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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREW SMELLIE, MIKE STAPLETON, and ROBIN SMITH

Appeal 2018-003849
Application 13/714,312
Technology Center 1600

Before DONALD E. ADAMS, ULRIKE W. JENKS, and
JOHN E. SCHNEIDER, *Administrative Patent Judges*.

SCHNEIDER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1, 2, 4, 5, and 10–21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

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 PerkinElmer Informatics, Inc. Appeal Br. 2.

² We have considered and herein refer to the Specification of Dec. 13, 2012 (“Spec.”); Non-Final Office Action of Mar. 23, 2017 (“Non-Final Act.”);

STATEMENT OF THE CASE

The Specification discloses systems, method and apparatuses that allow a user to electronically draw and edit a biological sequence and its resulting structure. Spec. ¶ 3. The invention offers the user pre-selected portions of the biological sequence. *Id.*

Claims 1, 2, 4, 5, and 10–21 are on appeal.³ Claim 1 is representative of the claims on appeal and reads:

1. An apparatus for creating a representation of a biological sequence using a draw-ahead feature, the apparatus comprising:
 - a memory for storing a set of instructions; and
 - a processor for executing the set of instructions, wherein the instructions, when executed, cause the processor to:
 - provide a representation of at least a portion of an in-progress biological sequence for presentation on a graphical display;
 - receive an input corresponding to an amendment to the portion of the in-progress biological sequence;
 - identify a review portion (up to all) of the amended in-progress biological sequence for comparison with a collection of stored biological sequence scaffolds;
 - identify, by comparing the review portion to the collection of stored biological sequence scaffolds, one or more candidate biological sequence scaffolds, wherein each biological sequence scaffold of the one or more identified candidate biological sequence scaffolds is determined to, upon one or both of (i) appending to the review portion of the in-progress biological sequence and (ii) replacing or partially replacing the review portion of the in-progress

Appeal Brief of Aug. 23, 2017 (“Appeal Br.”); Examiner’s Answer of Jan. 16, 2018 (“Ans.”); and Reply Brief of Feb. 17, 2018 (“Reply Br.”).

³ Claims 6–9 are pending in the application but have been withdrawn from consideration as being drawn to a non-elected species. Non-Final Act. 2.

biological sequence, provide at least a portion of a biological sequence scaffold from the collection of biological sequence scaffolds;

provide the one or more identified candidate biological sequence scaffolds for presentation on the graphical display as option(s) for selection by a user in creating the graphical representation of the biological sequence, wherein providing the one or more identified candidate biological sequence scaffolds for presentation on the graphical display comprises visually rendering at least one of the identified candidate biological sequence scaffolds as an extension of the in-progress biological sequence;

receive an indication of user selection of a selected biological sequence scaffold from the one or more identified candidate biological sequence scaffolds provided; and

append the selected biological sequence scaffold to the review portion of the in-progress biological sequence or replace or partially replace the review portion of the in-progress biological sequence with the selected biological scaffold, thereby updating the representation of the in-progress biological sequence.

The claims have been rejected as follows:

Claims 1, 2, 4, 5, and 10–21 have been rejected under 35 U.S.C. § 101 are directed to ineligible subject matter.

Claims 1, 2, 4, 5, and 10–21 have been rejected under 35 U.S.C. § 112, first paragraph for failure to comply with the written description requirement.

Claims 1, 2, 4, 5, and 10–21 have been rejected under 35 U.S.C. § 112, second paragraph as indefinite.

INELIGIBLE SUBJECT MATTER

The issue with respect to this rejection is whether the Examiner has properly determined that the present claims are directed to subject matter that is not eligible for patent protection.

The Examiner finds that the present claims are directed to an abstract idea that is merely applied to a general purpose computer. Non-Final Act. 3. The Examiner finds that the steps listed in the claims are those which could “normally be performed by hand on a chalk board or with pen and paper.” *Id.* The Examiner finds that the recited steps are themselves generic and embrace “only routine and conventional operations to be used in graphical and data analysis.” *Id.* at 4. The Examiner finds that the additional elements only call for the use of a general computer. *Id.*

Appellant contends that claim 1 is directed to a specific structure for improving a technology that was previously done manually. Appeal Br. 13. Appellant contends that the claims are not directed to an abstract idea that is merely applied on a general purpose computer but instead recited “specific limitations that improve the functioning of the computer itself and the technology used to create representations of biological sequences.” *Id.* at 19.

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).

To determine if a claim falls within an excluded category, we are guided by 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, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 187 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); 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 192 (“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 (quotation marks 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 PTO recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“2019 Revised Guidance”). 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 interactions 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)).
See 84 Fed. Reg. at 54–55. Only if a claim (1) recites a judicial exception and (2) 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 are 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 2019 Revised guidance.

Step 2A, Prong One

Following the Revised Guidance, we first consider whether the claims recite a judicial exception, such as a mental process.⁴ If a claim “covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.” 84 Fed. Reg. at 52, n.14. As discussed below, the steps of claim 1 can practically be performed in the mind.

⁴ Although claim 1 recites a “memory,” a “processor for executing a set of instructions” and providing a presentation on a graphical display, these recitations by themselves do not distinguish the steps of the claim from mental processes.

Claim 1, with italics added to emphasize the pertinent limitations recites:

1. An apparatus for creating a representation of a biological sequence using a draw-ahead feature, the apparatus comprising:
 - a memory for storing a set of instructions; and
 - a processor for executing the set of instructions, wherein the instructions, when executed, cause the processor to:
 - provide a representation of at least a portion of an in-progress biological sequence for presentation on a graphical display;
 - receive an input corresponding to an amendment to the portion of the in-progress biological sequence;*
 - identify a review portion (up to all) of the amended in-progress biological sequence for comparison with a collection of stored biological sequence scaffolds;*
 - identify, by comparing the review portion to the collection of stored biological sequence scaffolds, one or more candidate biological sequence scaffolds, wherein each biological sequence scaffold of the one or more identified candidate biological sequence scaffolds is determined to, upon one or both of (i) appending to the review portion of the in-progress biological sequence and (ii) replacing or partially replacing the review portion of the in-progress biological sequence, provide at least a portion of a biological sequence scaffold from the collection of biological sequence scaffolds;*
 - provide the one or more identified candidate biological sequence scaffolds for presentation on the graphical display as option(s) for selection by a user in creating the graphical representation of the biological sequence, wherein providing the one or more identified candidate biological sequence scaffolds for presentation on the graphical display comprises visually rendering at least one of the identified candidate biological sequence scaffolds as an extension of the in-progress biological sequence;

receive an indication of user selection of a selected biological sequence scaffold from the one or more identified candidate biological sequence scaffolds provided; and
append the selected biological sequence scaffold to the review portion of the in-progress biological sequence or replace or partially replace the review portion of the in-progress biological sequence with the selected biological scaffold, thereby updating the representation of the in-progress biological sequence.

Claim 1 recites the instruction “receive an input corresponding to an amendment to the portion of the in-process biological sequence.” Such an amendment can be printed on paper and accessed by a person by reading the biological sequence off the paper. Since this step of claim 1 can be performed simply by observation, it is a mental step. 84 Fed. Reg. at 52 (A mental process can be “performed in the human mind (including an observation, evaluation, judgment, opinion).”). *See also CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011) (“All of claim 3’s method steps can be performed in the human mind, or by a human using a pen and paper. . . . First, step (a) . . . can be performed by a human who simply reads records of Internet credit card transactions from a preexisting database.”).

Next claim 1 recites “identify a review portion (up to all) of the amended in-process biological sequence for comparison with a collection of stored biological sequences scaffolds.” This again is a mental step in that it can be done by person simply selection all or part of the sequence received in the previous step.

Claim 1 next recites “identify, by comparing the review portion to the collection of stored biological sequence scaffolds, one or more candidate

biological sequence scaffolds.” Claim 1 goes on to recite the criteria used to select the candidate biological sequence scaffolds. Again this step can be performed by the human mind as it involved observation and comparison.

The remaining instructions recited in claim 1 such as provide a graphical representation of the candidate sequence, receive an indication of selection of the sequence and appending the selected sequence to the in-process sequence fail to distinguish the steps of the claim from the mental process.

In summary, each of the steps of claim 1 encompasses a “concept [] performed in the human mind (including an observation, evaluation, judgment, opinion)” ; i.e., a mental process. 84 Fed. Reg. at 52. Furthermore, the additional elements do not reflect an improvement in the functioning of the computer or any other technology; apply the judicial exception to effect a particular treatment or prophylaxis of a disease/medical condition; apply the judicial exception to effect a transformation or reduction of a particular article to a different state or thing; or apply or use the judicial exception in some other meaningful way beyond generally linking it to a particular technological environment. Thus, we agree with the Examiner that claim 1 recites an abstract idea.

Step 2A, Prong Two

Following the Revised Guidance, we next consider whether “the claim as a whole integrates the recited judicial exception into a practical application of the exception”; i.e., whether the claim “appl[ies], rel[ies] on, or use[s] the judicial exception in a manner that imposes a meaningful limit on the judicial exception.” 84 Fed. Reg. at 54. This analysis includes “[i]dentifying whether there are any additional elements recited in the claim

beyond the judicial exception(s)” and “evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.” *Id.* at 54–55.

As noted above, the instructions recited in claim 1 are implemented using a processor and a graphical display. However, the claim only requires a generic processor to carry of the recited instructions and a generic graphical display to show the results. Consistent with claim 1 the Specification states “the systems, methods, and apparatus utilize or include a tablet computer, a mobile phone device, or any other computer device or system capable of receiving input.” Spec. ¶ 4. The Specification also states that “[t]he computing device may be, for example, a personal computer, a workstation, a tablet computer (e.g., an Apple® iPad® by Apple Inc. of Cupertino, CA), or a mobile phone device.” *Id.* ¶ 32.

Thus, the claimed method does not use the recited abstract idea in conjunction with a particular machine or manufacture, but instead simply “includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea.” 84 Fed. Reg. at 55. Because claim 1 recites an abstract idea and does not integrate the abstract idea into a practical application, it is directed to an abstract idea.

Step 2(B)

Finally, the Revised Guidance directs us to consider whether claim 1 includes “additional elements . . . [that] provide[] ‘significantly more’ than the recited judicial exception.” 84 Fed. Reg. at 56. The Revised Guidance states that an additional element that “simply appends well-understood, routine, conventional activities previously known to the industry, specified

at a high level of generality, to the judicial exception, . . . is indicative that an inventive concept may not be present.” *Id.*

Here, as discussed above, claim 1 is directed to an abstract idea, and includes only routine and conventional computer functions, recited at a high level of generality, to implement that idea. Claim 1 does not recite, and the Specification does not describe, any unconventional computer hardware or software as being necessary for the claimed method. Nor does the claim include, for example, any unconventional data gathering steps or other unconventional subject matter. *See id.*

Therefore, claim 1 requires using only a generic computer system, and “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. The combination of elements recited in the method of claim 1 does not amount to significantly more than the judicial exception itself, and under 35 U.S.C. § 101 the claimed method is ineligible for patenting.

Appellant’s Arguments

Appellant contends “the approach of the instant claimed subject matter also improves the complex, lengthy, and error-prone process previously used to create graphical representations, in this case, of biological sequences, by hand.” Appeal Br. 14. Appellant contends that the claims process “effectively automat[es] part of the preexisting manual approach.” Appellant contends that the present claim is similar to the claims in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (“*McRO*”).

We do not agree that instant claim 1 is analogous to the invention claimed in *McRO*. Rather, “[t]he claims here are ineligible because their

innovation is an innovation in ineligible subject matter.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018). As in *SAP*, “the advance lies entirely in the realm of abstract ideas, with no plausibly alleged innovation in the non-abstract application realm. An advance of that nature is ineligible for patenting.” *Id.*

The *SAP* court distinguished that case from *McRO* as follows:

The claims in *McRO* were directed to the creation of something physical—namely, the display of “lip synchronization and facial expressions” of animated characters on screens for viewing by human eyes. [*McRO*, 837 F.3d] at 1313. The claimed improvement was to how the physical display operated (to produce better quality images), unlike (what is present here) a claimed improvement in a mathematical technique with no improved display mechanism.

Id. at 1167. The same distinction holds true here: Appellant claims an improved technique for analyzing biological sequence data, with no creation of something physical like an improved display mechanism.

Therefore, *McRO* does not support the patent eligibility of Appellant’s claims.

Appellant contends that like *McRO*, the current invention does result in an improved graphical representation in that the representation is more complete. Appeal Br. 17. We are not persuaded by this argument. In *McRO*, the result of the process was an improve quality of the representation of a lip-sync character, a change on the appearance of the graphic representation. *McRO*, 837 F.3d at 1313. In the present invention, the only change is a presentation of a more complete data set. Appeal Br. 17. No change in the appearance of the data occurs. As the Examiner points out the “The recited steps involving data gather[ing] from user selection and

displayed information fails to delineate anything significantly more than routine and conventional input/output procedures delineated only by the information content involved in said procedure. There is no improvement the computer or any component involved in performing the recited process.”

Ans. 11.

Claims 16 and 18

While claims 16 and 18 have been argued separately, Appellant’s arguments are that they are analogous to claim 1 and are patentable for the same reasons. Appeal Br. 30–31. For the reasons states above, we find these claims are directed to patent ineligible subject matter.

Conclusion

We conclude that the Examiner has properly determined that claims 1, 16, and 18 are directed to patent ineligible subject matter under 35 U.S.C. § 101. Claims 2, 4, 5, 10–15, 17, and 19–21 were not argued separately and therefore fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

WRITTEN DESCRIPTION

The issue with respect to this rejection is whether the Examiner has properly determined that the claims recite subject matter that is not described in the specification such as to reasonably convey to one skilled in the art that the inventor had the invention in his possession at the time the application was filed.

The Examiner finds that while the claims set for the use of a processor and a graphical display, the claims only set forth the objective results to be achieved by these elements. Non-Final Act. 6. The Examiner finds that the claims invoke an interpretation under 35 U.S.C. §112, sixth paragraph. *Id.* The Examiner finds that while the claims do not expressly recited the terms

means for or steps for, the claims recite terms that are purely functional in nature without reciting any structure for performing that function. *Id.*

The Examiner finds

The instant specification does not provide the specific algorithm, specific algorithmic procedures or their prose equivalents that is required as the disclosed “structure” for these computer implemented functions. Therefore, the instant disclosure is inadequate as it fails specify any structure corresponding to the means as instantly claimed. It is further noted that the recent CAFC decision in *Biomedino v. Waters Technology* (Fed. Cir. 2007) held that the structure must be disclosed in the specification even if one of skill in the art could implement a structure without such a disclosure.

Id. at 6–7.

Appellant contends that one skilled in the art would know what is meant by the functional terms recited in the claims and that there is no need to describe the algorithms which perform those functions. Appeal Br. 32. Appellant also contends that the claims should not be construed as containing means plus function limitations as the limitations are not stated in mean plus function format and that the claims recited a sufficiently defined structure for performing the function. *Id.* at 34. Appellant contends that claim 1 recites a memory for storing instructions and a processor for performing the instructions as well as specific limitations as to how the processor performs those instructions. *Id.* Appellant contends that this demonstrates that the claims recite sufficient structure to preclude construing the claims as including means plus function claims. *Id.* at 35.

Appellant contends that even if the claims were construed as containing means plus function limitations, the Specification provides

adequate disclosure of the equipment that can be used to proactive the invention as well as specific, detailed examples of the processes used to perform the various steps in the instructions. *Id* at 36–39.

Means plus function

We begin by analyzing whether the Examiner properly construed the claims as invoking means plus function limitations. While we agree with Appellant that the claims do not contain limitations in a means plus function format, that does not end the inquiry. While the absence of the term “means” normally triggers a presumption that the limitation should not be construed as a means plus function limitation, that presumption can be overcome by showing that the claim recites a generic pace holder or nonce term which has no specific structural meaning.

Claim 1 recites “a processor for executing the set of instructions.” “Processor” may not be a nonce word, but the term “processor for executing the set of instruction” does not set forth or connote sufficient structure for performing the recited functions to prevent applicability of § 112, sixth paragraph, which “is intended to prevent such pure functional claiming.” *Noah Systems, Inc. v. Intuit Inc.*, 675 F.3d 1302, 1317 (Fed. Cir. 2012). We agree with the Examiner that the claims are properly construed as containing means plus function limitations.

Adequate Written Description

Having determined that the claims are properly construed as including means plus function limitations, we now turn to the issue of whether there is adequate written description for those limitations.

A description adequate to satisfy 35 U.S.C. § 112, first paragraph, “must ‘clearly allow persons of ordinary skill in the art to recognize that [the

inventor] invented what is claimed.’ In other words, the test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (citation omitted, alteration in original).

The Federal Circuit emphasized that “[t]he written description requirement is not met if the specification merely describes a ‘desired result.’” *Vasudevan Software, Inc. v. MicroStrategy, Inc.*, 782 F.3d 671, 682 (Fed. Cir. 2015) (quoting *Ariad*, 598 F.3d at 1349). Thus, in applying this standard to the computer-implemented functional claim at issue, the Federal Circuit stated that “[t]he more telling question is whether the specification shows possession by the inventor of how [the claimed function] is achieved.” *Vasudevan*, 782 F.3d at 683.

For computer-implemented functional claims, the determination of the sufficiency of the disclosure will require an inquiry into the sufficiency of both the disclosed hardware and the disclosed software (i.e., “how [the claimed function] is achieved,” *Vasudevan*, 782 F.3d at 683), due to the interrelationship and interdependence of computer hardware and software.

Upon careful consideration of the arguments advanced by Appellant and the Examiner’s response as well as the teachings of the Specification, we conclude that the Examiner has the better position. As the Examiner points out, the Specification does not include any specific algorithms or prose equivalents to show how to perform the recited instructions. Non-Final Act. 6–7.

Appellant contends that one skilled in the art would understand what is required for each step of the instructions, especially in light of the flow diagram in Figure 5. Appeal Br. 32. Appellant contends that it is not necessary to provide the specific algorithms to execute each instruction. *Id.*

We are not convinced by Appellant's argument. We agree with the Examiner that Appellant appears to confuse the standard for enablement with that for adequate written description.

While both requirements view the claim from the vantage of one skilled in the art, the inquiries are different. In the case of enablement, the knowledge of one skilled in the art can be used to supplement the disclosure. "The enablement requirement is often more indulgent than the written description requirement. The specification need not explicitly teach those in the art to make and use the invention; the requirement is satisfied if, given what they already know, the specification teaches those in the art enough that they can make and use the invention without 'undue experimentation.'" *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1334, (Fed. Cir. 2003).

The question of whether there is an adequate written description focuses on what one skilled in the art would understand reading the specification. "[T]he 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." *Ariad*, 598 F.3d at 1351. In determining the issue of whether the written description is adequate, it is the specification itself and not the knowledge of one skilled in the art which is determinative.

In the present case, while the Specification appears to adequately describe the hardware that can be used, we agree with the Examiner that the Specification fails to set forth the software or algorithms that can be used.

Ans. 13.

Appellant contends that the flow diagram of Figure 5, reproduced below, provides the necessary algorithm. Appeal Br. 34, Reply Br. 8.

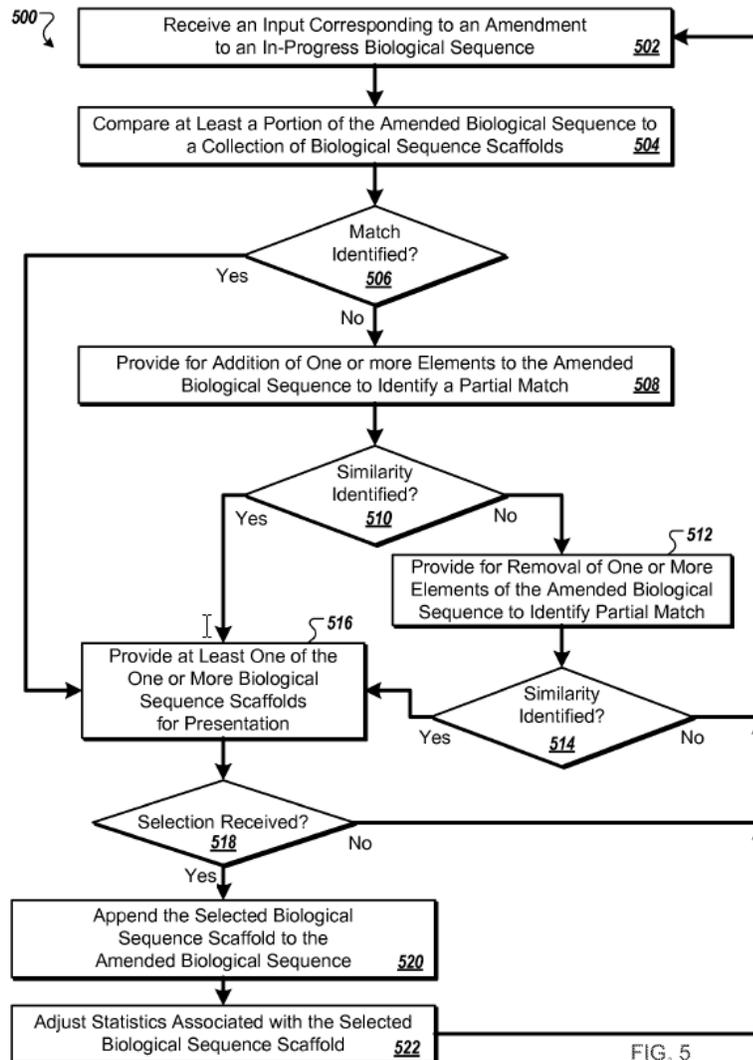


FIG. 5

Figure 5 of the present application showing a flow chart of an example of the claimed method.

Appellant's argument is unpersuasive. Figure 5 and the accompanying text in the Specification "only outlines the decisions that are to be made and the expected functions and actions that the computer system to automatically implement. This does not provide any specific or detailed description of how the computer system solves the problems assigned to it or otherwise achieve the special purpose functions prescribed by the claims." Ans. 12–13.

We conclude that the Examiner has properly determined that the claims do not meet the written description requirement.

INDEFINITENESS

The issue with respect to this rejection is whether the Examiner has properly determined that the claims are indefinite.

The Examiner reiterates the finding that the claims invoke interpretation as means plus function claims. Non-Final Act. 8. The Examiner finds that the Specification does not provide a "specific algorithm, specific algorithmic procedures or their prose equivalents that is required as the disclosed 'structure' for these computer implemented functions. Therefore, the instant disclosure is inadequate as it fails specify any structure corresponding to the means as instantly claimed." *Id.* at 9.

Appellant contends that the claims should not be interpreted as means plus function claims. Appeal Br. 40–41.

For a computer-implemented 35 U.S.C. § 112 sixth paragraph claim limitation, the specification must disclose an algorithm for performing the

claimed specific computer function, or else the claim is indefinite under 35 U.S.C. § 112, second paragraph. *See Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1367 (Fed. Cir. 2008). In cases “involving a special purpose computer-implemented means-plus function limitation, ‘[the Federal Circuit] has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor’ and that the specification must disclose an algorithm for performing the claimed function.” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1312 (Fed. Cir. 2012).

As discussed above, we agree with the Examiner’s finding that the claims invoke an interpretation as means plus function claims. We also agree with the Examiner that the Specification fails to provide a specific algorithm or equivalent description as to how to accomplish the recited functions. Therefore, we affirm this rejection.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4, 5, 10–22	101	Eligibility	1, 2, 4, 5, 10–22	
1, 2, 4, 5, 10–22	112, first paragraph	Written description	1, 2, 4, 5, 10–22	
1, 2, 4, 5, 10–22	112 second paragraph	Indefiniteness	1, 2, 4, 5, 10–22	
Overall Outcome			1, 2, 4, 5, 10–22	

AFFIRMED