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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* WESLEY FREDERICO ESPINAL RIOS

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Appeal 2019-004130  
Application 14/873,440  
Technology Center 3600

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Before RICHARD M. LEOVITZ, ULRIKE W. JENKS, and  
MICHAEL A. VALEK, *Administrative Patent Judges*.

LEOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

The Examiner rejected the claims under 35 U.S.C. § 103 as obvious and under 35 U.S.C. § 101 as reciting patent ineligible subject matter.

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject the claims. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Mastercard International Incorporated. Appeal Br. 2.

STATEMENT OF THE CASE

The claims stand rejected by the Examiner as follows:

1. Claims 1–4, 6–13, and 16–24 under 35 U.S.C. § 103 as obvious in view of French et al. (US 2011/0282780 A1, published Nov. 17, 2011) (“French”) and Grinhute (US 2011/0055083 A1, published Mar. 3, 2011) (“Grinhute”). Ans. 5.

2. Claims 5 and 14 under 35 U.S.C. § 103 as obvious in view of French, Grinhute, and Hanson et al. (US 2012/0330788 A1, published Dec. 27, 2012) (“Hanson”).<sup>2</sup> Ans. 7.

3. Claims 5 and 15 under 35 U.S.C. § 103 as obvious in view of French, Grinhute, and Engelhart et al. (US 2003/0163383 A1, published Aug. 28, 2003) (“Engelhart”). Ans. 8.

4. Claims 10–13 and 18–20 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea. Ans. 3.

Claims 1 and 10 are representative and are reproduced below:

1. A multi-currency transaction routing apparatus, comprising:

a first input to receive, from an acquirer bank, an electronic message containing information about a business as usual transaction including a generic primary account number of a single payment instrument;

a storage device storing: (i) an association between the generic primary account number of the single payment instrument and a first primary account number of a first funding bank account in a first currency, and (ii) an association between the generic primary account number of the single payment instrument and a second primary account number of a second funding bank account in a second currency wherein the first primary account number of the first funding bank account is

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<sup>2</sup> The application number listed in the Final Office Action for Hanson was incorrect. Hanson was also misspelled as “Hansen.”

different than the second primary account number of the second funding bank account;

a routing module computer to detect the generic primary account number within the electronic message and to automatically transmit data about the transaction to a remote device associated with one of the first and second funding bank accounts in accordance with the associations stored in the storage device.

10. A method, comprising:

associating a generic primary account number of a single payment instrument with a first primary account number of a first funding bank account in a first currency;

associating the generic primary account number of the single payment instrument with a second primary account number of a second funding bank account in a second currency wherein the first primary account number of the first funding bank account is different than the second primary account number of the second funding bank account;

receiving from an acquirer bank information about a business as usual transaction associated with the generic primary account number of the single payment instrument; and

automatically routing, by a multi-currency transaction routing platform, data about the transaction to one of the first and second funding bank accounts.

### OBVIOUSNESS REJECTIONS

In the first two steps of claim 10, a “generic primary account number” is associated with first and second bank account numbers in first and second currencies, respectively. The first and second bank accounts are recited in the claim to be different.

The generic primary account number is of a single payment instrument. The Specification discloses that the payment instrument can be a credit card (“standard plastic card”). Spec. 8:23–24.

In the third step of claim 10, information about “a business as usual transaction” associated with the generic account number is received from an “acquirer bank.” The acquirer bank, for example, is the bank of a merchant from which a customer wants to make a purchase (the “business as usual transaction”). In the final step of claim 10, data about the transaction is routed automatically “by a multi-currency transaction routing platform.”

The Specification, which is titled “Multi-currency Transaction Routing Platform for Payment Processing System,” explains:

a multi-currency transaction routing platform 150 (*e.g.*, associated with the credit card network) may receive information about the business as usual transaction and arrange for the transaction to be routed to either a first funding bank account 160 (associated with a first currency) or a second funding bank account 162 (associated with a second currency different from the first currency).

Spec. 4:13–17.

