Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 14 November 2024

Case Number: T 1684/22 - 3.2.02

Application Number: 06804516.0

Publication Number: 1948002

IPC: A61B3/032, A61B3/028, A61B3/00

Language of the proceedings: EN

Title of invention:
VISION TESTING SYSTEM AND METHOD

Patent Proprietor:
Carl Zeiss Vision Australia Holdings Ltd.

Opponent:
Essilor International SAS

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0

Case Number: T 1684/22 - 3.2.02

D E C I S I O N
of Technical Board of Appeal 3.2.02
of 14 November 2024

Appellant: (Opponent)	Essilor International SAS 147 rue de Paris 94220 Charenton-le-Pont (FR)
Representative:	Lang, Johannes Bardehle Pagenberg Partnerschaft mbB Patentanwälte, Rechtsanwälte Prinzregentenplatz 7 81675 München (DE)
Respondent: (Patent Proprietor)	Carl Zeiss Vision Australia Holdings Ltd. Sherriffs Road Lonsdale, SA 5160 (AU)
Representative:	Page White Farrer Bedford House 21a John Street London WC1N 2BF (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 26 April 2022 concerning the maintenance of European Patent No. 1948002 in amended form**

Composition of the Board:

Chairman	M. Alvazzi Delfrate
Members:	D. Ceccarelli
	C. Schmidt

Summary of Facts and Submissions

I. The opponent appealed against the Opposition Division's decision that, account being taken of the amendments made by the patent proprietor during the opposition proceedings according to the main request, European patent 1 948 002 and the invention to which it relates met the requirements of the EPC.

II. Oral proceedings took place on 14 November 2024. At the end of the oral proceedings, the parties' requests were as follows:

The appellant requested that the decision under appeal be set aside and that the patent be revoked.

The respondent requested that the appeal be dismissed or that the patent be maintained on the basis of one of the first to seventh auxiliary requests, filed with the reply to the statement of grounds of appeal dated 28 December 2022.

III. The following documents are mentioned in this decision:

D1: WO 2006/047369 A2
D2: US 2004/0105073 A1
D4: WO 2004/038542 A2

IV. Claims 1, 13 and 14 of the request found allowable by the Opposition Division (main request) read as follows:

1. "A method of testing a person's vision, the method using a processor and an associated memory device for storing a series of instructions, the method including:
displaying one or more sequences of test images,

each test image including one or more test symbols;

for each test image, or for each sequence, identifying a target symbol to the person;

providing a control for activation in response to the person viewing each test image in the sequence and recognising a test symbol that replicates the shape of the target symbol;

using the processor, processing activation information associated with the activation of the control to obtain a parameter value associated with the activations; and

correlating the parameter value with a vision metric;

wherein the correlating includes obtaining a value for the vision metric, which is a metric of visual acuity, having a predetermined relationship with the average size of test symbols associated with the correct activations."

13. "A system for testing a person's vision, the system including processor and an associated memory device for storing a series of instructions, the instructions being configured to cause the processor to:

display one or more sequences of test images, each test image including one or more test symbols;

for each test image, or for each sequence, identify a target symbol to the person; and

processing activation information to obtain a parameter value associated with the activations for correlation with a vision metric;

wherein the activation information is associated with activations of a control by a person viewing each test image in the sequence, and wherein each activation is in response to the person recognising a test symbol that replicates the shape of the target symbol,

wherein the correlation includes obtaining a value

for the vision metric, which is a metric of visual acuity, having a predetermined relationship with the average size of test symbols associated with the correct activations."

14. "A computer program for use in the system as defined in claim 13, the processor and the associated memory device being configured to store the computer program, where the computer program includes a series of instructions to cause the processor to:

display, on a graphical display, one or more sequences of test images, each test image including one or more test symbols;

for each test image, or for each sequence, identify a target symbol to the person; and

processing activation information to obtain a parameter value associated with the activations for correlation with a vision metric;

wherein the activation information is associated with activations of a control by a person viewing each test image in the sequence, and wherein each activation is in response to the person recognising a test symbol that replicates the shape of the target symbol,

wherein the correlation includes obtaining a value for the vision metric, which is a metric of visual acuity, having a predetermined relationship with the average size of test symbols associated with the correct activations."

Claims 2 to 12 are dependent claims.

V. The appellant's arguments, where relevant to this decision, can be summarised as follows.

Main request- inventive step

The subject-matter of claim 1 lacked inventive step in view of D1 or D4 in combination with D2 and common general knowledge.

Both D1 and D4 disclosed a method of testing a person's vision according to claim 1 except using the average size of recognised test symbols to obtain the visual acuity value.

The objective technical problem solved by this distinguishing feature could be formulated as how to provide an improved testing method for determining the actual individual visual acuity of a person.

D2 belonged to the same technical field as D1 and D4, and taught to make several test runs and average the result (paragraphs [0144] and [0191]) "to obtain an average object size".

Thus, the person skilled in the art would have received the hint to determine the individual visual acuity of a patient not just relying on one test run but on several test runs and to take the average of the obtained size values as the basis for the visual acuity. This would have improved the reliability of the test result. It was part of common general knowledge that taking the average from a number of values had an impact on the reliability of the value obtained for visual acuity and, therefore, gave an improved result.

To apply the teaching of D2 to D1 or D4 there would have been no need of modifying the test environments described in the latter two documents. The person skilled in the art would have applied this teaching to

D1 or D4 and arrived at the subject-matter of claim 1 in an obvious way.

The same arguments applied to the corresponding independent system claim 13 and the corresponding computer program claim 14.

VI. The respondent's arguments, where relevant to this decision, can be summarised as follows.

Main request- inventive step

The subject-matter of claim 1 of the main request was inventive over the combination of D1 or D4 with D2 and common general knowledge.

Neither D1 nor D4 disclosed a method of testing a person's vision in which the average size of test symbols that were viewed and used to cause activations was used to correlate a vision metric, which was a metric of visual acuity.

The method of the invention as defined in claim 1 solved the objective technical problem of providing an improved testing method for determining the actual individual visual acuity of a person.

There was no hint how to combine the specific test protocol of D2 into the methods of D1 or D4 to solve the objective technical problem.

The frog/bee test disclosed in D1 and the constant size Snellen letter test disclosed in D4, provided reliable results, were not compatible with the "growing E" test disclosed in D2.

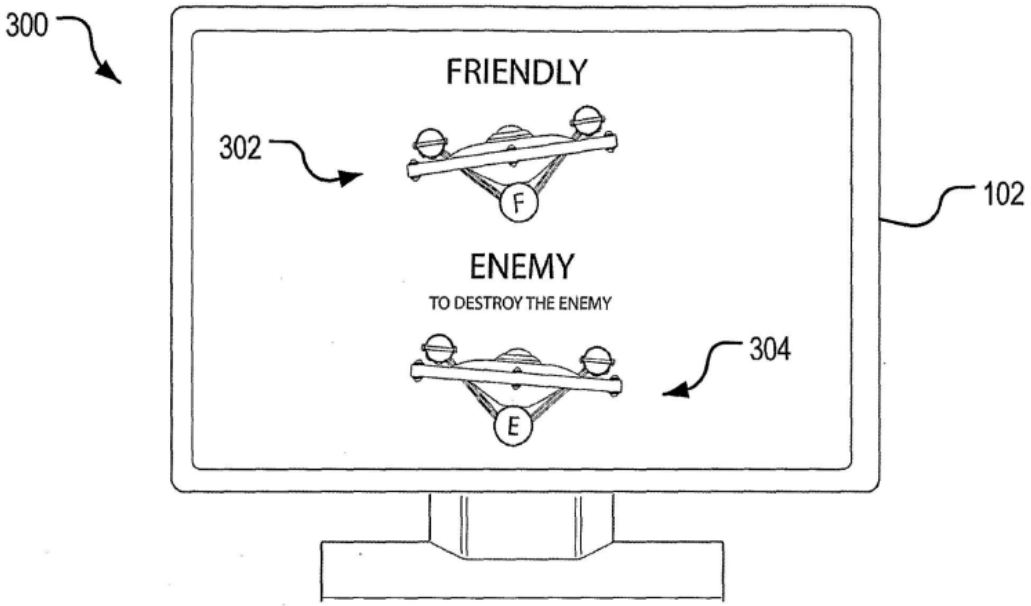
The same arguments applied to claims 13 and 14.

Reasons for the Decision

1. Subject-matter of the patent in suit

The patent relates to a method of testing a person's vision using a processor and an associated memory device for storing a series of instructions as defined in claim 1 of the main request. The method can be implemented in a system including the processor and the memory device as defined in claim 13, by a computer program having corresponding instructions, as defined in claim 14.

The method includes displaying one or more sequences of test images, each test image including one or more test symbols, such as an "F" and an "E" (Figure 3 of the patent reproduced below).



The symbols can be displayed on a screen in the context of a video game.

For each test image, or for each sequence, a target symbol to the person is identified. For example, the person is told to activate a control when an "E" is displayed and do nothing when an "F" is displayed.

