United States Court of Appeals for the Federal Circuit

 $\begin{array}{c} \textbf{PERFECT SURGICAL TECHNIQUES, INC.,} \\ Appellant \end{array}$

v.

OLYMPUS AMERICA, INC., OLYMPUS MEDICAL SYSTEMS CORPORATION,

Appellees 2015-2043

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2014-00233.

Decided: November 15, 2016

ROBERT E. FREITAS, Freitas Angell & Weinberg LLP, Redwood City, CA, argued for appellant. Also represented by DANIEL J. WEINBERG, JOSHUA YOUNG.

Deborah E. Fishman, Kaye Scholer LLP, Palo Alto, CA, argued for appellees. Also represented by Katie Jeannine Lewis Scott, Marisa Armanino Williams.

Before MOORE, SCHALL, and O'MALLEY, Circuit Judges.

Opinion for the court filed by Circuit Judge MOORE.

Opinion concurring in part and dissenting in part filed by *Circuit Judge* SCHALL.

MOORE, Circuit Judge.

Perfect Surgical Techniques, Inc. ("PST") appeals from a decision of the Patent Trial and Appeal Board ("Board") invalidating claims 1, 4–6, 8, 9, 11, 12, 38, 41–44, 46, 47, and 49 of U.S. Patent No. 6,030,384 ("384 patent"). For the reasons set forth below, we vacate and remand.

BACKGROUND

This appeal arises from the Board's inter partes review ("IPR") decision determining, inter alia, that each of the claims at issue are anticipated or would have been obvious over Japanese Application Publication No. H10-33551 A ("JP '551"). The Board determined that JP '551 qualified as prior art to the '384 patent under 35 U.S.C. § 102(a). First, the Board rejected PST's argument that the Board could not rely on JP '551 as filed because the petitioners, Olympus America, Inc. and Olympus Medical Systems Corp. (collectively, "Olympus"), failed to translate the bibliographic page containing the publication Second, the Board determined that PST failed to antedate JP'551 because it had not proven that the inventor of the '384 patent was reasonably diligent in reducing his invention to practice. After concluding that JP '551 was prior art, the Board examined the prior art under its claim construction and determined JP'551 anticipated or rendered obvious the claims at issue.

PST's appeal addresses all three aspects of the Board's decision. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

A. Partial Translation of JP '551

Pursuant to 37 C.F.R. § 42.63(b), the Board requires a party relying on a non-English document to submit "a translation of the document into English and an affidavit attesting to the accuracy of the translation." PST argues that Olympus' failure to translate the bibliographic page of JP '551 rendered their submission defective and that the Board violated its own regulations by relying on Olympus' partially-translated submission. PST argues that the bibliographic page contained the publication date, and since that page was not translated, Olympus did not present sufficient evidence for the Board to determine that JP '551 was prior art to the '384 patent.

The Board is not free to disregard its own regulations. Nor can it mandate compliance by only some parties. But in this case, even if the Board erred by accepting Olympus' submission of JP '551, its error is harmless.

PST concedes that the only relevant information on the untranslated page is the publication date, and the date is discernable from the face of the untranslated page. See J.A. 13 (citing Manual of Patent Examining Procedure § 901.05(a) (describing how to convert Japanese format publication date information to Gregorian calendar date information)). As noted by the Board, the translator's certification further attested that JP '551 was published on February 10, 1998. J.A. 12–13. PST does not dispute that JP '551 was published on this date, nor does it dispute the remainder of the translation. For these reasons, PST has not established that the Board's acceptance of a not fully translated version of JP '551 was anything other than harmless error.

B. Antedating JP '551

Background

Pre-AIA section 102(g) allows a patent owner to antedate a reference by proving earlier conception and reasonable diligence in reducing to practice. Monsanto Co. v. Mycogen Plant Sci., Inc., 261 F.3d 1356, 1362 (Fed. Cir. 2001). Reasonable diligence must be shown throughout the entire critical period, which begins just prior to the competing reference's effective date and ends on the date of the invention's reduction to practice. Id. at 1363.

Dr. Camran Nezhat, the inventor of the '384 patent, hired James Heslin to draft and file the application that would issue as the '384 patent. On January 28, 1998, Mr. Heslin sent an initial draft of the application to Dr. Nezhat. Mr. Heslin later filed the application with the Patent and Trademark Office ("PTO") on May 1, 1998. During this 93-day lapse of time—and only thirteen days after Dr. Nezhat received the initial draft application— JP '551 published. To show diligence in reduction to practice, PST must prove that Dr. Nezhat was reasonably diligent during the critical period, which began on February 9, 1998, one day prior to JP '551's publication date, and ended on May 1, 1998, the date the invention was constructively reduced to practice by filing the application that resulted in the '384 patent with the PTO.

Dr. Nezhat testified that he was reasonably diligent in reducing his invention to practice from February 9 to May 1, 1998. He testified that, although he did not recall all of his daily activities, he "diligently worked with

¹ Because the Board determined that PST had not proven reasonable diligence, it did not reach the issue of conception. We decline to consider PST's evidence of conception for the first time on appeal and therefore limit our opinion to the issue of reasonable diligence.

Mr. Heslin between February 1, 1998 and May 1, 1998, within the reasonable limits of my busy medical practice and teaching schedule[.]" J.A. 686. He testified that throughout these months, his medical practice required him to work roughly 80 hours per week, during which he would perform approximately four to six surgeries. *Id.* He testified that he submitted comments on the initial draft application on March 2, received questions from Mr. Heslin on or around March 4 and 12, participated in a conference with Mr. Heslin on March 16, and received a second draft application from Mr. Heslin on April 13. He testified that he "again carefully re-J.A. 686–87. viewed the second draft" before it was finalized and filed on May 1. J.A. 687.

An inventor's testimony regarding his reasonable diligence must be corroborated by evidence. *Brown v. Barbacid*, 436 F.3d 1376, 1380 (Fed. Cir. 2006). A "variety of activities" may corroborate an inventor's testimony of reasonable diligence and such corroborating evidence is considered "as a whole" under a rule of reason. *Id.* To corroborate Dr. Nezhat's testimony, PST introduced a declaration from Mr. Heslin, letters between Dr. Nezhat and Mr. Heslin, and Mr. Heslin's billing records.

