

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

(Serial No. 11/900,462)

IN RE CONRAD OLIVER GARDNER

2011-1310

Appeal from the United States Patent and Trademark
Office, Board of Patent Appeals and Interferences.

Decided: November 14, 2011

CONRAD O. GARDNER, of Edmonds, Washington, pro
se.

RAYMOND T. CHEN, Solicitor, Office of the Solicitor,
United States Patent and Trademark Office, of Alexan-
dria, Virginia, for appellee. With him on the brief were
BENJAMIN D. M. WOOD and Nathan K. Kelley, Associate
Solicitors.

Before RADER, *Chief Judge*, PLAGER, and DYK, *Circuit
Judges*.

PER CURIAM.

Conrad Oliver Gardner appeals a decision of the Board of Patent Appeals and Interferences (Board), affirming the rejection of claims 1 and 5-13 of his patent application. Because the Board's findings are supported by substantial evidence, and because we find no legal error in the Board's decision, we *affirm*.

Claims 1 and 5-13 of Mr. Gardner's application relate to a method of operating a motor vehicle using a hybrid electric/internal combustion (IC) propulsion system. Representative claim 1 reads:

1. In combination in the method of operating a hybrid motor vehicle having an electric motor and an internal combustion engine:
 - a. causing a fast charge-discharge battery to power the electric motor in response to a logic control circuit, said logic control circuit responsive to vehicle speed and accelerator pedal information; and,
 - b. transferring power output into electric power conserved in a fast charge-discharge battery when the internal combustion engine continues to run.

The examiner rejected claims 1 and 5-13 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,923,025 to Ellers (Ellers) in view of U.S. Patent No. 3,615,829 to Sprague (Sprague). The Board affirmed the examiner's obviousness rejection.

The determination of obviousness under 35 U.S.C. § 103 is a legal question based on underlying factual

findings. *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). We review the Board's factual findings for substantial evidence and the Board's legal conclusions without deference. *Gartside*, 203 F.3d at 1315.

The parties do not dispute that Ellers discloses a hybrid motor vehicle having an electric motor that is powered by a battery, an IC engine that charges the battery when the electric motor drives the vehicle, and a logic control circuit that can switch between the electric motor and IC engine to drive the vehicle. *See, e.g.*, Ellers at col. 1, ll. 53-61; col. 3, ll. 19-39; and col. 3, ln. 59-col. 4, ln. 49. The parties also do not dispute that Sprague teaches a specific example of a fast charge-discharge battery. *See, e.g.*, Sprague at col. 1, ll. 65-75. The Board affirmed the examiner's finding that at the time of Mr. Gardner's invention, it would have been obvious for a person of ordinary skill in the art to use Sprague's fast charge-discharge battery in Ellers' hybrid vehicle. Bd. Dec. at 5.

Mr. Gardner argues on appeal that the examiner and the Board improperly selected the Sprague reference from Mr. Gardner's own disclosure in the application at issue. But the examiner and the Board based the obviousness rejection on the teachings of Sprague itself, not Mr. Gardner's reference to Sprague in his application. Bd. Dec. at 3-4. At most, the examiner and the Board relied on Mr. Gardner's disclosure simply to support a finding that Sprague's battery was, in fact, a fast charge-discharge battery. *Id.* at 4. Such reliance is appropriate. *See Dow Chem. Co. v. Mee Indus., Inc.*, 341 F.3d 1370, 1377 (Fed. Cir. 2003) (relying on patentee's admission that the cited prior art encompasses a claim limitation to find the claims obvious).

Mr. Gardner also argues that Ellers fails to teach or suggest the claim limitation requiring a logic control circuit to be “responsive to vehicle speed and accelerator pedal information.” This court has held that when evaluating claims for obviousness under 35 U.S.C. § 103, all the limitations of the claims must be considered and given weight. *See Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed. Cir. 1983). Here, the Board determined that columns 3-4 of Ellers describe a logic circuit that is responsive to vehicle speed and accelerator pedal information. Bd. Dec. on Req. for Rehearing at 2. Thus, the Board concluded that Ellers teaches all the elements of the claimed invention except for the fast charge-discharge battery, which is taught by Sprague. There is no error with the Board’s decision in this regard.

Mr. Gardner further argues that the substitution of Ellers’ battery with Sprague’s fast charge-discharge battery would require a substantial re-design of Ellers’ system, that neither Ellers nor Sprague enables such a re-design, and that Ellers teaches away from the use of a fast charge-discharge battery. Our predecessor court held that if a proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810 (CCPA 1959). Here, however, the Board determined that Mr. Gardner had not established that Sprague’s fast charge-discharge battery could not be used in Ellers’ system. Bd. Dec. at 5. There is no error with the Board’s decision in this regard.

In addition, although this court has observed that an obviousness finding was appropriate when the prior art “contained a detailed enabling methodology for practicing the claimed invention, . . . all that is required is a reason-

able expectation of success.” *In re Kubin*, 561 F.3d 1351, 1360 (citing *In re O’Farrell*, 853 F.2d 894, 902-904 (Fed. Cir. 1988) (emphasis omitted). Here, the Board determined that even if modifications were required to incorporate Sprague’s battery into Ellers’ system, Mr. Gardner had not established that such modifications would be beyond the capabilities of a person of ordinary skill in the art. Bd. Dec. at 5. There is no error with the Board’s decision, and infer from it that one skilled in the art would have had a reasonable expectation of success in making the examiner’s proposed modification to Ellers’ system. Thus, we agree with the Solicitor that Mr. Gardner’s argument lacks merit.

Finally, this court has held that a teaching away occurs when a reference discourages one skilled in the art from following the claimed path, or when the reference would lead one skilled in the art in a direction divergent from the path that was taken by the applicant. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). The Board considered Mr. Gardner’s argument that Ellers teaches away from the use of Sprague’s fast charge-discharge battery, but did not find that argument persuasive. Bd. Dec. at 4-5. Nor do we.

Mr. Gardner separately argues for the patentability of claims 5 and 6, which recite the speed at which the logic control circuit transfers power between the electric motor and IC engine. The Board determined, however, that a person of ordinary skill would have known to vary Ellers’ changeover speed to account for user and environmental factors. Bd. Dec. at 6-7. Our predecessor court has held that the discovery of an optimum value for a result-effective variable generally does not require an inventive step. See *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) and *In re Goesch*, 617 F.2d 272, 276 (CCPA 1980). Here, the

Board determined that Mr. Gardner's discovery of the optimum speeds recited in claims 5 and 6 was not inventive. We agree.

When an examiner establishes a *prima facie* case of obviousness, the burden shifts to the applicant to show non-obviousness. See *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993). Mr. Gardner relies on three items of evidence of secondary considerations to support the non-obviousness of his claimed invention. First, Mr. Gardner provided evidence that two of his related earlier-issued patents (U.S. Patent Nos. 5,346,031 and 5,301,764) have been cited by a considerable number of later patents. Appeal Br. App. 1 at 1. Mr. Gardner contends that the citation of his prior patents establishes that they disclose and claim a "pioneer invention" that created a new art and enabled a function never previously performed. Mr. Gardner argues that this pioneer status should be extended to the claims on appeal as evidence of their non-obviousness. *Id.* Second, Mr. Gardner submitted a statement asserting that (1) there was a long-felt need in the automotive industry for extended range vehicles, and (2) another patent applicant had amended his claims to overcome a rejection based on one of Mr. Gardner's prior patents, indicating that those skilled in the art recognized Mr. Gardner's prior invention of a solution to the long-felt need. Appeal Br. App. 2 at p. 1. Finally, Mr. Gardner submitted a letter from Philip C. Malte, Professor of Mechanical Engineering at the University of Washington, stating that the invention disclosed and claimed in Mr. Gardner's parent patents was "very intriguing." Reply Br. App. at 1.

This court has held that to be given substantial weight in the determination of non-obviousness, evidence of secondary considerations must be relevant to the

subject matter as claimed. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1985). Thus, an applicant must establish a nexus between the merits of the claimed invention and the proffered evidence of secondary considerations. *Id.* at n. 42. Here, the Board determined that even if Mr. Gardner had established that his prior patents disclose and claim a pioneer invention, there is no evidence that the claims on appeal would also be regarded as pioneering. Bd. Dec. at 8. The Board also determined that an apparent acquiescence by another patent applicant that Mr. Gardner's parent patents constitute a prior invention is not relevant evidence of the non-obviousness of the claims on appeal. *Id.* at 9-10. We agree with these decisions by the Board. While the Board did not specifically comment on the letter from Professor Malte, we see no reason that they needed to. The letter was considered in oral argument by the Board and properly rejected as not establishing the requisite nexus between Professor Malte's praise and the claims on appeal.

Finally, regarding Mr. Gardner's argument that there had been a long-felt need in the automotive industry for extended range vehicles, the Board determined that the argument was unsupported by any evidence, and failed to establish that a long-felt need existed for the claimed invention as opposed to extended range vehicles of unspecified configuration and operation. Bd. Dec. at 9. The Board further noted that no evidence was presented that the claimed invention actually satisfied the purported long-felt need. *See In re Cavanaugh*, 436 F.2d 491, 496 (CCPA 1971) (once a long-felt need is established, evidence must show that the claimed invention satisfied that need). Thus, we agree with the Board's conclusion that the proffered evidence of secondary considerations fails to overcome the examiner's *prima facie* case of obviousness.

Because we find no legal error in the Board's determination and because the Board's findings are supported by substantial evidence, we *affirm*.

AFFIRMED