the Corrected Invention in relation to the Different Feature 2.

Accordingly, for the same reason as mentioned in the above subsections A (C) to (E), the matters specifying the invention of the Corrected Invention in relation to the Different Feature 2 is merely a matter of design variation that would have been made by a person skilled in the art to effectuate the Cited Invention, so that the Different Feature 2 is not a substantial different feature or at least it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 2.

C: With regard to the Different Feature 3

(A) The "additional power ADD" and the "maximum width W of the clear vision area" of the Cited Invention correspond to "K_B- K_A" of the Corrected Invention (the denominator of the right-hand side of the condition "$W_F \geq 50 / (K_B - K_A)$ (2)" of the matters specifying the invention of the Corrected Invention in relation to the Different Feature 3. The condition "$W_F \geq 50 / (K_B - K_A)$ (2)" is hereinafter referred to as "the condition (2) according to the Different Feature 3") and "the maximum width W_F of the clear vision area in the particular visual distance correction area" (left-hand side of the condition (2) according to the Different Feature 3), respectively. In the context of the Cited Invention, it is first examined which values should be selected as the "additional power ADD" and the "the maximum width W of the clear vision area" to satisfy the condition (2) according to the Different Feature 3.

Nothing is specifically specified as to the magnitude of the additional power ADD to be adopted in the context of the Cited Invention. Meanwhile, the section for

explanation of the prior art of the cited document includes the following description: "The additional power generally assumes a range of values from 0.5 diopter (hereinafter indicated by D) for early-stage presbyopia to 3.5 D for extreme presbyopia" (Page 3, Left Column, Lines 32 to 34. See the subsection B of the section (2) above). Also, Page 4, Right Column, Lines 39 to 43 of the cited document describes as follows regarding the "relational expression (1)" of the Cited Invention: "Also, when the additional power according to the eyeglasses prescription of the user exceeds 2.5 D in a case where especially wide intermediate vision is necessary such as in the case of surgical operations, it is desirable that the following condition is satisfied: $G \leq ADD/25$ (diopter /mm)" (see the subsection C of the section (2) above). It is thus clear that the Cited Invention contemplates as the additional power both an additional power of 2.5 D or less and another additional power of more than 2.5 D. From these and other respects, it is reasonable to understand that the Cited Invention, in the same manner as in the prior art, also contemplates adopting a range of values from 0.5 D for early-stage presbyopia to 3.5 D for extreme presbyopia as the additional power ADD.

Accordingly, "$50 / (K_B - K_A)$" which is the right-hand side of the condition (2) according to the Different Feature 3 in the context of the Cited Invention may take any value as appropriate within the range from about 14.3 (= 50/3.5) to 100 (= 50/0.5) in accordance with the values corresponding to the additional power ADD (which corresponds to "$K_B - K_A$").

Meanwhile, since "the maximum width W of the clear vision area" of the Cited Invention "satisfies the relational expression (2): $5 \leq W \leq 30$ (mm)," "W_F" which is the left-hand side of the condition (2) according to the Different Feature 3 in the context of the Cited Invention (which corresponds to "the maximum width W of the clear vision area") may take any value as appropriate within the range from 5 to 30.

In addition, the range of values that the left-hand side of the condition (2) according to the Different Feature 3 may take (5 or more and 30 or less) and the range of values that the right-hand side thereof may take (about 14.3 or more and 100 or less) in the context of the Cited Invention overlap with each other in the range of "about 14.3 or more and 30 or less," so that, when the additional power ADD is a value that is equal to or larger than "50/the maximum width W of the clear vision area," then the left-hand side of the condition (2) according to the Different Feature 3 (the maximum width W of the clear vision area) becomes a value equal to or larger than the right-hand side(50/additional power ADD). As a result, when a value within the range of "about 14.3 or more and 30 or less" is selected as "the maximum width W of the clear vision area" and a value within the range of 0.5 D or more and 3.5 D or less and equal to or

larger than "50/the maximum width W of the clear vision area" is selected as the "additional power ADD" in the context of the Cited Invention, then the Cited Invention will satisfy the condition (2) according to the Different Feature 3, in other words, it will include a configuration that corresponds to the matters specifying the invention of the Corrected Invention in relation to the Different Feature 3.