As further explained in the Specification:

Thus, embodiments may help address the currency exchange rate dilemma faced by cross border travelers when making purchases in a foreign country. In particular, some embodiments described herein may allow a traveler to use a single payment card [associated with the claimed generic primary account number] to make purchases in many different currencies using different currency funding accounts. The traveler may define what currency funding account he or she would like to use for the next transaction hailing from a single default payment card.

Spec. 8:13–18.

As an example, the Specification teaches that the cardholder may decide, via an application on smartphone, what currency should be used in a next transaction, and then the multi-currency router would switch the

transaction to the appropriate funding account (the first or second bank account). Spec. 8:18–22. The Specification teaches that “[t]his solution may leverage existing market infrastructure by allowing an existing standard plastic card to be the single payment instrument for several different currencies as either the user can configure what funding account to use against each of the currency exchange rates the user would like to have.” Spec. 8:22–25.

Independent claim 1 is directed to a system that performs the same method recited in claim 10. Independent claim 21 is directed to computer readable medium having the instructions to perform the same method as recited in claim 10.

#### Obviousness Rejections based on French and Grinhute

The Examiner found that French discloses associating a generic primary account number with first and second accounts, each with first and second currencies. Ans. 5. The Examiner also found that French discloses automatically routing the transaction by a multi-currency transaction routing platform. *Id.* The Examiner found that French does not teach that the first primary account number of the first funding bank account is different than the second primary account number of the second funding bank account as required by all the claims. *Id.* However, the Examiner found that Grinhute teaches this limitation and found that it would have been obvious to incorporate this feature into French “for the purpose of allowing accounts to be available to travelers and avoiding identity theft and fraud concerns.” *Id.*

Appellant argues that French does not disclose a generic primary account number of a single payment instrument that is associated with two

different bank accounts where each bank account is associated with a different currency. Appeal Br. 12–13.

We agree with Appellant that the Examiner did not establish a prima facie case of obviousness. French discloses “a method for determining currency and currency exchange rates for a money transfer transaction based on account information of the sending party and the account information of the receiving party.” French ¶ 6. The Examiner cited paragraph 7 of French to meet the first and second limitations of claim 10 in which “a generic primary account number of a single payment instrument” is associated with first and second primary bank accounts with first and second currencies, respectively. Final Act. 4.

Paragraph 7 of French is reproduced below:

In some embodiments, a method for performing a value transfer transaction is provided. The method includes receiving a *first account identifier associated with a first account of a sending party* and receiving transaction details of the value transfer transaction that includes at least an amount of money being transferred. The method further includes receiving information about a *second account of a receiving party in the value transfer transaction including a second account identifier for the second account*, analyzing the first account identifier to determine a first currency associated with the first account and using the second account identifier to determine a second currency associated with the second account, determining an exchange rate between the first currency and the second currency, applying the exchange rate to the value transfer transaction to determine a total amount payable by the sending party, presenting the total amount to the sending party for approval, and performing transfer of money from the first account to the second account if the sending party approves the value transfer.

French ¶ 7 (emphasis added).

Paragraph 7 does not describe “a generic primary account number of a single payment instrument” which is associated with two accounts as required by claim 10. To the contrary, the two accounts described by French are held by different parties. One is a sending party and the other is receiving party. There is nothing in this paragraph that discloses or suggests that the two accounts are associated with the same “generic primary account number” as required by claim 10.

The Examiner further cited paragraphs 35–38 of French to support the rejection. Ans. 13. Paragraph 34 explains the context of paragraphs 35–38. Paragraph 34 discloses a “data store 108” which is used “to determine the currency associated with an account.” French ¶ 34. “FIGS. 2 and 3 illustrate information in an account data store, e.g., account data store 108.” French ¶ 35. French describes Table 200 depicted in Fig. 2:

Table 200 [Fig. 2] includes account identifiers 202 that list one or more account identifiers associated with a sender accounts. For example, account identifiers 202 may be a personal account number (PAN) associated with a sender account.

French ¶ 35.

While multiple accounts are shown in Figure 2, each associated with a different currency, French does not teach that the accounts are tied to one generic primary account number as required by the claims. Instead, Figure 2 illustrates a table that can be used to look up a sender’s account and determine the currency associated with the account. French ¶¶ 34, 35. Once this determination is made, French further teaches determining exchange rates between the currency in the sender’s account and the currency in the receiver’s account. French ¶ 41.

Grinhute is further cited by the Examiner. Ans. 5 (citing ¶¶ 27, 9, 10). The paragraphs in Grinhute cited by the Examiner refer to two accounts associated with a single account. One is a deposit account and the other is an account for paying or withdrawing funds. Grinhute ¶ 27. The accounts can have different currencies. Grinhute ¶ 9. The Examiner stated that the skilled artisan would have had reason to incorporate Grinhute’s teaching into French “for the purpose of allowing accounts to be available to travelers and avoiding identity theft and fraud concerns.” Ans. 5. However, the Examiner did not explain why one of ordinary skill in the art would modify French’s teaching of a single account with a single currency with Grinhute’s teaching of a payment and deposit account to meet the limitations of claim 10 of two *funding* accounts (the payment account of Grinhute), each associated with a different currency.

Accordingly, the rejection of claim 10 is reversed. Claims 2–24 are reversed for the same reasons and, because the additional references cited in obviousness rejections 2 and 3 do not meet the deficiencies found in claim 10.

## REJECTION BASED ON § 101

### Principles of Law

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” However, not every discovery is eligible for patent protection. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). “Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.” *Id.* The Supreme Court articulated a two-step analysis to determine whether a claim falls

within an excluded category of invention. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014); *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 75–77 (2012).

In the first step, it is determined “whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, 573 U.S. at 217. If it is determined that the claims are directed to an ineligible concept, then the second step of the two-part analysis is applied in which it is asked “[w]hat else is there in the claims before us?” *Id.* The Court explained that this step involves:

a search for an ‘inventive concept’ — *i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’

*Alice*, 573 U.S. at 217–18 (citing from *Mayo*, 566 U.S. at 75–77).

*Alice*, relying on the analysis in *Mayo* of a claim directed to a law of nature, stated that in the second part of the analysis, “the elements of each claim both individually and ‘as an ordered combination’” must be considered “to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217.

The PTO has published revised guidance on the application of 35 U.S.C. § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 51–57 (2019) (“Eligibility Guidance”). This guidance provides additional direction on how to implement the two-part analysis of *Mayo* and *Alice*.

Step 2A, Prong One, of the 2019 Eligibility Guidance, looks at the specific limitations in the claim to determine whether the claim recites a

judicial exception to patent eligibility. In Step 2A, Prong Two, the claims are examined to identify whether there are additional elements in the claims that integrate the exception in a practical application, namely, is there a “meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Eligibility Guidance, 84 Fed. Reg. at 54 (Prong Two).

If the claim recites a judicial exception that is not integrated into a practical application, then as in the *Mayo/Alice* framework, Step 2B of the Eligibility Guidance instructs us to determine whether there is a claimed inventive concept to ensure that the claims define an invention that is significantly more than the ineligible concept, itself. Eligibility Guidance, 84 Fed. Reg. at 56. In making this determination, we must consider whether there are specific limitations or elements recited in the claim “that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present” or whether the claim “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, indicative that an inventive concept may not be present.” *Id.* at 56 (footnote omitted).

With these guiding principles in mind, we proceed to determine whether the claimed subject matter in this appeal is eligible for patent protection under 35 U.S.C. § 101.

#### Discussion

Claim 10 is directed to a “method.” Following the first step of the *Mayo/Alice* analysis, we find that the claim is directed to a method, and therefore falls into one of the broad statutory categories of patent-eligible

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subject matter under 35 U.S.C. § 101. We thus proceed to Step 2A, Prong One, of the Eligibility Guidance.

#### Step 2A, Prong One

In Step 2A, Prong One, of the Eligibility Guidance, the specific limitations in the claim are examined to determine whether the claim recites a judicial exception to patent eligibility, namely whether the claim recites an abstract idea, law of nature, or natural phenomenon. The Examiner found the claim recites the abstract idea of organizing human activity, one of the three groupings of abstract ideas. Ans. 3, 10.

Appellant contends that the Examiner erred in making this determination, but does not adequately explain why the claimed subject matter is not a method of organizing human activity. Reply Br. 3.

