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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREGORY L. CHAMBERS and KENNETH D. VAN METER

Appeal 2017-000222¹
Application 12/126,556²
Technology Center 3600

Before JOSEPH A. FISCHETTI, BRADLEY B. BAYAT, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

BAYAT, *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, 5–10, 12–16, 20, and 22–31, which are all the pending claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Our Decision references the Appellants’ Appeal Brief (“Appeal Br.,” filed Jan. 14, 2016), Reply Brief (“Reply Br.,” filed Oct. 3, 2016), the Examiner’s Answer (“Ans.,” mailed Aug. 11, 2016) and the Final Office Action (“Final Act.,” mailed Aug. 27, 2015).

² The Appellants identify “Ecova, Inc.” as the real party in interest (Appeal Br. 3); “Wells Fargo Bank, National Association” is the assignee recorded (Aug. 1, 2012) with the USPTO as per reel/frame number 028700/0311.

STATEMENT OF THE CASE

Claimed Subject Matter

Process claim 1 and system claims 8 and 15 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A computer-implemented method, comprising:
providing a graphical user interface via a display device, the graphical user interface being operative to display a plurality of selections, a first of the selections being associated with a first business rule, a second of the selections being associated with a second business rule;
automatically monitoring:
an environmental parameter of a first environment; and
at least one operational parameter of equipment associated with the first environment, the operational parameter being based at least in part on energy consumption of the equipment;
receiving, via a communication network, information corresponding to a user selection at the user interface, the user selection corresponding to the first business rule;
automatically determining operating settings for the equipment, via computer processor-executed instructions, based at least in part on, the information received and the at least one operational parameter, the equipment being operative to alter the environmental parameter; and
automatically instructing, via the communication network, the equipment to implement the first business rule by operating at the settings being determined;
wherein, responsive to receiving the information corresponding to a user selection corresponding to the second business rule, the equipment is automatically instructed, via the communication network, to alter the operating settings to implement the second business rule.

Appeal Br. 45, Claims App.

Rejections

Claims 1, 2, 5–10, 12–16, 20, and 22–31 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Final Act. 16–19.

Claims 1, 2, 5–10, 12–16, 20, and 22–31 are rejected under 35 U.S.C. § 102(b) as being anticipated by Ehlers et al. (US 2004/0133314 A1, pub. July 8, 2004) (“Ehlers”). *Id.* at 19–48.

ANALYSIS

Subject Matter Eligibility

Appellants’ invention “enable[s] a client to ensure performance of assets, critical business equipment, and systems to reduce the total cost of energy by reducing energy usage, optimizing energy demand, optimizing energy performance[,] optimization [of] systems and energy using asset efficiencies, and reducing maintenance service costs, prolonging the useful life of assets, and enhancing reliability of business operations.” Spec. ¶ 22. Specifically, the invention “allows a client to regulate energy usage, asset repair and replacement, and equipment maintenance to reduce operating costs, via a connection to an organization’s Energy Management System (EMS) or Building Management System (BMS) using a virtual audit tool and/or other diagnostic routines.” *Id.* For example, a control system is configured to communicate data to and from one or more assets, such as an air-conditioning unit, a heater unit, security system, associated with an environment, which allows for more efficient utilization of assets within the environment. *Id.* ¶ 29.

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.”

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35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014) (internal quotation marks and citation omitted).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Incorporated*, 566 U.S. 66, 82–84 (2012), “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. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., to an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. 66, 78–79).

The Court acknowledged in *Mayo*, 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. The Federal Circuit has instructed that claims are to be considered in their entirety to determine “whether their character as a whole is directed to excluded subject matter.” *McRO, Inc. v. Bandai Namco Games Am., Inc.*, 837 F.3d 1299, 1312 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)).

Under step one of the *Alice* framework, the Examiner determines the claims recite the steps of: (1) providing a graphical user interface, (2) displaying a plurality of selections, (3) automatically monitoring an environmental parameter and at least an operational parameter, (4) receiving information via a user selection corresponding to the first business rule, (5) automatically determining operating settings for the equipment, (6) automatically instructing the equipment to implement the first business rule, (7) receiving information corresponding to the second business rule, and (8) automatically instructing the equipment to alter the operating settings to implement the second business rule via the communication network, “which is considered at least a fundamental economic practice relating to the concepts such as agreements between people in the form of contracts, legal obligations, and business relations [*buySAFE*], and [*Bilski*] (concept of mitigating risk-hedging); the claims are also related to the concept of an idea of itself (collecting and comparing known information) [*Classen*], comparing new and stored information and using rules to identify options [*SmartGene*] and also similar to various mathematical concepts identified by the courts [*Flook*].” Final Act. 16–17. Further, the Examiner determines “the abstract notion of providing, monitoring, receiving, determining, and instructing is merely embellished by a basic linking of this conventional technological environment to the abstract ideas involved in a business environment for monitoring/adjusting/regulating an environmental parameter and/or operational equipment which is considered a fundamental economic practice.” *Id.* at 17, 18 (“Examiner contends that the invention directed toward is a ‘business solution’ to a business problem utilizing a computing device, rather than a technical solution to a technical problem.”).

