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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICHARD ALLEN SCHOLER, DOUGLAS A. OLIVER,
DEREK HARTL, DALE GILMAN, and
PERRY ROBINSON MACNEILLE

Appeal 2014-006491
Application 12/909,111¹
Technology Center 3600

Before JOSEPH A. FISCHETTI, BIBHU R. MOHANTY, and
JAMES A. WORTH, *Administrative Patent Judges*.

FISCHETTI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–4, 6, 7, 16, 19, and 20 of the Office Action mailed on April 24, 2013. We have jurisdiction under 35 U.S.C. § 6(b).

¹ Appellants identify Ford Global Technologies, LLC as the real party in interest. Br. 2.

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellants claim “a trip planning system for planning a trip based on the charge of an electric vehicle battery.” Spec. 2, ll. 20–22.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A trip planning system comprising:
 - one or more computers located remotely from an electric vehicle, being configured to:
 - receive a monetary total that a user wishes to spend charging a vehicle;
 - receive battery charge status of one or more electric vehicle battery packs; and
 - present a projected travelable distance based at least in part on the charge status and a projected charge resulting from charging a vehicle in accordance with the monetary total.

Br. Claims App. 1.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Todoriki	US 6,864,807 B2	Mar. 8, 2005
Fincham	US 2010/0017249 A1	Jan. 21, 2010
Hershkovitz	US 2010/0094496 A1	Apr. 15, 2010
Yamamoto	US 2010/0207772 A1	Aug. 19, 2010
Kressner	US 2010/0256830 A1	Oct. 7, 2010
Hershkovitz	US 2010/0094496 A1	Apr. 15, 2010
Grossman	US 2010/0110077 A1	May 6, 2010

The following rejections are before us for review.

Claims 6, 7, and 11 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 16, 19, and 20 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto in view of Kressner.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto and Kressner and further in view of Hershkovitz.

Claim 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto, Kressner, Hershkovitz, and further in view of Todoriki.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto, Kressner, Grossman, and further in view of Hershkovitz.

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto, Kressner, and further in view of Todoriki.

Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto and Grossman.

Claims 16, 19, and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamamoto, Kressner, in view of Fincham.

FINDINGS OF FACT

1. We adopt the Examiner's findings as set forth on pages 12–28 of the Final Action.

2. Yamamoto discloses:

The remote module **70** on the information center **7** retrieves information including the destination and the departure time

from the car-navigation system **52** via the WAN communication device **53** and the communication network **12**. The remote module **70** calculates the required charge amount C_{tar} necessary for a one way trip to the destination from the charging station **2** or the required charge amount C_{tar} necessary for a round trip to the destination from the charging station **2**. The required charge amount C_{tar} is calculated based on the retrieved information and information including route information and/or traffic information stored in the information center **7**. The remote module **70** calculates the required charge amount C_{tar} during performing the charging operation to the battery **42** by connecting the station side connector **21** and the vehicle side connector **41**. Then, the remote module **70** sends the required charge amount C_{tar} to the charge controller **5** via the WAN communication device **53** and the communication network **12**. The charge controller **5** calculates and generates the estimated time T_I . The estimated time T_I is estimated as a time which is considered necessary to charge the battery **42** to the required charge amount C_{tar} by taking the present charge amount C_{det} detected by the charge amount detecting device **51** into consideration. The remote monitoring system **1** is constructed so that the charge controller **5** sends the estimated time T_I to the terminal **6** via the WAN communication device **53** and the communication network **12**.

Para. 54.

ANALYSIS

35 U.S.C. § 112 REJECTION (first paragraph)

The Examiner rejected claims 6, 7, and 11² under 35 U.S.C. §112 as failing to comply with the written description requirement. We will not sustain this rejection.

² Claim 11 is cancelled. *See* Br., Claims App. 2.

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Claim 6 recites in pertinent part, “informing the user of one or more non-vehicle devices drawing power from a charging network, including providing an option for a user to defer usage of at least one of the non-vehicle devices.” Br. Claims App. 1.

Claim 7 recites in pertinent part “the projected charge in accordance with the monetary total is calculated based on a utility rate.” *Id.*

Appellants cite to Specification at page 10, lines 8 to 29 for the basis of the subject matter of claim 6. Our review of the Specification reveals that Appellants are correct in stating that it is reasonable to monitor the Electric Vehicle Supply Equipment (EVSE) to reveal the actual charge rate to determine the total system load; hence, the logical deduction would be to enhance charge at the EVSE by cutting down on items other than the EVSE.

For claim 7, the Specification at page 12, lines 3 to 14, explicitly describe the claimed feature stating, “This rate information may be set by one or more utility companies.” Spec. 12, ll. 9–10.

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 16, 19, and 20 under 35 U.S.C. § 101.

Appellants’ sole argument against the rejection of these claims under 35 U.S.C. § 101 is:

Claim 16 states “calculating, *via a server*, a time for charging the battery in accordance with the monetary total.” Thus, the claim is tied to a specific machine and is allowable under §101. Claims 19 and 20 are allowable based on dependency from allowable claim 16.

