

**United States Court of Appeals  
for the Federal Circuit**

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**FITBIT, INC.,**  
*Appellant*

v.

**VALENCELL, INC.,**  
*Appellee*

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2019-1048

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2017-00319, IPR2017-01555.

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Decided: July 8, 2020

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KEVIN P.B. JOHNSON, Quinn Emanuel Urquhart & Sullivan, LLP, Redwood Shores, CA, argued for appellant. Also represented by MARK YEH-KAI TUNG; SAM STEPHEN STAKE, OGNJEN ZIVOJNOVIC, San Francisco, CA; HARPER BATTIS, CHRISTOPHER SCOTT PONDER, Sheppard Mullin Richter & Hampton LLP, Palo Alto, CA.

JEFFREY BRAGALONE, Bragalone Conroy PC, Dallas, TX, argued for appellee. Also represented by THOMAS WILLIAM KENNEDY, JR., JUSTIN KIMBLE, DANIEL FLETCHER OLEJKO, JONATHAN H. RASTEGAR.

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Before NEWMAN, DYK, and REYNA, *Circuit Judges*.

NEWMAN, *Circuit Judge*.

Fitbit, Inc. appeals the Final Written Decision of the United States Patent Trial and Appeal Board (“PTAB” or “Board”),<sup>1</sup> concerning the *inter partes* review (“IPR”) of United States Patent No. 8,923,941 (“the ’941 patent”) owned by Valencell, Inc. The ’941 patent, entitled “Methods and Apparatus for Generating Data Output Containing Physiological and Motion-Related Information,” concerns systems for obtaining and monitoring information such as blood oxygen level, heart rate, and physical activity.

Apple Inc. petitioned the Board for IPR of claims 1–13. The Board granted the petition in part, instituting review of claims 1, 2, and 6–13, but denying review of claims 3–5. Fitbit then filed an IPR petition for claims 1, 2, and 6–13 and moved for joinder with Apple’s IPR. The Board granted Fitbit’s petition, granted the motion for joinder, and terminated Fitbit’s separate proceeding.

After the PTAB trial, but before the Final Written Decision, the Supreme Court decided *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), holding that the America Invents Act requires that all patent claims challenged in an IPR petition must be reviewed by the Board if the petition is granted. *Id.* at 1354. Following the Court’s decision, the Board re-instituted the Apple/Fitbit IPR to add claims 3–5 of the ’941 patent.

The Board conducted further proceedings as to claims 3–5, and issued a Final Written Decision that held claims 1, 2, and 6–13 unpatentable, and held claims 3–5 not unpatentable. Following the decision, Apple withdrew

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<sup>1</sup> *Apple Inc. v. Valencell, Inc.*, No. IPR2017-00319, Paper No. 43, 2017 WL 9989892 (P.T.A.B. Aug. 6, 2017) (“Board Op.”).

from the proceeding. Fitbit appeals the Board's decision on claims 3–5. Valencell does not cross-appeal as to the claims held unpatentable, but challenges Fitbit's right to appeal as to claims 3–5 and defends the Board's decision.

We hold that Fitbit has a right to appeal. However, we conclude that the Board erred in its rulings that claims 3–5 are not unpatentable. We vacate these rulings, and remand for determination of the merits of patentability of claims 3–5.

## I

### JOINDER AND RIGHT OF APPEAL

The patent statute provides:

35 U.S.C. § 315(c) *Joinder*.—If the Director institutes an inter partes review, the Director, in his or her discretion, may join as a party to that inter partes review any person who properly files a petition under section 311 that the Director, after receiving a preliminary response under section 313 or the expiration of the time for filing such a response, determines warrants the institution of an inter partes review under section 314.

Fitbit filed its IPR petition after the Board instituted Apple's petition as to claims 1, 2, and 6–13. Fitbit's petition specified claims 1, 2, and 6–13, and was accompanied by a motion to “grant joinder with the *Apple Inc. v. Valencell, Inc.*, Case No. IPR2017-00319 proceeding.” J.A.1736. The Board “granted [] Fitbit's request to join as party,” and noted that the “[d]ecision addressing the status of each challenged claim in this proceeding applies to all parties.” Board Op. at \*1 n.3. The Board stated that “all filings . . . will be consolidated, and no filing by [Fitbit] alone will be considered without prior authorization by the Board.” J.A.1625. Valencell now argues that this procedure and other aspects of Fitbit's joinder preclude Fitbit

from the right to appeal the Board's decision concerning claims 3–5.

