

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 46

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT HORTON, JEAN-JACQUES GRIMAUD, DANIEL MADDY, and
MICHAEL TEITEL

Appeal No. 97-2764
Application No. 08/354,018¹

HEARD: March 12, 1999

Before HAIRSTON, BARRETT, and GROSS, Administrative Patent
Judges.

GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 22 through 37, which are all of the claims pending in this application.

¹ Application for patent filed December 05, 1994. According to appellants, the application is a continuation of Application 08/155,359, filed October 06, 1993; which is a continuation of Application 07/863,312, filed March 20, 1992; which is a continuation of 07/621,447, filed November 30, 1990, all abandoned.

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The appellant's invention relates to a radio frequency tracking system in which a position of an object is estimated by averaging the strengths of signals transmitted by the object to a number of receivers. Claim 22 is illustrative of the claimed invention, and it reads as follows:

22. A system for estimating a position of an object, comprising:

a transmitter, disposed on said object, which transmits signals;

a plurality of receivers which receive the signals transmitted by the transmitter; and

means for estimating a position of said object by averaging strengths of the signals received by at least some of said plurality of receivers.

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

Krieg 1987	4,688,037	Aug. 18,
Mori 28, 1988	4,754,268	Jun.
Zimmerman et al. (Zimmerman) 29, 1991	4,988,981	Jan.

(filed Feb. 28, 1989)

Claims 22 through 37 stand rejected under 35 U.S.C. § 112, first paragraph as lacking enablement and best mode.

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Claims 22, 27, 36, and 37 stand rejected under 35 U.S.C. § 103 as being unpatentable over Krieg.

Claims 23 through 25, 28 through 30, 33, and 35 stand rejected under 35 U.S.C. § 103 as being unpatentable over Krieg in view of Zimmerman.

Claims 32 and 34 stand rejected under 35 U.S.C. § 103 as being unpatentable over Krieg in view of Zimmerman and Mori.

Reference is made to the Examiner's Answer (Paper No. 34, mailed October 02, 1996) and the supplemental Examiner's Answer (Paper No. 37, mailed February 12, 1997) for the examiner's complete reasoning in support of the rejections, and to the appellants' Brief (Paper No. 33, filed August 06, 1996) and Reply Brief (Paper No. 35, filed December 02, 1996) for the appellants' arguments thereagainst.

OPINION

As a preliminary matter, we note that appellants indicate on pages 5-6 of the Brief that with respect to the obviousness rejections the claims at bar are not to be treated as standing or falling together. The claims are grouped as follows: 1)

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claims 22, 25-27, and 30-37, 2) claims 23 and 28, and 3) claims 24 and 29.

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by the appellants and the examiner. As a consequence of our review, we will reverse the enablement and best mode rejection of claims 22 through 37. Also, we will reverse the obviousness rejections of claims 22 through 25, 27 through 30, and 32 through 37.

The examiner rejects all of the claims under 35 U.S.C. § 112, first paragraph, as being based on a disclosure which is non-enabling and in which the best mode is not disclosed. The examiner does not appear to distinguish between the two requirements of the statute. However, the court in Spectra-Physics, Inc. v. Coherent, Inc., 827 F.2d 1524, 3 USPQ2d 1737, 1742 (Fed. Cir. 1987), cert. denied, 484 U.S. 954, quoting In re Gay, 309 F.2d 769, 772, 135 USPQ 311, 315 (CCPA 1962) explains the difference between the two:

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The essence of [the enablement requirement] is that a specification shall disclose an invention in such a manner as will enable one skilled in the art to make and utilize it. Separate and distinct from [enablement] is [the best mode requirement], the essence of which requires the inventor to disclose the best mode contemplated by him, as of the time he executes that application, of carrying out his invention.

. . . The question of whether an inventor has or has not disclosed what he feels is his best mode is, however, a question separate and distinct from the question of the sufficiency of his disclosure to satisfy the requirements of [enablement]. (emphasis in original)

Furthermore, as to best mode,

The examiner should assume that the best mode is disclosed in the application, unless evidence is presented that is inconsistent with that assumption. It is extremely rare that a best mode rejection properly would be made in ex parte prosecution. The information that is necessary to form the basis for a rejection based on the failure to set forth the best

mode is rarely accessible to the examiner, but is generally uncovered during discovery procedures in interference, litigation, or other inter partes proceedings. See MPEP 7th edition § 2165.03.

