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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RICHARD LEE HARTMAN

Appeal 2018-004638
Application 14/673,939
Technology Center 3600

Before ALLEN R. MACDONALD, MICHAEL J. ENGLE, and
IFTIKHAR AHMED, *Administrative Patent Judges*.

ENGLE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1 and 4–21, which are all of the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Carrier Services Group, Inc. Appeal Br. 2.

TECHNOLOGY

The claims relate to “valuing used electronic, computing, and/or telecommunications equipment.” Spec. Abstract.

ILLUSTRATIVE CLAIM

Claim 1 is illustrative and reproduced below with certain limitations at issue emphasized:

1. A product valuation method comprising the steps of:

providing a database of historical sales including a predetermined set of fields for containing data characterizing historical sales, the set of fields comprising buyer identity, quantity bought, sale price, historical sale date, model number, Common Language Equipment Identification (CLEI) code, SKU number, revision number, firmware version, service hours, and scrap sale;

reading inventory item data fields into memory comprising one or more of a model number, Common Language Equipment Identification (CLEI) code, or a SKU number, and one or more of a revision number, firmware version, or service hours;

selecting a combination of more than one inventory table data fields corresponding to an inventory item to be valued and determinative of a monetary value of the inventory item;

equating the selected combination of more than one inventory table data fields to a variable item identifier;

querying the database of historical sales against the variable item identifier and reading historical sales data into memory corresponding to the variable item identifier;

applying a predetermined set of valuation methods to the historical sales data corresponding to the variable item identifier;
and

recording the valuation results in a lookup table in association with the corresponding variable item identifier.

REFERENCES

The Examiner relies upon the following prior art references:

Abhyanker	US 2002/0133416 A1	Sept. 19, 2002
Burr	US 2013/0055264 A1	Feb. 28, 2013
Clay	US 7,672,921 B1	Mar. 2, 2010
Hazard ²	US 2013/0030780 A1	Jan. 31, 2013
Heard	US 2006/0287903 A1	Dec. 21, 2006
Hua	US 2016/0005242 A1	Jan. 7, 2016
Nagle	US 2007/0033112 A1	Feb. 8, 2007
Ryan	US 2006/0179043 A1	Aug. 10, 2006

REJECTIONS

Claims 1 and 4–21 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter without significantly more. Final Act. 14.

Claims 1, 4, 5, 8, 10–12, 15, 18, and 21 stand rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, and Hua. Final Act. 19.

Claims 6 and 9 stand rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, Hua, and Hazard. Final Act. 49.

Claim 7 stands rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, Hua, and Burr. Final Act. 54.

Claims 13, 14, and 20 stand rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, Hua,³ and Nagle. *See* Final Act. 56–64.

Claims 16 and 17 stand rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, Hua, and Abhyanker. Final Act. 64.

Claim 19 stands rejected under 35 U.S.C. § 103 as being obvious over Heard, Clay, Hua, and Ryan. Final Act. 69.

² The Examiner sometimes refers to this as “Swinson.” *E.g.*, Final Act. 49.

³ Although Hua is not listed in the rejection’s introductory statement, Hua is relied upon within the body of the rejection. *E.g.*, Final Act. 58, 63.

Claim 11 stands rejected under 35 U.S.C. § 112(b) as being indefinite. Final Act. 14.

Claims 1 and 4–21 were rejected under 35 U.S.C. § 112(a) for lack of written description. Final Act. 13. However, the Examiner subsequently agreed with Appellant’s arguments against that rejection. Ans. 56. Thus, we treat the § 112(a) rejection as withdrawn.

ISSUES

1. Did the Examiner err in concluding that claim 1 is directed to patent-ineligible subject matter without significantly more?
2. Did the Examiner err in finding Heard teaches or suggests the “selecting” and “equating” steps italicized in claim 1 above?

ANALYSIS

§ 101 (*Claims 1 and 4–21*)

Section 101 defines patentable subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. The Supreme Court, however, has “long held that this provision contains an important implicit exception” that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012) (quotation omitted). “Eligibility under 35 U.S.C. § 101 is a question of law, based on underlying facts.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018). To determine patentable subject matter, the Supreme Court has set forth a two part test.

“First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts” of “laws of nature, natural phenomena, and abstract ideas.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). A court must be cognizant that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas” (*Mayo*, 566 U.S. at 71), and “describing the claims at . . . a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1337 (Fed. Cir. 2016). Instead, “we evaluate the focus of the claimed advance over the prior art to determine if the character of the claim as a whole, considered in light of the specification, is directed to excluded subject matter.” *Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1092 (Fed. Cir. 2019) (quotation omitted). “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017).

