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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER ERIC PETERSEN and CATHLEEN TISTLE

Appeal 2017-005632
Application 14/278,853
Technology Center 3600

Before JENNIFER D. BAHR, MICHELLE R. OSINSKI, and
BRANDON J. WARNER, *Administrative Patent Judges*.

WARNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Ford Global Technologies, LLC (“Appellant”)¹ appeals under 35 U.S.C. § 134(a) from the Examiner’s decision rejecting claims 1–7 and 14–23, which are all the pending claims. *See* Appeal Br. 1. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Ford Global Technologies, LLC is the applicant, as provided in 37 C.F.R. § 1.46, and is identified as the real party in interest. Appeal Br. 1.

CLAIMED SUBJECT MATTER

Appellant's disclosed invention "relates to over-the-air vehicle issue resolution using vehicle-provided parameter information." Spec. ¶ 1.

Claims 1 and 14 are independent. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A system comprising:
 - a symptom database associating vehicle parameters indicative of vehicle issues with software updates correcting the issues; and
 - a diagnostic server configured to
 - receive vehicle parameters from a vehicle responsive to vehicle generation of a diagnostic code,
 - utilize the symptom database to identify a software update corresponding to an issue indicated by the vehicle parameters, and
 - provide a response identifying the software update for automatic installation by the vehicle to correct the issue.

EVIDENCE

The Examiner relied on the following evidence in rejecting the claims on appeal:

Kawauchi	US 2005/0065679 A1	Mar. 24, 2005
Holland	US 2005/0097541 A1	May 5, 2005
Bodin	US 2006/0052921 A1	Mar. 9, 2006
Anderson	US 2007/0130302 A1	June 7, 2007
Smith	US 2007/0277167 A1	Nov. 29, 2007
Throop	US 2013/0031540 A1	Jan. 31, 2013

REJECTIONS

The following rejections are before us for review:²

- I. Claims 1, 2, and 4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, and Anderson. Final Act. 8–10.
- II. Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Holland. *Id.* at 10–11.
- III. Claims 5–7, 14, 15, and 17–20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Throop. *Id.* at 11–16.
- IV. Claim 16 stands rejected under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, Throop, and Holland. *Id.* at 16–17.
- V. Claims 21–23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Kawauchi. *Id.* at 17–18.

² We note that a rejection of claims 1–7 and 14–23 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter, has been withdrawn by the Examiner and thus is not before us for review as part of the instant appeal. Ans. 2.

ANALYSIS

*Rejection I – Claims 1, 2, and 4 as unpatentable over
Bodin, Smith, and Anderson*

In rejecting independent claim 1, the Examiner found that Bodin discloses a system including, in relevant part,

a symptom database associating vehicle parameters indicative of vehicle issues with software updates ([0053] server's memory contains database of all possible failures, but vehicle control computer does not. The supplemental diagnostic provider server has a library of additional diagnostic software modules. [at least 0052]. The server chooses which diagnostic module[](software) should be transmitted to the vehicle based on the vehicle parameters. [at least 0054] These are software updates because they are additional software which will be downloaded by the vehicle to run, and were not present on the vehicle.).

Final Act. 8 (italics omitted). The Examiner acknowledged that “Bodin does not explicitly state that its software/diagnostic modules ‘correct the issue,’” but, rather, “Bodin states that they are used to more accurately diagnose the problem.” *Id.* at 9. However, the Examiner found that Smith discloses “the concept of comparing error message to a software maintenance database to determine if the error is a known error and then download the fix for the error.” *Id.* (citing Smith ¶¶ 50, 51). The Examiner acknowledged that Smith is not directed to vehicles, but found that “[a]pplicability to vehicles is evidenced by Anderson, which states that a software upgrade to the vehicle is determined to be necessary after review of data from the vehicle.” *Id.* (citing Anderson ¶ 33). The Examiner concluded that it would have been obvious

to modify Bodin's concept of vehicle error codes compared to databases at remote servers in order to send further software to a vehicle with Smith's teaching of error codes to determine

software fixes to download to resolve the errors and Anderson's teaching of software updating to fix vehicle ECU problems because software fixes . . . resolve software issues that may be in the present version of software.

