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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CIARAN MCMULLAN and
JOHN ROBERT FORREST

Appeal 2017-007288¹
Application 13/900,105
Technology Center 3600

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

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal from the final rejection of claims 1–20. We have jurisdiction to review the case under 35 U.S.C. §§ 134 and 6.

The invention relates generally to financial transactions funded via limited use virtual payment numbers. Spec. ¶ 1.

¹ The Appellants identify MasterCard International Inc. as the real party in interest. Appeal Br. 2.

Claim 1 is illustrative:

1. A method for improving functionality of a merchant point of sale device, comprising:

receiving, by an input device of a merchant point of sale device, product details for at least one product to be purchased in a financial transaction;

receiving, by the input device of the merchant point of sale device, a virtual payment number;

receiving, by the input device of the merchant point of sale device, an indication of the virtual payment number as being a limited use number associated with a payment account, wherein the merchant device is configured to recognize the virtual payment number as a limited use number;

generating, by a processing device, an authorization request for the financial transaction, wherein the authorization request includes at least transaction data, the virtual payment number, and a data element, wherein the data element indicates the virtual payment number as a limited use number; and

transmitting, by a transmitting device, the authorization request to a payment network.

The Examiner rejected claims 1–20 under 35 U.S.C. § 101 as directed to abstract ideas.

The Examiner rejected claims 1–6, 9, 11–16, and 19 under 35 U.S.C. § 103 as unpatentable over Archer et al., (US 2011/0153437 A1, pub. June 23, 2011) (hereinafter “Archer”), Carpenter, Jr. et al. (US 2010/0265311 A1, pub. Oct. 21, 2010) (hereinafter “Carpenter”), and Flitcroft et al. (US 7,136,835 B1, iss. Nov. 14, 2006) (hereinafter “Flitcroft”).

The Examiner rejected claims 10 and 20 under 35 U.S.C. § 103 as unpatentable over Archer, Carpenter, Flitcroft, and Scipioni et al. (US 2009/0276356 A1, pub. Nov. 5, 2009) (hereinafter “Scipioni”).

The Examiner rejected claims 7, 8, 17, and 18 under 35 U.S.C. § 103 as unpatentable over Archer, Carpenter, Flitcroft, and Aidasani et al. (US 2012/0330836 A1, pub. Dec. 27, 2012) (hereinafter “Aidasani”).

We AFFIRM.

ANALYSIS

Patentable subject matter

Appellants argue claims 1–20 together as a group. Appeal Br. 5–6. We select claim 1 as representative. See 37 C.F.R. § 41.37(c)(1)(iv).

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) (internal quotations and citation omitted).

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.*, 566 U.S. 66, 76–78 (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, 594–95 (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 patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357; *Bilski*, 561 U.S. at 611; mathematical formulas, *Parker*, 437 U.S. at 594–95; and basic tools of scientific and technological work, *Gottschalk*, 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 69.

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.*

In addition, 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.”).

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).

Claims that recite an improvement to a particular computer technology have been found patent eligible. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (determining claims not abstract because they “focused on a specific asserted improvement in computer animation”).

Claim 1 recites a method that involves receiving, at a “point of sale device,” three types of data (product details, a “virtual payment number,” and an “indication”), generating a request from the received data, and transmitting the request. The method also recites that the receiving device “is configured to recognize” meaning in the “virtual payment number as a limited use number.” The claim thus receives, arranges, and sends data, and conditionally recognizes some data, if present. The message is generated and transmitted regardless of whether the “limited use” is recognized.

The claim is therefore directed to receiving, recognizing, and communicating data, using a “point of sale device” that can recognize certain data.

This claim is similar to claim 9 in US Patent 6,460,050, held to be directed to an abstract idea, because both claims merely receive, recognize, and communicate data. *Intellectual Ventures I LLC v. Symantec Corp.*, 100 F.Supp.3d 371 (D. Del. 2015), *aff'd-in-part, reversed-in-part*, 838 F.3d 1307 (Fed. Cir. 2016). The Court described the claims in the '050 patent as “directed to receiving information related to a file (an identifier) from a querying computer, characterizing the file based on the identifier and other stored identifiers, and communicating a result of the characterization back to a querying computer.” *Id.* at 383.

We are not persuaded by the Appellants’ argument of error on the basis that the Examiner has neither (1) provided evidence the claim is directed to an abstract idea, nor (2) provided citations to case law concerning the same, in that the Examiner merely asserts the claims are directed to processing a financial transaction funded via limited use virtual payment numbers. Appeal Br. 8 (citing Final Act. 3); *see also* Reply Br. 3–8. The Examiner relies on “the use of ‘virtual’ payment numbers to be abstract because, similar to *Alice v. CLS Bank*, applicant is essentially automating a payment transaction with a generic computer.” Answer 14. A “virtual payment number” is essentially an additional abstraction on an abstract account number that represents the abstract concept of a financial account. Using such abstract information as part of a process of conducting a financial transaction is therefore merely the use of abstract concepts within a basic economic practice of performing a payment transaction. In addition, receiving, recognizing, and communicating data merely represent steps necessary to process a financial transaction that cannot be settled between a

buyer and seller directly, such as those involving a third party, such as a bank.

