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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/212,404	09/17/2008	Louie F. Pento	08049.0980-01	1259
22852	7590	12/26/2019	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			HARRINGTON, MICHAEL P	
			ART UNIT	PAPER NUMBER
			3628	
			NOTIFICATION DATE	DELIVERY MODE
			12/26/2019	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LOUIE F. PENTO, DANIEL S. STIREWALT,
JOHN T. EDGAR, and ROBERT L. OTTO

Appeal 2018-006938
Application 12/212,404
Technology Center 3600

Before DENISE M. POTHIER, JENNIFER L. McKEOWN, and
JASON M. REPKO, *Administrative Patent Judges*.

POTHIER, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant^{1,2} appeals from the Examiner's decision to reject claims 1, 2, 5–10, 54, 55, and 58–65, which are all the pending claims. Appeal Br. 6. We AFFIRM.

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as United States Postal Service. Appeal Br. 4.

² Throughout this opinion, we refer to the Final Action (Final Act.) mailed July 11, 2017, the Appeal Brief (Appeal Br.) filed December 11, 2017, the Examiner's Answer (Ans.) mailed April 23, 2018, and the Reply Brief (Reply Br.) filed June 25, 2018.

CLAIMED SUBJECT MATTER

The claims are directed to “provid[ing] methods and systems for creating and maintaining customs declaration forms in an electronic format enabling paperless and expedient forwarding, review, search, and storage via digital means, such as with a computer-based network.” Spec. ¶ 8.

Claim 1 is reproduced below:

1. A method for creating and reviewing a customs declaration form, comprising:

- [a] receiving a mailpiece having a first unique identifier at a facility of a service provider of an originating country;
- [b] capturing an image of the mailpiece, using an optical device;
- [c] converting the image into an electronic customs manifest;
- [d] forwarding the electronic customs manifest to a customs service of the originating country before an international mail piece with an attached customs declaration form arrives at the customs service of the originating country;
- [e] determining, based on the electronic customs manifest, whether to allow the international mailpiece to leave the originating country without further inspection, before the international mail piece arrives at the customs service of the originating country;
- [f] transmitting the electronic customs manifest to a reading device when it is determined that the international mailpiece may not leave the originating country, the electronic customs manifest being stored in the reading device;
- [g] reading, using the reading device, a second unique identifier on the attached customs declaration form that is attached to the international mailpiece; and
- [h] permitting the international mailpiece to leave the originating country when the second unique identifier does not

match the first unique identifier of [the electronic customs manifest]³ stored in the reading device.

Appeal Br. 40 (Claims App.) (bracketing added and referring to the recitations as step [a] through step [h] respectively).

We have reviewed the Examiner's rejection in light of Appellant's arguments presented in this appeal. Arguments which Appellant could have made, but did not make in the Brief are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2016). On the record before us, we are not persuaded the Examiner has erred.

PATENT INELIGIBILITY REJECTION

The Rejection and Arguments

The Examiner found the claims in this application are directed to a judicial exception: an abstract idea. Final Act. 19–20; *see id.* at 10–11. The Examiner identifies various limitations in the claims as additional elements, indicating these elements are extra-solution activities and generic machines that do not improve technology. *Id.* at 10, 20. The Examiner even further states the implementation of these elements “would be routine and conventional.” *Id.* at 20; *see id.* at 13.

Appellant argues: (1) the Examiner failed to present a prima facie basis under 35 U.S.C. § 101 (Appeal Br. 12–13), (2) the claims are not directed to an abstract idea but rather recite a specific means for creating and

³ The Claims Appendix in the Appeal Brief does not include the bracketed language. Appeal Br. 40 (Claims App.). However, the last entered amendment submitted on July 15, 2016 with the Request for Continued Examination includes this language.

maintaining customs declaration forms that expedient forwarding, reviewing, searching, and storing (*id.* at 13–18, 20–26), (3) the Examiner did not identify a subject matter in the claims similar to what the courts have found to be abstract ideas (*id.* at 18–20), (4) the claims involve an improvement to computer functionality (*id.* at 19) and enable a technological improvement over existing forms of communication ((*id.* at 24–26), and (5) the Examiner did not provide a reasoned explanation that supports the additional elements are well-understood, routine, and conventional activities and the particular arrangement of the steps in the claims represent a non-conventional and non-generic arrangement as in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) and *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016) (*id.* at 26–35).

Appellant argues claims 1, 2, 5–10, 54, 55, and 58–65 as a group. Appeal Br. 12–35. We select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Issue

Under § 101, has the Examiner erred in rejecting claim 1 by determining that the claims are directed to judicially excepted, patent ineligible subject matter?

Principles of Law

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. *Mayo Collaborative Servs. v. Prometheus Labs.*,

Inc., 566 U.S. 66, 70 (2012) (brackets in original) (citing *Diamond v. Diehr*, 450 U.S. 175, 185 (1981)).

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*. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citing *Mayo*, 566 U.S. at 75–77). 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 of rubber products” (*Diehr*, 450 U.S. at 193); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (185))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

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.* (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.*

In January 2019, the USPTO published revised guidance on the application of § 101. *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Revised Guidance”). Under the Revised 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 activities such as a fundamental economic practice, or mental processes) (Revised Guidance, 84 Fed. Reg. at 52–54); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* the Manual of Patent Examining Procedure (MPEP) §§ 2106.05(a)–(c), (e)–(h)) (Revised Guidance, 84 Fed. Reg. at 53–55).