Claim 10 associates a generic primary account number with first and second accounts, each with a first and second currency, for the purpose of carrying out a business as usual transaction, such as a payment to a merchant. The payment method is implemented by “associating” the account information and then “receiving” information about the transaction. We find that these steps of the claim are an integral part of the payment method. Payment methods are characterized as fundamental economic practices in the Eligibility Guidance, which are categorized as the abstract idea of organizing human activity. Eligibility Guidance, 84 Fed. Reg. at 52 (n.13). Consequently, we agree with the Examiner that claim 10 recites an abstract idea. Accordingly, we proceed to Step 2A, Prong Two, of the Eligibility Guidance.

Step 2A, Prong Two

Prong Two of Step 2A under the 2019 Eligibility Guidance asks whether there are additional elements that integrate the exception into a practical application. As discussed in the Eligibility Guidance, “[a] claim that integrates a judicial exception in a practical application will apply, rely on, or use the judicial exception in a manner that places a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Eligibility Guidance, 84 Fed. Reg. at 54. Integration into a practical application is evaluated by identifying whether there are *additional elements* individually, and in combination, which go beyond the judicial exception. *Id.* at 54–55.

Appellant argues that the claimed method improves the conventional payment process “where a cardholder who travels from country to country may face a foreign currency exchange rate dilemma when making a purchase” and may use “multiple payment cards, each associated at a different currency,” which have different exchange rates. Reply Br. 4; *see also* Spec. 2:8–27 (describing problem). Appellant states that the claims resolve this problem by using one generic primary account associated with two accounts, each with a different currency, and then using a multi-currency transaction routing platform to route the data about the transaction to one of the two accounts. Reply Br. 4.

As explained in the Specification, the routing of the transaction by the multi-currency transaction routing platform can be based on business rules or logic stored in a cloud environment, where the cardholder can determine, based on preferences, what account and currency to use in the transaction. Spec. 5:19–29; 6:1–12; 9:13–27; 10:4–11. The “multi-currency transaction

routing platform,” which routes transaction data to one of two funding back accounts in first and second currencies, respectively, addresses the problem of payment instrument transactions in two different currencies. Spec. 8:13–18; 9:13–27. By having two accounts linked to the same generic primary account, each with a different currency, the instrument holder can decide what currency to use, and to instruct the multi-currency transaction routing platform to automatically route the transaction to one of the two accounts.  
*Id.*

We conclude that the aforementioned limitations of a multi-currency payment transaction platform using different currencies integrate the recited judicial exception into a practical application. Specifically, the additional elements limit the conventional practice of transacting multi-currency payments by reciting a “multi-currency transaction routing platform” that routes to one of two accounts, where each account has a different currency (first and second currencies). As explained in the Specification, these limitations provide an instrument holder with one single payment card “all his or [her] currency exchange rate transactions” as “a universal multi-currency solution to all of his or her foreign travel needs.” Spec. 8: 13–16. The Specification further discloses that the claimed “routing platform that may enable a card provider to efficiently and intelligently use multi-currencies to fund his or her card purchase transactions.” Spec. 13:13–16. Thus, the use of the multi-currency platform with two accounts and two currencies tied to a single generic account provides a technological improvement over prior multi-currency payment systems. *See also Ex parte Smith*, Appeal 2018-000064 (PTAB Jan. 31, 2019) (designated informative Mar. 19, 2019) (“the use of the claimed timing mechanisms and the

associated temporary restraints on execution of trades provide a specific technological improvement over prior derivatives trading systems.”).

Accordingly, we conclude that the judicial exception recited in claim 10 is integrated into a practical application, and the claim is eligible because it is not directed to the judicial exception, itself. The rejection of claim 10 under 35 U.S.C. § 101 is reversed. Dependent claims 12, 13, and 18–20 incorporate all the limitations of claim 10 and are reversed for the same reasons.

### CONCLUSION

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–4, 6–13, 16–24	103	French, Grinhute		1–4, 6–13, 16–24
5, 14	103	French, Grinhute, Hanson		5, 14
5, 15		French, Grinhute, Engelhart		5, 15
10–13, 18–20	101	Eligibility		10–13, 18–20
<b>Overall Outcome</b>				1–24

REVERSED