Mr. Heslin recounted the same dates of activity as Dr. Nezhat and added that he reviewed and revised the initial draft application on April 7. J.A. 757–58. He characterized Dr. Nezhat as a "careful and serious client" who "communicated with me, in writing and in person, to finalize the application." J.A. 758. He testified that he and Dr. Nezhat "put in a significant amount of effort and work into revising and finalizing the patent application between February 1 and May 1." J.A. 758–59. He testified that during the relevant time period, he "maintained a very active practice" and typically worked 50 hours or more a week. J.A. 756, 758.

Mr. Heslin's declaration appended a number of exhib-

its as support for his testimony. A March 12 letter from Mr. Heslin thanked Dr. Nezhat for his "facsimile of March 2, 1998, with comments on the initial draft." The letter asked for Dr. Nezhat's "further J.A. 927. comments on electrode surface area" and requested that they meet "to discuss finalizing the draft." Mr. Heslin's billing records indicate he Dr. Nezhat's comments on March 4 and that he met with Dr. Nezhat on March 16. J.A. 604. The billing records also indicate Mr. Heslin revised the draft application on April 7. Id.An April 13 letter from Mr. Heslin to Dr. Nezhat enclosed a second draft application and expressed that he "tried to reflect the comments you made when we last met." J.A. 607. The letter asked for Dr. Nezhat's "further comments so that [the application] can be finalized and filed in the near future." Mr. Heslin filed the application on May 1. J.A. 604, 634.

The Board accepted Dr. Nezhat's testimony and corroborating evidence but determined that PST was not "sufficiently specific as to facts and dates" of Dr. Nezhat's diligence during three portions of the critical period: (1) February 10 to March 1; (2) March 12 to March 15; and (3) April 13 to May 1. J.A. 21–22. The Board therefore concluded that PST failed to demonstrate Dr. Nezhat's "continuous exercise of reasonable diligence for the entire critical period." J.A. 22.

2. Discussion

Whether a patent antedates a reference is a question of law based on subsidiary findings of fact. *In re Steed*, 802 F.3d 1311, 1316–17 (Fed. Cir. 2015). The issue of reasonable diligence "turns on the factual record, and we review Board determinations as to diligence for support by substantial evidence in the record." *Id.* at 1317. Throughout its opinion, the Board repeatedly characterized PST's burden as requiring proof of Dr. Nezhat's "continuous" exercise of reasonable diligence." J.A. 16

(emphasis added); see also id. (requiring proof of "continuous and corroborated diligence"); J.A. 18 ("Patent Owner does not provide sufficient evidence to demonstrate . . . that Dr. Nezhat continuously exercised reasonable diligence during the entire critical period."); J.A. 19 ("[T]he evidence, taken as a whole, does not support Patent Owner's contention that there was a continuous exercise of reasonable diligence during the entire critical period."); J.A. 22 ("Patent Owner does not provide sufficient evidence to demonstrate Dr. Nezhat's continuous exercise of reasonable diligence"). The standard demanded by the Board is too exacting and in conflict with our precedent.

A patent owner need not prove the inventor continuously exercised reasonable diligence throughout the critical period; it must show there was reasonably continuous diligence. See, e.g., Tyco Healthcare Grp. v. Ethicon Endo-Surgery, Inc., 774 F.3d 968, 975 (Fed. Cir. 2014); Monsanto, 261 F.3d at 1370. Under this standard, an inventor is not required to work on reducing his invention to practice every day during the critical period. Monsanto, 261 F.3d at 1369. And periods of inactivity within the critical period do not automatically vanguish a patent owner's claim of reasonable diligence. For example, in Monsanto, we held that substantial evidence supported the jury's presumed finding that an inventor was reasonably diligent where there was no corroborating evidence of any activity for a series of months. at 1370. We explained that, notwithstanding the absence of daily notebook entries and the resulting gaps during the critical period, "the work involved in the experiments was continuous in nature" and therefore the reduction to practice was "reasonably continuous." Id. In Brown v. Barbacid, we held that the patent owner's evidence of diligence during a 31-day critical period was "sufficient to show substantially continuing activity" despite the lack of activity during six single-day gaps. 436 F.3d at 1380–83.

Our holdings in these cases are consistent with the purpose of the diligence inquiry. In determining whether an invention antedates another, the point of the diligence analysis is not to scour the patent owner's corroborating evidence in search of intervals of time where the patent owner has failed to substantiate some sort of activity. It is to assure that, in light of the evidence as a whole, "the invention was not abandoned or unreasonably delayed." Id. at 1379. That an inventor overseeing a study did not record its progress on a daily, weekly, or even monthly basis does not mean the inventor necessarily abandoned his invention or unreasonably delayed it. The same logic applies to the preparation of a patent application: the absence of evidence that an inventor and his attorney revised or discussed the application on a daily basis is alone insufficient to determine that the invention was abandoned or unreasonably delayed. One must weigh the collection of evidence over the entire critical period to make such a determination.

Our decision in *In re Mulder*, 716 F.2d 1542, 1542–46 (Fed. Cir. 1983), does not instruct otherwise. The Board cites In re Mulder for the proposition that "[e]ven a short period of unexplained inactivity may be sufficient to defeat a claim of diligence." J.A. 16. In In re Mulder, a competing reference was published just days before the patent at issue was constructively reduced to practice. The patent owner was tasked with 716 F.2d at 1544. showing reasonable diligence during a critical period lasting only two days. Id. at 1545. But the patent owner did not produce any evidence of diligence during the critical period. *Id.* Nor could it point to any activity during the months between the drafting of the application and the start of the critical period. Id. Although the critical period spanned just two days, we declined to excuse the patent owner's complete lack of evidence. *Id.* In re Mulder does not hold that an inventor's inactivity during a portion of the critical period can, without more, destroy a patent owner's claim of diligence.

