



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/691,191 11/30/2012 Lori Van Deloo 79900-854332(021600UNP) 1022

66945 7590 07/25/2018
KILPATRICK TOWNSEND & STOCKTON LLP/VISA
Mailstop: IP Docketing - 22
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309

Table with 1 column: EXAMINER

ALLEN, AKIBA KANELLE

Table with 2 columns: ART UNIT, PAPER NUMBER

3628

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

07/25/2018

ELECTRONIC

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

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
KTSDocketing2@kilpatrick.foundationip.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LORI VAN DELOO and ZACK FUERSTENBERG

Appeal 2017-000627
Application 13/691,191¹
Technology Center 3600

Before PHILIP J. HOFFMANN, AMEE A. SHAH, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

Opinion for the Board filed by *Administrative Patent Judge* SILVERMAN.

Opinion Dissenting-in-part filed by *Administrative Patent Judge* SHAH.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–3, 5–11, and 13–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ The Appellants identify Visa International Service Association as the real party in interest. Appeal Br. 3.

ILLUSTRATIVE CLAIM

1. A method comprising:

receiving, at an event terminal comprising a processor at a venue hosting an event, portable consumer device information comprising a primary account number (PAN) from a portable consumer device used by a user;

validating, by the processor in the event terminal, the portable consumer device based on the received information by determining whether the portable consumer device was used to purchase one or more tickets to the event and allowing entrance to the event if the portable consumer device is validated, wherein validating comprises generating a first cryptogram using the received primary account number and event specific information associated with the event and then comparing the generated first cryptogram with a second cryptogram that was stored in a validation database after the purchase and before the event terminal received the PAN;

allowing, by the processor in the event terminal, the user to enter the event;

determining that the first cryptogram is associated with pre-purchase order information for a pre-purchase order for event merchandise or event services; and

generating a notification regarding the event merchandise or event services after determining that the first cryptogram is associated with the pre-purchase order.

CITED REFERENCES

The Examiner relies upon the following references:

Rosenblatt et al. US 2010/0082491 A1 Apr. 1, 2010
(hereinafter "Rosenblatt")

Gibson et al. US 2010/0133339 A1 June 3, 2010
(hereinafter "Gibson")

de Oliveira et al. US 2011/0246369 A1 Oct. 6, 2011
(hereinafter "de Oliveira")

REJECTIONS

I. Claims 1–3, 5–11, and 13–20 rejected under 35 U.S.C. § 101 as ineligible subject matter.

II. Claims 1–3, 5–11, 13–18, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Rosenblatt and de Oliveira.²

III. Claim 19 is rejected under 35 U.S.C. § 103(a) as unpatentable over Rosenblatt, de Oliveira, and Gibson.³

FINDINGS OF FACT

The findings of fact relied upon, which are supported by a preponderance of the evidence, appear in the following Analysis.

ANALYSIS

Subject-Matter Eligibility

Applying the first step of the methodology delineated in *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347, 2355 (2014), the Final Office Action states that the claims are directed to “allowing users to receive, store and validate information associated with event merchandise or event services,” which is regarded as an abstract idea, constituting a method

² We regard as inadvertent the omission of claims 2 and 10 from the identification of claims rejected over Rosenblatt and de Oliveira. Final Action 2. The Final Office Action addresses these claims on page 9.

³ We regard the rejection of dependent claim 19 as relying upon de Oliveira, as well as Rosenblatt and Gibson. Although only the latter two references are identified in the respective introductory sentence (*see* Final Action 13), de Oliveira is addressed thereafter (*see id.* at 14). Further, claim 19 depends from claims 9 and 17, each of which stands rejected over the combination of Rosenblatt and de Oliveira.

of organizing human activity by providing an opportunity for parties to enter into a specified agreement. Final Action 3. The Examiner also regards the identified abstract idea as within “the ‘idea of itself’ category since the claims are directed to obtaining and collecting intangible data through showing the comparison of the first cryptogram against the second cryptogram for validation of the portable consumer device.” Answer 4.

Turning to the second step of the *Alice* analysis, the Final Office Action states:

The elements of the instant apparatus and system, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone. That is, the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities which are well-understood, routine and conventional activities previously known to the industry.

Final Action 4. The Final Office Action further states that “incorporating the use of a cryptogram does not offer substantially more and undertakes its role in performance of its activities according to its generic functionalities which are well-understood, routine and conventional.” Final Action 15.

The Examiner’s Answer also addresses the claimed comparison of cryptograms — a feature of all the claims involved in this Appeal — stating that “these ‘cryptograms’ are not clearly defined, as Appellant[s] use[] generic terms to define the ‘cryptograms’ in the [S]pecification”; in addition,

the “Examiner interprets that the ‘cryptograms’ could be merely a simple code.” Answer 6.

