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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRIS CROWLEY and MARK ROWELL¹

Appeal 2017-010516
Application 14/174,001
Technology Center 3600

Before BIBHU R. MOHANTY, NINA L. MEDLOCK, and
KENNETH G. SCHOPFER, *Administrative Patent Judges*.

MOHANTY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants seek our review under 35 U.S.C. § 134 of the final rejection of claims 1–10, 12–25, and 27–32, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF THE DECISION

We AFFIRM.

¹ The real party in interest is Creditex Group, Inc. App. Br. 1.

THE INVENTION

The Appellants' Specification discloses a multilateral exchange auction that results in offsetting positions associated with first and second financial instruments (Spec., para. 1). Claim 1, reproduced below with the italics added, is representative of the subject matter on appeal.

1. A method of converting non-compliant data into compliant data that is processable by a downstream computing system, the method comprising:

receiving, by at least one computer executing specialized software, the *non-compliant data comprising financial position data defining one or more long positions and one or more short positions associated with a first financial asset*;

matching, by the at least one computer, *at least one of the one or more long positions with at least one of the one or more short positions associated with said first financial asset*;

converting, by the at least one computer, *the non-compliant data into the compliant data by*:

generating a first proposed trade from the non-compliant data that includes the matched positions and an opt-out option, generating a second proposed trade from compliant financial position data that is processable by the downstream computing system, said compliant financial position data defining one or more long positions and one or more short positions associated with a second financial asset, said second proposed trade also having an opt-out option, wherein a net notional associated with the first proposed trade is equal to a net notional associated with the second proposed trade, and

executing the first proposed trade simultaneously with the second proposed trade when no opt-out indication is exercised, said execution resulting in a replacement of the non-compliant financial position data with the compliant financial position data; and processing, by the downstream processing computer system, *the compliant financial position data.*

App. Br. 22 (Claims Appendix).

THE REJECTIONS

The following rejections are before us for review:

1. Claims 1–10, 12–25, and 27–32 are rejected under 35 U.S.C. § 112, first paragraph.
2. Claims 1–10, 12–25, and 27–32 are rejected under 35 U.S.C. § 112, second paragraph.
3. Claims 1–10, 12–25, and 27–32 are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

FINDINGS OF FACT

We have determined that the findings of fact in the Analysis section below are supported at least by a preponderance of the evidence.²

ANALYSIS

Rejection under 35 U.S.C. § 112, first paragraph

The Examiner has rejected the cited claims above and determined that the Specification fails to support the terms “non-compliant financial data” or “compliant financial position data” (Final Act. 5; Ans. 3).

In contrast, the Appellants argue that the Specification provides support for the terms at paragraph 2 and that one of ordinary skill in the art would understand the cited terms in light of the Specification.

We agree with the Appellants. The Specification at paragraph 2 describes “non-compliant” credit default swap contracts as well as

² See *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Patent Office).

standardized versions of credit default swap contracts (which would be compliant) and the terms are both supported by the Specification. Accordingly, this rejection is not sustained.

Rejection under 35 U.S.C. § 112, second paragraph

The Examiner has rejected the cited claims above and determined that the terms “non-compliant financial data” or “compliant financial position data” are indefinite (Final Act. 5; Ans. 3).

In contrast, the Appellants argue that the Specification provides proper support at paragraph 2 and that one of ordinary skill in the art would understand the cited terms in light of the Specification.

We agree with the Appellants. The Specification at paragraph 2 describes “non-compliant” credit default swap contracts as well as standardized versions of credit default swap contracts (which would be compliant), and thus, the terms are both supported by the Specification. One of ordinary skill in the art would understand the scope of the terms “non-compliant financial data” and “compliant financial position data” in the claims. Both of the cited terms are also used in the conventional manner used in the art. Accordingly, this rejection is not sustained.

Rejection under 35 U.S.C. § 101

The Appellants argue that the rejection of claim 1 is improper because the claim has not been shown to be directed to an abstract idea (Reply Br. 2). The Appellants argue further that the claim is “significantly more” than the alleged abstract idea (App. Br. 2–10; Reply Br. 3).

In contrast, the Examiner has determined that the rejection of record is proper (Final Action 2–8; Ans. 3–10).

We agree with the Examiner. 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); 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.* (internal 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.”).

The PTO recently published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). Under the 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 activity 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)).

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 is 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 Guidance.

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 (citation 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.*

Here, the Examiner has determined that claim 1 is directed to the concept of “conducting multilateral exchange auctions, and more particularly to methods and systems for conducting a multilateral exchange auction that results in offsetting of positions associated with a first financial instrument and replacing the offset positions with replacement positions associated with a second financial instrument” which is an abstract idea and a mathematical relationship (Final Act. 5, 6). We substantially agree with the Examiner in this regard as claim 1 is directed to the steps that are italicized in the claim above. These steps are directed substantially to [1]

“receiving...non-compliant...financial position data defining...long...and short positions”; [2] “matching...at least one of the one or more long...and short positions”; [3] “generating a first proposed trade from...non-compliant data that includes the matched positions and an opt-out”; [4] “generating a second proposed trade. . . wherein a net notational with the first proposed trade is equal to the net notational associated with the second proposed trade”; [5] “executing” the trades simultaneously when no opt-out is exercised; and [6] “processing... the compliant financial position data.” Here, these claimed steps are directed to the concept of financial trading which is fundamental economic practice and an abstract concept. A fundamental economic practice has been held to be directed to a judicial exception. Thus, we consider the claim to be directed to an abstract idea as identified above. In *Trading Technologies International, Inc. v. IBG* (Fed. Cir. 2017-2257, April 18, 2019) the claims were directed to a financial trading method on a computer in which bid and offer information was sent in an order to an electronic exchange and it was held that the concept of placing an order based on displayed market information was a fundamental economic practice and directed to an abstract idea. Thus, we consider the claim to be directed to an abstract idea as identified above.

Turning to the second step of the *Alice* and *Mayo* framework, we determine that claim 1 does not contain an inventive concept sufficient to “transform” the abstract nature of the claim into a patent-eligible application. The claim does not improve computer functionality, improve another field or technology, utilize a particular machine, or effect a physical transformation. Rather, we determine that nothing in the claim imposes a meaningful limit

on the judicial exception, such that the claim is more than a drafting effort to monopolize the judicial exception.

For example, in claim 1 the steps of [1] “receiving...non-compliant data”; [2] “matching” the short and long positions; [3] “generating” a first proposed trade; [4] “generating” a second proposed trade; [5] “executing” the trades simultaneously; and “processing...the compliant financial position data” are merely conventional steps performed by a generic computer that do not improve computer functionality. That is, these recited steps [1]–[5] “do not purport to improve the functioning of the computer itself” but are merely generic functions performed by a conventional processor. Likewise, these same steps [1]–[5] listed above do not improve the technology of the technical field and merely use generic computer components and functions to perform the steps. Also, the recited method steps [1]–[5] above do not require a “particular machine” and can be utilized with a general purpose computer, and the steps performed are purely conventional. In this case the general purpose computer is merely an object on which the method operates in a conventional manner and does not provide “significantly more” to the claim beyond a nominal or insignificant execution of the method. Further, the claim as a whole fails to effect any particular transformation of an article to a different state in a manner that would render the claim “significantly more” than the abstract idea. The recited steps [1]–[5] fail to provide meaningful limitations to limit the judicial exception and rather are mere instructions to apply the method to a generic computer. Considering the elements of the claim both individually and as “an ordered combination” the functions performed by the computer system at each step of the process are

purely conventional. Each step of the claimed method does no more than require a generic computer to perform a generic computer function.

Further the claim fails to add a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field. Rather the claim uses well-understood, routine, and conventional activities previously known in the art at a high level of generality to the judicial exception. The Specification at paragraphs 13 and 14, for example, describes using conventional computer components such as computing devices, processors, laptops, and the Internet in a conventional manner. The claim specifically includes recitations for a computer to implement the method but the computer is used in a manner that is well-understood, routine, and conventional in the field. The Appellants have not shown these claimed generic computer components, which are used to implement the claimed method, are not well understood, routine, or conventional in the field. The Appellants have not demonstrated that the computer components described in the Specification at paragraphs 13–15 and 48 or the claimed computer for instance are not general purpose computer components beyond those known to be routine and conventionally known to perform similar functions in a well-understood manner. The Appellants have also cited to *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) to show that the claim is not abstract but the claims in that case were not similar in scope to those here and were, in contrast, directed to a self-referential data table. The Appellants have also cited to *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) but the claims in that case are distinguished from this case in being directed to rules for lip sync and facial expression animation.

Appeal 2017-010516
Application 14/174,001

For these reasons the rejection of claim 1–10, 12–25, and 27–32 under 35 U.S.C. § 101 is sustained.

CONCLUSIONS OF LAW

We conclude that Appellants have shown that the Examiner erred in rejecting 1–10, 12–25, and 27–32 under 35 U.S.C. § 112, first paragraph.

We conclude that Appellants have shown that the Examiner erred in rejecting 1–10, 12–25, and 27–32 under 35 U.S.C. § 112, second paragraph.

We conclude that Appellants have not shown that the Examiner erred in rejecting 1–10, 12–25, and 27–32 under 35 U.S.C. § 101.

DECISION

The Examiner’s rejection of claims 1–10, 12–25, and 27–32 is sustained.

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). *See* 37 C.F.R. § 41.50(f).

AFFIRMED