Here, the Board's erroneously heightened burden of proof infected its analysis. First, the Board did not properly weigh PST's evidence under a rule of reason. See Price v. Symsek, 988 F.2d 1187, 1195 (Fed. Cir. 1993) (explaining that under a rule of reason analysis, "[a]n evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the inventor's story may be reached"). Rather than evaluating PST's evidence as a whole, the Board fixated on the portions of the critical period where PST did not provide evidence of Dr. Nezhat's specific activities to conclude Dr. Nezhat's exercise of diligence was not "continuous." See J.A. 21-22. In doing so, the Board repeatedly condemned PST for not being "sufficiently specific as to facts and dates for the entire critical period during which diligence is required." J.A. 21; see also id. (noting a portion of the critical period where "Dr. Nezhat does not identify any specific activities undertaken or the dates of those activities"). The Board similarly dismissed Dr. Nezhat's testimony that he "performed approximately four to six surgeries per week" and worked "roughly 80 hours" per week, J.A. 686, criticizing that Dr. Nezhat was "unable to identify any single date . . . on which he was scheduled for a surgery or had another specific conflict that would have prevented him from working on preparing the application for filing." J.A. 20.

Under a rule of reason analysis, PST was not required to corroborate every day the application was worked on, every surgery Dr. Nezhat performed, or specify precisely what work was done. See In re Jolley, 308 F.3d 1317, 1328 (Fed. Cir. 2002) ("[C]orroboration may be provided by sufficient independent circumstantial evidence, and corroboration of every factual issue contested by the parties is not a requirement of the law."). Such corroboration is particularly unnecessary when, as here, the record indisputably shows that activities must have occurred

within the relevant timeframe. For example, Dr. Nezhat testified that, from the time he received the questions in Mr. Heslin's March 12 letter until the two met on March 16, "most probably we did everything he wanted us to do to go to be prepared for him" and that he was "sure we were prepared to go and see him." J.A. 1316:17-1317:5. The Board criticized this testimony, finding that Dr. Nezhat "does not recall when or how he responded to [Mr. Heslin's] questions." J.A. 21. But in this case, such specificity was unnecessary. The record clearly shows that Dr. Nezhat and Mr. Heslin met on March 16. Dr. Nezhat provided J.A. 604. and comments Mr. Heslin by at least April 13 when Mr. Heslin sent a letter with a revised application to Dr. Nezhat saying he "tried to reflect the comments you made when we last J.A. 607. met." The revised draft added 7 claims, 8 drawings, and expanded the specification. J.A. 607–31. The parties do not dispute this evidence. With this evidence before it, the Board did not need the specific dates on which Dr. Nezhat provided comments and the content of those comments to evaluate Dr. Nezhat's testimony under a rule of reason.

The Board compounded its error by summarily disactivities ofDr. Nezhat's Mr. Heslin, after determining that PST's evidence of Dr. Nezhat's activities did not alone establish reasonable diligence. J.A. 22 ("[W]e also need not reach and, therefore, do not address whether Patent Owner provides sufficient evidence to demonstrate Mr. Heslin's continuous exercise of reasonable diligence for the entire critical period."). This was error. An attorney's work in preparing a patent application is evidence of an inventor's See Brown, 436 F.3d at 1380 (citing Bey v. Kollonitsch, 806 F.2d 1024, 1030 (Fed. Cir. 1986)). By preparing and filing the application that would issue as the '384 patent on behalf of Dr. Nezhat, Mr. Heslin was acting as Dr. Nezhat's agent. The Board was required to

weigh Mr. Heslin's testimony and evidence of activity as an extension of Dr. Nezhat's. And it was required to weigh this evidence by application of a rule of reason over the course of the entire critical period.

By failing to consider Mr. Heslin's activities, the Board erroneously found that PST failed to show diligence during periods when Mr. Heslin was working to constructively reduce the invention to practice. Between the March 16 conference and Dr. Nezhat's receipt of the second draft application on April 13, the Board criticized that "Dr. Nezhat does not identify any specific activities undertaken or the dates of those activities." J.A. 21. In addition to the work that undoubtedly must have occurred in order to result in a new draft application, the record indicates that during this time, Mr. Heslin at least reviewed and revised the application on April 7. J.A. 604. The Board also flagged PST's lack of evidence for actions Dr. Nezhat took after receiving the second draft until Mr. Heslin filed the application with the PTO, J.A. 21, but during this time, Mr. Heslin prepared the application and accompanying disclosure statement and filed these documents on May 1. J.A. 604. And Mr. Heslin testified that it was his usual practice to dictate the text of the application and allow time, around eight days, for word processing to transcribe his edits. J.A. 1528 at 33:1–20. Evidence of this sort, where the record indisputably shows an attorney was working to constructively reduce an invention to practice, highlights the importance of considering an attorney's prosecuting activities as part of the inventor's diligence.

The Board's focus on gaps of inactivity also led it to make fact findings unsupported by substantial evidence. The most egregious of these concerns the Board's finding of inactivity between March 12 and March 15. J.A. 21–22. The record indicates that on March 12, in response to comments received on March 2, Mr. Heslin requested that they "meet to discuss finalizing the draft." J.A. 927.

March 12, 1998 was a Thursday. Mr. Heslin's billing records confirm that he met with Dr. Nezhat the following Monday, March 16. J.A. 604. The Board determined that the period from Thursday to Sunday constituted a gap of inactivity, finding in support that "[n]o evidence is presented as to the nature of th[e] comments" Dr. Nezhat sent on March 2 and "[n]o evidence is presented as to the nature of [the March 16] conference." J.A. 20–21. First, the Board's finding that there was "no evidence" regarding the March 2 comments is unsupported by the record. Mr. Heslin's March 12 letter explicitly refers to these comments and explains that Dr. Nezhat's comments "correctly note that the inclusion of pins will increase the available electrode surface area relative to conventional (pinless) forceps." J.A. 927. Second, ample evidence described the "nature" of the March 16 conference. Mr. Heslin's March 12 letter requesting a meeting asked Dr. Nezhat to clarify whether a device disclosed in another reference "would provide the same increase in electrode area as your device." Id. The two met on March 16, which was billed to the patent application matter. J.A. 604. An April 13 letter from Mr. Heslin states, "I have tried to reflect the comments you made when we last met," which included "various alternative electrode embodiments and described their benefits both in terms of increased electrode area and enhanced current containment." J.A. 607. Together, this evidence poses a question regarding the invention, shows the two met on March 16, and shows the question was answered when the two last met. The Board's finding that this long weekend amounted to a period of inactivity is unreasonable on its face.

