

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHANNES B.A. VAN DER HOOFDEN
and JOZEF W.J. MAES

Appeal No. 2000-0706
Application No. 08/675,665

ON BRIEF

Before FLEMING, DIXON, and BLANKENSHIP, **Administrative Patent Judges**.
DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 2, and 4-7, which are all of the claims pending in this application.

We **AFFIRM-IN-PART** and **REVERSE-IN-PART**.

BACKGROUND

Appellants' invention relates to a circuit arrangement which makes it possible to operate lamps with a comparatively high burning voltage by means of a supply voltage source delivering a first DC voltage of comparatively low amplitude such that lower power losses occur in the circuit. The lower voltage bypasses the circuit and is added to the higher voltage produced so that the resultant voltage is a combination of the two voltages and currents. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A circuit arrangement for operating a discharge lamp, the circuit arrangement having reduced power loss, comprising:

a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source having a cathode and an anode for supplying the first circuit with the first DC voltage,

a switching element,

a control circuit coupled to the switching element for changing the conductive state of the switching element,

a unidirectional element, and

a transformer having a primary and a secondary winding;

and

a second circuit coupled to the secondary winding for supplying current to the discharge lamp;

Appeal No. 2000-0706
Application No. 08/675,665

wherein the secondary winding, the input terminals, and the second circuit are coupled together such that the second circuit is supplied by a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage in order to transfer some power from the voltage source directly to the secondary circuit without passing through the transformer,

thereby avoiding power loss that would result if the power directly transferred from the voltage source to the secondary circuit were instead transferred to the secondary circuit through the transformer.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Tap	3,079,525	Feb. 26, 1963
Stevens	4,277,728	Jul. 07, 1981

Claims 1, 2, and 4-7 stand rejected under 35 U.S.C. § 112, second paragraph as failing to particularly point out and distinctly claim the subject matter appellants regard as the invention. Claims 1, 2, and 4-6¹ stand rejected under 35 U.S.C. § 103 as being unpatentable over Stevens in view of Tap.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 22, mailed Oct. 26, 1999) for the examiner's reasoning in support of the rejections, and to appellants' brief (Paper No. 20.5, filed Jul. 27, 1999) for appellants' arguments thereagainst.

¹The examiner withdrew the rejection of claim 7 and indicated that the claim would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112. (Final rejection, page 4, Paper no. 18.)

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we make the determinations which follow.

35 U.S.C. § 112, SECOND PARAGRAPH

The examiner maintains that "said (the) secondary circuit through" lacks proper antecedent basis. (See answer at page 4.) We agree with the examiner. Appellants merely provide a brief argument and identify line 23 of the claim as providing a proper antecedent basis for claimed element. (See brief at page 6.) Additionally, appellants rely upon the proposed amendment to the claims to remedy the deficiency. This proposed amendment was denied entry by the examiner and is therefore not before us. We consider the claim language as it stands unamended and the sole argument presented thereto by appellants. Considering the language of the claim, we agree with the examiner that "the secondary circuit" in lines 23, 26 and 27 lacks proper antecedent basis. It is unclear whether the secondary circuit is an additional element to the claimed circuit arrangement or refers to the "second circuit" or to the "secondary winding" of the transformer. When we refer to the specification to interpret the claim language, we find a specification that is quite brief and does not clearly define the

"second circuit" in the specification. Since appellants' sole argument merely identifies the same language in another line of the claims, we are not persuaded that the examiner erred in finding that the claimed phrase lacked proper antecedence, and we will sustain the rejection of claims 1, 2, and 4-7 under 35 U.S.C. § 112.

35 U.S.C. § 103

Appellants argue that Stevens does not teach the voltage source as claimed. (See brief at page 7.) We agree with appellants, but note that the examiner relies upon the teachings of Tap to teach and suggest the power circuitry. Therefore, this argument is not persuasive. Appellants argue that there are many differences between Tap and the subject circuit, but does not identify them. Therefore, this argument is not persuasive. Appellants admit that Tap teaches the addition of voltages to supply a load. (See brief at page 8.)