Accordingly, if, in the context of the Cited Invention, when it is a kind of selection that can be easily done by a person skilled in the art to select a value within the range of "about 14.3 mm or more and 30 mm or less" as "the maximum width W of the clear vision area" and select a value within the range of 0.5 D or more and 3.5 D or less and equal to or larger than "50/the maximum width W of the clear vision area" as the "additional power ADD," then the matters specifying the invention of the Corrected Invention in relation to the Different Feature 3 is merely a matter of design variation that would have been made by a person skilled in the art to effectuate the Cited Invention, so that the Different Feature 3 is not a substantial different feature or at least it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 3.

(B) In this context and in contrast, if the above selection is the one that cannot be conceived even by a person skilled in the art because of the above selection involving technical contradiction or any other reason, then the Different Feature 3 is a substantial different feature and it cannot be concluded that it would have been easily arrived at by a person skilled in the art to modify the Cited Invention so that it has the configuration corresponding to the matters specifying the invention of the Corrected Invention regarding the Different Feature 3.

In view of the above, it is to be examined below whether or not the above selection to select a value within the range of "about 14.3 mm or more and 30 mm or less" as "the maximum width W of the clear vision area" and select a value within the range of 0.5 D or more and 3.5 D or less and equal to or larger than "50/the maximum width W of the clear vision area" as the "additional power ADD would have been easily made by a person skilled in the art in the context of the Cited Invention.

(C) First, "the maximum width W of the clear vision area" of the Cited Invention is examined.

Page 3, Right Column, Last line to Page 4, Left Column, Line 2 of the cited document includes, in relation to the state of the art progressive-power multifocal lens,

the description that the clear vision area of the distance-portion area has a width of a value at least in the order of 40 mm so that an object can be clearly seen when eyes are directed in the transverse direction (see the above subsection A (B) of the section (2)), and Page 4, Right Column, Lines 44 to 48 includes, in relation to "the maximum width W of the clear vision area," the description that the reason why "relational expression (2): $5 \leq W \leq 30$ (mm)" is to be satisfied is to ensure the minimum necessary at the time of distance vision and to make astigmatisms small in the side portion of the intermediate region (see the above subsection A (C) of the section (2)).

In view of these descriptions, the following facts can be understood: A value of "the maximum width W of the clear vision area" that satisfies the "relational expression (2): $5 \leq W \leq 30$ (mm)" is smaller than the value of the state of the art progressive-power multifocal lens (at least 40 mm or more); When "the maximum width W of the clear vision area" is made small, then the astigmatisms in the side portion of the intermediate region can be decreased but the eyesight at the time of the distance vision becomes small; When "the maximum width W of the clear vision area" is made large, then the eyesight at the time of distance vision can be made large but the astigmatisms in the side portion of the intermediate region becomes large.

However, "the maximum width W of the clear vision area" in the context of the Cited Invention "satisfies the relational expression (2): $5 \leq W \leq 30$ (mm) and is determined within the range expressed by the relational expression (2) in accordance with the degree to which the distance vision is needed and the degree of astigmatisms permissible on the side portion of the intermediate-portion area." It is obvious to a person skilled in the art that the feature of being "determined within the range expressed by the relational expression (2) in accordance with the degree to which the distance vision is needed and the degree of astigmatism permissible on the side portion of the intermediate-portion area" means that a large value should be selected within the range defined by the relational expression (2) in response to higher need of the distance vision and a small value should be selected within the range defined by the relational expression (2) in response to less need of the distance vision, and that a large value must not be selected within the range defined by the relational expression (2) in response to lower allowable of value of the astigmatisms occurring in the side portion of the intermediate-portion area.

Accordingly, it would have been easily made by a person skilled in the art to contemplate a mode of usage where the need of the distance vision is relatively high and the allowable value of the astigmatism occurring in the side portion of the intermediate-portion area is also relatively large and to select, as "the maximum width

W of the clear vision area," a value within the range of "about 14.3 mm or more and 30 mm or less" which corresponds to a relatively large value within the range of "$5 \leq W \leq 30$."

