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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 13/754,419 | 01/30/2013 | David A. Roberts | P00619-US-CON | 7079 |

98665 7590 06/27/2018

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|---|
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| ART UNIT | PAPER NUMBER |
|---|---|
| 3696 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 06/27/2018 | PAPER |

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DAVID A. ROBERTS, DUNCAN GARRETT, and EDDY L. H. VAN DE VELDE[1]

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Appeal 2017-003320
Application 13/754,419
Technology Center 3600

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Before JASON V. MORGAN, ERIC B. CHEN, and KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

MORGAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

*Introduction*

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 4–19. Claims 1–3 are canceled. Final Act. 2; App. Br. 37. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] Appellant is the applicant, MasterCard International Incorporated, identified in the Appeal Brief as the real party in interest. App. Br. 3.

*Invention*

The Specification discloses a method for electronic payment that includes: (1) detecting that a requested cryptogram was not received as expected; (2) storing payment device and transaction recovery data; and (3) sending a command to the payment device to re-compute the cryptogram to complete a putative transaction. Abstract; Spec. 1.

*Exemplary Claim*

4. A method comprising the steps of:

upon initial presentation of a device to a terminal assembly in connection with a putative data storage transaction, said device comprising a device memory storing a device-side application, and at least one device processor coupled to said device memory, said terminal assembly comprising a terminal memory, storing a terminal-side application, and at least one terminal processor coupled to said terminal memory, said terminal-side application executing on said at least one terminal processor establishing communications with said device-side application executing on said at least one device processor;

sending a first command from said terminal-side application executing on said at least one terminal processor to said device-side application executing on said at least one device processor to instruct said device-side application executing on said at least one device processor to compute a cryptogram to complete said putative data storage transaction;

said terminal-side application executing on said at least one terminal processor detecting that said cryptogram is not received as expected from said device-side application executing on said at least one device processor;

responsive to said detection, said terminal-side application executing on said at least one terminal processor storing in a storage area of said terminal memory an identifier of said device and data storage transaction recovery data associated with said putative data storage transaction;

> obtaining, by said terminal-side application executing on said at least one terminal processor, said identifier of said device, upon re-presentation of said device to said terminal assembly;
>
> upon said re-presentation of said device to said terminal assembly, comparing, by said terminal-side application executing on said at least one terminal processor, of said obtained identifier of said device to contents of said storage area; and
>
> conditioned at least upon said comparing yielding a match, sending a second command from said terminal-side application executing on said at least one terminal processor to said device-side application executing on said at least one device processor, said second command instructing said device-side application executing on said at least one device processor to reproduce said cryptogram and send it to said terminal-side application executing on said at least one terminal processor to complete said putative data storage transaction.

*Rejections*

The Examiner rejects claims 4–19 on the ground of non-statutory obviousness-type double-patenting as being unpatentable over claims 1–39 of Roberts et al. (US 8,370,258 B2; issued Feb. 5, 2013) ("Roberts"). Final Act. 17–19.

The Examiner rejects claims 4–19 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 3–5.

The Examiner rejects claims 4–8, 11, 14, and 17,[2] under 35 U.S.C. § 103(a) as being obvious over Ward et al. (US 2007/0215697 A1; published Sept. 20, 2007) ("Ward") and Brown et al. (US 8,201,742 B2; issued June 19, 2012) ("Brown"). Final Act. 6–12.

[2] The Examiner erroneously lists claims 4–19 as being rejected together using the same prior art references. Final Act. 6. However, as noted, the Examiner rejects several claims only with the use of additional references.

The Examiner rejects claims 9, 12, 15, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Ward, Brown, and Nakanishi et al. (US 7,080,259 B1; issued July 18, 2006) ("Nakanishi"). Final Act. 12–13.

The Examiner rejects claims 10, 13, 16, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Ward, Brown, and Paltenghe et al. (US 2002/0004783 A1; published Jan. 10, 2002) ("Paltenghe"). Final Act. 14–16

UNDISPUTED REJECTION

Appellant does not dispute the Examiner's obviousness-type double-patenting rejection. *See* App. Br. 36. Accordingly, we summarily affirm this rejection.

35 U.S.C. § 101

*Findings and Contentions*

In rejecting claim 4 as being directed to non-statutory subject matter, the Examiner concludes claim 4 is directed to the "abstract idea of data storage." Final Act. 3. In particular, the Examiner concludes the claimed steps represent "a fundamental economic principle" and are "similar to other concepts that have been identified as abstract by the courts such as comparing new and stored information and using rules to identify options (SmartGene)." Ans. 6.

Appellant contends the Examiner erred because "the distillation of the claimed invention into the supposed abstract idea of data storage does not comport with the explicit language of the independent claim[]," which Appellant argues "recites numerous limitations providing a particular technological environment in which the technical problem to be overcome arises – namely, the 'tearing' of the card or other device from the reader before the transaction completes, and how to recover such a 'torn'

transaction." App. Br. 15. That is, Appellant argues "[c]laim 4 is specifically directed to solving a technical problem that arises during a data storage transaction with a 'smart' or 'chip' card or similar device." *Id.* at 16; *see also* Reply Br. 16.

