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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHESTER HEATH

Appeal 2018-003788
Application 13/572,094
Technology Center 3700

Before EDWARD A. BROWN, BRETT C. MARTIN, and
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ seeks review under 35 U.S.C. § 134(a) of the Examiner's decision, as set forth in the Final Office Action dated October 6, 2016 ("Final Act."), rejecting claims 1, 3–8, and 10–15.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Quantum Group, Inc. is identified as the real party in interest. Appeal Br. 3.

² Claims 2, 9, and 16–19 have been cancelled. Appeal Br. (Claims App.).

CLAIMED SUBJECT MATTER

Appellant's disclosure "relates to the field of monitoring physiological functions in general, and in particular to analysis and interpretation of the waveforms obtained in physiological measurements." Spec. ¶ 2.

Claims 1 and 8 are independent claims. Claim 1 is illustrative and reads:

1. A method of diagnosis, comprising:
 - sampling, via a carbon dioxide sensing sensor, a breathing of a patient[;]
 - receiving, from the carbon dioxide sensing sensor at a data receiver, a sensor output corresponding to a breathing of a patient, the sensor output indicating an amount of carbon dioxide in the breathing of the patient during the sampling;
 - transmitting, via the data receiver and over a data communications network, the sensor output to a signal converter which outputs a processed digital signal to a processor comprising a digitized version of the output signal;
 - from the processed digital signal and via a processor, obtaining a periodic waveform corresponding to a pattern of the breathing of the patient, wherein the periodic waveform is indicative of a carbon dioxide concentration in air expired by the patient;
 - transmitting the periodic waveform from the processor to a visual user display interface;
 - analyzing the periodic waveform at the processor in order to obtain a set of data that reflects the carbon dioxide concentration in the expired air, the set of data comprising even harmonics and odd harmonica present in the periodic waveform;
 - detecting, via the processor, a presence of a potential adverse respiratory event in the patient based on by performing at least one data analysis with the set of data, the at least one data analysis comprising:
 - determining if a number of the even harmonics in the set of data exceeds a pre-defined threshold, and
 - upon determining that a number of the even harmonics in the set of data exceeds a pre-defined threshold[,]

identifying the presence of the potential adverse respiratory event; and

upon detecting the presence of the potential adverse respiratory event in the patient based on the set of data, generating, via the processor, control signals for a transducer to produce an audible alert signal that indicates the presence of a potential adverse respiratory event in the patient.

Appeal Br. 15–16 (Claims App.).

REJECTION³

Claims 1, 3–8, and 10–15⁴ are rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

ANALYSIS

Section 101 states, “[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. However, the Supreme Court has “long held that this provision contains an important implicit exception: [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).

³ The objection to claim 1 and the rejection of claims 1, 3–8, and 10–15 under 35 U.S.C. § 112, second paragraph, have been withdrawn responsive to Appellant’s reply filed on January 6, 2017. *See* Adv. Act. (Feb. 24, 2017 (Cont. Sheet)); Final Act. 2–3.

⁴ The Appeal Brief indicates incorrectly that claims 1 and 3–15 are pending. Appeal Br. 3, 6. Claim 9 has been cancelled. *See* Appeal Br. 19 (Claims App.).

In issues involving subject matter eligibility, our inquiry focuses on whether the claims satisfy the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 216–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). This framework considers, in the first step, whether the claim at issue is “directed to” one of those ineligible concepts. *Id.* If not, the claim satisfies § 101. *Id.* If the claim is “directed to” one of those ineligible concepts, we proceed to the second step, where 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.” *Id.* (quoting *Mayo*, 566 U.S. at 79). The Supreme Court characterizes the second step 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.’” *Id.* (quoting *Mayo*, 566 U.S. at 72–73) (alteration in original). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.* at 221.

On January 7, 2019, the PTO issued revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (hereinafter “2019 Guidance”). The 2019 Guidance includes steps 2A and 2B. Under Step 2A, Prong One, of that guidance, we first look to whether the claim recites 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).

If a claim recites a judicial exception, we proceed to Step 2A, Prong Two, in which we determine if the claim recites 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 fails to integrate that exception into a practical application, do we proceed to Step 2B of the guidance. At Step 2B, we determine if the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. *See* 2019 Guidance.

Claim Grouping

Appellant presents specific argument only for claim 1. Appeal Br. 7–12. For claim 8, Appellant relies on the same argument as presented for claim 1 (*Id.* at 12–13), and relies solely on the dependency of claims 3–7 and 10–15 from claim 1 or 8 (*id.* at 13). Accordingly, we decide the appeal of this rejection based on claim 1, with claims 3–8 and 10–15 standing or falling with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Step 1 – Statutory Category

Claim 1 recites a method of diagnosis comprising steps, and, therefore, is a process. *See* Appeal Br. 15–16 (Claims App.).

Step 2A, Prong One – Recitation of Judicial Exception

Examiner’s Findings and Appellant’s Contentions

Applying the first step of the *Alice* analysis, the Examiner determines that claim 1 is directed to an abstract idea. Final Act. 3. In particular, the Examiner determines that claim 1 is directed to analyzing the periodic waveform corresponding to a pattern of breathing of a patient, and detecting a presence of a potentially adverse respiratory event based on the set of data from the periodic waveform, wherein the analysis comprises determining that a number of even harmonics in the set of data exceeds a predefined threshold to thereby identify the presence of a potentially adverse respiratory event, which the Examiner states is “an abstract idea of itself.” *Id.*

Appellant contends, *inter alia*, that claim 1 is not directed to an abstract idea based on the court’s decision in *McRO, Inc. v. Bandai Namco Games Amer. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). Appeal Br. 8–10. According to Appellant, the court determined that the computer was not used to perform an existing human process, but rather, to perform a different process. *Id.* at 8. The claimed process used a different set of rules from humans, and the incorporation of the rules in the method was not an automation of a human process, but instead, was an improvement in the existing technology. *Id.* Appellant contends that, like in *McRO*, its computer-implemented method is not an automation of a human process, but is a different process altogether. Appeal Br. 8.

Appellant asserts,

the invention in claim 1 does not involve any type of visual recognition process. Rather, [it] involves *a novel process* in which the waveform is analyzed to determine odd and even

harmonics in the waveform and determining that an adverse event has occurred based on this analysis.

Id. at 9 (emphasis added). Appellant also asserts,

like the process of *McRO*, the method of claim 1 is clearly not the use of a computer to perform an existing human process. Rather, claim 1 recite[s] systems and methods *incorporating a novel algorithm*, not performed by humans, which results in an improvement in existing capnogram monitoring technology.

Id. (emphasis added).

Our Review

We agree with the Examiner that claim 1 recites an abstract idea. In fact, claim 1 recites several abstract ideas. Claim 1 recites “analyzing the periodic waveform . . . in order to obtain a set of data that reflects the carbon dioxide concentration in the expired air” (“analyzing limitation”). *Id.* at 15 (Claims App.) (emphasis added). This limitation involves the concept of evaluating information that can be performed in the human mind. Under the 2019 Guidance, this concept falls within the “mental processes” grouping. *See* 84 Fed. Reg. 52.

Claim 1 further recites the step of “detecting . . . a presence of a potential adverse respiratory event in the patient based on *by performing at least one data analysis with the set of data.*” Appeal Br. 15 (Claims App.) (emphasis added). Claim 1 recites that “the at least one data analysis” comprises “*determining* if a number of the even harmonics in the set of data exceeds a pre-defined threshold” (“determining limitation”), and, “upon determining that a number of the even harmonics in the set of data exceeds a pre-defined threshold[,] *identifying* the presence of the potential adverse respiratory event” (“identifying limitation”). *Id.* (emphasis added). The determining limitation involves a mathematical relationship, mathematical

formula or equation, or mathematical calculation. Under the 2019 Guidance, these concepts fall within the “mathematical concepts” grouping.⁵ *See* 84 Fed. Reg. 52. The determining limitation also involves the concept of evaluating information that can be performed in the human mind. Under the 2019 Guidance, such concepts fall within the “mental processes” grouping. *See id.* Additionally, the identifying limitation involves the concept of an observation, evaluation, or judgment that can be performed in the human mind, which falls within the “mental processes” grouping. *See id.*

Because we conclude claim 1 recites these abstract ideas, we proceed to Prong Two of Step 2A.

Step 2A, Prong Two – Practical Application of Judicial Exception

In Prong Two, we next determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception; and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application. This evaluation requires an additional element or a combination of additional elements in the claim to apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. If the recited judicial exception is

⁵ We note that Appellant acknowledges “claim 1 may involve . . . mathematical operations,” and seems to also acknowledge that claim 1 recites “a mathematical formula.” *See* Appeal Br. 10.

integrated into a practical application, the claim is not “directed to” the judicial exception.

In response to Appellant’s arguments based on *McRO*, the Examiner submits that *McRO* did not hold that any process that is not an automation of a human process is thereby an improvement of the operation of the underlying computer or an improvement in existing technology. Ans. 4. The Examiner states, “Appellant characterizes the existing technology as only being directed to *visual inspection* when analyzing capnography signals. However, the existing technology of analysis of capnograms and determination of condition or disease also includes *computers* analyzing capnograms and determination of condition or diseases.” *Id.* (emphasis added).

The Examiner also states:

Thus, *while Appellant’s capnography analysis method may speak to visual inspection, it has not been shown that it is an improvement with respect to the existing technology of other automated carbon dioxide analyzers.* The Examiner notes that the Appellant failed to provide arguments showing that their algorithm utilizing even and odd harmonics provides any particular improvement or solution over other automated capnography analyses, where the state of the prior art is demonstrated in part by the listing of patent publications in the field, presented above.

Id. at 5 (emphasis added).

Regarding Appellant’s disclosure, Figure 1 is described as showing a capnogram (graph) for a healthy patient. *See* Spec. ¶ 23. The Specification describes that the waveform of graph 100 in Figure 1 is symmetric and mimics a square or rectangular waveform containing only odd harmonics. *Id.* ¶ 34, 44. In contrast, Appellant’s Figure 2 is described as showing a

capnogram for an unhealthy patient. *Id.* ¶ 24. The Specification describes that the waveform of graph 200 in Figure 2 is not symmetric and partially resembles a sawtooth waveform, which contains even harmonics. *Id.* ¶¶ 35, 44. Paragraph 44 of the Specification also indicates that graph 200 may include both a sawtooth component and a square wave component, as shown in Fig. 5.

As described, each of graphs 100, 200 of Figures 1 and 2 may be considered examples of the process, which obtains a periodic waveform indicative of CO₂ concentration in exhaled air. Spec. ¶ 42. The Specification describes that it is known in the art to visually evaluate and interpret capnograms, “typically . . . by qualitative pattern recognition.” *Id.* ¶ 5. As described, “a capnogram is visually compared to a set of abnormal capnograms, with a corresponding different diagnosis for each abnormal shape.” *Id.* However, the Specification does not describe, and Appellant does not otherwise explain, the “shape” of these capnograms. For example, the Specification does not describe, and Appellant has not otherwise explained, whether these capnograms have a shape like that shown in Figure 1 or 2. Nor does the Specification describe *how* such persons visually compare such capnograms. That is, the Specification does not describe what particular aspects in the “capnogram shape” are visually evaluated and interpreted by such persons. In this regard, Appellant does not appear to argue that healthcare providers cannot visually observe the presence of *any* “even harmonics” or “odd harmonics” in the capnograms. For example, Appellant does not address whether a healthcare provider would understand that a capnogram shape as shown in Figure 1 contains only odd integer harmonics, whereas a capnogram shape as shown in Figure 2 contains even

harmonics. Consequently, Appellant does not show persuasively that the claimed invention does *not* automate a “human process” persons were already performing in visually evaluating and interpreting capnograms.

Claim 1 calls for “analyzing the periodic waveform at the processor” to determine the number of even harmonics in the set of data, and comparing this number to “a pre-defined threshold.” *See* Appeal Br. 15 (Claims App.). We note paragraph 45 of the Specification describes that the pre-defined threshold (“known value”) “can be as low as zero such that the detection of any even harmonics would exceed the relevant threshold.” Accordingly, if the claimed pre-defined threshold value is zero, detecting even one even harmonic would exceed the threshold. Appellant does not show persuasively that healthcare providers did not, or were unable to, observe visually the presence of any “even harmonics” in capnograms.

Further, the Examiner determines that capnography analysis is not limited to visual inspection, such as that described in Appellant’s Specification. Ans. 5. Rather, the Examiner cites several references as evidence to show that automated capnography analyses is also known.⁶ *Id.* at 5–6. Appellant contends that none of these cited references “refer[s] to the particular claimed solution of analyzing odd harmonics and even harmonics or looking at sawtooth or square waveforms to identify the presence of a potential adverse respiratory event.” Reply Br. 5. Appellant also contends that the periodic waveform “creates the ability to analyze even

⁶ The cited references are: Colman (2011/0040713 A1, published Feb. 17, 2011), Kraus (US 2004/0236240 A1, published Nov. 25, 2004), Baker (US 2008/0072905 A1, published Mar. 27, 2008), and Reisfeld (US 2008/0300500 A1, published Dec. 4, 2008).

harmonics and odd harmonics present in the periodic waveform [sic] is a fundamental change in how contemporary methods analyzed carbon dioxide emissions of a patient.” *Id.* at 3. According to Appellant, “[t]his specific improvement allows new analysis into (1) whether the even harmonics are above a pre-determined threshold . . . , (2) whether the even and odd harmonics are out of phase . . . , (3) what the cumulative probability distribution of the waveform is . . . , and (4) components of the waveform such as a sawtooth wave component or a square wave component.” *Id.* at 3–4. Appellant states, “[t]here is a specific improvement claimed which allows an improvement in computers as tools to analyze and display carbon dioxide emissions.” *Id.* at 4.

These contentions are unpersuasive for several reasons. First, claim 1 does not recite limitations of “looking at sawtooth or square waveforms” or any one of points (2)–(4). Accordingly, Appellant’s argument premised on these unclaimed limitations does not persuade of any purported “specific improvement.”

Second, as to Appellant’s contention that its purported specific improvement “allows analysis into (1) whether the even harmonics are above a pre-determined threshold,” as noted above, if the claimed pre-defined threshold value is zero, detecting any even harmonic would exceed the threshold value. Appellant does not show persuasively that determining that a waveform includes one even harmonic provides an improvement in the use of computers as tools to analyze and display CO₂ emissions. As discussed above, the Specification describes that graph 200 in Figure 2 shows a waveform containing even harmonics, whereas graph 100 in Figure 1 shows a waveform that does not. Even if the references cited by the

Examiner do not “refer to . . . analyzing odd harmonics and even harmonics or looking at sawtooth or square waveforms to identify the presence of a potential adverse respiratory event” by use of a computer, as Appellant appears to contend (Reply Br. 5), this does not persuade us that determining the presence of just one even harmonic in the waveform provides an improvement in the functioning of the processor itself, or in a technical field.

As for other limitations recited in claim 1, the “sampling” and “receiving” steps merely recite collecting data and transmitting the collected data that can be analyzed, and, therefore, the sampling and receiving steps are insignificant extra-solution activity. *See* Appeal Br. 15 (Claims App.); 84 Fed. Reg. 55 n.31. Further, the final limitation of claim 1 recites “upon detecting the presence of the potential adverse respiratory event in the patient based on the set of data, generating, via the processor, control signals for a transducer *to produce an audible alert signal that indicates the presence of a potential adverse respiratory event in the patient.*” Appeal Br. 16 (Claims App.) (emphasis added). We determine that producing an audible alert signal is merely “post-solution activity.” *See* 84 Fed. Reg. 55 n.31. Accordingly, we determine that these limitations do not render the claimed method patent-eligible.

Because we conclude that the additional elements in claim 1 fail to integrate the judicial exception into a practical application, we proceed to Step 2B of the analysis to determine whether the claim recites an “inventive concept.”

Step 2B – Inventive Concept

As to the second step of the *Alice* analysis, the Examiner determines that claim 1 does not recite additional elements that are sufficient to amount to significantly more than the abstract idea itself, and thus, the additional elements do not transform the abstract idea into a patent eligible application of the abstract idea. Final Act. 3–4. According to the Examiner, the structural elements recited in claim 1 (i.e., carbon dioxide sensing sensor, data receiver, signal converter, processor, visual user display interface, transducer) perform generic computer functions and are well-understood, routine, and known in the industry. *Id.* at 4; *see also* Appeal Br. 15–16 (Claims App.).

Appellant contends that claim 1 provides an improvement over the existing technology that amounts to more than the alleged abstract idea. Appeal Br. 12. Appellant contends that the decision in *In re Abele*, 684 F.2d 902 (CCPA 1982), “is instructive as to how an algorithm can result in an improvement in an existing technology, and thus how a claim as a whole can amount to significantly more than a recited judicial exception.” *Id.* at 10. Appellant also contends that, even ignoring *Abele*, the claim results in an improvement over the existing technology, and thus, amounts to more than the alleged abstract idea. *Id.* at 12.

These contentions are unpersuasive. In *Diamond v. Diehr*, 450 U.S. 175, 192 (1981), 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.” *Id.* at 176. Consistent with *Diehr*, claim 1 is directed to a statutory category (i.e., a process). We are not persuaded,

however, that claim 1 recites an “algorithm” that provides an improvement to the functioning of a computer or in a technical field.

First, Appellant does not identify which particular limitations in claim 1 recite the algorithm.

Second, to the extent Appellant is contending that the claimed algorithm is what results in an improvement in an existing technology, and thus, claim 1 amounts to significantly more than the judicial exception due to the recitation of the “algorithm,” we are not persuaded. As to Appellant’s contention that “claim 1 recite[s] systems and methods *incorporating a novel algorithm*, not performed by humans, which results in an improvement in existing capnogram monitoring technology” (Appeal Br. 9), to the extent Appellant is contending that claim 1 is patent eligible because it recites a “novel algorithm,” we note that “[t]he ‘novelty’ of . . . the . . . [claim] itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter.” *See Diehr*, 450 U.S. at 188–89.

As discussed above, “the at least one data analysis” comprises a determining limitation and an identifying limitation involving mathematical concepts and mental processes, that is, abstract ideas. We understand that Appellant considers these limitations to be at least part of its algorithm. However, the pertinent issue is whether any additional elements recited in claim 1 (i.e., those in addition to the claim elements reciting an abstract idea) are sufficient to amount to significantly more than the abstract idea itself. This issue is explained by the Federal Circuit, as follows:

It has been clear since Alice that a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention “significantly more”

than that ineligible concept. In *Alice*, the Supreme Court held that claims directed to a computer-implemented scheme for mitigating settlement risks claimed a patent-ineligible abstract idea. 134 S.Ct. at 2352, 2355–56. Some of the claims at issue covered computer systems configured to mitigate risks through various financial transactions. *Id.* After determining that those claims were directed to the abstract idea of intermediated settlement, the Court considered whether the recitation of a generic computer added “significantly more” to the claims. *Id.* at 2357. *Critically, the Court did not consider whether it was well-understood, routine, and conventional to execute the claimed intermediated settlement method on a generic computer. Instead, the Court only assessed whether the claim limitations other than the invention’s use of the ineligible concept to which it was directed were well-understood, routine and conventional.* *Id.* at 2359–60.

BSG Tech LLC v. Buyseasons, Inc., 899 F.3d 1281, 1290 (2018) (emphases added).

Other than the limitations in claim 1 that recite an abstract idea, the “sampling” and “receiving” steps are insignificant extra-solution activity, the two “transmitting” steps merely recite transmitting data between components, and the final limitation is merely “post-solution activity.” Accordingly, these limitations do not render the claimed method patent eligible. Further, the Examiner determines that the structural elements recited in claim 1 perform generic computer functions and are well-understood, routine, and known in the industry. Final Act. 4. Appellant does not apprise us of any error in this position. The application of an abstract idea using generic computer components does not transform the claim into a patent-eligible application of the abstract idea.

Appellant contends:

The inventive step of analyzing the capnography signals as provided for in the claims constitutes an improvement because it is a particularly advanced and specific solution allowing comparison of the waveform of a healthy patient against the waveform of a patient suffering from a breathing obstruction. The carbon dioxide expulsion rate of the patient suffering from a breathing obstruction can be compared against the healthy patient's waveform in order to see how the suffering patient's airways are cleared or expand over the breathing cycle [0035-36]. *The odd integer harmonics of a healthy patient can be compared by use of a waveform to the waveform of a suffering patient. [0045]. Use of this waveform allows analysis to see whether the suffering patient's waveform contains only sawtooth wave components (even integer harmonics) or both sawtooth wave components and square wave components (odd and even integer harmonics). [0045].*

Reply Br. 5–6 (emphases added). However, claim 1 does not recite comparing “odd integer harmonics of a healthy patient . . . by use of a waveform to the waveform of a suffering patient.” Instead, claim 1 recites “determining if a number of the *even harmonics* in the set of data exceeds a pre-defined threshold.” Appeal Br. 15 (Claims App.) (emphasis added). And, claim 1 recites “analyzing the periodic waveform at the processor in order to obtain a set of data that reflects the carbon dioxide concentration in the expired air, *the set of data comprising even harmonics and odd harmonica present in the periodic waveform.*” *Id.* (emphasis added). As claim 1 does not recite that the waveform contains *only* even integer harmonics *or both* even *and* odd integer harmonics, but requires the waveform to contain *both* even *and* odd integer harmonics, Appellant's contention is not commensurate with the claim language.

For these reasons, Appellant does not apprise us of error in the Examiner's conclusion that claim 1 recites an abstract idea and fails to recite an inventive concept that transforms the claim into a patent-eligible application of the abstract idea. Thus, we sustain the rejection of claim 1 as not being directed to patent-eligible subject matter under 35 U.S.C. § 101. Claims 3–8, and 10–15 fall with claim 1.

DECISION

The rejection 1, 3–8, and 10–15 under 35 U.S.C. § 101 as directed to patent-ineligible subject matter is affirmed.

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

AFFIRMED