Asserting error in the rejection, the Appellants argue that the claims are not directed to an abstract idea (*see* Appeal Br. 7–10; *see also* Reply Br. 2–10) and that, in any event, the claims contain additional elements that amount to significantly more than the identified abstract idea (*see* Appeal Br. 12–16; *see also* Reply Br. 10–15).

The Appellants’ argument, regarding the second *Alice* step, persuades us of error in the rejection, notwithstanding any determination of the adequacy of the Examiner’s description of an abstract idea to which the claims might be directed. Accordingly, the following discussion focuses on the Appellants’ argument regarding the second *Alice* step, in view of the Examiner’s determination that the claims are directed to the abstract idea of “allowing users to receive, store and validate information associated with event merchandise or event services.” Final Action 3.

In particular, the Appellants argue that the claims do not recite a comparison of cryptograms, as an isolated element; rather, the claims recite the use of cryptograms in the context of several coordinated claim elements:

Appellants submit that the claims in question do not merely incorporate the use of a cryptogram but instead recite specific steps for “receiving . . . portable consumer device information comprising a PAN from a portable consumer device,” “validating . . . the portable consumer device based on the received information . . . [by] generating a first cryptogram using the received PAN and event specific information . . . and then comparing the generated first cryptogram with a second cryptogram that was stored in a validation database after the purchase and before the event terminal received the PAN,” and “determining that the first cryptogram is associated with pre-

purchase order information for a pre-purchase order for event merchandise or event services.”

Appeal Br. 15–16. The Appellants allege that this recited combination of elements provides particular benefits; for example, “[b]y using the cryptogram, instead of the PAN [primary account number] or other personal information, to identify additional purchases made by the consumer at the event, it is not necessary to persistently store sensitive consumer data such as PANs.” *Id.* at 15. *See Spec.* ¶¶ 75, 89–91, 124. According to the Appellants, the rejection “fails to provide any reasoning other than the conclusory statement,” quoted above (from page 4 of the Final Office Action), which “does not take into account the specific features and limitations recited in Appellants’ claims.” Appeal Br. 16.

Indeed, the Examiner states that the claimed use of a cryptogram “undertakes its role in performance of its activities according to its generic functionalities which are well-understood, routine and conventional” (Final Action 15) and that the Specification employs generic terminology to describe the cryptograms, such that the “Examiner interprets that the ‘cryptograms’ could be merely a simple code” (Answer 6). Yet, the Examiner misses the Appellants’ point that even a collection of entirely conventional individual elements may form an unconventional combination that amounts to significantly more than an identified abstract idea. *See* Appeal Br. 13–16; *see also* Reply Br. 12–15.

The Supreme Court explains that the second step of the *Alice* framework must “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*,

134 S. Ct at 2355 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 78–79 (2012)). Accordingly, this undertaking “requires more than recognizing that each claim element, by itself, was known in the art,” because an “inventive concept” that satisfies the second *Alice* step “can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

Although the rejection addresses the use of cryptograms as an individual element, the Examiner does not analyze their claimed coordinated interaction with the other recited elements, as the Appellants set forth (*see* Appeal Br. 13–16; *see also* Reply Br. 11–15), let alone provide factual support for any position that the combination of claim elements identified by the Appellants might be well-understood, routine, and conventional. “Whether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1369 (Fed. Cir. 2018).

Therefore, we agree with the Appellants’ position that the record does not indicate that the claimed elements have been considered sufficiently as an “ordered combination” under the second part of the *Alice* framework. Because the foregoing discussion addresses the Examiner’s rejection of all claims in this Appeal, we do not sustain the rejection of claims 1–3, 5–11, and 13–20 under 35 U.S.C. § 101.

Obviousness

The Appellants contend that the obviousness rejection relies upon improper hindsight (Appeal Br. 18–20) and fails to set forth an adequate

reason to combine the references' teachings (*id.* at 20–22). Although presented as separate arguments, these theories are intertwined. As the Federal Circuit has explained, “[w]ithout any explanation as to how or why the references would be combined to arrive at the claimed invention, we are left with only hindsight bias that *KSR* warns against”; consequently, “while we understand that ‘[t]he obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation,’ we also recognize that we cannot allow hindsight bias to be the thread that stitches together prior art patches into something that is the claimed invention.” *Metalcraft of Mayville, Inc. v. The Toro Co.*, 848 F.3d 1358, 1367 (Fed. Cir. 2017) (citing *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 419, 421 (2007)).

In addressing claims 1, 9, and 17, the Final Office Action states that “[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to include” the primary account number and the cryptographic comparison, of de Oliveira, in Rosenblatt’s system, “since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.” Final Action 8, 9.

