UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EVAN RANDY KIRSHENBAUM

Appeal 2007-3223
Application 09/896,036
Technology Center 2100

Decided: March 31, 2008

Before TONI R. SCHEINER, ERIC GRIMES, and ALLEN R. MACDONALD, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL[1]

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[1] The Appeal Brief (filed August 8, 2005) was fully replaced by a second Appeal Brief labeled as "Reply Appeal Brief" (filed January 25, 2006). Throughout this decision, we refer to the second brief as the Appeal Brief.

STATEMENT OF CASE

Introduction

Appellant appeals under 35 U.S.C. § 134 from a final rejection of claims 14-43. We have jurisdiction under 35 U.S.C. § 6(b).

According to Appellant, the invention is a method for genetic programming which is based on multiple genetic data component representations (Spec. 3:3-5). Multiple genetic data component representations are determined and a solution is evolved using a set of genetic data components represented by the multiple genetic data component representations (Spec. 3:5-9).

Exemplary Claim(s)

Exemplary independent claims 14 and 29 under appeal read as follows:

> 14. A computer-based method for genetic programming, comprising the steps of:
>
> determining a first genetic data component representation for expressing a solution model;
>
> determining a second genetic data component representation for expressing the solution model;
>
> generating a candidate solution by combining a genetic data component having the first genetic data component representation from a first parent solution with a genetic data component having the first genetic data component representation from a second parent solution and combining a genetic data component having the second genetic data component representation from the first parent solution with a genetic data component having the second genetic data component representation from the second parent solution.

29. A computer-readable storage medium that holds a program that when executed performs genetic programming:

determining a first genetic data component representation for expressing a solution model;

determining a second genetic data component representation for expressing the solution model;

generating a candidate solution by combining a genetic data component having the first genetic data component representation from a first parent solution with a genetic data component having the first genetic data component representation from a second parent solution and combining a genetic data component having the second genetic data component representation from the first parent solution with a genetic data component having the second genetic data component representation from the second parent solution.

Prior Art

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Koza (Koza I)	US 5,148,513	Sep. 15, 1992
Koza(Koza II)	US 5,390,282	Feb. 14, 1995

Rejections

The Examiner rejected claims 14-22, 26-37, and 41-43 under 35 U.S.C. § 102(b) as being anticipated by Koza II.

The Examiner rejected claims 23-25 and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Koza II and Koza I.

The Examiner rejected claims 14-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Appellant's Contentions

(1) Appellant contends that the subject matter of claims 14-22, 26-37, and 41-43 is not anticipated by Koza II. More specifically, Appellant contends that the Examiner erred in rejecting claims 14-22, 26-37, and 41-43 because Koza II does not teach that both the first and second parent solutions express the same solution model as required by claims 14 and 29 (App. Br. 13:3-6).

(2) Appellant contends that the subject matter of claims 23-25 and 38-40 would not have been obvious over the combination of Koza II and Koza I. More specifically, Appellant contends that the Examiner erred in rejecting claims 23-25 and 38-40 because Koza I does not cure the deficiencies of Koza II (App. Br. 17:9-10).

(3) Appellant contends that the Examiner erred in rejecting claims 14-28 under 35 U.S.C. § 101 as being directed to non-statutory subject matter because:

(A) Claim 14 is directed to a "computer-based method for genetic programming" and "[u]nder section 101, computer-based methods are 'processes' and thus statutory subject matter" (App. Br. 7:15-17).

(B) Claim 14 "has a practical application in the technological arts since the claim produces a concrete, tangible, and useful result" (App. Br. 7:21-22). Particularly:

> The act of combining the first and second genetic data components provides a concrete, tangible, and useful result as a candidate solution. This candidate solution is a "real world" value that is more than a mere idea or concept. Further, the output of claim 14 proves that the

> claimed process does not consist solely of the manipulation of an abstract idea.

(App. Br. 8:6-10.)

