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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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 13

95-0606

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**MAILED**

Ex parte ROBERT D. ROSENTHAL

JAN 31 1996

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 95-0606  
Application 08/007,967<sup>1</sup>

ON BRIEF

Before KRASS, FLEMING, Administrative Patent Judges, and  
CRAWFORD, Acting Administrative Patent Judge.

CRAWFORD, Acting Administrative Patent Judge.

<sup>1</sup> Application for patent filed January 22, 1993. According to appellant, the application is a continuation of Application 07/717,198, filed June 18, 1991, now U.S. Patent No. 5,204,532, and is a continuation-in-part of Application 07/682,249, filed April 9, 1991, now U.S. Patent No. 5,068,536, which is a continuation-in-part of Application 07/565,302, filed August 10, 1990, now U.S. Patent No. 5,077,476, which is a continuation-in-part of Application 07/544,580, filed June 27, 1990, now U.S. Patent No. 5,086,229, which is a continuation-in-part of Application 07/298,904, filed January 19, 1989, now U.S. Patent No. 5,028,787.

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DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 5 through 7 which are the only claims in the application.

Appellant's claimed subject matter is a method for the noninvasive analysis of blood analyte concentration in a human being. The invention comprises obtaining a near infra-red optical absorption measurement in a body part and applying the optical measurement to an initial calibration means which calibrates the measurement over substantially the entire range of possible blood analyte concentrations. It is then determined whether the measurement falls in a higher range or a lower range. The measurement is then calibrated by a second calibration means corresponding to the range in which it falls.

Claim 5 recites:

5. A method for accurately calibrating a near-infrared analysis instrument for the measurement of a blood analyte, said method comprising:

(a) obtaining a near-infrared optical absorption measurement in a body part of an individual, wherein said near-infrared optical measurement is made using energy of between about 600 to 1000 nanometers;

(b) applying said optical measurement to an initial calibration means for calibrating said optical measurement over substantially the entire range of possible blood analyte concentrations and determining a first calibrated value;

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(c) determining whether said first calibrated value falls into at least a first higher range of possible blood analyte concentrations or a first lower range of possible blood analyte concentrations, said first higher range and said first lower range comprises substantially non-overlapping portions of said entire range of possible blood analyte concentrations, said first higher range and said first lower range each comprising a second calibration means corresponding thereto;

(d) applying to said first calibrated value said second calibration means corresponding to said first higher range or said first lower range based on the determination whether said first calibrated value falls within said first higher range or said first lower range, and producing a second calibrated value representing the measurement of said blood analyte.

Claim 7 stands or falls with claim 5 as the appellant has not separately argued the patentability of this claim. See In re Nielson, 816 F.2d 1567, 2 USPQ2d 1525 (Fed. Cir. 1987)

(brief at page 4). Claim 6 is allowable if rewritten in independent form. Claims 1 through 4 have been cancelled.

#### THE REFERENCE

The following reference was relied on by the examiner:

Schlager

4,882,492

Nov. 21, 1989

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THE REJECTIONS

Claims 5 and 7 stand rejected under 35 U.S.C. § 103 as unpatentable over Schlager in view of appellant's statement in the specification at page 11. The rejection of claims 5 through 7 under 35 U.S.C. § 112 has been withdrawn.

OPINION

In reaching our conclusion on the issues raised in this appeal, we have carefully considered appellant's specification and claims, the applicable law, the applied references and the respective viewpoints advanced by the appellant and the examiner.

As a consequence of our review, we have made the determination that the examiner's rejection should be reversed.

The examiner has failed to set forth a prima facie case of obviousness. It is the burden of the examiner to establish why one having ordinary skill in the art would be led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. See In re Sernaker, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983).

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In making this determination, we have considered the disclosure of the reference for what it would have fairly taught one having ordinary skill in the art. See In re Boe, 355 F.2d 961, 148 USPQ 507 (CCPA 1966). Additionally, in our evaluation of the obviousness issue before us, we have presumed skill on the part of those practicing in the art, rather than the converse. See In re Sovish, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985).

Schlager describes a noninvasive near infrared measurement of blood analyte concentrations. An optical absorption measurement is made using an optrode which receives infrared radiation through a first fiber optic, transmits the radiation through a human body part and directs the transmitted radiation to a second optic fiber through which it is transmitted to a photosensor where an optical absorption signal is obtained. The optical absorption signal is proportional to the blood analyte concentration. The optical absorption signal is converted to digital form for input to a microprocessor where the actual blood analyte concentration is calculated. Schlager does not disclose "determining whether said first calibrated value falls into at least a first higher range of possible blood analyte concentrations or a first lower range of possible blood

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analyte concentrations . . . said first higher range and said first lower range each comprising a second calibration means corresponding thereto" as recited in claim 5.

Now we must consider the examiner's argument that it would have been obvious to modify Schlager to provide this limitation. In this regard, see In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984): "The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."

It is true, as the examiner pointed out, that appellant discloses in his specification, at page 11, that for agricultural applications, wherein the moisture content of corn is measured, after a first calibrated value is obtained, an operator determines whether the first calibrated value falls within a low range or a high range. The specification also teaches that after the first determination is made, the first calibrated value is then further calibrated thereby reducing a six to one range change to a 3.8 to 1 range change.

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The examiner argues that it would have been obvious for a person of ordinary skill in the art to separate a large range of blood analyte values into two or more ranges of values in view of the teaching in the specification regarding corn moisture measurements because the smaller ranges are more easily amenable to linear analysis and are thus more accurately calibrated. Appellant argues that Schlager does not disclose calibration and that a combination of Schlager and the prior art in the specification would not meet the limitations of the claims.

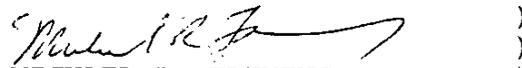
A review of Schlager reveals that Schlager is not concerned with calibration and thus does not teach that further calibration is needed. Schlager does not disclose that the blood analyte concentration ranges are large and difficult to analyze or that the optical absorption signal is linearly analyzed. As such, Schlager is not concerned with the problem that appellant is solving. We agree that Schlager can be modified to provide a second calibration means but we find no suggestion or motivation in either the prior art discussed in the specification or in Schlager to modify Schlager to further calibrate the optical

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absorption measurement into a higher or lower range. We will  
reverse this rejection.

REVERSED

  
ERROL A. KRASS )  
Administrative Patent Judge )

  
MICHAEL R. FLEMING )  
Administrative Patent Judge )

  
MURRIEL E. CRAWFORD )  
Acting Administrative )  
Patent Judge )

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) AND  
) INTERFERENCES

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