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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEVEN RICHARD PERRIN, JIANBANG ZHANG, JOHN
WELDON NICHOLSON, SCOTT EDWARDS KELSO,
BRADLEY PARK STRAZISAR, and MATTHEW LLOYD HAGENBUCH

Appeal 2019-001016
Application 14/580,798
Technology Center 2100

Before KRISTIN L. DROESCH, JENNIFER L. McKEOWN, and
ALEX S. YAP, *Administrative Patent Judges*.

McKEOWN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's
decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

¹ Lenovo Singapore PTE. LTD. (“Appellant”) is the applicant as provided
in 37 C.F.R. § 1.46 and is identified as the real party in interest. Appeal
Br. 1.

STATEMENT OF THE CASE

Appellant's disclosed and claimed invention relates to "a method, including: accepting, in an input overlay application, handwriting ink strokes; determining handwriting units for the handwriting ink strokes; accepting editing input of the handwriting ink strokes; and reflowing handwriting ink strokes based on the editing input." Abstract.

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

1. A method, comprising:
 - accepting, in an input overlay application, handwriting ink strokes;
 - determining handwriting units for the handwriting ink strokes;
 - accepting editing input for at least one of the handwriting units, wherein the editing input comprises at least one of a handwriting ink stroke insertion gesture and a handwriting ink stroke deletion gesture; and
 - automatically reflowing unedited handwriting units based on the editing input.

REJECTIONS

The Examiner rejected claims 1–7, 11–17, and 20² under 35 U.S.C. § 101 as directed to patent ineligible subject matter. Final Act. 2–3.

The Examiner rejected claims 1–9 and 11–20 under 35 U.S.C. § 103 as unpatentable over Geidl (US 2003/0053084 A1; pub. Mar. 20, 2003), and Simmons (US 7,259,752 B1; iss. Aug. 21, 2007). Final Act. 3–12.

The Examiner rejected claim 10 under 35 U.S.C. § 103 as unpatentable over Geidl, Simmons, and Capps (US 5,596,350; iss. Jan. 21, 1997). Final Act. 12–13.

² We note that the Examiner withdraws the 35 U.S.C. § 101 rejection of claims 8, 9, 18, and 19. Ans. 4.

ANALYSIS

THE 35 U.S.C. § 101 REJECTION

Claims 1–7, 11–17, and 20

Based on the record before us, we are persuaded that the Examiner erred in concluding that claims 1–7, 11–17, and 20 are 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: “[I]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. 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. 2018)).
- See* Memorandum 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 56.

Appellant argues that the Examiner fails to provide “evidence that would support a conclusion that the additional elements represent well-understood, routine, or conventional activity.” Appeal Br. 26 (citing *Berkheimer v. HP.com*, 882 F.3d 1367, 1368 (Fed. Cir. 2018)). We agree. The Examiner finds that “the claims merely recite that which is well known, routine, and conventional in the art of text editing” and that “[r]emoving text and repositioning the remaining text and other conventional operations (apart from claim 10) are functions that have existed in desktop publishing system software from its inception.” Final Act. 3. Notably, the Examiner fails to cite any evidentiary support for this finding. *See* Final Act. 3. The mere identification of limitations as well known, routine, and convention, without more, is insufficient to support the Examiner’s factual findings. *See Berkheimer*, 882 F.3d at 1368

Accordingly, based on the record before us, we are constrained to reverse the rejection of claims 1–7, 11–17, and 20 as directed to patent ineligible subject matter.

THE 35 U.S.C. § 103 REJECTION

Claims 1–9 and 11–20

Based on the record before us, we are persuaded that the Examiner erred in concluding that claims 1–9 and 11–20 as unpatentable over Geidl and Simmons.

Appellant argues that Geidl fails to teach “automatically reflowing unedited handwriting units based on the editing input.” Appeal Br. 30–31. According to Appellant, “Geidl explicitly discloses rearranging *edited*

objects, and not ‘*unedited* handwriting units,’” as required by claim 1. Appeal Br. 31. Namely, Geidl describes “three handwriting input words ‘to’ ‘get’ and ‘her’ are merged together as part of an editing input to create the single word ‘together’.” Appeal Br. 31. Thus, Appellant asserts that while Geidl rearranges handwriting units, these merged units are edited units, not *unedited* handwriting units as required by the claims.

The Examiner, on the other hand, finds that the Appellant’s interpretation is overly restrictive. Ans. 8. The Examiner, in particular, finds that the editing input is accepted for the handwriting unit for “to” but the “get” and “her” handwriting units are merely copied into the “to” handwriting unit and, thus, do not accept an editing input. Ans. 8–9. We disagree. Each of the “to,” “get,” and “her” handwriting units taught by Geidl are changed or edited. Namely, the handwriting unit “to” is edited to include “get” and “her” and the handwriting units for “get” and “her” are discarded. *See* Geidl ¶ 64. As such, we are persuaded that Geidl fails to teach or suggest automatically reflowing unedited handwriting units based on the editing input as required by the claimed invention. The Examiner does not rely on the teachings of Simmons to address the disputed limitation. *See* Final Act. 5, 8.

Accordingly, based on the record before us, we reverse the rejection of claims 1–9 and 11–20 as unpatentable over Geidl and Simmons.

THE 35 U.S.C. § 103 REJECTION

Claim 10

As discussed above, we are persuaded that the Examiner erred in rejecting claim 1, from which claim 10 depends, as unpatentable over Geidl

and Simmons. The additionally cited prior art reference, Capps, does not cure the deficiencies of the combination of Geidl and Simmons. As such, we are similarly persuaded that the Examiner erred in concluding that claim 10 is unpatentable over Geidl, Simmons, and Capps and reverse the rejection.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-7, 11-17, and 20	101			1-7, 11-17, and 20
1-9 and 11-20	103	Geidl, Simmons		1-9 and 11-20
10	103	Geidl, Simmons, Capps		10
Overall Outcome				1-20

REVERSED