A control for activation in response to the person viewing each test image in the sequence and recognising a test symbol that replicates the shape of the target symbol is provided.

The symbols may be displayed in increasing sizes, until the person can recognise the target symbol and activates the control.

The processor processes activation information associated with the activation of the control to obtain a parameter value associated with the activations.

The parameter value is correlated with a vision metric by obtaining a value of visual acuity.

The obtained value has a predetermined relationship with the average size of test symbols associated with the correct activations.

By taking into account a number of correct activations the reliability of the result of the test is ensured.

2. Main request - inventive step

The appellant argued that the subject-matter of claim 1 was not inventive when starting from D1 or D4, in

combination with D2.

2.1 Both D1 and D4 disclose a method of testing a person's vision (page 1, first paragraph of D1 and page 1, lines 7 to 11 of D4), the method using a processor and an associated memory device for storing a series of instructions (page 2, last paragraph of D1 and page 2, lines 26 to 30 of D4) the method including displaying one or more sequences of test images, each test image including one or more test symbols (page 3, second paragraph of D1 and page 11, lines 12 and 13 of D4); for each test image, or for each sequence, identifying a target symbol to the person and providing a control for activation in response to the person viewing each test image in the sequence and recognising a test symbol that replicates the shape of the target symbol (point c of claim 1 of D1 and page 11, lines 9 to 12 of D4); using the processor, processing activation information associated with the activation of the control to obtain a parameter value associated with the activations and correlating the parameter value with a vision metric wherein the correlating includes obtaining a value for the vision metric, which is a metric of visual acuity (point d of claim 1, page 3, last paragraph and Figures 3a and 3b of D1 and page 11, lines 18 to 25, and Figures 20 to 23 of D4).

Neither D1 nor D4 disclose using the average size of the recognised test symbols to obtain the visual acuity value.

2.2 The appellant argued that the objective technical problem solved by the distinguishing feature could be to provide an improved testing method for determining the actual individual visual acuity of a person.

The Board agrees, as using the average size of the test symbols associated with a plurality of correct activations may have an impact on the reliability of the obtained value for visual acuity.

The Board notes that, in a method of testing a person's view, using the average size of test symbols associated with the correct activations is particularly useful when the test symbols are shown in increasing size, until the person performs the (correct) activation. This is what is done according to Example 1 of the patent. In a method in which test symbols are shown in a sequence of decreasing size or if many symbols of different sizes are shown at the same time, using the average size of the symbols associated with correct activations would not produce a reliable measure of visual acuity, as the larger sizes would be predominant.

2.3 D2, referred to by the appellant, discloses a vision testing system for performing a visual acuity test in an interactive fashion on a person.
D2 discloses different types of vision tests. The most relevant parts of D2 are paragraphs [0138] to [0144] and Figure 9, referring to a "Visual Acuity Test". D2 discloses a "growing E" test in which four black visual objects similar to the alphabet letter E are displayed with different orientations. The person has to recognise the orientations. The test is repeated three times to obtain an average object size at which the orientations were correctly recognised (paragraph [0144]).

2.4 Neither D1 nor D4 disclose showing test symbols in increasing size. To provide reliable results for the value of visual acuity, D1 discloses that this value is

obtained on the basis of "consistently incorrect" activations (claim 1 point f) and D4 discloses that this value is based on a consistently correct identification of the target symbol (page 12, lines 9 to 11), which is disclosed in a sequence of fixed sizes (Figures 19 to 23).

Moreover, D2 does not point to any advantages of running a "growing E" test over other tests, apart from the general statement, which does not apply to the tests according to D1 and D4, that it may provide a wider range of letter sizes (paragraph [0139]).

2.5 The appellant's argument that, from D2, the person skilled in the art would have received the hint to determine the individual visual acuity of a patient not just relying on one test run but on several test runs and to take the average of the obtained size values as the basis for the visual acuity is not convincing. As explained above, D1 and D4 have their own measures to obtain reliable results, i.e. a number of consistent correct or incorrect activations, which are adapted to the specific test environments of these documents.

There is no hint in D2 that several test runs in the specific test environments of D1 or D4 would have improved the test results.

2.6 In conclusion, the person skilled in the art would have received no motivation to perform the combination of D1 or D4 with D2 in an obvious way.

2.7 It follows that the subject-matter of claim 1 of the main request is inventive (Article 56 EPC) when starting from D1 or D4, in view of D2. The same conclusions apply to the corresponding system claim 13

and the corresponding computer program claim 14.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Chavinier-Tomsic M. Alvazzi Delfrate

Decision electronically authenticated