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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DOMINIQUE MARTINEAU, JEAN-PIERRE AROCENA, OLIVIER MANNS, and NICOLAS TERRAL

Appeal 2026-000138
Application 17/427,152
Technology Center 3600

Before LINDA E. HORNER, HYUN J. JUNG, and ERIC C. JESCHKE, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–9, 11–18, 21, and 22 under 35 U.S.C. § 101 as being directed to patent ineligible subject matter. *See* Final Action, dated June 20, 2024 (Final Act.), at 3–4. We have jurisdiction under 35 U.S.C. § 6(b).

We find that the Examiner has not adequately shown that the claims are directed to patent ineligible subject matter. Thus, we REVERSE.

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[1] "Appellant" refers to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Vitesco Technologies GmbH. Appeal Brief, dated April 21, 2025 (Appeal Br.), at 3.

CLAIMED SUBJECT MATTER

Appellant's invention relates to "methods and devices for predictive maintenance of at least one component of a road vehicle." Substitute Specification, filed July 30, 2021 (Spec.), at 1 (Field of the Invention). Claim 1, directed to a method for predictive maintenance of a plurality of components of a road vehicle, and claim 6, directed to a device for the predictive maintenance of a plurality of components of a road vehicle, are independent claims. Claim 1 is reproduced below.

> 1. A method for predictive maintenance of a plurality of components of a road vehicle, each of the components being connected to a computer, the road vehicle comprising a predictive maintenance display unit connected to the computer, the method comprising:
>
> identifying, by operation of the computer, a plurality of predetermined wear parameters, each of which represents wear of a given one of the components, each of the wear parameters taking a value in a predetermined range of wear values corresponding to the component with which a given said wear parameter is associated,
>
> dividing each said predetermined range of wear values, by operation of the computer, into a plurality of predetermined wear value intervals,
>
> combining, by operation of the computer, at least some of the wear value intervals associated with a first of the components with at least some of the wear value intervals associated with a second of the components, according to a first predetermined combination pattern, so as to obtain a plurality of intervals of combination of wear parameters,
>
> determining, by operation of the computer, a duration of use of each said interval of combination of wear parameters as a function of at least one distance traveled by the road vehicle, so as to obtain a determined wear profile,

> comparing the determined wear profile, by operation of the computer, with a predetermined wear profile, and
>
> giving a warning, by operation of the computer, via the predictive maintenance display unit upon detecting that the determined wear profile diverges from the predetermined wear profile.

Appeal Br. 20 (Claims App.).

OPINION

Patent Eligible Subject Matter

An invention is patent eligible if it is a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101 (2018). The Supreme Court, however, has long interpreted § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and abstract ideas are not patentable." *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

The Court has set out a two-part framework to determine whether a claim falls within one of these excluded categories. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 573 U.S. at 217 (citation omitted). If so, the inquiry proceeds to the second step where the elements of the claims are considered "individually and 'as an ordered combination'" to determine whether there are additional elements that "'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 79, 78 (2012)). This second step is "a search for an 'inventive concept' — *i.e.*, an element or combination of elements that is 'sufficient to ensure that the patent in

practice amounts to significantly more than a patent upon the [ineligible concept] itself.'" *Id.* at 217–18 (alteration in original) (quoting *Mayo*, 566 U.S. at 72–73).

The U.S. Patent and Trademark Office ("USPTO") has set out agency policy with respect to its interpretation of Supreme Court and Federal Circuit decisions concerning the requirements for subject matter eligibility. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Guidance"); *see also* October 2019 Update (responding to comments on the 2019 Guidance solicited from the public);[2] *Berkheimer* Memo;[3] The 2024 Guidance Update on Patent Subject Matter Eligibility Including on Artificial Intelligence, 89 Fed. Reg. 58128 (July 17, 2024) ("2024 Guidance"). This guidance, except for the 2024 Guidance, has been incorporated into the Manual of Patent Examining Procedure §§ 2103–06, Ninth Edition, Rev. 01.2024 (Nov. 2024) ("MPEP").

Rejection of claims 1–9, 11–18, 21, and 22 under 35 U.S.C. § 101

The Examiner rejects claims 1–9, 11–18, 21, and 22 under 35 U.S.C. § 101 because they recite an abstract idea (Step 2A, Prong One), the additional claim elements do not integrate the abstract idea into a practical application (Step 2A, Prong Two) and do not amount to significantly more

[2] October 2019 Update: Subject Matter Eligibility, *available at* https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf.

[3] Memorandum from Robert W. Bahr, Deputy Commissioner for Patent Examination Policy, to the Patent Examining Corps, "Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)" (April 19, 2018), *available at* https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF.

than the judicial exception (Step 2B). Final Act. 3–4; Advisory Action, dated November 22, 2024 (Advisory Act.), at 2; Examiner's Answer, dated August 13, 2025 (Ans.), at 3–7.[4] Appellant presents arguments directed to claim 1 (Appeal Br. 9–13) and claim 6 (Appeal Br. 14–18).

Step 2A, Prong One

"In Prong One examiners evaluate whether the claim recites a judicial exception, i.e. whether a law of nature, natural phenomenon, or abstract idea is **set forth** or **described** in the claim." MPEP § 2106.04(II)(A)(1).

In this case, the Examiner evaluated Step 2A, Prong One, to determine, "[i]s the claim *directed to* a law of nature, a natural phenomenon, or an abstract idea?" Ans. 4 (original emphasis omitted, panel emphasis added). The Examiner concluded under the Prong One analysis that "taken as a whole, the recited process [of the claims] is considered an abstract idea." *Id.* Ans. 4.

Appellant argues that the Examiner improperly determines under Step 2A, Prong One that the claims are "directed to an abstract idea." Appeal Br. 9–11. We agree with Appellant.

The Examiner should not have reached any conclusion as to what the claims are "directed to" until after completing an analysis under Step 2A, Prong Two. *See* MPEP § 2106.04(II)(A) (explaining that Step 2A is a two-prong inquiry and that both prongs together determine whether a claim is directed to a judicial exception). Even if some of the claim elements recite a judicial exception, the rejection falls short under Prong Two.

[4] The Examiner presents different articulations of the rejection in Final Action and the Answer. *Compare* Final Act. 3–4, *with* Ans. 3–7. We focus on the latest articulation of the rejection, as presented in the Examiner's Answer, for our analysis.

Step 2A, Prong Two

Under Step 2A, Prong Two, the Examiner determined that the claims do not integrate the recited judicial exception into a practical application. Final Act. 4–6. The rejection did not, however, comply with Office Guidance because the Examiner improperly considered whether the additional elements are well-understood, routine, and conventional. *Id.*

The Prong Two analysis includes identifying whether there are any additional elements recited in the claim beyond the judicial exception. MPEP § 2106.04(d)(II). Step 2A does not, however, consider whether these additional elements are well-understood, routine, and conventional:

> Step 2A specifically excludes consideration of whether the additional elements represent well-understood, routine, conventional activity. Accordingly, in Step 2A Prong Two, examiners should ensure that they give weight to all additional elements, whether or not they are conventional, when evaluating whether a judicial exception has been integrated into a practical application. Additional elements that represent well-understood, routine, conventional activity may integrate a recited judicial exception into a practical application.

Id. § 2106.04(d)(I). The MPEP explains that "the claimed invention may integrate the judicial exception into a practical application by demonstrating that it improves the relevant existing technology although it may not be an improvement over well-understood, routine, conventional activity." *Id.*

The Examiner determined that the additional claim limitations of "'a computer', 'a predictive maintenance display', and 'sensors' . . . are recited at a high level of generality" and do not recite "anything more than what generic computer, display or sensor components that are routine, well understood features of the art would enable." Ans. 5. Specifically, the

rejection found that "[t]he computer is recited simply as a computer . . . with no particular circuitry or structure that differentiates it from routine computers in the art" and that "the recited predictive maintenance display functions are routine and well understood in the art." Ans. 5; *see also id.* at 8 (finding that "the broadest reasonable interpretation [of 'warning'] would include, for example, indicator lights, such as those on a vehicle dashboard, which are routine in the art").