Id.

Appellant argues that Smith does not “disclose or suggest any association in relation to ‘vehicle parameters indicative of vehicle issues’ at all, let alone ‘a symptom database associating vehicle parameters indicative of vehicle issues with software updates correcting the issues’ as recited in the context of claim 1.” Appeal Br. 10. Appellant also asserts that “Anderson, taken alone or in alleged combination with Bodin and Smith, still fails to disclose, teach, or suggest a ‘symptom database associating vehicle parameters indicative of vehicle issues with software updates correcting the issues’ and a ‘diagnostics server’ configured” as claimed. *Id.* at 11. According to Appellant, “Bodin discloses ‘supplemental diagnostic functions,’ not ‘software updates correcting the issues;’ Smith bears no relation to ‘vehicle parameters indicative of vehicle issues,’ let alone ‘software updates correcting the issues,’ and Anderson mentions vehicle updates but not ‘vehicle parameters indicative of vehicle issues,’ and ‘software updates correcting the issues.’” *Id.* at 11–12 (emphasis omitted). These arguments against Bodin, Smith, and Anderson are unpersuasive because they are not responsive to the rejection presented.

Here, the Examiner did not rely on an individual reference for disclosing “a symptom database associating vehicle parameters indicative of vehicle issues with software updates correcting the issues,” as recited in claim 1. Rather, as discussed above, the Examiner relied on Bodin for disclosing a symptom database that associates vehicle parameters indicating

issues with software updates. *See* Final Act. 8. The Examiner relied on Smith for teaching the concept of using a database to determine if an error in non-vehicle software is known and download a fix that corrects the issue. *See id.* at 9; Ans. 7. The Examiner relied on Anderson only for teaching that it is known to use software to correct vehicle issues. *See* Final Act. 9; Ans. 7. Thus, the rejection is based on the combined teachings of Bodin, Smith, and Anderson. Appellant’s allegations of differences or shortcomings of each of Bodin, Smith, and Anderson individually are not responsive to the rejection articulated by the Examiner and do not apprise us of error. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)) (nonobviousness cannot be established by attacking references individually when the rejection is predicated upon a combination of prior art disclosures).

Appellant argues that “Bodin expressly teaches away from ‘a symptom database associating vehicle parameters indicative of vehicle issues with software updates correcting the issues’ as recited in the context of claim 1.” Appeal Br. 12; *see also* Reply Br. 2–3. In particular, Appellant asserts that,

because Bodin specifically teaches that the information “may not be sufficient to accurately or fully diagnose a vehicle failure,” that there is a need for “enhanced diagnostic accuracy,” and to address this need teaches to use “supplemental diagnostic functions,” Bodin expressly teaches against “associating vehicle parameters indicative of vehicle issues with software updates correcting the issues” as recited by claim 1.

Appeal Br. 12–13 (quoting Bodin ¶¶ 23, 24). This argument is not persuasive of error because it does not point out why a person of ordinary skill, upon reading the reference, would be led in a direction divergent from

the path taken by Appellant. *See In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). Appellant does not identify, nor do we discern, any passage in Bodin that criticizes, discredits, or otherwise discourages the combination of teachings proposed by the Examiner. *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art does not teach away from claimed subject matter merely by disclosing a different solution unless the prior art also criticizes, discredits or otherwise discourages the solution claimed).

In the Reply Brief, Appellant argues that “*In re Fulton* is inapplicable because the Bodin reference discloses a single preferred approach, that of ‘downloading and execution of supplemental diagnostics may be performed until fault isolation is achieved, following which the opportunity server issues requests for bids to potential repair service provide[r]s.’” Reply Br. 2 (quoting Bodin, Abstract). This argument is unpersuasive because Appellant does not persuasively explain why such disclosure criticizes, discredits, or otherwise discourages the Examiner’s proposed modification of Bodin’s system to include software updates that correct vehicle issues. Even if Bodin’s preferred embodiment includes issuing repair service requests, it is well established that the disclosure of a particular embodiment, even a preferred embodiment, in the prior art—absent such criticizing, discrediting, or otherwise discouraging—is not a teaching away. *See DyStar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1364 (Fed. Cir. 2006) (“We will not read into a reference a teaching away from a process where no such language exists.”).