(D) Next, "additional power ADD" of the Cited Invention is examined.

The value of the prescription additional power of the user of the pair of eyeglasses incorporating the Cited Invention is specified as the additional power ADD of the Cited Invention, and the prescription additional power of the user of the pair of eyeglasses may take any value within the range of 0.5 D or more and 3.5 D or less depending on the stage or intensity of the presbyopia.

As such, it is noted that a configuration where any value is selected as appropriate as the "additional power ADD" within the range of 0.5 D or more and 3.5 D or less is obviously contemplated in the Cited Invention, so that there will be no difficulty in selecting a value which falls within the range of 0.5 D or more and 3.5 D or less and is 50/W or more (about 3.5 (= 50/14.3) D in response to the width W of the clear vision area being about 14.3 mm, or in selecting the value of about 1.7 (= 50/30) D in response to the width W of the clear vision being 30 mm) as the "additional power ADD" in the context of the Cited Invention.

(E) In view of the above subsections (C) and (D), it would have been easily made by a person skilled in the art to contemplate a mode of usage where the need of the distance vision is relatively high and the allowable value of the astigmatism occurring in the side portion of the intermediate-portion area is also relatively large and to select, as "the maximum width W of the clear vision area," a value within the range of about 14.3 mm or more and 30 mm or less and select a value which falls within the range of 0.5 D or more and 3.5 D or less and is 50/W or more as the "additional power ADD"(which may be hereinafter referred to as "the selection in accordance with the Different Feature 3").

E: With regard to the consistency between the selection in accordance with the Different Features 1 and 2 and the selection in accordance with the Different Feature 3

It is to be examined below in the context of the Cited Invention whether or not there is no technical inconsistency between the selection in accordance with the Different Features 1 and 2 to "select a value near ADD/20, as the value of the gradient G of refracting power and a value near 15 mm as the distance between the eye point and the distance center" and the selection in accordance with the Different Feature 3 to "select, as the maximum width W of the clear vision area, a value within the range of

about 14.3 mm or more and 30 mm or less and a value which falls within the range of 0.5 D or more and 3.5 D or less and is 50/W or more as the additional power ADD," and whether or not the both selections would have been easily made at the same time by a person skilled in the art.

(A) As mentioned in the above sections A (C) and B, the selection in accordance with the Different Features 1 and 2 to "select a value near ADD/20 as the value of the gradient G of refracting power" is made on the assumption that the "pair of eyeglasses are used by a user whose prescription-dependent additional power is small."

However, the cited document includes the description that "when the additional power according to the eyeglasses prescription of the user exceeds 2.5 D in a case where especially wide intermediate vision is necessary such as in the case of surgical operations, it is desirable that the following condition is satisfied: $G \leq ADD/25$ (diopter /mm)." (Page 4, Right Column, Lines 39 to 43. See the subsection C of the section (2) above). It is clear that the gradient G is specified within the range of $ADD/20 \leq G < ADD/25$ when the prescription-dependent additional power ADD is equal to or less than 2.5 D, and the maximum value of the gradient G in response to the prescription-dependent additional power ADD being 2.5 D is 0.10 (= 2.5/25). Also, the additional powers ADDs of the state of the art progressive-power multifocal lens described in the cited document are 2.0 D and 2.5 D, and the gradients Gs are 0.125 (= 2.0/16) D/mm and about 0.156 (= 2.5/16) D/mm (Page 5, Right Column, Lines 15 to 19, Page 6, Left Column, Lines 36 to 40 of the cited document. See the above section (2) D). In contrast, according to the first to fourth embodiments, the additional powers ADDs are 2.0 D, 2.0 D, 2.5 D, and 2.5 D, respectively, and the gradients Gs are 0.08 (= 2.0/25) D/mm, about 0.067 (= 2.0/30) D/mm, 0.10 (= 2.5/25) D/mm, and about 0.08 (= 2.5/30) D/mm, respectively (Page 5, Left Column, Line 48 to Right Column, Line 10; Page 5, Right Column, Line 49 to Page 6, Left Column, Line 16; and Page 6, Left Column, Lines 36 to 40 of the cited document. See the above subsection (2) D). Hence, the embodiments do not encompass a case where the gradient G exceeds 0.10 D/mm. In view of these facts, it is reasonable to understand that the assumption that "the prescription additional power is small" as contemplated in the selection in accordance with the Different Features 1 and 2 specifically refers to a case where the value of the additional power is to reside within the numerical range between the upper limit value that is generally in the order of 2.0 D (the gradient G does not exceed 0.10 when the prescription additional power is equal to or less than 2.0 D. The upper limit value is hereinafter referred to as "ADD_{max}") and the lower limit value that is 0.5 D which is the minimum value of the additional power contemplated in the Cited

