



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/633,445	02/27/2015	Chris Crowley	CRD-13-1064CON	6658
35811	7590	05/01/2019	EXAMINER	
IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103			HAMILTON, LALITA M	
			ART UNIT	PAPER NUMBER
			3691	
			NOTIFICATION DATE	DELIVERY MODE
			05/01/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHRIS CROWLEY and MARK ROWELL¹

Appeal 2017-010628
Application 14/633,445
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 1–30, 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. Appeal Br. 1.

THE INVENTION

The Appellants' claimed invention is related to an exchange auction that results in offsetting the positions associated with a first financial instrument and replacing the offset position with a second financial instrument (Spec., para. 1). Claim 1, reproduced below with the italics added, is representative of the subject matter on appeal.

1. A computer-implemented method of replacing non-compliant electronic asset data with new compliant electronic asset data that is suitable for downstream electronic processing, the method comprising:

receiving, by at least one computer, the at least one computer comprising at least one processing device comprising non-transitory memory and at least one processor executing instructions stored in the non-transitory memory, *financial position data defining one or more long positions and one or more short positions* associated with a non-compliant electronic 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 non-compliant electronic first financial asset;

generating, by the at least one computer, *data defining a first proposed executable transaction* that includes the matched positions;

generating, by the at least one computer, *data defining a second proposed executable transaction* that includes one or more long positions and one or more short positions associated with a compliant electronic second financial asset,

wherein a net notional associated with the first proposed executable transaction is equal to a net notional associated with the second proposed executable transaction;

executing the first proposed executable transaction and the second proposed executable transaction,

wherein execution of both the first and second proposed executable transactions replaces a trader's positions in the non-compliant electronic first financial asset with equivalent positions in the compliant electronic second financial asset; and

processing, by at least one downstream system configured to process compliant electronic asset data, the compliant electronic second financial asset.

THE REJECTIONS

The following rejections are before us for review:

1. Claims 1–30 are rejected under double patenting over claims 1–10, 12–25, and 27–32 of US Patent Application 14/174,001.
2. Claims 1–30 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 Double Patenting

The Appellants have not presented any arguments in regards to the rejection made under double patenting (Appeal Br. 15, 16).

As no arguments in this regard have been presented in this regard, this rejection is sustained.

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).

Rejection under 35 U.S.C. § 101

The Appellants argue that the rejection of claim 1 is improper because the claim is not directed to an abstract idea (Appeal Br. 6–10; Reply Br. 2, 3). The Appellants argue further that the claim is “significantly more” than the alleged abstract idea because the claim is a technological solution to technological problem, effects a transformation, improves the functioning of a computer, and is not well understood routine or conventional (Appeal Br. 11–15; Reply Br. 3, 4).

In contrast, the Examiner has determined that the rejection of record is proper (Final Action 7–10; Ans. 2–7).

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 the claim 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 the second financial instrument”, which are methods of organizing human activities and, therefore an abstract idea (Final Rej., 8, 9, Ans. 2). We substantially agree with the Examiner in this regard as claim 1 is directed to the claim limitations in italics above. Here, the claim limitations for “receiving...financial position data defining one or more long positions and one or more short positions”; “matching...one or more long positions with at least one of the one or more short positions”; “generating...a first proposed executable transaction”; “executing the first...transaction and the second...transaction” and “processing...compliant electronic asset data” are related to financial trading which is a fundamental economic practice and method of organizing human activities and directed to an abstract concept and judicial exception. In *Trading Technologies International 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 next step of the *Alice* and *Mayo* framework, we determine that the claim 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” by the computer; [2] “matching” by the computer; [3] “generating” data defining a first transaction; [4] “generating” data defining a second transaction; [5] executing the first and second transactions; and the [6] “processing” of the electronic data are merely conventional steps performed by a generic computer that do not improve computer functionality. That is, these recited steps [1]–[6] “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]–[6] 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]–[6] 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]–[6] 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 paragraph 14, for example, describes using conventional computer components such as server, processor, personal computer, PC, desktop, network server, 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 microprocessor described in the Specification at page 3 or the claimed computer for instance are not a general purpose computer components beyond those known to be routine and conventional known to perform similar functions in a well-understood manner.

The Appellants cite to *DDR Holdings, LLC v. Hotels, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014) and argue that the claim is “rooted in computer technology” (Appeal Br. 14). We disagree as the Appellants have not shown

how the claimed subject matter is rooted in technology given that the Specification describes only the use of generic computer equipment used in a routine, conventional, and generic 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.

For these reasons the rejection of claim 1 is sustained. The Appellants have presented similar arguments for the remaining claims which are directed to similar subject matter and the rejection of these claims is sustained as well.

CONCLUSIONS OF LAW

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1–30 under double patenting and 35 U.S.C. § 101 as listed in the Rejections section above.

Appeal 2017-010628
Application 14/633,445

DECISION

The Examiner's rejection of claims 1–30 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