The patent statute provides for IPR appeal by “any party,” as follows:

35 U.S.C. § 319. A party dissatisfied with the final written decision of the Patent Trial and Appeal Board under section 318(a) may appeal the decision pursuant to sections 141 through 144. Any party to the inter partes review shall have the right to be a party to the appeal.

Precedent has confirmed that: “Joined parties, as provided in § 315, may appeal pursuant to § 319.” *Mylan Pharm. Inc. v. Research Corp. Techs., Inc.*, 914 F.3d 1366, 1373 (Fed. Cir. 2019). Valencell states that it “is not contending that Fitbit lacks standing as a joined party to appeal the Board's Final Written Decision to the extent of its petition.” Valencell Br. 23. Valencell's position is that Fitbit does not have standing to appeal the portion of the Board's decision that relates to claims 3–5, because Fitbit's IPR petition was for claims 1, 2, and 6–13. Valencell cites *Wasica Finance GmbH v. Continental Automotive Systems, Inc.*, 853 F.3d 1272, 1285 (Fed. Cir. 2017) for its holding that the petitioner waived any argument it did not present in its petition for IPR.

Thus, Valencell argues that Fitbit does not have the status of “party” for purposes of appeal because Fitbit did not request review of claims 3–5 in its initial IPR petition, did not request leave to amend its initial petition after the Supreme Court's decision in *SAS Institute*, and did not submit a separate brief with respect to claims 3–5 after the joined IPR was re-instituted. Valencell also argues that Fitbit was not a full participant in the joined IPR, because the Board stated that Fitbit would have “limited participation, if at all, and required Fitbit to seek authorization from the Board before filing any papers.” Valencell Br. 13–14 (internal quotation marks omitted).

Fitbit responds that Valencell did not object to Fitbit's joinder as a party, and did not object to or seek to qualify Fitbit's continued participation after the Board re-instituted the joined IPR to include claims 3–5. Fitbit states that after its joinder with Apple's IPR there was only one IPR, and points to the Board's statement that both parties are bound by the decision. Fitbit acknowledges that it did not seek to file a separate brief after claims 3–5 were added to the IPR, and states that such separate brief was not required in order to present the issues. We agree with Fitbit that these circumstances do not override Fitbit's statutory right of appeal.

Valencell also states that Fitbit's petition was not in conformity to statute, for Fitbit's petition and the accompanying request for joinder were filed more than one year after the filing of Valencell's district court suit against Fitbit. Appellate review of this aspect was resolved by the recent decision in *Thryv, Inc v. Click-To-Call Technologies, LP*, 140 S. Ct. 1367 (2020), where the Court held, as to a tardy filing of a petition for IPR, that the Board's acceptance of such filing at the "institution" phase is, by statute, not reviewable on appeal.

We conclude that Fitbit's rights as a joined party applies to the entirety of the proceedings and includes the right of appeal, conforming to the statutory purpose of avoiding redundant actions by facilitating consolidation, while preserving statutory rights, including judicial review.

## II

### THE CLAIMS ON APPEAL

Claims 3–5 are shown with claim 1 from which they depend, with emphases added to the aspects of claims 3–5 that were the focus of the Board's rulings:

1. A method of generating data output containing physiological and motion-related information, the method comprising:

sensing physical activity and physiological information from a subject via a single monitoring device attached to the subject, wherein the monitoring device comprises at least one motion sensor for sensing the physical activity and at least one photoplethysmography (PPG) sensor for sensing the physiological information; and

processing signals from the at least one motion sensor and signals from the at least one PPG sensor via a processor of the monitoring device into a serial data output of physiological information and motion-related information, wherein the serial data output is configured such that a plurality of subject physiological parameters comprising subject heart rate and subject respiration rate can be extracted from the physiological information and such that a plurality of subject physical activity parameters can be extracted from the motion-related information.

\* \* \*

3. The method of claim 1, wherein the serial data output is parsed out such that an ***application-specific interface (API)*** can utilize the physiological information and motion-related information for an application.

4. ***The method of claim 1***, wherein ***the application*** is configured to generate statistical relationships between subject physiological parameters and subject physical activity parameters in the physiological information and motion-related information.

5. *The method of claim 4*, wherein *the application* is configured to generate statistical relationships between subject physiological parameters and subject physical activity parameters via at least one of the following: principal component analysis, multiple linear regression, machine learning, and Bland-Altman plots.

'941 patent, col. 30, l. 35–col. 31, l. 9 (emphases added).

The Board held that “Petitioner fails [to] demonstrate[] by a preponderance of the evidence that claims 3–5 of the '941 patent are unpatentable based on the challenges asserted in the Petition.” Board Op. at \*33.

A

***Claim 3—Construction of “Application-Specific Interface (API)”***

The Board held that claim 3 is not unpatentable, based solely on the Board’s rejection of Fitbit’s proposed construction of the term “application-specific interface (API).” The Board did not review patentability of claim 3 on the asserted grounds of obviousness.

The Board construed “application-specific interface (API)” to mean “an interface which enables a particular application to utilize data obtained from hardware, such as the at least one motion sensor and the at least one PPG [photoplethysmography] sensor.” Board Op. at \*7. We agree that this is the correct construction of this term.

Fitbit had proposed a broader construction, stating that when given its broadest reasonable interpretation, “application-specific interface (API)” renders claim 3 unpatentable as obvious in view of several cited references. Fitbit argues that the broadest reasonable interpretation of “application-specific interface (API) . . . include[s] at least an application interface that specifies how some software components should interact with each other.” Fitbit

Br. 16 (citing J.A.507–08 ¶ 63). Fitbit states that following this construction, claim 3 is unpatentable.

In construing claim 3, Fitbit focuses on the patent’s use of “API” following the term “application-specific interface.” Fitbit states that “API” is recognized in this field as an acronym for “application programming interface”—as experts for both sides agreed. Fitbit argues that the well-known meaning of “API” and its consistent usage accompanying “application-specific interface” in the ’941 patent demonstrate the patentee’s intended broader meaning of “application programming interface.” Fitbit Br. 25. Fitbit states that this broader meaning renders claim 3 obvious in view of the cited prior art references.

Valencell responds that the ’941 patent’s specification demonstrates that “application-specific interface (API)” has a narrower meaning than “application programming interface.” The ’941 patent states, “an application-specific interface can utilize the physiological information and motion-related information for an application that generates statistical relationships between subject physiological parameters and subject physical activity parameters in the physiological information and motion-related information.” ’941 patent, Abstract. Valencell refers to the patent’s Figure 18 describing use of data to generate “high-level assessments”:

The multiplexed data outputs 604 may be a serial data string of activity and physiological information 700 (FIG. 18) parsed out specifically such that an application-specific interface (API) can utilize the data as required for a particular application. The applications may use this data to generate high-level assessments, such as overall fitness or overall health.

’941 patent, col. 26, ll. 15–21. Valencell states that these are narrow usages, to which the Board’s claim construction conforms. Valencell also points out that during prosecution



the applicant pointed to the narrow scope of “application-specific interface (API)” to distinguish a cited reference.

The parties’ experts presented varied views of “application-specific interface (API)” and “application programming interface.” Fitbit’s expert, Dr. Majid Sarrafzadeh, testified that “by contrast [to application programming interface], ‘application-specific interface’ did not have a common meaning in the art.” J.A.507–08 at ¶ 62 (Decl. of Dr. Sarrafzadeh); J.A.148. Valencell’s expert, Dr. Luca Pollonini, when asked whether his “understanding is that the term application-specific interface as used in the ’941 patent is the same as the commonly understood application programming interface that’s known in the art,” stated “yes, it’s basically the same.” J.A.1364 at 128:4–12 (Test. of Dr. Pollonini).