*Analysis*

We agree with Appellant that the Examiner does not show that claim 4 is directed to an abstract idea. Abstract ideas include the concepts of collecting data, recognizing certain data within the collected data set, and storing the data in memory. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). The collection of information and analysis of information (e.g., recognizing certain data within the dataset) are also abstract ideas. *Electric Power Group, LLC v. Alstom, S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2017). Similarly, merely "collecting, displaying, and manipulating data" is an abstract idea. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017). Other types of claims, such as those directed to ideas such as "paying for a remote purchase at a local retailer" have been found abstract. *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1376 (Fed. Cir. 2017). Moreover, claims that "invoke computers merely as tools to execute fundamental economic practices" have also been found abstract. *Smartflash LLC v. Apple Inc.*, 680 F.App'x 977, 982 (Fed. Cir. 2017) (non-precedential), *cert. denied*, 138 S.Ct. 687 (2018). However, claims "directed to a specific improvement to the way computers operate" have been found to be non-abstract. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336–39 (Fed. Cir. 2016) (Claims "specifically

directed to a *self-referential* table for a computer database" were not directed to an abstract idea.).

Here, the claimed subject matter is not directed to merely collecting, analyzing, displaying, and manipulating data. The claimed subject matter is not directed to a general or fundamental practice. Nor does the claimed subject matter invoke an existing technology (e.g., a terminal or device) merely as a tool for executing an abstract idea. Rather, claim 4's method includes taking steps *responsive to* "*detecting that a cryptogram is not received as expected*" to store "*an identifier of* [*the*] *device and data storage transaction recovery data associated with a putative data storage transaction*" and further taking action "*upon re-presentation of* [*the*] *device*" to a terminal assembly "*complete* [*the*] *putative data storage transaction.*" App. Br. 37–38, Claims App. (emphasis added).

Enabling recovery of a putative data storage transaction upon re-presentation of a device to a terminal assembly constitutes improved functionality for both the terminal assembly and the device. Rather than, for example, having to initiate a new transaction, using the device and terminal assembly enables completion of an interrupted transaction. This functionality does not represent mere "data storage" (Final Act. 3), a "fundamental economic principle" (Ans. 6), or the comparison of new and stored information with rules to identify options (*id.*). Instead, this functionality represents a non-abstract improvement in terminal assembly and device functionality rather than an abstract idea. *See Finjan, Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299, 1305 (Fed. Cir. 2018) (A claim employing "a new kind of file that enables a computer security system to do things it could not do before" represents "a non-abstract improvement in

computer functionality, rather than the abstract idea of computer security writ large.").

For these reasons, we do not sustain the Examiner's 35 U.S.C. § 101 rejection of claim 4, and claims 5–19, which have similar recitations and are similarly rejected.

35 U.S.C. § 103(a)

*Findings and Contentions*

In rejecting claim 4 as obvious, the Examiner finds that Ward's application identifiers linked to software code in the form of firmware plus data in a card memory teaches or suggests "*responsive to said detection, said terminal-side application executing on said at least one terminal processor storing in a storage area of said terminal memory an identifier of said device and data storage transaction recovery data associated with said putative data storage transaction*." Final Act. 7–8 (citing Ward ¶ 25) (emphasis added). The Examiner also finds Ward's computer-implemented method for transaction adjustment teaches or suggests the claimed storing of "*data storage transaction recovery data associated with said putative data storage transaction*." Ans. 15 (citing Ward ¶ 30, Fig. 2) (emphasis added).

Appellant contends that the Examiner erred because Ward's applications and identifiers are on the *card* (i.e., on the presented device of claim 4), but the disputed claim 4 recitation "refers to an *identifier of the payment device itself* (and not an application on the payment device as in the cited passage), being stored in the *terminal*." App. Br. 25. Appellant further contends that the teachings in Ward directed to transaction adjustments merely "provide a **refund** when the transaction **fails** due to tearing." Reply Br. 42 (citing Ward ¶ 36). Appellant argues that merely canceling a refund

does not teach or suggest storing "***transaction recovery data*** *as claimed*." Reply Br. 42. Appellant notes that the system of Ward, rather than recovering a transaction, allows "an unscrupulous cardholder[to] 'rip' or 'tear' *after a successful vend but before the card balance was decremented*." *Id.* (citing Ward ¶¶ 47–48).

*Analysis*

We agree with Appellant the Examiner erred. As Appellant persuasively argues, Ward's application identifier teachings relate to application identifiers stored in the memory of cards 102, 112 rather than in terminals 122, 124, 126, 134, and 136. *See* Ward ¶¶ 25, 26, and Fig. 2; *see also* App. Br. 25. The Examiner does not show that Ward teaches or suggests storing the application identifiers in the terminals in a way that accords with the claim 4 storage in "a storage area of said *terminal* memory" of "an identifier of said device and data storage transaction recovery data associated with said putative data storage transaction." App. Br. 37–38, Claims App. (emphasis added).

Furthermore, the Examiner's findings do not show that Ward's "detection of an irregularity with a putative transaction between a payment device having an offline balance[] and an offline terminal" and adjustment of "the offline balance responsive to the detection of the irregularity" teaches or suggest the claimed storage of transaction recovery data. *See* Ward ¶ 30; Fig. 2; *see also* Ans. 15. As evidenced by Ward's guidance that a cardholder could "pull the card out and spend the offline value multiple times" (Ward ¶ 48), Ward's teachings are not related to the *recovery* of a transaction. *See* Reply Br. 42.

The Examiner does not show that the other cited art references cure the noted deficiency of Ward. Accordingly, we do not sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 4, and the Examiner's 35 U.S.C. § 103(a) rejections of claims 5–19, which contain similar recitations.

## DECISION

We affirm the Examiner's obviousness-type double-patenting rejection of claims 4–19.

We reverse the Examiner's 35 U.S.C. § 101 rejection of claims 4–19.

We reverse the Examiner's 35 U.S.C. § 103(a) rejections of claims 4–19.

Because we affirm at least one rejection of each pending claim, we affirm the Examiner's decision rejecting claims 4–19.

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. § 41.50(f).

AFFIRMED