Moreover, we disagree with Appellant’s assertion that “Bodin disparages use of ‘resident diagnostic capabilities.’” Reply Br. 2 (quoting Bodin ¶ 23); *see also id.* at 3 (asserting that “a base reference that disparages

‘associating vehicle parameters indicative of vehicle issues with software updates correcting the issues’ as recited by claim 1 cannot be combined with Smith, Anderson, or other references to cure this deficiency”). Bodin discloses that, “[i]n some cases, . . . resident diagnostic capabilities may not be sufficient to accurately or fully diagnose a vehicle failure.” Bodin ¶ 23 (emphasis added). In other words, Bodin merely acknowledges that diagnostic capabilities residing on a vehicle “may not be sufficient” in all cases, but does not disparage such capabilities.

Appellant also argues that the Examiner’s rejection is based upon impermissible hindsight reconstruction. *See* Appeal Br. 13–14. In particular, Appellant asserts that the rejection “amounts to pointing to an advantage of the invention itself . . . and stating without any required support that such an advantage would motivate one to make the proposed modification or combination.” *Id.* at 13. This argument is not persuasive because Appellant does not identify any knowledge relied upon by the Examiner that was gleaned only from Appellant’s disclosure and that was not otherwise within the level of ordinary skill at the time of the invention. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971) (so long as a conclusion of obviousness is based on a reconstruction that “takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made and does not include knowledge gleaned only from [Appellant’s] disclosure, such a reconstruction is proper”). Other than the bare assertion that the Examiner’s reasoning is based on a purported advantage of the invention (*see* Appeal Br. 13), Appellant does not persuasively explain how or why the reasoning was gleaned only from Appellant’s disclosure and was not otherwise within the

level of ordinary skill in the art. Thus, Appellant's assertion of improper hindsight is unsupported, and this line of argument does not identify error in the Examiner's reasoning articulated in support of the conclusion of obviousness.

As discussed above, the Examiner articulated adequate reasoning based on rational underpinnings for modifying the system of Bodin according to the teachings of Smith and Anderson. *See* Final Act. 9. In this regard, Appellant does not persuasively refute the Examiner's reasoning. Moreover, we note that, "if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007). Appellant has not provided any factual evidence or persuasive technical reasoning to explain why modifying Bodin's system to include software updates that correct vehicle issues, as proposed in the rejections, would yield anything other than a predictable result, or that doing so would be somehow beyond the level of ordinary skill in the art.

After careful consideration of all the evidence of record, Appellant's arguments do not apprise us of error in the Examiner's findings or reasoning in support of the conclusion of obviousness. Accordingly, we sustain the rejection of claim 1, and of its dependent claims 2 and 4, for which Appellant relies on the same arguments (*see* Appeal Br. 12), under 35 U.S.C. § 103(a) as being unpatentable over Bodin, Smith, and Anderson.

*Rejections II–V – Claims 3, 5–7, and 14–23 as unpatentable over
Bodin, Smith, Anderson, and one or more of
Holland, Throop, and Kawauchi*

With respect to the rejections of these claims, Appellant does not set forth any additional substantive arguments separate from the arguments discussed *supra*; instead, Appellant relies on the same arguments set forth with respect to claim 1. *See* Appeal Br. 14–15. Accordingly, for the same reasons that Appellant’s arguments do not apprise us of error in the rejection of claim 1, Appellant also does not apprise us of error in the rejections of claims 3, 5–7, and 14–23 under 35 U.S.C. § 103, which we likewise sustain.

DECISION

We AFFIRM the Examiner’s decision rejecting claims 1, 2, and 4 under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, and Anderson.

We AFFIRM the Examiner’s decision rejecting claim 3 under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Holland.

We AFFIRM the Examiner’s decision rejecting claims 5–7, 14, 15, and 17–20 under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Throop.

We AFFIRM the Examiner’s decision rejecting claim 16 under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, Throop, and Holland.

We AFFIRM the Examiner’s decision rejecting claims 21–23 under 35 U.S.C. § 103 as being unpatentable over Bodin, Smith, Anderson, and Kawauchi.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED