

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte HANS J. WIESENFARTH

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Appeal No. 2001-1304  
Application No. 09/061,392

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ON BRIEF

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Before KRASS, FLEMING, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-7 and 10-16.<sup>1</sup>

We reverse.

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<sup>1</sup> The instant application was filed on April 16, 1998, having 14 claims numbered 1-7 and 10-16. Claims 10-16 should have been renumbered as claims 8-14, pursuant to 37 CFR § 1.75(f). However, in this decision we will refer to the claims as they are referenced by the examiner and appellant; i.e., claims 1-7 and 10-16.

BACKGROUND

The disclosed invention is directed to a folded monopole antenna using two vertical monopole elements, one of which is tapered and resistively loaded to a ground plane. According to appellant, the tapered monopole antenna element causes a cancellation of the electric field from the feeding (non-tapered) antenna element, to thereby provide a wide range of impedance matching. Representative claim 1 is reproduced below.

1. An antenna apparatus comprising:

a first monopole antenna element having an outer diameter that varies between a base end thereof and a top end thereof;

a second monopole antenna element having an outer diameter that is substantially constant between a base end thereof and a top end thereof, and

a third antenna element having an outer diameter that is substantially equal to said outer diameter of said second monopole antenna element, said third antenna element being operably coupled to said top ends of said first and second monopole antenna elements.

The examiner relies on the following references:

Saari	3,229,296	Jan. 11, 1966
Goodman	4,161,736	Jul. 17, 1979

Claims 1-7 and 10-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Goodman and Saari.

We refer to the Final Rejection (Paper No. 6) and the Examiner's Answer (Paper No. 13) for a statement of the examiner's position and to the Brief (Paper No. 12) and

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the Reply Brief (Paper No. 14) for appellant's position with respect to the claims which stand rejected.

### OPINION

The examiner finds that, in view of the disclosed structure as shown in Figure 1 of Goodman, the reference meets all the terms of instant claim 1 except for the first monopole antenna element having an outer diameter that varies between a base end and a top end. The rejection turns to Saari, deemed to teach a monopole antenna with a varying diameter that reduces the breakage rate of the antenna element. The rejection concludes that it would have been obvious to construct the first monopole antenna element disclosed in Goodman from cylindrical sections of decreasing diameter to reduce the breakage rate of the element, as taught by Saari. (Answer at 4-5.)

Appellant argues, inter alia, that even if the references suggested combination, the suggestion would be to construct both vertical monopoles of Goodman of a varying diameter, rather than to leave one vulnerable to breakage. (Brief at 6-7.) The examiner responds (Answer at 6) that the antenna elements disclosed in Goodman could be under different load conditions and made from different materials. Because of postulated greater costs in constructing tapered antenna elements, only one antenna element could be tapered in the interest of avoiding the extra costs.

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Obviousness is a question of law based on findings of underlying facts. See Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). The allocation of burdens requires that the USPTO produce the factual basis for its rejection of an application under 35 U.S.C. §§ 102 and 103. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) (citing In re Warner, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967)). The one who bears the initial burden of presenting a prima facie case of unpatentability is the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The examiner has pointed to nothing in the references in support of the submitted reasons with respect to why the artisan would have been led to apply the teachings of Saari to one vertical monopole of the antenna disclosed by Goodman, but not to another. One reason for the rule that the USPTO must provide evidence in support of findings necessary to establish a case for prima facie obviousness is to ensure that an improper hindsight reconstruction of the invention has been avoided. Moreover, we must be able to point to concrete evidence in the record, rather than speculate as to what “could” be done, to show obviousness of claimed subject matter. See In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (in a determination of unpatentability “the Board must point to some concrete evidence in the record in support of...[the]...findings”).

Each of the remaining independent claims (i.e., 10 and 14) requires a substantially vertical monopole element having a substantially constant outer diameter,

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in addition to a substantially vertical monopole element having a non-constant outer diameter. Since we are persuaded by appellant that the prior art applied against the claims is deficient, we do not sustain the section 103 rejection of claims 1-7 and 10-16.

CONCLUSION

The rejection of claims 1-7 and 10-16 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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	)	
HOWARD B. BLANKENSHIP	)	
Administrative Patent Judge	)	

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