The Appellants argue that the rejection provides “no rational underpinning to support the legal conclusion of obviousness” and that precedent dictates that it is “not sufficient to establish obviousness by making unsupported allegations that the prior art is merely a ‘predictable combination.’” Appeal Br. 21. Further, the Appellants contend that

“nothing in Rosenblatt points towards associating any prepay information with a cryptogram and De Oliveira is silent as to associating a validating cryptogram with pre-purchase information for an event,” such that “the Office Action’s statement that the results of the combination were predictable is incorrect.” *Id.* at 22. In addition, the Appellants submit that “each element does not merely perform the same function as it did separately because Rosenblatt does not describe and is silent as to associating a cryptogram with prepay information[,] and De Oliveira is silent as to associating the validation cryptogram with pre-purchase information.” *Id.*

“[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Furthermore, a determination of “obviousness concerns whether a skilled artisan not only *could have made* but *would have been motivated to make* the combinations or modifications of prior art to arrive at the claimed invention.” *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015). The Federal Circuit has explained that, “[i]n determining whether there would have been a motivation to combine prior art references to arrive at the claimed invention, it is insufficient to simply conclude the combination would have been obvious without identifying any reason why a person of skill in the art would have made the combination.” *Metalcraft*, 848 F.3d at 1366 (citing *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017)). Whether a person of skill in the art would have had a reason to combine distinct prior art teachings is a question of fact. *Id.*

Yet, the reason provided by the Examiner (Final Act. 9) does not sufficiently articulate why a person of ordinary skill in the art, at the relevant time, would have combined the references, in the manner set forth by the Examiner.

Accordingly, we do not sustain the rejection of claims 1–3, 5–11, and 13–20 under 35 U.S.C. § 103(a).

DECISION

We REVERSE the Examiner’s decision rejecting claims 1–3, 5–11, and 13–20 under 35 U.S.C. § 101.

We REVERSE the Examiner’s decision rejecting claims 1–3, 5–11, and 13–20 under 35 U.S.C. § 103(a).

REVERSED

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LORI VAN DELOO and ZACK FUERSTENBERG

Appeal 2017-000627
Application 13/691,191
Technology Center 3600

Before PHILIP J. HOFFMANN, AMEE A. SHAH, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SHAH, *Administrative Patent Judge*, dissenting-in-part.

I join the Majority in reversing the rejection of claims 1–3, 5–11, and 13–20 under 35 U.S.C. § 103(a). I respectfully dissent as to the rejection of those claims under 35 U.S.C § 101.

Under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S.Ct. 2347, 2354 (2014). The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp.* 134 S.Ct. at 2354 (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 588–89 (2013)).

The Supreme Court in *Alice* reiterated the two-step framework, set forth previously in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 78–79 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S.Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are *directed to* one of those patent-ineligible concepts.” *Id.* (emphasis added) (citing *Mayo*, 566 U.S. at 79). If so, the second step is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether the additional elements “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 78–79).

As *Alice* makes clear, we must first determine whether the claim is directed to a patent-ineligible concept; if so, then we consider whether the elements transform the nature of the claim into a patent-eligible application. *Alice*, 134 S.Ct. at 2355. However, the Majority skips the first step without making a determination as to the “adequacy” of the Examiner’s determination, and goes directly to the second step. Because the Majority fails to make the initial determination, I dissent from the analysis.

Further, even *assuming arguendo*, as the Majority does, that, as the Examiner determines, the claims are directed to “allowing users to receive, store and validate information associated with event merchandise or event services,” an abstract idea (Final Act. 3), I disagree with the Majority’s analysis under the second step.

The Majority finds that the Examiner does not address “the Appellants’ point that even a collection of entirely conventional individual

elements may form an unconventional combination that amounts to significantly more than an identified abstract idea.” Opinion 6 (citing Appeal Br. 13–16; Reply Br. 12–15). But, the Appellants do not make this point, or provide reasoning or argument how or that the Examiner does not consider the limitations in combination. The Appellants recite the *Alice* test and list the “bullet points” in the Update on Subject Matter Eligibility, 80 Fed. Reg. 45429 (July 30, 2015) (“Interim Guidance”) “that are indicated as qualifying as ‘significantly more’ [and] are clearly met by the instant claims.” Appeal Br. 13; *see also* Reply Br. 13 (“[T]he current claim limitations, when viewed as an ordered combination, include an inventive concept.”). The points include improvements to another technology or the functioning of the computer itself, effecting a transformation to a different state or thing, “[a]dding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application,” and other meaningful limitations beyond generally linking the use of the abstract idea to a particular technological environment. Appeal Br. 13; *see also* Reply Br. 13–14.

The Appellants argue, “[a]s a first example, the recited claim elements clearly [add] a specific limitation other than what is well-understood, routine and conventional in the field” (Appeal Br. 13), and “submit that it is not ‘well-understood, routine and conventional in the field’ to perform the steps of validating” that comprises generating a first cryptogram and comparing the first cryptogram with a stored second cryptogram, determining that the first cryptogram is associated with specific information, and generating a notification based on that determination (*id.* at 13–14). The

Appellants provide no further reasoning as to why the elements are not well-understood, routine, and conventional.

In the Final Action, the Examiner recites the claim elements and determines that those elements, “when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone.” Final Act. 3–4. The Examiner responds to the Appellants’ arguments made in the Appeal Brief regarding the second step of the *Alice/Mayo* framework and determines that the limitations to which the Appellants refer are part of the abstract idea of allowing users to receive, store, and validate information. *See* Ans. 6. The Examiner finds that, to the extent the step of generating a cryptogram is not part of the abstract idea, it is “no more than insignificant post-solution activity.” *Id.* at 4, 6. Further, the Examiner finds that the Specification does not clearly define the cryptograms, that as such, they can be merely code, and that the validating step compares these codes. *Id.* at 6. The Examiner also finds that the claimed processor and computer-readable storage medium are “generic computer components whose implementation would be routine in any computerized embodiment,” and cites to the Federal Circuit’s reasoning in *In re TLI Comm’s LLC Patent Litigation*, 823 F.3d 607 (Fed. Cir. 2016). Thus, the Examiner analyzes the claimed coordinated interaction of the use of cryptograms with the other recited elements in determining that the comparison of code, as part of the validating step, is part of the abstract idea, and that this is a generic functionality that is well-understood, routine, and conventional.

The Majority finds that *Berkheimer v. HP Inc.*, 881 F.3d 1360 (Fed., Cir. 2018) applies here (Opinion 7), and the Examiner fails to provide

support for the finding that validating by generating and comparing cryptograms is well-understood, routine, and conventional. I disagree.

Here, the Examiner provides reasoning that the Specification does not provide details for generating a cryptogram. Based on the portions of the Specification cited by the Appellants as support for the validating step (*see* Appeal Br. 5 (citing Spec. ¶¶ 44, 47, 58–60, 66–71, Figs. 1, 4–6)), I agree. Paragraph 44 simply provides that a cryptogram is generated, paragraph 47 simply refers to associating the items with a cryptogram, and paragraphs 58 through 60 provide that the validation includes generating a cryptogram and comparing the generated cryptogram to a list of stored cryptograms. Paragraphs 65–71 purportedly describe the process of generating a cryptogram. These paragraphs describe that a cryptogram is a code and a validation cryptogram is a “cryptographic token value.” Spec. ¶ 67. The validation cryptogram “may be an encrypted value, generated using an encryption algorithm and a key,” “a hash value,” and/or “generated in the purchase cycle by the merchant validation server.” *Id.* ¶¶ 67, 70–71, and Fig. 4 (“S420”). And, paragraph 72 provides that “[a]ny suitable encryption algorithms may be used, such as DES, triple DES (3DES), AES, etc.” As such, the Specification is clear that generating a cryptogram is a well-understood, routine, and conventional activity. And, the Specification provides for a generic, conventional processor for performing the claimed functions. *See* Spec. ¶¶ 27, 37 (Describing a purchase/validation terminal as a generic computing device.).

The Appellants do not offer evidence or support that the individual steps and/or the order of the steps are unconventional. The Appellants merely recite the claim language, rely on the arguments presented against

the rejection under 35 U.S.C. § 103(a), and state that is not well-understood, routine and conventional in the field to perform the steps of validating, determining, and generating. Appeal Br. 13–14. The Appellants do not provide any evidence, such as citations to the Specification as provided in *Berkheimer*, disputing the Examiner’s findings to the contrary. *See Automated Tracking Sols., LLC v. Coca-Cola Co.*, 723 F. App'x 989, 995 (Fed. Cir. 2018); *Intellectual Ventures I LLC v. Symantec Corp.*, No. 2017-1814, 2018 WL 1324863, at *1 (Fed. Cir. Mar. 15, 2018).

Further, contrary to the Majority’s statement, the Appellants do not argue that the “recited combination of elements provides particular benefits” (Opinion 6), but rather, the Appellants argue that, similar to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), “the problem to be solved is necessarily rooted in computer technology and the solution is a computer implemented solution.” Appeal Br. 15. The Appellants contend that by using the cryptogram, “it is not necessary to persistently store sensitive consumer data such as PANs.” *Id.* However, the Appellants provide no support for this statement, nor does the Specification describe or discuss this “benefit.” And, the Appellants do not show that the claim is directed to statutory subject matter because they claim a *solution* “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *DDR Holdings*, 773 F.3d at 1257.

Accordingly, for the above reasons, I dissent from the decision of the Majority to reverse the rejection of the claims under 35 U.S.C. § 101.