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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICHARD BURDETT and COLIN TANNER

Appeal 2018-008672
Application 12/982,951
Technology Center 3600

Before MURRIEL E. CRAWFORD, PHILIP J. HOFFMANN, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant, Richard Burdett et al., appeals from the Examiner's decision to reject claims 1–31 and 38. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

The claims are directed to “apparatus and methods for electronic payment.” Spec. 1 lines 4–53. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method comprising:

detecting a payment device in a special spending environment;

responsive to said detection, obtaining, by one or more processors of a local authorization platform, from an issuer of said payment device, an authorization and guarantee for a predetermined amount of funds spendable with said local authorization platform that is associated with said special spending environment and that is separate from said issuer of said payment device and from said payment device, wherein a payment processing network and at least one acquiring entity are disposed between said local authorization platform and said issuer, and facilitate communication between said local authorization platform and said issuer;

establishing, by said one or more processors, a pre-authorized balance, based on said predetermined amount of funds, on said local authorization platform;

authorizing, by one or more processors, a series of purchases with said payment device within said special spending environment;

adjusting, by one or more processors, said pre-authorized balance to reflect a value of said series of purchases;

determining that said series of purchases is ended;

communicating, by said one or more processors, a payment request to said issuer, causing said issuer to perform clearing and settlement of an aggregation of said series of purchases authorized by said one or more processors for a portion of said predetermined amount of funds actually spent in said series of purchases subsequent to determining that said series of purchases is ended; and

facilitating, by said one or more processors, an immediate release, by said issuer, of said guarantee as to that portion of said predetermined amount of funds not actually spent in said series of purchases, said immediate release being subsequent to said determining that said series of purchases is ended.

REJECTIONS

The Examiner rejected claims 1–31 and 38 under 35 U.S.C. § 101 as directed to ineligible subject matter in the form of abstract ideas.

The Examiner rejected claims 1–8, 13–18, 22, 23, 28, 29, and 31¹ under 35 U.S.C. § 103(a) as unpatentable over Fiebiger et al. (US 2008/0033880 A1, published Feb. 7, 2008) (“Fiebiger”), Reany et al. (US 2010/0318463 A1, published Dec. 16, 2010) (“Reany”), and Keresman, III et al. (US 7,742,967 B1, issued June 22, 2010) (“Keresman”).

The Examiner rejected claim 9 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, and Yuan et al. (US 2010/0153249 A1, published June 17, 2010) (“Yuan”).

The Examiner rejected claim 10 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, Yuan, and Grellier (US 7,324,975 B1, issued Jan. 29, 2008).

The Examiner rejected claim 11 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, Yuan, Grellier, and Singhal (US 2010/0229245 A1, published Sept. 9, 2010).

The Examiner rejected claims 19–21 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, and Weiss et al. (US 2005/0216373 A1, published Sept. 29, 2005) (“Weiss”).

¹ The Examiner indicates that claims 9–12 and 38 are not rejected over the prior art. Final Act. 6. However, claims 9–11 are addressed and individually rejected. Final Act. 13–15. We interpret the statement that claims 9–11 are not rejected as harmless error. Thus, only claims 12 and 38 do not have rejections pending over prior art.

The Examiner rejected claims 24 and 25 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, and Reid et al. (US 2010/0205092 A1, published Aug. 12, 2010) (“Reid”).

The Examiner rejected claims 26 and 27 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, and Tozzoli et al. (US 5,717,989, issued Feb. 10, 1998) (“Tozzoli”).

The Examiner rejected claim 30 under 35 U.S.C. § 103(a) as unpatentable over Fiebiger, Reany, Keresman, and Williams (US 2005/0055316 A1, published Mar. 10, 2005).

OPINION

Rejection under § 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4

in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

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 rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 187; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula

to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (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.*

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

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

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

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

See Guidance.

The Examiner finds the claims are directed to “electronic payment (smartcard).” Final Act. 2; *see also id.* 3 (“payment by credit/debit or alike card” and “payment and authorizing of spending”).

The Specification indicates the “present invention relates . . . particularly to apparatus and methods for electronic payment,” and “techniques for local management of payment transactions.” Spec. 1 lines 4–27. More specifically, the Specification describes “allow[ing] multiple sales transactions to be conducted with a payment device without the need for obtaining authorization from an outside entity, such as the issuer of the payment device, for each transaction.” Spec. 11 lines 21–23. As such, the claim is directed to the performance of financial transactions, a type of commercial interaction, which is a fundamental economic practice: processing payments. MPEP § 2106.04(a)(2)(I)(A).

