UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INFOBIONIC, INC.,
Petitioner

v.

BRAEMAR MANUFACTURING, LLC,
Patent Owner

IPR2015-01679
U.S. Patent No. 6,225,901 B1

PATENT OWNER'S NOTICE OF APPEAL

Pursuant to 35 U.S.C. §§ 141, 142, and 319, and in accordance with 37 C.F.R. §§ 90.2-.3, Patent Owner Braemar Manufacturing and its licensee CardioNet, LLC ("CardioNet") appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision of the Patent Trial and Appeal Board ("Board") entered on December 29, 2016 (Paper No. 49) ("Final Written Decision") in IPR2015-01679 and from all underlying findings, determinations, rulings, opinions, orders, and decisions regarding the *inter partes* review of U.S. Patent No. 6,225,901 (" '901 patent"). A copy of the Final Written Decision is attached.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), CardioNet states that the issues on appeal include, but are not limited to: the Board's determination that all claims of the '901 patent are unpatentable; the Board's construction of those claims; the Board's decision on CardioNet's motion to exclude; the Board's consideration of the expert testimony, prior art, and other evidence in the record; the Board's factual findings, conclusions of law, or other determinations supporting or related to those issues, as well as all other issues decided adversely to CardioNet in any orders, decisions, rulings, and opinions.

This Notice of Appeal is being e-filed with the Clerk's Office for the United States Court of Appeals for the Federal Circuit, along with payment of the required

docketing fees. In addition, copies of this Notice of Appeal are being filed simultaneously with the Patent Trial and Appeal Board.

Dated: March 2, 2017

Respectfully submitted,

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CERTIFICATE OF FILING

I hereby certify that, in addition to being filed electronically through the Patent Trial and Appeal Board's E2E System, a copy of this Patent Owner's Notice of Appeal was filed by hand on March 2, 2017 with the Director of the United States Patent and Trademark office, at the following address:

Director of the United States Patent and Trademark office
c/o Office of the General Counsel
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Dated: March 2, 2017

Respectfully submitted,

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CERTIFICATE OF FILING

I hereby certify that a copy of this Notice of Appeal was filed electronically through the United States Court of Appeals for the Federal Circuit's CM/ECF system on March 2, 2017.

Dated: March 2, 2017

Respectfully submitted,

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CERTIFICATE OF SERVICE

I further certify that a true and correct copy of this Notice of Appeal was served, by electronic mail, on March 2, 2017 upon the following:

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ATTACHMENT 1

Trials@uspto.gov
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Paper 49
Entered: December 29, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INFOBIONIC, INC.,
Petitioner,

v.

BRAEMAR MANUFACTURING, LLC,
Patent Owner.

Case IPR2015-01679
Patent 6,225,901 B1

Before KEN B. BARRETT, TRENTON A. WARD, and SCOTT C. MOORE, *Administrative Patent Judges.*

MOORE, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Petitioner filed a Petition to institute an *inter partes* review of claims 1–22 (Paper 1; "Pet.") of U.S. Patent No. 6,225,901 B1 (Ex. 1001; "the '901 Patent"). Patent Owner filed a Preliminary Response (Paper 8; "Prelim. Resp."). The Board instituted a trial as to claims 1–22 of the '901 Patent. Paper 10 ("Dec. on Inst.").

After institution of trial, Patent Owner filed a Patent Owner Response ("PO Resp.") to the Petition. Paper 26. Petitioner filed a Reply ("Reply") to the Patent Owner Response. Paper 31. Petitioner relies on the "Declaration of Robert T. Stone, Ph.D." (Ex. 1002) in support of its Petition, and the "Declaration of Dr. Robert Stone in Support of Petitioner's Reply to Patent Owner's Response" (Ex. 1011) in support of its Reply. Patent Owner relies on the "Declaration of Kenneth Fernald Regarding U.S. Patent No[.] 6,255,901" (Ex. 2003) in support of its Response.

Petitioner filed a Motion to Exclude (Paper 35), and Patent Owner also filed a separate Motion to Exclude (Paper 38). Petitioner and Patent Owner each filed an Opposition to the opposing party's Motion to Exclude (Papers 43 and 41, respectively) and a Reply in support of its own Motion to Exclude (Papers 45 and 47, respectively). In addition, Patent Owner filed a Motion for Observations on the Cross-Examination (Paper 39), and Petitioner filed an Opposition to this Motion (Paper 42).

An oral hearing was held on October 19, 2016. The record contains a transcript of the hearing. Paper 48 ("Tr.").

The Board has jurisdiction under 35 U.S.C. § 6. This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Petitioner has shown by a preponderance of the evidence that claims 1, 2, 4,

6, 7, 10, 11, 13–15, and 17 are unpatentable as anticipated by Sellers, that claims 3, 5, 8, 9, 12, 16, and 20–22 are unpatentable as obvious over Sellers and Stutman, and that claims 18 and 19 are unpatentable as obvious over Sellers, Stutman, and Lamensdorf. We deny in part and dismiss in part Petitioner's motion to exclude. We deny in part and dismiss in part Patent Owner's motion to exclude.

II. BACKGROUND

A. Related Proceedings

On May 8, 2015, Patent Owner and non-party CardioNet LLC filed a lawsuit against Petitioner alleging infringement of four separate patents, including the '901 Patent. Pet. 1; Paper 6, 2; Paper 40, 2.

B. The '901 Patent

The '901 Patent is titled "Reprogrammable Remote Sensor Monitoring System," and discloses an "automated, real-time, reprogrammable monitoring and control system for portable, remote sensors and subjects." Ex. 1001, Title, Abstract. The disclosed system includes portable monitoring units that transmit information over a wireless network to a central monitoring device. *Id.* at Abstract.

Figure 1 of the ’901 Patent is reproduced below.

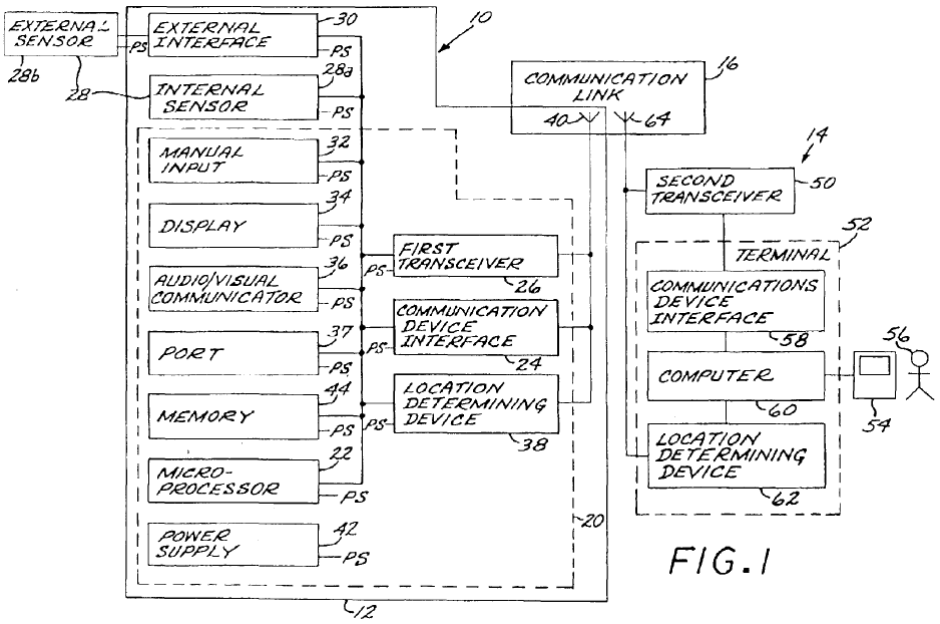

FIG. 1

Figure 1 depicts a preferred embodiment of an apparatus for remotely monitoring and assessing the status of a subject. Ex. 1001, 4:11–16. The depicted embodiment includes portable monitoring unit 12, central communication device 14, and wireless communication link 16. *Id*. The portable monitoring unit contains a sensor interface unit 20, which includes microprocessor 22. *Id*. at 4:19–21.

