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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/699,205	01/22/2013	Gregory Irwin Behun	2800-016	5266
22429	7590	07/27/2018	EXAMINER	
HAUPTMAN HAM, LLP 2318 Mill Road Suite 1400 ALEXANDRIA, VA 22314			VETTER, DANIEL	
			ART UNIT	PAPER NUMBER
			3628	
			NOTIFICATION DATE	DELIVERY MODE
			07/27/2018	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGORY IRWIN BEHUN, ANTHONY PAUL FLYNN, and
MICHAEL THOMAS TOCZYLOWSKI

Appeal 2017-004182¹
Application 13/699,205
Technology Center 3600

Before MURRIEL E. CRAWFORD, MICHAEL W. KIM, and
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

KIM, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the Final Rejection of claims 1–11 and 13–21.
We have jurisdiction to review the case under 35 U.S.C. §§ 134 and 6.

The invention generally relates to managing ticket information by
validating electronic tickets and establishing a manifest of passengers on
board a train. Spec. ¶ 5.

¹ The Appellants identify National Railroad Passenger Corporation as the
real party in interest. Appeal Br. 2.

Independent claim 1 is illustrative:

1. A system for use of electronic tickets, the system comprising: a server communicatively coupled to a database, the server arranged to:

issue a first electronic ticket responsive to a request from a first passenger using a mobile device, the first electronic ticket having a first bar code that identifies the first electronic ticket, the first electronic ticket being associated with a group reservation;

issue a second electronic ticket responsive to a request from a second passenger using a computer, the second electronic ticket having a second bar code that identifies the second electronic ticket, the second electronic ticket being associated with the same group reservation as the first electronic ticket;

issue a third electronic ticket responsive to a request from a third passenger, the third electronic ticket being associated with the same group reservation as the first electronic ticket;

modify a ticket status of at least one of the first electronic ticket, the second electronic ticket and the third electronic ticket, during a period in which the vehicle is in motion to indicate modification of the issued electronic ticket by a passenger, and based on a user selection, apply the modification of the ticket status to at least one other electronic ticket of the first electronic ticket, the second electronic ticket or the third electronic ticket; and

a handheld scanner communicatively coupled to the server and arranged to:

scan the first bar code presented by the first passenger on the mobile device to identify the first electronic ticket;

scan the second bar code presented by the second passenger printed on paper to identify the second electronic ticket;

identify the third electronic ticket by searching the database with at least one of:

at least a portion of a name of the third passenger,

at least a portion of a reservation confirmation number of the third passenger, or

at least a portion of a frequent traveler number of the third passenger; and

validate at least one of the first electronic ticket, the second electronic ticket or the third electronic ticket.

The Examiner rejected claims 1–11 and 13–21 under 35 U.S.C. § 101 as directed to non-statutory subject matter in the form of abstract ideas.

The Examiner rejected claims 2 and 4 under 35 U.S.C. § 103(a) as unpatentable over Dove, et al., (US 2005/0109843 A1, published May 26, 2005) (hereinafter “Dove”), Green, et al., (US 6,957,772 B1, issued Oct. 25, 2005) (hereinafter “Green”), and Sayers, et al., (US 2003/0183694 A1, published Oct. 2, 2003) (hereinafter “Sayers”).

The Examiner rejected claims 1, 3, 5, 11, 13, and 15 under 35 U.S.C. § 103(a) as unpatentable over Dove, Green, Sayers, and Guo (US 2007/0265891 A1, published Nov. 15, 2007).

The Examiner rejected claims 6–10 and 16–20 under 35 U.S.C. § 103(a) as unpatentable over Dove, Green, Sayers, Guo, and Hunt (US 2010/0070312 A1, published Mar. 18, 2010).

The Examiner rejected claim 14 under 35 U.S.C. § 103(a) as unpatentable over Dove, Green, Sayers, Guo, and Chung (US 2001/0034623 A1, published Oct. 25, 2001).