The Board concluded that the narrower claim construction is correct, reasoning that an “‘application-specific interface (API)’ is directed to a ‘particular application,’ rather than *broadly* to different applications.” Board Op. at \*7 (emphasis in original). We agree, for this interpretation conforms to the specification and the prosecution history. We, therefore, sustain the Board’s construction of this term. The Board’s narrowing construction may have no significance, where, as here, the claimed “application-specific interface” performs the same function as an application programming interface, i.e., “enabl[ing] a particular application to utilize data obtained from hardware.” *Id.* On remand the Board may consider this aspect.

However, the Board did not review the patentability of claim 3, as construed, on the asserted grounds of obviousness. The Board held that, by rejecting Fitbit’s position on the meaning of “application-specific interface (API),” the patentability inquiry ended, and by Final Written Decision the Board held claim 3 not unpatentable. The Board explained:

Because Petitioner's assertions challenging claim 3 are based on the rejected construction of this term, and the evidentiary support relied upon is predicated upon the same, we are not persuaded that Petitioner has shown by a preponderance of the evidence that claim 3 is rendered obvious over Luo<sup>2</sup> and Craw<sup>3</sup> or over Mault<sup>4</sup>, Al-Ali<sup>5</sup>, and Lee<sup>6</sup>. We do not address this claim further in this Decision.

Board Op. at \*8 (footnotes added) (internal citations omitted).

Fitbit had argued before the Board that claim 3 and the claims dependent thereon are invalid as obvious over several cited prior art references. However, after the Board rejected Fitbit's claim construction, the Board conducted no further analysis, and did not assess patentability of claim 3 against the cited prior art references.

Valencell acknowledges that "the Board did not make findings of fact regarding alleged obviousness of claim 3 under either the rejected construction of 'application-specific interface (API)' or some narrower construction." Valencell Br. 33. Apple pressed the question before the Board, and in a request for reconsideration argued: "The Board overlooked Petitioner's previously-submitted arguments

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<sup>2</sup> U.S. Patent Application Publication No. 2008/0200774, Pub. Date: Aug. 21, 2008 ("Luo").

<sup>3</sup> U.S. Patent Application Publication No. 2008/0133699, Pub. Date: June 5, 2008 ("Craw").

<sup>4</sup> U.S. Patent No. 6,513,532, Issued Feb. 4, 2003 ("Mault").

<sup>5</sup> U.S. Patent Application Publication No. 2003/0181798, Pub. Date: Sept. 25, 2003 ("Al-Ali").

<sup>6</sup> R.G. Lee et al., *A Mobile Care System with Alert Mechanism*, 11(5) IEEE Transactions on Info/ Tech. in Biomedicine 507 (2007) ("Lee").

and material facts showing the prior art still discloses an ‘application-specific interface (API)’ under the Board’s revised construction.” *Apple Inc. v. Valencell, Inc.*, No. IPR2017-00319, Paper No. 13, at 1–4 (P.T.A.B. Aug. 6, 2017). The Board declined reconsideration.

Fitbit criticizes the Board’s procedure for holding claim 3 not unpatentable by Final Written Decision without considering any of the references cited and on the grounds of obviousness. Fitbit states that *SAS Institute*, 138 S. Ct. at 1357, confirmed this obligation. Fitbit correctly states that claim construction is only the first step in establishing the meaning and scope of a claim, whereby patentability is assessed for the claim as construed. The Board erred in holding that since it did not adopt Fitbit’s claim construction, that decided the question of patentability. It was improper to hold claim 3 “not unpatentable” by Final Written Decision, without determination of the asserted grounds of obviousness.

Fitbit now asks this court to conduct the obviousness analysis. However, it is inappropriate for the court to determine obviousness *ab initio* on appeal. *See Oil States Energy Servs., LLC v. Greene’s Energy Grp., LLC*, 138 S. Ct. 1365, 1374 (2018) (a purpose of the America Invents Act is to obtain review of patentability by the expert agency that granted the patent).

We affirm the Board’s claim construction, vacate the Board’s decision that claim 3 is not unpatentable, and remand for determination of patentability in light of the cited references.

## B

### ***Claims 4–5—Antecedent Basis of “the application”***

The IPR petition also challenged validity of claims 4 and 5 on grounds of obviousness in view of references to

Luo<sup>7</sup>, Crow<sup>8</sup>, and Wolf<sup>9</sup>. The Board held claims 4 and 5 not unpatentable in its Final Written Decision, on the ground that the Board could not determine the meaning of the claims because the term “the application” lacked antecedent basis.

