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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHAEL A. RACUSIN

Appeal 2018-006875
Application 15/184,083
Technology Center 3600

Before ST. JOHN COURTENAY III, JENNIFER L. McKEOWN, and SCOTT E. BAIN, *Administrative Patent Judges*.

McKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant[1] appeals under 35 U.S.C. § 134(a) from the Examiner's decision to finally reject claims 1–7. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

[1] Michael A. Racusin ("Appellant") is the applicant as provided in 37 C.F.R. § 1.46 and is identified as the real party in interest. App. Br. 1.

STATEMENT OF THE CASE

Appellant's disclosed and claimed invention relates to

> a prepaid commodity purchase system for purchase of a commodity, such as gasoline, and delivery of the commodity at a later time, for example, at retail gasoline stations and a method for selling such commodities that allows a purchaser to pre-purchase a commodity, such as gasoline, at a discount or no discount without any constraints on the location of delivery because the system automatically adjusts the retail price as a function of the location.

Spec. ¶ 1.

Claim 1 is illustrative of the claimed invention and reads as follows:

> 1. In a system comprising a Point of Sale (POS) terminal and a server, a method for operating said POS terminal in multiple geographic locations with a commodity card based upon a dollar value that enables gasoline to be purchased at a discounted retail gas price for later delivery at a price based upon a wholesale gas price existing at a location of the POS terminal at delivery at a time of purchase of a commodity card, the commodity card having an initial prepaid cash value in dollars for enabling a pump to be controlled by the the [sic] POS terminal up to a current cash value of the commodity card, the method comprising the steps of:
>
> (a) enabling at least purchaser's account number data from said commodity card to be read at said POS terminal;
>
> (b) enabling POS data including at least a location of the POS terminal and a purchaser's account number as well as a current cash value in a purchaser's account, an undiscounted wholesale gas price, an undiscounted retail gas price at the POS terminal at a time of delivery and a discounted wholesale gas price at the time of purchase of the commodity card to be stored on a storage medium;
>
> (c) automatically determining a maximum number of units of gas that can be pumped at said POS terminal at a location where said POS terminal is located in response to said commodity card being read at said POS terminal by determining a discounted unit retail price at a time of delivery to be the

> undiscounted retail gas price at the location of delivery minus an undiscounted wholesale price at the time of delivery plus a discounted wholesale unit price at the location of delivery at a discount set at the time of purchase of the commodity card and using the discounted unit retail price and the current cash balance of the commodity card in order to determine the maximum number of units;
>
> (d) automatically enabling a pump at said POS terminal for said maximum number of units of said commodity determined in step (c) to allow gas to be pumped; and
>
> (e) automatically debiting the discounted retail gas price times the number of units pumped from the current cash value of purchaser's account in a single transaction.

THE REJECTIONS

The Examiner rejected claims 1–7 under 35 U.S.C. § 101 as directed o patent ineligible subject matter. Final Act. 6–9.

The Examiner rejected claims 1–7 under 35 U.S.C. § 102 as anticipated by Cox (US 2013/0198074 Al; pub. Aug. 1, 2013). Final Act. 11–13.

ANALYSIS

THE § 101 REJECTION

Claims 1–7

Based on the record before us, we are not persuaded that the Examiner erred in rejecting claims 1–7 as directed to patent ineligible subject matter.

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. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014) (citation omitted).

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, 67 (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. (15 How.) 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 176; *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 (citation 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.* (alterations in original) (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 section 101. USPTO's 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Memorandum"). Under that 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) (9th ed., rev. 08.2017, Jan. 2018)).

See Memorandum, 84 Fed. Reg. at 52, 55–56. 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 are 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 Memorandum, 84 Fed. Reg. at 56.

