

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HUM INDUSTRIAL TECHNOLOGY, INC.
Petitioner

v.

AMSTED RAIL COMPANY, INC.
Patent Owner

Case IPR2023-00538
US Patent No. 9,365,223

Before JAMES P. CALVE, KEVIN W. CHERRY, and MICHAEL L. WOODS,
Administrative Patent Judges.

**PETITIONER'S REPLY TO PATENT OWNER'S
PRELIMINARY RESPONSE**

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I. Armitage is *Prima Facie* Prior Art Under § 102(e)

In *Dynamic Drinkware v. Nat’l Graphics, Inc.*, 800 F.3d 1375 (Fed. Cir. 2015), the Federal Circuit clarified that in IPR there are “two distinct burdens of proof: a burden of persuasion and a burden of production.” *Id.* at 1378 (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–1327 (Fed. Cir. 2008)). While the burden of persuasion is borne by the petitioner, “the burden of production, or the burden of going forward with evidence, is a shifting burden, ‘the allocation of which depends on where in the process of trial the issue arises.’” *Id.* at 1379 (quoting *Tech. Licensing*, 545 F.3d at 1327).

Here, Petitioner bore the initial burden of production to come forward with invalidating prior art. That burden is plainly satisfied by the Petition: Armitage is *prima facie* prior art under § 102(e) because its U.S. filing date (May 11, 2011) is prior to the ’223 Patent’s U.S. filing date (March 15, 2013). *See Dynamic Drinkware*, 800 F.3d at 1379 (Petitioner satisfied initial burden of production by arguing the prior art anticipated the asserted claims under § 102(e)(2)); *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986) (party challenging validity need only show the art existed as of date of invention, presumed to be the filing date of the application until an earlier date is proved).

Once a petitioner satisfies its initial burden of production, the burden shifts to the patent owner to come forward with evidence that the challenged claims “are

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entitled to the benefit of a filing date (constructive or otherwise) prior to the filing date of [the prior art].” *Dynamic Drinkware*, 800 F.3d at 1380. “It is elementary patent law that a patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112.” *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) (quoting *In re Chu*, 66 F.3d 292, 297 (Fed. Cir. 1995)).

To show that claims 2-4, 23, and 27-30 are entitled to the benefit of the ’713 Application’s filing date, Patent Owner argues that each *individual limitation* may be found *somewhere* in the disclosure of either the ’713 Application or LeFebvre (EX1015), which the ’713 Application incorporates by reference. EX1014, ¶ 27. But merely pointing to an “an amalgam of disclosures plucked selectively from the [parent] application”—which is all Patent Owner has done here—does not satisfy the written description requirement. *Novozymes A/S v. DuPont Nutrition Biosciences APS*, 723 F.3d 1336, 1349 (Fed. Cir. 2013); *accord Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1352 (Fed. Cir. 2010). Rather, the parent application must provide support for each claim as an “integrated whole rather than as a collection of independent limitations.” *Novozymes*, 723 F.3d at 1349.

The ’713 Application teaches a device and system for monitoring a railcar handbrake. Patent Owner has not identified any disclosure in the ’713 Application

describing a railcar handbrake monitor comprising a temperature sensor—the device described by Patent Owner’s table. Paper 11 at 17-22. Notably, the ’713 Application does not disclose a temperature sensor at all. And, while LeFebvre’s adapter pad includes a temperature sensor for monitoring a wheel bearing (*see* Paper 1 at 19-23), the ’713 Application’s handbrake monitor is located nowhere near a wheel bearing. What purpose would a temperature sensor serve in the context of a handbrake monitor? How, exactly, would a temperature sensor be integrated into the disclosed handbrake monitor? Would it be located proximate to strain gauge **60** (*see* EX1014, Fig. 3) or somewhere else? Would the temperature sensor require its own electrical circuitry or would it connect directly to electrical circuitry **62**? The ’713 Application is silent on these and other critical questions.

Even if it would have been obvious to integrate LeFebvre’s temperature sensor into the ’713 Application’s handbrake sensor in the manner proposed by Patent Owner, that still would not be sufficient to satisfy the written description requirement and gain the benefit of the ’713 Application’s filing date. “Entitlement to a filing date does not extend to subject matter which is not disclosed, but would be obvious over what is expressly disclosed. It extends only to that which is disclosed.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997). The ’713 Application contains no description of a handbrake monitor comprising a temperature sensor. Accordingly, Patent Owner has not shown that the claims of the

'223 Patent are entitled to the '713 Application's filing date.

If Patent Owner were to meet its burden of producing evidence that the '223 Patent is entitled to an earlier filing date than Armitage, the burden of production would shift back to Petitioner to rebut the arguments or show the prior art is entitled to an earlier filing date (e.g., by introducing rebuttal evidence). *Dynamic Drinkware*, 800 F.3d at 1379-80; *Tech. Licensing Corp.*, 545 F.3d at 1327-28. Patent Owner's argument that Petitioner was required to submit evidence regarding Armitage's entitlement to its provisional application's filing date in the Petition was rejected in *Dynamic Drinkware*. The Federal Circuit held it was not the petitioner's burden to produce evidence showing the prior art's entitlement to a provisional application's filing date until *after* patent owner argued the challenged patent was entitled to an earlier priority date. *Dynamic Drinkware*, 800 F.3d at 1381. In contrast, the Board decision relied upon by Petitioner, *Sirius XM Radio*, involved a reference that *might* have qualified as § 102(e) prior art *only if* it were entitled to its provisional filing date. IPR2018-00690, Paper 63 at 12-15 (PTAB Jul. 23, 2023). But that is not the case here—Petitioner satisfied its initial burden of production because Armitage is *prima facie* prior art to the '223 Patent under § 102(e).

II. The Petition Presents New Prior Art and Arguments Not Previously Considered by the Examiner

Petitioner does not dispute that “[p]reviously presented art includes ... art provided to the Office by an applicant, such as on an Information Disclosure

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Statement (IDS).” *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7-8 (PTAB Feb 13, 2020). Petitioner, however, disputes this warrants denial of institution under § 325(d) when, as is the case here with respect to LeFebvre and Armitage, there is no evidence in the prosecution history of the extent to which the examiner considered the references, that the examiner applied the references against the claims, or that the examiner considered the particular disclosures of the references presented in a petition. *See, e.g., Vizio, Inc. v. Nichia Corp.*, IPR2017-00551, Paper 9 at 7–8 (PTAB July 7, 2017).

“The Board frequently holds that a reference that ‘was neither applied against the claims nor discussed by the Examiner’ does not weigh in favor of exercising the Board’s discretion under § 325(d) to deny a petition.” *Amazon.com, Inc. v. M2M Sols. LLC*, IPR2019-01204, Paper 14 at 16 (PTAB. Jan. 23, 2020). “When a reference was not the basis of rejection, the Board has found that this weighs ‘strongly against exercising our discretion to deny institution.’” *Cisco Sys., Inc. v. Ramot at Tel Aviv Univ., Ltd.*, IPR2022-01283, Paper 12 at 13-14 (PTAB Feb. 22, 2023) (quoting *CODE200, UAB et al. v. Bright Data Ltd.*, IPR2022-00353, Paper 8 at 10 (PTAB July 1, 2022)).

None of the cases cited by Patent Owner stand for the proposition that the Board will exercise its discretion under § 325(d) merely because a reference was cited in an IDS. Rather, the Board considered the prior art and arguments under the

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Advanced Bionics framework and the *Becton Dickinson* factors. *See, e.g., Palo Alto Networks, Inc. v. Centripetal Networks, Inc.*, IPR2021-01156, Paper 10 at 10-16 (PTAB Jan. 24, 2022); *Microsoft Corp. v. Koninklijke Philips N.V.*, IPR2018-00279, Paper 11 at 14-15 (PTAB June 8, 2018); *Fellowes, Inc. v. Treefrog Devs., Inc.*, IPR2020-01509, Paper 11 at 17 (PTAB Feb. 22, 2021); *BMW of N. Am., LLC v. Stragent, LLC*, IPR2021-00419, Paper 14 at 15 (PTAB July 19, 2021).

During prosecution of the '223 Patent, no claims were rejected in view of Baker alone. Instead, the Office cited Baker *only* in combination with Lat-Lon. EX1002 at 110. Lat-Lon was relied upon to supply many claim limitations lacking in Baker (*see id.* at 110–119). In response to Patent Owner's argument that Lat-Lon was not prior art (*id.* at 161), the Office withdrew the rejections based upon Baker and applied a new set of rejections based upon Searle. *Id.* at 450.

Baker fails to disclose numerous claim limitations present in LeFebvre and Armitage. For example, Patent Owner argued during prosecution that Baker does not disclose “[t]he temperature sensor is in thermal communication with an item of the railcar being monitored for temperature which is external to the housing” (independent claims 2 and 23). EX1002 at 162, 164. LeFebvre and Armitage disclosed this limitation. *See* Paper 1 at 22-23, 60. Baker also fails to disclose “a statistical analysis of said collected data” (independent claim 5). *See* EX1002 at 119 (citing Lat-Lon for “statistical models of behavior.”) Both LeFebvre and Armitage,

in contrast, disclose this limitation. *See* Paper 1 at 31-32, 64-66, 75.

Searle also fails to disclose at least two limitations taught by LeFebvre and Armitage. First, Searle does not disclose a CMU required by independent claims 2 and 5. *See* EX1002 at 520 (“Searle discloses no such topology and in fact does not disclose the [CMU] or its equivalent.”). Both LeFebvre and Armitage expressly disclose a CMU. Paper 1 at 25-27, 63-64. Second, Searle does not disclose the power management technique required by independent claims 1 and 23. EX1002 at 519–520. But the claimed power saving technique is disclosed by LeFebvre and it would have been obvious to incorporate LeFebvre’s power saving technology into Armitage’s devices as explained in the Petition. Paper 1 at 34, 38, 55, 71-73, 86.

In sum, there is no evidence the examiner appreciated the significance of LeFebvre or Armitage or recognized these references overcome the deficiencies of Baker and Searle. *Becton* factor (c) therefore weighs strongly in Petitioner’s favor. The examiner also committed material error by overlooking LeFebvre and Armitage. *DISH Network LLC v. Sound View Innovations, LLC*, IPR2020-01041, Paper 13 at 18 (PTAB Jan. 19, 2021). And the Petition relies upon the expert testimony of Mr. Steven Ricca—which was not before the examiner—to explain the applicability of LeFebvre and Armitage to the challenged claims. *See Medacta USA, Inc. v. RSB Spine, LLC*, IPR2020-00264, Paper 24 at 18 (PTAB May 22, 2020). *Becton* factors (e) and (f) also weigh against discretionary denial.

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Respectfully submitted,

By: /Eric J. Rakestraw/
Eric J. Rakestraw, Reg. No. 68,740
Daisy Manning, Reg. No. 66,369
HUSCH BLACKWELL LLP
8001 Forsyth Boulevard, Suite 1500
St. Louis, MO 63105
(314) 480-1500 Telephone
(314) 480-1505 Facsimile
PTAB-ERakestraw@huschblackwell.com
PTAB-DManning@huschblackwell.com

Andrea L. Shoffstall, Reg. No. 75,426
HUSCH BLACKWELL LLP
1801 Wewatta Street, Suite 1000
Denver, CO 80202
303.749.7200 Telephone
303.749.7272 Facsimile
PTAB-AShoffstall@huschblackwell.com

Attorneys for Petitioner

CERTIFICATE OF SERVICE

I hereby certify that on this 12th day of June, 2023, the foregoing was served via electronic mail to the attorneys of record for the '223 Patent at the following address:

Jeff E. Schwartz Reg. No. 39,019 Fox Rothschild LLP 2020 K Street N.W., Suite 500 Washington, DC 20006 Tel: 202.696.1470 Fax: 202.461.3102 Email: jeschwartz@foxrothschild.com	Gary A. Hecht Reg. No. 36,826 Fox Rothschild LLP 2000 Market Street, 20th Floor Philadelphia, PA 19103-3222 Tel: 215.299.2416 Fax: 215.299.2150 Email: ghecht@foxrothschild.com
P. Marshall Ticer Reg. No. 74,653 Fox Rothschild LLP 2020 K Street N.W., Suite 500 Washington, DC 20006 Tel: 202.794.1237 Fax: 202.461.3102 Email: mticer@foxrothschild.com	Ryan North Miller Reg. No. 68,262 Fox Rothschild LLP 2000 Market Street, 20th Floor Philadelphia, PA 19103-3222 Tel: 215.299.2901 Fax: 215.299.2150 Email: rmiller@foxrothschild.com

By: /Eric J. Rakestraw/
Eric J. Rakestraw, Reg. No. 68,740
Lead Counsel for Petitioner