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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PETER BARTKO, JOHN ROBERT CAPUANO, JOSEPH C. NOVIELLO, and BRIAN ALEXANDER WESTON [1]

Appeal 2017-004984
Application 14/229,282
Technology Center 3600

Before HUBERT C. LORIN, JOSEPH A. FISCHETTI, and BIBHU R. MOHANTY, *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, 16, 17, 21, 22, 25, and 30–43 which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

SUMMARY OF THE DECISION

We REVERSE.

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[1] BGC Partners, Inc. is the real party in interest. Appeal Br. 2.

THE INVENTION

The Appellants' claimed invention is related to electronic trading and providing latency protection for trading orders (Spec., page 1). Claim 16, reproduced below, is representative of the subject matter on appeal.

> 16. A method comprising:
>
> determining, by at least one processor, a latency value;
>
> receiving, by the at least one processor, an order associated with a first price;
>
> receiving, by the at least one processor, a counterorder;
>
> identifying, by the at least one processor, a potential trade associated with the order and the counterorder, the potential trade based at least in part on the first price;
>
> determining, by the at least one processor, whether the determined latency value satisfies a configurable condition, in which the act of determining whether the latency value satisfies the configurable condition comprises determining that the latency value satisfies the configurable condition;
>
> based on the act of determining that the determined latency value satisfies the configurable condition, and responsive to identifying the potential trade, initiating, by the at least one processor, a configurable period of time; and
>
> determining whether the potential trade is valid upon expiration of the configurable period of time, in which the act of determining whether the potential trade is valid upon expiration of the configurable period comprises determining that the potential trade is not valid upon expiration of the configurable period;
>
> based on the act of determining that the potential trade is not valid upon expiration of the configurable period, causing, by the at least one processor, the potential trade to not be executed.

THE REJECTION

The following rejections is before us for review:

Claims 1, 16, 17, 21, 22, 25, and 30–43 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. § 101

The Appellants argue that the rejection of claim 16 is improper because an abstract idea has not been properly identified (App. Br. 7–10, Reply Br. 3, 4). The Appellants also argue that the claim adds "significantly more" to transform the alleged abstract idea into patentable subject matter (App. Br. 10–13, Reply Br. 4–7). The Appellants further argue that the electronic trading system is improved by taking into account the network latency between nodes of a network (Reply Br. 7).

In contrast, the Examiner has determined that the rejection of record is proper (Final Rej. 3–6, Ans. 6–12).

We agree with the Appellants. An invention is patent eligible if it claims a "new and useful process, machine, manufacture, or composition of

[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).

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.").

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 16 is directed to the concept of "managing trading orders" or "creating a contract" (Final Act. 3,

Ans. 2). The Examiner has determined that "managing trading orders" is a fundamental economic practice or method of organizing human activities and an abstract idea (Ans. 4). Here, the claim contains limitations drawn to "receiving…an order associated with a first price"; "receiving…a counterorder"; "responsive to identifying the potential trade…a configurable period of time"; "determining whether the potential trade is valid upon expiration of the configurable time period"; and "based on the act of determining that the potential trade is not valid upon expiration of the configurable time period, causing…the potential trade to not be executed" which are drawn to a managing trading orders. The management of trading orders is a method of organizing human activities and a fundamental economic practice and directed to an abstract concept. Certain methods of organizing human activities including fundamental economic practices are directed to a judicial exception

However, turning to the second step of the second step of the *Alice* and *Mayo* framework, we determine that the claim contains a concept sufficient to "transform" the abstract nature of the claim into a patent-eligible application. The Specification at page 8, lines 18–24 describes that "latency" generally refers to delays associated with communications between and/or functions performed by various components in trading systems. This description of the term "latency" in the Specification is in alignment with how the term is commonly defined in the art technical field. The Specification at the same citation provides examples of latency in this citation include it being attributed to servers, a network, a trading platform, and a combination of hardware and software components which also is in alignment with that definition. The Appellants specifically assert, "[t]he

network latency addressed in these claims is endemic to electronic communication between remote nodes of a network, and thus is a technological improvement that amounts to 'significantly more' than simply 'managing trading orders' or 'creating a contract.'" (Reply Br. 7).

We agree. Here, in claim 16, we determine that the use of the term "latency" is tied to a computer system processor and the electronic delays within it. In claim 16 the initiating of a configurable time based on the latency value for the processor to operate operates to improve the processor's functionality in trade execution and ties the claim to this particular technological environment and is not a mere abstract idea.

For this reason the rejection of claim 16 is not sustained. The remaining claims contain a similar subject matter and the rejection of these claims is not sustained as well for the same reasons.

CONCLUSIONS OF LAW

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1, 16, 17, 21, 22, 25, and 30–43 under 35 U.S.C. § 101.

DECISION

The Examiner's rejection of claims 1, 16, 17, 21, 22, 25, and 30–43 is not sustained.

REVERSED