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BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DANIEL J. KORHNAK, RUSS GADAGNO,
ERIC KEPES, CHAYLA WHALEY, and
DOUGLAS J. MOON¹

Appeal 2017-003372
Application 12/980,751
Technology Center 3600

Before BRADLEY W. BAUMEISTER, JEREMY J. CURCURI, and
AMBER L. HAGY, *Administrative Patent Judges*.

BAUMEISTER, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1, 2, 4–6, 8–13, 15–20, and 22. App. Br. 4–17. These claims stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2–9. We have jurisdiction under 35 U.S.C. § 6(b).² We reverse.

¹ Appellants identify Omnicell Incorporated as the real party in interest. Appeal Brief 2 (filed August 1, 2016) (“App. Br.”).

² Rather than repeat the Examiner’s positions and Appellants’ arguments in their entirety, we refer to the above-mentioned Appeal Brief, as well as the following documents for their respective details: the Final Action mailed March 1, 2016 (“Final Act.”); the Examiner’s Answer mailed October 24, 2016 (“Ans.”); and the Reply Brief filed December 22, 2016 (“Reply Br.”).

SUMMARY OF THE DECISION

The claims are directed to an abstract idea that entails using a computer to determine which of various available operating modes should be selected for processing medication requests. At issue is whether the claims recite significantly more than this abstract idea. Resolution of this issue primarily depends upon claim interpretation.

Appellants argue that the claims reasonably are limited to require that the inventive automated-mode determination be followed by a mechanical filling device automatically filling the medication request, thus, rendering the claims patent-eligible, similar to the claims of *Diamond v. Diehr*, 450 U.S. 175 (1981). The Examiner, on the other hand, determines that the claims reasonably may be interpreted more broadly so as to additionally read on either (1) the medication requests subsequently being filled manually by a human instead of being filled automatically by a mechanical medication filling device, or (2) not requiring the medication-filling step be performed at all. Under either of these claim constructions, the claims arguably would be patent-ineligible, similar to the claims of *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 Fed. Appx. 950 (Fed. Cir. 2014). We disagree with the Examiner and conclude that, under their broadest reasonable construction, the claims do require that a mechanical device automatically fill the medication requests, thereby adding significantly more to the abstract idea.

The Examiner alternatively reasons that, even if the claims do require the claimed abstract idea be followed by a mechanical machine performing an automated medication filling step, such an additional step merely would constitute “a later extra-solution step” that does not affect patent-eligibility.

We disagree because Appellants' invention improves the technological field of automated medication-filling devices.

THE INVENTION

Appellants describe the present invention as follows:

Systems, methods, apparatus, and computer program products are provided for processing medication requests. In one embodiment, a user may define an operational mode that can be initiated by one or more triggers. A user may also define one or more workflows for processing medication requests. The one or more workflows can be associated with the operational mode. In response to the occurrence of the appropriate triggers, the operational mode can automatically, semi-automatically, and/or manually be initiated. When the operational mode is initiated, the associated workflows are used for processing medication requests.

Abstract.

Independent claim 1, reproduced below with added emphasis, illustrates the claimed invention:

1. A method for processing medication requests, the method comprising:

electronically associating, via one or more processors, a first operational mode with a first workflow of a plurality of workflows for automatically processing medication requests, (a) the first operational mode automatically initiated by the detection of one or more triggers, (b) each of the plurality of workflows identifying (i) one or more *automated* medication filling devices to be used for filling medication requests in accordance with the corresponding workflow and (ii) one or more types of medication requests to be filled in accordance with the corresponding workflow, and (c) the one or more triggers selected from the group consisting of a day of the week, a time of day, a number of medication requests received over a time

period, and a frequency of medication requests received over a time period;

electronically storing, via one or more processors, the first operational mode in association with the first workflow;

automatically determining, via the one or more processors, whether one of the one or more triggers of the first operational mode has occurred;

responsive to determining that one of the one or more triggers of the first operational mode has occurred, automatically initiating, via the one or more processors, the first operational mode and the first workflow for processing medication requests;

identifying, via the one or more processors, (a) the one or more automated medication filling devices to be used for automatically filling medication requests in accordance with the first workflow of the first operational mode and (b) the one or more types of medication requests to be filled in accordance with the first workflow of the first operational mode;

electronically receiving, via the one or more processors, data for a plurality of medication requests;

automatically processing, via the one or more processors, each of the plurality of medication requests using the one or more automated medication filling devices to be used for filling medication requests in accordance with the first workflow of the first operational mode; and

automatically filling the medication requests of the plurality of medication requests that are of the one or more types of medication requests to be filled in accordance with the first workflow of the first operational mode *using the one or more automated medication filling devices*, wherein the filling of the medication requests of the plurality of medication requests is in accordance with the first workflow of the first operational mode.

