

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NEARMAP US, INC.,
Petitioner,

v.

EAGLE VIEW TECHNOLOGIES, INC.,
Patent Owner.

IPR2022-00734
Patent 9,135,737 B2

Before THOMAS L. GIANNETTI, GARTH D. BAER, and
RUSSELL E. CASS, *Administrative Patent Judges*.

BAER, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)
Granting Motions to Seal
37 C.F.R. § 42.54

INTRODUCTION

A. BACKGROUND

Nearmap US, Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”), requesting an *inter partes* review of claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34 (the “challenged claims”) of U.S. Patent No. 9,135,737 B2 (Ex. 1001, “the ’737 patent”). Eagle View Technologies, Inc., (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 9. Pursuant to 35 U.S.C. § 314, we instituted this *inter partes* review as to all of the challenged claims and all grounds raised in the Petition. Paper 10. Following institution, Patent Owner filed a Response. Paper 16 (“PO Resp.”). Petitioner filed a Reply to Patent Owner’s Response (Paper 24, “Pet. Reply”), and Patent Owner filed a Sur-reply (Paper 33, “PO Sur-reply”). On August 8, 2023, we held an oral hearing. A transcript of the hearing is included in the record. Paper 38.

We have jurisdiction under 35 U.S.C. § 6. This decision is a Final Written Decision issued pursuant to 35 U.S.C. § 318(a). For the reasons we discuss below, we determine that Petitioner has not proven by a preponderance of the evidence that the challenged claims are unpatentable.

B. RELATED PROCEEDINGS

The ’737 patent is at issue in *Eagle View Technologies v. Nearmap US*, 2-21-cv-00283 (D. Utah). Pet. 74; *see* Paper 6, 2. The ’737 patent is also the challenged patent in IPR2016-00592. Paper 6, 2.

C. REAL PARTIES IN INTEREST

Petitioner identifies itself as the only real parties in interest. Pet. 74. Patent Owner identifies itself and Pictometry International Corp. as real parties in interest. Paper 3, 2.

D. THE '737 PATENT

The '737 patent relates to a roof estimation system that provides a user interface configured to facilitate roof model generation based on one or more aerial images of a building roof. Ex. 1001, code (57). Figure 1 of the '737 patent is reproduced below.

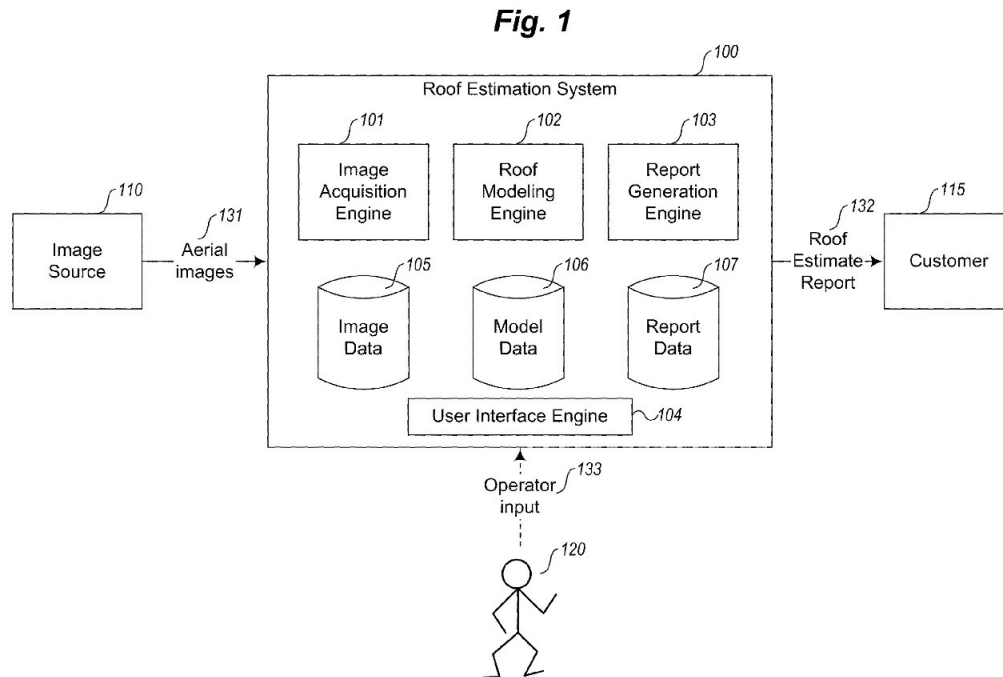


Figure 1 is a block diagram of an example Roof Estimation System (“RES”). *Id.* at 3:42–44. RES 100 includes image acquisition engine 101, roof modeling engine 102, report generation engine 103, image data 105, model data 106, and report data 107. *Id.* at 3:44–46. RES 100 is communicatively coupled to image source 110, customer 115, and operator 120. *Id.* at 3:47–48. RES 100 is configured to generate roof estimate report 132 for a specified building, based on aerial images 131 of the building received from the image source 110. *Id.* at 3:52–55.

E. CHALLENGED CLAIMS

Petitioner challenges claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34. Of the challenged claims, claims 1, 16, and 26 are independent. Independent claim 1 is representative and is reproduced below:

1. A computer-implemented method in a roof estimate report system including at least one processor and a memory coupled to the at least one processor, the method comprising:

displaying, by the at least one processor of the roof estimate report system, a plurality of aerial images of a roof at the same time, each of the aerial images providing a different view, taken from a different angle of the same roof;

displaying, by the at least one processor of the roof estimate report system, respective line drawings representing features of the roof, the respective line drawings overlying a first and a second aerial image of the plurality of aerial images of the roof, the line drawing overlying the first aerial image of the roof having features in common with the line drawing overlying the second aerial image of the roof;

in response to user input, changing, by the at least one processor of the roof estimate report system, the line drawing representing a feature of the roof that overlies the first aerial image of the roof;

in response to the changing, making corresponding changes, by the at least one processor of the roof estimate report system, to the line drawing overlying the second aerial image; and

generating and outputting a roof estimate report using a report generation engine, wherein the roof estimate report includes numerical values for corresponding slope, area, or lengths of edges of at least some of a plurality of planar roof sections of the roof, wherein the generated roof estimate report is provided for repair and/or constructing the roof structure of the building.

Ex. 1001, 23:55–24:19.

F. ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner asserts the following grounds of unpatentability. Pet. 2.

Claims Challenged	(35 U.S.C. §) ¹	Reference(s)/Basis
1, 6, 7, 9, 10, 16, 17, 25, 26, 34	103	Heller ² , Quam ³
1, 6, 7, 9, 10, 16, 17, 25, 26, 34	103	Heller, Quam, Deaton ⁴

Petitioner also relies on a declaration from Dr. David Forsyth (Ex. 1003).

II. PRELIMINARY MATTERS

A. LEVEL OF ORDINARY SKILL

Petitioner contends a person of ordinary skill in the art at the time of the '737 patent “would have had at least a Bachelor’s Degree in an academic area emphasizing the design of electrical, computer, or software technologies, or a similar discipline, and at least two years of experience related to computerized image analysis and three-dimensional modeling.” Pet. 4–5. Further, “education could compensate for a deficiency in work experience, and vice-versa.” *Id.* at 5. Patent Owner does not provide a formulation for a person of ordinary skill. We adopt Petitioner’s description as it is consistent

¹ Because the parties agree that the challenged claims of the challenged patent have an effective filing date before March 16, 2013, we apply the pre-AIA (“America Invents Act”) version of § 103. Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 285–88 (2011).

² Heller, “The Site-Model Construction Component of the RADIUS Testbed System,” in Proceedings: ARPA Image Understanding Workshop (1997) (Ex. 1004, “Heller”).

³ Quam, “The Radius Common Development Environment,” in RADIUS: Image Understanding for Imagery Intelligence (1997) (Ex. 1005, “Quam”).

⁴ U.S. 2006/0235611 A1, Pub. Oct. 19, 2006 (Ex. 1006, “Deaton”).

with the prior art and patent specification before us and supported by credible expert testimony. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (prior art itself may reflect an appropriate level of skill).

B. CLAIM CONSTRUCTION

We find no claim terms require express construction for us to determine whether Petitioner has shown the challenged claims are unpatentable. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

C. DESCRIPTION OF PRIOR ART REFERENCES

1. Heller (Ex. 1004)

Heller discloses “the RADIUS model-supported image exploitation paradigm,” that “creat[es] a 3-dimensional model that captures the basic geometry of the site under examination.” Ex. 1004, Abstr. Heller’s Figure 4 is reproduced below.

