

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EVERT SEEVINCK
and
TJERK G. SPANJER

Appeal No. 1997-3148
Application 08/408,088¹

ON BRIEF

Before URYNOWICZ, FLEMING and FRAHM, **Administrative Patent Judges**.

FLEMING, **Administrative Patent Judge**.

DECISION ON APPEAL

¹ Application for patent filed March 21, 1995. According to Appellants, the application is a continuation of Application 08/156,144, filed November 22, 1993, abandoned.

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This is a decision on appeal from the final rejection of claims 5 through 8 and 12 through 19, all of the claims

pending in the present application. Claims 1 through 4 and 9 through 11 have been cancelled.

The Appellants' invention relates to a cathode ray tube having at least one semiconductor cathode for generating an electron beam. On page 1 of the specification, Appellants disclose that problems occur in the manufacturing process of the cathode ray tube when a conditioning step known as spot-knocking is done. Spot-knocking is a process in which a number of grids in the tube acquire a high to very high voltage while the substrate and the gate electrodes of the semiconductor cathode are grounded. During this spot-knocking operation, flashovers are produced so that the grid closest to the cathode acquires a high voltage instead of a comparatively low voltage. This results in a destructive breakdown of the insulating layer between the cathode electrode and the adjacent substrate.

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On pages 3 through 5 of the specification, Appellants disclose that they solve this problem by providing a high-resistance resistor 17 placed between the junction point 16 and the terminal 14 as shown in figure 2. Appellants disclose on page 5 of the specification that the resistance is of approximately 100K Ohms and that this prevents destructive breakdown of the insulating layer.

Independent claim 16 is reproduced as follows:

16. A cathode ray tube comprising a display window, grids and at least one semiconductor cathode for generating an electron beam, a main surface of a semiconductor body of said cathode being provided with an electrically insulting [sic, insulating] layer having at least one aperture at the location of an electron-emitting area, at least one gate or accelerator electrode being present on the electrically insulating layer, characterized in that the at least one gate or accelerator electrode is connected to a terminal via a relatively high-resistive resistor and that at least one semiconductor cathode and the relatively high-resistive resistor are present on a common support.

The references relied on by the Examiner are as follows:

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Van Gorkom et al. (Van Gorkom) 1981	4,303,930	Dec. 1,
Hoeberechts et al. (Hoeberechts) 1987	4,682,074	July 21,

Claims 12, 13, and 16 through 19 stand rejected under 35 U.S.C. § 102 as being anticipated by Hoeberechts. Claims 5 through 8, 14, and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hoeberechts in view of Van Gorkom.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the brief and answer for the respective details thereof.

OPINION

After careful review of the evidence before us, we agree with the Examiner that claims 12, 13, and 16 through 19 are unpatentable under 35 U.S.C. § 102, and claims 5 through 8, 14, and 15 are unpatentable under 35 U.S.C. § 103.

At the outset, we note that Appellants state on page 8 of the brief that claims 5 through 8 and 12 through 19 are considered to be patentable for similar reasons and are grouped together. We note that Appellants argue all of the

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claims as a single group in the brief. 37 CFR § 1.192(c)(7) (July 1, 1995) **as amended at** 60 Fed. Reg. 14518 (March 17, 1995), which was controlling at the time of Appellants' filing the brief, states:

For each ground of rejection which appellant contests and which applies to a group of two or more claims, the Board shall select a single claim from the group and shall decide the appeal as to the ground of rejection on the basis of that claim alone unless a statement is included that the claims of the group do not stand or fall together and, in the argument under paragraph (c)(8) of this section, appellant explains why the claims of the group are believed to be separately patentable. Merely pointing out differences in what the claims cover is not an argument as to why the claims are separately patentable.

We will, thereby, consider the Appellants' claims as standing or falling together and we will treat claim 16 as a representative claim of that group.

Claims 12, 13, and 16 through 19 stand rejected under 35 U.S.C. § 102 as being anticipated by Hoeberechts.