The Board did not apply the cited prior art references, on which there were evidence and argument, instead stating that the meaning of the claims were “speculative.” The Board stated:

Although we agree that the recitation of the term “the application” in claim 4 lacks antecedent basis in claim 1, we declined to speculate as to the intended meaning of the term. Inst. Dec. 13. Although Petitioner and Patent Owner now seem to agree on the nature of the error in claims 4 and 5 [citing briefs], we find that the nature of the error in claims 4 and 5 is subject to reasonable debate in view of the language of claims 1 and 3–5 and/or that the prosecution history does not demonstrate a single interpretation of the claims. Pet. 15 (describing two possible errors in claim 4); . . . .

Board Op. at \*9. The Board held that Fitbit had not met its burden of proving obviousness, and claims 4 and 5 were ruled not unpatentable.

There indeed is an error in the statement of claim dependency. Both Fitbit and Valencell agree; they state that the error arose when the claims were renumbered in view of the cancellation of claim 2. Fitbit summarizes:

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<sup>7</sup> See n.2, *supra*.

<sup>8</sup> See n.3, *supra*.

<sup>9</sup> U.S. Patent Application Publication No. 2007/0197881, Pub. Aug. 23, 2007 (“Wolf”).

As originally drafted, claim 5 (which is now claim 4) recited that it depended from claim 4 (which is now claim 3). Appx262–263 (original claim listing). As explain[ed] . . . Valencell inadvertently changed claim 4’s dependency to “claim 1” when it amended other claims of the patent application.

Fitbit Br. 11. The prosecution history shows this conspicuous error, for claims 4 and 5, as filed and throughout the prosecution, correctly recited their antecedent; and, in a claim chart filed in preparation for issuance the examiner was told that there was “no change.” It appears that neither the applicant nor the examiner caught the error. However, the error has come to light, and the Board declined to accept the parties’ shared view of the correct antecedent.

The preferable agency action is to seek to serve the agency’s assignment under the America Invents Act, and to resolve the merits of patentability. Although the Board does not discuss its authority to correct errors, there is foundation for such authority in the America Invents Act, which assured that the Board has authority to amend claims of issued patents. *See* 35 U.S.C. § 316(d). And precedent has provided guidelines for district courts to correct errors in issued patents. *See Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed. Cir. 2003) (“[A] district court can do so if (1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the prosecution history does not suggest a different interpretation of the claims.”); *see also CBT Flint Partners, LLC v. Return Path, Inc.*, 654 F.3d 1353, 1358 (Fed. Cir. 2011) (the district court can correct an obvious drafting error). The concept of error correction is not new to the Agency, which is authorized to issue Certificates of Correction.

It is not alleged that the error herein was other than inadvertent, for the dependency of then-claim 5 from then-claim 4 was correctly stated in the claims as filed and

throughout prosecution. Although the Board states that the intended meaning of the claims is “subject to reasonable debate,” we perceive no debate. Rather, the parties to this proceeding agree as to the error and its correction. The Board erred in declining to accept the parties’ uniform position and correct the error that claim 4 depend from claim 3. With this correction, the rejection of claims 4 and 5 for absence of antecedent basis for “the application” disappears.

We conclude that the Agency’s treatment of this error as the basis of a Final Written Decision of patentability is not a reasonable resolution, and does not comport with the Agency’s assignment to resolve patentability issues. On the correct antecedent basis, the petition’s issue of obviousness may be resolved by the Board, in furtherance of resolution of the parties’ dispute in concurrent district court litigation.

The Board’s Final Written Decision on the ground of “absence of antecedent” basis is vacated. On remand the Board shall determine patentability of corrected claims 4 and 5 on the asserted grounds of obviousness.

#### CONCLUSION

We hold that Fitbit as a joined party has the right to appeal the Board’s decisions pertaining to claims 3–5. We conclude that the Board erred in its rulings concerning claims 3–5. We vacate the decision that claims 3–5 are not unpatentable, and remand for determination of the merits of patentability on the grounds presented in the petition.

#### **AFFIRMED IN PART, VACATED IN PART, AND REMANDED**

Each party shall bear its costs.