Information is gathered by one or more sensors 28. Ex. 1001, 4:26. Input may also be received by way of an optional manual input device 32. *Id*. at 4:42–46. Microprocessor 22 communicates with central monitoring device 14 over wireless communication link 16 through communications device interface 24 and first transceiver 26. *Id*. at 4:21–26.

The Specification discloses that microprocessor 22 loads “activation parameters” (also called “activating parameters”) from memory, and then monitors sensors 28, communications device interface 24, and manual input

32 for activity. Ex. 1001, 6:53–61. The activating parameters cause the microprocessor to perform actions in response to various types of activity. *See id*. at 6:25–37. For example, if sensor activity is detected, the activating parameter may cause microprocessor 22 to transmit the received sensor activity to the central monitoring device. *See id*. at 6:60–7:13.

The Specification also discloses that the activating parameters may be reprogrammed in order to tailor the portable monitoring unit to varying needs. *Id*. at 3:46–49. This reprogramming may be carried out by central communication device 14 through the wireless communication link 16. *See id*. at 6:43–49.

C. Challenged Claims

Challenged claims 1, 10, 16–18, and 20 are independent, and each of the remaining challenged claims depends directly or indirectly from one of these independent claims.

Independent claim 1 is illustrative and is reproduced below.

> 1. Apparatus for remotely monitoring and assessing the status of a human subject, the apparatus comprising:
>
> a central monitoring device;
>
> at least one automatic sensor associated with and monitoring the condition of the human subject; and
>
> a portable monitoring unit capable of communicating with the central monitoring device, the portable monitoring unit comprising
>
> a remotely programmable microprocessor in communication with the at least one automatic sensor, the microprocessor being responsive to the occurrence of any of a set of activating parameters for an activation condition selected from the group

consisting of a preselected state for the at least one automatic sensor and a request signal from an external source,

a first transceiver in communication with the microprocessor, for communicating signals between the microprocessor and the central monitoring device, and

a power supply connected to provide power to the microprocessor and to the first transceiver.

D. References Relied Upon

Petitioner relies on the following references in support of the instituted grounds of unpatentability:

References and Materials	**Exhibit No.**
U.S. Patent No. 5,678,562 to Sellers (iss. Oct. 21, 1997) ("Sellers")	1005
U.S. Patent No. 5,416,695 to Stutman (iss. May 16, 1995) ("Stutman")	1006
U.S. Patent No. 5,568,121 to Lamensdorf (iss. Oct. 22, 1996) ("Lamensdorf")	1007

Pet. 3; Dec. on Inst. 29.

E. Instituted Grounds of Unpatentability

We instituted trial on the following grounds:

Challenged Claims	**Statutory Basis**	**Reference[s]**
1, 2, 4, 6, 7, 10, 11, 13–15, and 17	35 U.S.C. §102(e)	Sellers
3, 5, 8, 9, 12, 16, and 20–22	35 U.S.C. § 103(a)	Sellers and Stutman

Challenged Claims	Statutory Basis	Reference[s]
18 and 19	35 U.S.C. § 103(a)	Sellers, Stutman, and Lamensdorf

Dec. on Inst. 29.

III. ANALYSIS

A. Claim Construction

We interpret claims of an unexpired patent using the broadest reasonable interpretation in light of the specification of the patent. 37 C.F.R. § 42.100(b); *see Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (concluding the broadest reasonable construction "regulation represents a reasonable exercise of the rulemaking authority that Congress delegated to the Patent Office"). There is a presumption that claim terms are given their ordinary and customary meaning, as would be understood by a person of ordinary skill in the art in the context of the specification. *See In re Translogic Tech. Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An applicant may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

In our Decision on Institution, we did not adopt express constructions of any claim terms. Dec. on Inst. 7. Patent Owner asserts in its Response that the plain and ordinary meanings of the claim terms are "understandable," and that "the Board need not adopt specific constructions" of any claim terms. PO Resp. 13. Patent Owner nevertheless argues that our

Decision on Institution interpreted certain claim terms in an overbroad manner. *See, e.g.*, PO Resp. 19–22. Petitioner disagrees with Patent Owner's arguments. *See, e.g.*, Reply 2–4, 9–15. The disputed claim terms are addressed below.

1. "Central Monitoring Device"

Patent Owner contends that our Decision on Institution erroneously fails to recognize that the plain and ordinary meaning of "central monitoring device" is limited to a device that evaluates the status of each human subject "*during the monitoring session*." PO Resp. 20 (bolding omitted). Patent Owner argues that the plain meaning of "monitoring" is "to watch, keep track of, or check usu[ally] for a special purpose." *Id*. at 21 (citing Ex. 2020, 752; Ex. 2021, 930). Patent Owner asserts that the plain and ordinary meaning of "central monitoring device" is a device that "monitors each patient from a central location and is able to respond to patient status during a monitoring session when it detects evidence of certain physiologic conditions as they occur." PO Resp. 21–22.

Petitioner disagrees, and proposes that we construe "central monitoring device" as "a device that watches, keeps track of, or checks on a subject or object from a central location by communicating with a portable monitoring unit." Reply 2 (citing Ex. 1011 ¶¶ 7–32). Petitioner does not dispute Patent Owner's definition of "monitoring," but argues that there "is no basis for reading in the additional requirement of evaluating 'during the monitoring session,' as [Patent Owner] proposes." Reply 2.

The parties agree that a "central monitoring device" is a device that "watch[es], keep[s] track of, or check[s]" on something "from a central

location." *See* PO Resp. 21–22; Reply 2. On this record, we determine that the claim term "central monitoring device" is not further limited to a device that performs monitoring "during a monitoring session" such that it is able to "respond to patient status . . . when it detects evidence of certain physiologic conditions as they occur." *See* PO Resp. 21–22. The Specification uses the term "central monitoring device" in an open-ended manner, and Patent Owner does not identify any lexicographic definition or disclaimer that would limit the claim term "central monitoring device" in the manner it proposes. *See* PO Resp. 20–22; Tr. 38:1–17. Though Patent Owner cites one dictionary that defines "monitoring" as "constantly checking on a patient's condition" (Ex. 2021, 930), this definition is overly narrow because the Specification makes clear that monitoring may be performed on a periodic basis. *See, e.g.*, Ex. 1001, 3:2–31, 8:57–64. Moreover, Patent Owner's other dictionary definition (Ex. 2020, 752) does not reference a patient, or require detecting "physiologic conditions as they occur."

Dr. Fernald's testimony regarding this claim term (Ex. 2003 ¶¶ 39–41) is not persuasive because the portions of the Specification he cites do not limit the claim term "central monitoring device" in the manner Patent Owner proposes (*see* Ex. 2003 ¶ 39 (citing Ex. 1001, 3:10–16, 6:37–42, 7:13–20, 7:52–59, 8:23–38); Tr. 38:1–17), and because Dr. Fernald does not adequately account for the dictionary evidence indicating that the claim term "monitoring" does not require constantly observing a patient's status (*see* Ex. 2020, 752). We find persuasive Dr. Stone's testimony that one of ordinary skill would have understood the portions of the Specification cited by Patent Owner and Dr. Fernald to be non-limiting examples. Ex. 1011 ¶¶ 19–32.

For the foregoing reasons, on this record, and under the applicable broadest reasonable interpretation standard, we construe "central monitoring device" as "a device that watches, keeps track of, or checks from a central location."

2. "Automatic Sensor"

Patent Owner contends that our Decision on Institution erroneously fails to recognize that the plain and ordinary meaning of the claim term "automatic sensor" is limited to a sensor that "include[s] some processing ability to allow it to operate on its own." PO Resp. 30–31. Petitioner argues that the claim term "automatic" does not require that the sensor have processing ability. Reply 9–11.