The Examiner rejected claim 21 under 35 U.S.C. § 103(a) as unpatentable over Dove, Green, Sayers, Guo, and Stenning (US 2007/0286220 A1, published Dec. 13, 2007).

We AFFIRM.

ANALYSIS

Rejection under 35 U.S.C. § 101

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. The Supreme Court, however, has long interpreted § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)). In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea. *See Alice*, 134 S. Ct. at 2356 (“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.”); *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.”); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable subject matter.”); *Parker v. Flook*, 437 U.S. 584, 594–595 (1978) (“Respondent’s application simply provides a new and presumably better method for calculating alarm limit values.”); *Gottschalk v. Benson*, 409 U.S.

63, 64 (1972) (“They claimed a method for converting binary-coded decimal (BCD) numerals into pure binary numerals.”).

The following method is then used to determine whether what the claim is “directed to” is an abstract idea:

[T]he decisional mechanism courts now apply is to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided. *See, e.g., Elec. Power Grp.*, 830 F.3d at 1353–54. That is the classic common law methodology for creating law when a single governing definitional context is not available. *See generally* Karl N. Llewellyn, *The Common Law Tradition: Deciding Appeals* (1960). This more flexible approach is also the approach employed by the Supreme Court. *See Alice*, 134 S. Ct. at 2355–57. We shall follow that approach here.

Amdocs (Israel) Limited v. Openet Telecom, Inc., 841 F.3d 1288, 1294 (Fed. Cir. 2016).

The patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357; *Bilski*, 561 U.S. at 611; mathematical formulas, *Flook*, 437 U.S. at 594–95; and basic tools of scientific and technological work, *Benson*, 409 U.S. at 69. On the patent-eligible side of the spectrum are physical and chemical processes, such as curing rubber, *Diamond*, 450 U.S. at 184 n.7, “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores,” and a process for manufacturing flour, *Gottschalk*, 409 U.S. at 67.

If the claim is “directed to” a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice*, 134 S. Ct. at 2355. This is a search for an “inventive concept”—an element or

combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

Analysis

The Appellants argue independent claims 1, 2, and 15 together as a group, by arguing independent claims 2 and 15 only by reference to the arguments of independent claim 1. Appeal Br. 18. Therefore, we select independent claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds independent claim 1 is “directed to the abstract idea of managing an electronic ticket status associated with a group reservation,” and is abstract because it is both similar to other claims found to be directed to abstract ideas (Final Act. 3, *citing Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343 (Fed. Cir. 2014)), and because the steps taken in claim 1 could be performed mentally by a human using pen and paper, except for the recitation of the server, mobile device, computer, and bar code scanner (Answer 3, also citing *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306 (Fed. Cir. 2015)). The Appellants do not address either *Content Extraction* or *Versata*, or the assertion that the claimed process can be performed by a human. For the reasons stated by the Examiner, we agree that the claims are directed to abstract ideas.

We are unpersuaded that the claimed “system comprises numerous components that are communicatively coupled and interact together,” which “is beyond that of a general linking to a ‘generic computer.’” Appeal Br. 12–13; *see also* Reply Br. 5. The claimed server, mobile device, computer, and scanner are described as general-purpose computers. *See* Spec. ¶¶ 59, 64–66. It is commonplace for a network of computers that

encompass servers and mobile/desktop computers to communicate and exchange information, and update stored information in a server, because these are basic functions performed by general purpose computers.

The Appellants next argue that the claim is an improvement to managing ticketing information that issues multiple tickets associated with a single reservation, and permit the management of those tickets while the travel vehicle is in motion. Appeal Br. 14. We are unpersuaded by that argument. We are unable to discern a reason that associating the data of multiple tickets to a single reservation, or updating information about tickets, or reservations, while a vehicle is moving, transforms the abstract idea the claims are directed to into eligible subject matter.

