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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/007,837	01/27/2016	Maribeth Sevigny Warner	P02736-US- UTIL (M01.402)	8589
125619	7590	06/17/2020	EXAMINER	
Mastercard International Incorporated c/o Buckley, Maschoff & Talwalkar LLC 50 Locust Avenue New Canaan, CT 06840			SHUI, MING	
			ART UNIT	PAPER NUMBER
			3684	
			NOTIFICATION DATE	DELIVERY MODE
			06/17/2020	ELECTRONIC

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

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szpara@bmtpatent.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARIBETH SEVIGNY WARNER, PETE KAULBACH,
ROBERT C. DUNNELL, ROBERT J. McDONALD,
KATHY DONNELLY, THOMAS ROEWE, GHASSAN T. JABR,
MICHAEL HOCHHALTER, RUSSELL W. BALL,
WINIFRED ELIZABETH HOUSE,
PRASAD KRISHNAMOORTHY RAO, MATTHEW HANMER, and
NORA KRYZA¹

Appeal 2019-006971
Application 15/007,837
Technology Center 3600

Before ROBERT E. NAPPI, BETH Z. SHAW, and
JAMES W. DEJMEK, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 3 through 22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42(a) (2018). According to Appellant, Mastercard International Incorporated is the real party in interest. Appeal Br. 2.

INVENTION

The invention relates generally to a method for use in e-commerce, where a request to verify a dynamic security code in a transaction request is received, the security code is verified, and the transaction request is modified to add a verification result and then transmitted to an issuer of payment. Abstract. Claim 3 is reproduced below.

3. A method comprising:

receiving, by a computer, a request to verify a dynamic security code included in a transaction authorization request message, the transaction authorization request message generated in connection with a payment account transaction;

performing, by the computer, a verification process with respect to the dynamic security code to generate a verification result;

modifying, by the computer, the transaction authorization request message by adding the verification result to the transaction authorization request message; and

transmitting, by the computer, the modified transaction authorization request message to an issuer of a payment account designated for use in the payment account transaction;

wherein the transmitting modified transaction authorization request message includes transmitting a static security code associated with the designated payment account.

Appeal Br. 11, Claims App.

EXAMINER’S REJECTIONS²

The Examiner rejected claims 3 through 22 under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. Final Act. 3–4.

PRINCIPLES OF LAW

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 U.S. 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 Court’s two-part 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.”).

² Throughout this Decision we refer to the Appeal Brief filed June 27, 2019 (“Appeal Br.”); Reply Brief filed September 26, 2019 (“Reply Br.”) Final Office Action mailed January 30, 2019 (“Final Act.”); and the Examiner’s Answer mailed August 1, 2019 (“Ans.”).

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, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); 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 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 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

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”).³ “All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, 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) (“Step 2A, Prong One”); and

³ In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

(2) additional elements that integrate the judicial exception into a practical application (*see* Manual of Patent Examining Procedure “MPEP” § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).⁴

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, 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. 2019 Revised Guidance, 84 Fed. Reg. at 52–56.

⁴ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance—Section III(A)(2), 84 Fed. Reg. 54–55.

DISCUSSION

Rejection under 35 U.S.C. § 101

The Examiner determines the claims are not patent eligible because they are directed to a judicial exception without reciting significantly more. Final Act. 3–4. Specifically, the Examiner determines the claims recite an abstract idea of gathering data about credit card transactions so that the information can be analyzed in order to detect fraudulent transactions which similar to that discussed in *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011). Final Act. 3, Ans. 7. Further, the Examiner considers the claims to not recite a practical application of the abstract concept and to not include elements that amount to significantly more than the judicial exception. Final Act. 4.

Appellant argues that the Examiner erred in finding the claims do not recite a practical application of the judicial exception, as the claims recite performing a verification process on a dynamic security code, and thus the claims do not cover verification without a dynamic security code. Appeal Br. 6–7 (citing the Prong two Step 2A of the 2019 Revised Guidance). Further, Appellant asserts the Examiner erred in concluding the claim does not recite significantly more. Appeal Br. 7–8. Appellant reasons the Examiner’s finding that the transmission of a static security code as part of the modified transaction message is novel and non-obvious, demonstrates the Examiner erred in finding the limitation the claim recites conventional routine and well understood elements as is required in the “significantly more” analysis. *Id.* Finally, Appellant argues the Examiner has not identified the claims recite one of the three types of abstract ideas identified in the 2019 Revised Guidance, and asserts that the claims are rooted in a

computer technological field. Appeal Br. 8–9.

Patent eligibility under § 101 is a question of law that may contain underlying issues of fact. “We review the [Examiner’s] ultimate conclusion on patent eligibility de novo.” *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1342 (Fed. Cir. 2018) (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018)); *see also SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010) (“Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review de novo.” (citation omitted)). We have reviewed Appellant’s arguments in the Appeal Brief, the Examiner’s rejections, and the Examiner’s response to Appellant’s arguments. Appellant’s arguments have not persuaded us of error in the Examiner’s rejection of all the claims under 35 U.S.C. § 101.

Discussion

The Judicial Exception

Appellant’s arguments have not persuaded us the Examiner erred in finding the claim recites an abstract idea.

We concur with the Examiner that the claims recite an abstract concept of gathering data about credit card transactions so that the information can be analyzed in order to detect fraudulent transactions, a mental process similar to that discussed in *CyberSource Corp.* The claims at issue in *CyberSource* were directed to obtaining credit card information and verifying the information and the court found that the claimed steps can be performed in the human mind or by using pen a paper as the claims did not recite or limit the scope any particular fraud detection algorithm.

CyberSource at 1372. Representative claim 3 recites a step of receiving a request to verify a dynamic security code which is part of a message

generated in a payment account transaction which is just a data gathering step that can be performed by a person. The claim further recites a limitation directed to a verification process with respect to the dynamic security code to generate a verification result which is just a broadly claimed data analysis of the security code. Similar to the claims in *CyberSource*, representative claim 3 does not recite the specific manner in which the verification process occurs, and thus it could be a simple comparison process performed in the human mind (e.g., a date on the transaction, is an example of attached dynamic code which can easily be decoded in the human mind). *See also Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011) (claim to collecting and comparing known information determined to be steps that can be practically performed in the human mind); *In re TLI Communications* 823 F.3d 607, 613 (Fed. Cir. 2016) (finding claims classifying and storing digital images as reciting an abstract idea) *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (“The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions.”); October 2019 Update: Subject Matter Eligibility 7 (discussing *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) and mental processes), available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf. Modifying the transaction authorization request by adding the verification result and transmitting the transaction authorization request are also processes that could be performed by a human with pen and paper, e.g., acknowledging to another that a person has performed the verification step by signing a document. Thus, with the

exception of the recitation of the method being performed on a computer, the claim recites a process typically performed a person e.g. the a process performed when notarizing a document; a document with a date (dynamic code) is received by a person, the person verifies the date is correct, signs and stamps the document (verification and static code) and gives it to another person. Thus, we do not consider the Examiner to have erred in determining the claims recite an abstract concept, and we agree with the Examiner that the claims recite an abstract concept (a mental process) similar to that at issue in *CyberSource*.

Further, we note that the claims recite that the transaction authorization is generated in conjunction with a payment account transaction, and as such relates to organizing human activity such as a fundamental economic practice.

Thus, we consider representative claim 3 to recite elements of two abstract ideas; a mental process, and a certain method of organizing human activity, such as a fundamental economic practice. Merely combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract.”); *see also FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (determining the pending claims were directed to a combination of abstract ideas). Thus, we conclude representative claim 3 recites an abstract idea.