PRINCIPLES OF LAW

We review the appealed rejections for error based upon the issues identified by Appellants, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

Regarding the question of patent-eligibility under 35 U.S.C. § 101, a patent may be obtained for “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” The Supreme Court has “long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). Accordingly, in applying the § 101 exception, the Supreme Court cautioned:

[W]e must distinguish between patents that claim the “buildin[g] block[s]” of human ingenuity and those that integrate the building blocks into something more, thereby “transform[ing]” them into a patent-eligible invention. The former “would risk disproportionately tying up the use of the underlying” ideas, and are therefore ineligible for patent protection. The latter pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws.

Alice, 134 S. Ct. at 2354–55.

In *Alice*, the Supreme Court set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 71–73 (2012)). In the first step of the

analysis, we determine whether the claim at issue is “directed to” a judicial exception, such as an abstract idea. *Id.* at 2355. If not, the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claim is determined to be directed to an abstract idea, then we consider under step two whether the claim contains an “inventive concept” sufficient to “transform the nature of the claim into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quotations and citation omitted).

In considering whether a claim is directed to an abstract idea under step one, we acknowledge, as did the Supreme Court, 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. We therefore look to whether the claim focuses on a specific means or method that improves the relevant technology or is instead directed to a result or effect that, itself, is the abstract idea and merely invokes generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

In the second step of the *Alice* analysis, if applicable, we must consider whether the claim contains an element or a combination of elements that is sufficient to transform the nature of the claim into a patent-eligible application. *Ultramercial, Inc. v. Hulu LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014); *Alice*, 134 S. Ct. at 2355.

In applying step two of the *Alice* analysis, we must “determine whether the claim[] do[es] significantly more than simply describe [the] abstract method” and thus transform the abstract idea into patentable subject matter. We look to see whether there are any “additional features” in the claim[] that constitute an “inventive concept,” thereby rendering the claim[] eligible for patenting even if [it is] directed to an abstract idea.

Those “additional features” must be more than “well-understood, routine, conventional activity.”

Intellectual Ventures I LLC v. Erie Indem. Co., 850 F.3d 1315, 1328 (Fed. Cir. 2017) (citations omitted). A claim that “merely require[s] generic computer implementation[] fail[s] to transform [an] abstract idea into a patent-eligible invention.” *Alice*, 134 S. Ct. at 2357.

Central to our analysis herein is the fundamental principal that the *Alice* framework must be applied to the claims, as properly construed. As our reviewing court has stated, “The § 101 inquiry must focus on the language of the Asserted Claims themselves.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016); *see also* *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (admonishing that “the important inquiry for a § 101 analysis is to look to the claim”); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1346 (Fed. Cir. 2014) (focusing on “whether the *claims* of the asserted patents fall within the excluded category of abstract ideas”) (emphasis added)). These principles are based on long-established jurisprudence that “[i]t is the claims [that] define the metes and bounds of the invention entitled to the protection of the patent system.” *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994) (citing *Zenith Lab. Inc. v. Bristol–Myers Squibb Co.*, 19 F.3d 1418, 1424 (Fed. Cir. 1994)); *see also* *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998) (“[T]he name of the game is the claim.”).

Our analysis is further guided by case law that, depending on the proper construction of the claims, is factually analogous: *Diamond v. Diehr*, 450 U.S. 175 (1981), *cited by Appellants in* App. Br. 10; and *SmartGene*,

Inc. v. Advanced Biological Laboratories, SA, 555 F. App'x. 950 (Fed. Cir. 2014), *cited by the Examiner in Ans. 2*.