We therefore agree with the Examiner that claim 1 is directed to an abstract idea.

We next turn to the second step of the *Mayo/Alice* analysis. The Appellants argue the claims recite a “particular device” in the “point of sale device” that would be recognized as a non-generic computer. Appeal Br. 9; *see also* Reply Br. 8–10. The Appellants also argue the invention improves the point-of-sale device (*id.* 10), and “that point of sale devices are particular machines which include security features not included in a ‘generic computer’ and are enabled to communicate with a particular type of network (e.g., a payment network) via particular protocols which are not features of a ‘generic computer’” (Appeal Br. 13).

We are unpersuaded by the Appellants’ arguments. A “point-of-sale device” is not defined or limited in scope by the Appellants’ Specification, but is only described generally through a series of components the device may include, such as that it may be one or several terminals (Spec. ¶ 29), “may include an input unit” (*id.* ¶ 30), may include a “processing unit” (*id.* ¶ 31), may include a transmitting unit (*id.* ¶ 32), receiving unit (*id.*), display, and memory (*id.* ¶ 33). The point-of-sale device is configured to recognize the received virtual payment number as a limited use number, such as in encoded form. *Id.* ¶ 24. The processor may be a general purpose device (*id.* ¶ 53), without any particular network protocols or security. The Specification describes that data may be received via a “machine-readable code reader.” *Id.* ¶ 30. A general-purpose computer with a machine-

readable code reader can recognize and decode data, thus meeting the claim language to recognize a number as a certain type of data.

The Appellants have therefore not established that a general purpose computer that can recognize data transforms the abstract idea of receiving, recognizing, and communicating data into “something more” that represents eligible subject matter.

For these reasons, we sustain the rejection of claims 1–20 under 35 U.S.C. § 101 as directed to abstract ideas.

Rejection of Claims 1–8, 10–18, and 20 under 35 U.S.C. § 103

The Appellants argue independent claims 1 and 11 together as a group, so we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(iv). Thus, claim 11 stands or falls with claim 1.

We are not persuaded by the Appellants’ arguments that Archer fails to disclose the receipt of an indication of a virtual payment number as being a limited use number associated with a payment account, or that the receipt of such an indication occurs at an input of a merchant point of sale device. Appeal Br. 15. Archer is directed to “virtual credit card limited use transactional account numbers.” Archer ¶ 18. Archer discloses that users may “request and receive limited use transactional account numbers associated with virtual credit cards” (*id.* ¶ 22), and “based on dynamically received virtual credit card information, subscribers, via suitable mobile devices, are enabled to dynamically configure one or more point of sale interfaces for presentation at a point of sale terminal in association with a point of sale transaction” (*id.* ¶ 21). Archer thus discloses receiving limited use numbers at point of sale devices, as claimed.

We are unpersuaded by the Appellants' arguments that none of Archer, Carpenter, or Flitcroft teach a merchant point of sale device configured to recognize a virtual payment number as a limited use number.

Appeal Br. 15–18. Flitcroft disclose:

Also, information that is verified prior to the card being processed for authorization and payment, such as expiry date and checksum digit must be valid. This information may vary from limited-use number to limited-use number, but must be valid to ensure that the number passes checks that may be completed within the merchant terminal, i.e., the checksum is appropriately calculated for each limited-use number and the associated expiry date is valid at the time of use.

Flitcroft col. 13, ll. 1–9. Flitcroft thus teaches a merchant terminal that is configured to recognize a limited use aspect of a limited-use account number, such as that the account number is valid only for a limited time, until expiry.

For these reasons, we affirm the rejection of claims 1 and 11 under 35 U.S.C. § 103. We also affirm the rejections of claims 2–8, 10, 12–18, and 20, for which no argument specific to each of those claims is advanced.

Rejection of Claims 9 and 19 under 35 U.S.C. § 103

Dependent claims 9 and 19 each recites “wherein the authorization request further includes a second data element indicative of the financial transaction as a card-present transaction.”

We are persuaded by the Appellants' arguments that the Examiner has failed to establish that claims 9 and 19 are obvious over the cited references, because the prior art cited does not disclose a data element indicative of a card-present transaction in a generated message. Appeal Br. 18–19.

In addition to citing paragraphs 26–31 and 67 of Archer, which do not disclose a data element indicative of a card being present, included in a

generated message, the Examiner asserts “the ‘card present’ appears to be taught in Archer, ie [sic] if the bearer provides the tag, the transaction is completed as if the card was present. The ‘card-present’ may be interpreted as a term of art or more broadly as ‘is the card present’ for the transaction.”

Ans. 35. Although we agree that presenting a bearer tag requires physically presence at a POS terminal to be read, this does not meet the claim language, which requires that a particular data element with that meaning is included in the message generated at the merchant POS for transmission. The Examiner has therefore failed to sufficiently establish obviousness of claims 9 and 19. For this reason, we do not sustain the rejection of claims 9 and 19 as obvious.

DECISION

We affirm the rejection of claims 1–20 under 35 U.S.C. § 101.

We affirm the rejections of claims 1–8, 10–18, and 20 under 35 U.S.C. § 103.

We reverse the rejection of claims 9 and 19 under 35 U.S.C. § 103.

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