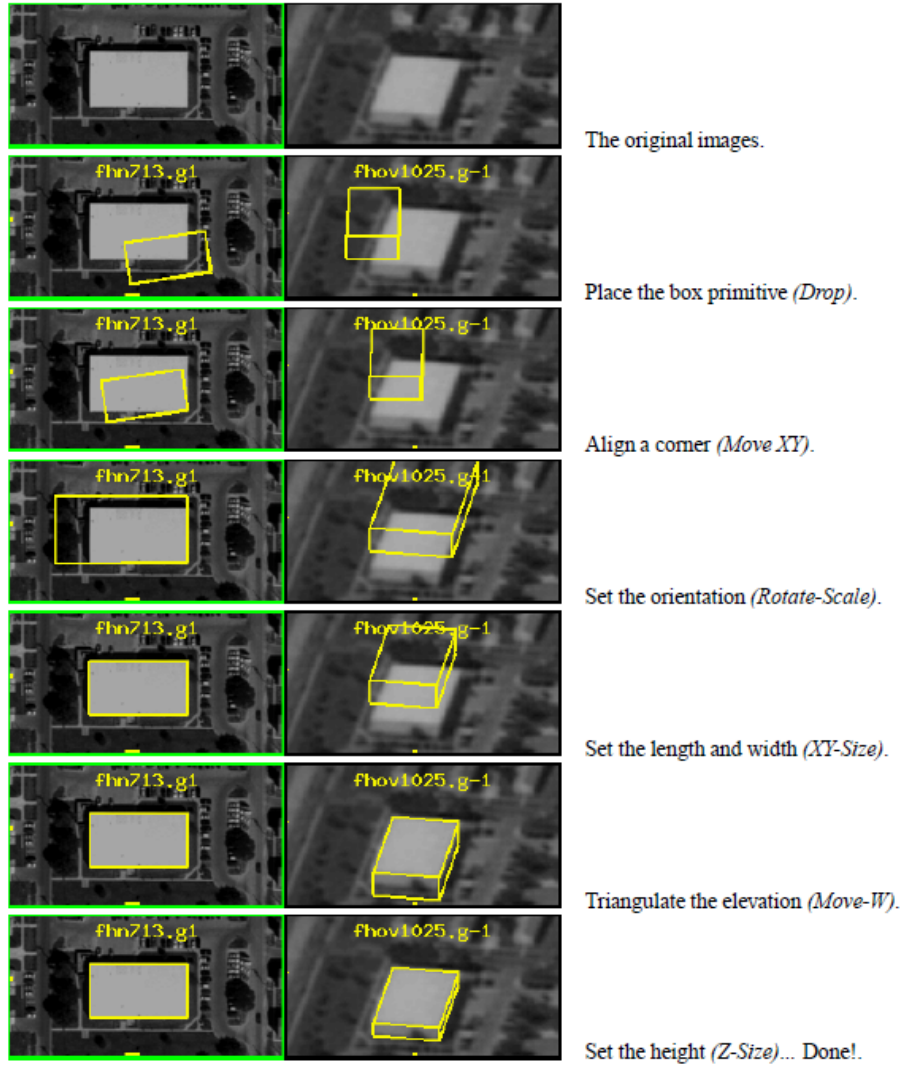


Figure 4 shows “[t]he sequence of adjustments used to manually model a building.” *Id.* at 6.

2. Quam (Ex. 1005)

Quam describes the “RADIUS Common Development Environment,” which “provides the foundation for the RADIUS Testbed System.” Ex. 1005,

1. Quam teaches RADIUS’s image registration process, which is “the process of determining and/or refining the internal and external parameters (e.g., position, orientation) of the sensor used to acquire the image.” *Id.* at 14. Quam also provides descriptions and screenshots of a “Registration

Tool” that “lead[s] the user through the necessary steps to register a new image.” *Id.* at 14–15, Figs. 8–10.

3. Deaton (Ex. 1006)

Deaton describes “a roof inspection system” that generates and outputs various reports. Ex. 1006 ¶ 10.

III. ANALYSIS

A. PETITIONER’S ASSERTED OBVIOUSNESS CHALLENGES

In its first obviousness ground, Petitioner asserts that the challenged claims would have been obvious over Heller and Quam. Pet. 12–50. In general, Petitioner corresponds the RADIUS system, as described in Heller and Quam, to the ’737 patent’s claimed computer-implemented, roof-estimation system. *See* Pet. 19–50. Petitioner describes its proposed combination as “Heller’s ‘RADIUS Testbed System’ (RTS) . . . implemented using the advantageous implementation details and other information about the ‘RADIUS Common Development Environment (RCDE)’ described by Quam, providing a beneficial implementation environment for the site modeling operations described in Heller.” *Id.* at 16. According to Petitioner, a skilled artisan “would have been motivated and found it obvious to implement Heller’s ‘RADIUS Testbed System (RTS)’ using the implementation details and other information about the ‘RADIUS Common Development Environment (RCDE)’ described by Quam,” because “Heller and Quam both describe portions of the ‘RADIUS’ site modeling platform.” *Id.* at 17. Further, Petitioner explains, Quam provides “practical implementation details of the [RADIUS] system” that are not specified in Heller. *Id.*

More specifically, for independent claims 1, 16, and 26, Petitioner asserts that the Heller-Quam combination teaches the claimed “plurality of aerial images of a roof” that provide “different view[s], taken from a different angle of the same roof” because Heller’s Figures 4 and 5 both show two aerial images with different views of the same roof, taken at different angles. *Id.* at 21–24. Petitioner asserts that the Heller-Quam combination also teaches the claimed overlaid “line drawings representing features of the roof” because those Figures 4 and 5 include images with yellow wireframe drawings that approximate the buildings’ structures. *Id.* at 25–27. Petitioner asserts that the Heller-Quam combination also teaches the claimed “roof estimate report” because the references teach displaying graphical and textual data related to the entities represented in the images. *Id.* at 33–35. Petitioner further asserts that the Heller-Quam combination teaches the various dependent-claim features including simultaneous line-drawing display (claim 6), top-plan/perspective views (claim 7) transmitting based on changes (claim 9), point marker/reference grid (claim 10), adding a planar roof section (claim 17), 3D model modification (claim 25), and concurrent roof-measurement display (claim 34). *See id.* at 35–50.

Petitioner’s second asserted ground mirrors its first, except that Petitioner adds Deaton for its explicit teaching of producing a roof estimate report. *See id.* at 50–51. According to Petitioner, one skilled in the art would have been motivated to combine Deaton with the Heller-Quam system because “including the production of such a report . . . would advantageously enable the site models described in Heller and Quam to be utilized to plan and execute maintenance, repair, and new construction projects, thereby increasing the utility of the combined system.” *Id.* at 51.

B. SECONDARY CONSIDERATIONS OF NONOBVIOUSNESS

A different petitioner challenged the same patent at issue in this case in IPR2016-00592.⁵ In that case, the Board found secondary considerations of nonobviousness—in particular commercial success and industry praise for Patent Owner’s Twister and Render House products—decisive in concluding that the petitioner had not shown the challenged claims were unpatentable. *See* Ex. 1010, 34–35. Ultimately, the Federal Circuit affirmed the Board’s decision. Ex. 1016, 2–3. Patent Owner asserts that the same objective indicia of nonobviousness again confirms that the claimed invention is nonobvious. *See* PO Resp. 36–63. According to Patent Owner, its “roof report service used the patented invention to achieve tremendous commercial success by creating accurate roof estimate reports faster and at less expense than previous solutions.” *Id.* at 57. Patent Owner also asserts that its invention has been the subject of significant industry praise. *Id.* at 61. We agree with Patent Owner that objective indicia of non-obviousness are decisive in this case, as explained below.

1. Nexus Presumption

To be accorded substantial weight, there must be a nexus between the claimed invention’s merits and the secondary considerations evidence. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). A patent owner is entitled to a presumption of nexus when it shows that the asserted objective evidence is tied to a specific product that “embodies the claimed features, and is coextensive with them.” *Brown & Williamson Tobacco Corp. v. Philip*

⁵ In this case, Petitioner challenges three additional dependent claims—claims 6, 7, and 17—that were not at issue in IPR2016-00592.

Morris, Inc., 229 F.3d 1120, 1130 (Fed. Cir. 2000). When a nexus is presumed, “the burden shifts to the party asserting obviousness to present evidence to rebut the presumed nexus.” *Id.* “The inclusion of noncritical features does not defeat a finding of a presumption of nexus.” *Volvo Penta of the Americas, LLC v. Brunswick Corp.*, 81 F.4th 1202, 1210 (Fed. Cir. 2023).

To demonstrate that its Twister and Render House products embody and are coextensive with the challenged claims, Patent Owner steps through each challenged claim on an element-by-element basis and, for each limitation, directs us to screen shots from its Render House and Twister products as well as passages from the products’ user guides to show that the products embody the challenged claims. PO Resp. 38–57.

Petitioner asserts that the Render House and Twister products are not coextensive with the challenged claims because they include “‘critical’ unclaimed feature[s] not covered by the independent claims.” Pet. Reply 12–13 (quoting *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1377–78 (Fed. Cir. 2019)). Petitioner identifies three features—allowing a user to input a location, pitch determination, and generating 3D diagrams—that it asserts are critical features in the Render House and Twister products, but are unclaimed in the ’737 patent. *Id.* at 13–14. These features are critical, Petitioner contends, because they are either the subject of a dependent claim in a related patent, or because the Render House and Twister manuals identify/highlight them. *Id.* at 13–14.

We agree with Patent Owner that it is entitled to a presumption of nexus. Patent Owner presents extensive, un rebutted evidence showing how its Render House and Twister products embody each element in each challenged claim. PO Resp. 38–57; *see* Ex. 2032, 109–173. On the other

side, we disagree with Petitioner that location input, pitch determination, or 3D diagrams are critical. Although location input and pitch determination are recited in another patent's dependent claims, they are relatively minor features that do not "go to the 'heart' of another one of [Patent Owner's] patents." *See Fox Factory*, 944 F.3d at 1375. In addition, although the Render House and Twister manuals address pitch determination and 3D modeling, nothing in the passages Petitioner cites fairly characterizes those features as critical to the products' ability to function. *See* Pet. Reply 14 (quoting Ex. 2007). Because the asserted unclaimed features do little to undermine the strong correspondence between Patent Owner's products and the challenged claims, we find that Patent Owner has provided sufficient evidence to establish a presumed nexus between the claimed invention and the asserted secondary considerations evidence related to the Render House and Twister products, and that Petitioner has not provided sufficient evidence to rebut the presumption of nexus.

Petitioner faults Patent Owner for tying its products' commercial success and industry praise to improved roof-report accuracy because "[n]othing in the '737 patent claims . . . dictate particular 'accuracy.'" Pet. Reply 15. Petitioner argues further that high resolution photography drove accuracy, rather than the patented invention. Pet. Reply 16–18; *see id.* at 16 (citing Ex. 1019, 3). We disagree. First, Patent Owner does not tie its products' commercial success and industry praise exclusively to accuracy. Rather, Patent Owner explains that the patented process also "saves time and money, and reduces liability and risk to contractors." PO. Resp. 58 (citing Exs. 1010, 1019, 1020); *see also id.* at 57 (asserting that "Patent Owner's roof report service" "create[s] accurate roof estimate reports faster and at less

expense than previous solutions”). Second, even if Petitioner is correct that high-resolution photography played a role in increasing accuracy, Petitioner has not established that high-resolution photography was more important to accuracy than were the patented invention’s features—i.e., modifiable, overlaid line drawings on aerial images. Nor has Petitioner demonstrated that high-resolution imagery would produce suitably accurate reports without the patented invention’s features. As a result, Petitioner’s argument is not enough to undermine or rebut the presumed nexus between the claimed invention and the asserted secondary-considerations evidence.

2. Commercial Success

Patent Owner argues that its Twister and Render House products “achieve[d] tremendous commercial success by creating accurate roof estimate reports faster and at less expense than previous solutions.” PO Resp. 57. Specifically, Patent Owner presents evidence that “approximately 96 percent of the top 25 insurance companies rely on [Eagle View Technologies 3D aerial roof measurement reports] in their claims departments.” *Id.* at 58 (quoting Ex. 1010, 30). Patent Owner also provides un rebutted evidence that its revenue and roof report sales grew dramatically in the six years immediately following the products’ release in 2008. *See id.* at 59–60 (noting that from 2009 to 2015, roof report sales increased from ██████████ to over ██████████ and revenue increased from ██████████ to approximately ██████████). In addition, Patent Owner notes that in “announc[ing] a plan to acquire Patent Owner,” a competitor’s CEO had “valued Patent Owner’s business at \$650 million” and “explained to its investors that this valuation was due to the value of Patent Owner’s patent portfolio.” *Id.* at 60 (citing Ex. 1023).

Petitioner does not challenge that Patent Owner's products enjoyed great commercial success. *See* Pet. Reply 15–21. Instead, Petitioner challenges whether there is a nexus between the asserted commercial success and the challenged claims. *Id.* at 15. Specifically, Petitioner asserts that “expanded geographic coverage, expanded mechanisms for customers to place orders, price increases, mergers, and other market events” drove the asserted commercial success. *Id.* at 18–19. We agree with Patent Owner that Petitioner's alternative theories as to the products' commercial success are too speculative to rebut Patent Owner's presumed nexus. *See* PO Resp. 63. Petitioner cites announcements that identify new tools and services, as well as expanded coverage unrelated to the '737 patents' claims. *See* Pet. Reply 19–20. Although the evidence Petitioner cites describes unclaimed features, events, and circumstances, *see* Pet. Reply 19–20 (citing Exs. 1046–1051), it does not establish or even infer that those events, circumstances, or features were what actually drove the products' commercial success. As a result, we find those additional factors do not significantly undermine or rebut the presumed nexus between the products' commercial success and the claimed invention. We find Patent Owner's extensive evidence of commercial success, as outlined above, weighs against Petitioner's obviousness challenge.

3. Industry Praise

Patent Owner asserts that its products have been the subject of significant praise from the roofing measurement industry. PO Resp. 61–63. Specifically, Patent Owner provides evidence that those in the industry, while initially skeptical of Patent Owner's new process, soon considered Patent Owner's reports the “industry standard.” *see* PO Resp. 61 (citing Exs. 1025,

1026). The California Business Journal reported that Patent Owner had “made one of the biggest breakthroughs in the history of the industry by creating a state-of-the-art software program that remotely snaps sophisticated aerial pictures of roofs and accurately measures lengths, pitches, valleys and other hard-to-see areas on roofs.” Ex. 1027, 2. Patent Owner also presents evidence that “a survey of [its] customers in 2009 found that 80% praised the ‘[q]uality of reports’ by giving them an ‘[e]xcellent’ rating.” PO Resp. 62. Patent Owner notes that a competitor’s CEO noted that “[a]erial imagery [was] emerging as a disruptive innovation for insurance,” and characterized Patent Owner’s products as a “killer app.” *Id.* (citing Ex. 1029, 12, Ex. 1023, 16). That same CEO further noted that one of the “special things” about Patent Owner was the “over 20 patents that [Patent Owner] has.” Ex. 1023, 17.

Petitioner asserts that the industry praise is too generic and not tied to any specific claimed feature in the patent. Pet. Reply 21–22. However, for the reasons outlined above, we find that Patent Owner’s products are coextensive with the claimed invention and thus are entitled to a presumed nexus, and that Petitioner has not rebutted that presumed nexus. In light of this nexus, we find that Patent Owner’s evidence of industry praise is persuasive even if, as Petitioner notes, it is aimed generally at Patent Owner’s products, rather than to specific, claimed features in the ’737 patent. We find Patent Owner’s extensive evidence of industry praise, as outlined above, weighs against Petitioner’s obviousness challenge.

4. Conclusions on Obviousness

We have considered Petitioner’s evidence and arguments about the asserted prior art’s teachings and the reasons why one skilled in the art would

combine them. Against those contentions, we have weighed the objective indicia of non-obviousness presented by Patent Owner. In considering Patent Owner's evidence, we are persuaded that for the reasons given, Patent Owner is entitled to a presumption of nexus because its products are coextensive with the challenged claims, and we further find that Petitioner has not introduced sufficient evidence to rebut that nexus. We are persuaded also that Patent Owner has shown strong evidence of significant commercial success and high industry praise. Even accepting Petitioner's contentions regarding what the prior art teaches and why one skilled in the art would have combined the references in the way Petitioner proposes, we are persuaded that Patent Owner's contentions as to secondary considerations of non-obviousness outweigh Petitioner's obviousness contentions. Thus, Petitioner has not met its burden given the strength of Patent Owner's contentions as to secondary considerations of non-obviousness.

C. PATENT OWNER'S ADDITIONAL CHALLENGES

Beyond its secondary-considerations argument, Patent Owner argues that Petitioner's asserted combinations fail to teach several claim elements. *See* PO Resp. 21–30, 35–36. Patent Owner also challenges Petitioner's rationale for combining references in its second ground. *See id.* at 30–35. We find it unnecessary to address those additional issues because, as noted above, we find secondary considerations are decisive as to obviousness, even accepting Petitioner's contentions regarding what the prior art teaches and why one skilled in the art would have combined the references in the way Petitioner proposes.

IV. CONCLUSION

For the foregoing reasons, we determine Petitioner has not demonstrated by a preponderance of the evidence that claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34 of the '737 patent are unpatentable. Our conclusions are summarized in the following table.

Claim(s)	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 6, 7, 9, 10, 16, 17, 25, 26, 34	103	Heller, Quam		1, 6, 7, 9, 10, 16, 17, 25, 26, 34
1, 6, 7, 9, 10, 16, 17, 25, 26, 34	103	Heller, Quam, Deaton		1, 6, 7, 9, 10, 16, 17, 25, 26, 34
Overall Outcome				1, 6, 7, 9, 10, 16, 17, 25, 26, 34

V. MOTIONS TO SEAL

Patent Owner filed a Motion to Seal Exhibits 2007, 2010, 2012–2015, 2030, 2031, and 2040 as well as related portions of the Patent Owner Response (Paper 16). Paper 14, 2. Patent Owner also proposed we enter the Default Protective Order, filed as Appendix A to Paper 14. *Id.* at 11–12. Petitioner did not file an opposition. Based on Patent Owner’s representations and the parties’ apparent agreement, we *grant* the Motion to Seal and *enter* the parties’ stipulated Protective Order (Appendix A to Paper 14).

Petitioner filed a Motion to Seal portions of Petitioner’s Reply Brief (Paper 24) and Exhibits 1044, 1045, and 1054. Paper 26. Patent Owner did

not file an opposition. Based on Petitioner's representations and the parties' apparent agreement, we *grant* Petitioner's Motion to Seal.

Patent Owner filed a Second Motion to Seal a portion of Patent Owner's Sur-reply (Paper 33). Paper 31. Petitioner did not file an opposition. Based on Patent Owner's representations and the parties' apparent agreement, we *grant* Patent Owner's Second Motion to Seal.

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has not shown that claims 1, 6, 7, 9, 10, 16, 17, 25, 26, and 34 of the '737 patent are unpatentable;

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

FURTHER ORDERED that the Default Protective Order (Attachment A to Paper 14) is entered in this proceeding;

FURTHER ORDERED that stipulated Protective Order shall govern the conduct of this proceeding;

FURTHER ORDERED that Patent Owner's Motion to Seal (Paper 14), Petitioner's Motion to Seal (Paper 26), and Patent Owner's Second Motion to Seal (Paper 31) are granted; and

FURTHER ORDERED that Papers 16, 24, and 33 and Exhibits 1044, 1045, 1054, 2007, 2010, 2012–2015, 2030, 2031, and 2040 are maintained under seal.

IPR2022-00734
Patent 9,135,737 B2

PETITIONER:

Walter Karl Renner
Thomas Rozylowicz
Daniel D. Smith
Patrick Darno
Patrick Bisenius
Yao Wang
Craig Deutsch
FISH & RICHARDSON P.C.
axf-ptab@fr.com
tar@fr.com
dsmith@fr.com
darno@fr.com
bisenius@fr.com
ywang@fr.com
deutsch@fr.com

PATENT OWNER:

Kyle Howard
Gregory Webb
Jonathan Bowser
HAYNES AND BOONE, LLP
kyle.howard.ipr@haynesboone.com
greg.webb.ipr@haynesboone.com
jon.bowser.ipr@haynesboone.com