Integration of the Judicial Exception into a Practical Application
Appellant argues that the Examiner in the rejection made a conclusory assertion that the judicial exception is not integrated into a practical

application. Appeal Br. 6. Appellant asserts:

claim 3 imposes meaningful limits on this alleged judicial exception and would not monopolize it. This is the case, for example, because claim 3 recites performing a verification process with respect to a dynamic security code. Thus claim 3 would not cover credit card transaction verification that does not involve a dynamic security code. Further, claim 3 recites modifying a transaction authorization request message and transmitting it to an issuer of the relevant payment account. Consequently, claim 3 would not cover a credit card transaction verification process in which a transaction authorization request message is not modified.

Appeal Br. 7.

Further, Appellant argues that the claims “arises from the technological field of designing and operating computer-networked payment transaction processing systems and is directed to a solution for problems related to encryption based security” and that the claims are directed to a solution rooted in computer technology that is used to overcome a problem that is specific to or caused by the use of a computer. Appeal Br. 8.

We are not persuaded of error by these arguments. As an initial matter, we concur with the Examiner, that Appellant’s arguments directed to the claims not monopolizing all transaction authorizations is essentially a preemption argument. Ans. 2. Our reviewing court has said “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework . . . preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). As we apply the guidelines which follow the *Mayo* framework and find that the claims are directed to patent-ineligible subject matter, Appellant’s preemption argument, that the claims do not monopolize all transaction authorizations, is not persuasive of error.

Further, we are not persuaded by Appellant's arguments that the claims are directed to a solution rooted in computer technology. We note that the claims do not recite an encryption based technology, as argued, rather representative claim 3 merely recites that a dynamic security code is verified. Thus Appellant's arguments are not commensurate with the scope of the representative claim. We recognize that Appellant's Specification discusses, on page 11, that the verification may involve cryptographic keys, we decline to import such limitations into the claim and note the Specification merely identifies that it "may" be used. Further, although representative claim 3 recites a computer which receives, performs the verification request and transmitting the modified authorization, the use of computer does not make the solution a to a computer based problem. As discussed above the process of receiving a transaction request, verifying a code on the transaction request, modifying the transaction request by adding a verification result and providing the modified transaction request are mental steps that can be performed by a human with pen and paper. Appellant has not identified, nor do we find that the operation of the computer is improved by this process, rather we consider the use of a computer to implement these steps as merely reciting use of a computer as a tool to implement the abstract concept. *See, e.g., RecogniCorp*, 855 F.3d at 1327 ("Unlike *Enfish*, [the claim] does not claim a software method that improves the functioning of a computer . . . [but] claims a 'process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool.'") (Citation omitted). Our reviewing court said "[the] mere automation of manual processes using generic computers' . . . 'does not constitute a patentable improvement in computer technology.'" *Trading*

Techs. Int'l Inc. v. IBG LLC, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (quoting *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017)). USPTO examination procedure also requires that “the claim must include more than mere instructions to perform the method on a generic component or machinery to qualify as an improvement to an existing technology.” MPEP § 2106.05(a).

Accordingly, we are not persuaded of error in the Examiner’s rejection, and we do not consider representative claim 3 to recite a practical application of the abstract concept.

Significantly More than the Abstract Idea

Under the 2019 Revised Guidance, if a claim: (1) recites a judicial exception, and (2) does not integrate that exception into a practical application, we then look to whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or, simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Appellant argues the Examiner has not presented proof that the claim elements are a combination of well-understood, routine, and conventional elements as required by *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed. Cir. 2018). Appeal Br. 7–8, Reply Br. 2. Specifically, Appellant argues that “the additional elements is transmitting a static security code as part of transmitting a modified transaction authorization request message, in the context of the message previously having included a dynamic security code,” which the Examiner found to be novel and non-obvious, is evidence that the additional element is not conventional, routine, and well-understood.

Appeal Br. 7–8.

Appellant’s arguments have not persuaded us the Examiner erred in considering the claims to not recite significantly more than the abstract idea. The Examiner in the rejection identifies that the additional elements of the claims are only generic computers performing tasks. Final Act. 3–4, Ans. 4–5. Further, the Examiner states,

To the extent that Appellant is arguing that the various other elements of the claim such as the verification process and modifying the transaction authorization request message are significantly more, the examiner notes that these elements are steps that are necessary to carry out the abstract idea and therefore would not constitute significantly more. Factual findings are needed only for “additional claim elements” that are not utilized to carry out the abstract idea. In claim 3, all of the elements, except for “a computer” are utilized to carry out the abstract idea. Therefore, the only element that is considered claim 3 is nothing more than a generic computer and is considered a well-understood, routine, and conventional element. Therefore, the examiner asserts that necessary factual findings for Berkheimer are met.

Ans. 5.

We concur with the Examiner. The recitation of a computer that receives a request, verifies a code (a comparison), modifies the data and transmits it, recites a generic computer performing generic computer functions. Appellant’s Specification identifies that the computer used to perform the method may be “typical server computer.” Specification 6. Thus, Appellant’s Specification does not demonstrate that a specific computer is required to implement the method. Further, the steps of receiving data, and transmitting data are considered a generic computer function. *See*, MPEP § 2106.05(d) II (i, iv); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015); *buySAFE, Inc. v.*

Google, Inc., 765 F.3d 1350, 1355 (Fed. Cir. 2014), (computer receives and sends information over a network). Appellant’s argument that the transmitted message includes a static security code, is not persuasive as it is the act of transmission is a generic computer function, and the content of the transmitted data is directed to the recited judicial exception.

Further, to the extent Appellant is asserting the lack of a pending rejection under either §§ 102 or 103 suggests the instant claims do not recite well-understood, routine, or conventional activities (*see* Appeal Br. 7–8; Reply Br. 2), we are not persuaded. Subject-matter eligibility under 35 U.S.C. § 101 is a requirement separate from other patentability inquiries. *See Mayo*, 566 U.S. at 90 (recognizing that the § 101 inquiry and other patentability inquiries “might sometimes overlap,” but that “shift[ing] the patent-eligibility inquiry entirely to these [other] sections risks creating significantly greater legal uncertainty, while assuming that those sections can do work that they are not equipped to do”); *see also Diamond v. Diehr*, 450 U.S. 175, 188–89 (1981) (“[t]he ‘novelty’ of any element or steps in a process, or even of the process itself, is of no relevance in determining whether the subject matter of a claim falls within the § 101 categories of possibly patentable subject matter”); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1340 (Fed. Cir. 2017) (“[e]ligibility and novelty are separate inquiries”).

In summary, Appellant’s arguments have not persuaded us of error in the Examiner’s determination that representative claim 3 recites an abstract idea, a mental process and organizing human activity as it relates fundamental economic process. Further, Appellant’s arguments have not persuaded us that the Examiner erred in finding that the claim is not directed

to an improvement in the functioning of the computer or to other technology or other technical field; directed to a particular machine; directed to performing or affecting a transformation of an article to a different state or thing; or directed to using a judicial exception in some meaningful way beyond linking the exception to a particular technological environment, such that the claim as a whole is more than a drafting effort to monopolize the judicial exception. For these reasons, we are unpersuaded that the claims recite additional elements that integrate the judicial exception into a practical application, nor do the claims add a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional.” *See* 2019 Revised Guidance, 84 Fed. Reg. at 54. Accordingly, we sustain the Examiner’s rejection of representative claim 3, and claims 4 through 22 grouped with claim 3, under 35 U.S.C. § 101 as being directed to a patent-ineligible abstract idea, that is not integrated into a practical application, and does not include an inventive concept.

CONCLUSION

We affirm the Examiner’s rejection of claims 3 through 22 under 35 U.S.C. § 101.

DECISION SUMMARY

In summary:

Claim Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
3–22	101	Eligibility	3–22	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R.

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§ 1.136(a)(1)(iv).

AFFIRMED