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**D E C I S I O N**  
**of 22 September 2000**

**Case Number:** T 0932/98 - 3.4.2

**Application Number:** 87118832.2

**Publication Number:** 0271920

**IPC:** G02C 7/02

**Language of the proceedings:** EN

**Title of invention:**  
Progressive power ophthalmic lens

**Patentee:**  
SOLA INTERNATIONAL INC.

**Opponent:**  
Optische Werke G. Rodenstock

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54, 84

**Keyword:**  
"Clarity (main request: no)"  
"Novelty (first auxiliary request: yes, after amendment)"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 0932/98 - 3.4.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.4.2**  
**of 22 September 2000**

**Appellant:** SOLA INTERNATIONAL INC.  
(Proprietor of the patent) 2420 Sand Hill Road  
Menlo Park  
CA 94025 (US)

**Representative:** Diehl, Hermann O. Th., Dr.  
Diehl, Glaeser, Hiltl & Partner  
Patentanwälte  
Postfach 34 01 15  
D-80098 München (DE)

**Former Respondent:** Optische Werke G. Rodenstock  
(Opponent 2) Isartalstrasse 43  
D-80469 München (DE)

**Representative:** München, Wilhelm, Dr.  
Dr. München & Kollegen  
Anwaltskanzlei  
Wilhelm-Mayr-Str. 11  
D-80689 München (DE)

**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 8 July 1998  
revoking European patent No. 0 271 920 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** E. Turrini  
**Members:** A. G. Klein  
B. J. Schachenmann

## Summary of Facts and Submissions

I. European patent No. 0 271 920 (application number 87 118 832.2) was revoked by the opposition division on the ground that its subject-matter lacked novelty within the meaning of Article 54 EPC in view of the contents of document

D12: DE-A-3 335 109.

II. The appellant (proprietor of the patent) lodged an appeal against the decision revoking the patent.

The respondent (opponent) initially requested that the appeal be dismissed. He later withdrew his opposition without having submitted any argument in support of his initial request. Two other oppositions had already been withdrawn in the course of the opposition procedure.

The appellant thus remains the sole party to the present appeal procedure.

III. Oral proceedings were held on 22 September 2000, at the end of which the appellant as his main request requested that the patent be maintained as amended on the basis of a set of claims of which claim 1, the only independent claim, reads as follows:

"1. A progressive power ophthalmic lens, comprising a lens body having a progressive power surface on which the power increases from a distance viewing area of relatively low power to a reading area of relatively higher power, and on which astigmatism is distributed at least over a substantial part of the lens surface,

characterized in that

- a) the distance viewing area and the reading area are reduced to a spherical distance power point (DP) and a spherical reading power point (RP),
- b) the surface astigmatism is uninterruptedly distributed over substantially the whole surface of the progressive lens except the distance power point and the reading power point such as to achieve for the selected power for the distance power point, the selected power for the reading power point and the selected characteristic for the progression the smoothest possible distribution of dioptric power and lowest possible level of unwanted (i.e. inherent) astigmatism and to reduce the maximum value of unwanted (i.e. inherent) astigmatism of the lens; and
- c) the distance power point (DP) and the reading power point (RP) are surrounded by an area of optical stability in which the dioptric power does not change appreciably."

As a first auxiliary request the appellant requested that the patent be maintained as amended on the basis of a set of claims of which claim 1, the only independent claim, reads as follows:

- "1. A progressive power ophthalmic lens, comprising a lens body having a progressive power surface on which the power increases from a distance viewing

area of relatively low power to a reading area of relatively higher power, and on which astigmatism is distributed at least over a substantial part of the lens surface,

characterized in that

- a) the distance viewing area and the reading area are reduced to a spherical distance power point (DP) and a spherical reading power point (RP),
- b) the surface astigmatism is uninterruptedly distributed over substantially the whole surface of the progressive lens except the distance power point and the reading power point such as to achieve the smoothest possible distribution of dioptric power and lowest possible level of unwanted (i.e. inherent) astigmatism,
- c) the distance power point (DP) and the reading power point (RP) are surrounded by an area of optical stability in which the dioptric power does not change appreciably,
- d) wherein the distance power point and the reading power point are the poles of a cylindrical bipolar system of coordinates in which circular arcs of varying radii, corresponding each to a point (Q) on the meridian line are, in substance, coincident with isopower contours on the progressive power surface of the lens."

The appellant also submitted two further auxiliary requests, based on still further limited versions of claim 1.

- IV. In support of his requests the appellant in particular stressed that the design of a progressive power ophthalmic lens in accordance with the teaching of document D12 in effect resulted in an increase both in the level of unwanted astigmatism and in its maximum value. This was evident from a comparison of Figures 9(a) and 9(b), which respectively represented the contours of constant surface astigmatism in a lens in accordance with the teaching of document D12 and in another prior art progressive power lens. The maximum value of unwanted astigmatism in the lens proposed by document D12 amounted to 2.0 diopters, as compared to a maximum value of only 1.5 diopters for the other conventional lens shown in Figure 9(b).

Thus, the further limitation introduced into claim 1 of the main request in respect both of the achieving of the lowest possible level of unwanted astigmatism and of the reducing of its maximum value resulted in a clear distinction of the claimed subject-matter over the lens of document D12.

Furthermore, neither document D12 nor any of the other citations disclosed or suggested the specific layout of the isopower contours on the progressive power surface of the lens as defined in claim 1 of the first auxiliary request with reference to a cylindrical bipolar system of coordinates based on poles constituted respectively by the distant power point and the reading power point.

## Reasons for the Decision

1. The appeal is admissible.
2. *Main request*
  - 2.1 The construction of the progressive power surface of the ophthalmic lens set out in claim 1 is accurately defined only at the distance power point and at the reading power point, which form spherical distance viewing and reading areas of reduced extension, surrounded by an area of optical stability in which the dioptric power does not change appreciably (see features a) and c)).

The remainder of the lens surface, i.e. all points except the distance power point and reading power point, is defined in feature b) of claim 1 merely by reference to an uninterrupted distribution of the surface astigmatism such as to achieve, for a given power progression between the distance power point and the reading power point, the **smoothest possible** distribution of the dioptric power and the **lowest possible** level of unwanted (i.e. inherent) astigmatism and **to reduce the maximum value** of unwanted (i.e. inherent) astigmatism of the lens.

- 2.2 In the Board's opinion, the references in claim 1 to a "smoothest possible" distribution of dioptric power and to a "lowest possible" level of unwanted astigmatism do not imply any clear technical limitation of the construction of the lens defined in the claim.

The chosen definition in particular calls for the distribution of the surface astigmatism being compared

to entirely unspecified other "possible" distributions. The lens construction in comparison with which the maximum value of unwanted astigmatism of the lens should be "reduced" is not specified in the claim either.

- 2.3 The Board also notices that the specification of the patent refers to the ensuring of the smoothest possible distribution of dioptric power lowest possible levels of astigmatism only in conjunction with the generic definition of the object of the invention (see page 2, lines 12 to 15). To meet this object, the specification, in conjunction with two specific embodiments only teaches the particular power distribution shown for instance in Figures 7B, 10A and 12A, in which, *inter alia*, the isopower contours on the progressive power surface of the lens in substance follow circular arcs of varying radii (see e.g. page 4, lines 54 to 55 and page 7, lines 24 to 25).

The generic definition in feature b) of claim 1 of the lens construction in terms only of the technical problem to be solved, however, results in claim 1 potentially encompassing a huge number of embodiments which are not supported by the specification.

- 2.4 For the above reasons, claim 1 of the main request in the Board's opinion fails to comply with the requirements of Article 84 EPC that the claims defining the matter for which protection is sought shall be clear and concise and be supported by the description.

Appellant's main request cannot be allowed, accordingly.



3. *First auxiliary request*

3.1 Compliance of the amendments brought to the patent with the provisions of Article 123(2) and (3) EPC

As compared to claim 1 as granted, claim 1 of the first auxiliary request was supplemented by an indication in feature b) that the distribution of the surface astigmatism was "such as to achieve the smoothest possible distribution of dioptric power and lowest possible level of unwanted (i.e. inherent) astigmatism", as was disclosed on page 8, lines 14 to 20 of the application as originally filed.

Claim 1 was further supplemented with feature d), which in substance recites the limitation of claim 9 as originally filed, with the additional clarifications that the bipolar system of coordinates is of the "cylindrical" type and that the isopower contours on the progressive power surface of the lens in substance extend along "circular arcs of varying radii, corresponding each to a point (Q) on the meridian line". These clarifications are supported by the paragraph bridging pages 15 and 16 and by lines 22 to 24 on page 22 of the description as originally filed.

Dependent claims 2 to 16 correspond in substance to dependent claims 5 to 8 and 10 to 20 as originally filed.

The description and drawings were maintained as granted.

Thus, the amendments brought to the patent do not introduce subject-matter extending beyond the content

of the application as filed, nor do they extend the protection conferred by the patent, in compliance with the provisions of Article 123(2) and (3) EPC.

### 3.2 Clarity of the claims and their support by the description

Claim 1 of the first auxiliary request does not give rise to the objections under Article 84 EPC set out above against claim 1 of the main request.

Feature d) indeed now clearly specifies constructional features of the progressive lens, in terms of the shape of the isopower contours which in substance extend along circular arcs of varying radii, corresponding each to a given coordinate value in a cylindrical bipolar system in which the poles are the distance power point and the reading power point.

This particular shaping of the isopower contours adequately defines the lens construction disclosed in the description, and shown for instance in Figures 7B, 10A and 12A.

### 3.3 Patentability

Document D12 does not specify the shape of the isopower lines of the lens construction proposed there. The progressive power lens set out in claim 1 of the first auxiliary request, which in particular exhibits the isopower contours defined in the additional feature d), is novel in view of the contents of document D12, accordingly.

Thus, the ground for the revocation of the patent by

the opposition division (i.e. lack of novelty in view of the contents of document D12) can no longer be invoked against the amended claim 1 of the first auxiliary request, and the appealed decision cannot be upheld in this respect.

All three oppositions as filed initially against the patent have been withdrawn, and the Board, having scrutinized the documents on the file cannot see any reason to continue the opposition proceedings of its own motion under Rule 60(2), last sentence, EPC, or to remit the case to the opposition division for further prosecution under Article 111(1) EPC.

As a matter of fact, the documents on the file do not in the Board's opinion disclose or suggest the isopower line pattern set out in feature d) of claim 1 in conjunction with the punctual configuration of the distance viewing area and of the reading area as set out in feature a).

In particular, document US-A-2 878 721 as acknowledged in the introductory portion of the description of the present patent is the sole prior art citation to disclose a bipolar arrangement of the isopower lines substantially along circular arcs of varying radii (see Figures 3, 7, 11 and 15). The poles of this power distribution however lie at opposite edges of the lens and they do not form the distance power point and the reading power point, accordingly.

The only other citations to disclose isopower lines arranged along circular arcs of varying radii are the documents GB-A-2 092 772 and US-A-4 514 061 as also acknowledged in the introductory portion of the

description of the present patent. The isopower pattern disclosed there is however restricted to the reading area of the lens (see Figure 6B in both documents). Neither these documents themselves nor the remaining citations on the file however provide any obvious incentive for the skilled person to select a similar isopower arrangement also for the distance viewing area.

4. Accordingly, the Board in the present circumstances deems it appropriate to allow the appellant's first auxiliary request.

## **Order**

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in amended form as follows:

Claims 1 to 16 filed as the first auxiliary request at the oral proceedings of 22 September 2000;

Description and drawings of the granted specification.

The Registrar:

The Chairman:

P. Martorana

E. Turinni