

NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IN RE ANDERS WALLEN

2013-1622

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Serial No. 10/991,878.

Decided: April 23, 2014

DANIEL P. HOMILLER, Murphy, Bilak & Homiller, PLLC, of Cary, North Carolina, argued for appellant.

MEREDITH H. SCHOENFELD, Associate Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia, argued for appellee. With her on the brief were NATHAN K. KELLEY, Solicitor, and ROBERT J. MCMANUS, Associate Solicitor.

Before WALLACH, SCHALL, and HUGHES, *Circuit Judges*.
HUGHES, *Circuit Judge*.

Anders Wallen appeals the decision of the Patent Trial and Appeal Board affirming the rejection of U.S. Patent Application No. 10/991,878 as obvious under 35 U.S.C.

§ 103(a). Substantial evidence supports the Board's conclusion that claims 1, 2, 5, 12–14, 25, and 26 would have been obvious. But the Board failed to identify substantial evidence to support its findings on claims 6 and 29. We therefore affirm-in-part, vacate-in-part, and remand.

I.

Mr. Wallen filed the '878 application, entitled "Method and Apparatus to Compensate for Receiver Frequency Error in Noise Estimation Processing," in November 2004. The application relates to estimating the amount of noise in signals received from a wireless communication network.

According to the '878 application, accurate noise correlation or signal quality estimation and reporting by a wireless receiver is essential to determining the rate at which the network should send data to the receiver. For example, if a receiver reports an erroneously high signal quality estimate, the network may send data to the receiver at a rate that is too high for reliable reception. Conversely, if the receiver reports an erroneously low signal quality estimate, the network may send data to the receiver at a rate that is lower than actually could be supported.

The '878 application identifies many causes of inaccurate noise correlation and signal quality estimation. Causes may include interference or noise incurred by a transmitted signal as it propagates between a network transmitter and the receiver, as well as mismatches between the receiver's operating frequency and the transmitter's frequency. To achieve accurate noise correlation and signal quality estimation, the '878 application discloses a specific method of obtaining a "noise correlation estimate," which takes into account, among other things, noise and receiver frequency errors.

In July 2009, the Examiner rejected all of the pending claims of the '878 application as obvious in view of several prior-art references. Mr. Wallen appealed to the Board, which affirmed the rejection of all claims. In a request for rehearing, Mr. Wallen asserted a lack of record evidence supporting the Examiner's rejection of claims 6 and 29. The Board maintained its decision, affirming the Examiner's rejection and denying Mr. Wallen's request for rehearing.

Mr. Wallen appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

II.

A patent may not issue “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a) (2012). Whether a claimed invention is unpatentable under § 103 is a question of law based on underlying findings of fact. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). We review the Board's legal conclusions of obviousness de novo and its underlying factual determinations for substantial evidence. *Id.* Substantial evidence is “such relevant evidence as a reasonable mind would accept as adequate to support a conclusion.” *Consol. Edison Co. of N.Y. v. N.L.R.B.*, 305 U.S. 197, 229 (1938); *In re Giannelli*, 739 F.3d 1375, 1378–79 (Fed. Cir. 2014).

Mr. Wallen's arguments are limited to the rejection of claims 1, 2, 5, 6, 12–14, 25, 26, and 29 of the '878 application. Accordingly, our decision addresses the rejection of these claims.

During prosecution, the Examiner and the Board cited specific evidence and made factual findings concerning the obviousness of claims 1, 2, 5, 12–14, 25, and 26. *See*,

e.g., J.A. 5–8, 11–12, 142–44, 206–07, 219–22. Moreover, the Board agreed with the Examiner’s underlying factual findings and ultimate conclusion of obviousness on these claims. Based upon our review of the record, we agree that the findings with respect to claims 1, 2, 5, 12–14, 25, and 26 are supported by substantial evidence. The Board therefore did not err in adopting the Examiner’s conclusion that these claims would have been obvious. Thus, we affirm the Board’s decision on claims 1, 2, 5, 12–14, 25, and 26.

Regarding claims 6 and 29, Mr. Wallen asserts that neither the Examiner nor the Board provided any evidence to support the determination that the prior art discloses the “propagation channel estimates” limitation.¹

In July 2009, the Examiner rejected claims 6 and 29 as obvious in view of U.S. Patent No. 4,477,912. The passage in the ’912 patent cited by the Examiner, however, does not disclose anything relating to the “propagation channel estimates” limitation in the ’878 application. *See* ’912 patent col. 8 ll. 59–69. The cited passage only explains that the ’912 patent is not limited to the exemplary wireless signal processing methods (i.e., “pseudorandom” coding or “any type of digital coding”). *See id.*

Following the Examiner’s July 2009 decision, Mr. Wallen appealed to the Board. The Examiner’s Answer did not identify any evidence supporting the conclusion on the “propagation channel estimates” limita-

¹ Propagation channel estimates are estimations that account for the interference and noise a transmitted signal incurs as it propagates between the network transmitter and the receiver (e.g., by reflecting off of buildings or passing through different types of media). *See* J.A. 30–32; Appellant’s Br. 38–40 (citing J.A. 301, ¶ [0028]).

tion. Instead, the Examiner's arguments regarding claims 6 and 29 repeated verbatim the arguments made in the July 2009 decision. The Examiner's Answer did not address Mr. Wallen's argument that the '912 patent does not disclose propagation channel estimates.

In March 2013, the Board affirmed the Examiner's rejection of claims 1–35. The Board did not address the “propagation channel estimates” limitation. On request for rehearing, the Board did address the obviousness determination on the “propagation channel estimates” limitation. But in doing so, the Board stated—without citing any record evidence or any of the Examiner's prior findings—that the invention disclosed in the '912 patent “can be equally applied to any transmission or reception media.” *See* J.A. 12.

Our review of the record indicates that the Examiner never addressed the “propagation channel estimates” limitation in claims 6 and 29. What is more, the Board did not address the limitation until rehearing, at which point it made only a conclusory statement without citing to any record evidence to support the finding. Thus, the Board failed to identify substantial evidence to support its conclusion that claims 6 and 29 would have been obvious. *See In re Giannelli*, 739 F.3d at 1378–79.

Although it might be true that the “propagation channel estimates” limitation would have been obvious because the prior art can be applied to any transmission or reception media, the Board failed to identify any record evidence to support such a statement. When the Board makes “core factual findings in a determination of patentability,” it “cannot simply reach conclusions based on its own understanding or experience—or on its assessment of what would be basic knowledge or common sense.” *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001). Instead, “the Board must point to some concrete evidence in the record in support of these findings.” *Id.* Here, the Board failed

to do so. Accordingly, we vacate the Board's decision on claims 6 and 29.

III.

The rejection of claims 1, 2, 5, 12–14, 25, and 26 under 35 U.S.C. § 103(a) is supported by substantial evidence and is therefore affirmed. But because the Board failed to identify substantial evidence to support its findings on the “propagation channel estimates” limitation of claims 6 and 29, the Board's decision is vacated-in-part and remanded so that it can consider whether the evidence of record is sufficient to maintain the Examiner's rejection of claims 6 and 29.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

No costs.