The Board concluded that the three gaps collectively demonstrated a lack of diligence during the entire critical period. The Board makes clear that it is "the evidence, taken as a whole," which causes them to find a lack of diligence "during the entire critical period." J.A. 19. The Board did not make a fact finding that any one of these

gaps would be sufficient to establish a lack of diligence for the entire critical period. The dissent agrees that the Board's fact findings regarding two of the three gaps are not supported by substantial evidence. Thus, even under the dissent's analysis, this case should be remanded for the Board to make the fact finding about whether the evidence presented regarding what it calls Gap 1 would be sufficient alone to find a lack of diligence. The Board's erroneous finding of inactivity between the periods March 12 to March 15 and April 13 to May 1 requires remand. It is for the Board to reconsider the whole record and make a fact finding on diligence in the first instance.

For these reasons, the Board's decision that PST failed to antedate JP '551 is vacated and remanded for proceedings consistent with this opinion. On remand, the question before the Board is whether all of PST's evidence, considered as a whole and under a rule of reason, collectively corroborates Dr. Nezhat's testimony that he worked reasonably continuously within the confines of his and Mr. Heslin's occupations to diligently finalize the patent application during the 81-day critical period.² If the answer is yes, the Board is to consider PST's evidence of earlier conception in the first instance.

C. Claim Construction

In IPR proceedings, the Board gives claims their

This evaluation must include: (1) Mr. Heslin's testimony of his and Dr. Nezhat's activities; (2) Mr. Heslin's billing records identifying work on March 4, March 16, April 7, and May 1; (3) Mr. Heslin's March 12 letter thanking Dr. Nezhat for his March 2 comments and requesting guidance; (4) Mr. Heslin's April 13 letter and revisions, adding text to the specification, 7 claims, and 8 drawings; and (5) the finalized patent application filed on May 1.

broadest reasonable interpretation consistent with the specification. In re Cuozzo Speed Techs., LLC, 793 F.3d 1268, 1279 (Fed. Cir. 2015), aff'd, 136 S. Ct. 2131 (2016). PST argues the Board erred in its construction of the term "perforated," which appears in asserted claims 11 and 38: "wherein at least one of the jaws is perforated to permit the release of steam during use." The Board construed these claims as requiring that "at least one jaw has one or more perforations or passages formed therethrough, so that steam generated between the jaw and tissue is released " J.A. 10-11 (emphasis added). The Board reasoned that the specification, which states "the jaws may be perforated or otherwise provided with passages," describes "passages as another form of perforations and does not distinguish between these terms." J.A. 9 (quoting '384 patent at 3:25-27). The Board cited extrinsic dictionary definitions in support, including that to "perforate" means to pierce, puncture, or make any hole. J.A. 10. We review the Board's claim construction de novo except for subsidiary fact findings, which we review for substantial evidence. Cuozzo, 793 F.3d at 1280.

Determining the plain meaning of a term to a skilled artisan at a particular time is a fact finding, and as such we review it for substantial evidence. Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 843 (2015). In this case, the Board concluded that the plain meaning of the term "perforated" included passages. It referenced extrinsic evidence, namely dictionary definitions which supported its determination of the plain meaning. The legal part of claim construction is the determination of the meaning of the term in the claim in light of the patent's intrinsic record. PST argues the description in the specification that the device "may be perforated or otherwise provided with passages" evidences a difference in meaning between passages and perforations. PSTBr. 47 '384 patent at 3:25-27). We agree. The patentee is free to define or limit a term used in a patent. See Thorner v.

Sony Comput. Entm't Am. LLC, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012). We conclude that the specification's separation of the terms perforated and passages with the disjunctive phrase "or otherwise" makes clear that the patentee intended that the term "perforated" is not the same as "passages." The patentee claimed only jaws that are "perforated"; this claim does not extend to passages. In light of the intrinsic record, we conclude that the term "perforated" is not coextensive with or the same as "passages." Thus the Board's finding that JP '551 disclosed at least one "perforated" jaw because JP '551 referenced a passage cannot be supported. We vacate the Board's decision invalidating claims 11, 38, 41–44, 46, 47, and 49 over JP '551 and remand for proceedings consistent with this construction.

Conclusion

For the foregoing reasons, we hold the Board's acceptance of Olympus' submission of JP '551 was harmless, vacate and remand the Board's determination that PST failed to antedate JP '551, and vacate the Board's decision invalidating claims 11, 38, 41–44, 46, 47, and 49 over JP '551 and remand for proceedings consistent with our construction of the term "perforated."

VACATED AND REMANDED

Costs

Costs to PST.

United States Court of Appeals for the Federal Circuit

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SCHALL, *Circuit Judge*, concurring in part and dissenting in part.

I am pleased to join Parts A and C of the court's opinion. I respectfully dissent, however, from Part B. For the reasons set forth below, I believe the Patent Trial and Appeal Board ("Board") applied the correct legal standard in finding that Perfect Surgical Techniques, Inc. ("PST") failed to establish that Dr. Camran Nezhat, the inventor named on U.S. Patent No. 6,030,384 ("the '384 patent"), exercised reasonably continuous diligence during the critical period. I also believe the Board's finding on diligence is supported by substantial evidence.

I.

A.

The events leading to this appeal are not in dispute. In March 1997, Dr. Nezhat retained attorney James Heslin to prepare a patent application directed to bipolar forceps for electrosurgery. On or about January 28, 1998, Mr. Heslin sent an initial draft of the application to Dr. Nezhat for his review. On March 2, 1998, Dr. Nezhat returned comments on the initial draft to Mr. Heslin. Mr. Heslin reviewed the comments two days later and asked Dr. Nezhat for further explanation. On March 12, Mr. Heslin sent Dr. Nezhat questions concerning the draft application. Mr. Heslin and Dr. Nezhat then conferred on March 16. After revising the application on April 7, Mr. Heslin sent a revised draft to Dr. Nezhat on April 13. Thereafter, on May 1, 1998, Mr. Heslin filed the application at the U.S. Patent & Trademark Office, constructively reducing the invention to practice.

В.

