

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(2) is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD A. KIRKPATRICK II

Appeal No. 1997-0272
Application 08/277,388

ON BRIEF

Before KRASS, JERRY SMITH, RUGGIERO, Administrative Patent
Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of
claims 1 through 20, all of the claims in the application.

The invention is directed to a temperature compensation
circuit for a Hall effect element wherein the temperature

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sensitive resistor associated therewith is not placed in the signal path of the Hall output signal so that the resistor is used to respond to changes in temperature but is not affected by changes in the Hall output voltage caused by circumstances other than temperature changes.

Representative independent claim 1 is reproduced as follows:

1. A Hall effect element circuit, comprising:

a Hall effect element having a first output signal which is representative of a magnetic field imposed on said Hall effect element;

an amplification circuit having an input connected in signal communication with said first output signal, said amplification circuit having a second output signal which is representative of said magnetic field; and

a temperature compensation circuit for compensating said second output signal for changes in temperature, said temperature compensation circuit having at least one temperature sensitive resistor, said temperature compensation circuit being connected to said amplification circuit to receive said second output signal, said temperature sensitive resistor being connected within said Hall effect element circuit in a manner which prevents changes in said first output signal from affecting a voltage potential across said temperature sensitive resistor.

The examiner relies on the following references:

Rao et al.	3,882,725	May 13, 1975
(Rao)		

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Ohata et al. (Ohata)	3,895,221	Jul. 15, 1975
Borer	3,944,920	Mar. 16, 1976
Sieverin	4,371,837	Feb. 1, 1983
Mount	5,159,277	Oct. 27, 1992
Kostal (German)	DE 3827606	Mar. 2, 1989

The examiner also relies on appellant's admitted prior art [APA] shown in Figures 2 and 3.

Claims 1 through 20 stand rejected under 35 U.S.C. § 112, second paragraph, and, in a new ground of rejection entered in the answer, under 35 U.S.C. § 112, first paragraph, as relying on a nonenabling disclosure.

Claim 1 stands further rejected under 35 U.S.C. § 102(b) as anticipated by either one of Sieverin or Kostal.

Claims 1 stands still further rejected under 35 U.S.C. § 103 as unpatentable over APA in view of Mount.

Finally, claims 2 through 20 stand further rejected under 35 U.S.C. § 103 as unpatentable over APA in view of Mount in view of either one of Rao or Borer or Ohata.

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Reference is made to the briefs¹ and answer for the respective positions of appellant and the examiner.

OPINION

At the outset, we note that the examiner's objection to the drawings is a petitionable, and not an appealable, matter. However, this objection appears to be tied in with the examiner's rejections under 35 U.S.C. § 112 and the examiner may wish to reconsider his position regarding the drawings in view of our decision, infra.

We turn, first, to the rejections under 35 U.S.C. § 112, first and second paragraphs. Apparently, the examiner bases both of these rejections on an alleged misunderstanding of how Figures 9-14 relate to each other and how they correspond to Figures 4-7. More specifically, the examiner questions, inter alia, where the temperature sensitive resistors are and what constitutes the temperature compensation circuit. It is not clear to the examiner where the claimed elements are shown in the drawings.

¹While not labeled as such, a reply brief was filed on November 17, 1999 (Paper No. 22) and entered by the examiner.

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We find the examiner's challenge to the sufficiency of disclosure and allegation of indefiniteness to be unreasonable and we will not sustain either rejection under 35 U.S.C. § 112.

While we would agree that it does take some time and effort to sift through the specification and drawings to determine how the drawings are interrelated and what comprises the temperature sensitive resistor, after a thorough review of the instant disclosure, we find no inadequacy of disclosure nor any indefiniteness in the claims for essentially the reasons set forth by appellant, at pages 6 through 24 of the principal brief. As explained therein, Figures 4-7 are the more general illustrations for the detailed circuitry shown in Figures 9-14, with Figure 9 showing the overall diagram of the circuit. Also, as is made clear on page 29 of the specification and Figure 12, epitaxial resistor R44 is the preferred temperature sensitive resistor which is connected within the Hall effect element circuit in a manner which prevents changes in the first output signal from affecting a voltage potential across the temperature sensitive resistor, as claimed.