In *Diehr*, the claimed invention was directed to “a process for molding raw, uncured synthetic rubber into cured precision products.” 450 U.S. at 177. More specifically, the claimed process involved a more efficient curing method that entailed constantly measuring the actual temperature inside the mold, automatically feeding the measured temperatures into a computer, repeatedly recalculating the cure time by using the Arrhenius equation (a mathematical equation long used for calculating the cure time in rubber-molding presses), and based on the calculations, automatically opening the press. *Id.* at 178–79.

The examiner in *Diehr* rejected the claims as being directed to patent-ineligible subject matter because, in the Examiner’s view, the claim steps that were carried out by a computer under control of a stored program essentially merely entailed performing mathematical calculations, and, as such, constituted nonstatutory subject matter. *Id.* at 180. The examiner further concluded that the remaining steps of installing rubber in the press and the subsequent closing of the press as “conventional and necessary to the process and cannot be the basis of patentability.” *Id.* at 181.

The majority of the *Diehr* Court disagreed with the examiner, finding the claims to be patent-eligible, notwithstanding “the fact that in several steps of the process a mathematical equation and a programmed digital computer are used.” *Id.* at 185.

The USPTO interprets the *Diehr* Court’s reasoning as follows:

[W]hen viewing [*Diehr*’s] claim as a whole, the combination of all [the] steps taken together, including the constant determination of the temperature of the mold, the repetitive

calculations and comparisons, and the opening of the press based on the calculations, amount to significantly more than simply calculating the mold time using the Arrhenius equation because they add meaningful limits on use of the equation. The claim does not merely recite the equation in isolation, but integrates these ideas into the molding process. The additional steps specifically relate to the particular variables used, how the variables are gathered, the process by which the rubber is molded and cured, and how the result of the cure time calculation is used. The totality of the steps act in concert to improve another technical field, specifically the field of precision rubber molding, by controlling the operation of the mold. In addition, the claimed steps taken as a combination effect a transformation of the raw, uncured synthetic rubber into a different state or thing, i.e., a cured and molded rubber product. Thus, the claim amounts to significantly more than the mathematical relationship (i.e., the abstract idea of the Arrhenius equation).

USPTO, *2014 Interim Guidance on Subject Matter Eligibility, July 2015*

Update App'x 1, 17–18, available at

<https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf>)

(explaining the *Diehr* Court's reasoning in terms of the *Alice* framework).

In *SmartGene, Inc. v. Advanced Biological Laboratories, SA*, 555 F. App'x. 950 (Fed. Cir. 2014), the claims were directed to “[a] method for guiding the selection of a therapeutic treatment regimen for a patient with a known disease or medical condition.” *Id.* at 951. The representative method claim entailed the following steps:

- (a) providing information patient information to a computing device . . . ;
- (b) generating in said computing device a ranked listing of available therapeutic treatment regimens for said patient; and
- (c) generating in said computing device advisory information for one or more therapeutic treatment regimens in said ranked listing based on said patient information and said expert rules.

Id. at 952 (reciting claim 1).

Our reviewing court noted in *SmartGene* that “when a claim involves an abstract idea . . . , eligibility under section 101 requires that the claim involve ‘enough’ else—applying the idea in the realm of tangible physical objects (for product claims) or physical actions (for process claims)—that is beyond ‘well-understood, routine, conventional activity.’” *Id.* at 955 (citing *Mayo*, 132 S. Ct. 1289 at 1294, 1298, 1299). The court determined that “[t]he claim [at issue] does not do so. It calls on a computer to do nothing that is even arguably an advance in physical implementations of routine mental information-comparison and rule-application processes.” *Id.* at 955.

CONTENTIONS AND DETERMINATIONS

Appellants argue that the present claims are distinguishable from the claims of *SmartGene*: “[t]he claims in *SmartGene* are directed to ‘the selection of a therapeutic treatment regimen for a patient with a known disease or medical condition.’ [The present claims], however, are directed to using automated medication filling devices controlled by operational modes and workflows to fill medication requests.” Reply Br. 2. Appellants further summarize the claimed invention (App. Br. 12–14), including reciting the following description of claim 1’s last two limitations:

Claims 1-2, 4-6, 8-13, 15-20, and 22 recite some form of electronically receiving data for a plurality of medication requests and automatically processing each of the plurality of medication requests using the one or more automated medication filling devices to be used for filling medication requests in accordance with the first workflow of the first operational mode.

