

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KADABA R. LAKSHMIKUMAR

Appeal No. 1997-3437
Application 08/315,740

ON BRIEF

Before FLEMING, LALL and BARRY, Administrative Patent Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection¹ of claims 24 to 25, 28 to 29, 32 and 34.

¹ Three amendments after the final rejection were filed [paper nos. 7, 10 and 13]. All have been entered in the record for the purposes of this appeal.

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In a telecommunication system, a voltage line driver typically produces voltage signal pulses for transmission over a telecommunication line having a transmission end and a receiving end with respect to the line driver. Under normal termination where a load is present at the receiving end of the telecommunication line, the line driver typically operates satisfactorily. However, when the load is removed or not present at the receiving end of the telecommunication line, the voltage signal line driver circuitry may be adversely affected. The invention is concerned with ensuring satisfactory operation of the voltage line driver even when the receiving end of the telecommunication line is not properly terminated due to improper load. The invention is directed to a method and apparatus for stabilizing a line driver having an amplifier by reducing the open-loop gain of the amplifier when the current from the amplifier to the load is less than a predetermined amount. The invention is further illustrated by the following claim. Representative claim 24 is reproduced as follows:

24. In an integrated circuit, a line driver having an output, comprising:

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an amplifier, having an open-loop frequency response and an output coupled to the output of the line driver;

a current detector measuring output current of the amplifier; and

means for changing the open-loop frequency response of the amplifier when the output current of the amplifier is less than a predetermined value.

The Examiner relies on the following reference²:

Yamanaka 62-86908 Apr. 21, 1987
(Japanese Patent Application)

Claim 29 stands rejected under 35 U.S.C. § 112, second paragraph. Further, claims 24 to 25, 28, 32 and 34 stand rejected under 35 U.S.C. § 102 over Yamanaka. Claim 29 stands rejected under 35 U.S.C. § 103 over Yamanaka.

Rather than repeat the positions and the arguments of Appellant or the Examiner, we make reference to the briefs³ and the answer for their respective positions.

OPINION

We have considered the rejection advanced by the

² The rejection based on Gist has been withdrawn [answer, page 8]. Therefore, we do not discuss Gist here.

³ A reply brief was filed [paper no. 18] and was entered in the record without any rebuttal from the Examiner [paper no. 19].

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Examiner. We have, likewise, reviewed Appellant's arguments against the rejection as set forth in the brief.

It is our view, after consideration of the record before us, that the rejections under 35 U.S.C. § 112, second paragraph, under 35 U.S.C. § 102 and under 35 U.S.C. § 103 are not proper. Accordingly, we reverse.

Next, we treat the various rejections individually.

Rejection under 35 U.S.C. § 112, Second Paragraph

The second paragraph of 35 U.S.C. § 112 requires claims to set out and circumscribe a particular area with a reasonable degree of precision and particularity. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977). In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

The Examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. § 112, second paragraph, is whether the claims meet the

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threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. Some latitude in the manner of expression and the aptness of terms is permitted even though the claim language is not as precise as the examiner might desire. If the scope of the invention sought to be patented cannot be determined from the language of the claims with a reasonable degree of certainty, a rejection of the claims under 35 U.S.C. § 112, second paragraph, is appropriate.

Thus, for example, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite. As stated above, if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. See Ex parte Porter, 25 USPQ2d 1144, 1146 (Bd. Pat. App. & Int. 1992).

Furthermore, Appellant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in In re Swinehart, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of

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the type of language used to define the subject matter for which patent protection is sought.

With this as background, we analyze the specific rejection under 35 U.S.C. § 112, second paragraph, made by the examiner of the claims on appeal. The Examiner contends [answer, page 3] that the phrase "[a] balanced line driver having two halves, each half having therein the line driver" in claim 29 is vague and indefinite, and raises questions regarding the nature and definition of a balanced line driver. Appellant argues [brief, page 23] that the "balanced and unbalanced line drivers are well known to one of ordinary skill in the art." To support this argument Appellant submits a copy of the U.S. Patent No. 5,304,856 with the brief.

First of all, we note that the Examiner has misquoted above the phrase from claim 29. The correct phrase is "a balanced line driver having two halves, each of the two halves comprising the line driver" which does describe the feature disclosed and claimed. We have also looked at Fig. 1 of the specification and the above cited U.S. Patent, see for example its "Abstract." We are of the view that the term "balanced line drivers" was indeed known in the art. Furthermore,

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Appellant has adequately defined the phrase "a balanced line driver having two halves". We further find that the above explanation also answers the other questions raised by the Examiner. Therefore, we do not sustain the rejection of claim 29 under 35 U.S.C. § 112, second paragraph.

Rejection under 35 U.S.C. § 102

The Examiner has rejected claims 24 to 25, 28, 32 and 34 as being anticipated by Yamanaka.

We note that a prior art reference anticipates the subject of a claim when the reference discloses every feature of the

claimed invention, either explicitly or inherently (see Hazani v. Int'l Trade Comm'n, 126 F.3d 1473, 1477, 44 USPQ2d 1358, 1361 (Fed. Cir. 1997) and RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984)).

We first take the independent claim 24. We have reviewed the positions of the Examiner [answer, pages 3 to 4 and 5 to

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7] and Appellant [brief, pages 7 to 11 and reply brief, pages 1 to 5]. The Examiner considers the two voltage outputs of differential amplifier 3 of Yamanaka being inputted to amplifier A of differential amplifier 1 as equivalent to the claimed current detector measuring output current. We do not agree. The differential amplifier 1 merely compares the two output voltage signals. Further, the Examiner asserts, in meeting the limitation of "means for changing the open-loop frequency response" (claim 24), that the differential amplifier 3 of Yamanaka inherently possesses such a characteristic. We do not agree. The differential amplifier 3 of Yamanaka is designed to equalize its two output voltages and circuits 1 and 2 provide a feedback to the differential amplifier 3 to achieve that goal.

There is no showing by the Examiner that the differential

amplifier 3 of Yamanaka must necessarily have an open loop frequency response to a current output comparison as is required under the inherency principle. Therefore, we do not sustain the anticipation rejection of claim 24 over Yamanaka.

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With respect to the other independent claim 32, it is a method claim corresponding to the apparatus claim 24. Therefore, we do not sustain the anticipation rejection of claim 32 over Yamanaka for the same reasons. Consequently, we do not sustain the anticipation rejection of dependent claims 25, 28, 29 and 34 over Yamanaka.

Rejection under 35 U.S.C. § 103

Claim 29 is rejected as being obvious over Yamanaka.

As a general proposition in an appeal involving a rejection under 35 U.S.C. § 103, an examiner is under a burden to make out a prima facie case of obviousness. If that burden is met, the burden of going forward then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and

the relative persuasiveness of the arguments. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir.

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1992); In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The Examiner contends [answer, page 4] that “[i]t is well known ... that multiple output circuits, which require the same input signals, can be driven by either one circuit or a circuit for each respective output circuit.” The Examiner offers little explanation on the details of such modification. Besides, we noted above that Yamanaka does not disclose all the elements of claim 24. Since Yamanaka fails to meet the limitations of claim 24, Yamanaka cannot be modified to reject the dependent claim 29 without some additional evidence to cure the deficiency noted in meeting claim 24. The Examiner has not provided any additional evidence. Therefore, we do not sustain the obviousness rejection of claim 29 over Yamanaka.

In conclusion, we reverse the Examiner’s final rejection of claim 29 under 35 U.S.C. § 112, second paragraph. We also reverse the final rejection of claims 24 to 25, 28, 32 and 34

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under 35 U.S.C. § 102 over Yamanaka. Further, we reverse the obviousness rejection under 35 U.S.C. § 103 of claim 29 over Yamanaka.

REVERSED

MICHAEL R. FLEMING)	
Administrative Patent Judge)	
)	
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PARSHOTAM S. LALL)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
LANCE LEONARD BARRY)	
Administrative Patent Judge)	

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