(4) Appellant contends that the Examiner erred in rejecting claims 29-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter because:

(A) Claim 29 is directed to a "computer-readable storage medium that holds a program that when executed performs genetic programming" and "[u]nder section 101, computer-based methods are 'processes' and thus statutory subject matter" (App. Br. 8:12-14). "The Federal Circuit has repeatedly held that such claims are statutory subject matter under section 101 (see *In Re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995))" (App. Br. 8:14-16).

(B) Claim 29 "has a practical application in the technological arts since the claim produces a concrete, tangible, and useful result" (App. Br. 8:19-21). Particularly:

> The act of combining the first and second genetic data components provides a concrete, tangible, and useful result as a candidate solution. This candidate solution is a "real world" value that is more than a mere idea or concept. Further, the output of claim 29 proves that the claimed process does not consist solely of the manipulation of an abstract idea.

(App. Br. 9:2-6.)

Result

We affirm.

ISSUE(S)

Has Appellant established that the Examiner erred in rejecting claims 14-22, 26-37, and 41-43 under 35 U.S.C. § 102(b) as being anticipated by Koza II.

Has Appellant established that the Examiner erred in rejecting claims 23-25 and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Koza II and Koza I.

Has Appellant established that the Examiner erred in rejecting claims 14-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Appellant's Admitted Prior art

1. Appellant admits "[g]enetic programming may be defined as a computer-based programming methodology in which problem solutions are generated using an iterative process that simulates evolution by natural selection" (Spec. 1:18-22).

2. "Genetic programming may be used to obtain a variety of problem solutions" (Spec. 1:10-11).

3. "A problem solution obtainable through genetic programming may take the form of a computer program, a math function, an electrical

circuit, finite automata, a graph structure, or a neural network to name a few examples" (Spec. 1:11-16).[2]

4. Appellant admits:

> Genetic programming typically involves the generation of an initial population of candidate solutions. A candidate solution plays a role analogous to an organism in biological evolution. Each candidate solution in a population is typically evaluated as a solution to a particular development problem using a fitness measure."

(Spec. 1:22-28).

5. Appellant admits:

> If a candidate solution is considered good enough in terms of the fitness measure, then it is usually selected as the solution. Otherwise, a subset of the candidate solutions from the population are typically selected to become parents for a population of child candidate solutions.

(Spec. 1:28-2:1.)

6. "The child candidate solutions are then generated and evaluated as solutions using the fitness measure" (Spec. 2:1-3).

7. "The process repeats through generations of child populations until an individual candidate solution that is good enough is found or until it is decided that the process has gone on sufficiently long that it is not worth proceeding" (Spec. 2:3-7).

8. "Child candidate solutions are typically created by combining genetic data components from parent candidate solutions using techniques

[2] Appellant's Specification (Spec. 7:13-15) clarifies that the solution is actually a recipe for the construction of a structure such as a neural network or electrical circuit. That is, the problem solution is a design for a structure rather than the actual structure itself.

that are modeled on biological processes such as mutation and crossover" (Spec. 2:9-13).

9. "Typically, the genetic data component of a candidate solution in prior genetic programming methods is represented as a parse tree or a sequence of instructions." (Spec. 2:13-16).

Appellant's Invention

10. According to Appellant, the invention is a method for genetic programming which is based on multiple genetic data component representations (Spec. 3:3-5).

11. Multiple genetic data component representations are determined and a solution is evolved using a set of genetic data components represented by the multiple genetic data component representations (Spec. 3:5-9).

12. Appellant indicates:

> It is desirable to use a genetic data component representation that decreases the number of generations of candidate solutions that need to be evaluated before obtaining a suitable solution. This would decrease the overall costs associated with using genetic programming to obtain problem solutions.

(Spec. 2:16-22.)

13. A genetic data component representation may be any data structure (an array, a graph, a list, etc.) for which genetic operators may be defined (Spec. 5:15-17).

14. One example of a genetic data component representation is a tree having nodes labeled with operators taken from an operator set (Spec. 5:19-21).

15. Another example of a genetic data component representation is a sequence of instructions taken from an instruction set (Spec. 5:23-25).

16. Another example of a genetic data component representation is a sequence of integers or floating-point numbers (Spec. 5:27-29).

17. Yet another example of a genetic data component representation is a sequence of bits (Spec. 5:31-32).

18. Evolving a solution may be performed in a known manner by generating generations of candidate solutions using genetic operators such as mutation and/or crossover (Spec. 6:1-4). For example, parent candidate solutions of a generation may be selected based on their fitness, and genetic data components for child candidate solutions may be obtained by performing crossover operations on the genetic data components of their parents (Spec. 6:4-9).

19. The genetic data components of parent and child candidate solutions have the representations determined according to the present teachings (Spec. 6: 9-11).

20. The child candidate solutions may then be tested for fitness (Spec. 6: 11-13).

21. The process may be repeated through subsequent generations until a suitable candidate solution is found (Spec. 6:13-15).

22. The modules of a candidate solution are functional components which act in combination and in reaction to an environment to determine the fitness of the candidate solution. Each module is characterized by a "model" and realized (i.e. parameterized) by referring to one or more of the genetic data components. (Spec. 6:17-23.)

23. One example of a model is a mathematical model having a set of parameters (Spec. 6:25-26).

24. Another example of a model is a set of operational semantics of a programming language (Spec. 6:28-29).

25. Another example of a model is a specification of an abstract machine (Spec. 6:31-32).

26. Yet another example of a model is the semantics of a neural network or finite automaton (Spec. 7:1-2).

27. Another example of a model is the physics of an electrical circuit or molecule (Spec. 7:4-5).

28. The realization of a module may include reading a set of parameters out of a numeric sequence or a sequence of bits interpreted as numbers, interpreting a labeled tree as a parse tree for a program written in the language, interpreting a sequence of instructions as a program, or interpreting a tree or sequence as a recipe for the construction of a structure such as a neural network or electrical circuit (Spec. 7:7-15).

29. The genetic data component representations include at least two different representations (Spec. 7:17-18).

ANALYSIS

(1)

Claim Construction

The prior art genetic programming process comprises multiple steps with multiple iterations of some steps; generic versions of each step are as follows:

(a) Determining a genetic component representation for representing candidate solutions (FF 9).

(b) Generating an initial population of candidate solutions (FF 4).

(c) Evaluating the fitness of each candidate solution using a fitness measure (FF 4).

(d) If a candidate is good enough selecting it as the solution, otherwise selecting a subset of candidates as parents for a next population of candidate solutions (FF 5).

(e) Generating a child population of candidate solutions (FF 6).

(f) Evaluating the fitness of each child candidate solution (FF 6).

(g) Repeating steps (d), (e), and (f) until a good enough candidate solution is found, or the process has gone on sufficiently long without success (FF 7).

We treat claim 14 as exemplary. Appellant's claim 14 consists of specific versions of generic prior art steps (a) and (e) which are explicitly recited and step (b) which is implicit given the recited "parent" solutions. Claim 14 does not include limitations directed to prior art steps (c), (d), (f), and (g). As compared to the prior art process, Appellant's claim 14 is directed to a sub-portion of a single generation of genetic programming.

Claim 14 does not require iterative processing (step (g)), and does not require fitness measurement (steps (c) and (f)). These are critical steps to solution optimization as they eliminate weaker candidate solutions in each generation. Thus, the process of claim 14 does not necessarily result in child solutions that are stronger than the parent solutions, and as the Examiner points out there are no "assured results" of the claimed process (Ans. 3). In other words, while the result of the prior art genetic processing has a

"guided" randomness to it due to the fitness measures and iterations, the result of the claimed invention merely has randomness.

(2)

Rejection under 35 U.S.C. § 102

(a)

Principles Of Law

Appellant has the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of prima facie obviousness or by rebutting the prima facie case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Appellant may sustain this burden by showing that the prior art reference relied upon by the Examiner fails to disclose an element of the claim. It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

(b)

Claims 14-22, 26-37, and 41-43

Appellant contends that the Examiner erred in rejecting claims 14-22, 26-37, and 41-43 because Koza II does not teach that both the first and second parent solutions have first and second genetic data component

representations that express the same solution model as required by claims 14 and 29 (App. Br. 13:3-6).

We agree. As Appellant correctly points out "[n]owhere does Koza teach determining a first LISP S-expression representation for expressing a solution model and a second LISP S-expression representation for expressing the same solution model" (App. Br. 13:25-27).

Therefore, Appellant has established that the Examiner erred with respect to this rejection of claims 14-22, 26-37, and 41-43 under § 102(b).

(3)

Rejection under 35 U.S.C. § 103

Appellant contends that the subject matter of claims 23-25 and 38-40 would not have been obvious over the combination of Koza II and Koza I. More specifically, Appellant contends that the Examiner erred in rejecting claims 23-25 and 38-40 because Koza I does not cure the deficiencies of Koza II (App. Br. 17:9-10).

We agree. Therefore, Appellant has established that the Examiner erred with respect to this rejection of claims 23-25 and 38-40 under § 103(a).

(4)

Rejection under 35 U.S.C. § 101

Although we agree with the Examiner's ultimate conclusion, our analysis *infra* differs from that of the Examiner. Therefore, we designate this portion of our decision as a new ground of rejection.

(a)

The Federal Circuit's "Useful, Concrete, and Tangible Result" Test

(i)

Principles Of Law

The development of the Federal Circuit's data transformation test was in response to a series of cases concerning the eligibility of machines and machine-implemented methods employing a mathematical algorithm. In assessing the eligibility of these specific types of claims, the court adopted a rule requiring such claims to produce a "useful, concrete and tangible result." *See*, *e.g.*, *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998).

Specifically, the "useful, concrete, and tangible result" test first appeared in *Alappat*, which states: "This [claimed invention] is not a disembodied mathematical concept which may be characterized as an 'abstract idea,' but rather a specific machine to produce a useful, concrete, and tangible result." 33 F.3d 1526, 1544 (Fed. Cir. 1994) (en banc). The court in *Alappat* thus devised a standard to partition patentable inventions using mathematical algorithms from claims for disembodied mathematical concepts. *State Street* also involved claims to a machine employing a mathematical algorithm, but in this instance for managing a mutual fund investment portfolio. Finding the claim to be valid under § 101, *State Street* held that "transformation of data … by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete and tangible result.'" *State Street* at 1373.

Likewise, *AT&T* also ties this test to applications of mathematical algorithms: "Because the claimed process applies the Boolean principle to produce a useful, concrete, and tangible result without pre-empting other uses of the mathematical principle, on its face the claimed process comfortably falls within the scope of § 101." *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1358 (Fed. Cir. 1999); *see also id.* at 1361 (concluding that "the focus is understood to be not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful result.").

Our understanding of the precedents at present is: Any computer program claimed as a machine implementing the program (*Alappat, State Street*) or as a method of a machine implementing the program (*AT&T*), is patentable if it transforms data and achieves a useful, concrete and tangible result (*State Street, AT&T*). However, notwithstanding a useful, concrete and tangible result, an exception occurs when the invention in actuality pre-empts an abstract idea, as in a mathematical algorithm (*Gottschalk v. Benson*, 409 U.S. 64, 71-2 (1972)).

(ii)

Claims 14-28

Appellant contends that the Examiner erred in rejecting claims 14-28 under 35 U.S.C. § 101 as being directed to non-statutory subject matter because:

(A) Claim 14 is directed to a "computer-based method for genetic programming" and "[u]nder section 101, computer-based

methods are 'processes' and thus statutory subject matter" (App. Br. 7:15-17).

(B) Claim 14 "has a practical application in the technological arts since the claim produces a concrete, tangible, and useful result" (App. Br. 7:21-22). Particularly:

> The act of combining the first and second genetic data components provides a concrete, tangible, and useful result as a candidate solution. This candidate solution is a "real world" value that is more than a mere idea or concept. Further, the output of claim 14 proves that the claimed process does not consist solely of the manipulation of an abstract idea.

(App. Br. 8:6-10.)

We disagree. The first and second determining steps of claim 14, and the matching step of claim 28, are performed on "data component representations" per se which are merely abstractions in the form of data structures (FF 13-17). Therefore, even if the results of the determining steps and matching step were relevant to establishing a tangible result for the claim as a whole, these steps operate on abstractions and simply can not produce a tangible result.

Also, our review of the result of the claims finds they ultimately generate "a candidate solution." However, Appellant's Specification states that generating may be done by known genetic operators such as crossover (FF 18) and that the candidate solution is an abstraction, e.g., "a mathematical model having a set of parameters" (FF 22-27). As shown in Appellant's figure 3, elements 42, 52, 34, and 62, crossover is a basic numerical (or logic) operation where two sequence of numbers (or tree

structures or other abstractions) are split and the resulting portions are recombined to form new abstractions.

We see the question before us to be, whether an abstraction in the form of a candidate solution, is a useful, tangible, and concrete result? As discussed *supra*, the Federal Circuit regards the transformation of intangible subject matter to be such a useful, tangible, and concrete result, so long as the data or signals represent some real world activity. However, we do not find data or signals in claim 14 which represent a real world activity such as found in *Arrhythmia*, *Alappat*, or *State Street*. Rather, we find a range from purely theoretical abstractions (FF 23) to useful abstractions, e.g. "a recipe to construct a structure" (FF 28). Absent subsequent process steps resulting in a practical application, even such useful abstractions do not represent any real world activity.

Therefore, we conclude that Appellant's claims 14-28, which produce a candidate solution, fail to apply their abstract ideas to produce a useful and concrete and tangible result. Thus, claims 14-28 fall outside the scope of § 101.

(b)

The "Abstract Idea" Exception

(i)

Principles Of Law

The Supreme Court has held that "[e]xcluded from such patent protection are laws of nature, natural phenomena, and abstract ideas." *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). "An idea of itself is not

patentable.'" *Diehr*, 450 U.S. at 185 (quoting *Rubber-Tip Pencil Co. v. Howard*, 20 Wall. 498, 507, 22 L.Ed. 410 (1874)). *See also Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("[M]ental processes, and abstract intellectual concepts are not patentable."); *id.* at 71 ("It is conceded that one may not patent an idea."). In contrast, "[i]t is now commonplace that an *application* of a law of nature or mathematical formula [or abstract idea] to a known structure or process may well be deserving of patent protection." *Diehr*, 450 U.S. at 187 (emphasis in original).

Clever claim drafting cannot circumvent these principles. That is, even when a claim appears to apply an idea or concept as part of a seemingly patentable process, one must ensure that it does not in reality seek patent protection for that idea in the abstract. *Diehr*, 450 U.S. at 191. Similarly, one cannot patent a process that comprises "every substantial practical application" of an abstract idea, because such a patent "in practical effect would be a patent on the [abstract idea] itself." *Benson*, 409 U.S. at 71-72. [3] Such limitations on process patents are important because without them, "a competent draftsman [could] evade the recognized limitations on the type of subject matter eligible for patent protection." *Diehr*, 450 U.S. at 192.

[3] The observation in *State Street* that "[w]hether the patent's claims are too broad to be patentable is not to be judged under § 101, but rather under §§ 102, 103, and 112" did not, nor could it, overrule the Supreme Court's pre-emption doctrine. *See State Street*, 149 F.3d at 1377.

(ii)

Claims 14-28

The abstractions involved here have no substantial practical application except in connection with a digital computer, which means that any patent would wholly pre-empt the abstraction and in practical effect would be a patent on the abstract idea itself. In practical effect that would be the result if the genetic programming algorithm for producing candidate solutions were patented in this case. *See Benson*, 409 U.S. at 68-72; *see also Alappat*, 33 F.3d at 1544 (quoting *Benson*).

(c)

Claims 29-43 under 35 U.S.C. § 101

Appellant contends that the Examiner erred in rejecting claims 29-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter because:

> (A) Claim 29 is directed to a "computer-readable storage medium that holds a program that when executed performs genetic programming" and "[u]nder section 101, computer-based methods are 'processes' and thus statutory subject matter" (App. Br. 8:12-14). "The Federal Circuit has repeatedly held that such claims are statutory subject matter under section 101 (see *In Re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995))" (App. Br. 8:14-16).
>
> (B) Claim 29 "has a practical application in the technological arts since the claim produces a concrete, tangible, and useful result" (App. Br. 8:19-21). Particularly:
>
> > The act of combining the first and second genetic data components provides a concrete, tangible, and useful

> result as a candidate solution. This candidate solution is a "real world" value that is more than a mere idea or concept. Further, the output of claim 29 proves that the claimed process does not consist solely of the manipulation of an abstract idea.

(App. Br. 9:2-6.)

We disagree. For the same reasons discussed *supra* with respect to claim 14, we conclude the medium of claim 29 does not apply its abstract idea to produce a useful, concrete, tangible result.

Additionally, for the same reasons discussed *supra* with respect to claim 14, we conclude the medium of claim 29 covers ("preempts") every substantial practical application of the abstract idea. We conclude that the claim is so broad that it is directed to the "abstract idea" itself, rather than a practical implementation of the concept. Thus, the claimed medium falls outside the scope of § 101.

Finally, Appellant's contention that "[t]he Federal Circuit has repeatedly held that such claims are statutory subject matter under section 101," is without merit. We conclude that no such per se rule exists. Just as per se rules do not apply with respect to patentability analysis under § 103 (*see In re Ochiai*, 71 F.3d 1565, 1571-72 (Fed. Cir. 1995)), we conclude that per se rules do not apply with respect to § 101. Rather, we conclude that the controlling law is in § 101 of the statute itself, which we have applied to the facts of this case *supra*. We decline to adopt Appellant's view that all so called "medium" claims are per se statutory subject matter.

For the same reasons discussed *supra* with respect to claims 14 and 29, we conclude that claims 30-43 fall outside the scope of § 101.

NEW GROUNDS OF REJECTION

A. *35 U.S.C. § 112, first paragraph*

Using our authority under 37 C.F.R. § 41.50(b), we reject claims 14-43 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the Specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Appellant's sole disclosure that the invention is "computer-based" is that the prior art genetic programming is computer based (FF 1). Appellant goes on to disclose that his "generating" uses the prior art genetic operators (FF 18). Thus, a computer-based generating step is found in the written description. However, Appellant's determining steps are not part of the admitted prior art (FF 10-11). Further, the Specification as filed is silent as to who or what will carry out this determining. Therefore, Appellant's Specification as filed does not include the now claimed "computer-based determining" and analogous claim limitations.

B. *37 C.F.R. § 41.50(b)*

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellant, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b) as to the rejected claims:

> (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner …
>
> (2) Request rehearing. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record …

CONCLUSIONS OF LAW

(1) Appellant has failed to establish that the Examiner erred in rejecting claims 14-43 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

(2) Appellant has established that the Examiner erred in rejecting claims 14-22, 26-37, and 41-43 under 35 U.S.C. § 102(b) as being anticipated by Koza II.

(3) Appellant has established that the Examiner erred in rejecting claims 23-25 and 38-40 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Koza II and Koza I.

(4) Claims 14-43 are not patentable.

(5) Since we have entered a new rejection, our decision is not a final agency action.

DECISION

The Examiner's rejection of claims 14-43 under 35 U.S.C. § 101 is affirmed.

The Examiner's rejection of claims 14-22, 26-37, and 41-43 under 35 U.S.C. § 102(b) is reversed.

The Examiner's rejection of claims 23-25 and 38-40 under 35 U.S.C. § 103(a) is reversed.

We reject claims 14-43 under 35 U.S.C. § 112, first paragraph.

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
37 C.F.R. § 41.50(b)

rwk

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