"[T]here is no objective standard by which to judge the adequacy of a best mode disclosure. DeGeorge v. Bernier, 768 F.2d 1318, 1324, 226 USPQ 758, 763 (Fed. Cir. 1985). Instead, only evidence of 'concealment,' whether accidental or

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intentional, is considered. Id." Spectra-Physics, Inc. v. Coherent, Inc., 827 F.2d 1524, 3 USPQ2d 1737, 1745 (Fed. Cir. 1987), cert. denied, 484 U.S. 954. The examiner in the case before us has presented no basis for asserting a lack of best mode, no less evidence of concealment. Accordingly, the best mode portion of the rejection under 35 U.S.C. § 112, first paragraph, has no merit.

Turning to the enablement rejection, we again find no basis. The examiner states (Answer, page 3): "The specification disclosure as a whole does not disclose how to average the strength of the signals received by the receivers such as to enable one skilled in the art to make and use the claimed invention." However, as pointed out by the appellants (Brief, page 7), page 10, line 11 - page 11, line 5, of the specification clearly explains how the averaging is carried out. Furthermore, Figure 5 shows a working source code listing with detailed comments, and Figures 2-4 show specific circuit diagrams of the transmitter, the receiver, and the interface module. Therefore, we find that the disclosure is enabling.

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Independent claim 27 recites the step of "estimating a position of said object by averaging strengths of signals received by at least some of said plurality of receivers." Independent claim 22 recites a means for accomplishing that step. Therefore, all of the pending claims require estimating by averaging signal strengths. The examiner rejects claims 22 through 25, 27 through 30, and 32 through 37 under 35 U.S.C. § 103 as being obvious over Krieg, further in view of Zimmerman (for 23 through 25, 28 through 30, and 32 through 35) and also Mori (for 32 and 34). The examiner admits (Answer, page 5) that Krieg does not disclose averaging the strengths of the signals to estimate the position of the operator. The examiner nonetheless concludes (Answer, page 5-6) that it

would have been obvious to one skill [sic] in the art to recognize that Krieg's device has to calculate each of the independent components of the electromagnetic fields received by the antennas (18 and 28) and averaging [sic] the strengths of the components of the electromagnetic fields between the antennas (18,28) in order to estimate the operator's position.

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Krieg does not describe how an operator's position is calculated. However, Krieg discloses in column 5, lines 42-56,

that the details of how remote object positioning is accomplished can be found in four additional patents, none of which uses averaging signal strengths to calculate the operator's position.² Therefore, by incorporating the four patents, Krieg suggests that the position of the object is determined by methods other than averaging. Furthermore, as indicated by appellants (Brief, page 3), no prior art of record discloses a method of nor a means for averaging signal strengths to ascertain the position of an object. Consequently, it is unclear to us how the examiner can conclude that Krieg must be calculating components of the

²Kuipers, in patent number 3,983,474, describes determining the orientation of an object using coordinate transformation. Raab discloses, in columns 8 and 9 of patent number 4,054,881, that the x, y, and z coordinates of the object can be calculated by measuring the signal strengths to determine distances, creating a system of three equations with three unknowns relating the power measurements, and solving the system of equations to obtain squared normalized rectangular coordinates. Kuipers discloses in patent number 4,298,874 an iterative computational method of determining the orientation of an object. Raab explains, starting at line 49 of column 31 of patent number 4,314,251, that the position of an object is calculated using squared magnitudes and dot products of the sensor output vectors.

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field and averaging them. Accordingly, we cannot maintain the obviousness rejections.

CONCLUSION

The decision of the examiner to reject claims 22 through 37 under 35 U.S.C. § 112, first paragraph is reversed. The decision of the examiner to reject claims 22 through 25, 27 through 30, and 32 through 37 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LEE E. BARRETT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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ANITA PELLMAN GROSS)	
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