The rejection also mistakenly quotes from *Alice* step two (USPTO Guidance Step 2B), which looks at whether the claim simply appends well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. Ans. 8–9 (citing *Alice*, 573 U.S. at 225; MPEP § 2106.05(d)). Rather, the relevant inquiry under *Alice* step one (USPTO Guidance Step 2A) looks to whether the claims "focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016); *see also* MPEP § 2106.04(d). Thus, the Examiner improperly considered whether the additional elements were well-understood, routine, and conventional in the Step 2A, Prong Two analysis.

Further, Appellant argues that claim 1 "provide[s] specific improvements to vehicle maintenance technology" including "enabling predictive rather than reactive maintenance through real-time monitoring," "reducing unexpected component failures through early warning," "improving maintenance scheduling accuracy through analysis of actual usage patterns," and "providing an integrated solution combining wear,

adaptation and driving profiles." Appeal Br. 11. Appellant submits that by determining the duration of use to obtain a wear profile and then comparing the wear profile to a predetermined wear profile, "the present invention allows for the real anticipation of maintenance because it takes into account the conditions of use of the component and detects a potential fault in which a component is degraded as a result of continuous operation over a long time interval." Reply Br. 4.

The Prong Two analysis must consider the claim as a whole. "That is, the limitations containing the judicial exception as well as the additional elements in the claim besides the judicial exception need to be evaluated together to determine whether the claim integrates the judicial exception into a practical application." *Id.* § 2106.04(d)(III).

The rejection fails to show by the analysis presented on the record that the claim, when evaluated as a whole, is not a practical application of the judicial exception. Under Step 2A, Prong Two, the Examiner should have looked to Appellant's Specification "to determine if the disclosure provides sufficient details such that one of ordinary skill in the art would recognize the claimed invention as providing an improvement." MPEP § 2106.04(d)(1). If so, then, the Examiner should have evaluated the claims "to ensure that [they] reflect[] the disclosed improvement." *Id.* We do not find this analysis in the rejection before us.

Step 2B

The rejection also falls short in its articulation under Step 2B. For the same reasons as provided in Step 2A, Prong Two, the Examiner found that the additional claim elements "do not amount to significantly more than the judicial exception." Ans. 6; *see also* Final Act. 4.

Appellant argues that "the examiner has not provided any factual evidence that this configuration was conventional at the time of the invention, as required by *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018)." Appeal Br. 13. We agree with Appellant that the Examiner's stated rejection is inadequate under the Office's guidance.

The Examiner failed to provide the requisite factual determinations to support the conclusion under Step 2B. The MPEP provides that "[a] factual determination is required to support a conclusion that an additional element (or combination of additional elements) is well-understood, routine, conventional activity." MPEP § 2106.05(d)(I). The Examiner must provide express support for this factual determination in writing:

> The required factual determination must be expressly supported in writing, as discussed in MPEP § 2106.07(a). Appropriate forms of support include one or more of the following: (a) A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s); (b) A citation to one or more of the court decisions discussed in Subsection II below as noting the well-understood, routine, conventional nature of the additional element(s); (c) A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s); and (d) A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s). For more information on supporting a conclusion that an additional element (or combination of additional elements) is well-understood, routine, conventional activity, see MPEP § 2106.07(a), subsection III.

Id. The Examiner asserts that certain additional elements are well-understood, routine, and conventional, but fails to support these

assertions with one of the four enumerated forms of support set forth in the MPEP. Ans. 5–6, 8–9.

Because the rejection fails to follow Office guidance in both Step 2A and Step 2B of the Section 101 analysis, the Examiner has failed to adequately articulate why the subject matter of the claims is patent ineligible. Therefore, we do not sustain the rejection of claims 1–9, 11–18, 21, and 22 under 35 U.S.C. § 101.

CONCLUSION

The Examiner's rejection under 35 U.S.C. § 101 is reversed.

DECISION SUMMARY

The following table summarizes our decision:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–9, 11–18, 21, 22	101	Eligibility		1–9, 11–18, 21, 22

REVERSED