The parties agree that the claim term "automatic" means "self-acting," and that a "sensor" is a "device that responds to a physical stimulus . . . and transmits a resulting impulse." Ex. 2003 ¶ 43 (citing Ex. 2020, 1066); Ex. 1011 ¶ 42. On this record, we determine that the claim term "automatic sensor" is not further limited to a device that includes processing ability. The Specification uses the term "automatic sensor" in an open-ended fashion, and Patent Owner does not identify any lexicographic definition or disclaimer that would limit this claim term in the manner it proposes. *See* PO Resp. 31–32; Tr. 52:11–53:5. Dr. Fernald cites a disclosure in the Specification of a sensor that includes processing capability (*see* Ex. 2003 ¶ 44 (citing Ex. 1001, 8:12–16, 6:63–7:9)), but does not provide an adequate explanation for his opinion that a person of ordinary skill would have understood the claim term "automatic sensor" to require such processing capability in all embodiments (*see* Ex. 2003 ¶¶ 44–45). In contrast,

Petitioner cites a dictionary definition of the term "automatic" that does not require processing ability (Ex. 1013), and offers persuasive testimony from Dr. Stone that a person of ordinary skill in the art would not have understood the claim term "automatic sensor" to be limited to a device that includes processing ability (Ex. 1011 ¶¶ 41–47).

For the foregoing reasons, on this record, and under the applicable broadest reasonable interpretation standard, we construe "automatic sensor" as "a self-acting device that responds to a physical stimulus and transmits a resulting impulse."

3. "In Communication With"

In our Decision on Institution, we determined that the claim term "in communication with" encompasses "the indirect communication of information to or from a processor (e.g., communication in which the information is stored in an intermediate buffer)." Dec. on Inst. 14. Patent Owner disagrees with this determination. PO Resp. 42. For example, Patent Owner argues that a processor is not "in communication with" a different component (e.g., a modem) unless the processor itself actually sends a message or signal to the modem. *Id*. at 40. Under Patent Owner's construction, a processor that receives a message would not be "in communication with" the source of the message unless the processor sends a message in reply. *See id*. Patent Owner's construction also would not encompass a processor that functions as an intermediary between two components (e.g., a processor connected to a sensor and a modem that relays communications between the sensor and modem). *See id*. Patent Owner similarly argues that a processor is not "in communication with" a sensor

unless the processor is "responsive to" output from the sensor. *Id*. at 43. Petitioner argues that this claim term is not limited in the manner Patent Owner suggests. *See* Reply 15–16.

On this record, and under the applicable broadest reasonable interpretation standard, we determine that the claim term "in communication with" encompasses indirect communications (e.g., communication by way of an intermediate component). We further determine that a processor need not generate a message, or respond to a message, in order to be "in communication with" a separate component. The '901 Patent Specification uses the term "in communication with" in a broad, open-ended manner. *See, e.g.*, Ex. 1001, 2:13–23, 2:38–44. In addition, Patent Owner does not cite any persuasive intrinsic or extrinsic evidence that a person of ordinary skill in the art would have read the claim term "in communication with" to exclude embodiments in which a processor merely receives information. *See* PO Resp. 40–43. Nor does Patent Owner cite any persuasive intrinsic or extrinsic evidence that the claim term "in communication with" excludes communication between a processor and a component when the processor is acting as an intermediary between that component and some other component. *See id.* In addition, Dr. Fernald fails to sufficiently support his conclusion that the claim term "in communication with" excludes such forms of communication. *See* Ex. 2003 ¶¶ 99–103.

4. Other Claim Construction Issues

We decline to adopt other or further claim constructions because doing so is not necessary in order to resolve the parties' disputes. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011)

("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.'" (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))); *see also* Tr. 24:1–12, 60:20–62:2 (both parties agree that the Board need not construe any additional claim terms in the '901 Patent).

B. Instituted Grounds of Unpatentability

1. Overview

Petitioner argues that challenged claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17 are unpatentable under 35 U.S.C. § 102(e) because each of them is anticipated by Sellers. Pet. 3. A patent claim is unpatentable under 35 U.S.C. § 102 if "the four corners of a single, prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation." *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000).

Petitioner argues that challenged claims 3, 5, 8, 9, 12, 16, and 20–22 are each unpatentable under 35 U.S.C. § 103(a) over Sellers and Stutman, and that challenged claims 18 and 19 are each unpatentable under 35 U.S.C. § 103(a) over Sellers, Stutman, and Lamensdorf. Pet. 3. A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which such subject matter pertains." The question of obviousness under 35 U.S.C. § 103 is resolved on the basis of underlying factual determinations, including: (1) the scope and content of

the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

2. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art to which the '901 Patent pertains would have had "at least a bachelor's degree in electrical or mechanical engineering, or equivalent proficiency, and at least two to three years of experience in the research and/or development of remote patient monitoring systems, such as cardiac remote patient monitoring systems." Pet. 7 n.2. Patent Owner asserts that a person of ordinary skill in the art would have had:

> an electrical engineering undergraduate degree (or its equivalent) with at least two years of experience in the design and development of ECG telemetry devices or similar remote monitoring and telemetry devices and/or an undergraduate degree in engineering (or its equivalent) with at least four years of experience in the design and development of ECG telemetry devices or similar remote monitoring and telemetry devices.

PO Resp. 12.

On this record, we adopt Petitioner's formulation concerning the level of ordinary skill in the art because this formulation more accurately describes the subject matter to which the '901 Patent pertains. Patent Owner's formulation is unduly narrow because subject matter of the '901 Patent is not limited to "ECG telemetry devices" or other "remote monitoring and telemetry devices."

The parties do not dispute that Dr. Stone and Dr. Fernald are both qualified to testify about the perspective of one having ordinary skill in the art, regardless of which formulation we adopt. Tr. 24:22–25:3, 62:6–11. The parties also agree that the issues in this case do not turn on the differences between Petitioner's and Patent Owner's proposed formulations regarding the level of ordinary skill in the art. *Id*. at 24:13–19, 62:12–21. On this record, we find that both Dr. Stone and Dr. Fernald are qualified to offer expert opinions in this case. The factual findings and legal conclusions set forth below would not have differed had we adopted Patent Owner's formulation regarding the level of ordinary skill in the art.

3. Anticipation of Claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17 by Sellers

a. Overview of Sellers

Sellers relates to an ambulatory physiological monitor. Ex. 1005, Abstract. Figure 3 of Sellers is reproduced below.

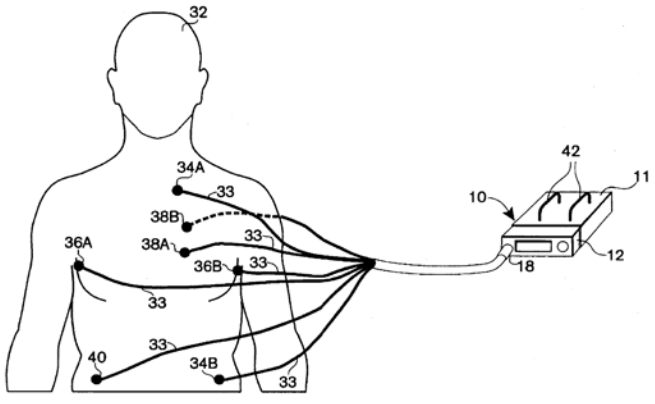

Fig. 3

Figure 3 depicts ambulatory physiological monitor 10 ("monitor 10") that is attached to three pairs of electrodes (34A, 34B, 36A, 36B, 38A and 38B) by way of connector 18. Ex. 1005, 3:65–57, 4:66–5:7. The electrodes provide electrocardiography ("ECG") data for patient 32. *Id*. at 1:11–12, 5:4–5.