Appeal Br. 9.

We address only Appellants' arguments to the use of a computer to calculate the claimed time value, which value absent any argument by Appellants to the contrary, we find to be the result of a mental process.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract idea “on ... a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional featur[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Alice Corp. Pty. Ltd., 134 S. Ct. 2347, 2358 (2014) (alterations in original) (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer.” *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to intake data and compute a result therefrom amounts to electronic data retrieval and calculation—one of the most basic functions of

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a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. In short, each step does no more than require a generic computer to perform generic computer functions.

The claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than an instruction to apply the abstract idea of calculating a time value using an equation, one of whose variables include a time value. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice Corp. Pty. Ltd.* 134 S. Ct. at 2360.

35 U.S.C. § 103 REJECTION

The Appellants argued claims 1 and 2 together as a group. (Appeal Br. 9). We select claim 1 as the representative claim for this group, and the remaining dependent claim standing or falling with claim 1. 37 C.F.R. § 41.37(c)(1)(iv) (2012).

Appellants argue:

Even if this portion of Kressner is considered to teach “receiving a monetary total that a user wishes to spend charging a vehicle,” when Kressner is combined with Yamamoto, elements of the claims are still not present. Yamamoto may output when a vehicle can travel a predetermined route, but this is not “present a projected travelable distance based ... on ... a projected charge *resulting from charging a vehicle in accordance with the monetary total.*” Yamamoto deals with a charge needed to reach a destination. There is no calculation, in Yamamoto or Kressner, of “a projected charge resulting from charging a vehicle in accordance with the vehicle charging cost.” This is not an actual charge following the charging. This

is a projection of how much charge will be obtained based on the input monetary total. Thus, in Applicant's claims, a user can say "I want to put \$5 of charge in my vehicle." And the system can respond "\$5 will get you X miles," because the claimed system calculates a projected charge based on the expenditure.

Br. 11.

The Examiner however, citing to paragraph 54 of Yamamoto (FF. 2), found that "Yamamoto has disclosed a system and method of calculating the charge necessary to complete a desired trip, and calculating the time needed to complete the charge." (Answer 9). The Examiner then concludes that,

... the car navigation system sends the destination to the remote monitoring station, which calculates the charge necessary for a one way and round trip to a destination, which the Examiner notes would be a distance travelled for a charge. The charge determined for a specific trip would be presented to a user, as well as the distance reached (to a destination or round trip).

(Answer 10).

We agree with the Examiner's findings. We find that Yamamoto discloses determining the required charge based on charge status of the battery by disclosing, "T1 is estimated as a time which is considered necessary to charge the battery 42 to the required charge amount Ctar by taking the present charge amount Cdet detected by the charge amount detecting device 51 into consideration." (FF. 2). We further find that Yamamoto discloses a projected charge resulting from charging a vehicle by disclosing, "[t]he remote module 70 calculates the required charge amount Ctar during performing the charging operation to the battery 42... ." (*Id.*) While Yamamoto calculates based on a known initial distance, we find no evidence in the record before us which would contradict our finding here that one of ordinary skill in the art would have known to substitute one

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known variable for another in a given equation to arrive at the value of the variable whose value is unknown. In the case with Yamamoto, we find one of ordinary skill in the art would know the price of a charge, e.g., KW/\$, and what he/she is willing to spend. Knowing these variables, taken along with the capability of the Ctar to calculate distance per charge (FF. 2) and the known level of battery charge (*id.*), a projected travelable distance could have been easily determined. The mere existence of differences between the prior art and the claims does not establish nonobviousness. *Dann v. Johnston*, 425 U.S. 219, 230 (1976). The issue is “whether the difference between the prior art and the subject matter in question ‘is a different sufficient to render the claimed subject matter unobvious to one skilled in the applicable art.’” *Id.* at 228.

We also affirm the rejections of dependent claims 3, 4, 6, and 7 since Appellants have not challenged such with any reasonable specificity (*see In re Nielson*, 816 F.2d 1567, 1572 (Fed. Cir. 1987)).

Appellants’ arguments against the rejection of claims 16, 19, and 20 is based on the same perceived deficiencies of Yamamoto as identified for claim 1. (Appeal Br. 13). Thus, for the same reasons we found for sustaining the rejection of claim 1, we sustain the rejection of independent claim 16, and dependent claims 19, and 20.

CONCLUSIONS OF LAW

We conclude the Examiner did err in rejecting claims 6 and 7 under 35 U.S.C. § 112, first paragraph.

We conclude the Examiner did not err in rejecting claims 16, 19, and 20 under 35 U.S.C. § 101.

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We conclude the Examiner did not err in rejecting claims 1–4, 6, 7, 16, 19, and 20 under 35 U.S.C. § 103.

DECISION

The decision of the Examiner to reject claims 1–4, 6, 7, 16, 19, and 20 is affirmed.

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