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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/841,235	03/15/2013	Paul S. Addison	H-RM-03071 COVC:0402/FLE	5653

52144 7590 10/27/2017

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ART UNIT	PAPER NUMBER
2686	

NOTIFICATION DATE	DELIVERY MODE
10/27/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PAUL S. ADDISON and JAMES N. WATSON

Appeal 2017-003780
Application 13/841,235
Technology Center 2600

Before JAMES R. HUGHES, CATHERINE SHIANG, and JOYCE CRAIG, *Administrative Patent Judges*.

SHIANG, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–5, 7–11, and 13–23, which are all the claims pending and rejected in the application. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Introduction

According to the Specification, the present invention relates to medical devices. *See generally* Spec. 1. Claim 1 is exemplary:

> 1. A system for facilitating the monitoring of physiologic conditions, comprising:
>
> a medical sensor configured to obtain a physiological signal from a patient; a processor configured to:
>
> generate a wavelet transform scalogram of the physiological signal;
>
> compare a characteristic of the wavelet transform scalogram to a stored characteristic to identify the patient associated with the physiological signal from among multiple patients; and
>
> generate an alert in response to one or more characteristics of the wavelet transform scalogram not matching the stored characteristic, wherein the alert indicates that the patient is not properly identified.

References and Rejections

Claims 18–21 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement.

Claims 1–5, 7–11, and 13–23 are rejected under 35 U.S.C. §101 because they are directed to patent ineligible subject matter.

Claims 1–5, 7–11, and 13–23 are rejected under 35 U.S.C. §103(a) as being unpatentable over Baker (2013/0146056 A1, June 13, 2013), McKenna (2011/0071376 A1, Mar. 24, 2011), and Johnson (2013/0325508 A1, Dec. 5, 2013).

ANALYSIS

35 U.S.C. § 112, First Paragraph

The Examiner rejects claim 18–21 for failing to comply with the written description requirement with respect to the limitation "monitoring the patient for physiological conditions in response to identifying the patient or confirming the identity of the patient associated with the first physiological signal." *See* Final Act. 4; Ans. 2–3.

We disagree. To satisfy the written description requirement, the disclosure must reasonably convey to skilled artisans that Appellant possessed the claimed invention as of the filing date. *See Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Specifically, the description must "clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed" and

> the test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.

Id. (alteration in original) (internal quotations and citations omitted).

We agree with Appellants that one skilled in art would understand excerpts from pages 19, 22, and 23 of the Specification describe the limitation "monitoring the patient for physiological conditions in response to identifying the patient or confirming the identity of the patient associated with the first physiological signal." *See* App. Br. 8–9. The Examiner does not discuss those excerpts, and does not explain why Appellants' arguments are incorrect.

Because the Examiner fails to provide adequate basis for the rejection, we reverse the Examiner's rejection of claims 18–21 under 35 U.S.C. § 112, first paragraph.

35 U.S.C. § 101

We disagree with Appellants' arguments, and agree with and adopt the Examiner's findings and conclusions in (i) the action from which this appeal is taken and (ii) the Answer to the extent they are consistent with our analysis below.

The Examiner rejects the claims under 35 U.S.C. § 101 because they are directed to patent-ineligible subject matter. *See* Final Act. 3–4. Appellants argue the Examiner erred. *See* App. Br. 9–20.

Appellants have not persuaded us of error. In response to Appellants' arguments, the Examiner provides further findings showing the claims are directed to patent ineligible subject matter. *See* Ans. 5–8. Appellants fail to persuasively respond to such findings and therefore, fail to show error in the Examiner's findings.

Further, Appellants have not shown the claims are patent eligible. Section 101 of the Patent Act provides "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. That provision "'contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116

(2013)). According to the Supreme Court:

> [W]e set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, we then ask, "[w]hat else is there in the claims before us?" . . . To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. . . . We have described step two of this analysis as 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."

Alice Corp., 134 S. Ct. at 2355.

The Federal Circuit has described the *Alice* step-one inquiry as looking at the "focus" of the claims, their "character as a whole," and the *Alice* step-two inquiry as looking more precisely at what the claim elements add—whether they identify an "inventive concept" in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Regarding the *Alice* step one inquiry, the Federal Circuit has "treated *collecting information*, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas." *Elec. Power*, 830 F.3d at 1353 (emphasis added); *see also Internet Patents*, 790 F.3d at 1348–49; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *Content Extraction & Transmission LLC*

v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014). "In a similar vein, we have treated *analyzing information* [including manipulating information] by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Elec. Power*, 830 F.3d at 1354 (emphasis added); *see also In re TLI Commc'ns. LLC Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016). "And we have recognized that *merely presenting the results of abstract processes of collecting and analyzing information, without more* (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis." *Elec. Power*, 830 F.3d at 1354 (emphasis added); *see also Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014).

The rejected claims "fall into a familiar class of claims 'directed to' a patent-ineligible concept." *Elec. Power*, 830 F.3d at 1353. Contrary to Appellants' arguments (App. Br. 9–17), the claims are similar to the claims of *Electric Power,* and are focused on the combination of abstract-idea processes or functions. *See Elec. Power*, 830 F.3d at 1354. For example, claim 1 is directed to receiving or collecting information (". . . obtain a physiological signal . . ."), and analyzing and manipulating information ("generate a wavelet transform scalogram . . .; compare . . . to identify . . .; and generate . . . ."). Similarly, claim 11 is directed to receiving or collecting information (". . . obtain a physiological signal . . ."), and analyzing and manipulating information ("compare . . . ; determine . . . to identify . . .; and generate a signal . . . ."). Claim 18 is also directed to receiving or collecting information ("obtaining . . . a first physiological signal . . ."), and analyzing and manipulating information ("generating . . . ;

comparing . . . to identify . . .; and monitoring . . . ."). *See Elec. Power*, 830 F.3d at 1353. The dependent claims are directed to similar functions or processes, and Appellants have not shown such claims are directed to other non-abstract functions or processes. *See* claims 2–5, 7–10, 13–17, and 19–23.