Figure 4 of Sellers is depicted below.

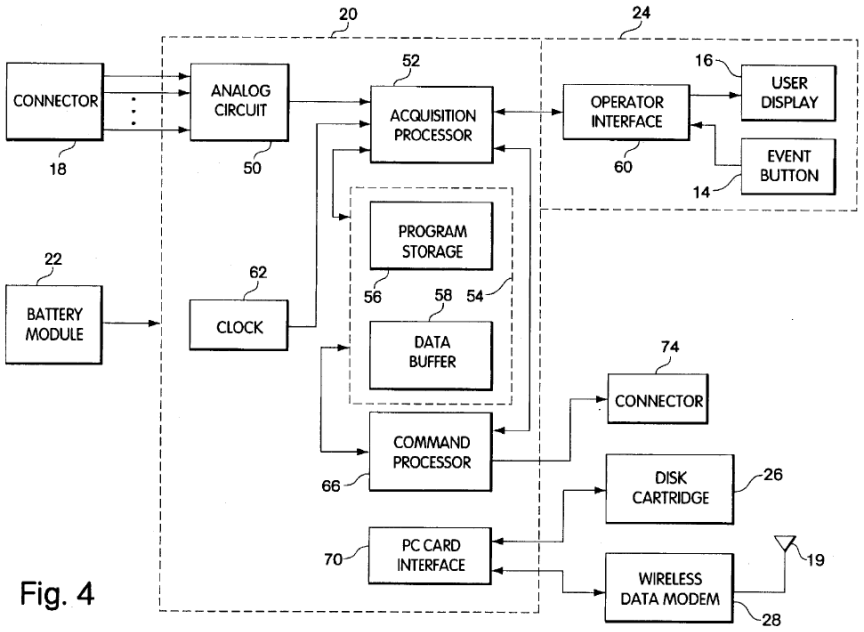

Figure 4 is a block diagram showing the components of monitor 10. Ex. 1005, 5:19–20. Monitor 10 includes analog circuit 50, which amplifies and processes ECG signals from the patient and outputs these signals to acquisition processor 52. *Id*. at 5:23–28. Acquisition processor 52 converts the amplified ECG signals into digital data words. *Id*. at 5:28–30. Acquisition processor 52 is also connected to memory 54. *Id*. at 5:30–32. Memory 54 includes data buffer 58, which may temporarily store the ECG data. *Id*. at 5:30–35.

Monitor 10 also includes command processor 66, which is connected to both acquisition processor 52 and memory 54. Ex. 1005, 5:43–44. Command processor 66 is also connected through PC Card interface 70 to disk cartridge 26 and wireless data modem 28. *Id*. at 5:44–50. Command processor 66 periodically transfers ECG data from data buffer 58 to disk cartridge 26. *Id*. at 5:50–52. Command processor 66 also controls the

transmission and reception of information through wireless data modem 28. *Id*. at 5:52–55. Wireless data modem 28 permits the transmission of information to remote computer system 110 (not shown). *Id*. at 8:1–6.

b. Anticipation of Claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17

Petitioner contends that Sellers discloses an apparatus that satisfies all limitations of claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17. For example, Petitioner alleges that remote computer system 110 of Sellers is a central monitoring device of the type recited in claim 1. Pet. 15. Petitioner alleges that the electrodes or transducers of Sellers, which monitor ECG signals of a patient, are "automatic sensor[s] associated with and monitoring the condition of the human subject," as recited by claim 1. *Id*. at 16. Petitioner alleges that monitor 10 of Sellers is "a portable monitoring unit capable of communicating with a central monitoring device," of the type recited by claim 1. *Id*. Petitioner further alleges that acquisition processor 52 and command processor 66 of Sellers are each a "remotely programmable microprocessor" of the type recited by the claims. *See id.* at 16–19.

Patent Owner, in its Response to the Petition, does not dispute that Sellers discloses many elements of the allegedly anticipated claims. *See* PO Resp. 13–46. We find Petitioner's evidence regarding the non-disputed claim limitations persuasive and adopt Petitioner's reasoning. *See* Pet. 12–30; Ex. 1002 ¶¶ 35–53. The disputed claim limitations are discussed below.

Patent Owner contends that Sellers does not disclose a "central monitoring device" of the type recited claims 1–9 as well as claims 18–22 (which are discussed in Sections III.B.3.d and III.B.3.e, below). PO Resp. 18–28. Patent Owner's argument is based on its assertion that the plain and

ordinary meaning of "central monitoring device" is limited to a device that "evaluates the status of [a] human subject during the monitoring session." *See id*. In view of our determination that this term is not so limited (*see* Section III.A.1, *supra*), Patent Owner's argument is not persuasive.

As Petitioner explains, Sellers' remote computer system 110 receives health data, such as ECG data, from monitor 10 via, for example, a radio link. Pet. 15–16 (citing Ex. 1005, 4:28–30, 5:4–5, 8:2–3, 8:32–33, 11:27–29; Ex. 1002 §§ VII.A.1.ii–iii). Such information may be transferred while a patient is being monitored. For example, Petitioner has cited persuasive evidence that monitor 10 may compare ECG data to preselected alarm limits, and transmit information to remote computer system 110 if the preselected alarm limits are reached. Pet. 18 (citing Ex. 1005, 9:16–22, 9:42–46, 10:53–57, 11:5–7). Sellers also discloses that "wireless data modem 28 permits . . . monitor 10 to transmit information to a remote computer system 110 . . . . Thus, the patient is not limited as to location during the monitoring session." Ex. 1005, 8:1–26; *see* Ex. 1002 ¶ 43; Ex. 1011 ¶¶ 48–50. We are persuaded on this record that remote computer system 110 of Sellers is "a device that watches, keeps track of, or checks" health data from monitor 10 "from a central location." *See* Section III.A.1, *supra*.

Patent Owner also contends that Sellers does not disclose "remotely monitoring and assessing the status of a human subject" as recited in the preambles of claims 1 and 10 (and incorporated by reference into claims 2, 4, 6, 7, 11, and 13–15), or "remotely monitoring the status of a human subject" as recited in claim 17 as well as claims 16 and 18 (which Patent Owner groups with claim 17 when discussing this limitation). PO Resp. 28–

30. In particular, Patent Owner asserts that the preambles of these claims are limiting, and argues that Sellers' system does not perform "monitoring" because it does not "'watch, keep track of, or check' the status of a subject [until] after the monitoring session is over." *Id*. at 29. Patent Owners' argument is not persuasive because it relies on the assertion that the claim term "monitoring" is limited to assessing the condition of a subject "*during the monitoring session*." *See* PO Resp. 29 (bolding omitted). We reject this assertion for the reasons discussed in Section III.A.1, *supra*. On this record, we agree with Petitioner's assertion that remote monitoring system 110 and monitor 10 of Sellers collectively constitute an "apparatus for remotely monitoring [and assessing the status of] a human subject." *See* Pet. 15 (citing Ex. 1005, Abstract, 3:32–35, 3:37–40, 4:38–41, 5:14–15, 8:2–6, 9:4–6; Ex. 1002 § VII.A.1.i). For example, Petitioner has cited persuasive evidence that Sellers' monitor 10 may monitor and assess the status of a human subject by, for example, comparing ECG data of the patient to preselected alarm limits. Pet. 18 (citing Ex. 1005, 9:16–22, 11:5–7).

Patent Owner further contends that the ECG sensor of Sellers is not an "automatic sensor" of the type required by claims 1–19. PO Resp. 30–32. This argument is not persuasive because it depends on Patent Owner's assertion that the claim term "automatic sensor" requires processing ability. *See id*. at 30–31. Dr. Fernald's testimony is not persuasive for the same reason. *See* Ex. 2003 ¶¶ 95–98. As noted above, we construe "automatic sensor" as "a self-acting device that responds to a physical stimulus and transmits a resulting impulse." On this record, we credit Dr. Stone's testimony that the electrodes or transducers of Stone are "automatic sensors" that monitor ECG signals of the patient. Ex. 1002 ¶ 43(iii); Ex. 1011 ¶¶ 41–

47. We are persuaded that the ECG sensors of Sellers are self-acting devices that respond to a physical stimulus (i.e., electrical signals within the body) and transmit the resulting impulses to monitor 10. *See* Reply 11 (citing Ex. 1011 ¶¶ 51–59). In view of our finding that the ECG sensors of Sellers are automatic sensors of the type recited in the claims of the '901 Patent, we need not address Petitioner's alternative argument that Sellers discloses other types of automatic sensors (*see* Reply 12), or Patent Owner's response to this alternative argument (*see* PO Resp. 34–38).

Petitioner asserts that acquisition processor 52 and command processor 66 of Sellers are both programmable microprocessors of the type recited in the claims. *See* Pet. 16, 24, 26, 38, 54. Patent Owner contends that acquisition processor 52 is not a programmable microprocessor of the type required by claims 1–19 because that processor is not "in communication with" a "first transceiver" (i.e., wireless data modem 28 of Sellers). PO Resp. 40–41. In particular, Patent Owner argues that Sellers does not disclose the transmission of a message from acquisition processor 52 to remote computer system 10, or the receipt of a message by acquisition processor 52 from wireless data modem 28. PO Resp. 40–41 (citing Ex. 2003 ¶¶ 101–103). Petitioner, however, has cited persuasive evidence that acquisition processor 52 receives and executes data acquisition programs that were downloaded by way of wireless data modem 28 (*see* Pet. 20 (citing Ex. 1005, 5:43–54, 6:44–59, 8:2–10, 8:66–9:3, 9:49–51); Ex. 1002 ¶ 43(v); Ex. 1011 ¶¶ 64–67), and also transmits ECG data to remote computer 110 by way of command processor 66 and wireless data modem 28 (Pet. 18–20 (citing Ex. 1005, 9:42–46; 10:53–57); Ex. 1002 ¶ 43(v)–(vii); Ex. 1011 ¶¶ 64–67). We have reviewed the evidence cited in the relevant

portions of the declarations of Dr. Stone (Exs. 1002 and 1011), and we credit Dr. Stone's testimony.

In contrast, we are not persuaded by Dr. Fernald's opinion that Sellers does not disclose the transmission of a data acquisition program to processor 52 by way of wireless data modem 28. *See* Ex. 2003 ¶¶ 102–103. As Dr. Fernald acknowledges, Sellers discloses that monitor 10 may receive a new software. Ex. 2003 ¶ 103 (citing Ex. 1005, 9:51–54). Sellers discloses that new software may be downloaded by way of wireless data modem 28. Ex. 1005, 3:16–22. Though Sellers does not explicitly say that new "data acquisition" software may be downloaded by way of the modem, we find on this record that a person of ordinary skill in the art, viewing the Specification in its entirety, would have understood that monitor 10 could receive data acquisition software by way of wireless data modem 28. *See* Ex. 1002 ¶ 43(v). Dr. Fernald also does not offer any persuasive response to Dr. Stone's testimony concerning the transmission of ECG data from acquisition processor 52 to wireless data modem 28. *See* Ex. 2003 ¶¶ 101–103.

On this record, and in view of our construction of "in communication with" limitation (*see* Section III.A.3, *supra*), we find that acquisition processor 52 of Sellers is "in communication with" a wireless data modem 28 (i.e., a "first transceiver"), as required by the challenged claims.

Patent Owner also contends that command processor 66 is not a programmable microprocessor of the type required by claims 1–16 and 18–19 (which Patent Owner groups together when discussing this limitation) because it is not "in communication with" an "automatic sensor" (i.e., the ECG electrodes of Sellers). PO Resp. 41–43. Petitioner, however, has cited

persuasive evidence that command processor 66 receives and analyzes ECG data that was collected by the ECG electrodes of Sellers. *See* Pet. 17 (citing Ex. 1005, 8:48–60); Ex. 1002 ¶ 43(v); Ex. 1011 ¶¶ 68–71. Dr. Fernald's testimony to the contrary (*see* Ex. 2003 ¶ 105) is not persuasive in view of our determination that the claim term "in communication with" includes indirect communications. *See* Section III.A.3, *supra*. On this record, we find that command processor 66 of Sellers is "in communication with" the ECG electrodes or transducers of Sellers (i.e., an "automatic sensor").

Patent Owner further contends that command processor 66 cannot be "reprogrammed" in the manner required by claim 17. PO Resp. 43–44. Petitioner has cited persuasive evidence that remote computer system 110 of Sellers can "download modifications and additions to the software in the monitor 10." Pet. 29 (citing Ex. 1005, 8:[4]8–9:3; 6:46–58). The cited portions of Sellers make clear that command processor 66 is responsible for executing analysis programming, and that new or modified analysis algorithms "may be downloaded to monitor 10 through wireless data modem 28." Ex. 1005, 8:48–9:3.

Patent Owner does not dispute that Sellers has this capability, but instead argues that the analysis algorithms are not "operating instructions" of the type recited in the claim. PO Resp. 44. Patent Owner, however, does not provide a persuasive explanation of why the analysis algorithms of Sellers are not "operating instructions." *See id*. Dr. Fernald similarly does not provide a persuasive explanation of why such analysis algorithms would not constitute "operating instructions." *See* Ex. 2003 ¶ 104.

As discussed above, Petitioner has shown that at least some of the instructions that control the operation of command processor 66 can be

modified or replaced with new instructions. The "reprogramming" recited in claim 17 is accomplished by replacing a "first set of operating instructions" with a "second set of operating instructions." On this record, we find that Sellers discloses "reprogramming" in the manner required by claim 17.

Patent Owner additionally argues that command processor 66 of Sellers is not "in communication with" an "audio/visual indicator" as recited in claims 6 and 14, or a "subject status signal input device" as recited in claims 7 and 15. PO Resp. 44–46. We need not address this argument because Petitioner has cited persuasive evidence that acquisition processor 52 of Sellers "is in communication with" both display 16 (i.e., an "audio/visual indicator") and event button 14 (i.e., a "subject status signal input device"). *See* Pet. 23 (citing Ex. 1005, 5:35–37, Fig. 1; Ex. 1002 ¶¶ 46–47). Patent Owner does not dispute that acquisition processor 52 is "in communication with" both display 16 and event button 14. PO Resp. 44–46. In view of our finding above that acquisition processor 52 is a programmable microprocessor of the type recited in independent claims 1 and 10 (from which claims 6, 7, 14, and 15 depend), Patent Owner's argument concerning command processor 66 is moot.

Based on the arguments and evidence presented in the Petition and having considered the arguments and evidence presented by both parties during the trial, we are persuaded that Petitioner has established by a preponderance of the evidence that claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17 are anticipated by Sellers.

4. Obviousness of Claims 3, 5, 8, 9, 12, 16, and 20–22 over Sellers and Stutman; Obviousness of Claims 18 and 19 over Sellers, Stutman, and Lamensdorf

a. Overview of Stutman

Stutman discloses a medical alert system that enables an authorized user (e.g., a doctor) to remotely set selection and limit parameters pertaining to specific medical and geodetic information of an ambulatory patient, and thereafter receive updates concerning when the parameters have been met. Ex. 1006, Abstract.

The medical alert system of Stutman may include telemetry devices that are carried by patients. *Id*. at 5:34–39. The telemetry devices may include radio positioning devices 325 for collecting information regarding the geographic location of the patients. *Id*. at 5:56–59. Stutman teaches that conventional medical alert systems without radio positioning devices are disadvantageous because a medical alert operator may not be able to locate a patient experiencing a medical emergency. *See id*. at 1:56–62.