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The artisan of ordinary skill would clearly discern, within a reasonably short time period, how the various figures in the drawings are interconnected and which elements perform which functions. While the artisan may need to refer to several different figures within the drawings in order to identify each of the claimed elements, we do not find this task to be so unreasonable as to constitute a proper rejection under either the first or second paragraph of 35 U.S.C. § 112.

Accordingly, the rejections under 35 U.S.C. § 112, first and second paragraphs, are reversed.

We now turn to the art rejections and, after a thorough review thereof, we find that we will not sustain any of these rejections either.

Regarding the rejections of claim 1 based on anticipation by either Sieverin or Kostal, neither reference is seen to disclose each and every element of instant claim 1. Claim 1 requires, inter alia, that the temperature compensation circuit be connected to receive the second output signal from the amplification circuit. In Sieverin, as explained by appellant, the compensation is done at the input of the Hall

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element and is performed by a diode. More importantly, Sieverin does disclose a temperature sensitive resistor R_T , but it is connected to the amplifier offset terminals and not to the output of the amplifier as required by claim 1.

Similarly, with regard to Kostal, Figure 1 does show a Hall element 4 and amplifiers but we find no temperature sensitive resistor within a temperature compensation circuit wherein the temperature compensation circuit is connected to the output of an amplification circuit in such a manner which prevents changes in the output signal from the Hall element from affecting a voltage potential across a temperature sensitive resistor, as claimed. The examiner identifies resistors R1, R2 and R3 in Kostal as the claimed "temperature sensitive resistor" but we agree with appellant that these resistors in Kostal appear to have no relation whatsoever to the output of the Hall element.

Accordingly, the rejections of claim 1 under 35 U.S.C. § 102(b) are reversed.

The examiner also rejects claim 1 under 35 U.S.C. § 103 based on APA and Mount. However, Mount is not directed to a

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compensation circuit at all and the temperature sensitive resistor in Mount appears to be located at the input of the disclosed circuit as part of a sensor used for detecting temperature. Thus, we do not find any reason for the artisan to have combined the teachings of this reference with APA and, even if combined, we find that the instant claimed subject matter would not result. Thus, we will not sustain the rejection of claim 1 under 35 U.S.C. § 103.

Similarly, we will not sustain the rejection of claims 2 through 20 under 35 U.S.C. § 103 because the Rao, Borer and/or Ohata references do not provide for the deficiencies of APA and Mount.

The examiner did not even convincingly respond to appellant's arguments anent the prior art, stating, at page 12 of the answer, only that

In light of the significant problems with the specification (including the drawings) and claims, all that is necessary to meet the claims is a teaching of temperature sensitive resistors which are not in the signal path between the Hall output and the circuit output.

Thus, the examiner appears to be saying that but for perceived problems under 35 U.S.C. § 112, it would be necessary to show more for a proper prior art rejection. Such a conclusion is

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nonsense. If the claimed subject matter is so poorly stated that it cannot be understood well enough to apply prior art, then no prior art should be applied. If prior art is to be applied, the entire claimed subject matter must be taken into account. While the teaching of a temperature sensitive resistor not in the signal path between the Hall element output and the circuit output may be a portion of what should be shown by the prior art in order to reject the claim, the instant claims require much more and the examiner has not addressed those additional limitations.

CONCLUSION

We have not sustained the rejection of claims 1 through 20 under 35 U.S.C. § 112, first or second paragraphs. We also have not sustained the rejections of claim 1 under 35 U.S.C. § 102(b) nor have we sustained the rejections of claims 1 through 20 under 35 U.S.C. § 103.

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Accordingly, the examiner's decision is reversed.

REVERSED

	Errol A. Krass)	
	Administrative Patent Judge)	
)	
)	
	Jerry Smith)	BOARD OF
PATENT)	
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
	Joseph F. Ruggiero)	
	Administrative Patent Judge)	

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