Appellants' assertion regarding pre-emption (App. Br. 18–19) is unpersuasive, because "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility . . . . Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP*, 788 F.3d at 1362–63 ("that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract").

Regarding the *Alice* step two inquiry, contrary to Appellants' assertion (App. Br. 17–20), Appellants have not shown the claims in this case require an arguably inventive set of components or methods, or invoke any assertedly inventive programming. *See Elec. Power*, 830 F.3d at 1355.

Further, contrary to Appellants' arguments (App. Br. 17–20), the claims are similar to the claims of *Electric Power*, because they do not require any nonconventional computer, network, or sensor components, or even a "non-conventional and non-generic arrangement of known, conventional pieces," but merely call for performance of the claimed information collection, analysis, and manipulation functions on generic computer or sensor devices. *See Elec. Power*, 830 F.3d at 1355; *see also*

Claims 1 and 11 (reciting "*a medical sensor* configured to . . . *a processor* configured to . . . .") (emphases added). Claim 18 similarly recites "a medical senor" and "a first [or a second] processor." The dependent claims call for similar generic components and devices, and Appellants have not shown such claims require any non-conventional components or devices. *See* claims 2–5, 7–10, 13–17, and 19–23.

Appellants' arguments about the technical field of monitoring systems (App. Br. 19) is unpersuasive, because "limiting the claims to the particular technological environment of [a certain field] is, without more, insufficient to transform them into patent-eligible applications of the abstract idea at their core." *Elec. Power*, 830 F.3d at 1354; *see also Alice*, 134 S.Ct. at 2358; *Bilski v. Kappos*, 130 S.Ct. 3218, 3230 (2010); *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981).

In short, Appellants have not shown the claims, read in light of the Specification, require anything other than conventional computer and sensor technology for collecting, analyzing, and presenting the desired information. *See Elec. Power*, 830 F.3d at 1354. Such invocations of computers and sensors are "insufficient to pass the test of an inventive concept in the application" of an abstract idea. *See Elec. Power*, 830 F.3d at 1355.

Because Appellants have not persuaded us the Examiner erred, we sustain the Examiner's rejection of claims 1–5, 7–11, and 13–23 under 35 U.S.C. § 101.

35 U.S.C. § 103

We have reviewed the Examiner's rejection in light of Appellants' contentions and the evidence of record. We concur with Appellants'

contention that the Examiner erred in finding the cited portions of Baker, McKenna, and Johnson collectively teach "compare a characteristic of the wavelet transform scalogram to a stored characteristic to identify the patient associated with the physiological signal from among multiple patients," as recited in independent claim 1. *See* App. Br. 20–26.

The Examiner does not specifically map the above limitation. While acknowledging Baker does not teach the above limitation, the Examiner cites 31 paragraphs and 8 figures from McKenna, and numerous figures and paragraphs from Johnson. *See* Final Act. 5–6; Ans. 9. The Examiner also cites a list of words from McKenna's paragraphs, but does not explain how the disputed limitation is mapped to that list. *See* Final Act. 6; Ans. 9. For example, that list includes "artificial neural network; external computer system coupled to monitor," but the Examiner does not explain how they teach the disputed limitation. *See* Final Act. 6; Ans. 9. Because the Examiner cites a large number of paragraphs and figures from the prior art, but does not explain how the cited prior art portions teach the disputed limitation, it is unclear how the Examiner maps the disputed limitation to the teachings of the references. To affirm the Examiner on this record would require considerable speculation on our part, and we decline to engage in such speculation.

Because the Examiner fails to provide sufficient evidence or explanation to support the rejection, we are constrained by the record to reverse the Examiner's rejection of claim 1.

Independent claim 11 recites "compare a first wavelet transform scalogram of the first physiological signal to a second wavelet transform scalogram of a second physiological signal previously acquired from the

patient or another patient, wherein the second wavelet transform scalogram is associated with identification information for a specific patient." Independent claim 18 recites "comparing, via the first processor or a second processor, the wavelet transform scalogram to one or more stored wavelet transform scalograms of previously acquired physiological signals obtained from multiple patients including the patient to identify the patient or confirm an identity of the patient associated with the first physiological signal." The Examiner does not separately map the limitations of claims 11 and 18. *See* Final Act. 9–11. Instead, the Examiner cites 31 paragraphs and 8 figures from Baker, 31 paragraphs and 8 figures from McKenna, and states "see also claim(s) 1 and above claim(s)." Final Act. 9–11. Similar to the discussions above with respect to claim 1, because the Examiner cites a large number of paragraphs and figures from the prior art, but does not explain how the cited prior art portions teach the disputed limitation, it is unclear how the Examiner maps the disputed limitation to the teachings of the references. To affirm the Examiner on this record would require considerable speculation on our part, and we decline to engage in such speculation. Therefore, we reverse the Examiner's rejection of independent claims 11 and 18.

We also reverse the Examiner's rejection of corresponding dependent claims 2–5, 7–10, 13–17, and 19–23.

DECISION

We affirm the Examiner's decision rejecting claims 1–5, 7–11, and 13–23.[1]

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[1] Because we affirm at least one ground of rejection with respect to each claim on appeal, we affirm the Examiner's decision rejecting claims 1–5, 7–11. *See* 37 C.F.R. § 41.50(a)(1).

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

AFFIRMED