The medical alert distribution system of Stutman also includes a host computer 12 connected to a plurality of subscriber units 20. Ex. 1006, 4:19–21. The subscriber units receive updates concerning the patient, and notify the medical personnel of medical conditions requiring attention. *Id*. at 2:21–25, 3:9–12. The subscriber units may be portable computers. *Id*. at 4:32–34.

b. Overview of Lamensdorf

Lamensdorf discloses a wireless system for sensing information at remote locations and communicating with a main monitoring center. Ex. 1007, Title. The disclosed system includes a portable attendant that is carried by persons working in potentially hazardous areas. *Id*. at 2:20–23.

The portable attendants of Lamensdorf include means for generating an audible and/or visual inquiry signal, and acknowledgement means that permit workers to send acknowledgement signals to the monitoring center. *Id*. at 2:27–33. In the event an acknowledgement signal is not received within a selected time, an alarm sounds at the monitoring center. *Id*. at 2:33–36. The portable attendants of Lamensdorf also include microphones and speakers, which enable voice communications with a main monitoring center. *Id*. at 4:1–3.

c. Combined Teachings of Sellers and Stutman as Applied to Claims 3, 5, 8, 9, 12, 16, and 20–22

Patent Owner, in its Response to the Petition, does not raise any arguments beyond its assertions regarding the disclosures of Sellers (which are discussed above), that Sellers and Stutman collectively fail to teach or suggest all of the limitations recited in claims 3, 5, 8, 9, 12, 16, and 20–22. *See* PO Resp. 46–58. We find Petitioner's evidence that Sellers and Stutman teach or suggest these limitations to be persuasive, and adopt Petitioner's reasoning. *See* Pet. 30–54; Ex. 1002 ¶¶ 54–114. Patent Owners' arguments that it would not have been obvious to combine the teachings of Sellers and Stutman in the manner set forth in the Petition are addressed below.

Patent Owner raises several arguments that apply generally to combining Sellers and Stutman. Patent Owner argues that a person of ordinary skill in the art would not have combined Sellers and Stutman in the manner Petitioner proposes because Sellers' remote computer system 110 merely records data for subsequent analysis, and is not suitable for monitoring a patient for "emergency" situations. PO Resp. 49–56. This

argument is not persuasive because Sellers' monitor 10 may compare monitored ECG data to preselected alarm limits, and transmit information to remote computer system 110 if the preselected alarm limits are reached. *See* Pet. 18 (citing Ex. 1005, 9:16–22, 9:42–46, 10:53–57, 11:5–7). On this record, we find that Sellers' system is capable of notifying remote computer system 110 of the occurrence of a medical emergency.

Patent Owner also argues that Sellers is "incompatible" with an emergency monitoring system because emergency monitoring systems require continuous wireless connectivity. PO Resp. 51–52. This argument is not persuasive because Patent Owner does not demonstrate that Sellers' system, which transmits data *periodically* (e.g., when a predetermined alarm limit is reached), would require *continuous* wireless connectivity to operate.

Patent Owner further argues that Sellers and Stutman teach away from the allegedly obvious combinations set forth in the Petition. PO Resp. 52–55. For example, Patent Owner alleges that Sellers teaches away from a "large and complex system" in which "data need to be sent to a 'monitoring location.'" *Id*. at 52–53. This argument is not persuasive in view of our findings that remote computer system 110 of Sellers is a central monitoring device that is capable of receiving notifications of ECG data that exceeds alarm limits. Patent Owner also argues that Sellers teaches away from a system "where continuous wireless connectivity to a central location would be required." *Id*. at 53–54. We are not persuaded that the proposed combinations of Sellers and Stutman would require continuous wireless connectivity to operate. We have reviewed the materials that Patent Owner cites in support of its teaching away argument (*see* PO Resp. 52–55) and find no persuasive evidence that Sellers or Stutman "criticize, discredit, or

otherwise discourage investigation" into the proposed combination of Sellers and Stutman. *See Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 738 (Fed. Cir. 2013).

We now address Patent Owner's arguments concerning specific challenged claims. Claims 3 and 12 depend from claims 1 and 10, respectively, and further recite a "portable-unit location-determining device." Independent method claim 16 requires a "portable-unit location-determining device," and independent method claim 20 recites the step of "determining the location of the subject." Petitioner alleges that it would have been obvious to include a location determining device of the type described in Stutman (i.e., radio positioning device 325) within monitor 10 of Sellers, and to have command processor 66 of Sellers transmit the location of portable monitor 10 to remote computer system 110 along with any detected abnormal heartbeat information, because doing so would have allowed medical personnel to locate the patient in the event of an emergency situation. Pet. 30–31, 38, 49; Ex. 1002 ¶¶ 61, 76, 104. In response, Patent Owner repeats its argument that the proposed combination would not have been obvious because Sellers does not perform "monitoring," but instead merely analyzes stored data. PO Resp. 55–56. This argument is not persuasive for the reasons discussed above.

Claim 5 depends from claim 1, and further requires "at least one additional central monitoring device which is portable and which is in communication with the first-named central monitoring device." Petitioner argues that a skilled artisan would have found it obvious to incorporate portable subscriber unit 20 of Stutman (i.e., an additional central monitoring device) into the system of Sellers because doing so would allow medical

personnel to stay informed of serious medical conditions of the patient without remaining near remote computer system 110. Pet. 32–33; Ex. 1002 ¶¶ 65–66. Claim 8 depends form claim 1, and further requires that "the central monitoring device [be] portable." Claim 21 depends from claim 20, and similarly recites "a second, portable central monitoring device." Petitioner argues that portable subscriber unit 20 of Stutman is a portable central monitoring device, and that it would have been obvious to incorporate portable subscriber unit 20 of Stutman into the system of Sellers for the same reasons set forth above with respect to claim 5. Pet. 34–35, 52–53; Ex. 1002 ¶¶ 68–69, 109–110.

Patent Owner argues that there would be no need to incorporate an "additional" or "portable" analysis system because monitor 10 of Sellers is "designed to interface with any general purpose computer system." PO Resp. 56.[1] This argument is not persuasive because it does demonstrate that a second, portable central monitoring device would not have made it easier for medical personnel located away from remote computer system 110 to stay informed of serious medical conditions.

Claim 9 depends form claim 1, and further requires "at least one additional portable monitoring unit having the same structure as the portable monitoring unit." Claim 22 depends from claim 20, and similarly requires "at least one additional portable monitoring unit." Petitioner alleges that it

[1] The heading of this section of the Patent Owner Response references claim 20, and refers to a "portable monitoring device." These references appear to be errors. It is clear from the text of the Patent Owner Response that Patent Owner is discussing claims that require an additional, portable, *central* monitoring device. Claim 20 does not contain such a limitation.

would have been obvious to incorporate multiple patient-worn monitors as disclosed in Stutman, in the system of Sellers, because doing so would have enabled the system to monitor multiple patients at a lower per-patient cost. Pet. 36–37, 53–54; Ex. 1002 ¶¶ 73–74, 112–114. Patent Owner argues that "Stutman does not teach that costs can be controlled by modifying systems to track multiple patients at one time," and that there would have been no need for multiple patient-worn monitors because Sellers' monitors are "meant for short-term collection of data." PO Resp. 57. These arguments are not persuasive because there is no requirement that the rationale for combining references be explicitly set forth in one of the references (*see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)), and because Patent Owner has offered no persuasive evidence that the monitors of Sellers were only capable of "short-term" collection of data.

Claim 20 requires "receiving audio signals from the remote central monitoring device for voice communication between the central monitoring device and the subject." Claim 19 (which is discussed in Section III.B.3.e, below) depends from claim 18, and recites the further step of "responsive to the report of the human subject, of transmitting a voice communication from the central monitoring device to the human subject." Petitioner argues that it would have been obvious to include the voice communication feature of Stutman in the system of Sellers because doing so would have allowed medical personnel to provide instructions and reassurance to patients in the event of an emergency. Pet. 51, 59–60; Ex. 1002 ¶¶ 107, 135. Patent Owner argues that there would have been no reason to incorporate voice communication capability into the system of Sellers because the Sellers system does not perform monitoring, but instead merely "record[s]

physiologic data." PO Resp. 57–58. This argument is not persuasive because it misstates the nature of Sellers' system. As discussed above, we find that remote monitor 10 of Sellers is capable of notifying remote computer system 110 in the event of a medical emergency.

Based on the arguments and evidence presented in the Petition, and having considered the arguments and evidence presented by both parties at trial, we are persuaded that Sellers in view of Stutman suggests all limitations of claims 3, 5, 8, 9, 12, 16, and 20–22, and that Petitioner has articulated persuasive reasoning having a rational underpinning to support the legal conclusion of obviousness with respect to each of these claims. *See KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

d. Combined Teachings of Sellers, Stutman, and Lamensdorf as Applied to Claims 18 and 19

Patent Owner, in its Response to the Petition, does not raise any disputes beyond its assertions regarding the disclosures of Sellers (which are discussed above), that Sellers, Stutman, and Lamensdorf collectively teach or suggest all limitations recited in claims 18 and 19. *See* PO Resp. 58–60. We find Petitioner's evidence that Sellers and Stutman teach or suggest these limitations to be persuasive, and adopt Petitioner's reasoning. *See* Pet. 54–60; Ex. 1002 ¶¶ 116–135. Patent Owner's arguments that it would not have been obvious to combine the teachings of the cited references in the manner set forth in the Petition are addressed below.

Claim 18 recites the step of "requiring a report from the human subject responsive to the step of monitoring." Claim 19 depends from claim

18, and thus incorporates this limitation. Petitioner alleges that it would have been obvious to further modify Sellers to incorporate Lamensdorf's remote attendant feature, which (i) includes voice communications capability, (ii) periodically requires a user to respond to a status inquiry, and (iii) activates an alarm in the event the user fails to respond to a status inquiry within a preset time. Pet. 56–60; Ex. 1002 ¶¶ 116–135. Petitioner argues that a skilled artisan would have realized that incorporating these features into monitor 10 of Sellers would have advantageously allowed a remote monitoring center to confirm that a patient is experiencing an emergency before alerting medical personnel. *Id*.

Patent Owner responds by repeating its prior arguments that Sellers does not disclose an "emergency monitoring system" or a "remote computer system 110 [that] is continuously monitored by medical personnel." PO Resp. 59. These arguments are not persuasive for the reasons discussed above. Patent Owner also asserts that a skilled artisan would not have combined Sellers and Stutman with Lamensdorf because Lamensdorf "describes a system for monitoring industrial workers in hazardous environments," and thus is not analogous art. *Id*. As Petitioner notes in its Reply, however, the '901 Patent is not limited to medical monitoring devices. *See* Reply 22; *see also* Ex. 1001, 1:62:64 ("The present invention provides an apparatus and a method for remotely monitoring the status of a living or inanimate subject."). Patent Owner does not dispute that Lamensdorf's portable attendant monitors the health of workers in an industrial environment. *See* PO Resp. 59–60. On this record, we find that Lamensdorf relates to the same field of endeavor as the '901 Patent and is analogous art.

Based on the arguments and evidence presented in the Petition, and having considered the arguments and evidence presented by both parties at trial, we are persuaded that Sellers in view of Stutman and Lamensdorf suggests all limitations of claims 18 and 19, and that Petitioner has articulated persuasive reasoning having a rational underpinning to support the legal conclusion of obviousness with respect to each of these claims. *See KSR*, 550 U.S. at 418.

e. Objective Indicia of Non-Obviousness

Patent Owner cites Exhibit 2011 and Paragraphs 67 and 117 of Dr. Fernald's declaration as evidence that its Mobile Cardiac Outpatient Telemetry ("MCOT") device embodies the invention claimed in the '901 Patent. *See* PO Resp. 8, 60, 62. Exhibit 2011 is a "virtual patent marking" page from the Internet asserting that the MCOT device is "protected by" numerous patents, including the '901 Patent. As discussed below, we admit Exhibit 2011 into evidence for the non-hearsay purpose of demonstrating an act of independent legal significance, i.e., showing that the MCOT device was marked as being covered by the '901 patent pursuant to 35 U.S.C. § 287. Paragraph 67 of Dr. Fernald's declaration does not assert that the MCOT device is claimed by the '901 Patent. *See* Ex. 2003 ¶ 67. Paragraph 117 asserts that "the praised features [of the MCOT device] have a nexus to claimed features of the '901 Patent," but this statement is also conclusory in nature and unsupported. *See id*. ¶ 117.

Patent Owner's evidence that the MCOT device embodies the invention disclosed and claimed in the '901 Patent is relatively weak. Petitioner, however, does not offer any evidence that the MCOT device does

not embody the inventions claimed by the ’901 Patent. *See* Reply 23–24. Accordingly, on this record and in light of the undisputed evidence, we begin our analysis by presuming that any evidence of secondary indicia of non-obviousness that relates to the MCOT device is attributable to the patented invention of the ’901 patent. *See PPC Broadband Inc. v. Corning Optical Comm. RF, LLC*, 815 F.3d 734, 747 (Fed. Cir. 2016).

Patent Owner cites Exhibits 2014—a William Blair & Co. market analyst report—as evidence of commercial success and industry praise. PO Resp. 61. Patent Owner also cites Exhibits 2007–2010 (four articles describing the MCOT device) as evidence of commercial success and industry praise. *Id.* at 62.

Petitioner argues in response that Patent Owner’s evidence demonstrates that any commercial success or industry praise was not attributable to the ’901 Patent, but was instead due to unclaimed features, prior art features, or other factors (e.g., marketing). Reply 24. Such evidence may rebut the presumption that any commercial success or industry praise is due to the ’901 Patent. *See Ormco Corp. v. Align Tech., Inc.*, 463 F.3d 1299, 1312 (Fed. Cir. 2006) (holding that evidence that commercial success was due to unclaimed or non-novel features of a device “clearly rebuts the presumption that [the product's] success was due to the claimed and novel features”).

On this record, we are persuaded that any commercial success or industry praise was due to unclaimed and/or prior art features of the MCOT device, and/or other factors such as marketing. For example, Exhibit 2014 attributes the success of the MCOT system to “peer-reviewed studies” confirming that “MCOT’s wireless, beat-to-beat monitoring solution is

nearly three times more effective in detecting [heart] arrhythmias than traditional loop recorders," (*id*. at 1), the fact that the MCOT device has received a Current Procedural Terminology ("CPT") code from the American Medical Association (*id*. at 3), and the fact that the MCOT device is covered by more than 220 insurance plans and Medicare (*id*.) As Petitioner points out, however, the '901 Patent does not claim, or even mention arrhythmia monitoring. Reply 25; *see generally* Ex. 1001. The existence of peer-reviewed studies pertaining to unclaimed functionality, and Patent Owner's ability to obtain a CPT code and insurance coverage for the MCOT device, are factors unrelated to the claims of the '901 Patent. Similarly, Exhibits 2007–2010 are all articles that assess the effectiveness of the MCOT device in diagnosing heart arrhythmia and/or atrial fibrillation. *See generally* Ex. 2007–2010. The '901 Patent does not disclose or claim detecting heart arrhythmias or atrial fibrillation. *See generally* Ex. 1001.

