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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JIN WATANABE

Appeal 2019-002458
Application 14/707,677
Technology Center 2800

Before LINDA M. GAUDETTE, LILAN REN, and
MICHAEL G. McMANUS, *Administrative Patent Judges*.

REN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1 and 2. *See* Final Act. 5, 7. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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 “Yazaki Corporation, a corporation of Japan.” Appeal Br. 4.

CLAIMED SUBJECT MATTER

“The present invention relates to a method of determining whether there presents a possibly-unused electric wire among electric wires of a wire harness, and a program.” Spec. 1:14–16. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for assembling a plurality of wire harnesses comprising:
 - a forming step of forming the plurality of wire harnesses from a plurality of electric wires;
 - a formation step of forming a plurality of patterns by assigning each of the wire harnesses with a part number based on each of divided regions into which a space of a vehicle is divided;
 - a classification step of classifying for each pattern a group of electric wires of each wire harness assigned to a first divided region of the divided regions as necessary electric wires having a connection counterpart in a second divided region adjacent to the first divided region among the divided regions, and classifying for each pattern at least one of the electric wires of the wire harness as an extra electric wire not having a connection counterpart in the second divided region;
 - a determination step of determining as a possibly-unused electric wire an electric wire that is classified as the extra electric wire in any one of the patterns and classified as the necessary electric wire in any one of the remaining patterns, and determining as not a possibly-unused electric wire that an electric wire that is classified as the extra electric wire in entirety for each of the patterns;
 - preserving each electric wire determined as a possibly-unused electric wire in each of the wire harnesses; and
 - removing each electric wire determined as not a possibly-unused electric wire from each of the wire harnesses.

Claims Appendix (Appeal Br. 22).

REFERENCES

The prior art references relied upon by the Examiner are:

| Name | Reference | Date |
|-----------------------------|-----------------------|---------------|
| Sasaki | US 2012/0262185 A1 | Oct. 18, 2012 |
| Bimmer Forums ("Bimmer") | Non-patent literature | Jan. 7, 2012 |

REJECTION

Claims 1 and 2 are rejected under pre-AIA 35 U.S.C. § 101 as being patent ineligible. Final Act. 5.

Claims 1 and 2 are rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Sasaki in view of Bimmer. Final Act. 7.

OPINION

Section 101 Rejection

Legal Framework

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 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).

In determining whether a claim falls within an excluded category, our inquiry focuses on the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with

that framework, we first determine what concept the claim is “directed to.” See *Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); see also *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; see also *id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by

attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citations omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The Office recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum”), 84 Fed. Reg. 50 updated by USPTO, *October 2019 Update: Subject Matter Eligibility* (available at <https://go.usa.gov/xp88j>); *see also* October 2019 Patent Eligibility Guidance Update, 84 Fed. Reg. 55942 (Oct. 18 2019) (notifying public that October update was available). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim recites a judicial exception and does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See generally Memorandum.

Analysis

Applying the guidance set forth in the Memorandum, we conclude that claims 1 and 2 are patent eligible under § 101.

Revised Step 2A, Prong One—Directed to a Judicial Exception

The Memorandum instructs us first to determine whether each claim recites any judicial exception to patent eligibility. 84 Fed. Reg. at 54. The Memorandum identifies three judicially-expected groupings: (1) mathematical concepts, (2) certain methods of organizing human activity such as fundamental economic practices, and (3) mental processes. *Id.* at 52.

The Examiner finds that the claims are directed to the abstract idea of a mental process without significantly more. Final Act. 5; *see also* Ans. 5. Appellant argues, on the other hand, that the recited steps are directed to “physical manipulation of electric wires” and therefore are not abstract. Appeal Br. 13.

We agree with Appellant that claim 1 recites actions applied to a physical apparatus and therefore is not directed to a mental process. For example, the recited step of “forming the plurality of wire harnesses from a

plurality of electric wires” requires the use of electric wires to produce the apparatus of a wire harness. The recited step of “preserving each electric wire determined as a possibly-unused electric wire in each of the wire harnesses” requires an action that results in a particular structure of the wire harness (i.e., a wire harness having certain wires). The recited step of “removing each electric wire determined as not a possibly-unused electric wire from each of the wire harnesses” requires an action to remove certain wires that results in a different structure of the wire harness (i.e., a wire harness without certain wires).

Given that claim 1 is a method claim reciting various physical actions performed to produce the apparatus of a wire harness, we conclude that claim 1 (and claim 2 which depends from claim 1) is not directed to the abstract idea of a mental process. Based on the foregoing that claims 1 and 2 are not directed to a judicial exception, we need not proceed to the remaining portions of the section 101 eligibility analysis.

The rejection of claims 1 and 2 under section 101 is reversed.

Section 103 Rejections

We review the appealed rejections for error based upon the issues identified by Appellant and in light of the arguments and evidence produced thereon. *Cf. Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (cited with approval in *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”)). After having considered the evidence presented in this Appeal and each of Appellant’s contentions, we are not persuaded that reversible error has been identified, and we affirm the Examiner’s § 103 rejections for the reasons expressed in

the Final Office Action and the Answer. We add the following primarily for emphasis.

In rejecting claim 1 under section 103, the Examiner acknowledges that Sasaki does not teach or suggest the steps of “determining as a possibly-unused electric wire . . . ,” “preserving each electric wire determined as a possibly-unused electric wire in each of the wire harnesses,” and “removing each electric wire determined as not a possibly-unused electric wire from each of the wire harnesses.” Final Act. 9. The Examiner accordingly cites Bimmer for the teaching. *Id.* More specifically, the Examiner finds that Bimmer teaches color coding wires to indicate whether they are necessary, possibly unused, or unused. *Id.* at 9–10 (citing various portions of Bimmer for the teaching of categorizing wires as necessary, possibly-unused, and unused); Ans. 9 (repeating the finding that Bimmer teaches “marking wires black for necessary, red for unused, and yellow for possibly-unused”). The Examiner further finds that Bimmer also teaches the removal of unused wires which “implicitly discloses preserving the possibly-unused wires, as there is no mention of removing them.” Final Act. 10.

Appellant does not disagree with the Examiner’s finding that Bimmer teaches a color coding system to categorize wires as necessary, possibly-unused, and unused. *See* Appeal Br. 19–20; *see also* Reply Br. 7 (acknowledging that “[a]lthough BimmerForums discloses that yellow tags are initially applied to certain wires” and arguing only that “BimmerForums clearly discloses that all yellow tagged wires are subsequently used or removed”) (emphases removed). Appellant’s sole argument is that Bimmer does not teach or suggest the “preserving” step because (1) Bimmer “removes all of the unused wires, regardless of whether the wire has the

interim marking of yellow tape” and (2) “the yellow wires are ultimately tagged as used or unused, and the unused wires are removed.” Appeal Br. 19, 20.

We are not persuaded by the argument because it is incommensurate in scope with claim 1. As the Examiner points out, claim 1 is an open-ended claim and does not exclude an additional step of removing the possibly-unused wires. Ans. 9. Claim 1 requires “preserving each electric wire determined as a possibly-unused electric wire” but does not require such preserving to be maintained over a specific duration. The Examiner’s finding that Bimmer teaches to “use the diagram to investigate them [the yellow taped wires] later” (Bimmer pg. 2) which corresponds to the “preserving” step recited in claim 1 is therefore supported by the record. Appellant’s argument that the yellow wires “are ultimately . . . removed” does not address limitations recited in claim 1 and does not identify reversible error in the Examiner’s findings in support of the rejection. Appeal Br. 20.

We sustain the rejection of claim 1 under section 103 based on Sasaki and Bimmer. Appellant does not argue separately the rejection of claim 2 and it is sustained as well. Appeal Br. 20²; *see* 37 C.F.R. § 41.37(c)(1)(vii).

² We note that Appellant requests the rejection of “dependent claims 2-16 under 35 U.S.C. § 103(a)” be reversed. Appeal Br. 20, 21 (stating that claims “1-16” are patentable. These statements are inconsistent with the Claims Appendix (Appeal Br. 22–23), the “Status of Claims” (*id.* at 4) and “Grounds of Rejection To Be Reviewed on Appeal” (*id.* at 5). We consider these references to claims that are not before us, namely claims 3–16, typographical errors.

CONCLUSION

The Examiner's rejection of claims 1 and 2 under section 101 is reversed.

The Examiner's rejection of claims 1 and 2 under section 103 over Sasaki and Bimmer is affirmed.

More specifically,

DECISION SUMMARY

| Claims Rejected | 35 U.S.C. § | Reference(s)/Basis | Affirmed | Reversed |
|-------------------------|--------------------|---------------------------|-----------------|-----------------|
| 1, 2 | 101 | Patent eligibility | | 1, 2 |
| 1, 2 | 103 | Sasaki, Bimmer | 1, 2 | |
| Overall Outcome: | | | 1, 2 | |

TIME PERIOD FOR RESPONSE

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