Only if a claim (1) recites a judicial exception, and (2) does not integrate that exception into a practical application (“Revised Step 2A”), do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not well-understood, routine, and conventional in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See Revised Guidance, 84 Fed. Reg. at 56 (“Step 2B”).

Analysis

At the outset, we disagree with Appellant that the Examiner did not establish a *prima facie* case of patent-ineligibility. *See* Appeal Br. 12–13; Reply Br. 2–3. The rejection (Final Act. 19–20) is consistent with the two-step framework described in *Alice* and *Mayo*. *See Alice*, 573 U.S. at 217–18; *see also Mayo*, 566 U.S. at 75–77. The Examiner identified various steps in claim 1 that are directed to a judicial exception (Final Act. 19–20; Ans. 3–4). The Examiner also determined the additional elements in claim 1, alone or collectively, are not sufficient to amount to significantly more than the judicial exception. For example, the Examiner identified additional elements in claim 1, describing some of these elements as generic computer elements (e.g., an optical device) and others as insignificant extra-solution activity (e.g., transmitting information, such as forwarding the electronic customs manifest to a customs service). Final Act. 20. Further, the Examiner explained claim 1 does not recite “a non-conventional and non-generic arrangement of known, conventional pieces, but instead uses known and conventional equipment in customs processing, used in a conventional manner.” *Id.* at 13; *see* Ans. 6, 12, 14–16.

Alice Step One

Claim 1 recites a method and, therefore, falls within the process category of § 101. *See* Revised Guidance, 84 Fed. Reg. at 53–54. Despite falling within a statutory category, we must determine whether claim 1 as a

whole is directed to a judicial exception, namely an abstract idea. *See Alice*, 573 U.S. at 217. To this end, we determine (1) whether claim 1 recites a judicial exception (“Revised Step 2A - Prong 1”) and, if so, (2) whether the identified judicial exception is integrated into a practical application (“Revised Step 2A – Prong 2”). *See Revised Guidance*, 84 Fed. Reg. at 52–55. If both elements are satisfied, the claim is directed to a judicial exception under the first step of the *Alice/Mayo* test. *See id.*

Revised Step 2A - Prong 1

In step, we identify claim 1’s specific limitations that recite a judicial exception, and determine whether the identified limitations fall within certain subject matter groupings, namely (a) mathematical concepts (mathematical relationships, formulas, and calculations); (b) certain methods of organizing human activity (e.g., fundamental economic practices, commercial or legal interactions, and managing personal behavior or interactions between people); or (c) mental processes (e.g., concepts performed in the human mind including an observation, evaluation, judgment, or opinion). *See Revised Guidance*, 84 Fed. Reg. at 52. We agree with the Examiner (*see Final Act*. 19–20) that claim 1 recites at least one judicial exception.

Claim 1 recites a “method for creating and reviewing a customs declaration form” the method “comprising:” limitations [a] (i.e., “receiving a mailpiece having a first unique identifier at a facility of a service provider of an originating country”), [e] (i.e., “determining, based on the . . . customs manifest, whether to allow the international mailpiece to leave the originating country without further inspection, before the international mail piece arrives at the customs service of the originating country”), [g] (i.e.,

“reading . . . a second unique identifier on the attached customs declaration form that is attached to the international mailpiece”), and [h] (i.e., “permitting the international mailpiece to leave the originating country when the second unique identifier does not match the first unique identifier of [the mailpiece].”) Appeal Br. 40 (Claims App.).

Like the Examiner found (*see* Final Act. 19–20; *see also* Ans. 4), the above steps [a], [e], [g], and [h] recite a process for reviewing customs declaration forms before an international mail piece leaves its originating country. *See* Final Act. 10–11 (stating the claim is “directed towards creating . . . customs declaration forms for forwarding, reviewing, searching and storing”); *see also* Ans. 13 (stating the same). The Specification similarly describes the invention as a method “for creating and maintaining customs declaration forms in an electronic format enabling . . . forwarding, review, search, and storage.” Spec. ¶ 8. As explained below in more detail and contrary to Appellant’s contentions (Appeal Br. 13–16, 19–20), these limitations as a whole recite a judicial exception set forth in the Revised Guidance.

For example, “receiving a mailpiece having a first unique identifier at a facility of a service provider of an originating country” (e.g., receiving an unattached customs declaration form (Spec. ¶ 5)) as step [a] recites is an activity that would ordinarily take place when attempting to mail an international mailpiece, which includes providing copies of the customs declaration form to a customs service. *See id.* ¶¶ 5, 7 (describing the current process that stores a copy of customs declaration form at the customs service of the originating country from which an international mailpiece is mailed and the customs service may examine the copy prior to the international

mailpiece with an attached customs declaration form leaving the country). Reviewing customs declaration forms related to an international mailpiece ordinarily involves (3) determining which mailpieces to inspect based on the information on the customs declaration form as recited in step [e], (4) reading unique identifiers on the attached customs declaration form attached to the international mailpiece as step [g] recites and (5) permitting the international mailpiece to leave the originating country when the international mailpiece's unique identifier does not match the related customs declaration form's unique identifier (e.g., enclosed items on form's list does not merit screening the international mailpiece's contents) as step [h] recites. *See id.* ¶¶ 3–4, 7.

