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Antedating References at PTAB: Trends and Pitfalls

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Jonathan Bowser Rog



Roger Lee

Patent owners generally face unfavorable odds in attempting to antedate references in America Invents Act trials, including *inter partes* review proceedings. Oftentimes, Patent Trial and Appeal Board decisions concerning antedating references turn on the sufficiency of the evidence submitted by patent owners. Trends are emerging from PTAB decisions addressing attempts by patent owners to antedate (or "swear behind") references in AIA trials.

Evidentiary Hurdles of Antedating a Reference

For patents subject to pre-AIA 35 U.S.C. § 102, patent owners can disqualify prior art references that do not constitute a statutory bar under § 102(b) by establishing that the inventors invented the claimed invention prior to the critical date of the reference.

1. Burden of Production

While the burden of persuasion in proving unpatentability in an AIA trial always remains with the petitioner,[1] the burden of producing evidence may shift between the parties depending on the circumstances. The petitioner bears the initial burden of demonstrating that a reference constitutes prior art with respect to the claimed invention.[2] When the petitioner meets its burden by demonstrating an earlier critical date of the reference, the burden of production then shifts to the patent owner. The patent owner must then establish that the reference is not entitled to the critical date or that the claimed invention was invented prior to the critical date.[3]

2. Requirements for Demonstrating Prior Invention

Prior invention can be demonstrated in one of two ways. First, a patent owner may demonstrate a reduction to practice of the claimed invention prior to the critical date of the reference. [4] Second, a patent owner may alternatively prove conception of the invention prior to the critical date of the reference, followed by reasonable continuous diligence in reducing the invention to practice subsequent to the critical date.[5]

For an actual reduction to practice, the patent owner must show (1) construction of an embodiment meeting all limitations of the challenged claims, (2) determination that the invention would work for its intended purpose, and (3) sufficient evidence to corroborate the inventor's testimony.[6] The PTAB has held that corroboration evidence must be independent of inventor testimony and may consist of witness testimony (other than the inventor), or evidence of surrounding facts and circumstances that are sufficiently independent from the inventor.[7] In some circumstances, the PTAB has held that physical exhibits, even if prepared by the inventor, can corroborate inventor testimony.[8]

Conception requires an idea that is so clearly defined in the inventor's mind that only mere ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation.[9] Reasonably continuous diligence must be shown from just prior to the critical date of the reference to the date of the reduction to practice.[10] The PTAB has indicated that gaps in activity during the diligence period must be explained; the fact that there is a gap does not per se establish lack of reasonable diligence, and the fact that there is no gap does not per se establish reasonable diligence.[11]

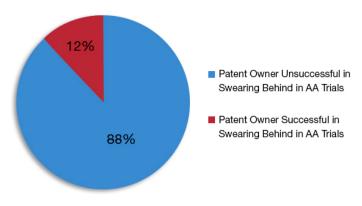
3. Patent Owners Have Not Had Much Success

In light of the above, patent owners must overcome substantial evidentiary hurdles to successfully antedate a reference before the PTAB. The authors are aware of 41 AIA trials[12] where the patent owner attempted to swear behind an applied reference based on an asserted earlier date of invention. As illustrated in the chart below, patent owners were successful in only five of the 41 cases.

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Outcomes of Swearing Behind in AIA Trials



Common Pitfalls

Generally, PTAB decisions concerning antedating references have turned on the sufficiency of the patent owner's submitted evidence.

1. Insufficient Corroboration

Many patent owners have failed to successfully antedate a reference due to reliance on insufficiently corroborated evidence or testimony. For example, in CBS Interactive Inc. v. Helferich Patent Licensing LLC,[13] a PTAB panel held that an undated, handwritten specification prepared by the inventor allegedly describing the claimed invention was insufficient because the inventor attempted to corroborate the document through his own testimony. Similarly, in Microsoft Corp. v. Surfcast Inc.,[14] a PTAB panel rejected the patent owner's evidence of alleged prior conception and reduction to practice because the patent owner attempted to authenticate documents corroborating inventor testimony with additional statements from the inventors.

In Sensio Inc. v. Select Brands Inc.,[15] the patent owner asserted that photographs of prototypes from a production company were evidence of prior reduction to practice because the inventors had communicated the claimed invention to the production company. The PTAB panel ruled against this evidence because the patent owner did not produce corroborating testimony from noninventors establishing that the inventors in fact conceived of the designs produced by the production company.

In the above cases, the corroborative evidence provided by the patent owners was insufficient because it did not originate from independent, disinterested parties.

2. Failure to Treat All Claim Limitations

Another common shortcoming is a failure to show that the alleged conception or reduction to practice demonstrates possession of all limitations of the claims at issue. In Medtronic Inc. v. Troy R. Norred, M.D.,[16] the PTAB panel was not persuaded by the antedating evidence. A sketch submitted by the patent owner did not provide sufficient detail to establish possession of an embodiment having the particular limitations set forth in the claims.

Similarly, in NHK Seating of America Inc. v. Lear Corp.,[17] the PTAB panel determined that an invention disclosure annotated by the inventor to correlate the features of the challenged claims to the components described in the invention disclosure failed to establish prior conception. The panel determined that such evidence did not demonstrate conception of every feature recited in the challenged claims.

Furthermore, in LG Electronics Inc. v. ATI Technologies ULC,[18] the PTAB panel determined that a physical embodiment that is equivalent to the claimed invention, but lacks an element recited in the claims or uses a functional equivalent of that element, does not satisfy the requirement of an actual reduction to practice because it fails to demonstrate reduction to practice of each and every element of the challenged claims.

3. Insufficient Evidence Concerning Diligence

The PTAB has also rejected a number of swear behind efforts due to insufficient showings of reasonably continuous diligence from conception prior to the critical date of the reference to the subsequent reduction to practice. In JDS Uniphase Corp. v. Fiber LLC,[19] the panel discounted evidence of alleged diligence in reducing the invention to practice due to a three-month gap in activity. Similarly, in Oracle Corp. v. Crossroads Systems Inc.,[20] the panel dismissed asserted evidence of diligence due to four months of inactivity during which the inventors worked on another product that was not commensurate in scope with the claims at issue. In this case, the panel also determined that the inventors failed to exercise diligence in constructively reducing the invention to practice because the inventors made only minimal revisions to a draft patent application over a five-week period of time.

4. Relying on Rule 1.131 Practice

In Corning Inc. v. DSM IP Assets BV,[21] the PTAB stated that declarations under 37 C.F.R § 1.131, or equivalents thereof, are insufficient to antedate a reference in an IPR proceeding, because Rule 1.131 does not control an antedating effort in an IPR. The panel explained that Rule 1.131 applies "[w]hen any claim of an application or a patent under reexamination

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is rejected," and that an IPR is neither examination nor reexamination. Further, the PTAB has indicated that it is not bound by an examiner's determination during prosecution that a Rule 1.131 showing is sufficient to establish an earlier date of invention.[22] However, PTAB panels have, under the discretionary authority of 35 U.S.C. § 325(d), declined to reconsider whether a reference qualifies as prior art where the patent owner successfully removed the reference as prior art under a Rule 1.131 Declaration during prosecution or reexamination.[23]

The above decisions provide valuable insight into the evidentiary requirements to successfully antedate an asserted reference before the PTAB in an AIA trial.

Federal Circuit Faults PTAB for Applying an Overly Stringent Diligence Standard

Recently, in Perfect Surgical Techniques Inc. v. Olympus America Inc., the Federal Circuit remanded a case to the PTAB because the panel inappropriately applied a diligence standard for swearing behind a reference in an IPR that was too "exacting and in conflict with our precedent." [24] The court reasoned:

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.[25]

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Rather than evaluating [the patent owner's] evidence as a whole, the Board fixated on the portions of the critical period where [the patent owner] did not provide evidence of [the inventor's] specific activities to conclude [the inventor's] exercise of diligence was not "continuous." [26]

Thus, the court faulted the PTAB panel for placing too much emphasis on the gaps in time where the inventor did not provide evidence of activity. The court stated that the panel should have considered the evidence as a whole, and not merely have focused on the gaps.

PTAB Decisions After Perfect Surgical

Only time will tell if the decision in Perfect Surgical will have a meaningful impact on how the PTAB considers a patent owner's evidence for antedating references. Two recent PTAB decisions cited the standard set forth in Perfect Surgical, but did not depart from the overall trend of rejecting patent owners' attempts to swear behind.

In IBG LLC v. Trading Technologies International Inc.,[27] the patent owner asserted diligence over a four-month period, concluding with a constructive reduction to practice through filing the underlying patent application. The inventor submitted testimony that he and his patent attorney exercised diligence in drafting the patent application during this period. However, the only evidence provided by the patent owner to corroborate the inventor's testimony was an email from an "unspecified sender." The panel faulted the patent owner for not explaining how the email demonstrates diligence over the time period. In The Boeing Co. v. Seymour Levine, [28] the panel faulted the patent owner for not presenting evidence demonstrating conception of each claim limitation. While the PTAB panel in Boeing referred to Perfect Surgical, the dispositive issue was the sufficiency of the patent owner's evidence of conception, not diligence.

However, in a decision issued on March 22, 2017, in Green Cross Corp. v. Shire Human Genetic Therapies Inc.,[29] a PTAB panel determined that the patent owner successfully antedated an applied reference. This case involved several claims directed to a composition comprising purified recombinant I2S protein having a recited amino acid sequence and a minimum amount of specifically modified protein.[30] The petitioner alleged the challenged claims would have been obvious over Jin in view of several different combinations with secondary references.[31] The patent owner argued that Jin failed to qualify as prior art because the inventor of the challenged patent reduced to practice the claimed invention prior to the earliest effective filing date of Jin.[32]

The patent owner provided documentary evidence and supporting declarations to demonstrate that the inventor used a previously created cell line to produce the claimed composition prior to the earliest date of Jin.[33] The patent owner asserted that the inventor timely recognized the significance of the invention and provided corroborating evidence of the prior invention.[34] The panel determined that the patent owner met its burden of production, thereby shifting the burden to the petitioner to demonstrate that the patent owner did not show possession of each element of the challenged claims prior to Jin's date.[35] The petitioner put forth a variety of theories, none of which, however, were found persuasive by the panel.

Conclusion

In view of the growing body of law, including both failures and successes, and the emerging clarity in the required standards for antedating, the possibility of antedating references in AIA trials should be carefully considered by both patent owners and petitioners in developing and implementing their respective strategies.

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Patent owners should provide evidence that corroborates inventor testimony. Where possible, patent owners should avoid using interested parties for corroboration. Patent owners should ensure that the evidence of conception and reduction to practice takes into account every element of the challenged claims. For example, patent owners may consider providing charts comparing the conception and reduction to practice to every element of the challenged claims. If a diligence showing is necessary, patent owners should consider whether its evidence adequately demonstrates reasonably continuous diligence, including explanations for any period of inactivity. While a patent owner's diligence showing does not need to be perfect — a rule of reason applies — the best practice remains to address any gaps in activity. Patent owners should consider including work done by the inventor's patent attorney in drafting application as a potential means to address any periods of inventor inactivity.

For petitioners, avoiding reliance on nonstatutory bar prior art, where possible, obviates the issue of antedating reference. Petitioners should consider whether the evidence produced by the patent owner adequately demonstrates that all claim limitations were conceived of and/or reduced to practice by the inventors. Petitioners should consider challenging patent owner's evidence, including whether motions to exclude are warranted. Petitioners may wish to consider challenging corroboration of patent owner's evidence, including situations where corroboration originates from an interested party. In pointing out gaps in activity in a diligence showing, petitioners should consider whether arguments can be made that the evidence, even when considered as a whole, fails to adequately address such gaps.

- [1] 35 U.S.C. § 316(e); Dynamic Drinkware, LLC v. National Graphics, Inc., 800 F.3d 1375, 1378, 1380 (Fed. Cir. 2015); In re Magnum Oil Tools Int'I, Ltd., 829 F.3d 1364, 1375 (Fed. Cir. 2016).
- [2] Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1576 (Fed. Cir. 1999) (holding that the challenger "bore the burden of persuasion...on all issues relating to the status of [the asserted reference] as prior art"); Dynamic Drinkware, 800 F.3d at 1380; see also Green Cross Corp. v. Shire Human Genetic Therapies, Inc., IPR2016-00258, Paper 89 at 11 (PTAB Mar. 22, 2017).
- [3] Dynamic Drinkware, 800 F.3d at 1380.

- [4] Purdue Pharma L.P. v. Boehringer Ingelheim GmbH, 237 F.3d 1359, 1365 (Fed. Cir. 2001); Fox Group, Inc. v. Cree, Inc., 700 F.3d 1300, 1304-05 (Fed. Cir. 2012).
- [5] Purdue Pharma, 237 F.3d at 1365; Monsanto Co. v. Mycogen Plant Sci., 261 F.3d 1356, 1362-63 (Fed. Cir. 2001).
- [6] Medichem, S.A. v. Rolabo, S.L., 437 F.3d 1157, 1169 (Fed. Cir. 2006) (citing Cooper v. Goldfarb, 154 F.3d 1321, 1327, 1330 (Fed. Cir. 1998)); see also Green Cross Corp., IPR2016-00258, Paper 89 at 11; K-40 Electronics, LLC v. Escort, Inc., IPR2013-00203, Paper 45 at 11 (PTAB Aug. 27, 2014).
- [7] ABB Inc. v. Roy-G-Biv Corp., IPR2013-00062, Paper 84 at 10-12 (PTAB Apr. 11, 2014).
- [8] Elekta, Inc. v. Varian Medical Sys., Inc., IPR2016-00317, Paper 12 at 11-13 (PTAB June 7, 2016).
- [9] Sewall v. Walters, 21 F.3d 411, 415 (Fed. Cir. 1994); Burroughs Wellcome Co. v. Barr Labs, Inc., 40 F.3d 1223, 1228 (Fed. Cir. 1994); see also Handi Quilter, Inc. v. Bernina Int'l AG, IPR2013-00364, Paper 39 at 8 (PTAB Sept. 25, 2014).
- [10] Monsanto, 261 F.3d at 1363.
- [11] See, e.g., Coalition for Affordable Drugs V LLC v. Biogen MA Inc., IPR2015-01993, Paper 34 at 2 (PTAB Apr. 19, 2016).
- [12] Using Docket Navigator®, the authors identified 41 distinct PTAB decisions addressing attempts by patent owners to swear behind an asserted reference. To avoid double-counting, the authors did not take into account proceedings involving patents that are the same as or related to patents challenged in a proceeding that is already accounted for in the data set.
- [13] IPR2013-00033, Paper 122 at 45-50 (PTAB Mar. 3, 2014).
- [14] IPR2013-00292, Paper 93 at 15-21 (PTAB Oct. 14, 2014); see also HTC Corp. v. NFC Tech., LLC, IPR2014-01198, Paper 56 at 26-27 (PTAB Feb. 3, 2016) (inventor testimony about designs communicated to a third party insufficient by itself to corroborate proof of conception); Handi Quilter, IPR2013-00364, Paper 39 at 16 (unsworn statements allegedly "signed by" sons of deceased inventor held not to be sufficiently independent from the inventor for purposes of corroboration because the statements were prepared by the inventor and his attorney).

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- [15] IPR2013-00500, Paper 33 at 10-15 (PTAB Feb. 9, 2015).
- [16] IPR2014-00110, Paper 46 at 9-11 (PTAB Apr. 23, 2015).
- [17] IPR2014-01200, Paper 29 at 12-16 (PTAB Feb. 2 2016).
- [18] IPR2015-00325, Paper 62 at 17-27 (PTAB Apr. 14, 2016).
- [19] IPR2013-00336, Paper 40 at 20-25 (PTAB Dec. 5, 2014).
- [20] IPR2014-01209, Paper 77 (PTAB 2016); see also Arkema France v. Honeywell Int'l, Inc., IPR2015-00915, Paper 56 at 26 (PTAB Oct. 20, 2016) (holding that unexplained gaps in time after the inventor submitted an invention disclosure form to his employer was evidence of a lack of diligence).
- [21] IPR2013-00053, Paper 66 at 19 (PTAB May 1, 2014).
- [22] Iron Dome LLC v. E-Watch, Inc., IPR2014-00439, Paper 16 at 6 (PTAB Aug. 14, 2014).
- [23] See, e.g., Graco Children's Prods., Inc. v. Kolcraft Enters., Inc., IPR2016-00810, Paper 8 at 13-14 (PTAB Sept. 8, 2016); Hulu, LLC v. Intertainer, Inc., IPR2014-01456, Paper 8 at 7-8 (PTAB Mar. 6, 2015).
- [24] 841 F.3d 1004, 1008 (Fed. Cir. 2016).
- [25] Id. at 1009.
- [26] Id. at 1010.
- [27] CBM2015-00179, Paper 143 at 45-47 (PTAB Feb. 17, 2017).
- [28] IPR2015-01341, Paper 46 at 28-33 (PTAB Dec 20, 2016).
- [29] IPR2016-00258, Paper 89 (PTAB Mar. 22, 2017).
- [30] Id. at 2, 5-6.
- [31] Id. at 6-7.
- [32] Id. at 10.
- [33] Id. at 12.
- [34] Id. at 13.
- [35] Id.