Olympus America, Inc. and Olympus Medical Systems Corporation (collectively, "Olympus") filed a petition for *inter partes* review of certain claims of the '384 patent. J.A. 2. In its petition, Olympus relied on Japanese Unexamined Patent Application No. H10-33551 A ("JP '551"), which published on February 10, 1998. *Id.* 8, 13. During the IPR, PST sought to antedate JP '551 to disqualify it as prior art. *Id.* 14–15. Specifically, PST asserted that Dr. Nezhat had conceived of the claimed invention before JP '551's publication date and that he had been diligent in constructively reducing his invention to practice. *Id.* To demonstrate Dr. Nezhat's conception and diligence, PST submitted declarations and deposition testimony of Dr. Nezhat and Mr. Heslin, among others. *Id.* 18.

In assessing the evidence, the Board focused on Dr. Nezhat's activities and asked whether he had demon-

strated "continuous exercise of reasonable diligence" in reducing his invention to practice. Id. 16, 19, 22. In the Board's view, the evidence revealed several unexplained "periods of inactivity" during the critical period. *Id.* 19– 20. For example, the Board found Dr. Nezhat unable to identify any date on which he worked on the application from January 28, 1998, to March 1, 1998—the period during which the initial application was in his hands. The Board also found that Dr. Nezhat could not pinpoint any particular conflict during this time preventing him from such work. Id.Thus, the Board explained. Dr. Nezhat could not adequately account for roughly the first three weeks of the critical period—i.e., from February 10, 1998, to March 1, 1998. Id. 20.

Significantly, the Board found only two dates in the entire critical period on which Dr. Nezhat took specific actions towards preparing his application. The first date was on March 2, 1998, when he submitted comments to Mr. Heslin on the initial draft. *Id.* The second date was on March 16, when he conferred with Mr. Heslin on questions about the application. *Id.* 20–21. The Board found no evidence, however, with respect to the nature of Dr. Nezhat's comments on the initial draft or with respect to the conference. *See id.* As for Mr. Heslin's testimony, the Board determined that it was not specific as to facts and dates and that it therefore could not establish Dr. Nezhat's diligence during periods of inactivity during the critical period. *Id.* 21–22.

Having considered the evidence, the Board found "at least" three unexplained intervals of time during the critical period with respect to which the evidence did not establish diligence on Dr. Nezhat's part—namely, the intervals between February 10, 1998, and March 1, 1998 ("the First Gap"); March 12, 1998, and March 15, 1998 ("the Second Gap"); and April 13, 1998, and May 1, 1998 ("the Third Gap"). See id. 19, 22. Consequently, the Board concluded that PST had offered insufficient evi-

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dence to establish Dr. Nezhat's diligence during the entire critical period. 1 Id. 22.

C.

In vacating the Board's finding on diligence, the majority holds that the Board imposed an impermissibly demanding standard on PST. According to the majority, asking whether the inventor showed "continuous exercise of reasonable diligence" is "too exacting and in conflict with our precedent." Ante, 7. In the majority's view, as I understand it, the proper standard is not whether an inventor shows "continuous exercise of reasonable diligence" during the critical period, but rather, whether the inventor shows "reasonably continuous diligence" during the critical period. *Id.* (emphases changed). Board applied the proper standard, the majority reasons, it might have found sufficient diligence during the Second and Third Gaps based on record evidence and actions taken by Dr. Nezhat's attorney. *Id.* 9–12.

II.

After reviewing our cases and the record, I am not persuaded that the Board imposed too exacting a standard on PST. And, while I share the majority's reservations concerning the Board's handling of the Second and Third Gaps, in my view, the First Gap alone serves as substantial evidence for the Board's conclusion on diligence.

In light of its determination that PST failed to establish diligence as to the dates during which the application was in Dr. Nezhat's hands, the Board reasoned that it need not separately address Mr. Heslin's diligence or the asserted conception date. *Id.* 18, 22.

A.

To establish priority of an invention, a party must show either an earlier reduction to practice or an earlier conception followed by a diligent reduction to practice. Purdue Pharma L.P. v. Boehringer Ingelheim GMBH, 237 F.3d 1359, 1365 (Fed. Cir. 2001); see also In re Steed, 802 F.3d 1311, 1316 (Fed. Cir. 2015) ("When the issue of priority concerns the antedating of a reference, the applicant is required to demonstrate, with sufficient documentation, that the applicant was in possession of the laterclaimed invention before the effective date of the reference."): Mahurkar v. C.R. Bard. Inc., 79 F.3d 1572, 1576-78 (Fed. Cir. 1996) (explaining that a party attempting to overcome anticipatory prior art has the burden to prove an earlier date of invention). When a party relies on an earlier conception (PST's circumstance), it must "connect[] the conception with [the inventor's] reduction to practice by reasonable diligence on his part, so that they are substantially one continuous act." Mahurkar, 79 F.3d at 1577 (quoting Christie v. Seybold, 55 F. 69, 76 (6th Cir. 1893)). The inventor must show diligence throughout the entire critical period, which runs from a date just before the prior art's invention date to the inventor's filing date. See Creative Compounds, LLC v. Starmark Labs., 651 F.3d 1303, 1312–13 (Fed. Cir. 2011); Mahurkar, 79 F.3d at 1578; 35 U.S.C. § 102(g) (2006) ("In determining priority of invention . . . there shall be considered . . . the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."). Determining whether an inventor shows reasonable diligence is a "case specific inquiry." *Monsanto* Co. v. Mycogen Plant Sci., Inc., 261 F.3d 1356, 1369 (Fed. Cir. 2001) (citing *Jones v. Evans*, 46 F.2d 197, 202 (C.C.P.A. 1931)).

Our cases have framed the diligence inquiry in a variety of ways. The majority is correct that some of our cases have asked whether an inventor showed "reasonably

continuous" diligence throughout the critical period. See, e.g., Tyco Healthcare Grp. v. Ethicon Endo-Surgery, Inc., 774 F.3d 968, 975 (Fed. Cir. 2014) (quoting Brown v. Barbacid, 436 F.3d 1376, 1380 (Fed. Cir. 2006)) ("reasonably continuing activity"); Monsanto, 291 F.3d at 1370 (Fed. Cir. 2001) ("reasonably continuous [activity]"); Jepson v. Egly, 231 F.2d 947, 957 (C.C.P.A. 1956) ("reasonable continuous diligence"); Burns v. Curtis, 172 F.2d 588, 591 (C.C.P.A. 1949) ("reasonably continuous activity").

Other cases, however, have couched the test in different terms. In Gould v. Schawlow, our predecessor court asked whether an inventor's testimony "support[s] a finding of that continuity of activity which constitutes reasonable diligence." 363 F.2d 908, 916 (C.C.P.A. 1966) (emphases added). In Griffith v. Kanamaru, we inquired whether an inventor was "continuously or reasonably diligent" during the critical period. 816 F.2d 624, 629 (Fed. Cir. 1987) (internal quotations omitted); see also Scharmann v. Kassel, 179 F.2d 991, 996 (C.C.P.A. 1950) ("continuing and reasonable diligence") (citing Hull v. Davenport, 90 F.2d 103 (C.C.P.A. 1937)). Still other cases have used different expressions for the test. See, e.g., Mahurkar, 79 F.3d at 1577 (defining "reasonable diligence" as "one continuous act"); Bey v. Kollonitsch, 806 F.2d 1024, 1030 (Fed. Cir. 1986) (requiring "reasonable diligence during the continuous . . . critical period"). But perhaps most importantly for our purposes here, our predecessor court in In re McIntosh asked whether an applicant showed "continuous exercise of reasonable diligence." 230 F.2d 615, 619 (C.C.P.A. 1956). This standard is the same one recited by the Board. Ante, 7.

It seems to me that, when taken together, our cases suggest that the precise formulation of the diligence test is relatively unimportant because its ultimate prescription remains the same. What matters is that the party seeking priority "account for the entire period during

which diligence is required." Creative Compounds, 651 F.3d at 1312–13 (citing Gould, 363 F.2d at 919). account must be "specific as to dates and facts" to establish diligence. Gould, 363 F.2d at 920. Gaps of inactivity during the critical period do not automatically defeat a finding of diligence so long as those gaps are adequately explained. Monsanto, 261 F.3d at 1369 ("There need not necessarily be evidence of activity on every single day if a satisfactory explanation is evidenced."); see also Brown v. Barton, 102 F.2d 193, 197 (C.C.P.A. 1939) (excusing inactivity "due to reasonable excuses or reasons for failure of action"); Scharmann, 179 F.2d at 997 (finding a lack of diligence when gaps in the inventor's activity were "not adequately explained"). An inventor's explanations for inactivity must be corroborated. See Barbacid, 436 F.3d at 1380 (citing *In re Jolley*, 308 F.3d 1317, 1328 (Fed. Cir. 2002)); Kendall v. Searles, 173 F.2d 986, 993 (C.C.P.A. 1949); see also Monsanto, 261 F.3d at 1369 (requiring a "satisfactory explanation" to be "evidenced"). We assess corroboration under a holistic "rule of reason," Barbacid, 436 F.3d at 1380, but this standard is not so permissive that it "dispense[s] with the requirements for some evidence of independent corroboration." Coleman v. Dines, 754 F.2d 353, 360 (Fed. Cir. 1985). Thus, as I understand the law, establishing diligence requires that the inventor account for his or her activities during the entire critical period. Where there are stretches of inactivity, the inventor must provide a reasonable justification for those gaps with corroborating evidence.

Against this backdrop, I am not persuaded that the Board applied an inappropriate standard against PST. The Board cited the diligence test from *McIntosh* and asked whether Dr. Nezhat could account for "the entire critical period." J.A. 16. The Board then identified periods of inactivity and assessed the reasonableness of the explanations provided, if any, for them. *Id.* 19–22. In doing so, the Board searched for evidence corroborating

the offered justifications. *Id.* While this approach says little about the accuracy of the Board's conclusions (addressed in Part II.B. below), I cannot find error in these contours of its methodology. Accordingly, I do not believe the Board applied an improper standard in finding a lack of diligence on the part of Dr. Nezhat.

PST contends that the Board erred by placing an inordinate focus on specific periods of inactivity rather than on the entire critical period "as a whole." Opening Br. 31. I do not agree. As I read them, our cases turn on whether evidence supports a satisfactory explanation for periods of inactivity. Monsanto, 261 F.3d at 1369. Shorter gaps may be easier to explain than longer ones. See, e.g., Barbacid, 436 F.3d at 1380–83 (determining that six single-day gaps in a 31-day critical period did not defeat a showing of reasonable diligence); Jolley, 308 F.3d at 1327 (affirming the Board's determination that "reasonable everyday problems" excused gaps in the inventive record); see also Monsanto, 261 F.3d at 1369. majority points out, however, even a brief gap may give rise to a requirement for some nominal justification or explanation for the period. See ante, 8–9 (discussing In re Mulder, 716 F.2d 1542 (Fed. Cir. 1983)). Inventors may find longer periods of inactivity more difficult to defend. See, e.g., In re Meyer Mfg. Corp., 411 F. App'x 316, 319–20 (Fed. Cir. 2010) (concluding that "an unexplained gap of just over two months" supported the Board's finding of insufficient diligence); Gould, 363 F.2d at 919, 921 (holding that a lapse in activity of "nearly two months" defeated a claim of diligence); Morway v. Bondi, 203 F.2d 742, 749 (C.C.P.A 1953) (concluding that two separate "hiatus[es] of one and one-half months" did not constitute "reasonable diligence in reducing the invention to practice during the critical period"). But even long gaps can be sustained if the explanations for them are sufficiently reasonable. See, e.g., Rey-Bellet v. Engelhardt, 493 F.2d 1380, 1389 (C.C.P.A. 1974) (finding that "a shortage of monkeys and a limited ability to house them" justified a three-month delay in testing); *Reed v. Tornqvist*, 436 F.2d 501, 504–05 (C.C.P.A. 1971) (determining that four weeks of inactivity did not preclude a finding of diligence because it was excused by inventor's vacation in Sweden and the unexpected illness of the inventor's father). In each of these cases, the court focused on identified gaps and asked whether they were reasonable under the circumstances. I cannot fault the Board for taking a similar approach in PST's case.