The claim language bears this out, because claim 1 recites using a “payment device,” receiving “authorization and guarantee for a predetermined amount of funds spendable,” establishing a “balance” from the authorization, authorizing purchases in a “special spending environment,” adjusting the balance affected by the purchases, and “clearing and settlement of an aggregation of said series of purchases,” and release of funds authorized, but “not actually spent,” once the “series of purchases is ended.” The claim is thus directed to making payment for purchases, which is central to any economic system.

Under Prong One of Revised Step 2A of the Guidance, we agree with the Examiner that claim 1 is directed to an abstract idea: processing payments. Guidance 52.

Turning to Prong Two of the Guidance, we determine if the claim is integrated into a practical application of the abstract idea.

Claim 1 calls for a “local authorization platform,” a “payment device,” a “payment processing network,” as well as an “acquirer” and an “issuer.”

The Specification describes that the “payment device” encompasses “a contact device such as card 102,” “other types of devices in lieu of or in addition to ‘smart’ or ‘chip’ cards,” “a conventional card 150 having a magnetic stripe,” as well as “an appropriately configured cellular telephone handset, personal digital assistant (PDA), and the like.” Spec. 5 lines 17–31. As noted above, the Specification describes that “embodiments of the invention allow multiple sales transactions to be conducted with a payment device without the need for obtaining authorization from an outside entity, such as the issuer of the payment device, for each transaction.” Spec. 11 lines 21–23. By aggregating authorizations for multiple transactions, in response to first detecting a payment device, into a single authorization that is in effect for a series of transactions, the claimed invention alters the flow of data, so that the payment device need not communicate end-to-end with an issuer via the payment network for each, and every, transaction. In contrast, the Specification describes:

During a conventional credit authorization process, the cardholder 2002 pays for the purchase and the merchant 2004 submits the transaction to the acquirer (acquiring bank) 2006. The acquirer verifies the card number, the transaction type and

the amount with the issuer 2010 and reserves that amount of the cardholder's credit limit for the merchant. At this point, the authorization request and response have been exchanged, typically in real time.

Spec. 10 lines 26–31. Thus, the claimed invention provides an improvement to the technical field of how payment networks permit a payment device to function, which is an improvement to a technological process. *See* MPEP § 2106.05(a)(II). The claimed payment device, as described above, is not a generic computer on which an abstract idea is applied, because the payment devices encompass different, specialized devices. Spec. 5 lines 17–31. Although the method is not actually implemented on the payment device, but instead takes place at the “local authorization platform,” the claimed method permits the use of the payment device in “special environments.” These “special environments” are where network delays, and the previously necessary involvement of both acquirer and issuer computer systems, remote from the payment device, handling and passing along every transaction, made the use of the payment device impractical in those environments. The Specification describes:

Some spending environments are characterized by frequent cardholder transactions, most of which are relatively low in value. These environments also typically demand high transaction speeds and solution reliability. . . . Proprietary “closed loop” systems that do not involve interbank fund transfers provide for the local processing of transactions. Authorization from an issuer such as a bank or credit union is not required by such systems. In “open loop” systems, balances are ordinarily held on the card issuer’s server or as a pre-authorized balance on the actual payment card.

Spec. 1 lines 13–23; *see also id.* 19 lines 11–19 (“some embodiments may be useful in connection with transit applications”).

Therefore, under Prong Two of Revised Step 2A of the Guidance, the claimed method integrates the abstract idea into a practical application, by altering the flow of data to improve another technology: using payment devices in payment networks. *See* Guidance 55. The payment network here is broadly defined to include credit and debit card networks (Spec. 10 line 16 to 11 line 4), but may broadly encompass payment to a cellular phone account using the phone for purchase of goods, gift card, and event payment networks (Spec. 11 lines 9–15; *see also id.* 12 line 9 to 13 line 2). As a result, we do not sustain the rejection of claims under 35 U.S.C. § 101 as directed to ineligible subject matter.

Rejections of Claims 1–11, 13–21, and 23–31 under § 103(a)

We are not persuaded by the Appellant’s argument that “the claimed invention can be distinguished from the proposed combination of references based on the claimed local authorization platform.” Appeal Br. 15 (emphasis omitted). Specifically, Appellant argues “No interpretation of the proposed combination of Fiebiger, Reany, and Keresman includes a device analogous to the claimed local authorization platform,” because “no device or platform is taught or suggested by the cited art having the features of the claimed local authorization platform.” Appeal Br. 17.

In response, the Examiner cites paragraph 48 of Fiebiger as disclosing the claimed “local authorization platform.” Answer 8–9. Fiebiger discloses the “active file manager can process the transaction against the active file.” Fiebiger ¶ 48. Fiebiger further discloses “making a fast decision, using the same criteria as in normal credit card authorization, but on a high-speed,

transit-specific platform (or platform specific to other applications with fast transaction time requirements). The aforementioned AFM [active file manager] may function as a gateway to a payment processing network.” *Id.* ¶ 61 (cited at Final Act. 8).

However, in response to this clarification, Appellant argues “the Office does not articulate a reasoning about why or how such a limited authorization (i.e., parsing an RCL [restricted control list]) can be extended to the claimed operation of the local authorization platform in obtaining authorization for a predetermined amount of funds from an issuer in response to detecting a device.” Reply Br. 22.

This new argument about an additional function of the local authorization platform, to check a restricted control list, is irrelevant to the issue of whether the prior art discloses a “local authorization platform,” raised in the Appeal Brief. As noted above, Fiebiger discloses a computer that functions as claimed, which thus meets the language of the claimed “local authorization platform.”

For this reason, we sustain the rejection of claim 1, as well as dependent claims 2–11, 13–21, and 23–31, which were not argued with specificity. *See* Appeal Br. 17–18.

Rejection of Claim 22 under § 103(a)

Dependent claim 22 recites, “The method of claim 1, further comprising: buffering issuer scripting commands in a memory of said local authorization platform; and delivering said issuer scripting commands, buffered in said memory, to said payment device upon presentation of said payment device to a payment terminal in said special spending environment.”

We are not persuaded by Appellant’s argument that Fiebiger fails to “teach or suggest a download of scripting commands to a ‘payment device’ as claimed.” Appeal Br. 18. This, according to Appellant, is because “the downloads of Fiebiger are to the host or terminal, which are distinct from the cards being presented to the terminal.” Reply Br. 23.

We note first that in the pending claims, there is no function expressed for the “scripting commands” that are delivered to the payment device. Therefore, the content of the data that is downloaded to the payment terminal in claim 22 is merely non-functional data within the scope of the claims. As such, the downloaded data has no functional relationship to the underlying substrate payment device, and is non-functional descriptive material, such as printed matter. The claim thus recites downloading data to a payment device.

Fiebiger discloses an embodiment involving “cards that are enhanced with a special transit application.” Fiebiger ¶ 120. The cards’ application “records real-time rider activity and a shadow pre-funded balance.” *Id.* Further still, “turnstiles 1130/readers 1132 are configured to read and update a rider activity record stored on the card.” Fiebiger ¶ 120 (cited at Final Act. 10). By configuring a turnstile to update data on the payment device (card), Fiebiger thus discloses downloading data to a payment device, thus meeting the language of claim 22. For this reason, we sustain the rejection of claim 22.

DECISION

The Examiner’s rejection under 35 U.S.C. § 101 is REVERSED.

The Examiner’s rejections of claims 1–11 and 13–31 under 35 U.S.C. § 103(a) are AFFIRMED.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–31, 38	§ 101	Eligibility		1–31, 38
1–8, 13–18, 22, 23, 28, 29, 31	§ 103(a)	Fiebiger, Reany, Keresman	1–8, 13–18, 22, 23, 28, 29, 31	
9		Fiebiger, Reany, Keresman, Yuan	9	
10		Fiebiger, Reany, Keresman, Yuan, Grellier	10	
11		Fiebiger, Reany, Keresman, Yuan, Grellier, Singhal	11	
19–21		Fiebiger, Reany, Keresman, Weiss	19–21	
24, 25		Fiebiger, Reany, Keresman, Reid	24, 25	
26, 27		Fiebiger, Reany, Keresman, Tozzoli	26, 27	
30		Fiebiger, Reany, Keresman, Williams	30	
Overall Outcome			1–11, 13–31	12, 38

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FINALITY AND 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