Mailing an international mail piece is a commercial interaction and reviewing customs declaration forms before an international mail piece leaves its originating country is part of this commercial transaction. *See* Final Act. 16 (stating the claims are a “business service and economic tasks”); *see* Ans. 15 (same). Like the concept of intermediated settlement in *Alice* and the concept of processing an application for financing a purchase (e.g., a financial industry practice) in *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1054 (Fed. Cir. 2017), reviewing customs declaration forms before an international mail piece leaves its originating country is a commercial interaction. *See also Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 911 (Fed. Cir. 2017) (determining its claims are directed to “the abstract idea of using a marking affixed to the outside of a mail object to communicate information about the mail object, i.e., the sender, recipient, and contents of the mail object.”).

Accordingly, we conclude claim 1 recites a commercial interaction, which is one of certain methods of organizing human activity identified in the Revised Guidance. *See* 84 Fed. Reg. at 52. For the above reasons, we determine claim 1 recites an abstract idea.

Revised Step 2A - Prong 2

Because claim 1 recites a judicial exception, we must determine whether the judicial exception is integrated into a practical application, namely whether the claim applies, relies on, or uses the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exceptions. *See* Revised Guidance, 84 Fed. Reg. at 53. We (1) identify whether there are any additional, recited elements beyond the judicial exception, and (2) evaluate those elements individually and collectively to determine whether they integrate the exception into a practical application. *See id.*, 84 Fed. Reg. at 54–55.

The additionally recited elements beyond the above-identified judicial exception in claim 1 are steps [b]–[d] and [f], “an optical device,” “an electronic customs manifest,” and “a reading device.” *See* Final Act. 20. Independent claim 59 additionally recites a “non-transitory computer-readable medium” (Appeal Br. 43 (Claims App.)), and independent claim 54 additionally recites “a receiving component,” “mail processing equipment,” “a scanner,” “an imaging component,” “a conversion component,” “a forwarding component,” “a determination component,” “a transfer component,” “a matching component,” and “a confirming component.” *See id.* at Appeal Br. 42–43 (Claims App.); Final Act. 20. When considering

these elements individually or in combination, we determine they do not integrate the above-identified judicial exception into a practical application.

Rather, the additionally recited elements merely automate the above-identified judicial exception using generic computer elements as tools, which do not constitute an improvement in a computer or computer technology. *See* Final Act. 20; *see Credit Acceptance Corp.*, 859 F.3d at 1055 (discussing “the claims permit automation of previously manual processing of loan applications”); *see also Alice*, 573 U.S. at 223–24 (discussing “wholly generic computer implementation is not generally the sort of ‘additional featur[e]’ that provides any ‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.’” (quoting *Mayo*, 566 U.S. at 77)).

For example, the claimed “optical device” and “reading device” in claim 1 are tools to perform the identified judicial exception, including steps [b], [f], and [g], but do not further recite an improvement to these devices or on how they function. Appeal Br. 40 (Claims App.). Similarly, independent claim 59 does not recite a technological improvement in the recited “non-transitory computer-readable medium” or its functionality, but rather the medium is a tool to store and execute instructions. *See* Appeal Br. 43–44 (Claims App.). The Specification also indicates these components are generic, not particular, and do not discuss an improvement on these components or how they function. *See, e.g.*, Spec. ¶¶ 25,⁴ 33, 44 (describing an optical device taking an image of a customs declaration form and a

⁴ Upon review, we are unable to find reference to a “medium” in the Specification. Appellant cites to various paragraphs for support. Appeal Br. 10 (citing Spec. ¶¶ 9–10 and 25–26, Fig. 2).

scanner device scanning another customs declaration form attached to the international mailpiece); *see* Ans. 16 (stating “an optical device is used to generate a digital image of a document” and “a reading device is used to read unique identifiers on mailpieces”).

Likewise, the recited “scanner” in claim 54 is a generic computer tool that performs reading functions (i.e., “read . . . the first unique identifier on the mailpiece”) but does not recite a technological improvement in this scanner or on how it operates. Appeal Br. 42 (Claims App.). Moreover, *Content Extraction and Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343 (Fed. Cir. 2014), indicates that a scanner performs “the basic concept of data recognition and storage” (*id.*, 776 F.3d at 1347), as step [f] recites, which does not distinguish a claim from those found to be abstract like in *Alice*. *See id.* (citing *Alice*, 573 U.S. at 219); *see DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (stating “recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible”).

Appellant argues an analysis that the claims are not directed to an improvement in technology but rather implement a generic computer in a conventional manner is “irrelevant to the whether the claims['] focus is on a specific means or method as opposed to a result or effect.” Appeal Br. 18; *id.* at 16–18, 23–26 (citing *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (stating “We therefore look to whether the claims in these patents focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.”)), 21–23 (further citing *Amdocs*, 841 F.3d at 1294 and *DDR*

Holdings, 773 F.3d 1245, and discussing the same). More specifically, Appellant argues steps [e]–[h] recite “a particular sequence of events,” which “is a specific means of achieving a result—paperless and expedient forwarding, review, search, and storage via digital means.” Appeal Br. 23 (citing Spec. ¶ 8). We are not persuaded.