In my view, the Board's approach was consistent with our law. In several places in its decision, the Board evaluated not just the *existence* of the identified gap periods, but also whether the record reasonably justified them. For example, the Board searched for evidence of Dr. Nezhat's surgery schedule, potential teaching conflicts, the "nature of [the] comments" which took him over a month to prepare, any explanation offered by PST for the Third Gap, and other such evidence. E.g., J.A. 20-21. This kind of information, I think, speaks to the reasonableness of the gaps of inactivity. Indeed, the Board expressly sought this information to gauge reasonableness of any gaps in [Dr. Nezhat's] activity and explanations for such periods of inactivity." Id. 20.

In sum, I believe the Board's approach of identifying gap periods and assessing their reasonableness in light of corroborating evidence was consistent with our precedent. Therefore, I believe the Board applied an appropriate standard in appraising Dr. Nezhat's diligence.

Β.

Turning now to the substance of the Board's findings, the Board found three periods of inactivity purportedly attributable to Dr. Nezhat in its Final Written Decision: the First Gap (spanning the publication of JP '551 to Dr. Nezhat's submission of comments to Mr. Heslin), the Second Gap (spanning a weekend), and the Third Gap

(spanning Mr. Heslin's transmission of a revised draft to Dr. Nezhat to filing).

We review the Board's factual findings on diligence for substantial evidence. Monsanto, 261 F.3d at 1369. Substantial evidence justifies a finding if a reasonable mind might accept the evidence to support it. Edison Co. v. NLRB, 305 U.S. 197, 229 (1938). This standard involves an examination of the record as a whole, taking into account evidence supporting and detracting from an agency's finding. Universal Camera Corp. v. NLRB, 340 U.S. 474, 487–88 (1951). Substantial evidence does not require the Board's finding to be the only one possible from the record so long as it is reasonable. "[T]he possibility of drawing two inconsistent conclusions from the evidence does not prevent [a] finding from being supported by substantial evidence." In re Gartside, 203 F.3d 1305, 1312 (Fed. Cir. 2000) (quoting Consolo v. Fed. Maritime Comm'n, 383 U.S. 607, 620 (1966)); see also Jolley, 308 F.3d at 1320 ("If the evidence in record will support several reasonable but contradictory conclusions, we will not find the Board's decision unsupported by substantial evidence simply because the Board chose one conclusion over another plausible alternative.").

1.

At the outset, I agree with the majority that the Board's treatment of the Second and Third Gaps is troubling. As the majority observes, the Second Gap reflects a three-day period spanning a weekend. *Ante*, 11–12. Immediately preceding this weekend, Dr. Nezhat and Mr. Heslin actively communicated about the invention. *Id.* And immediately afterward, they held a conference to discuss it. *Id.* Given the short duration of this period, its status as a weekend, and the inventor's activities surrounding it, I share the majority's position on the unreasonableness of the Board in basing its diligence finding on the Second Gap. *Id.*

I also agree with the majority in faulting the Board for failing to consider Mr. Heslin's activities during the Third Gap. *Id.* 10–11. An attorney's diligence is imputable to the inventor. *E.g.*, *Bey*, 806 F.3d at 1027. Mr. Heslin undertook actions during the Third Gap that could be attributed to Dr. Nezhat, such as preparing an information disclosure statement and finalizing the application. *Ante*, 11. Had the Board investigated Mr. Heslin's actions, it may have arrived at a different conclusion on Dr. Nezhat's diligence during the Third Gap. Accordingly, I agree that it was error for the Board to disregard Mr. Heslin's activities during the critical period.

2.

I part company with the majority, however, in regard to the First Gap. In my view, the First Gap alone constitutes substantial evidence for the Board's ultimate finding on diligence, as it establishes that PST did not meet its burden of "account[ing] for the *entire* period during which diligence is required." *Creative Compounds*, 651 F.3d at 1312–13 (emphasis added). PST does not try to justify this delay with corroborating evidence. And because the First Gap is a 19-day period during which Dr. Nezhat indisputably controlled the draft application, none of the Board's errors noted above impact its findings on this gap.

PST does not contest the Board's finding that there was an absence of activity during the period of the First Gap. PST in fact concedes "there was no evidence of 'diligence' during the periods of inactivity" identified by the Board. Appellant Reply Br. 13 (emphasis added). That concession, I think, is justified by the record. As I see it, the question here boils down to whether, after viewing the evidence, the Board was unreasonable in finding that an unexplained gap in activity lasting nearly three weeks was sufficient to show a lack of diligence. In my view, a reasonable mind might conclude that it was.

For example, in Rieser v. Williams, 255 F.2d 419, 424 (C.C.P.A. 1958), our predecessor court affirmed a finding of the Board of Patent Interferences ("BPI") that an inventor failed to show diligence during a 13-day stretch of the critical period. We explained that, "even aside from the question of corroboration," the testimony of the inventor did "not show that he was doing anything toward preparing or filing his application during a period of a month or more immediately preceding [another party's] entry into the field." Id. Similarly, in Gould, the court affirmed the BPI's award of priority to a senior party (i.e., the party first reducing an invention to practice) because it concluded that the junior party had failed to establish diligence. 363 F.2d at 919, 921. According to the court, the junior party did not "account for the entire period during which diligence [was] required," as his testimony did not explain a potential lapse in activity of nearly two months with specific "dates and facts." Id. at 919-20. Other diligence cases from this court and its predecessor have involved unexplained gaps of similar lengths and reached the same conclusion. See, e.g., Meyer, 411 F. App'x at 319–20 (affirming the Board's finding that "an unexplained gap of just over two months" defeated diligence claim); Ireland v. Smith, 97 F.2d 95, 99-100 (C.C.P.A. 1938) (determining that an appellant failed to establish diligence because there was "no proof in the record" of activity during a 25-day stretch of the critical period); Morway, 203 F.2d at 749 (concluding that separate, unexplained gaps of "one and one-half months" did not constitute reasonable diligence).

I recognize that the First Gap of unexplained inactivity here—which is part of a larger period of inactivity extending from the end of January until March 1—is generally shorter than the gaps in the aforementioned cases. *But see Rieser*, 255 F.2d at 424 (requiring the inventor to show activity during an initial 13-day span of the critical period). Still, given that the First Gap and the

periods of inactivity in those cases are roughly the same size, it seems to me that the Board's conclusion that the First Gap amounted to an unreasonable break in activity is consistent with our cases. *Compare, e.g., Rieser,* 225 F.2d at 424 (determining that an unexplained 13-day period of inactivity defeated a diligence claim) with Barbacid, 436 F.3d at 1380–82 (determining that six single-day gaps in a 31-day critical period did not preclude a showing of diligence).

Notably, PST may have established diligence in this case had it provided a "satisfactory explanation" for Dr. Nezhat's inactivity with corroborating evidence. Monsanto, 261 F.3d at 1369. Indeed, courts have confronted idle periods longer than the First Gap and found that they did not preclude a showing of diligence. See, e.g., Rey-Bellet, 493 F.2d at 1389 (three months); Torngvist, 436 F.2d at 504–05 (four weeks). But here, PST's only excuse for Dr. Nezhat's inactivity during the First Gap is that he had other "professional commitments" and needed time "for study of the application." Appellant Opening Br. 33. Although an "excuse for inactivity" may include "reasonable everyday problems and limitations," Griffith, 816 F.2d at 626–27, PST offered no evidence of such problems and limitations other than Dr. Nezhat's uncorroborated testimony. The Board found, and PST does not dispute, that the record does not include evidence during the First Gap as to Dr. Nezhat's activities at all, let alone evidence "specific as to facts and dates" explaining nearly three weeks of inactivity during the critical period. See Gould, 363 F.2d at 920. On this record, I think a reasonable mind might find PST's explanation unsatisfactory.

PST also failed to produce any evidence corroborating its justification for the First Gap. Given Dr. Nezhat's claims that he "performed approximately four to six surgeries per week" and "worked an average of 80 hours each week," Appellant Opening Br. 7, one would have expected the record to show medical records or testimony

from independent witnesses supporting these points. But PST provided none, and I do not see any indication that PST attempted to locate such evidence.² While I am sympathetic to PST's predicament of unearthing evidence from 1998, as the junior party it ultimately bears the burden of proving diligence. *E.g.*, *Price v. Symsek*, 988 F.2d 1187, 1190–91 (Fed. Cir. 1993); *Scharmann*, 179 F.2d at 996.

The Board also found that "[n]o evidence is presented as to the nature of [the] comments" Dr. Nezhat returned to Mr. Heslin on March 2. J.A. 20. As I see it, this omission is noteworthy because it leaves open several scenarios under which the Board could have reasonably concluded that Dr. Nezhat was not diligent. For example, after receiving the draft on or about January 28, Dr. Nezhat could have read it, prepared comments that day, and then sat on the comments for over a month before eventually sending them to Mr. Heslin. Alternatively, he could have set aside the application and waited until March 2 to review it and prepare comments. The record simply does not indicate what was done and when it was done.

The majority is correct that corroboration "may be provided by sufficient independent circumstantial evidence." *Ante*, 9 (quoting *Jolley*, 308 F.3d at 1328). Here, however, PST has not provided any such independent circumstantial evidence with respect Dr. Nezhat's professional or academic commitments during the First Gap. *Cf. Jolley*, 308 F.3d at 1328 (relying on testimony from three independent witnesses to corroborate an inventor's diligence). At the same time, the majority's discussion on this score relates to Dr. Nezhat's activities around the Second Gap, not the First. *Ante*, 9–10.

Further, PST's inability to substantiate the extent of Dr. Nezhat's comments limited the Board's ability to glean his diligence through inference. Had the record shown Dr. Nezhat making substantial remarks on the draft application, providing detailed questions to Mr. Heslin, or taking other such strides, the Board may have been able to discern Dr. Nezhat's diligence during the First Gap. Without such evidence before it, however, I do not believe the Board can be faulted for not concluding that Dr. Nezhat was diligent during the period of the First Gap.³

I do not find any of PST's arguments persuasive. PST is correct that the Board should have considered the actions of Mr. Heslin in evaluating his diligence, but these activities are irrelevant to the First Gap. During the period of the First Gap, the draft application was unques-

In its discussion of the Second Gap, the majority points to a sentence in a March 12 letter from Mr. Heslin to Dr. Nezhat as potentially evincing Dr. Nezhat's March 2 comments. Ante, 12 (citing J.A. 927). This letter does not change my opinion for several reasons. First, I am unable to locate in the briefing (here or below) where PST relied on this letter as substantiating Dr. Nezhat's activities during the First Gap. Indeed, as noted, the majority discusses this letter in the context of the unreasonableness of the Board's conclusion concerning the Second Gap. Second, I am unable to conclude that this passing remark necessarily justifies a 19-day gap in the critical period. The record shows that Dr. Nezhat could not account for his activities during this time, provided no evidence corroborating his schedule or the submitted comments, and never contacted Mr. Heslin within this timeframe. On these facts, I cannot conclude that a reasonable mind would have arrived at a conclusion different from that of the Board.

tionably in Dr. Nezhat's hands and PST does not rely on Mr. Heslin's actions for establishing diligence during that period.

PST also is correct that the "rule of reason" required the Board to evaluate all the pertinent evidence as a Appellant Br. 21–22. But this rule does not dispense with the twin requirements that (1) the evidence must still reasonably justify gaps in the inventor's activity and (2) the justification must be corroborated with independent evidence. By shifting its focus to the entire critical period generally, rather than pockets of inactivity in particular, PST overlooks that it still must provide an evidenced, satisfactory explanation for the First Gap. Scharmann, 179 F.2d at 996–97. PST's briefing does not include a detailed explanation for the First Gap, and its vague allusion to Dr. Nezhat's hectic schedule and "careful review" of the draft is uncorroborated with independent evidence.

To conclude, I believe substantial evidence supports the Board's finding that Dr. Nezhat failed to demonstrate reasonable diligence during the entire critical period. I therefore respectfully dissent from the majority's decision on this point. Accordingly, while I agree that we should vacate the Board's decision and remand the case to the Board for further proceedings, I would limit the remand proceedings to determining whether, under the correct claim construction, the invention claimed in the '384 patent is anticipated or rendered obvious in view of JP '551.