Analysis – Revised Step 2A

Under the Memorandum, in prong one of step 2A we look to whether the claims recite a judicial exception. The claimed invention includes "(a) enabling at least purchaser's account number data from said commodity card to be read at said [point of sale (POS)] terminal;" "(b) enabling POS data including [certain POS information] to be stored on a storage medium;" "(c) automatically determining a maximum number of units of gas that can be

pumped . . .” by subtracting the undiscounted wholesale price at the time of delivery from the undiscounted retail gas price at the location of delivery and then adding a discounted wholesale unit price at the location of delivery at a discount set at the time of purchase of the commodity card to get the discounted unit retail price “and using the discounted unit retail price and the current cash balance of the commodity card in order to determine the maximum number of units;” “(d) automatically enabling a pump. . . for said maximum number of units of said commodity determined in step (c) to allow gas to be pumped;” and “(e) automatically debiting the discounted retail gas price times the number of units pumped from the current cash value of purchaser’s account in a single transaction.” Claim 1.

In other words, the claimed invention includes reading data from a commodity card, enabling the storing of POS data in a storage medium, calculating the maximum number of gas units based on the stored POS data and current cash balance of the commodity card, enabling pumping of the determining maximum number of gas units, and debiting an amount from the purchaser’s account.

These steps recite conducting a financial transaction, namely “conducting a transaction using a prepaid commodity purchase system that enables a discounted commodity to be purchased for later delivery.” Ans. 3. As such, the claimed invention includes commercial activities and/or a fundamental economic practice and is a method of organizing human activity, which is an abstract idea. *See* Final Act. 6–7*; see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015) (finding ineligible claims directed to pricing a product based on collected and analyzed information). Additionally, the claimed invention determines a maximum

number of gas units based on the stored point of sale data. This step performs mathematical calculations and is a mathematical concept, which is also an abstract idea. *See Flook*, 437 U.S. at 595 (noting that "if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.")(citations and quotation marks omitted).

Under prong two of revised step 2A, we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

The Examiner identifies a POS terminal and server as additional limitations and determines that "[b]oth the POS terminal and the server can be merely general purpose computers that perform basic computer functions that are well-understood routine and conventional." Final Act. 7. The Examiner additionally determines that "[t]aking these computer limitations as an ordered combination adds nothing that is not already present when the elements are taken individually." Final Act. 8.

Appellant, on the other hand, contends that the claimed invention provides a technological advancement. App. Br. 5. Specifically, Appellant argues that because "[k]nown gas discount cards do not take any price component variables into account," these discount cards "cannot be used over a large region, such as the entire US." App. Br. 6. According to Appellant, the claimed invention "recite[s] a process and a system that allows an oil company to provide a discount on only the wholesale price of

gas that takes into account the wide range of variable price components relating to state and local taxes and wholesale crude oil prices at every location" and therefore "[t]he claimed system is a drastic improvement over the prior art." *Id*. Appellant further asserts that the claimed invention "solve[s] a technological problem; namely, a system for processing gas discounts on only the wholesale gas component of the unit retail gas price" (App. Br. 11) and "improve[s] an existing technological process of the ability of a POS terminal to process wholesale price components and are therefore patent eligible." App. Br. 12.

We are not persuaded by Appellant's argument. While the claimed invention may have "no geographical constraints and can be used across an entire region" (App. Br. 14), this is not a *technical* improvement or solution to a *technical* problem. As the Examiner explains, "[i]n the instant case, the claimed invention merely performs a simple 'calculation' to determine the number of gallons that can be pumped at the pre-paid discounted rate using simple mathematics (addition and subtraction)." Ans. 6. "There is no improvement to the claimed pump since the pump functions the same way regardless of what the price of the fuel is or what discount is available to the consumer. There is also no transformation of the *fuel* as a result of the claimed 'calculations'. . ." Ans. 7. Instead, the claimed invention merely uses the computer as tool to perform the abstract idea, namely to calculate a discounted gas price and conduct the sales transaction. *See, e.g., Credit Acceptance Corp. v. Westlake Services*, 859 F.3d 1044 (Fed. Cir. 2017) (using a computer as a tool to process an application for financing a purchase).

Moreover, we note that the steps of reading reading data from a commodity card, saving POS data, and enabling a pump to dispense the calculated number of units are insignificant extra-solution activity. *See, e.g.* MPEP § 2106.05(g); *Flook*, 437 U.S. at 590 (holding that the step of adjusting an alarm limit based on the output of a mathematical formula was ''postsolution activity'' and did not render method patent eligible). As such, based on the record before us, we determine that the judicial exceptions recited in the claimed invention are not integrated into a practical application.