Invention (see the above subsection C (A)).

Accordingly, it can be understood in the context of the Cited Invention that the selection in accordance with the Different Features 1 and 2 is a kind of selection that is made on the assumption that the additional power ADD is 0.5 D or more and "ADD_{max}" D (generally in the order of 2.0 D) or less.

(B) Meanwhile, when the maximum width W of the clear vision area of the Cited Invention is either the minimum value (about 14.3 mm) or the maximum value (30 mm) as selected in accordance with the Different Feature 3, then "50/W" will be either 3.5 or about 1.7 in response to the maximum width W selected. In order to satisfy the condition (2) according to the Different Feature 3, the additional power ADD should be 3.5 D or more for the minimum value (about 14.3 mm) or the additional power ADD should be about 1.7 D or more for the maximum value (30 mm).

Also, when the maximum width W of the clear vision area is "$50/ADD_{max}$" mm, then "50/W" will be "ADD_{max}" and the additional power ADD should be "ADD_{max}" D (generally in the order of 2.0 D) or more so as to satisfy the condition (2) according to the Different Feature 3.

(C) Here, suppose a case in the context of the Cited Invention where the maximum width W of the clear vision area is a value within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm within the range of "about 14.3 mm or more and 30 mm or less" according to the selection in accordance with the Different Feature 3. When this case is examined, as mentioned in the above (B), the additional power ADD is equal to or larger than 3.5 D in response to the maximum width W of the clear vision area being about 14.3 mm or more, and the additional power ADD is equal to or larger than "ADD_{max}" D (generally in the order of 2.0 D) or more in response to the maximum width W of the clear vision area being "$50/ADD_{max}$." Hence, in order to satisfy the condition (2) according to the Different Feature 3, it is necessary for the value of the additional power ADD to be a value that exceeds at least "ADD_{max}" D.

However, there is no overlapping section between the range of the additional power ADD of "0.5 D or more and "ADD_{max}" D or less" as presupposed by the selection in accordance with the Different Features 1 and 2 as mentioned in the above (A) and the range of the additional power ADD that "exceeds at least "ADD_{max}" D" (i.e., not including "ADD_{max}") when the maximum width W of the clear vision area is a value within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm (i.e., not including "$50/ADD_{max}$").

Accordingly, it is understood in view of the descriptions of the cited document that the selection in accordance with the Different Features 1 and 2 in the context of the Cited Invention and the selection of the maximum width W of the clear vision area as a value falling within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm are selections contradictory to each other in terms of the magnitude of the contemplated prescription additional power of the user of the pair of eyeglasses. A person skilled in the art who has the cited document at hand would make the selection in accordance with the Different Features 1 and 2 in a case where a user of the pair of eyeglasses is contemplated whose prescription additional power falls within the range of "0.5 D or more and "ADD_{max}" D or less" but he/she cannot make a selection according to which the maximum width W of the clear vision area takes a value within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm. Also, when a case is contemplated where a user of the pair of eyeglasses with the prescription additional power that "exceeds "ADD_{max}" D," the person skilled in the art would be able to make selection according to which the maximum width W of the clear vision area is a value falling within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm but would not make the selection in accordance with the Different Features 1 and 2.

Also, there is no motivation to make the both selections at the same time contrary to the teachings of the cited document.

