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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DONATUS ANDREAS JOSEPHINE KEES and
ANTHEMIOS PHILEMON PETRIDIS

Appeal 2019-005171
Application 15/340,817
Technology Center 3600

Before ANTON W. FETTING, CYNTHIA L. MURPHY, and
KENNETH G. SCHOPFER, *Administrative Patent Judges*.

SCHOPFER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–12, 14–18, and 20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

BACKGROUND

The Specification states that “[t]his disclosure relates to a method of positioning an electric vehicle relative to a charging point, such as an

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Ford Global Technologies, LLC. Appeal Br. 1.

inductive charging point, using a corrected global positioning system signal.” Spec. ¶ 2.

CLAIMS

Claims 1, 10, and 14 are the independent claims on appeal. Claim 1 is illustrative of the appealed claims and recites:

1. A method of positioning an electric vehicle relative to a charging point, comprising:
 - receiving at the vehicle, a global positioning system (GPS) signal and a GPS correction signal;
 - correcting the GPS signal using the GPS correction signal;
 - positioning the vehicle relative to the charging point using the GPS signal; and
 - responsive to the vehicle being within a threshold vicinity of the charging point, docking the vehicle at the charging point using the GPS correction signal.

Appeal Br., Claims App. 1.

REJECTIONS

1. The Examiner rejects claims 1–12, 14–18, and 20 under 35 U.S.C. § 112(a) as failing to comply with the written description requirement.
2. The Examiner rejects claims 1–7, 9–12, 14–18, and 20 under 35 U.S.C. § 103(a) as unpatentable over McCool² in view of Gazit.³
3. The Examiner rejects claim 8 under 35 U.S.C. § 103 as unpatentable over McCool in view of Gazit and Krammer.⁴

² McCool et al., US 2014/0021908 A1, pub. Jan. 23, 2014.

³ Gazit et al., US 9,020,755 B1, iss. Apr. 28, 2015.

⁴ Krammer, US 2016/0046198 A1, pub. Feb. 18, 2016.

DISCUSSION

Written Description

With respect to claim 1, the Examiner finds that the recitation “positioning the vehicle relative to the charging point using the GPS signal” has “not been properly described in the application as originally filed.” Final Act. 3. The Examiner finds that the Specification discloses positioning the vehicle only after the GPS signal has been corrected and fails to disclose that the vehicle is positioned relative to the charging point before the GPS signal is corrected. *Id.* at 3–4 (citing Spec. ¶ 32, 39). Similarly, with respect to claims 10 and 14, the Examiner finds that there is not adequate support in the Specification for the recitation “drive a vehicle to a charging point using the GPS signal.” *Id.* at 4.

Compliance with the written description requirement is determined based on whether the disclosure as originally filed reasonably conveys to one of ordinary skill in the art that the inventor was in possession of the invention claimed at the time of filing. *See, e.g., Agilent Techs., Inc. v. Affymetrix, Inc.*, 567 F.3d 1366, 1379 (Fed. Cir. 2009). Here, we agree with Appellant that the Specification provides adequate support for the limitation at issue. In particular, as Appellant points out, the Specification discloses using the GPS navigation system to direct a vehicle to the vicinity of a charging point and then using the corrected GPS signal to accurately position the vehicle. Spec. ¶ 38. The Examiner responds that the Specification does not specifically disclose that the GPS signal, as opposed to the GPS navigation system, is used to drive the vehicle, as recited in the claim. Ans. 4. However, the claimed subject matter need not be described “*in haec verba*” in the original specification in order to satisfy the written

description requirement. *In re Wright*, 866 F.2d 422, 425 (Fed. Cir. 1989). One of ordinary skill in the art would understand that use of the GPS navigation system before using the corrected GPS signal as described in paragraph 38 reasonably conveys the distinction between GPS signal and GPS correction signal required by the claims.

Based on the foregoing, we do not sustain the written description rejection of claims 1–12, 14–18, and 20.

Obviousness

Independent claim 1 recites a method requiring positioning a vehicle with respect a charging point using a GPS signal and then docking the vehicle at the charging point using a GPS correction signal when it reaches a threshold vicinity of the charging point. Appeal Br., Claims App. 1. Each of independent claims 10 and 14 requires a controller configured to drive a vehicle to a charging point using a GPS signal and then using a GPS correction signal to dock the vehicle at the charging point when the vehicle reaches a threshold vicinity of the charging point. *Id.* at 2, 3. Thus, each of the independent claims requires, *inter alia*, using a combination of a GPS signal and a GPS correction signal to dock a vehicle at a charging point. We are persuaded by Appellant’s argument that the obviousness rejection of independent claims 1, 10, and 14 “fails to provide adequate articulated reasoning for using both uncorrected and corrected GPS signals in concert and toggling between the two based on a vehicle’s location relative to the charging point.” Reply Br. 2.

With respect to claim 1, for example, the Examiner relies on McCool as teaching a method as claimed including using GPS signals to position a vehicle relative to a charging point and docking the vehicle at the charging

point when it reaches a threshold vicinity of the charging point. Final Act. 5–6 (citing McCool ¶¶ 67, 69, 71). The Examiner finds that McCool does not disclose correcting the GPS signal and using a GPS correction signal to dock the vehicle at the charging point. *Id.* at 6. However, the Examiner finds that “Gazit teaches correcting the GPS signal using the GPS correction signal and docking the vehicle at the charging point using the GPS correction signal.” *Id.* (citing Gazit col. 2, l. 52–col. 3, l. 12) (emphasis omitted). The Examiner concludes:

McCool discloses positioning a vehicle using GPS with respect to a charging point, and responsive to the vehicle being within a threshold vicinity, initiating a docking sequence for the vehicle with respect to the charging point. Gazit teaches positioning a vehicle using a corrected GPS for fine-tuned maneuvering.

It would have been obvious to one of ordinary skill in the art before the effective filing date of the claimed invention to modify the invention of McCool and include the feature of a GPS correction signal, as taught by Gazit, to improve accuracy of the GPS signals of McCool.

Final Act. 6.

We agree with Appellant that the Examiner’s analysis fails to consider the specific requirements of the claim that both uncorrected and corrected GPS signals are used to dock the vehicle at the charging point. The Examiner finds only that it would have been obvious to use a GPS correction signal to improve the accuracy of the GPS signals of McCool. However, we agree with Appellant that the logical conclusion from this rationale is that one would replace McCool’s device or method with a device or method that uses corrected GPS signals to navigate the vehicle during the entire docking

process and not using such signals only when the vehicle reaches a threshold distance, as required by the claims. *See* Appeal Br. 4.

The Examiner responds by noting that Gazit discloses correcting GPS signals when within a predetermined distance of a stationary vehicle. Ans. 5. The problem with relying on this disclosure in Gazit is that Gazit discloses not only correcting the GPS within this “local area” of the stationary vehicle but also in a “wide area” outside of this “local area.” Gazit col. 3, ll. 59–67. Based on this disclosure, it is unclear why one of ordinary skill in the art would seek to modify McCool’s method or device to use corrected GPS signals consistent with the claim, i.e. only when the vehicle is within a threshold vicinity (“local area”) and not outside this vicinity (“wide area”).

Based on the foregoing, we conclude that the Examiner has not set forth an adequate reason with the necessary rational underpinnings to support the conclusion of obviousness with respect to each of the independent claims. *See KSR Int’l. Co. v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Accordingly, we do not sustain the rejection of claims 1, 10, and 14. We also do not sustain the rejection of dependent claims 2–7, 9, 11, 12, 15–18, and 20 for the same reasons. Finally, in the rejection of claim 8, the Examiner does not cure the deficiency in the rejection of claim 1, from which claim 8 depends. Accordingly, we also do not sustain the rejection of claim 8.

CONCLUSION

We REVERSE the rejections of claims 1–12, 14–18, and 20.

In summary:

Appeal 2019-005171
Application 15/340,817

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1-12, 14-18, 20	112(a)	Written description		1-12, 14-18, 20
1-7, 9-12, 14-18, 20	103	McCool, Gazit		1-7, 9-12, 14-18, 20
8	103	McCool, Gazit, Krammer		8
Overall Outcome				1-12, 14-18, 20

REVERSED