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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PAUL D. ADCOCK, MICHAEL A. CORMACK,
THOMAS F. HALLER, and ROBERT A. HILL

Appeal 2017-003337
Application 13/612,627¹
Technology Center 3600

Before CAROLYN D. THOMAS, AARON W. MOORE, and
DAVID J. CUTITTA II, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) of the Examiner's final decision rejecting claims 20, 21, and 24, which are all the claims pending and under consideration in the application.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Appellants identify the Real Party in Interest as NYSE Group, Inc. *See* Appeal Br. 1.

² Claims 1–19 and 26–33 are canceled and claims 22, 23, 25, and 34–36 are withdrawn from consideration. *See* Appeal Br. 18–19.

STATEMENT OF THE CASE

Invention

Appellants' invention relates to a posting market center for repricing a reprice-to-block order. *See* Spec. ¶ 7.³

Exemplary Claim

Claim 20 is exemplary and is reproduced below.

20. A posting market center, comprising:

an internal order book and a public order book;

an interface embodied in a computing system receiving orders, including reprice-to-block orders that are to be repriced based on block trades executed at inferior prices, and continuously electronically polling market-wide tape over the Internet for a new last sale executed on an away market;

a posting market center memory storing code for analyzing and processing reprice-to-block orders;

a processor executing the stored code for analyzing and processing reprice-to-block orders when the interface receives said reprice-to-block orders, wherein the code, upon execution by said processor, causes said posting market center to:

(a) post one or more of the received reprice-to-block orders on the internal order book and the public order book;

(b) continuously electronically poll, via the interface, the market-wide tape over the Internet for the new last sale executed on the away market;

³ Our Decision refers to: Appellants' Appeal Brief filed April 26, 2016 ("Appeal Br."); Reply Brief filed December 29, 2016 ("Reply Br."); Examiner's Answer mailed November 3, 2016 ("Ans."); Final Office Action mailed December 21, 2015 ("Final Act."); and original Specification filed September 12, 2012 ("Spec.").

(c) automatically activate, via the interface, a block trade decision application when the new last sale is posted on the tape;

(d) determine, via the block trade decision application, that the new last sale is a block trade;

(e) determine that the block trade was executed at a price that is inferior to a price of the one or more reprice-to-block orders that were posted to the internal order book and the public order book at step (a); and

(f) reprice at least one of the one or more reprice-to-block orders to the price of the block trade that was executed at the inferior price, wherein the at least one repriced reprice-to-block order is posted in a position other than a top position on at least one of said order books, comprises one or more non-displayed components, or a combination thereof.

Appeal Br. 18 (Claims Index).

REJECTION

Claims 20, 21, and 24 stand rejected under 35 U.S.C. § 101 as directed to non-patentable subject matter. Final Act. 2–14.

Our review in this appeal is limited only to the above rejection and the issues raised by Appellants. Arguments not made are waived. *See* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 1205.02 (9th Ed., Rev. 08.2017, Jan. 2018); 37 C.F.R. §§ 41.37(c)(1)(iv), 41.39(a)(1).

ANALYSIS

Issue: Whether the Examiner properly rejects the claims under 35 U.S.C. § 101 as being directed to non-patentable subject matter?

Appellants argue the claims as a group. *See* Appeal Br. 3, 14. We select independent claim 20 as exemplary of Appellants’ arguments for claims 21 and 24. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds claim 20 is “directed to repricing a reprice-to-block order,” which is an abstract idea. Final Act. 4. The Examiner also finds the claim does “not include additional elements that are sufficient to amount to significantly more than the judicial exception.” Final Act. 5.

Appellants present several arguments against the § 101 rejection. We do not find Appellants’ arguments persuasive. Instead, we find the Examiner has provided a comprehensive response to Appellants’ arguments supported by a preponderance of evidence. *See* Ans. 3–15. As such, we adopt the Examiner’s findings and explanations. *See* Final Act. 2–14; Ans. 3–15.

Section 101 provides that “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The provision, however, “. . . contains an important implicit exception: [l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). The “abstract ideas” category embodies the longstanding rule that an idea, by itself, is not patentable. *Alice*, 134 S. Ct. at 2355 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)).

In *Alice*, the Supreme Court sets forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and

abstract ideas from those that claim patent-eligible applications of those concepts.” *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72–73 (2012)). The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” such as an abstract idea. *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (brackets in original) (quoting *Mayo*, 566 U.S. at 72–73). The prohibition against patenting an abstract idea “‘cannot be circumvented by attempting to limit the use of the formula to a particular technological environment’ or adding ‘insignificant postsolution activity.’” *Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010) (quoting *Diamond v. Diehr*, 450 U.S. 175, 191–92 (1981)).

First Step

Initially, independent claim 20 recites a “posting market center” comprising a “processor.” As such, claim 20 is directed to a machine, a statutory class of invention within 35 U.S.C. § 101. Turning to the first step of the *Alice* inquiry, we must determine whether claim 20, being directed to a statutory class of invention, nonetheless falls within a judicial exception.

We agree with the Examiner that claim 20 is “directed to repricing a reprice-to-block order” and that “[r]epricing a reprice-to-block order is a fundamental economic practice (block trading) and method of organizing human activity (trading),” which is an abstract idea. Final Act. 4; *see* Ans. 3.

Appellants argue claim 20 is not abstract because it is “directed toward a new specialized computer system” and “a highly specialized computer network architecture.” Appeal Br. 3; Reply Br. 2.

We are unpersuaded. Claim 20, considered as a whole, relates to repricing reprice-to-block orders. Such activities are squarely within the realm of abstract ideas. Generating prices, which includes repricing, is a fundamental economic practice long prevalent in our system of commerce, like the risk hedging in *Bilski* (*see Bilski*, 561 U.S. at 593), the intermediated settlement in *Alice* (*see Alice*, 134 S. Ct. at 2356–57), the verifying of credit card transactions in *CyberSource* (*see CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011)), the collecting and analyzing of information to detect and notify of misuses in *FairWarning* (*see FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016)), and the guaranteeing of transactions in *buySAFE* (*see buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014)). Generating prices for financial instruments is also a building block of a market economy. Thus, we agree with the Examiner that generating security prices by repricing a reprice-to-block order, like the fundamental business practices *supra*, is an “abstract idea” beyond the scope of § 101. *See Alice*, 134 S. Ct. at 2356.

Moreover, as the Examiner notes, our reviewing court has held similar fundamental economic business practices and methods of organizing human activity to be abstract ideas, like a “method of pricing a product for sale” in *OIP*. See *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015) (internal quotations and citation omitted); see also Ans. 8. Like the fundamental economic practice of offer-based price optimization in *OIP*, Appellants’ claim 20 generates price information. See *id.* Appellants’ arguments fail to demonstrate why the concept of generating security prices by repricing a reprice-to-block order is dissimilar to other fundamental economic concepts found to be abstract ideas by the Supreme Court and our reviewing court.

Appellants argue the claimed invention “[is] not directed to an abstract idea as evidenced by lack of preemption.” Appeal Br. 11. We are unpersuaded because the test for whether claims are statutory is not preemption, but rather is the *Mayo* two step test. “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). “Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Id.*

We, therefore, agree with the Examiner that claim 20 focuses on an abstract idea—and, hence, requires step-two analysis under § 101.

Second Step

Turning to the second step of the *Alice* inquiry, we find nothing in Appellants' claim 20 that adds "significantly more," sufficient to transform the abstract idea of repricing a reprice-to-block order into a patent-eligible application. *Alice*, 134 S. Ct. at 2357. We agree with the Examiner that there are "no meaningful limitations beyond generally linking the use of an abstract idea to a particular technical environment, and the claims require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional." Final Act. 5.

First, Appellants argue the appealed claim, like the claims in *DDR Holdings*, is "necessarily rooted in computer technology" and overcomes "a computer-centric problem specifically arising in the realm of computer networks and the Internet." Appeal Br. 4 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1258 (Fed. Cir. 2014) (finding an inventive concept in the modification of the conventional mechanics behind website display to produce a dual-source integrated hybrid display). Appellants further argue that, consistent with *DDR Holdings*, the claimed solution overcomes a problem that "prior art computer trading systems are (technologically) unable to automatically reprice trades to be equal to the price of a block trade that was executed outside of prices quoted on a market," thereby "eliminat[ing] certain processing functions required of prior computer systems" to minimize "wasting [of] computer resources." Appeal Br. 4, 6.

We are unpersuaded. The solution offered by Appellants' claim 20 is not rooted in any novel computer technology, as evidenced by claim 20 merely reciting a generic computing system and processor. Moreover, rather

than identifying a solution rooted in computer technology, Appellants' Specification identifies a problem that "there is a need for a posted limit order that will reprice itself less aggressively in view of a block trade executing in that issue at a trade price that is inferior to the prices quoted on the posting market center." Spec. ¶ 6. Appellants' claimed invention seeks to solve the identified problem by "automatically repricing" orders. Spec. ¶ 7.

This problem is a business problem, not a technical problem. Claim 20 recites a specific way and specific context for repricing a reprice-to-block order" by implementing steps (a) through (f) using a generic processor. *See* claim 20. While these steps limit the scope of the abstract concept of repricing a reprice-to-block order, the limitations are not sufficient to transform Appellants' otherwise patent-ineligible abstract idea into patent-eligible subject matter. Fundamentally, the solution Appellants offer is "an entrepreneurial, rather than a technological, one." *DDR*, 773 F.3d at 1265 (Mayer, J., dissenting).

Second, Appellants argue the Examiner fails to follow the Office's guidance in selecting a case similar to Appellants' claim 20 by not recognizing claim 20 is comparable to Examples 21 and 23 from the JULY 2015 UPDATE: SUBJECT MATTER ELIGIBILITY. *See* Appeal Br. 7–8.

Appellants' argument is not sufficient to show Examiner error because the guidelines are not legal requirements. *See* 2014 INTERIM GUIDANCE ON PATENT SUBJECT MATTER ELIGIBILITY, 79 Fed. Reg. 74,619 (Dec. 16, 2014) ("This Interim Eligibility Guidance has been developed as a matter of internal Office management and is not intended to create any right or benefit, substantive or procedural, enforceable by any party against the

Office. Rejections will continue to be based upon the substantive law, and it is these rejections that are appealable. Failure of Office personnel to follow this Interim Eligibility Guidance is not, in itself, a proper basis for either an appeal or a petition”); *cf. In re Fisher*, 421 F.3d 1365, 1372 (Fed. Cir. 2005) (“The MPEP and Guidelines are not binding on this court”) (internal quotations and citation omitted).

Third, Appellants argue “the claims include the limitations of a posting market center activating (controlling), via an interface, other computer components (e.g., a block trade decision application) to cause the block trade decision application to perform certain functions, which is patent-eligible under *Diamond v. Diehr*.” Appeal Br. 9.

The Examiner responds “[j]ust as *Diehr* could not save the claims in *Alice*, which were directed to ‘implement[ing] the abstract idea of intermediated settlement on a generic computer’, *Alice*, 134 S. Ct. at 2358–59, it cannot save OIP’s claims directed to implementing the abstract idea of price optimization on a generic computer” or Appellants’ claim 20. Final Act. 11.

We find Appellants’ argument unpersuasive because we agree with the Examiner that Appellants fail to persuasively distinguish claim 20 from the claims in *Diehr*, in light of *Alice* and *OIP*.

Fourth, Appellants argue “the asserted abstract idea is applied by use of a particular machine and provides improvements to the functioning of the computer itself.” Appeal Br. 10; *see also* Reply Br. 6–7 (including similar arguments based on *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016)).

This argument is unpersuasive because claim 20, here, is unlike the claims in *Enfish*. There, our reviewing court relied on the distinction made in *Alice* between, on one hand, computer-functionality improvements and, on the other, uses of existing computers as tools in aid of processes focused on “abstract ideas” (in *Alice*, as in so many other § 101 cases, the abstract ideas being the creation and manipulation of legal obligations such as contracts involved in fundamental economic practices). *Enfish*, 822 F.3d at 1335–36; *see also Alice*, 134 S. Ct. at 2358–59. In *Enfish*, the decision to reject the § 101 challenge was applied at stage one because the claims at issue focused, not on asserted advances in uses to which existing computer capabilities could be put, but on a specific improvement—a particular database technique—in how computers could carry out one of their basic functions of storage and retrieval of data. *Enfish*, 822 F.3d at 1335–36.

The present case is different because the focus of claim 20 is not on an improvement in computer-functionality, as in *Enfish*, but on independently abstract ideas that use a computer as a tool, i.e., to collect and manipulate data to calculate a value to reprice at least one reprice-to-block order to the price of the block trade that was executed at an inferior price. *See* Appeal Br. 18, claim 20.

Appellants next argue the Examiner has not met the burden of establishing a rejection under 35 U.S.C. § 101 because “the Examiner has not produced any evidence that, for example, the Appellants’ claims are a fundamental economic practice or method of organizing human activity.” Appeal Br. 13 (citing Final Act. 8–9).

We disagree. The USPTO 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.” *In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (brackets in original, quoting 35 U.S.C. § 132). Here, the Examiner has notified Appellants that the claims are directed to an ineligible abstract idea. Specifically, the Examiner determines claim 20 is directed to “[r]epricing a reprice-to-block order,” which “is a fundamental economic practice (block trading) and method of organizing human activity (trading)” and that the “claim as a whole does not amount to ‘significantly more’ than the judicial exception.” Final Act. 4, 5; *see* Ans. 6–7. Thus, Appellants have been notified of the reasons for the rejection with such information “as may be useful in judging of the propriety of continuing the prosecution of [the] application.” *Jung*, 637 F.3d 1362 (internal citation omitted).

Because Appellants’ exemplary claim 20 is directed to a patent-ineligible abstract concept and does not recite something “significantly more” under the second prong of the *Alice* analysis, we sustain the Examiner’s rejection of this claim under 35 U.S.C. § 101 as being directed to non-patentable subject matter in light of *Alice* and its progeny. The rejection of claims 21 and 24, which are not argued separately, is sustained for the same reasons.

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Application 13/612,627

DECISION

We affirm the Examiner's rejection of claims 20, 21, and 24 under 35 U.S.C. § 101.

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