The examiner maintains that "the great advantage of adding the first DC source to the second involves the protection of such a circuit during a no load condition" and that "[w]ith lamp circuits no load conditions are common." (See answer at page 5.) The examiner continues that it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a DC source that adds the battery or first DC source voltage to the generated second DC voltage "so as to protect against a no-load condition." The examiner relies upon the teachings of Tap as found in Fig. 3 and

Appeal No. 2000-0706
Application No. 08/675,665

correlates the claimed elements with the disclosure of Tap. (See answer at page 9.) We agree with the examiner that Tap teaches the elements of the claimed first circuit. The examiner concludes that it is the adding of the first DC voltage to the second DC voltage that results in the protection of the components during no-load conditions "as noted in the Final rejection dated 2-17-1999." We have reviewed the final and find no further discussion beyond the same conclusion stated by the examiner at page 3 of the Final rejection.

Appellants argue that Tap does not support the examiner's position concerning the no-load condition. Appellants argue that Tap at col. 1, lines 39-44 explains that the output direct current source contains the direct voltage supply source to promote the

starting of the oscillator. (See brief at page 8.) We find no response to appellants' argument in the examiner's answer, but the examiner again maintains without reference to appellants' arguments that the no-load condition would provide ample motivation to use a DC source that provides protection. (See answer at pages 9-10.) We disagree with the examiner's repeated unsupported conclusion concerning the no-load condition without specifically addressing appellants' rebuttal analysis of the teachings of Tap.

Appellants argue that the invention does not use a self-oscillating switching element. (See brief at page 9.) We find no support for this argument/distinction in the language of claim 1. Therefore, this argument is not persuasive. Appellants argue that Tap fails to teach or suggest any other reason or motivation for making the output direct current circuit contain the direct voltage supply source. (See brief at page 9.)

Appellants argue that there is no incentive to add this feature where the starting of self-starting oscillation does not need to be helped. Appellants support this contention by identifying col. 2, ll 59-62 of Tap concerning the control of transistors. (See brief at page 9.) We agree that col. 2 supports appellants' position that oscillation control and no-load condition are related. We again find no response to appellants' argument from the examiner. Therefore, the examiner has neither provided any evidence to rebut appellants' contention nor to support the examiner position.

Therefore, we find that the examiner has not provided a convincing line of reasoning as a basis for a motivation to combine the teachings of Stevens and Tap.

Appellants argue that Tap does not recognize the connection between the DC source contributing to the output and the protection under a no-load condition. (See brief at page 10.) We agree with appellants. Appellants specifically request that the examiner explain "how the adding of the DC source voltage to the output of the DC to DC converter protects the circuit during a no load condition." (See brief at page 10.)

Appeal No. 2000-0706
Application No. 08/675,665

Again, we find no specific response to appellants' argument and request for an explanation. Therefore, the examiner has not addressed appellants arguments, and we must accept the undisputed analysis/evidence presented by appellants.

Additionally, appellants argue the Stevens circuit is already fully protected from all load current extremes so there is no incentive to add the circuit protection of Tap to Stevens. (See brief at page 11.) Again, the examiner does not respond to appellants' arguments, and we accept the undisputed evidence.

Since appellants have rebutted the examiner's *prima facie* case and have provided arguments which have not been addressed by the examiner, we find that the examiner's motivation to combine the teachings is flawed, and we will not sustain the rejection of independent claim 1 and its dependent claims 2 and 4-6 under 35 U.S.C. § 103.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2 and 4-7 under 35 U.S.C. § 112, second paragraph is affirmed, and the decision of the examiner to reject claims 1, 2 and 4-6 under 35 U.S.C. § 103 is reversed.

Appeal No. 2000-0706
Application No. 08/675,665

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

AFFIRMED

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOSEPH L. DIXON)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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)	
HOWARD B. BLANKENSHIP)	
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Appeal No. 2000-0706
Application No. 08/675,665

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