

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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 GUSTAAF A. WESSELINK and FRANCISCUS A. S. LIGTHART

Appeal No. 96-1083
Application 08/150,099¹

ON BRIEF

Before HAIRSTON, JERRY SMITH and LALL, Administrative Patent Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 3, 5 and 9 through 14. Claims 4 and 6 through 8 have been canceled.

The disclosed invention is concerned with a low-

¹ Application for patent filed November 19, 1993.

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pressure gas discharge lamp, and more particularly, a so-called "meander lamp" in which the discharge length is not straight but follows a serpentine path, and has a small inside diameter. Such lamps are useful for back lighting for displays. The length of the discharge vessel is at least 250 times and at most 1000 times the internal diameter of the lamp vessel. Another aspect of the invention is an illuminated panel which comprises a box with a bottom and a light emission surface which is covered by a diffuser plate. The light emission surface is the low-pressure gas discharge lamp having the above-described geometrical features, arranged between the bottom and the diffuser plate. Representative

claim 1 is reproduced as follows:

1. A low-pressure mercury discharge lamp comprising an elongate tubular lamp vessel which is sealed in a vacuumtight manner, extends in a meander shape parallel to a flat plane, has an inner surface coated with a luminescent layer, and includes a lamp filling comprising a rare gas and mercury, and cold electrodes between which a discharge path extends, characterized in that:

the length of the discharge path is at least 250 times and at most 1000 times the internal diameter of the lamp vessel.

The references relied on by the examiner are:

Verstegen et al. (Verstegen) 3,937,998 Feb. 10,

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1976		
Flasck et al. (Flasck)	4,842,378	Jun. 27, 1989
Hartai	5,041,762	Aug. 20, 1991

Claims 1 through 3, 5 and 9 through 14 stand rejected under 35 U.S.C. § 103². As evidence of obviousness, the Examiner offers Hartai, Verstegen and Flasck [answer, page 2].

Reference is made to Appellants' briefs³ and the Examiner's answer for their respective positions.

OPINION

We have carefully considered the entire record before us, and we will reverse the obviousness rejection of claims 1 through 3, 5 and 9 through 14.

The Examiner has failed to set forth a prima facie case of obviousness. It is the burden of the Examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the express teachings or

² The rejection of these claims under 35 U.S.C. § 112, second paragraph has been withdrawn [Advisory Action mailed on Apr. 5, 1995, paper no. 13].

³ A "Supplemental to Appeal Brief" was filed on Nov. 25, 1997. However, it merely supplied the missing formalities in the Appeal Brief and did not change the arguments presented in the Brief.

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suggestions found in the art, or by implications contained in such teachings or suggestions. In re Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983). "Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." Para-Ordnance Mfg. V. SGS Importer Int'l, Inc., 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), cert. denied, 117 S.Ct. 80 (1996) citing W. L. Gore & Assocs., Inc. V. Garlock, Inc., 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

We take the representative claim 1. Appellants argue [brief, pages 4 through 6] that the applied prior art, Hartai and Verstegen, taken singly or in combination, does not show the limitation: "the length of the discharge path is at least 250 times and at most 1000 times the internal diameter of the lamp vessel." [Claim 1, lines 8 to 10]. The Examiner points to Hartai and asserts that "... the length of the discharge path is arbitrary which may fall within the claimed range of at least 250 times and at most 1000 times the internal diameter of the lamp vessel (Col. 1, Lines 12-14)."

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[Answer, page 3]. We have reviewed Hartai and find that it does not disclose any such geometrical relationship between the discharge path and the internal diameter of the lamp vessel. In fact, Hartai is silent on any specific geometrical relationship other than a general statement that: "the invention concerns luminous panels ... with luminous areas which may have arbitrary geometry and extent and wherein their length and shape essentially are limited by the geometry and dimensions of the luminous panel." [Column 1, lines 10 to 14]. There is no hint of selecting the claimed geometrical relationship between the length of the path and the internal diameter of the vessel. The Federal Circuit states that "[the] mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fitch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992), citing In re Gordon, 773 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." Para-Ordnance Mfg. v. SGS Importers Int'l, 73

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F.3d 1087, 37 USPQ 2d at 1239 (Fed. Cir. 1995), citing W. L. Gore & Assocs., v. Garlock, Inc., 721 F.2d at 1551, 1553, 220 USPQ at 311, 312-13 (Fed. Cir. 1983).

The other reference, Verstegen, also does not cure this deficiency. It merely deals with the different types of luminescent materials which can be used as luminescent coating in a low-pressure mercury vapor discharge lamp.

We conclude that the rejection of claim 1 under 35 U.S.C. § 103 over Hartai and Verstegen is not sustainable. Since claims 2, 3, 5 and 9 depend on claim 1, their rejection under 35 U.S.C. § 103 over Hartai and Verstegen is also not sustainable.

We now treat the other independent claim, namely claim 10. Claim 10 calls for a liquid crystal display which employs the low-pressure mercury vapor discharge lamp of claim 1, and contains at least the same limitation: "the length of the discharge path being at least 250 times and at most 1000 times the internal diameter of the lamp vessel." [Claim 10, lines 13 to 15].

The Examiner has rejected this claim under 35 U.S.C.

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§ 103 over Flasck and Verstegen [answer, pages 5 to 6]. Appellants argue that Flasck is not a low-pressure mercury vapor discharge lamp, but a neon tube which has a much larger internal diameter than the Appellants' invention [brief, pages 8 to 9]. The Examiner admits that Flasck and Verstegen do not disclose this limitation, but contends that: "However the discharge path depends on the length of the lamp and selecting the length and the internal diameter of the lamp is depended [sic] on the power consumption and the area of the display panel." [Answer, page 6]. We find that, without more, this contention is a mere speculation.

We, therefore, reverse the rejection of claim 10 under 35 U.S.C. § 103 over Flasck and Verstegen. Since claims 11 through 14 depend on claim 10 and contain at least the same

limitation, their rejection under 35 U.S.C. § 103 over Flasck and Verstegen is also reversed.

DECISION

The decision of the Examiner rejecting claims 1 through 3, 5 and 9 through 14 under 35 U.S.C. § 103 is

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reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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JERRY SMITH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
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