If the claims are directed to an abstract idea or other ineligible concept, then we continue to the second step and “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 79, 78). The Supreme Court has “described step two of this analysis as 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.” *Id.* at

217–18 (quotation omitted). However, “[t]he abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” *Trading Techs.*, 921 F.3d at 1093 (quotation omitted).

In 2019, the U.S. Patent & Trademark Office published revised guidance on the application of § 101. USPTO, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”); USPTO, *October 2019 Update: Subject Matter Eligibility*, available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (“Oct. Update”). Under that guidance, we look to the following steps to determine whether the claim recites the following items:

USPTO Step	Does the claim recite ___?	MPEP §
1	A process, machine, manufacture, or composition of matter	2106.03
2A, Prong 1	A judicial exception, such as a law of nature or any of the following groupings of abstract ideas: 1) Mathematical concepts, such as mathematical formulas; 2) Certain methods of organizing human activity, such as a fundamental economic practice; or 3) Mental processes, such as an observation or evaluation performed in the human mind.	2106.04
2A, Prong 2	Any additional limitations that integrate the judicial exception into a practical application	2106.05(a)–(c), (e)–(h)
2B	Any additional limitations beyond the judicial exception that, alone or in combination, were not “well-understood, routine, conventional”	2106.05(d)

See Guidance 52, 55, 56.

USPTO Step 1

There is no dispute that claim 1 recites “[a] product valuation method comprising [certain] steps” and therefore recites a process.

USPTO Step 2A, Prong 1

With the possible exception of a generic “database” and “memory,”⁴ the entirety of claim 1 can be performed in the human mind or with pen and paper. For example, the human mind, either alone or with written records, is fully capable of providing historical sales data, reading parts (specifically, “fields”) from that data, selecting some of those parts, giving those selected parts an identifier, querying the data against the identifier, applying valuation methods based on that data, and recording the results. Specifying the particular kind of data (e.g., “buyer identity”; “quantity bought”; “sale price”; and “model number”) in this context does not impact that the process can be done mentally or with pen and paper. *See, e.g., Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (“But merely selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes, whose implicit exclusion from § 101 undergirds the information-based category of abstract ideas.”).

Appellant argues that claim 1 does not recite an abstract idea because it instead recites “an ordered combination of operations.” Appeal Br. 11. However, that is not the proper inquiry because an ordered combination of abstract ideas is still an abstract idea. *See RecogniCorp, LLC v. Nintendo*

⁴ We note that neither claim 1 nor the Specification expressly limit the “database” or “memory” to computer implementations rather than a mental database and human memory.

Co., 855 F.3d 1322, 1327 (Fed. Cir. 2017) (“Adding one abstract idea (math) to another abstract idea (encoding and decoding) does not render the claim non-abstract.”). Here, the recited ordered combination can be performed mentally. Thus, “with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.” *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016).

Therefore, claim 1 recites an abstract idea.

USPTO Step 2A, Prong 2

To the extent that the claimed “database” and “memory” must be computer components rather than performed mentally, they would be additional limitations beyond the recited judicial exception. However, we agree with the Examiner that a “database and memory are all generic computer elements” and “reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent eligible.” Ans. 59. At best, the claimed “database” and “memory” merely automate a process that can otherwise be done mentally or on paper, and “mere automation of manual processes using generic computers does not constitute a patentable improvement in computer technology.” *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055 (Fed. Cir. 2017); *see also BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1288 (Fed. Cir. 2018) (“These benefits, however, are not improvements to database functionality. Instead, they are benefits that flow from performing an abstract idea in conjunction with a well-known database structure.”). We are not persuaded, for example, that the “database” or “memory” improve any technology or tie the claim to any particular machine.

Appellant also argues that “the claims do not preempt the entire field of computerized product valuation.” Appeal Br. 13. We agree with the Examiner, however, that preemption is not the test. Ans. 60–61. “While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015). “Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Id.*

Therefore, claim 1 does not integrate the abstract idea into a practical application.

USPTO Step 2B

The Federal Circuit has held that a “database” was well-understood, routine, and conventional and fails to provide significantly more than an abstract idea. “This type of activity, i.e., organizing and accessing records through the creation of an index-searchable database, includes longstanding conduct that existed well before the advent of computers and the Internet” and the Federal Circuit has “previously held other patent claims ineligible for reciting similar abstract concepts that merely collect, classify, or otherwise filter data.” *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017).

Similarly, the Federal Circuit has held that a generic computer “memory” was well-understood, routine, conventional, and “fail[s] to provide an inventive concept.” *E.g., Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1374 (Fed. Cir. 2017).

Accordingly, we sustain the Examiner’s rejection under § 101 of claim 1, and claims 4–21, which Appellant does not argue separately. *See* Appeal Br. 8–15; 37 C.F.R. § 41.37(c)(1)(iv).

§ 103
(Claims 1 and 4–21)

Claim 1 recites (1) “selecting a combination of more than one inventory table data fields corresponding to an inventory item to be valued and determinative of a monetary value of the inventory item” and (2) “equating the selected combination of more than one inventory table data fields to a variable item identifier.”

The Examiner finds that Heard teaches or suggests the “selecting” step because Heard teaches a database with details regarding sales of equipment and services and querying that database for similar sales (e.g., similar equipment in a similar time period). Ans. 63 (discussing Heard ¶ 58 et seq.). According to the Examiner, “the combination of fields corresponding to the completed equipment sales transactions has been equated to [the] combination of inventory table data fields corresponding to an inventory item.” *Id.*

For the “equating” step, the Examiner finds that Heard teaches or suggests multiple items of equipment might have “equivalency” to other equipment, which can be reflected by giving two or more items of equipment the same “code.” Ans. 64–65. According to the Examiner, “equating pairs of equipment-type identification codes in the database to an item identifier is essentially equating the combination of more than one data fields to a variable item identifier.” *Id.* at 65.

As recited in claim 1, the “equating” step must be performed on “the selected combination,” which must be the same combination from the “selecting” step. Here, we agree with Appellant that although “Heard suggests equating one item identifier to another item identifier,” the Examiner has not sufficiently explained how Heard teaches or suggests equating a combination of *fields* to a variable item identifier. *See* Appeal Br. 19. For example, the Specification explains that the “variable ItemID” can be defined as the combination of three different fields of data: (1) “Model”; (2) “Rev. No.”; and (3) “Firmware.” Spec. ¶¶ 24–25, Eq. 2. Absent further explanation, it is not clear that the Examiner has identified any similar variable for the fields in Heard.

To the extent the Examiner is relying on two *codes* or units of equipment being equivalent, that would be, in a simple spreadsheet analogy, akin to asserting that 2+ *rows* of data can share an identifier whereas claim 1 requires looking at 2+ *columns* of data. To the extent the Examiner is saying that *all* fields in Heard are the “selected combination” of fields and are “equated” somehow with equipment equivalency, it is not clear how much of the data in Heard’s database relates to equivalency (e.g., “prices” and “delivery dates”), nor is it clear exactly what in Heard the Examiner is calling the “variable item identifier.” *See, e.g.*, Heard ¶ 42.

The Examiner does not rely on any of the additional references (Hazard, Burr, Nagle, Abhyanker, and Ryan) to cure the deficiency above.

Accordingly, we do not sustain the Examiner’s rejection of claim 1 or dependent claims 4–21.

§ 112(b)
(Claim 11)

The Examiner rejects claim 11 under § 112(b) as indefinite for lack of antecedent basis for the term “the same matrix variable value.” Final Act. 14. In an amendment dated November 16, 2016, Appellant amended other instances of “the matrix variable” to instead read “the variable item identifier,” but appears to have omitted a similar change for “the same matrix variable value” at the end of claim 11. The Examiner points out that “Appellant did not appeal the previously issued rejection of claims under 35 U.S.C. 112(b).” Ans. 67. Accordingly, we sustain the Examiner’s rejection of claim 11 under § 112(b).

DECISION

The following table summarizes the outcome of each rejection:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1, 4–21	101	Eligibility	1, 4–21	
1, 4, 5, 8, 10–12, 15, 18, 21	103	Heard, Clay, Hua		1, 4, 5, 8, 10–12, 15, 18, 21
6, 9	103	Heard, Clay, Hua, Hazard		6, 9
7	103	Heard, Clay, Hua, Burr		7
13, 14, 20	103	Heard, Clay, Hua, Nagle		13, 14, 20
16, 17	103	Heard, Clay, Hua, Abhyanker		16, 17
19	103	Heard, Clay, Hua, Ryan		19
11	112(b)	Definiteness	11	
OVERALL			1, 4–21	

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TIME TO RESPOND

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. § 1.36(a)(1)(iv).

AFFIRMED