In response to Appellants' arguments, the Examiner additionally determines "[t]he claims are directed to a method for monitoring operational parameter(s) of equipment associated with an environment." Ans. 3.

Appellants contend "the Examiner has failed to meet her burden in establishing patent-ineligible subject matter, and the § 101 rejection should be reversed." Appeal Br. 17 (citing July 2015 Update). In particular, Appellants argue the Examiner has not provided a reasoned rationale as to why the alleged abstract idea is any of a fundamental economic practice, a mathematical concept, or an idea of itself. *Id.* For example, the claims "do not recite a 'fundamental economic practice long prevalent in our system of commerce' because independent claims 1, 8, and 15 do not recite economic practices per se. . . . these functions are not economic practices at all, much less fundamental ones." *Id.* According to Appellants, the claims recite "monitoring and controlling network-connected energy-consuming assets." *Id.*

We are persuaded by Appellants' argument because we also do not see how the claims as a whole are directed to a fundamental economic practice, a mathematical concept, or a mental process. The Examiner does not explain how, and we do see how, the claims here parallel the financial concepts of *Bilski*, *Alice*, or *buySAFE*. The Examiner has not identified any mathematical concept in the claims, apart from pointing to the claimed business rules; but the fact that computer implementation necessarily involves computers performing calculations does not indicate that any given computer implementation is necessarily *directed to* a mathematical concept. And, we do not see

how the interaction between two different machines (e.g., control system and HVAC unit) could be performed in the human mind or with pen and paper.

For example, the Examiner does not explain why, in view of the express claim language read in light of the pertinent portions of the Specification, the claimed invention would not be considered an improvement in the functionality of the HVAC control system. The Background of the Specification acknowledges that “many homes and/or businesses utilize control systems including . . . timers and other scheduling mechanisms to automatically activate or deactivate one or more assets at predetermined times and operate equipment to defined business parameters.” Spec. ¶ 2. According to the Specification, the problem with prior art control systems is their inflexibility and ineffectiveness in accommodating for continuing business changes to equipment operations and schedules. *Id.* ¶¶ 2–3.

Appellants’ invention allegedly improves upon known control systems by tracking and managing parameters of individual equipment performance and automatically monitoring an operational parameter associated with energy consumption of the equipment (i.e., HVAC unit) for “entire building system optimization of multiple units operating in tandem. *Id.* ¶ 3. But the Examiner, without looking to the Specification, concludes the “claim as a whole is based on conventional technology which is a fundamental economic practice (monitoring/adjusting/sensing based on environment conditions, mathematical algorithms, operating parameters, and the like), mathematical concepts (first business rule, second business rule), the

claimed invention is directed to the abstract idea of managing the consumption of energy and merely utilizes generic computing devices to compare information using rules.” Ans. 4. On this record, the Examiner has not properly identified the judicial exception under step one of *Alice*. Because the Examiner has not established that the claims are directed to a patent-ineligible concept, our inquiry under the *Alice* framework ends.

Accordingly, we are persuaded that the Examiner has not sufficiently established that the claims are directed to patent-ineligible subject matter. Therefore, we do not sustain the Examiner’s rejection under 35 U.S.C. § 101.

Anticipation by Ehlers

Independent claim 1

“[R]ejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art.” *In re Arkley*, 455 F.2d 586, 587 (1972) (emphasis and internal quotation marks omitted)). “Thus, it is not enough that the prior art reference discloses part of the claimed invention, which an ordinary artisan might supplement to make the whole, or that it includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention.” *Net MoneyIn, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). “[T]he [prior art] reference must clearly and unequivocally disclose the claimed [invention] or direct those skilled in the art to the [invention] without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.” *Arkley*, 455 F.2d at 587.

Appellants argue Ehlers does not disclose “automatically determining operating settings for the equipment . . . based at least in part on, the information received *and* the at least one operational parameter,” as called for in claim 1. Appeal Br. 30 (emphasis added). The Examiner maintains that paragraphs 88 and 182 of Ehlers disclose this disputed limitation. Ans. 9–10.

Ehlers discloses a system 1.02 adapted to receive from a customer a budget goal for a specified time period (e.g., one month), which then monitors the customer’s usage and sends a notification if the budget is exceeded during that time period. Ehlers ¶ 87. Paragraph 88 of Ehlers discloses that system 1.02 manages its operation of environmental resources “based on user defined minimum and maximum values for comfort indices and price of energy indices.” Although we agree that Ehlers’s disclosure of user-defined minimum and maximum values properly corresponds to the claimed user information received, we disagree that the price of energy indices constitutes an operational parameter, as required by claim 1. Claim 1 requires the claimed “operational parameter being based at least in part on energy consumption of the equipment” or HVAC unit, but the price of energy indices are independent from an operation parameter associated with energy consumption of the equipment. As such, system 1.02 fails to disclose automatically determining operating settings for the equipment based on both required variables. The Examiner’s reliance on a separate and distinct embodiment in paragraph 182 of Ehlers in combination with system 1.02 described in paragraph 88 cannot establish anticipation because that would require an artisan to combine those embodiments to achieve the claimed invention.

Accordingly, we do not sustain the anticipation rejection of independent claim 1 by Ehlers, including claims 2, 5–7, 22–25, 28, and 29 dependent thereon.

Independent claim 8³

Appellants argue “Ehlers does not disclose the totality of claim 8 in a single embodiment,” including the limitation:

a determining component configured to determine settings for a first asset of a first environment communicating according to a first protocol and settings for a second asset of a second environment communicating according to a second protocol, the settings being based at least in part on a plurality of monitored parameters of the first environment and the second environment relating to environmental conditions such that the settings enforce [a] business rule [selected via a user interface] from among the plurality of business rules [represented by the user interface].

Appeal Br. 35.

Examiner interprets the first and second load control nodes associated its heating and air conditioning systems one controlling the main living space, and the other controlling the second floor bedroom space as teaching appellant’s “. . . *first asset of a first environment communicating according to a first protocol and settings for a second asset of a second environment communicating according to a second protocol* . . .”

Ans. 14. Similarly, the Examiner relies on Figures 2E, 5F, and paragraphs 81, 82, 183, 184, and 355 of Ehlers for teaching various features of this disputed limitation to establish anticipation. *See* Ans. 14–16. Even if we

³ The Examiner determines “claim elements that do not use the word ‘means’ (or ‘step for’) are presumed not to invoke 35 U.S.C. 112(f).” Final Act. 16.

accept the Examiner's position that these claimed features are disclosed in the various embodiments of Ehlers, we agree with Appellants that

Ehlers does not disclose a single embodiment in which a component determines settings based on readings from an indoor thermostat, a humidity sensor, or other sensors to enforce an economic profile, a mode, or a program, or an individual component configured to determine settings for assets according to a protocol by which an asset communicates, as claim 8 describes.

Reply Br. 18.

Accordingly, we do not sustain the anticipation rejection of independent claim 8 by Ehlers, including claims 9, 10, 12–14, 26, 27, and 30 dependent thereon.

Independent claim 15

In contesting the anticipation rejection of independent claim 15, Appellants argue “Ehlers does not disclose . . . means for sending a signal to the plurality of assets **to implement the selected business rule such that the first asset and the second asset operate to implement the selected business rule within the building and the other than within the building, respectively.**” Reply Br. 19.

The Examiner contends, and we agree, that the “means” recitation in claim 15 is a means-plus-function limitation. *See* Final Act. 15. Appellants do not dispute this interpretation. Accordingly, this contested limitation of claim 15 is properly construed in accordance with 35 U.S.C. § 112, sixth paragraph. A means-plus-function limitation is met by the corresponding structure disclosed in the specification or an equivalent thereof. *In re Donaldson Co.*, 16 F.3d 1189, 1193 (Fed. Cir. 1994) (en banc) (quoting 35 U.S.C. § 112, sixth paragraph (1988)). “Corresponding structure” is

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structure disclosed in the Specification that is clearly linked or associated with the function recited in the claim. *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997).

However, in rejecting the claim, the Examiner fails to identify the corresponding structure disclosed in Appellants' Specification that is linked with the function of "sending a signal to the plurality of assets" as recited in the claim. The contested limitation of claim 15, written in means-plus-function format, covers the corresponding structure of Appellants' Specification and equivalents thereof. The Examiner does not explain, for example, how Ehlers' utility control system (Ans. 18) are the same as or equivalent to the corresponding structure of Appellants' Specification. In light of this, a prima facie case of anticipation has not been established. Thus, we reverse the rejection of independent claim 15, and dependent claims 16, 20, and 31, as being anticipated by Ehlers.

DECISION

The rejection under 35 U.S.C. § 101 is reversed.

The rejection under 35 U.S.C. § 102(b) is reversed.

REVERSED