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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PRAVEEN AMANCHERLA

Appeal 2018-002152
Application 14/162,114
Technology Center 3600

Before ALLEN R. MacDONALD, MICHAEL J. STRAUSS, and
IRVIN E. BRANCH, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL¹

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a final rejection of claims 1–14, which are all of the pending claims. Final Act. 1. Claims 15–20 are withdrawn from consideration. 2014-05-22 Response to Restriction 9. We have jurisdiction under 35 U.S.C. § 6(b). We REVERSE.

¹ Appellant indicates the real party in interest is Quisk, Inc. App. Br. 3.

Illustrative Claim

Illustrative claim 1 under appeal read as follows (emphasis, formatting, and bracketed materials added):

1. A computer-implemented method of providing hierarchical administration, comprising:
 - [A.] creating a first association between a payment system participant and a hierarchy node, the hierarchy node being associated with a level of a hierarchy;
 - [B.] creating a second association between a set of payment system data elements and a set of nodes in the hierarchy;
 - [C.] storing the hierarchy in a first database, the hierarchy including hierarchy data stored in a changeable format;
 - [D.] storing the set of payment system data elements in a second database separate from the first database, the payment system data elements including transaction data showing transactions that have taken place within a payment system;
 - [E.] accepting a request for information from the payment system participant via a user interface;
 - [F.] retrieving the hierarchy from the first database;
 - [G.] ***using the retrieved hierarchy to traverse the second database to obtain a subset of the set of payment system data elements*** consisting of the payment system data elements in the set of payment system data elements that are located at memory locations associated with each node in a portion of the hierarchy; and
 - [H.] providing the subset of the set of payment system data elements to the payment system participant as a response to the request for information;

[I.] wherein the portion of the hierarchy consists of each node in the hierarchy that is subordinate to the hierarchy node as indicated by the retrieved hierarchy and excludes each node in the hierarchy that is not subordinate to the hierarchy node as indicated by the retrieved hierarchy.

References²

Sandford et al.	US 2007/0179890 A1	Aug. 2, 2007
Hahn-Carlson	US 2009/0259576 A1	Oct. 15, 2009
Donner	US 7,617,159 B1	Nov. 10, 2009

Rejections³

A.

The Examiner rejects claims 1–14 under 35 U.S.C. § 101 because “the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more,” that is, because the subject matter of the claimed invention is patent-ineligible.

Final Act. 2–3.

As to this rejection, our decision as to the § 101 rejection of claim 1 is determinative as to the § 101 rejection of all the claims. Therefore, except for our ultimate decision, we do not discuss further herein the § 101 rejection of claims 2–14.

² All citations herein to these references are by reference to the first named inventor only.

³ All citations herein to the “Final Action” are to a Final Action mailed on December 1, 2016.

B.

The Examiner rejects claims 1–4, 6, 7, and 9–14 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Hahn-Carlson and Sandford. Final Act. 5–10.

As to this rejection, our decision as to the § 103 rejection of claim 1 is determinative as to the § 103 rejection of all the claims. Therefore, except for our ultimate decision, we do not discuss further herein the § 103 rejection of claims 2–4, 6, 7, and 9–14.

C.

The Examiner rejects claims 5 and 8 under 35 U.S.C. § 103 as being unpatentable over the combination of Hahn-Carlson, Sandford, and Donner. Final Act. 10–11.

Appellant does not present arguments for claims 5 and 8. Thus, the rejection of these claims turns on our decision as to claim 1. Except for our ultimate decision, we do not address the § 103 rejection of claims 5 and 8 further herein.

Issues on Appeal

Has the Examiner erred in rejecting claim 1 as being directed to patent-ineligible subject matter?

Has the Examiner erred in rejecting claim 1 as being obvious?

ANALYSIS⁴

We have reviewed the Examiner’s rejections in light of Appellant’s Appeal Brief and Reply Brief arguments that the Examiner has erred.

A. Section 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, 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);

⁴ Any Manual of Patent Examining Procedure (MPEP) citations herein are to MPEP Rev. 08.2017, January 2018.

mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 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 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citation omitted) (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.*

B. USPTO Section 101 Guidance

The United States Patent and Trademark Office (USPTO) recently published revised guidance on the application of § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (“Memorandum”). Under that guidance, we first look to whether the claim recites:

- (1) (*see* Memorandum Step 2A – Prong One) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) (*see* Memorandum Step 2A – Prong Two) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).⁵

⁵ We acknowledge that some of these considerations may be properly evaluated under Step 2 of *Alice* (Step 2B of Office guidance). Solely for purposes of maintaining consistent treatment within the Office, we evaluate it under Step 1 of *Alice* (Step 2A of Office guidance). *See* USPTO’s January 7, 2019 Memorandum, “2019 Revised Patent Subject Matter Eligibility Guidance.”

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 (*see* Memorandum Step 2B):

(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 Memorandum.

C. Requirement to Provide Sufficient Articulated Reasoning

The requirement that the Examiner must provide a proper notice of rejection is set forth by 35 U.S.C. § 132:

Whenever, on examination, any claim for a patent is rejected, . . . the Director shall notify the applicant thereof, stating the reasons for such rejection . . . together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application.

The Federal Circuit has held that the Office carries its procedural burden when its rejection satisfies the requirements of 35 U.S.C. § 132 by notifying the applicant of the reasons for rejection, “together with such information and references as may be useful in judging of the propriety of continuing the prosecution of [the] application.” *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (brackets in original, quoting 35 U.S.C. § 132).

Put simply, the Office is required to set forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of § 132. *Id.*; *see also Chester v. Miller*, 906 F.2d 1574, 1578 (Fed. Cir. 1990) (noting that § 132 “is violated when a rejection is so

uninformative that it prevents the applicant from recognizing and seeking to counter the grounds for rejection”).

D. *Examiner’s §101 Rejection - Alice/Mayo - Steps 1 and 2*

D.1. *Memorandum Step 2A – Prong One*

Applying step 1 of the *Alice/Mayo* analysis, the Examiner concludes claim 1 is directed to an abstract idea.

Considering the claim language in the claims, claim(s) 1-14 is/are directed to managing hierarchical payment information. ***Managing hierarchical payment information is a fundamental economic practice*** or an idea of itself similar to the concepts that have been identified as abstract by the courts, such as comparing new and stored information and using rules to identify options in *Smartgene, Inc. v Advanced*.

Final Act. 2 (emphasis added).

D.2. *Memorandum Step 2A – Prong Two*

Applying step 2 of the *Alice/Mayo* analysis, the Examiner concludes:

The independent and dependent claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because claims ***do not include*** an improvement to another technology or technical field, ***an improvement to the functioning of the computer itself***, or meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment when considered both individually and as an ordered combination do not amount to significantly more than the abstract idea.

Final Act. 2–3.

D.3. *Memorandum Step 2B*

Further applying step 2 of the *Alice/Mayo* analysis, the Examiner concludes:

[T]he limitations, in the instant claims, are done by the ***generically recited computer and database***. The limitations are

merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions or generic function of equipment that are well-understood, routine and conventional activities previously known to the industry.

Final Act. 3 (emphasis added).

E. *Appellant's § 101 Arguments*⁶

Appellant contends:

[T]hat: (i) the claims are not directed merely to the stated abstract idea; and (ii) even if the claims were found to be directed to an abstract idea, the claimed invention includes significantly more than that abstract idea.

App. Br. 5.

Similar to the *Enfish* case, the claims of the present application are not directed to just a “fundamental economic practice,” that stores information in a conventional manner, but ***are directed to an improved technological method*** for using hierarchy data (stored in a changeable format) in one database to traverse transaction data (showing transactions that have taken place within a payment system, and which is the type of data that is advantageously stored in a non-changeable format for security purposes) in another database to physically obtain a subset of the transaction data in order to provide the subset in response to a request for information. This rather complicated and involved process is not encompassed by the stated abstract idea.

...

As in *Enfish*, the conclusion that the independent claim of the present application is directed to an improvement of hierarchical administration technology is bolstered by the specification's teachings that enables a method that provides ***increased flexibility*** and a ***faster payment system*** authorization

⁶ The contentions we discuss herein are determinative as to the § 101 rejection on appeal. Therefore, we do not discuss Appellant's other § 101 contentions herein.

process, thus decreasing data access time, data synchronization time and redundancy, while utilizing *smaller memory requirements* and improving data security. Thus, the claims in the present application are an improvement to the functioning of the computer itself (decreasing data access time, data synchronization time and redundancy while utilizing smaller memory requirement).

App. Br. 5–6 (additional emphasis added).

F. *Panel’s § 101 Analysis*

F.1. *Memorandum Step 2A – Prong One*

Applying the *Alice/Mayo* analysis as set forth in the Memorandum, we concludes claim 1 *recites* a judicial exception in the form of certain methods of organizing human activity comprising commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations). We conclude that managing payment information is a commercial interaction.

F.2. *Memorandum Step 2A – Prong Two*

However, further applying the *Alice/Mayo* analysis as set forth in the Memorandum, we conclude claim 1 *integrates* the recited commercial interaction (the judicial exception) into a practical application. Claim 1 is *directed to* an improved technological method for using hierarchy data during data processing.

Unlike Appellant, we do not give weight to the particular data being processed (payment data). Rather, we look to the argued underlying improvements, such as “decreasing data access time” and “improving data security” (App. Br. 6.), due to the use of the claimed hierarchical data access in the data processing. We conclude these technological improvements are

independent of the particular type of data being processed and reflect an improvement in the functioning of a computer.

As discussed *supra*, we conclude that, when evaluated under the Memorandum, although claim 1 *recites* a fundamental economic practice in the form of a commercial interaction, claim 1 *integrates* the recited commercial interaction (the judicial exception) into a practical application that improves the functioning of a computer. Therefore, we conclude claim 1 as a whole is *not directed to* a judicial exception and is eligible. We do not sustain the rejection under 35 U.S.C. § 101 of claim 1.

*G. Appellant's § 103 Arguments*⁷

Appellant contends the Examiner erred in rejecting claim 1 because “the cited references do not disclose or suggest all the elements of the claim.” App. Br. 14. Appellant particularly contends:

Hahn-Carlson discloses isolating and maintaining information in a database discretely relative to network managers, sponsoring participants, and subscribers. However, it does not explicitly cite, disclose or suggest *using a hierarchy retrieved from one database to “traverse” another separate database to “obtain” the information*. In fact, **there would be no reason to do so** because the information for each subscriber is distributed and maintained discretely for each manager, which means the desired subset of data for each manager is **already separated** out according to the hierarchy. The information in the Hahn-Carlson system is simply maintained as available and properly isolated and arranged according to its hierarchy at all times for each user, due to the distributed manner in which data is stored.

App. Br. 15 (additional emphasis added).

⁷ The contentions we discuss are determinative as to the § 103 rejections on appeal, so we do not discuss Appellant's other § 103 contentions herein.

H. *Panel's § 103 Analysis*

In rejecting claim 1 under § 103, the Examiner determined Hahn-Carlson discloses “using the retrieved hierarchy to traverse the second database to obtain a subset of the set of payment system data elements” at “Paragraph[s] 0040, 0050, 0052-0055, 0085-0086, 0094 and Figure 4-5.” Final Act. 6.

We conclude, after reviewing the Examiner’s rejection (including reviewing the Examiner cited portions of Hahn-Carlson) and consistent with Appellant’s above argument as to claim 1, there is insufficient articulated reasoning to support the Examiner’s findings that Hahn-Carlson discloses the argued limitation. We do not find in the Examiner cited portions of Hahn-Carlson the “using the retrieved hierarchy to traverse the second database to obtain a subset of the set of payment system data elements” required by Appellant’s claim 1. Therefore, we conclude that there is insufficient articulated reasoning to support the Examiner’s conclusion that claim 1 is rendered obvious by Hahn-Carlson and Sandford based on the Examiner’s articulated reasoning.

CONCLUSIONS

(1) Appellant has established that the Examiner erred in rejecting claims 1–14 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

(2) Appellant has established that the Examiner erred in rejecting claims 1–14 as being unpatentable under 35 U.S.C. § 103(a).

(3) Claims 1–14 have not been shown to be unpatentable.

DECISION

The Examiner's rejection of claims 1–14 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter is **reversed**.

The Examiner's rejection of claims 1–14 as being unpatentable under 35 U.S.C. § 103(a) is **reversed**.

REVERSED