And finally, Claims 1-2, 4-6, 8-13, 15-20, and 22 recite some form of automatically filling the medication requests of the plurality of medication requests that are of the one or more types

of medication requests to be filled in accordance with the first workflow of the first operational mode using the one or more automated medication filling devices, wherein the filling of the medication requests of the plurality of medication requests is in accordance with the first workflow of the first operational mode.

App. Br. 14.

Appellants argue that the present claims are directed to patent-eligible subject matter because the claims

(1) include improvements to another technology or technical field; (5) add a specific limitation other than what is well-understood, routine and conventional in the field, or add unconventional steps that confine the claim to a particular useful application; and (6) include meaningful limitations beyond generally linking the user of an abstract idea to a particular technological environment.

App. Br. 10–11 (citing the first, fifth, and sixth factors pertaining to patent-eligibility outlined in the Offices May 2016 Subject Matter Eligibility Update (issued May 4, 2016)).

Appellants essentially argue the present claims are analogous to the claims of *Diehr* instead of the claims of *SmartGene*: “The specifically claimed embodiment [of the present invention] is an automated medication filling device—which is a specifically configured machine or apparatus and results in improvements to the corresponding technical field of automated medication filling devices.” App. Br. 12. Appellants continue,

[i]n particular, [the invention] allows automated medication filling devices to be operated in an automated manner using operational modes, triggers, and workflows to fill medication requests. This allows the automated medication filling devices to adapt to various times, volumes, and needs of pharmacies without requiring human intervention. This approach also adds specific limitations 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.

App. Br. 15.

Notwithstanding Appellants' arguments, the Examiner determines that the claims are directed to patent-ineligible subject matter because, according to the Examiner, Appellants' Specification indicates that "the filling device may be a manual operation and so [the claimed method] is not [directed to] an improvement to another technology." Final Act. 4 (citing Spec. ¶¶ 26, 27). The Examiner further finds that "[n]one of these [mechanical] filling devices is claimed" (Final Act. 7), or restated, "[t]he control of the device is not claimed" (Ans. 2). According to the Examiner, "[t]he claims are directed toward a 'method for processing medication requests' and not toward filling those requests." *Id.* at 4.

The Examiner also sets forth an additional reason for why the claims are patent-ineligible: "the filling devices as claimed take the output of the abstract idea and then perform the output in a later extra-solution step." Final Act. 4.

FINDINGS OF FACT

Appellants' Specification discloses that the invention can be used in different embodiments in which the medication-filling step is either manual or automated:

2. Exemplary Medication Filling Devices/Systems

[0025] As shown in FIG. 1, the system may include one or more medication filling devices **110**. A medication filling device **110** may be a device, apparatus, robot, system, computer, and/or the like that can be used in filling medication requests. For example, a medication filling device **110** may be a ROBOT-Rx® automated medication dispensing system, MedCarousel®

system, MedShelf system, IntelliShelf-Rx® system, PROmanager-Rx™ pharmacy automation system, PACMED™ high-speed packager, Satellite Replenishment system, Fulfill-RxSM solution, and/or the like. Thus, as will be recognized, *medication filling devices 110 may [be] operated automatically, semi-automatically, and/or manually* and include various components such as (1) processing elements, (2) memory, (3) network interfaces, (4) transceivers, (5) display devices/input devices, input and/or (6) various other components.

[0026] By way of example, in one embodiment, *a pharmacist or pharmacy technician may use a MedCarousel® system or MedShelf system to manually pick medications to fill medication requests.* For example, the MedShelf system may receive (from the medication server 100) and display medication requests that are assigned to a particular medication filling device 110, pharmacist, and/or pharmacy technician for filling. *Using the MedShelf system, the pharmacist or pharmacy technician can manually fill the medication requests and enter input via the MedShelf system indicating that the medication requests have been filled.*

[0027] *In another embodiment, automated systems may facilitate the filling of medication requests.* For example, ROBOT-Rx® is a stationary robotic system that automates the medication storing, dispensing, returning, restocking, and crediting process by using various technologies. Operatively, ROBOT-Rx® can receive medication requests from the medication server 100. At the appropriate time, ROBOT-Rx® can guide a picking mechanism to select the desired medications and deposit them in, for example, specific boxes or containers to fill a particular medication request. In response to (e.g., after) filling a medication request, ROBOT-Rx® can transmit a message to the medication server 100, for example, indicating that the medication request has been filled.

Spec. ¶¶ 25–27 (emphasis added).

ANALYSIS

The present dispute ultimately is one primarily of claim interpretation. If the claims reasonably are limited to require the automated mode determination to be followed by the operation of a mechanical automated medication filling device, then the claims would be more similar to the claims of *Diehr* than *SmartGene* and, therefore, would be patent-eligible. But if the claims reasonably may be interpreted more broadly so as to additionally read on the medication requests being filled manually by a human instead of automatically by a mechanical medication filling device, then the claims would be more similar to the claims of *SmartGene*, and, therefore, would be patent-ineligible. The claims also would be patent-ineligible if they reasonably may be interpreted as affirmatively reciting only that a computer perform mode-determination rules, but not affirmatively reciting the subsequent filling of the medication requests at all.

We find Appellants' claims reasonably to be limited to embodiments wherein the automated mode determination is followed by a mechanical *automated* medication filling device performing the medication-filling step. To be sure, Appellants' Specification discloses that the invention can be used in different embodiments in which the medication-filling step is *either* manual or automated. *See* Findings of Fact Section, *supra* (citing Spec. ¶¶ 25–27). But the claims are narrower than the full scope of the Application's written disclosure. The scope of claim protection being sought is expressly limited to only those embodiments in which the medication requests are filled automatically “using the one or more *automated* medication filling devices.” Claim 1 (emphasis added). The Examiner does not provide a reasonable basis for determining that the claim

language additionally reads on embodiments in which the requests are filled manually by a human. *See generally* Final Act.; *see also generally* Ans. Rather, the Examiner’s construction ignores express language of the claims.

Furthermore, the Examiner has not sufficiently explained the Examiner’s alternative conclusion that, even if the claims require the recited automated medication filling step, such a step merely constitutes “a later extra-solution step” that does not affect patent-eligibility. Final Act. 4. To be sure, the recited automated medication-filling step, itself in isolation, was conventional. *See* Spec. ¶¶ 25–27 (indicating that automated medication-filling devices were known). But in considering whether a claim is directed to significantly more than an abstract idea, we must consider the claim elements not only in isolation, but also as an ordered combination.

Ulramercial, 772 F.3d at 714.

The Examiner’s position seems to be analogous to saying that *Diehr*’s act of opening the mold press merely constitutes a later extra-solution step after the computer performs the abstract idea of calculating the cure time with the Arrhenius equation. But the *Diehr* Court rejected that approach as inconsistent with patent-eligibility jurisprudence.

That respondents’ claims involve the transformation of an article, in this case raw, uncured synthetic rubber, into a different state or thing cannot be disputed Our conclusion regarding respondents’ claims is not altered by the fact that in several steps of the process a mathematical equation and a programmed digital computer are used.

Diehr, 450 U.S. at 184–85. Similarly here, a characterization of Appellants’ claims consistent with current patent-eligibility jurisprudence is that the present invention improves the technological field of automated medication-

filling devices by providing automated determination and control of the filling devices' operational modes.

CONCLUSION

For the foregoing reasons, Appellants persuade us of error in the Examiner's construction of claim 1, which, in turn, led to the Examiner's error in rejecting claim 1 as patent-ineligible under 35 U.S.C. § 101. Independent claims 9 and 16, respectively directed to a computer program product and an apparatus, similarly set forth the requirement of automatically filling medication request using automated medication filling devices. Accordingly, we do not sustain the rejection of these independent claims or of claims 2, 4-6, 8, 10-13, 15, 17-20, and 22, which depend from claims 1, 9, and 16.

DECISION

The Examiner's decision rejecting claims 1, 2, 4-6, 8-13, 15-20, and 22 is reversed.

REVERSED