Notably, the abstract idea itself cannot integrate the abstract idea into a practical application. See *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1093 (Fed. Cir. 2019). Thus, as previously indicated in our discussion under Prong 1, steps [e], [g], and [h] are part of the abstract idea with the exception of the limitations to the “electronic customs manifest” and the “reading device.”

Also, the court in *McRO* found that the “incorporation of the claimed rules, not the use of the computer, [] ‘improved [the] existing technological process’ by allowing automation of further tasks.” *McRO*, 837 F.3d at 1314 (quoting *Alice*, 573 U.S. at 223) (second bracketing in original). In *McRO*, “[t]he claimed process uses a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters.” *Id.* at 1315. In contrast, claim 1 recites “rules” for when to transmit the electronic customs manifest (e.g., “when it is determined that the international mailpiece may not leave the originating country”) in step [f] based on determining step [e] and when to permit the international mailpiece to leave the originating country (e.g., “when the second unique identifier does not match the first unique identifier”) in step [h]. Yet, these rules in claim 1’s steps [f] and [h] do not render information into any format—let alone a specific format like in *McRO*—, which is then used and applied to create a

desired result like *McRO*'s sequence of synchronized, animated characters. At best, claim 1, including steps [e]–[h], improves on how to process mailpieces. But improving on how to process mail is not technology and does not amount to an improvement in an existing technology contrary to Appellant's contention. *Compare* Ans. 14 (discussing the claimed process involves "preauthoriz[ing] mailpieces before leaving the originating country"), *with* Reply Br. 4 (stating the claims "improve[s] mailpiece processing technology").

To the extent Appellant's contends the "electronic customs manifest" is a specific format used to create a desired result (*see* Appeal Br. 16–26), claim 1 does not recite a particular or new format for electronic customs manifest and does not improve on reading or scanning unique identifiers on a customs declaration form, or a similar improvement in computer functionality. *See Secured Mail*, 783 F.3d at 910 (stating "the claims are not directed to a new barcode format, an improved method of generating or scanning barcodes, or similar improvements in computer functionality"). Rather similar to *Secured Mail*, the additional elements (e.g., the electronic customs manifest, the optical device, and the reading device) in claim 1 are "non-specific and lack[s] technical detail." *Id.* at 912.

Nor does claim 1 provide a specific organization or table of the "electronic customs manifest" or an electronic customs manifest has benefits over conventional electronic manifests, such that it improves the way a computer stores or retrieves data from memory or another computer functionality, like in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336–38 (Fed. Cir. 2016). Rather, consistent with the Specification, the invention "relates generally to providing customs declaration forms in an electronic

format” (Spec. ¶ 1) and “provides methods and systems for creating and maintaining customs declaration forms in an electronic format” (*id.* ¶ 8). *See* Ans. 11–12.

The Specification further states its method and system “enabl[es] paperless and expedient forwarding, review, search, and storage via digital means, such as with a computer-based network.” *Id.* ¶ 8; *see* Ans. 13 (quoting the same). Yet, “the fact that the required [process] could be performed more efficiently via a computer does not materially alter the patent eligibility of the claimed subject matter.” *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016) (citing *Bancorp Services, LLC v. Sun Life Assurance Co.*, 687 F.3d 1266, 1278 (Fed. Cir. 2012); *see also Secured Mail* (stating “[t]he fact that an identifier can be used to make a process more efficient, however, does not necessarily render an abstract idea less abstract.”); *see* Ans. 15 (stating “the problem of reducing review times in order to decrease delivery time . . . is not a technological based problem.”) Thus, to the extent a digital means is recited in claim 1 (*see* Appeal Br. 23), this recitation does not materially alter the patent eligibility of claim 1.

Notably, *McRO* highlighted that its record “provided no evidence that the process previously used by animators is the same as the process required by the claims.” *Id.* at 1314. The court in *McRO* contrasts its claimed invention with a “claimed computer-automated process and the prior method [that] were carried out the same way.” *Id.* (contrasting with *Flook*, *Bilski*, and *Alice*). Here, in contrast with *McRO*, the Specification demonstrates the current process for permitting an international mailpiece from leaving its originating country involves the customs service reviewing copies of the

customs declaration forms and examining the attached customs declaration form on international mailpieces to determine whether the international mailpiece can leave the country. *See* Spec. ¶¶ 3–7. Unlike *McRO*'s claimed invention, this record demonstrates the recited process in claim 1, including aspects of steps [e]–[h], were previously used and the other aspects of steps [e]–[h] merely automate the prior methods carried out the same manner. *See* Ans. 6–7 (discussing the same). Thus, we disagree that claim 1's steps [e]–[g] make the claim patent eligible under § 101 as argued. *See* Appeal Br. 20–26.

For the above reasons, we determine the above-noted additional elements beyond the identified judicial exceptions do not reflect an improvement in a computer's functioning or an improvement to other technology or technical field as set forth in MPEP § 2106.05(a) and the Revised Guidance, 84 Fed. Reg. at 55. *See* Ans. 8 (citing Spec. 19, 25–27, 37–38).

