

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JOHN E. MALONEY, CHARLES J. HINKLE, JR.  
and JAMES O. STEVENSON

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Appeal No. 98-3299  
Application 08/335,331<sup>1</sup>

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HEARD: MAY 7, 1999

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Before HAIRSTON, BARRETT and LALL, Administrative Patent Judges.

LALL, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 4 and 6 through 93. Claim 5 has been canceled.

The disclosed invention concerns the apparatus and the

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<sup>1</sup> Application for patent filed November 3, 1994.

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method of locating a mobile radio communication transceiver in an operating environment served by a wireless communications system. [Figures 3 and 5 of the specification]. The claimed invention can determine the location of a mobile transceiver from a single line of bearing from a single sensor station. The method and the apparatus claimed do not rely on a cross-fix on location from another sensor station, rather they rely on other known information defined as "collateral information" in the specification. For example, such information can be the topological maps previously stored in a processor unit of the invention.

Representative claim 1 is reproduced as follows:

1. An apparatus for locating a mobile radio communications transceiver in an operating environment served by a wireless communications system, comprising:

at least a single sensor station having a directionally sensitive receiving antenna to receive a radio signal from the mobile transceiver,

a signal characterization processing unit for determining, from the radio signal, at least one directional line of bearing from the single sensor station to the mobile radio transceiver,

a source of collateral information about the operating environment of the mobile transceiver,

a multidimensional parametric correlation processing unit

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for determining a probable position of the mobile transceiver directly from (1) the line of bearing information from the single sensor station and (2) the collateral information, and

an output indicative of the probable position of the mobile transceiver.

The references relied on by the examiner are:

Maloney et al.(Maloney)	4,728,959	Mar. 1, 1988
Gray et al.(Gray)	5,003,317	Mar. 26, 1991
Hodson	5,045,860	Sep. 3, 1991
Bunn	5,225,809	Jul. 6, 1993
Kennedy, Jr.(Kennedy)	5,465,289	Nov. 7, 1995

(filed Mar. 5, 1993)

Claims 1 through 4 and 6 through 93 stand rejected under the first and the second paragraphs of 35 U.S.C. § 112.

Additionally, claims 1 through 3 and 6 through 8 stand rejected under 35 U.S.C. § 102. Claims 4 and 9 through 93 stand rejected under 35 U.S.C. § 103. As evidence for the § 102 and the § 103 rejections, the Examiner offers in the alternative any one of the references to Maloney, Gray, Bunn, Kennedy and Hodson.

Reference is made to Appellants' brief and the Examiner's answer for their respective positions.

#### **OPINION**

We have considered the record before us, and we will

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reverse all the rejections of claims 1 through 4 and 6 through 93.

We treat the various rejections in the same order as they appear in the Examiner's answer and the Appellants' brief.

Rejections Under The Second Paragraph of 35 U.S.C. § 112

With respect to the § 112 second paragraph rejections, we agree with Appellants on the issues of "collateral information", "directly combining" and "undue multiplicity". We have reviewed the contentions of the Examiner as to these points [answer, pages 3 to 4], and Appellants' corresponding rebuttal [brief, pages 12 to 16]. We have further studied the portions of the specification referred to by Appellants' rebuttal. We find that the terms "collateral information" and "directly combining", as they are used in the claims and explained in the specification and further elucidated by the Newman Declaration [paper no. 16], are definite and clear. As

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to the issue of "undue multiplicity", it is well established that an applicant has the choice of deciding as to the number of claims so long as they are consistent with the disclosure and the requisite filing fees are paid. We, therefore, reverse the Examiner's rejection of claims 1 through 4 and 6 through 93 under the second paragraph of 35 U.S.C. § 112.

Rejections Under First Paragraph of 35 U.S.C. § 112

With respect to the first paragraph § 112 rejection, we again find ourselves in agreement with the Appellants's position.

We first consider Examiner's position as to the "insufficiently disclosed" terms of "multi-dimensional parametric correlation processing unit", "collateral information" and "knowledge-based position information" [answer, pages 3 to 4], and the Appellants' corresponding arguments [brief, pages 16, 17 and 20]. We have also reviewed the specification for these terms, namely pages 12 through 16.

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We find that these terms are adequately described in the disclosure.

We now review the Examiner's contention regarding the non-existence of an "enabling embodiment of the above elements" and regarding the lack of "enabling program, flow chart of the computer operations, or algorithm". [Answer, page 5]. We have considered corresponding Appellants' arguments. [Brief, pages 18 to 20]. We have also reviewed the relevant portions of the specification [figure 3 and pages 9 through 16], as well as the Newman Declaration [paper no. 16]. We conclude that there is sufficient structure of the apparatus disclosed for the required enablement. As for the computer program or a flow chart, Appellants are required to show an enabling disclosure and need not describe all the actual embodiments, MPEP Section 2164.02, (7th Edition, July 1998), and they have so shown. Therefore, we reverse the Examiner's rejection of claims 1 through 4 and 6 through 93 based on the first paragraph of 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 102 and 103

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At the outset, we note the fundamental difference between all the applied prior art and the invention as claimed. The invention requires only a single sensor station which establishes a line of bearing from the mobile transceiver to the sensor station. Whereas the prior art employs other sensor stations to generate other lines of bearing and use the triangulation technique to determine the location of the transceiver, the apparatus and the method claimed here use the so called collateral information together with the single line of bearing. Thus, the other sensor stations are not required. All the independent claims have the limitations directed to this difference. In claim 1, we note these limitations as "a single ... processing unit for determining ... one ... line of bearing from the single sensor station to the mobile transceiver," [lines 6 to 8]; and "a ... processing unit for determining a probable position of the mobile transceiver ... from (1) the line of bearing ... and (2) the collateral information" [lines 11 to 14].

We have considered the rejections presented by the Examiner under 35 U.S.C. § 102 over Hodson or Maloney or Gray or Bunn or Kennedy. [Answer, pages 7 to 11]. We have

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likewise reviewed Appellants' argument regarding each of these applied references. [Brief, pages 23 to 46]. We find that each of these references utilizes the triangulation method of locating the position of a transceiver where the line of bearing information from other sensor stations is needed. None of them discloses the use of the collateral information in conjunction with a single line of bearing to determine the location of a transceiver as claimed here. We find that the information from other sensor stations cannot be considered as the collateral information. The disclosure defines the collateral information as information from sources other than the other sensor stations. [Pages 12 to 15]. Anticipation under 35 U.S.C. § 102 requires that all elements of the claimed invention be described in a single reference. In re Spada, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). Here, none of the applied references meets the limitations above discussed. We, therefore, reverse the Examiner's rejection of claim 1 under 35 U.S.C. § 102 over Hodson or Maloney or Gray or Bunn or Kennedy. Since, the other independent claims, namely 6, 7 and 8 and the dependent

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claims 2<sup>2</sup> and 3<sup>3</sup> contain the same limitations as claim 1, their rejection under the same ground is also reversed.

With respect to the rejection of claims 4 and 9 through 93 under 35 U.S.C. § 103, 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 have been led to the claimed invention by the express teachings or suggestions found in the art, or by implications contained in such teachings or suggestions. In re Sernaker, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983).

"Additionally, when determining obviousness, the claimed invention should be considered as a whole; there is no legally recognizable 'heart' of the invention." Para-Ordnance Mfg. V. SGS Importer Int'l, Inc., 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), cert. denied, 117 S.Ct. 80 (1996)

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<sup>2</sup> We note that, in actuality, claims 2 and 3 depend on claims 9 and 19 respectively, which in turn are later rejected in the final rejection under 35 U.S.C. § 103, thereby making their rejection here under 35 U.S.C. § 102 improper. However, no other prior art is applied in the later rejection and the discussion under § 103 in this instance does not add any further substance to the § 102 rejection.

<sup>3</sup> Same as footnote 2.

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citing W. L. Gore & Assocs., Inc. V. Garlock, Inc., 721 F.2d 1540, 1548, 220 USPQ 303, 309 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

We have considered the Examiner's § 103 rejection of claims 4 and 9 through 93 over Hodson or Maloney or Gray or Bunn or Kennedy. [Answer, page 12]. Appellants argue against the obviousness of the limitations of these claims and also present objective indications of nonobviousness. [Brief, pages 47 to 49]. Each of these claims is dependent on one of the independent claims which we have discussed above under the § 102 rejection, where we found that none of the applied references contained the limitations claimed in the independent claims. The Examiner has not provided any details as to how these limitations would have been obvious other than the conclusory statement, "Since ... , it can obviously provide information regarding 'relative motion' of the target as claimed. To use any appropriate collateral information is obvious." [Answer, page 12], and find none from a review of the applied prior art. We, therefore, find that the Examiner has not established a prima facie case of obviousness for the rejection of claims 4 and 9 through 93. Thus, we reverse

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the Examiner's rejection of these claims under 35 U.S.C. §  
103.

**DECISION**

The decision of the Examiner rejecting claims 1 through 4  
and 6 through 93 under the first and the second paragraphs of  
35 U.S.C. § 112 is reversed. Furthermore, the Examiner's  
decision rejecting claims 1 through 3 and 6 through 8 under 35  
U.S.C.

§ 102, and rejecting claims 4 and 9 through 93 under 35 U.S.C.

§ 103 is also reversed.

**REVERSED**

	KENNETH W. HAIRSTON	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	
	LEE E. BARRETT	)	BOARD OF
PATENT	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
		)	
	PARSHOTAM S. LALL	)	
	Administrative Patent Judge	)	

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