

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLE K. NILSSEN

Appeal No. 97-1046
Application No. 08/274,481¹

ON BRIEF

Before THOMAS, HAIRSTON, and KRASS, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1, 2, 11, 12 and 21. Claim 18 has been canceled.

¹ Application for patent filed July 13, 1994. According to appellant, this application is a continuation in part of Application 07/712,454 filed June 10, 1991, now abandoned.

Claims 5 through 10, 13 through 17, 19 and 20 have been allowed and claims 3 and 4 have been indicated by the examiner as being directed to patentable subject matter.

The invention is directed to an inverter-type power supply for a gas discharge lamp.

Representative independent claim 1 is reproduced as follows:

1. An arrangement comprising:

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

a gas discharge lamp having a pair of lamp terminals; and conditioner circuit connected between the power line terminals and the lamp terminals; the conditioner circuit being characterized by:

(a) being operative to draw a low-frequency line current from the power line terminals;

(b) including an inverter sub-circuit powered from a unidirectional voltage whose instantaneous absolute magnitude is equal to the larger of: (i) the absolute instantaneous magnitude of a substantially constant DC voltage; and (ii) the absolute instantaneous magnitude of a sinusoidal voltage whose peak absolute magnitude is higher than that of the substantially constant DC voltage;

(c) being operative to draw current from the power line terminals even at times when the absolute instantaneous magnitude of the AC power line voltage is lower than that of the substantially constant DC voltage; and

(d) supplying a high-frequency lamp current to the lamp terminals and thereby to the gas discharge lamp; the frequency of the high-frequency lamp current being substantially higher than that of the AC power line voltage; the crest factor of the high-frequency lamp current being equal to or lower than 1.7.

The examiner relies on the following reference:

Steigerwald	4,042,856	Aug. 16,
1977		

Claims 1, 2, 11, 12 and 21 stand rejected under 35 U.S.C. 103 as unpatentable over Steigerwald.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

OPINION

We will not sustain the rejection of claims 1, 2, 11, 12 and 21 under 35 U.S.C. 103 based on the evidence provided by Steigerwald because, in our view, the examiner has failed to establish a prima facie case of obviousness.

Each of the independent claims requires that the frequency of the lamp current be "substantially higher than that of the AC power line voltage" and that the unidirectional voltage that powers the inverter sub-circuit have an instantaneous absolute magnitude equal to the larger of two specifically recited choices. These choices vary slightly from claim to claim, some calling for DC voltages and sinusoidal voltages, and others calling for constant magnitude and alternating voltages.

The examiner's treatment of these specifically recited claim features is to state, at page 2 of the final rejection (Paper No. 6), that "the conditioner circuit [is] notoriously well known in the art to draw low frequency line current and supply high frequency lamp current to the lamp." At pages 3-4 of the answer, the examiner states that the unidirectional voltage feature is seen in Figure 5a of Steigerwald in that "there are an infinite number of points along the unidirectional chopper...input voltage waveform...where the instantaneous absolute magnitude meets the...characterization criteria."

For his part, appellant strenuously argues these claimed limitations, at pages 3-4 of the brief, contending that the lamp current in Steigerwald is of the same frequency as that of the power line voltage, pointing to various portions of Steigerwald for support. Appellant further contends that the unidirectional voltage absolute instantaneous magnitude feature, as claimed, and as illustrated in instant Figure 7c is neither described nor suggested by Steigerwald.

With regard to the lamp current frequency, the examiner appears to take alternative approaches. As noted, supra, in

the final rejection, the examiner first contends that such is "notoriously well known." Then, in the answer, while still maintaining this position, the examiner also appears to rely on the chopper transistor 19 of Steigerwald since this transistor is disclosed as having a high frequency chopping rate between 10-40KHz (column 4, lines 53-55).

While we have no doubt of the notoriety of providing lamp currents having a frequency much higher than the AC power line voltage, the examiner is put to his proof when challenged by appellant to provide evidence of that which the examiner alleges is "notoriously well known." There is reversible error when the examiner takes official notice of a feature as being old in the art and such is challenged by appellant, as here, and the examiner fails to cite the well known thing on which he relies. Ex parte Nobel, 158 USPQ 237 (Bd. of Appeals 1967).

With regard to the examiner's reliance on the chopper transistor 19 of Steigerwald, while it *may* be that the high switching rate of the transistor *might* cause the lamp current

frequency to be higher than that of the power supply voltage, the examiner has pointed to nothing in Steigerwald which would indicate that this is the case. Moreover, as appellant has pointed out, reference to Figures 4a, 4b, 5a and 5b in Steigerwald would appear to indicate that the frequency of the lamp current is the same as the input voltage. Thus, in order for us to agree with the examiner, we would need to resort to some speculation. Deficiencies in the factual basis of a rejection cannot be supplied by resorting to speculation or unsupported generalities. In re Freed, 425 F.2d. 785, 787, 165 USPQ 570, 571 (CCPA 1970); In re Wagner, 379 F.2d. 1011, 1016, 154 USPQ 173, 177 (CCPA 1967).

With regard to the instantaneous absolute magnitude of the unidirectional voltage feature, we find no need to take a position on this argument as we find no basis for the examiner's finding, in Steigerwald, of a lamp current frequency higher than that of the AC power line voltage. We do note, however, that we are unclear as to the relevance of the examiner's reliance on Steigerwald's Figure 5a for this feature.

While we have not sustained the instant rejection before us, we wish to make it clear that our decision should, in no way, be construed to mean that we consider the instant claimed invention to be clearly patentable. We say, merely, that the examiner's rejection in this case was improper. However, we remind appellant of his duty, under 37 C.F.R. 1.56, of full and candid disclosure. Accordingly, notwithstanding appellant's statement, at page 1 of the brief, that he "has no currently pending appeal with materially related subject matter," appellant is reminded of his duty to disclose to the Patent and Trademark Office not only currently pending appeals but also any pending applications and/or issued patents that he is aware of which may have, therein, claims directed to the same or similar subject matter as the instant application. Such duty also extends to the disclosure of any references which might have been applied against similar claims, and were not withdrawn by the examiner, in previous applications which may be pending, may have issued or may have been abandoned.

The examiner's decision is reversed.

REVERSED

JAMES D. THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
KENNETH W. HAIRSTON)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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