Accordingly, even a person skilled in the art would not have easily made at the same time both the selection in accordance with the Different Features 1 and 2 and the selection according to which the maximum width W of the clear vision area takes a value within the range of about 14.3 mm or more and less than "$50/ADD_{max}$" mm in the context of the selection in accordance with the Different Feature 3 in the context of the Cited Invention.

(D) Further, the remaining selection of the selection in accordance with the Different Feature 3, i.e., selecting the maximum width W of the clear vision area as the value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less, should be examined. The value within the range of "$50/ADD_{max}$" mm (in the order of 25 mm) or more and 30 mm or less is a value near the maximum value in the numerical range (5 mm or more and 30 mm or less) of the maximum width W of the clear vision area as selected in accordance with the Different Feature 3, so that it is clear in view of the matters mentioned in the above subsection C (C) that selection of the maximum width W of the clear vision area as the value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less is, at least, the selection that is made when the mode of usage involving higher

need of the distance vision is contemplated.

Meanwhile, as mentioned in the above A and B, the selection in accordance with the Different Features 1 and 2 is the selection that is made when it is contemplated that the pair of eyeglasses is used in a visual task that involves less need of the distance vision and solely involves the near vision.

As such, it is understood in view of the descriptions of the cited document that, the selection in accordance with the Different Features 1 and 2 of the Cited Invention and the selection of the maximum width W of the clear vision area as a value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less are selections that are contradictory with each other in view of the need of the distance vision, so that a person skilled in the art who has the cited document at hand would make the selection in accordance with the Different Features 1 and 2 but would not make the selection of the maximum width W of the clear vision area as the value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less when the mode of usage is contemplated that involves less need of the distance vision, and would make a selection of the maximum width W of the clear vision area as the value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less but would not make the selection in accordance with the Different Features 1 and 2 when a mode of usage is contemplated that involves higher need of the distance vision.

Also, there is no motivation to make the both selections at the same time contrary to the teachings of the cited document.

Accordingly, even a person skilled in the art would not have easily made at the same time both the selection in accordance with the Different Features 1 and 2 in the context of the Cited Invention and the selection according to which the maximum width W of the clear vision area takes a value within the range of "$50/ADD_{max}$" mm or more and 30 mm or less in the context of the selection in accordance with the Different Feature 3.

(E) As has been examined in the foregoing, the cited document fails to teach or suggest the simultaneous selections including both the selection in accordance with the Different Features 1 and 2 and the selection in accordance with the Different Feature 3, and it cannot be concluded that it would have been easily made by a person skilled in the art to simultaneously make a selection in accordance with the Different Features 1 and 2 and a selection in accordance with the Different Feature 3 in the context of the Cited Invention.

(6) Summary

The cited document doesn't teach an invention that includes simultaneously the configuration corresponding to the matters specifying the invention of the Corrected Invention in relation to the Different Features 1 and 2 and the configuration corresponding to the matters specifying the invention of the Corrected Invention in relation to the Different Feature 3. Besides, even a person skilled in the art would not have easily employed both the matters specifying the invention of the Corrected Invention in relation to the Different Features 1 and 2 and the matters specifying the invention of the Corrected Invention in relation to the Different Feature 3 simultaneously in the context of the Cited Invention.

Therefore, the Corrected Invention is not identical to the invention described in the cited document and also would not have been easily invented by a person skilled in the art on the basis of the invention described in the cited document.

Also, there is no other reason ascertained for denying the patentability of the Corrected Invention.

As a result, the Corrected Invention is independently patentable at the time of filing of the patent application of the case and therefore the correction of the case complies with the provision of Article 126(7) of the Patent Act.

No. 3 Summary of Judgment

As has been discussed and examined in the foregoing sections, the request for trial of the case is intended for the matters as provided in items 1 to 3 of Article 126(1) of the Patent Act and complies with the provisions of Article 126(2) to (4) of the Patent Act.

Therefore, the trial decision shall be made as shown in the conclusion.

August 4, 2015

Chief administrative judge: FUJIWARA, Keishi
Administrative judge: SHIMIZU, Yasushi
Administrative judge: HONDA, Hiroyuki