NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IN RE: DENNIS S. FERNANDEZ,
Appellant

2019-1334

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. 11/385,054.

Decided: February 6, 2020

DENNIS S. FERNANDEZ, Fernandez & Associates, LLP, Atherton, CA, pro se.

MONICA BARNES LATEEF, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, for appellee Andrei Iancu. Also represented by THOMAS W. KRAUSE, JOSEPH MATAL, AMY J. NELSON, MAUREEN DONOVAN QUELER.

Before REYNA, TARANTO, and STOLL, *Circuit Judges.*

PER CURIAM.

Pro se appellant Dennis S. Fernandez appeals from a decision of the Patent Trial and Appeal Board affirming an examiner's rejection of Fernandez's applied-for claims as

obvious. Because substantial evidence supports the Board's obviousness determination, we *affirm*.

BACKGROUND

I.

Inventor Fernandez filed U.S. Patent Application No. 11/385,054 ("the '054 application") with the United States Patent and Trademark Office on March 20, 2006. The '054 application is directed to implantable network-biosensors and software for monitoring and analyzing biological hosts. According to the '054 application, biosensors and software were both known in the art but were not easily integrated or reconfigurable. The '054 application aims to overcome this difficulty by disclosing "an integrated biosensor-simulation system" that encompasses sensors with a software platform and that provides the user with a diagnosis or proposed therapy.

Figure 1(a), reproduced below, illustrates an implantable network biosensor.

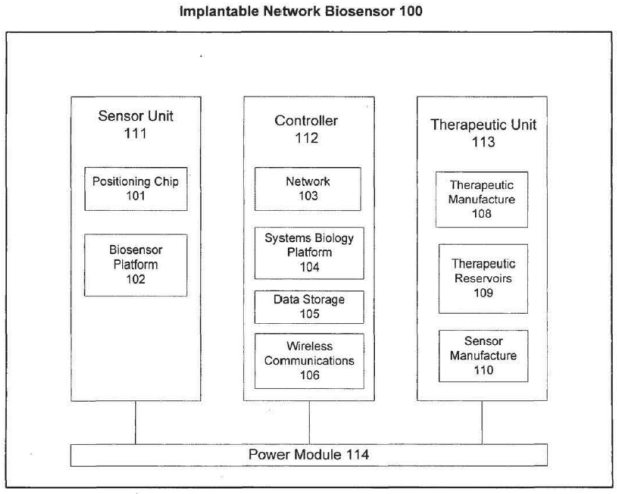

Figure 1a

J.A. 106.

Central to this appeal are the "simulation" and "reconfigurable" limitations of independent claim 11 of the '054 application. Claim 11 recites:

> 11. Implantable network-biosensor comprising:
>
> a sensor unit for receiving a multi-sensor signal from a biosensor platform for detecting a biological material of a host;
>
> a controller comprising multi-levels of incorporations of computational and/or simulation data for processing a systems-biology platform for configuring said sensor unit and/or analyzing said multi-sensor signal; and
>
> a wireless communication unit, whereby said multi-sensor signal and/or data generated by said controller could be communicated wirelessly with external sources, devices or services, from which a suggested diagnosis or therapy is accessible to patients or medical professionals;
>
> *wherein the suggested diagnosis or therapy is generated automatically by the controller running the systems-biology platform as a computer-automated multi-model simulation application that computationally models a diagnostic or therapeutic computer-modeling of the biological material or host automatically in response to the multi-sensor signal representing actually sensed stimuli to the biological material or host, whereby the systems-biology platform automatically simulates to generate the diagnostic or therapeutic suggestion in response to the actually sensed multi-sensor signal stimuli using computationally modeled simulation of the biological material or host as a whole biological system using*

> *multiple levels of simulation modeling;* [i.e., the "simulation limitation"]
>
> *wherein the sensor unit couples to the systems-biology platform via a hardware-reconfigurable logical interconnect, thereby enabling signal switching of such interconnect that is logically multiplexed between the sensor unit and the systems-biology platform, such that the systems-biology platform provides electronic feedback automatically to reconfigure the hardware-reconfigurable logical interconnect according to the computationally modeled simulation of the biological material or host as a whole biological system using both multifunctional sensing by the sensor unit and multiple levels of simulation modeling by the systems-biology simulation unit* [i.e., the "reconfiguration limitation"].

J.A. 2682-2683 (disputed limitations emphasized).

II.

The examiner rejected appellant's claims 11-12, 15, 18, 21, 32-33 and 35 as obvious over Arent[1] in view of Petrella[2], Parker[3], Brown[4], and Halperin[5]. Arent discloses an implantable medical device for real-time monitoring of a host's physiological parameters at multiple anatomical locations. The device can also be mounted externally on the

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[1] U.S. Patent No. 6,358,202 BA.

[2] U.S. Patent Application Publication No. 2003/0184577 A1.

[3] U.S. Patent No. 6,997,882 B1.

[4] U.S. Patent No. 7,167,818 B2 ("Brown '818") and U.S. Patent No. 7,877, 274 B2 ("Brown '274"). Hereinafter, Brown '818 and Brown '274 will be referred to as "Brown."

[5] U.S. Patent No. 5,810,735.

host. The examiner found, and no party disputes, that Arent discloses most of the limitations in claim 11. The only two limitations that Arent does not disclose are the simulation and reconfigurable limitations emphasized above.

The examiner found that Petrella, Parker, and Brown each disclose the simulation limitation. Petrella discloses a method of using simulation to analyze a prosthetic device. Parker discloses a device and method that uses simulation to monitor and analyze a host's movements and physiological status. Brown discloses a system that monitors the physiological status of a host through monitoring certain parameters, such as blood glucose and blood pressure. The Brown system also simulates and predicts the effects of an action on a disease parameter.

The examiner found that Halperin discloses the reconfiguration limitation. Halperin discloses a system for long-term monitoring of a host's physiological status through sensors and a monitoring apparatus. In a preferred embodiment, Halperin teaches that a sensor is implanted in the host and the data collected from the sensor can be used to "adaptively reconfigure or change the functioning of the implanted device." J.A. 2839. The examiner found that a person of ordinary skill in the art ("POSITA") would have been motivated to combine the five references with a reasonable expectation of success.

The Board affirmed the examiner's rejection of claim 11 as obvious and adopted the findings and rationale provided by the examiner. Fernandez appeals the Board's determination. This court has jurisdiction under 28 U.S.C. § 1295(a)(4) and 35 U.S.C. § 141.

DISCUSSION

Fernandez challenges the Board's obviousness rejection on three separate grounds. First, Fernandez challenges the Board's findings as to the scope and content of Petrella. Second, Fernandez challenges the Board's

motivation-to-combine finding by arguing that Halperin teaches away from the claimed invention. Third, Fernandez argues that the Board failed to articulate a motivation to combine the references.

We review the Board's factual determinations for substantial evidence and its legal determinations de novo. *Liqwd, Inc. v. L'Oreal USA, Inc.*, 941 F.3d 1133, 1136 (Fed. Cir. 2019). Whether an invention would have been obvious is a legal conclusion based on underlying factual findings. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). Determinations about the scope and content of prior art, and whether an artisan would be motivated to modify prior art with a reasonable expectation of success, are questions of fact. *Id.*

I.

Fernandez argues that the Board erred when it adopted the examiner's findings as to the scope and content of Petrella. Fernandez asserts that the Board should have engaged in its own analysis of Petrella and rendered its own factual findings. We reject this argument. As this court has explained:

> It is commonplace in administrative law for a reviewing body within an agency to adopt a fact-finding body's findings. On judicial review, the adopted material is treated as if it were part of the reviewing body's opinion. This court does the same in the case of Board opinions adopting patent examiners' findings.

In re Cree, Inc., 818 F.3d 694, 698 n. 2 (Fed. Cir. 2016) (internal citations omitted); s*ee also In re Hyatt*, 211 F.3d 1367, 1370-71 (Fed. Cir. 2000); *In re Kulling*, 897 F.2d 1147, 1149 (Fed. Cir. 1990).

Fernandez also argues that in adopting the examiner's findings, the Board erred by improperly shifting the burden to Fernandez to prove patentability. This is not true.

When examining patent claims, the examiner has the initial burden to set out a prima facie case that the claims at issue are obvious over the prior art. *ACCO Brands Corp. v. Fellowes, Inc.*, 813 F.3d 1361, 1365 (Fed. Cir. 2016). The burden then shifts to the applicant to produce evidence or argument supporting patentability. *Id*. Here, the Board did not shift the burden to Fernandez but instead found that the examiner made out his prima facie case and that Fernandez failed to rebut it.

Fernandez next argues that even if the Board articulated sufficient factual findings, Petrella does not disclose the simulation limitation because it does not control a prosthetic device. The examiner found that Petrella discloses a method for controlling a prosthetic device. Fernandez did not challenge this factual finding before the Board and instead raised it for the first time in its opening brief in this appeal. Therefore, Fernandez waived this argument. *In re Watts*, 354 F.3d 1362, 1367 (Fed. Cir. 2004) ("[I]it is important that the applicant challenging a decision not be permitted to raise arguments on appeal that were not presented to the Board. We have frequently declined to hear arguments that the applicant failed to present to the Board.").

II.

Fernandez argues that claim 11 is not obvious because Halperin teaches away from the claimed invention. He asserts that Halperin teaches "against a solely internal system-biology monitoring platform and *require[s]* an external monitoring system." Appellant Br. 25 (emphasis in original). We reject this argument. Fernandez's claimed invention is not limited to a solely internal system-biology monitoring platform. Claim 11 provides that the biosensor comprising a monitoring platform be "implantable." It does not state that the biosensor must be implanted. Additionally, the specification of the '054 application indicates that the "implantable network biosensor" can "also operate

without being implanted" and can function "through external contact or attachment thereto." J.A. 33. Accordingly, Halperin's external monitoring system does not conflict with or teach away from claim 11.

III.

Lastly, Fernandez summarily argues that substantial evidence does not support the Board's finding of a motivation to combine. We disagree.

As an initial matter, Fernandez argues that the Board erred because it "rubber stamped" the examiner's motivation-to-combine finding and did not present its own. As noted above, the Board may adopt the examiner's factual findings and analysis as its own. *In re Cree, Inc.,* 818 F.3d at 698 n. 2. Here, the Board adopted the examiner's motivation-to-combine finding. Because this finding was supported by substantial evidence, the Board committed no reversable error.

No party disputes that Arent discloses all of claim 11's limitations except for the simulation and reconfigurable limitations. Regarding the simulation limitation, the examiner found that Arent meets most of this limitation's requirements, including a biosensor that interacts physiologically with the host, collects data, and produces a therapeutic response such as the monitoring or controlling of artificial organs and prosthetic devices and the dispensing of medicine. The examiner noted that what was missing from Arent was disclosure of computational modeling necessary to process Arent's data. The examiner found that Petrella, Parker, and Brown all disclose methods of computational modeling for controlling prosthetics, artificial organs, and monitoring of a host's vitals. The examiner explained that a POSITA would have been motivated to combine the known data processing of computational modeling taught by these three references with Arent's invention because, in order to perform the functions taught by Arent, "a required amount of data processing is necessary."

This is substantial evidence that supports the examiner's motivation-to-combine finding for the simulation limitation.

Regarding the reconfiguration limitation, the examiner found that Arent does not explicitly disclose a reconfigurable sensor. The examiner, however, found that Arent suggests this limitation because Arent discloses implantable devices capable of dispensing or delivering medicine. The examiner explained that Arent teaches the delivery or dispensing of medicine based on the host's current conditions. The examiner also found that a POSITA would have recognized that because a host's conditions change, an implantable device that dispenses medicine would need to be reconfigured. As a result, the examiner found that a POSITA would have been motivated to combine Halperin's reconfigurable and reprogrammable implantable sensor with the implantable biosensor network system disclosed by the combination of Arent, Petrella, Parker, and Brown. Taken together, this is substantial evidence that supports the examiner's motivation-to-combine finding for the reconfiguration limitation.

CONCLUSION

We have considered Fernandez's other arguments and find them unpersuasive. We affirm.

AFFIRMED

COSTS

No costs.