We also credit Dr. Stone's detailed explanation of why the alleged commercial success and industry praise of the MCOT device was not due to the '901 Patent. *See* Ex. 1011 ¶¶ 88–101. In contrast, Patent Owner does not offer any persuasive testimony from Dr. Fernald that the alleged success of the MCOT device was due to features claimed in the '901 Patent. Dr. Fernald's Declaration does not directly address the issue of secondary considerations. *See* Ex. 2003, ii. Although Patent Owner cites paragraph 117 of Dr. Fernald's declaration in its argument, this paragraph is merely a conclusory and unsupported allegation that "the praised features have a nexus to claimed features of the '901 Patent, such as the ability of a portable device to interact with a central monitoring station." Ex. 2003 ¶ 117. As discussed above, however, we find that Sellers discloses a prior art portable

monitoring device that is capable of interacting with a central monitoring device. *See* Section III.B.3.b, *supra*. Accordingly, Dr. Fernald's statement, even if true, is not persuasive evidence that any commercial success or industry praise was due to novel features of the '901 Patent.

For the foregoing reasons, on this record, and having considered the arguments and evidence put forth by Petitioner and Patent Owner, we find that Petitioner has successfully rebutted the presumption that any commercial success or industry praise of the MCOT device was due to the invention claimed in the '901 Patent.

Patent Owner also asserts the secondary indicia of copying, arguing that the evidence shows Petitioner copied the allegedly-patented features of the MCOT device. Patent Owner, however, has not offered any persuasive evidence of copying. The only evidence cited by Patent Owner in support of its copying allegation (Exhibits 2017–2019) are merely copies of filings that Patent Owner made in District Court in which Patent Owner alleged copying. *See* PO Resp. 62–63; Exs. 2017–2019. Patent Owner's allegations in prior court filings of copying are not persuasive evidence that copying actually occurred, especially given that Petitioner denied those allegations. *See* Reply 25–26 (citing Ex. 1019 ¶¶ 23, 26, 115–18). On this record, and having considered the arguments and evidence put forth by both parties, we find that the secondary consideration of copying has not been established.

f. Legal Conclusion of Obviousness

In view of the four factual determinations outlined in *Graham*, 383 U.S. at 17–18, we now evaluate all of the evidence together and make a final determination as to obviousness. Based on the arguments and evidence

presented in the Petition and having considered the arguments and evidence presented by both parties during the trial, we are persuaded that Petitioner has established by a preponderance of the evidence that claims 3, 5, 8, 9, 12, 16, and 20–22 are unpatentable as obvious over Sellers and Stutman, and that claims 18 and 19 are unpatentable as obvious over Sellers, Stutman, and Lamensdorf.

C. Motions to Exclude

A party moving to exclude evidence bears the burden of proving that it is entitled to the relief requested—namely, that the material sought to be excluded is inadmissible under the Federal Rules of Evidence. 37 C.F.R. §§ 42.20(c), 42.62(a). "A motion to exclude evidence must: (a) Identify where in the record the objection originally was made; (b) Identify where in the record the evidence sought to be excluded was relied upon by an opponent; (c) Address objections to exhibits in numerical order; and (d) Explain each objection." 37 C.F.R. § 42.64(c); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,767 (Aug. 14, 2012).

1. Petitioner's Motion to Exclude

Petitioner argues that Exhibit 2011 (the virtual patent marking page discussed above) is inadmissible hearsay under Fed. R. Evid. 801–804 and 807 because Patent Owner offers this exhibit for the proof of the matter asserted therein (i.e., that the MCOT device embodies the '901 Patent), and because it does not fall within any of the applicable exceptions to the hearsay rule. Paper 35, 2–6. Patent Owner argues in its response that Exhibit 2011 is "not a statement," but instead "represents an act of independent legal significance," i.e., Patent Owner's compliance with its

marking obligations under 35 U.S.C. § 287. Paper 41, 1–2. Given that Exhibit 2011 is not offered for the truth of the matter asserted, we *deny* Petitioner's Motion to Exclude as to Exhibit 2011, and consider Exhibit 2011 for the non-hearsay purpose of proving an act of independent legal significance, i.e., that Patent Owner marked the MCOT device as being covered by the '901 Patent.

Petitioner also seeks to exclude Exhibits 2014 and 2015 as inadmissible hearsay, and Exhibits 2017 and 2019 as cumulative and misleading. Patent Owner cites Exhibit 2014 in support of its argument that the MCOT device was commercially successful. *See* PO Resp. 61–62. Exhibit 2015 is not cited in the Patent Owner Response, but it appears to be identical to Exhibit 2014. Exhibits 2017 and 2019 are cited by Patent Owner as evidence that Petitioner copied the source code of the MCOT device. *See id*. at 62–63.

As discussed above, having considered all of Patent Owner's evidence of secondary considerations, we find, under *Graham*, 383 U.S. at 17–18, that any evidence of objective indicia of non-obviousness does not outweigh the evidence of obviousness. Excluding Exhibits 2014, 2015, 2017, and 2019 would, therefore, not change the outcome of this case. Accordingly, Petitioner's Motion to Exclude is *dismissed as moot* as to Exhibits 2014, 2015, 2017, and 2019.

2. Patent Owner's Motion to Exclude

Patent Owner moves to exclude certain paragraphs of Dr. Stone's Declaration (Ex. 1002) and Dr. Stone's Reply Declaration (Ex. 1011) under Federal Rules of Evidence 401–403, on the grounds that they were not cited

in the Papers, or that they were merely included in block cites. *See* Paper 38, 1–4. In this case, we considered only the arguments made in the briefs and the evidence sufficiently tied to those arguments. In addition, the Board is capable of assessing Dr. Stone's testimony, and according Dr. Stone's testimony the proper weight.

Patent Owner also argues that Paragraphs 58–114 and 115–133 of Exhibit 1002 are merely "conclusory statements" that do not constitute proper opinion testimony under Federal Rule of Evidence 702 or 37 C.F.R. § 42.65(a). Paper 38, 2–4. Patent Owner's argument is conclusory in nature, and Patent Owner does not identify any specific deficiencies in the 73 paragraphs it seeks to exclude.

On this record, Patent Owner has not met its burden with respect to the cited paragraphs of Exhibits 1002 and 1011, and its motion to exclude is *denied* as to these paragraphs.

Patent Owner seeks to exclude portions of Exhibit 1013 (excerpts from a technical dictionary) that were not relied upon in Petitioner's Reply. Paper 38, 4. We considered only the portions of Exhibit 1013 that were sufficiently tied to arguments that were made in the briefs. Patent Owner's motion to exclude is *denied* as to Exhibit 1013.

Patent Owner seeks to exclude portions of the transcripts of Dr. Stone's May 5, 2016 deposition (Exhibit 2004) and Dr. Stone's September 7, 2015 deposition (Exhibit 2029). Paper 38, 4–7. We did not rely upon this testimony in this Decision. Thus, Patent Owner's motion to exclude is *dismissed as moot* as to Exhibits 2004 and 2029.

D. Motion for Observations on Cross-Examination

Patent Owner filed a Motion for Observations (Paper 39), which pertains to portions of Dr. Stone's Reply Declaration (Ex. 1011). To the extent Patent Owner's motion bears on the credibility of Dr. Stone's testimony, we have considered Patent Owner's observations and Petitioner's responses (Paper 42) in rendering this Decision, and have accorded Dr. Stone's testimony appropriate weight.

IV. ORDER

Accordingly, it is

ORDERED that claims 1, 2, 4, 6, 7, 10, 11, 13–15, and 17 of the '901 Patent are unpatentable as anticipated by Sellers;

FURTHER ORDERED that claims 3, 5, 8, 9, 12, 16, and 20–22 of the '901 Patent are unpatentable as obvious over Sellers and Stutman;

FURTHER ORDERED that claims 18 and 19 of the '901 Patent are unpatentable as obvious over Sellers, Stutman, and Lamensdorf;

FURTHER ORDERED that Petitioner's Motion to Exclude is *denied in part* and *dismissed in part*;

FURTHER ORDERED that Patent Owner's Motion to Exclude is *denied in part and dismissed in part*; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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