Additionally, converting the captured image into “an electronic customs manifest” as step [c] recites merely automates the above-identified abstract idea (e.g., reviewing customs declaration forms before an international mail piece leaves its originating country) and involves converting a physical document (e.g., the mailpiece) into an electronic format (the “electronic customs manifest”) using at best a generic machine (step [b] recites using an optical device to capture an image and step [c] recites “converting the image into an electronic customs manifest” without any details regarding what device performs the conversion). The conversion in claim 1 thus does not implement the above-identified judicial exception using a particular machine, such that the claim is integrated into a practical

exception. *See Benson*, 409 U.S. at 67, 70–72 (holding converting BCD (binary-coded decimal) numbers to pure binary numbers was not a patent-eligible transformation under § 101). For example, recognizing an article (e.g., a mailpiece) and manipulating the article into data (e.g., the electronic customs manifest) does not sufficiently transform a particular article into a different state such that it is patent eligible. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (stating “[t]he mere manipulation or reorganization of data, however, does not satisfy the transformation prong.”)

As for independent claim 54, the claimed “receiving component,” “mail processing equipment,” “imaging component,” “conversion component,” “forwarding component,” “determination component,” “transfer component,” “matching component,” and “confirming component” are software components used to implement the receiving, mail processing, imaging, conversion, forwarding, determination, transfer, matching, and confirming functions respectively automatically but do not recite an improvement in their functionality. *See id.* at Appeal Br. 42–43 (Claims App.). That is, like *Alice*, these components are “wholly generic computer implementation[s]” (*id.*, 573 U.S. at 223) of their respective functions, which are not the type of additional features that transform an abstract idea into a patent-eligible invention. *See id.* at 221–223.

Accordingly, when considering the noted, additional elements individually or in combination, they are no more than using computer components as tools to perform and automate the above-identified abstract idea.

We add that recited steps [b]–[d] and [f] in claim 1 are also insignificant extra-solution activities. *See* Final Act. 20. For example, “capturing an image of the mailpiece, using an optical device” as step [b] recites, “converting the image into an electronic customs manifest” as step [c] recites, and “the electronic customs manifest being stored in the reading device” as step [f] recites are insignificant extras-solution activities similar to the activities of extracting and scanning data from a physical document in *Content Extraction*. *See Content Extraction*, 776 F.3d at 1347 (noting that its “claims merely recite the use of this existing scanning and processing technology to recognize and store data from specific data fields such as amounts, addresses, and dates.”)

Additionally, similar to the activities of sending and receiving information in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014), “forwarding the electronic customs manifest to a customs service of the originating country before an international mail piece with an attached customs declaration form arrives at the customs service of the originating country” as step [d] recites and “transmitting the electronic customs manifest to a reading device when it is determined that the international mailpiece may not leave the originating country” as step [f] recites are insignificant extra-solution activities that do not add meaningful limitations to the above-identified judicial exception. *See id.* at 1355 (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”); *see also Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354–55 (Fed. Cir. 2016) (indicating selecting data based on certain information for collection and analysis was considered insignificant extra-solution activities).

Steps [b]–[d] and [f] thus do not integrate the judicial exception into a practical application for these additional reasons. *See* Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(g)).

Lastly, Appellant contends the rejection fails to compare the claims to subject matter the courts determined to be directed to an abstract idea. Appeal Br. 18–21 (citing *Amdocs*, 841 F.3d at 1294). We disagree for the above reasons and, in particular, because Appellant recognizes the Examiner discusses and compares *Content Extraction* (Reply Br. 5) as well as *buySAFE* to the above claims as previously discussed. *See* Ans. 12–13.

For the above-stated reasons, we determine the additional elements recited in claim 1 beyond the judicial exception, whether considered alone or in combination, are not integrated into a practical application.

Alice Step Two, Step 2B

Because we determine claim 1 does not integrate the recited judicial exception into a practical application, we need to consider whether the additional elements add a specific limitation or combination of limitations that are not well-understood, routine, or conventional activity in the field. *See* Revised Guidance, 84 Fed. Reg. at 56. If so, this indicates that an inventive concept may be present. If, instead, the additional elements simply append well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exceptions, this indicates that an inventive concept may not be present. *Id.*

The Examiner further finds claim 1 does not improve a technology, stating “merely invoking a generic machine to conduct the claimed method, using conventional and routine processes, does not improve the technology

itself.” Final Act. 10; *id.* at 20 (stating the implementation of the recited generic computer elements “would be routine and conventional”); Ans. 14–16 (stating the same). The Examiner further states claim 1 fails to recite “a non-conventional and non-generic arrangement of known, conventional pieces, but instead use[s] known and conventional equipment in customs processing, used in a conventional manner.” Final Act. 13. Specifically, the Examiner indicates claim 1 “failed to claim any unconventional or non-generic arrangement of pieces, as the Applicant has merely recited the arrangement of components (a customs service for review mailpieces, a reading device for reading the identifiers on mailpieces) in a generic and conventional fashion.” *Id.* at 16.

Appellant disagrees, arguing claim 1 recites significantly more than the identified abstract idea (Appeal Br. 30–31) and is similar to the claims in *BASCOM* and *Amdocs*, which were determined to solve a technological-based problem in an unconventional manner (*id.* at 32–33; Reply Br. 8–9). Appellant contends steps [e]–[h] (*id.* at 33), and more particularly steps [f] and [h] (*id.* at 34), “necessarily require[] that these generic components operate in an unconventional manner to achieve an improvement in computer functionality” (*id.* at 33 (quoting *Amdocs*, 841 F.3d at 1300-01)), thus reciting significantly more than an abstract idea. *Id.* at 34. Appellant’s arguments are unavailing.