Analysis – Revised Step 2B

Under step 2B, we determine that the claimed invention does not add significantly more to the abstract idea. In particular, Appellant argues that the Examiner incorrectly analogizes the claimed invention to cited cases and that the claimed invention is not well-known, routine, and conventional. App. Br. 13–14.

We find these arguments unpersuasive. As the Examiner identifies, the claimed invention is "merely instructions to implement the abstract idea on a computer and require no more than a generic computer to perform generic computer functions that are well-understood, routine and conventional activities previously known to the industry." Ans. 3. *See also* Ans. 4 *(citing Buysafe Inc. vs Google Inc.*, 765 F.3d 1350 (Fed. Cir. 2014 and *Ultramercial Inc. v. Hulu LLC*, 772 F.3d 709 (Fed. Cir. 2014) as support); *Alice*, 573 U.S. at 225 (finding that computer functions, such as electronic recording keep and "obtain[ing] data, adjust[ing] account balances, and issu[ing] automated instructions; all of these computer functions are "well-understood, routine, conventional"); *Content Extraction*

& Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (discussing that data collection, recognition, and storage is well-known). As such, we are not persuaded of error in the Examiner's determination.

Accordingly, based on the record before us, we affirm the rejection of claims 1–7 as directed to patent ineligible subject matter.

THE § 102 REJECTION BASED ON COX

Claims 1–7

Based on the record before us, we are persuaded that the Examiner erred in rejecting claims 1–7 are anticipated by Cox.

Appellant asserts that Cox fails to disclose

> automatically determining a maximum number of units of gas that can be pumped at said POS terminal at a location where said POS terminal is located in response to said commodity card being read at said POS terminal by determining a discounted unit retail price at a time of delivery to be the undiscounted retail gas price at the location of delivery minus an undiscounted wholesale price at the time of delivery plus a discounted wholesale unit price at the location of delivery at a discount set at the time of purchase of the commodity card and using the discounted unit retail price and the current cash balance of the commodity card in order to determine the maximum number of units,

as recited in claim 1. App. Br. 17. Namely, Appellant maintains that Cox discloses purchasing "a 'credit' discount for a fixed number of gallons of gas at 'specified' retail locations." *Id.* And that "[w]hen a purchaser takes delivery of gas at a retail outlet, the Cox system checks whether the retail location is one of the 'specified' locations and number of credits are available and applies the credits on a per gallon basis accordingly. The credit is applied to the entire unit retail of gas." *Id.* In other words, Cox does not

determine a discounted unit price according to the particular calculations as recited in the claim. Moreover, Appellant contend that

> Cox simply discloses a system for processing a discount on the entire per unit retail gas price which includes a wholesale price component, local taxes and local fees including dealer profits. Since the local taxes cannot be discounted, providing a discount on the entire retail per unit gas price is not the same as providing a discount on a single component of the per unit retail gas price.

Reply Br. 10.

We are persuaded of error in the Examiner's rejection. Specifically, the claimed invention determines the discounted unit retail price by subtracting an undiscounted wholesale price and then adding the discounted wholesale price. While Cox generally discloses purchasing gasoline units at a specified or agreed upon price (*see, e.g.*, Cox, Abstract), Cox fails to disclose any particular method of calculating the discounted unit retail price. Based on the record before us, in order for us to sustain the Examiner's rejection, we would need to resort to impermissible speculation or unfounded assumptions or rationales to supply deficiencies in the factual bases of the rejection before us. *In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967). As such, we determine that the Examiner erred in finding that Cox discloses the recited automatically determining limitation.

Accordingly, we reverse the rejection of claims 1–7 as anticipated based on Cox.

DECISION

We affirm the Examiner's decision to reject claims 1–7 as directed to patent ineligible subject matter, but reverse the Examiner's decision to reject claims 1–7 as anticipated by Cox.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED