

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLE K. NILSSEN

Appeal No. 95-0325
Application 07/859,616¹

ON BRIEF

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

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed March 23, 1992, entitled "Low-Frequency High-Efficacy Electronic Ballast," which is a continuation of Application 07/503,094, filed April 2, 1990, now abandoned, which is a continuation of Application 06/944,191, filed December 22, 1986, now abandoned.

This is a decision on appeal under 35 U.S.C. § 134 from the final rejection of claims 27-33 and 43-47, all of the claims pending in the application.

The claimed invention is best illustrated by claim 27 reproduced below.

27. An arrangement comprising:

a source operative to provide an AC voltage at a pair of AC terminals; and

a circuit connected with the AC terminals and operable to power a gas discharge lamp; the circuit being characterized by: (i) providing a conditioned voltage at a pair of terminals; and (ii) including a transistor conducting intermittently at a time-varying switching frequency, thereby to maintain the absolute magnitude of the conditioned voltage substantially constant.

The examiner relies on the following reference:

Kuroi et al. (Kuroi) 4,187,448 February 5, 1980

The specification stands objected to under 35 U.S.C. § 112, first paragraph, as failing to provide a written description for the terms "conducting intermittently at a time-varying switching frequency" in claims 27, 43, and 47; "time-varying at a frequency equal to twice the frequency of the AC voltage" in claim 28; "a transistor conducting intermittently with a time-varying duty-cycle at a switching frequency" in claim 31; and "the duty-cycle varies at a frequency equal to twice the frequency of the AC voltage" in claim 32 (Final Rejection, Paper No. 26, page 2). Claims 27-33 and 43-47 stand rejected under § 112, first paragraph, for the reasons set forth in the objection.

Claims 27-33 and 43-47 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kuroi.

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We refer to appellant's Brief for the position of appellant and to the Final Rejection and Examiner's Answer for the position of the examiner.

OPINION

We reverse.

35 U.S.C. § 112, first paragraph

The written description rejection under § 112, first paragraph, is used when a claim is amended to recite elements thought to be without support in the original disclosure. In re Rasmussen, 650 F.2d 1212, 1214-15, 211 USPQ 323, 326 (CCPA 1981). "[C]laimed subject matter need not be described in haec verba in the specification in order for that specification to satisfy the description requirement." In re Smith, 481 F.2d 910, 914, 178 USPQ 620, 624 (CCPA 1973). "[U]nder proper circumstances, drawings alone may provide a 'written description' of an invention as required by § 112." Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1565, 19 USPQ2d 1111, 1118 (Fed. Cir. 1991).

Appellant argues that figure 3f, which "indicates the waveform of the voltage present across switching transistor Qs" (specification, page 5, lines 5-6), shows that the transistor Qs conducts "intermittently" and "at a time-varying switching frequency." We agree. Transistor Qs conducts intermittently: it is either fully conducting (with zero volts across it) or non-conducting (with the ESC voltage across it) (specification, page 6, first para.; figure 3f). The examiner states that "the relationship between the transistor Qs and the capacitor ESC as cited in the item (a) of the brief is not related to the time-varying switching frequency at all" (Examiner's Answer,

page 3). This is true. The discussion about the capacitor ESC is about transistor Qs conducting intermittently. Appellant does not explain why figure 3f shows a time-varying switching frequency but we see that because the pulses are not of constant width, the switching frequency must be time-varying. Although this pulse width modulation is not described in words as having a time-varying switching frequency, there is support for the term in figure 3f. Appellant does not explain where the support is for the limitation of "time-varying at a frequency equal to twice the frequency of the AC voltage" in claim 28 or the limitation of "the duty-cycle varies at a frequency equal to twice the frequency of the AC voltage" in claim 32. However, we observe that figure 3f shows the switching frequency varying from a high frequency (short pulse width) to a low frequency (wide pulse width) and back to a high frequency during one half cycle of the AC power, which broadly supports the "twice the frequency of the AC voltage" limitations of claims 28 and 32. The rejection of claims 27-33 and 43-47 is reversed.

35 U.S.C. § 102(b)

Appellant argues only that the feature of "a circuit . . . including a transistor conducting intermittently at a time-varying frequency" "is neither described nor suggested by Kuroi" (Brief, page 4). The purpose of an appeal brief is to persuade the examiner that the final rejection is wrong and, if the examiner maintains the rejection in the Examiner's Answer, to persuade us that the examiner erred. Appellant's style of argument which merely asserts that a feature is not present without discussing the teachings of the reference is not calculated to persuade either the examiner or this Board why the reference does not teach the limitation at issue. If appellant leaves his

arguments until a request for reconsideration, there is a strong likelihood that the arguments will not be considered because they are untimely.

In this case we must reverse the examiner's rejection. The examiner did not consider the time-varying switching frequency limitation because no support was found in the specification for this limitation (Examiner's Answer, page 5). Because we find support for the time-varying switching frequency limitation, the limitation must be addressed in the anticipation rejection. There are only three transistors in figure 1 of Kuroi. The transistors 13 and 14 in the direct current stabilizing circuit B operate at a more or less constant frequency to provide a constant voltage at point F (column 3, lines 16-50) and, thus, do not have a time-varying switching frequency. The oscillating transistor 23 produces a constant high-frequency signal as evidenced by the signal at the secondary winding 24c of the oscillation transformer 24 which must be produced by winding 24a and transistor 23. Thus, transistor 23 does not have a time-varying switching frequency. The rejection of claims 27-33 and 43-47 is reversed.

CONCLUSION

The rejections of claims 27-33 and 43-47 are reversed.

REVERSED

KENNETH W. HAIRSTON)

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Ole K. Nilssen
Caesar Drive, Route 5
Barrington, IL 60010