It is

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axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. **See *In re King***, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and ***Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.***, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). "Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention." ***RCA Corp. v. Applied Digital Data Sys., Inc.***, 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.), ***cert. dismissed***, 468 U.S. 1228 (1984), ***citing Kalman v. Kimberly-Clark Corp.***, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), ***cert. denied***, 465 U.S. 1026 (1984). The prior art disclosure need not be expressed in order to anticipate. ***Standard Havens Prods., Inc. v. Gencor Indus., Inc.***, 953 F.2d 1360, 1369, 21 USPQ2d 1321, 1328 (Fed. Cir.), ***cert. denied***, 506 U.S. 817 (1992).

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On pages 8 and 9 of the brief, Appellants argue that Hoeberechts fails to teach a relatively high resistive resistor.

Appellants agree that Hoeberechts does teach a resistor 100, but argues that Hoeberechts does not teach or even suggest that the resistive polysilicon strips 100 which form resistors 0.4 R and R are high-resistive resistors.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

We note that Appellants' claim 16 recites "a relatively high-resistive resistor." Turning to Appellants' specification, we fail to find any particular definition for a relatively high-resistive resistor. We do acknowledge that on page 5 of Appellants' specification, Appellants disclose that the preferred embodiment of a high-resistive resistor is approximately 100K

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Ohms. However, we fail to find that the definition of "a relatively high-resistive resistor" requires this particular value.

Our reviewing court states in *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) that "claims must be interpreted as broadly as their terms reasonably allow." Moreover, when interpreting a claim, words of the claim are generally given their ordinary and accustomed meaning, unless it appears from the specification or the file history that they were used differently by the inventor. *Carroll Touch, Inc. v. Electro Mechanical Sys., Inc.*, 15 F.3d 1573, 1577, 27 USPQ2d 1836, 1840 (Fed. Cir. 1993). Although an inventor is indeed free to define

the specific terms used to describe his or her invention, this must be done with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). Claims will be given their broadest

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reasonable interpretation consistent with the specification, and limitations appearing in the specification are not to be read into the claims. *In re Etter*, 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir.), **cert. denied**, 474 U.S. 828 (1985) **citing In re Yamamoto**, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984).

Hoeberechts discloses in column 6, lines 13 through 30, that figure 7 shows a sectional view of another embodiment of a semiconductor emitter device 51. In this embodiment, we note that Hoeberechts teaches a semiconductor cathode having a main surface provided with an electrically insulated layer 56 and at least one gate or accelerator electrode being present on the electrically insulated layer shown as element 57. Hoeberechts further discloses in column 6, lines 42 through 55, that figure 9 shows a resistor connected to at least one gate or accelerator electrode into a terminal.

We note that the resistance is disclosed to be a voltage divider which is formed of resistive polysilicon strips 100. We find that the Examiner properly construed the claim language "relatively high-resistive resistor" as having

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broad enough scope to read on the disclosed Hoeberechts' resistor R as disclosed in column 6. As pointed out by the Examiner in the Examiner's answer, Hoeberechts' disclosed voltage divider would require resistance of a relatively high resistance so not to allow large currents to be supplied to the semiconductor device. We note that the language "relatively high-resistive resistor" defines a large range of resistance. For instance, a resistor having a resistance of 10K ohms is a relatively high-resistive resistor when compared to a resistor having only 1 ohm or even 1K ohm of resistance. Therefore, we find that Hoeberechts teaches all of the limitations as recited in Appellants' claim 16.

Appellants further argue that Hoeberechts does not teach that the semiconductor cathode and the relatively high resistive resistance is to be provided on a common support. We disagree. Hoeberechts discloses in figure 9 a common support, element 90, which reads on the common support as recited in Appellants' claim 16.

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Claims 5 through 8, 14, and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hoeberechts in view of

Van Gorkom. We note that on pages 9 and 10 of the brief the Appellants argue that neither Hoeberechts nor Van Gorkom teaches or suggests a relatively high-resistive resistor. We have found that Hoeberechts does teach a relatively high-resistive resistor above and, therefore, we will sustain the Examiner's rejection of these claims as well for the same reasons as above.

In view of the foregoing, the decision of the Examiner rejecting claims 12, 13, and 16 through 19 under 35 U.S.C. § 103 is affirmed, and the decision of the Examiner rejecting claims 5 through 8, 14, and 15 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

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	STANLEY M. URYNOWICZ, JR.)	
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PATENT)	
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