Absent the “using the reading device” recitation in step [g] and the “stored in the reading device” limitation in step [h], we determine steps [g] and [h] are part of the identified abstract idea and thus cannot be an additional element that alone recites significantly more than the abstract idea. Similarly, step [e] is part of the above-identified abstract idea of

reviewing customs declaration forms before an international mail piece leaves its originating country as previously explained. *See* Revised Guidance, 84 Fed. Reg. at 56 (instructing that *additional* recited elements should be evaluated in *Alice/Mayo* step two).

Also, the recited “reading device” and its storing function simply append well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception. For example, claim 1 recites the “reading device” at a high level of generality and performing its routine and conventional activity—reading information (i.e., a unique identifier in step [g]). *See* Spec. ¶¶ 33, 44; *see* Ans. 16 (stating “a reading device is used to read unique identifiers on mailpieces”); *Content Extraction*, 776 F.3d at 1347 (noting using a generic scanner to recognize data performs a well-understood, routine, and conventional activity commonly used in the industry). Similarly, the recited “optical device” is recited generally and performs its routine activity. *See* Spec. ¶ 25 (discussing using a camera to take an image of the customs declaration form); *see* Ans. 16 (stating “an optical device is used to generate a digital image of a document.”).

Step [f] additionally recites “the electronic customs manifest being stored in the reading device” and step [h] recites a similar limitation, but *Content Extraction* further indicates that a scanner, which is a reading device, performs “the basic concept of data recognition and storage,” which are “undisputedly well-known.” *Content Extraction*, 776 F.3d at 1347 (further noting that storing such information using a scanner is known function); *see* Ans. 12 (stating “[t]here is no ‘inventive concept’ in [*Content Extraction*]’s use of a generic scanner and computer to perform well-

understood, routine, and conventional activities commonly used in the industry”) (citing *Alice*, 573 U.S. at 225)); *id.* at 12–15. *Secured Mail* similarly indicates “barcode scanners were generally known to those skilled in the art.” *Secured Mail*, 873 F.3d at 912.

We thus disagree with Appellant (*see* Appeal Br. 28–29) that the Examiner’s reasoning that the additional elements are recited generically was improper. The additional elements in claim 1 alone or in combination thus do not satisfy the inventive concept requirement. *See Mort. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324–25 (Fed. Cir. 2016); *see Alice*, 573 U.S. at 225; *see buySAFE*, 765 F.3d at 1355 (Fed. Cir. 2014).

Moreover, the “electronic customs manifest” recited in claim 1 has content related to the unique identifier of the recited mailpiece, which is used to determine whether (1) to allow an international mailpiece to leave the country as step [e] recites, and (2) to transmit the manifest as step [f] recites. Appeal Br. 40 (Claims App.). As such, step [f]’s transmission based on a determination in step [e], which is further based on “the electronic customs manifest,” is similar to “the idea of responding to or inquiring about mail using a personalized identifier through the use of a marking . . . [, which] has long been a conventional concept” as stated in *Secured Mail*. *Secured Mail*, 873 F.3d at 912. Thus, the above-noted additional elements found in the steps [e]–[h] do not add a specific limitation or combination of limitations that are not well-understood, routine, or conventional activities.

We also disagree with Appellant that claim 1 solves a technological-based solution, even with generic components, in an unconventional manner like the claims in *BASCOM* and *Amdocs*. *See* Appeal Br. 31–33 (citing

BASCOM, 827 F.3d at 1351 and *Amdocs*, 841 F.3d at 1291). The claims in *BASCOM* “carve out a specific location for the filtering system (a remote ISP server) and require the filtering system to give users the ability to customize filtering for their individual network accounts.” *BASCOM*, 827 F.3d at 1351. The court explained “[f]iltering content on the Internet was already a known concept,” (e.g., a conventional activity) but that “the patent describes how its particular arrangement of elements is a technical improvement over prior art ways of filtering such content.” *Id.* at 1350. The court in *BASCOM* found the additional elements amounted to an inventive concept because of “the non-conventional and non-generic arrangement of known, conventional pieces” (*id.*). The court in *Amdocs* arrive at a similar conclusion. *Amdocs*, 841 F.3d at 1300 (stating “this claim entails an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases).”)

On this record, however, Appellant has not demonstrated claim 1 recites a particular arrangement that is a technical improvement over the prior art way of reviewing customs declaration forms before an international mail piece leaves its originating country similar to *BASCOM* and *Amdocs*. We agree with the Examiner that claim 1 “use[s] known and conventional equipment in customs processing, used in a conventional manner” (Ans. 14) as previously discussed. Appellant has not shown sufficiently how the particular sequence of steps [e]–[h] amount to a non-conventional and non-generic arrangement of known elements. *See* Appeal Br. 31–33. In fact, Appellant merely quotes steps [e]-[h] and then concludes these limitations represent non-conventional and non-generic arrangement. Appeal Br.

29–30, 34. Appellant’s arguments provide insufficient persuasive evidence to substantiate its contention.

Notably, Appellant contends claim 1 recites a technology-based solution because the Specification explains the claimed combination solves the problem of reviewing “paper-based customs declaration form,” which “significantly increases the delivery time of the international mailpieces.” Appeal Br. 32 (citing Spec. ¶ 8). We are not persuaded. In this regard, we agree with the Examiner that:

Appellant’s claims are not directed towards a technological based problem, but instead an economic and business based problem. As noted by the Appellant, the problem addressed by the Appellant’s claims is the problem of reducing review times in order to decrease delivery time. This is not a technological based problem, similar to filtering internet content (*Bascom*) or massive record flows which previously required massive databases (*Amdocs*), but instead is merely a business service and economic task. The Appellant has not claimed . . . a new technology for reviewing customs manifests, but instead the manifests appear to be reviewed in a conventional manner (the determination step) and are simply reviewed in advance of the actual object arriving. . . [T]he Appellant has failed to claim any unconventional or non-generic arrangement of pieces, as the Appellant has merely recited the arrangement of components (a customs service for review mailpieces, a reading device for reading the identifiers on mailpieces) in a generic and conventional fashion.

Ans. 15–16.

For the above reasons, Appellant fails to show sufficiently the recited additional elements in claim 1 add a specific limitation or combination of limitations that is not well-understood, routine, or conventional activity in the field. As such, the additional recited elements—considered individually

and as an ordered combination—do not add significantly more than the abstract idea to provide an inventive concept under *Alice/Mayo* step two.

Conclusion

For the foregoing reasons, Appellant has not persuaded us of error in the rejection of independent claim 1 under § 101 and claims 2, 5–10, 54, 55, and 58–65, which are not separately argued with particularity.

We next turn to the rejection based on the prior art.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Segal	US 2003/0160095 A1	Aug. 28, 2003
Napier	US 2003/0167240 A1	Sept. 4, 2003
Fang	US 2004/0193435 A1	Sept. 30, 2004
Lin	US 2006/0122843 A1	June 8, 2006

OBVIOUSNESS REJECTION OVER LIN, FANG, NAPIER, AND SEGAL

Claims 1, 2, 5–10, 54, 55, and 58–65 under 35 U.S.C. § 103(a) based on Lin, Fang, Napier, and Segal. Final Act. 21–40. Regarding claim 1, the Examiner finds that Lin teaches receiving a mail piece having a first unique identifier and an attached customs declaration form and Fang teaches forwarding an electronic customs manifest to a customs service before the mail piece arrives at customs service of the originating country. Final Act. 21–22 (citing Lin ¶¶ 16–17, 21–22 and Fang ¶¶ 8, 17, 20, 22, 23). The Examiner turns to Napier in combination with Lin and Fan to teach or suggest “determining . . . whether to allow the international mailpiece to leave the originating country,” “transmitting the electronic customs manifest,” and “permitting the international mailpiece to leave the

originating country” recitations. *Id.* at 23–24 (citing Napier ¶¶ 26, 52, 54, 57, 66, 69–71, 73, 76, and 82). Segal was cited to teach the “capturing an image” limitation. *Id.* at 25 (citing Segal ¶¶ 7, 9, 20, 22, 23, 27, 31, 36–38).

Among other arguments, Appellant argues the above references fail to teach the recited “transmitting the electronic customs manifest to a reading device when it is determined that the international mailpiece may not leave the originating country, the electronic customs manifest being stored in the reading device” in claim 1. Appeal Br. 36–38; Reply Br. 9. Appellant argues a manifest in Napier is transmitted to parcel data management system 62 but contends this transmission is not “when it is determined that the international mailpiece may not leave the originating country” as recited in claim 1. Reply Br. 10.

MAIN ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Lin, Fang, Napier, and Segal collectively would have taught or suggested “transmitting the electronic customs manifest to a reading device when it is determined that the international mailpiece may not leave the originating country, the electronic customs manifest being stored in the reading device”?

ANALYSIS

Based on the record, we find error in the obviousness rejection. Notably, the phrase “reading device” in claim 1 is not found in the Specification. *See generally* Spec. The Examiner takes the position that the Specification “does not limit ‘the reading device’ to a single handheld

scanner to other single piece of equipment.” Ans. 20. Although “Appellant does not concede to this interpretation of Appellant’s claim” (Reply Br. 10), Appellant does not offer an alternative interpretation. *See id.*

The Examiner’s construction is reasonable. The Specification describes a barcode scanner device that can scan barcodes, which are unique identifiers (e.g., “reading, using the reading device, a second unique identifier on the attached customs declaration form that is attached to the international mailpiece”). *Id.* ¶ 21. However, the Specification does not further describe storing an electronic customs manifest in this scanner device; rather, the disclosure teaches storing the manifest in a database (e.g., 234). *See id.* ¶¶ 9, 27, 30, 36–37, 40, 44, Fig. 2. As such, the Specification supports a broad construction of “a reading device” to include multiple components, including a scanner and a database.

Even so, the record does not demonstrate sufficiently that Napier teaches transmitting the electronic customs manifest to a reading device as required by claim 1 (i.e., step [f]) and as mapped by the Examiner. In the Answer, the Examiner explicitly maps the “reading device” to “the components 88 and 62.” Ans. 20. In the Final Action, the Examiner discusses “an advance electronic manifest” is transmitted to a customs office. Final Act. 23–24. We thus presume the Examiner has mapped “manifest 60” in Napier to the recited “electronic customs manifest” in claim 1. *See id.*

The Examiner relies on various paragraphs in Napier, when combined with Lin and Fang, to teach and suggest the limitation in dispute. Final Act. 23–24 (citing Napier ¶¶ 26, 52, 54, 57, 66, 69–71, 73, 76, 82). However, because the rejection relies mainly on Napier to teach the “transmitting” step

(*see id.*), we confine most of our discussion to this reference. Of interest, Napier teaches information/manifest 60 (Napier ¶¶ 52, 57) is transmitting to central hub 58, which includes parcel data management system 62. *Id.* ¶ 52, Fig. 3. This arguably also suggests the manifest is stored in the reading device (e.g., mapped component 62), at least temporarily. However, this passage does not teach or suggest *when* manifest 60 is transmitted to system 62 (*see id.*) as claim 1 requires (i.e., “when it is determined that the international mailpiece may not leave the originating country”).

Upon review, Napier teaches manifest 60 is transmitted to system 62 *prior* to any determination related to whether the international mailpiece may leave the country. That is, Napier discusses manifest 60 is transferred to Customs processing system 70 *to determine* which parcels will be inspected when they arrive at Customs and which parcels are released. *See id.* ¶¶ 52, 57, Fig. 3 (showing manifest 60 is forwarded to system 70 from system 62); *see id.* ¶¶ 59–66, 82; *see* Ans. 18 (stating the same). As such, transmitting manifest 60 to system 62 does not occur when the reading device determines the international mailpiece may not leave the originating country as claim 1 requires.

Although Figure 3 shows a partial bidirectional flow of manifest 60 between systems 62 and 70 (see Napier, Fig. 3 (showing bidirectional flow between element 62 and 60 but not between elements 60 and 70)), Napier does not further discuss transmitting manifest 60 back to the system 62 when or after system 70 determines that the international mailpiece may not leave the originating country (e.g., after determining the mailpiece should be inspected). At best, Napier discusses updating the Customs inspection processing system (e.g., 70) through the inspection process (*id.* ¶ 71), taking

notes about the parcels at the inspection location, and storing the notes and the manifest (e.g., 60) (step 230) (*id.* ¶¶ 72, 76, Fig. 4). But, Napier does not discuss the stored manifest is transmitted back to system 62—let alone “when it is determined that the international mailpiece may not leave the originating country” as claim 1 recites. Instead, Napier suggest the data is stored in a data file in a database (e.g., 74) located on Customs processing system 70. *Id.* ¶¶ 26, 54, Fig. 3.

Napier also discusses forwarding the *parcel* to partially automated sorting system 88 (which the Examiner also maps to the recited “reader device”) that routes parcels to a brokerage or location for inspection. *See id.* ¶¶ 69–71, 73, Fig. 4 (steps 222–228); see Ans. 19 (quoting Napier ¶ 69). But, this passage does not teach or suggest transmitting the mapped “electronic customs manifest” (e.g., 60) to the mapped “reading device” (e.g., system 88) “when it is determined that the international mailpiece may not leave the originating country, the electronic customs manifest being stored in the reading device” as recited in claim 1. Moreover, although Napier discusses the conventional practice, using paper manifest, would not release a shipment “prior to presenting the paper manifest to Customs” (*id.* ¶ 70), Napier’s invention does not teach or suggest transmitting the electronic customs manifest to a reading device when the reading device determines the international mailpiece may not leave the country (*id.* ¶ 71).

Lastly and notably, disputed “transmitting” step in claim 1 contains a conditional limitation. For example, claim 1 recites “transmitting the electronic customs manifest *when it is determined that the international mailpiece may not leave the originating country.*” Appeal Br. 40 (Claims App.) (emphasis added). This limitation is similar to that discussed in *Ex*

parte Schulhauser, No. 2013-007847, 2016 WL 6277792, at *5, 7 (PTAB Apr. 28, 2016) (precedential) (holding that, in a *method* claim, a step reciting a condition precedent does not need to be performed by the prior art if the condition precedent is not met). *See also* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) § 2111.04(II) (9th ed. Rev. 08.2017, Jan. 2018) (citing *Ex parte Schulhauser*). Thus, when construing method claim 1 in its broadest, reasonable context, the condition precedent of “transmitting the electronic customs manifest to a reading device” step need not be performed when the reading device determines the international mailpiece may leave the originating country.⁵ However, because the rejection as presented determined the condition precedent in the “transmitting” step had been met (Final Act. 23–24), we similarly presumed the condition precedent was met when deciding whether Napier would have taught or suggested the disputed “transmitting” step.

For the foregoing reasons, Appellant has persuaded us of error in the rejection of (1) independent claim 1, (2) independent claims 54 and 59, which recite commensurate limitations, and (3) the dependent claims for similar reasons.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
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⁵ This holding does not apply to independent claims 54 or claim 59, which unlike method claim 1, require structure for performing the function should the condition occur. *See Schulhauser*, 2016 WL 6277792, at *7.

1, 2, 5-10, 54, 55, 58-65	101	Patent Eligibility	1, 2, 5-10, 54, 55, 58-65	
1, 2, 5-10, 54, 55, 58-65	103	Lin, Fang, Napier, Segal		1, 2, 5-10, 54, 55, 58-65
Overall Outcome			1, 2, 5-10, 54, 55, 58-65	

TIME PERIOD FOR RESPONSE

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. § 1.136(a)(1)(iv).

AFFIRMED