That is, just improving an abstract idea does not transform it into eligible subject matter if the result of the improvement is still an abstract idea. Associating more tickets to a single reservation is merely manipulating data. Claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent-ineligible concept”); *see also In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016).

More specifically, the Appellants assert the claimed system’s “capabilities improve the efficiency and accuracy of modifying a ticket status.” Appeal Br. 15. However, the Federal Circuit has held that if a method can be performed by human thought alone, or by a human using pen

and paper, it is merely an abstract idea and is not patent-eligible under § 101. *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (“[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.”).

Additionally, mental processes, e.g., modifying a ticket status (*see* Answer 3), as recited in independent claim 1, remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *Id.* at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*, [409 U.S. 63 (1972)].”).

We are also unpersuaded by the Appellants’ argument that the claimed system “fundamentally alters a ticket status of an electronic ticket by ‘apply[ing] the modification of the ticket status to at least one other electronic ticket.’” Appeal Br. 16. But, this alleged transformation of ticket status is, at best, merely a manipulation of data, which is not sufficient to meet the transformation prong under 35 U.S.C. § 101. *See Gottschalk*, 409 U.S. at 71–72 (holding that a computer based algorithm that merely transforms data from one form to another is not patent-eligible). This applies to both status changes (*see* Spec. ¶ 23) and validation (*id.* ¶ 31), because both involve only updating data records.

For these reasons, the Appellants have not demonstrated error in the Examiner’s rejection of claim 1. Therefore, we sustain the rejection of claims 1, 2, and 15 under 35 U.S.C. § 101. We also sustain the rejection of dependent claims 3–11, 13, 14 and 16–21 that were rejected along with

claims 1, 2, and 15, and argued only by reference to the arguments directed to independent claim 1. Appeal Br. 18.

Rejection under 35 U.S.C. § 103(a)

The Appellants argue independent claims 1 and 15 only by reference to the arguments advanced for independent claim 2. Appeal Br. 24.

Therefore, we select independent claim 2 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv).

We are unpersuaded by the Appellants' argument of error on the part of the Examiner, because, according to the Appellants, "Sayers does not apply a particular status modification to different tickets. Instead, Sayers merely assigns different seats to different ticketholders." Appeal Br. 21; *see also* Reply Br. 21.

Sayers discloses "when a group of tickets is purchased, each ticket in the group is encoded with information identifying it as a member of the group." Sayers ¶ 24. Sayers further discloses that "[if] the bearer is first to arrive, then seats are assigned to the bearer and to all members of the group. If someone from the group has arrived ahead of the bearer, then seats would be already reserved for the group, and so the bearer would be assigned one of those seats." *Id.* ¶ 26. Sayers, thus, discloses updating data in a data record that links numerous tickets together.

The Specification does not define or limit the meaning of "status," so we rely on the ordinary and customary meaning of "status" as "state or condition with respect to circumstances." MERRIAM-WEBSTER ONLINE DICTIONARY (<https://www.merriam-webster.com/dictionary/status>, last retrieved on July 16, 2018). In Sayers when the first ticket in the group is presented, the state of all tickets in the group is updated with the reserved

state for those seats, thus, meeting the claim language. Although the Appellants would have us impart additional significance to the meaning of the updated data, specifically as being “checked-in” or related to train travel (*see* Appeal Br. 21), we discern no significant difference between “checked-in” and “reserved” in the context of the updated data, because in both cases a data field of linked records is updated to a different state.

For this reason, the Appellants have not shown error in the Examiner’s obviousness rejection. Therefore, we sustain the rejection of claims 1, 2, and 15 under 35 U.S.C. § 103(a). We also sustain the rejections of dependent claims 3–11, 13, 14, and 16–21 that were not argued separately. *See id.* 24–26.

DECISION

We AFFIRM the rejection under 35 U.S.C. § 101 of claims 1–11 and 13–21 as directed to ineligible subject matter.

We AFFIRM the rejections under 35 U.S.C. § 103(a) of claims 1–11 and 13–21 as obvious.

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