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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK ROBERT LIPSKY,
ALEXANDRE SENA KERESZTES, DAZHI LI,
BIAO SHOU, HERMAN HARJONO, JAGDEESH SHUKLA,
BRANDON JON BALDOCK, TING-SHENG FU,
TIN-HANG ANDREW MA, and NISHANT UPADHYAYA

Appeal 2017-004566
Application 14/109,370
Technology Center 3600

Before JOSEPH L. DIXON, ROBERT E. NAPPI, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from a rejection of claims 1–45. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a universal charge routing system for medical billing. Claim 21, reproduced below, is illustrative of the claimed subject matter:

21. A medical billing computer system, comprising;

a billing computer processor executing instructions stored in a non-transient memory, the instructions including steps for implementing a billing input receiving charges including charge data from a billing terminal computer system for at least one of a hospital service area, a medical laboratory, and a professional office of a physician, each charge being an electronic record including a bill for medical services, the bill including an amount to be billed based on a code describing a medical procedure, the bill being formatted by an originating charge source, the bill for medical services including charge data;

at least one input translator generating one or more universal charges having a common format based on the received charge data, the universal charge including the medical procedure code, wherein generating one or more universal charges includes implementing a translation routine for each received charge based on a billing format used by the originating charge source;

a destination rule engine analyzing the charge data of the universal charges to assign a destination to the universal charges based on the charge data, the destination identifying a billing program; and

¹ Appellants indicate that Epic Systems Corporation is the real party in interest. (App. Br. 3).

at least one output translator receiving the generated universal charges including assigned destinations from the destination rule engine and converting the universal charges to a billing program format identified in the destination.

REFERENCE

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Lipsky et al. US 8,615,403 B2 Dec. 24, 2013

REJECTIONS

The Examiner made the following rejections:

Claim 21–45 stand rejected on the ground of non-statutory double patenting as being unpatentable over the claims of U.S. Patent No. 8,615,403.

Claims 21–45 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

ANALYSIS

Obviousness-type Double Patenting

The Examiner rejected claims 21–45 on the ground of nonstatutory double patenting as being unpatentable over the claims of U.S. Patent No. 8,615,403. (Final Act. 2–4).

Appellants do not address the obviousness-type double patenting rejection in the Appeal Brief. (App. Br. 9). We note that the Examiner initially applied the obviousness double patenting rejection in the Final Action, mailed November 5, 2015, but Appellants did not petition or dispute

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the new ground of rejection. Consequently, Appellants have waived any arguments to the new ground of rejection in the Final Action.

37 C.F.R. § 41.37(c)(1)(iv). Appellants have shown no error in the obviousness-type double patenting rejection. Therefore, we *pro forma* sustain the obviousness-type double patenting rejection because Appellants have not disputed the rejection of claims 21–45 based upon obviousness-type double patenting.

Patent Eligibility under 35 U.S.C. § 101

The Examiner rejects the claims under 35 U.S.C. § 101 because they are directed to patent ineligible subject matter. (*See* Final Act. 4–5, 6; Ans. 2–7). Specifically, the Examiner concludes “Claim 21 is directed to the abstract idea of using categories to organize, store and transmit information.” (Final Act. 4). The Examiner further finds:

The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception because the computer as recited is a generic computer component that performs functions (i.e., “receiving charges, generating one or more universal charges, analyzing the charge data, and receiving the generated universal charges[”]) that are well-understood, routine, and conventional activities previously known to the industry.

(Final Act. 5). Additionally, the Examiner finds:

Courts have not identified a situation in which evidence was required to support a finding that the additional elements were well-understood, routine, or conventional, but rather treat the issue as a matter appropriate for judicial notice. In addition, courts have held computer-implemented processes not to be significantly more than an abstract idea where the claim as a whole amounts to nothing more than generic functions merely

used to implement an abstract idea, such as an idea that could be done by a human analog.

(Final Act. 6). In the Examiner's Answer, the Examiner refines the rejection by concluding the abstract idea as "Claims 21–45 are directed to the abstract idea of generating charges and using rules to assign a destination to the charge data." (Ans. 2). The Examiner further finds:

Claim 21 recites, a system for performing the steps of receiving charges, generating universal charges, analyzing the charge data, assign a destination to the charge data, and converting the charges to a billing program. The processes in these steps can be performed mentally. They describe the concept of comparing charge data and using rules to convert charge data and assign a destination to charge data, which corresponds to concepts identified as abstract ideas by the courts, such as comparing new and stored information and using rules to identify options as seen in SmartGene. These steps describe the concepts of comparing data that can be performed mentally abstract. The processes in these steps can be performed mentally. . . . The Concept described in claim 1 is not meaningfully different that those concepts found by the courts to be abstract idea. As such, the description in claim 1 of generating charges and using rules to assign a destination to the charge data is an abstract idea.

The claim does not include additional elements that are sufficient to amount significantly more than the judicial exception because the additional elements when considered both individually and as an ordered combination do not amount to significantly more than the abstract idea. The additional elements recited in the claim beyond the abstract idea of one or more computer processor, billing terminal computer, input translator, destination rule engine, and an output translator do not provide an inventive concept. The additional elements are recited at a high level of generality and are recited as performing generic computer functions routinely used in computer applications. For example, applicant specification recites in paragraph 43 recites "billing computers 26 and/or billing programs 28 may be added and the physical network may be

modified to provide the necessary communication using single or multiple links as will be understood to those of ordinary skill in the art. Terminals 12 and submitting programs 14 may be added or removed. Multiple programs, including the charge router program 27, may run on a single computer, and other similar changes in how the programs are distributed among hardware may be made without fundamentally affecting the operation of the invention”. In addition, applicant specification recites in paragraph 96 “features of the charge router described above may be implemented on general purpose computers as programs stored in a memory and operating on data received stored in memory as communicated through standard computer input and output circuits. The actual division of the programs among hardware or functions among programs may be freely varied”. Generic computer components recited as performing generic computer functions that are well-understood, routine, and conventional activities amount to no more than implementing the abstract idea with a computerized system. Thus, taken alone, the additional elements do not amount to significantly more than the above-identified judicial exception (generating charges and using rules to assign a destination to the charge data). Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology. Their collective functions merely provide conventional computer implementation. The claim does not amount to significantly more than the underlying abstract idea of comparing new and stored information and using rules to identify options as seen in SmartGene. Accordingly, Claim 21 is ineligible and is rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter

(Ans. 3–4). In response to Appellants’ argument that it is neither well-understood, routine, conventional activity to route charge information to a billing computer for converting a bill to a universal charge including the medical procedure code, assigning a destination to the universal charge, and

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thereafter converting the universal charges to a billing program format identified in the destination, the Examiner finds:

The claims are directed to the use of conventional or generic technology in a nascent but well-known environment. The specification does not describe a new computer processor, a new billing terminal computer, a new input translator, a new destination rule engine, a new an output translator, or a new physical combination of the above. The specification fails to provide any technical details for the tangible components, but instead predominately describes the system and methods in purely functional terms.

(Ans. 6).

In particular, Appellants argue that in the USPTO 2014 Interim Guidance on Patent Matter Subject Matter Eligibility:

the Patent Office states that limitations that qualify as “significantly more” when recited in a claim with judicial exception include adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application. (Guidelines, citing *Mayo*, 132 S. Ct at 1299, 1302 (claim ineligible because the recited “instructions add nothing specific to the laws of nature other than what is well understood, routine, conventional activity, previously engaged in by those in the field,” which was “[u]nlike, say, a typical patent on a new drug or a new way of using an existing drug”)).

(App. Br. 13–14). Appellants further argue that:

It is *not well understood, routine and conventional* to translate received charges including medical procedure codes to a universal charge having a common format based on the received charge data. As stated in the background of the application, typically, billing programs collect the charges, allow editing and review of charges, and ultimately produce a printed bill or its equivalent to be mailed or sent to a payor. It is *neither well-understood, routine, [or] conventional activity* to route charge

information to a billing computer for converting a bill to a universal charge including the medical procedure code, assigning a destination to the universal charge, and thereafter converting the universal charges to a billing program format identified in the destination. Typically, such charges are sent directly to the billing programs.

(App. Br. 14)(emphasis added). In the Reply Brief, Appellants contend:

the claimed subject matter is directed to solving a technological program [sic, problem] with no direct corresponding offline equivalent, specifically that claim 21 describes a billing system that receives charges (messages including charge data) from billing terminals creating charges based on medical billing codes representing medical procedures, the Examiner argued that the claims merely describe modification of the operation of a billing program that will result in the modification of bills that will be generated by these billing programs. However, this argument is unrelated to the actual limitations in the claims. The Examiner's arguments, as already stated above, contain no actual citations of claim language to a significant degree and not only attempt to genericize [sic, genericize] the claims, but do so in a way that is a mischaracterization of the present invention and claimed subject matter.

(Reply Br. 4–5).

We agree with Appellants that the Examiner has overgeneralized the specific language of independent claim 21, and the Examiner has not addressed the merits of the specific claim language with regards to the finding of the abstract idea. Furthermore, the Examiner has not addressed the analysis of “significantly more” with respect to evidence of what is well-understood, routine, and conventional *activity*, but rather “the use of conventional or generic technology in a nascent but well-known environment” regarding the hardware. (*See* Ans. 6). The Examiner further finds “Generic computer components recited as performing generic

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computer functions that are well-understood, routine, and conventional activities amount to no more than implementing the abstract idea with a computerized system.” (Ans. 4).

Additionally, Appellants set forth separate arguments for patentability of dependent claim 44 with respect to the patent eligibility rejection. (App. Br. 15). Specifically, Appellants argue “the charge source will need to generate new charges and the one destination billing program will need to generate revised billings based on the charge tracking data. Such promulgation of charge correction messages modifying the operation of external systems is also not well-understood, routine, conventional activity.” (App. Br. 15).

The Examiner does not specifically address the merits of dependent claim 44 in the grounds of the rejection, but, the Examiner finds:

The additional elements of having different or new outputs do not amount to significantly more than the above-identified judicial exception (generating charges and using rules to assign a destination to the charge data). The additional elements do not add improvements to another technology or technical field, or do they add improvements to the functioning of the computer itself. The generated charge messages are extra solution activity to the abstract idea. Looking at the limitations as an ordered combination adds nothing that is not already present when looking at the elements taken individually. There is no indication that the combination of elements improves the functioning of a computer or improves any other technology.

(Ans. 6–7). We find the Examiner’s response does not address Appellants’ argument that the “promulgation of charge correction messages modifying the operation of external systems *is also not well-understood, routine, conventional activity.*” (See Final Act. 4–6; Ans. 6–7).

We have reviewed the Examiner's rejection in light of Appellants' contentions and the evidence of record. We concur with Appellants' contention that the Examiner erred in this case.

Section 101 of the Patent Act provides “[w]hoever 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. That provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). According to the Supreme Court:

[W]e set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, we then ask, “[w]hat else is there in the claims before us?” . . . To answer that question, we 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. . . . We have 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.”

Alice Corp., 134 S. Ct. at 2355.

The Federal Circuit has described the *Alice* step-one inquiry as looking at the “focus” of the claims, their “character as a whole,” and the *Alice* step-two inquiry as looking more precisely at what the claim

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elements add—whether they identify an “inventive concept” in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

According to the Federal Circuit, “[t]he second step of the *Alice* test is satisfied when the claim limitations ‘involve more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry.’” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1367 (Fed. Cir. 2018) (quoting *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat’l Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) and *Alice*, 134 S. Ct. at 2359).

In this case, Appellants argue with respect to the *Alice* step-two analysis, the Examiner has not provided any evidence to support the Examiner’s assertion that the claimed limitations perform well-understood, routine, and conventional functions or steps. (*See* App. Br. 12–15; Reply Br. 2–5).

The Examiner responds that “Courts have not identified a situation in which evidence was required to support a finding that the additional elements were well-understood, routine, or conventional, but rather treat the issue as a matter appropriate for judicial notice.” (Final Act. 6). However, as the *Berkheimer* court held, “[w]hether something is well-understood, routine, and conventional to a skilled artisan at the time of the patent is a factual determination.” *Berkheimer*, 881 F.3d at 1369. Therefore, we are constrained by the record to reverse the Examiner’s rejection of claims 21–45 on a procedural ground.

Moreover, we note the new examination procedure published online by the USPTO on April 19, 2018, entitled “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” (hereinafter “USPTO Memorandum”) set forth a new fact finding requirement for Examiners, as applicable to rejections under § 101. Specifically, Examiners must now provide specific types of evidence to support a finding that *claim elements* (or *combinations of elements*) are well-understood, routine, and conventional.

We reproduce below the substantive changes to prior examination practice, as set forth in the April 19, 2018 USPTO Memorandum (3–4):

A. *Formulating Rejections:* In a step 2B analysis, an additional element (or combination of elements) is not well-understood, routine or conventional unless the examiner finds, and expressly supports a rejection in writing with, one or more of the following:

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s). A specification demonstrates the well-understood, routine, conventional nature of additional elements when it describes the additional elements as well-understood or routine or conventional (or an equivalent term), as a commercially available product, or in a manner that indicates that the additional elements are sufficiently well-known that the specification does not need to describe the particulars of such additional elements to satisfy 35 U.S.C. § 112(a). A finding that an element is well-understood, routine, or conventional cannot be based only on the fact that the specification is silent with respect to describing such element.

2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).

3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s). An appropriate publication could include a book, manual, review article, or other source that describes the state of the art and discusses what is well-known and in common use in the relevant industry. It does not include all items that might otherwise qualify as a “printed publication” as used in 35 U.S.C. § 102.[] Whether something is disclosed in a document that is considered a “printed publication” under 35 U.S.C. § 102 is a distinct inquiry from whether something is well-known, routine, conventional activity. A document may be a printed publication but still fail to establish that something it describes is well-understood, routine, conventional activity. *See Exergen Corp.*, 2018 WL 1193529, at *4 (the single copy of a thesis written in German and located in a German university library considered to be a “printed publication” in *Hall* “would not suffice to establish that something is ‘well-understood, routine, and conventional activity previously engaged in by scientists who work in the field’”). The nature of the publication and the description of the additional elements in the publication would need to demonstrate that the additional elements are widely prevalent or in common use in the relevant field, comparable to the types of activity or elements that are so well-known that they do not need to be described in detail in a patent application to satisfy 35 U.S.C. § 112(a). For example, while U.S. patents and published applications are publications, merely finding the additional element in a single patent or published application would not be sufficient to demonstrate that the additional element is well-understood, routine, conventional, unless the patent or published application demonstrates that the additional element are widely prevalent or in common use in the relevant field.

4. A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s). This option should be used **only** when the examiner is certain, based upon his or her personal knowledge, that the additional element(s) represents well-understood, routine, conventional activity engaged in by those in the relevant art, in that the additional elements are widely prevalent or in common use in the relevant field, comparable to the types of activity or elements that are so well-known that they do not need to be described in detail in a patent application to satisfy 35 U.S.C. § 112(a). Procedures for taking official notice and addressing an applicant's challenge to official notice are discussed in MPEP § 2144.03.

See Berkheimer, 881 F.3d at 1369 (“Whether a particular technology is well-understood, routine, and conventional goes beyond what was simply known in the prior art. The mere fact that something is disclosed in a piece of prior art, for example, does not mean it was well-understood, routine, and conventional.”); *see also Exergen Corp. v. Kaz USA, Inc.*, No. 2016-2315, 2016-2341, 2018 WL 1193529, at *10–11 (Fed. Cir. Mar. 8, 2018) (non-precedential) (“*Something is not well-understood, routine, and conventional merely because it is disclosed in a prior art reference. There are many obscure references that nonetheless qualify as prior art. For example, we have held that a single copy of a thesis written in German and located in a German university library was a printed publication because that thesis was available to the public. . . . This type of evidence, for example, would not suffice to establish that something is ‘well-understood, routine, and conventional activity previously engaged in by scientists who work in the field.’*”). (Emphasis added).

We agree that a generic computer is *well-understood, routine, and conventional*, and that merely implementing an abstract idea on a generic computer, without more, does not provide an inventive concept under *Alice*, step 2.

However, here, the Examiner's legal conclusion that the claimed steps or functions are directed to an abstract idea (under *Alice* step 1) is predicated, at least in part, on an unsupported finding that Appellants' *claims* are directed to *routine* (i.e., conventional) computer functions.

Thus, after reviewing the § 101 arguments articulated by Appellants in the Briefs, we find Appellants' arguments persuasive: (1) based upon *Berkheimer* (881 F.3d at 1369), and (2), based upon the USPTO Memorandum, which changed the examination procedures to be fully compliant with *Berkheimer*.

Therefore, pursuant to *Berkheimer*, and the USPTO Memorandum (3–4), , we reverse the Examiner's rejection of claims 21–45 under 35 U.S.C. § 101, as being directed to patent-ineligible subject matter.

CONCLUSIONS

The Examiner did not err in rejecting claims 21–45 based upon obviousness-type double patenting. The Examiner erred in rejecting claims 21–45 based upon a lack of patent eligible subject matter under 35 U.S.C. § 101.

DECISION

For the above reasons, we sustain the Examiner's obviousness-type double patenting rejection of claims 21–45; and we reverse the Examiner's patent eligibility rejection under 35 U.S.C. § 101 of claims 21–45.

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Because we affirm at least one ground of rejection on every claim, this decision is an affirmance of all claims. *See* 37 CFR 41.50(a)(1) (“The affirmance of the rejection of a claim on any of the grounds specified constitutes a general affirmance of the decision of the examiner on that claim, except as to any ground specifically reversed.”)

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED