UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDTRONIC, INC.,
Petitioner,
v.

MOSKOWITZ FAMILY LLC,
Patent Owner

IPR2026-00216
Patent No. 10,016,284

PATENT OWNER'S PRELIMINARY RESPONSE

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PATENT OWNER'S EXHIBIT LIST

Exhibit	Description
2001	Pretrial Scheduling Order, *Moskowitz Family LLC v. Medtronic, Inc. et. al.,* No. 0:25-CV-00769-PJS-DLM, ECF No. 36 (Dist. Of Minn. September 10, 2025) (Micko, D.)
2002	Stipulation Extending Time For Defendants To Respond To Plaintiff's Complaint, *Moskowitz Family LLC v. Medtronic, Inc. et. al.,* No. 0:25-CV-00769-PJS-DLM, ECF No. 15 (Dist. Of Minn. March 19, 2025)
2003	Stipulation Extending Time For Defendants To Respond To Plaintiff's Complaint, *Moskowitz Family LLC v. Medtronic, Inc. et. al.,* No. 0:25-CV-00769-PJS-DLM, ECF No. 24 (Dist. Of Minn. May 22, 2025)
2004	Minute Entry re Hearing on Motion to Stay, *Moskowitz Family LLC v. Medtronic, Inc. et. al.,* No. 0:25-CV-00769-PJS-DLM, ECF No. 68 (Dist. Of Minn. March 6, 2026)
2005	Stipulation to Amend Case Scheduling Concerning Contentions and Claim Construction, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM, ECF No. 42 (Dist. Of Minn. January 16, 2026)
2006	October 3, 2025 Update to USPTO Interim Director Discretionary Process
2007	March 24, 2025 Guidance on USPTO's recission of "Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District court Litigation"

2008	USPTO FAQs for Interim Processes for PTAB Workload Management (Archived)
2009	Amended Pretrial Scheduling Order, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM, ECF No. 44 (Dist. Of Minn. January 20, 2026)
2010	Second Amended Complaint, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM, ECF No. 48 (Dist. Of Minn. January 29, 2026)
2011	Complaint, *Moskowitz Family LLC v. Medtronic, Inc. et al.,* No.0:25-cv-00769, ECF No. 1 (Dist. Of Minn February 28, 2025)
2012	*Uniloc USA, Inc. v. Motorola Mobility LLC*, Case No. 2:16-CV-00992-JRG, ECF No. 125 (E.D. Tex. Apr. 5, 2017)) (Gilstrap, J.)
2013	Patent Trial And Appeal Board Standard Operating Procedure 1 (Revision 16) Assignment Of Judges To Panels
2014	Complaint, *Moskowitz Family, LLC v. NuVasive, LLC et. al*., No. 1:25-CV-00711-WCB, ECF No. 1 (D. Del. June 6, 2025)
2015	Scheduling Order, *Moskowitz Family, LLC v. NuVasive, LLC et. al*., No. 1:25-CV-00711-WCB, ECF No. 17 (D. Del. October 20, 2025) (Bryson, W.)
2016-2023	*Reserved*
2024	Declaration of Dr. Nathan C. Moskowitz
2025	Email correspondence between inventors Andy Moskowitz and Eric Sugalski regarding new prototyping project, dated April 11, 2011
2026	Certified File Wrapper for U.S. Patent No. 8,353,913

2027	Email correspondence between inventors Eric Sugalski, Andy Moskowitz, and David Schoon regarding wedge fusion device, dated May 3, 2011
2028	Email correspondence between inventors Eric Sugalski, Andy Moskowitz, and David Schoon regarding fusion devices, dated May 5, 2011
2029	Email correspondence between inventors Eric Sugalski, Andy Moskowitz, and David Schoon regarding fusion device prototyping, dated May 18, 2011
2030	Email correspondence between inventors Eric Sugalski and Andy Moskowitz regarding fusion device prototype revisions, dated May 19, 2011
2031	Email correspondence between inventors Eric Sugalski, Andy Moskowitz, and David Schoon regarding fusion device e-drawings, dated May 23, 2011
2032	Email correspondence between inventors Nathan Moskowitz, Andy Moskowitz, and Eric Sugalski regarding fusion device screws, dated May 25, 2011
2033	Email correspondence between inventors Eric Sugalski, Nathan Moskowitz, Andy Moskowitz, and David Schoon regarding design updates, dated May 31, 2011
2034	Email correspondence between inventors Nathan Moskowitz and Eric Sugalski confirming design updates, dated June 1, 2011
2035	Email correspondence between inventors Nathan Moskowitz and Eric Sugalski instructing prototyping to proceed, dated June 1, 2011

2036	Email correspondence between inventors Eric Sugalski and Nathan Moskowitz regarding design length, dated June 3, 2011
2037	Email correspondence between inventors Eric Sugalski, Nathan Moskowitz, and David Schoon regarding prototype pictures, dated June 22, 2011
2038	Email correspondence between inventors Eric Sugalski, Nathan Moskowitz, and Andy Moskowitz regarding prototype updates, dated July 24, 2011
2039	Email correspondence between inventors Eric Sugalski, Nathan Moskowitz, and Andy Moskowitz regarding prototype expansion evaluation, dated July 25, 2011
2040	Email correspondence between inventors Nathan Moskowitz, Eric Sugalski, and Andy Moskowitz regarding prototype expansion via screwdrivers, dated August 8, 2011
2041	Email correspondence between inventors Andy Moskowitz and Nathan Moskowitz regarding draft claims, dated October 11, 2011
2042	Email correspondence between inventors Nathan Moskowitz and Andy Moskowitz regarding expandable cage claims, dated November 7, 2011
2043	Email correspondence from inventor Andy Moskowitz requesting edrawings, dated November 11, 2011
2044	Email correspondence from inventor Andy Moskowitz detailing requested edrawings, dated November 13, 2011
2045	Email correspondence to inventor Andy Moskowitz with requested edrawings, dated January 2, 2012

2046	Email correspondence between inventors Andy Moskowitz and Nathan Moskowitz regarding received edrawings, dated January 2, 2012
2047	Email correspondence to inventor Andy Moskowitz regarding machining company inquiry, dated April 11, 2012
2048	Inventor calendar blocked out for prototyping, dated August 17, 2012
2049	Email correspondence from inventor Nathan Moskowitz to patent attorney regarding examiner interview, dated February 21, 2012 (attorney-client privilege portions redacted)
2050	Email correspondence from patent attorney to inventor Nathan regarding examiner interview, dated March 11, 2012
2051	Email correspondence between patent attorney and inventor Nathan regarding notice of allowance, dated September 13, 2012
2052	Email correspondence between inventors Andy Moskowitz and Eric Sugalski regarding keeping fusion device confidential until patenting, dated September 25, 2012
2053	File History for U.S. Provisional Patent Application No. 61/718,707, filed October 25, 2012
2054	Calendar of Dr. Nathan Moskowitz between March 1, 2012 and October 19, 2012 (irrelevant patient-identifying information redacted to comply with patient privacy laws)
2055	Dr. Nathan Moskowitz Emergency on Call Calendar for June, July, August, and December 2012
2056	Email correspondence between inventors Andy Moskowitz and Eric Sugalski regarding CAD drawings, dated April 15, 2011

2057	Email correspondence between inventors Nathan Moskowitz, Andy Moskowitz, and Eric Sugalski regarding maintaining ridges, dated April 17, 2011
2058	Email correspondence between inventors Andy Moskowitz and Eric Sugalski regarding side notches in final diagram, dated April 17, 2011
2059	Email correspondence between inventors Nathan Moskowitz and Eric Sugalski stressing importance of ridges and side notches, dated May 28, 2011
2060	Email correspondence between inventors Eric Sugalski and Nathan Moskowitz regarding prototype shipping, dated July 6, 2011
2061	Medtronic's Memorandum of Law in Support of Motion to Stay, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM, ECF No. 61 (Dist. Of Minn. February 20, 2026)
2062	Moskowitz' Opposition to Medtronic's Motion to Stay, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM, ECF No. 65 (Dist. Of Minn. February 27, 2026)
2063	Transcript of Motion to Stay Hearing, *Moskowitz Family LLC v. Medtronic, Inc. et. al*., No. 0:25-CV-00769-PJS-DLM (Dist. Of Minn. March 6, 2026)

I. INTRODUCTION

The Petition fails because its primary prior art reference—Palmatier—is not prior art. The record shows that the inventors conceived the expandable spinal implant embodiments of the challenged claims months before Palmatier's December 19, 2011 filing date and then worked with reasonably continuous diligence until the invention was constructively reduced to practice in the October 25, 2012 provisional application. Dr. Nathan Moskowitz's declaration—independently corroborated by contemporaneous engineering drawings, CAD files, and documentary records—maps those conception disclosures to every limitation of the challenged claims. The antedating evidence illustrates that Palmatier is not prior art, and thus all of Petitioner's asserted grounds collapse. Institution should denied on this basis alone.

The Petition should also be denied for an independent reason. Petitioner refuses to commit to claim scope here while preserving freedom to use claim scope later in district court. In the Petition, Petitioner tells the Board that no claim construction is necessary except for certain means-plus-function terms, asserts unpatentability under "any reasonable construction," and expressly reserves the right to raise different claim scope arguments elsewhere. But when the district court asked why a stay was needed, Petitioner admitted that claim construction would shape its district court contentions and that, in a "typical world," it would disclose theories under multiple constructions. Petitioner then asked the court to stop the case before

those positions had to be disclosed, because doing so could lead the Director to view Petitioner's positions as inconsistent and deny institution. That is the game: keep claim scope broad enough to pursue invalidity at the PTAB, while withholding the narrower claim scope positions it told the district court it would ordinarily disclose. This gamesmanship should not be rewarded.

II. THE '284 PATENT

The '284 patent describes a family of expandable intervertebral implants designed to restore disc height, stabilize adjacent vertebral bodies, and promote spinal fusion while minimizing the need for bulky external fixation systems. Ex. 1001 at 3:29-52.

The inventors of '284 patent conceived of and reduced to practice multiple "zero-profile expandable intervertebral spacer" (ZP-EIS) implants at least as early as May 18, 2011. Ex. 2024, ¶¶ 15–46. These ZP-EIS embodiments, along with a tool for insertion and expansion of the same, were further documented and refined after conception and were ultimately described in the provisional application filed on October 25, 2012. Ex. 2024, ¶¶ 47–123; Ex. 2053. That provisional application detailed how the various ZP-EIS implants could be introduced into the disc space and then expanded—via varying expansion mechanisms including scissor-jack linkages, threaded drive mechanisms, wedge-type actuators, or gear-driven expansion systems—to achieve controlled vertebral distraction and secure fixation.

Ex. 2053, Figs. 1A-8H, ¶¶ 21-46. The '284 patent shares these disclosures, and the challenged claims of the '284 focus on ZP-EIS implants with the wedge-type expansion mechanism driven by a rotation screw. Ex. 1001, Figs. 1A-8G[1], 6:54-11:64.

The device housing also includes cavities or openings configured to receive bone graft material or other osteoconductive substances. Ex. 2053 ¶¶ 4-5, 10, 13, 23, 26, 29, 31, 33, 35, 37, 45-46, Figs. 1A-7D; Ex. 1001 at 2:18-31, 4:14-17, 7:18-24, 7:56-61, 8:22-24, 8:48-50, 9:12-14, 9:37-39, 9:59-62, 11:45-47, Figs. 1A-7D. Once implanted and expanded, these graft-receiving regions promote bone growth through and around the implant, facilitating fusion between the adjacent vertebral bodies. *Id.*

As noted above, the '284 patent discloses a specialized implantation tool designed to deliver and actuate the expand all of the ZP-EIS implants. Ex. 2053, ¶¶ 3, 7, 10, 38-46, Figs. 8A-8H; Ex. 1001 at 2:16-17, 2:54-58, 10:1-11:60, Figs. 8A-8G. The tool can grasp the implant, position it within the intervertebral space, and drive the expansion mechanism through a rotation screw. *Id.* This integrated instrumentation allows the surgeon to both deploy and expand the device through a minimally invasive surgical corridor.

[1] The October 2012 provisional comprise the same figures, but errantly skipped over the label for Fig. 8E such that the numbers do not align even though the figures do.

Taken together, the '284 patent describes a versatile expandable intervertebral spacer system capable of restoring disc height, securing fixation to adjacent vertebral bodies, and promoting spinal fusion while maintaining a compact zero-profile design. Through its expandable architectures, integrated fixation options, and dedicated implantation tools, the disclosed system seeks to reduce surgical trauma and improve the precision with which intervertebral implants can be deployed and adjusted within the spine. Ex. 2053 ¶¶ 43-48; Ex. 1001 at 11:18-12:19.

III. PALMATIER IS NOT PRIOR ART BECAUSE THE CHALLENGED CLAIMS WERE CONCEIVED BEFORE DECEMBER 19, 2011 AND DILIGENTLY REDUCED TO PRACTICE

Palmatier is not prior art to challenged claims 1, 2, 4, 7-14, and 16-20. That disposes of the Petition's Palmatier-based grounds.

The Board may deny institution where the record shows there is no reasonable likelihood that an asserted reference qualifies as prior art. *Roofr Inc. v. Eagle View Techs, Inc*., IPR2023-00437, Paper 14 at 13-15 (PTAB Aug. 1, 2023); *Par-Kan Co., LLC v. Unverferth Mfg. Co.*, IPR2024-01426, Paper 10 (PTAB Mar. 19, 2025). That is the situation here.

This conclusion defeats all three asserted grounds. Ground 1 depends entirely on Palmatier. Grounds 2 and 3 depend on Palmatier as the lead reference. Although Petitioner also cites Gordon for claims 4 and 8-9 and Glerum for claims 14 and 16-

18, it does not rely on those references as substitutes for Palmatier. Without Palmatier, Grounds 2 and 3 fail.

The record shows why. The embodiments of the challenged claims were conceived months before Palmatier's December 19, 2011 filing date, and the inventors exercised reasonably continuous diligence until the invention was constructively reduced to practice in the October 25, 2012 provisional application. Ex. 2024 ¶¶ 15–152. By at least May 18, 2011, the inventors had determined the structure and operation of the claimed wedge-driven expandable implant embodiments, as reflected in contemporaneous drawings, CAD files, and emails showing implant housings configured to engage adjacent vertebrae, a wedge-based expansion mechanism, and related structural features. *Id.* ¶¶ 23–46; Exs. 2025, 2027-2032, 2056-2059. Together with Dr. Moskowitz's testimony, that record shows a definite and permanent understanding of the invention well before Palmatier's filing date. Ex. 2024 ¶¶ 15-46. The work then continued through additional engineering, prototype, collaboration, and patent-preparation efforts until the October 25, 2012 provisional application was filed, constructively reducing the previously conceived invention to practice. *Id.* ¶¶ 47–152. Palmatier came later. It therefore cannot support the Petition.

A. The Inventors Conceived Each Limitation of Challenged Claims Before December 19, 2011, and Constructively Reduced Each of Them to Practice in the October 25, 2012 Provisional Application.

Conception occurs when the inventors form a definite and permanent understanding of the invention—including each limitation of the claimed subject matter—such that a person of ordinary skill in the art could understand the structure and operation of the invention. *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994). Conception does not require every claimed feature to appear in a single drawing or depiction. It is complete once the invention is sufficiently definite for a POSITA to reduce it to practice without undue experimentation. *Spansion, Inc. v. Int'l Trade Comm'n*, 629 F.3d 1331, 1356 (Fed. Cir. 2010); *Medtronic, Inc. v. Teleflex Innovations S.À.R.L.*, 68 F.4th 1298, 1307 (Fed. Cir. 2023).

The evidence here meets that standard. By at least May 18, 2011, the inventors had already worked out the structure and operation of the claimed expandable implant embodiments, including the implant housings, the internal wedge-based expansion mechanism, and related features such as bone-graft cavities, vertebral-engagement ridges, and tool-engagement structures used for implantation and actuation. Ex. 2024 ¶¶ 23–46; Exs. 2025, 2027–2030, 2056-2059. Those same embodiments were later described in the October 25, 2012 provisional application,

which provides written support for the claimed subject matter and thus constructively reduced the invention to practice. Ex. 2024 ¶¶ 134-152; Ex. 2053.

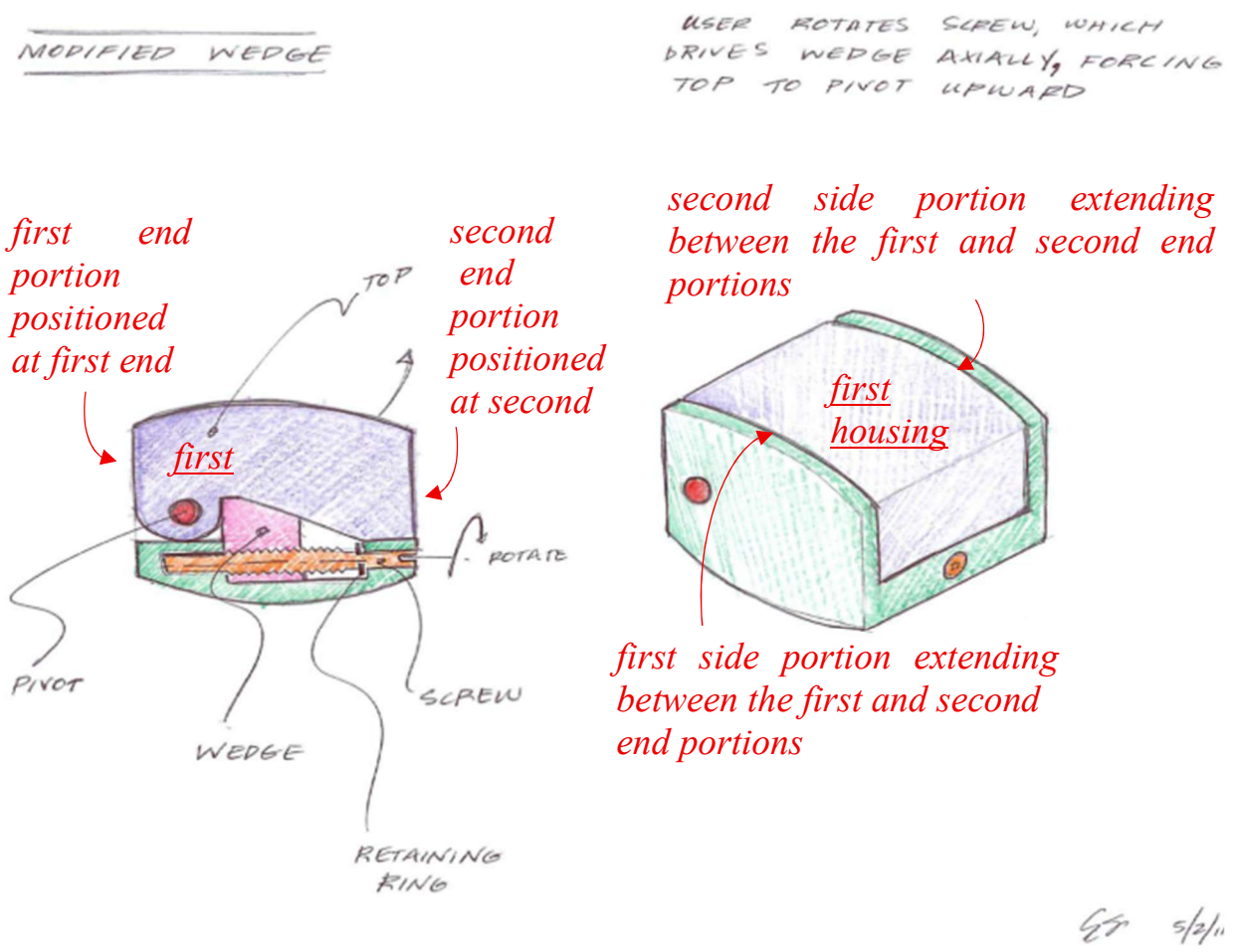
The subsections below map the contemporaneous conception evidence and the October 25, 2012 provisional disclosure to each limitation of challenged claims 1, 2, 4, 7–14, and 16–20.

B. Claim 1

1. [1.a-b] "An expandable interbody device comprising: a first housing extending from a first end to a second end, wherein the first housing has first and second end portions positioned at the first and second ends, respectively, and has first and second side portions extending between the first and second end portions"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had already determined the structure of the implant housing, including a first housing extending between opposing ends with end portions at those ends and side portions extending between them. Ex. 2024 ¶¶ 24, 26–35; Exs. 2027, 2029.

This structure appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate prior conception of this limitation.

The October 25, 2012 provisional application later disclosed the same structure, documenting the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–139, 150–152. For example, Figure 6D of the '707 provisional

illustrates an expandable implant housing extending between opposing ends, with corresponding end and side portions forming the structure of the implant device. Ex. 2053, Fig. 6D.

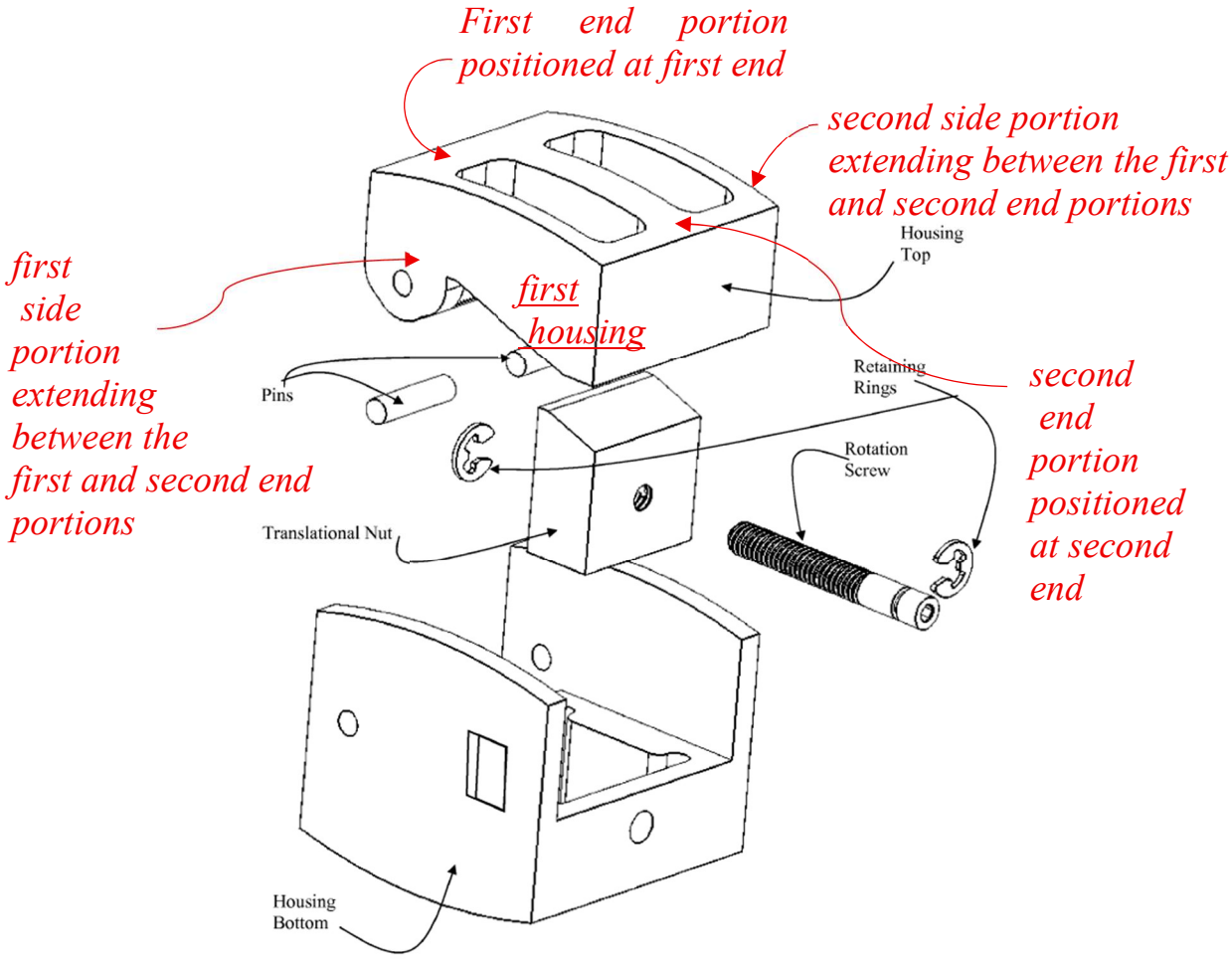


Fig. 6D

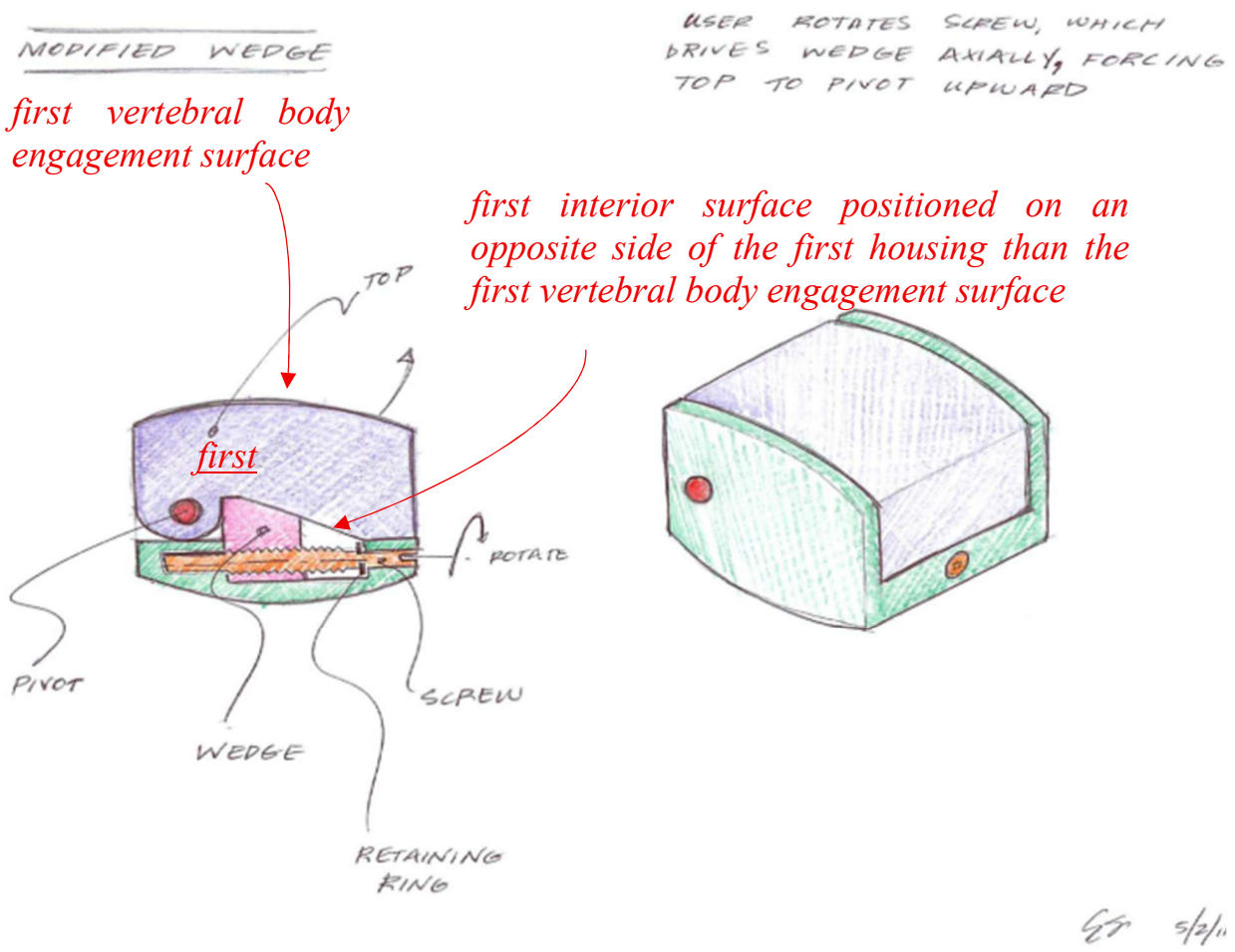
Ex. 2053, Fig. 6D (Annotated)

2. [1.c] "wherein the first housing has a first vertebral body engagement surface and has a first interior surface

positioned on an opposite side of the first housing than the first vertebral body engagement surface"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had already determined that the first housing would include a vertebral body engagement surface on one side of the housing and a corresponding interior surface on the opposite side. Ex. 2024 ¶¶ 24, 26–34; Ex. 2027, 2056, 2057, 2059.

These structural features are depicted in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

These drawings corroborate Dr. Moskowitz's testimony that, during the spring 2011 development work, the inventors had already determined the structural configuration of the expandable implant housings, including the vertebral body engagement and interior housing surfaces. Ex. 2024 ¶¶ 27–34.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–144, 150–152. For example, Figures 6A–

6D of the '707 provisional illustrate implant housings having vertebral body engagement and interior surfaces consistent with the designs shown in the earlier engineering drawings. Ex. 2053 at Figs. 6A–6D.

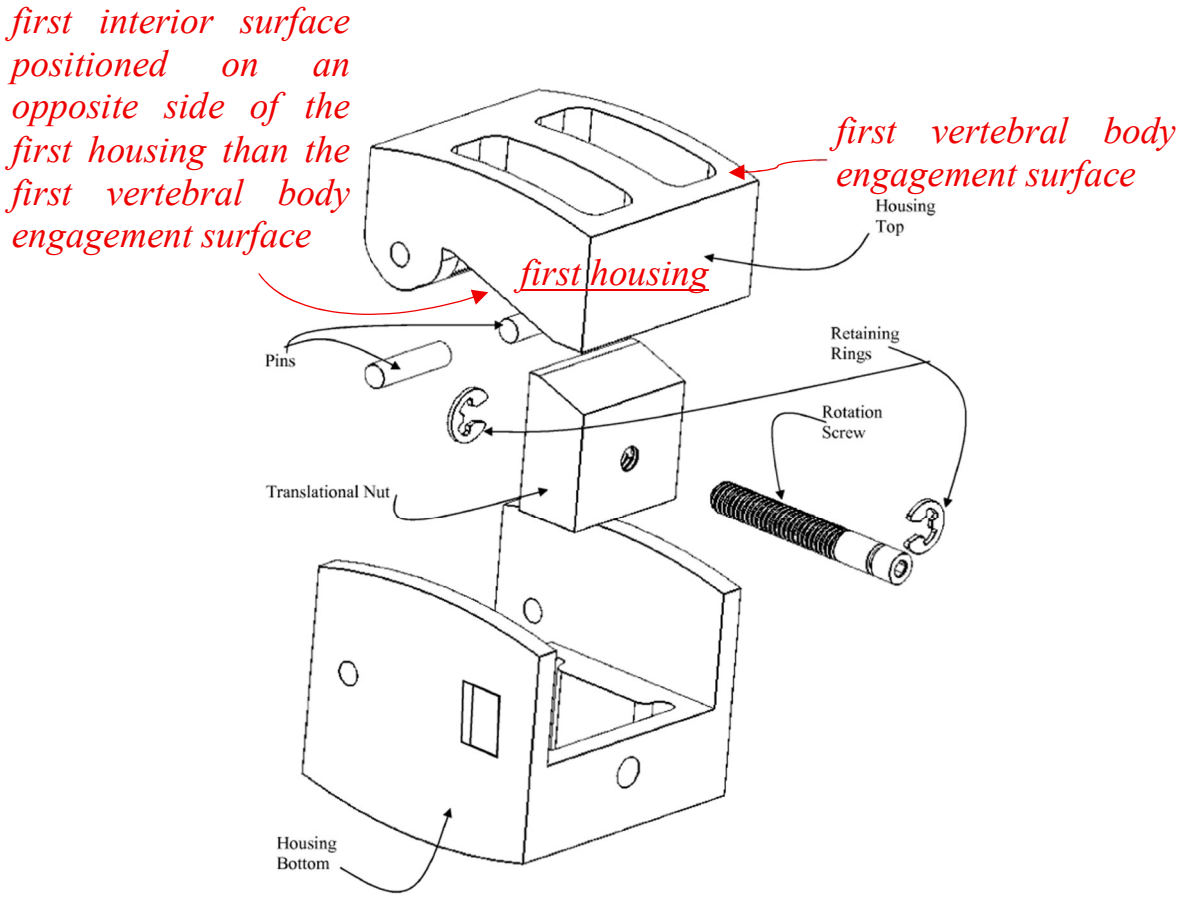


Fig. 6D

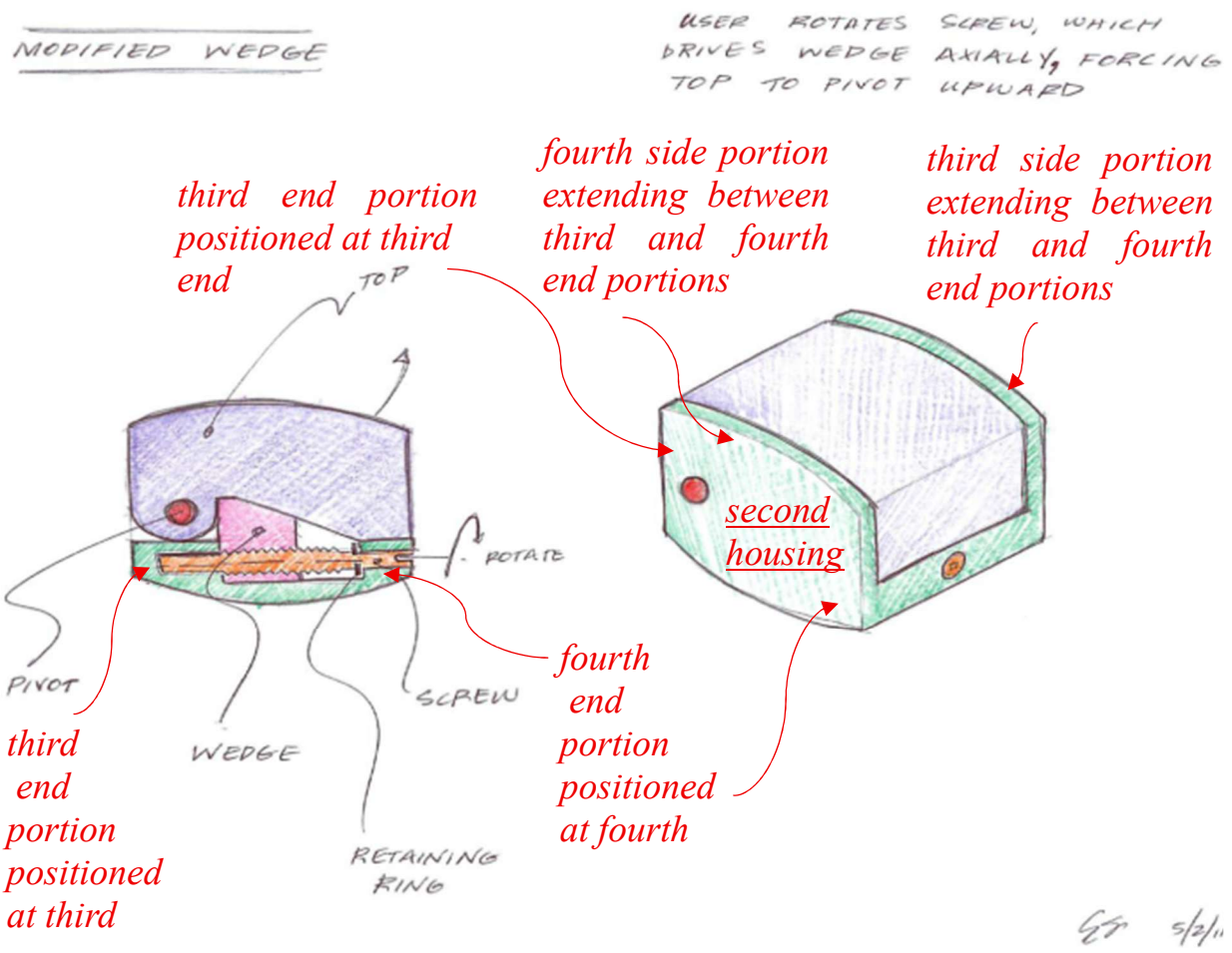
Ex. 2053, Fig. 6D (Annotated)

3. **[1.d] "a second housing extending from a third end to a fourth end, wherein the second housing has third and fourth end portions positioned at the third and fourth ends,**

respectively, and has third and fourth side portions extending between the third and fourth end portions"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had already determined that the device would include a second housing extending between opposing ends and having corresponding end portions and side portions. Ex. 2024 ¶¶ 24, 26–35; Exs. 2027, 2029.

This structure appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.

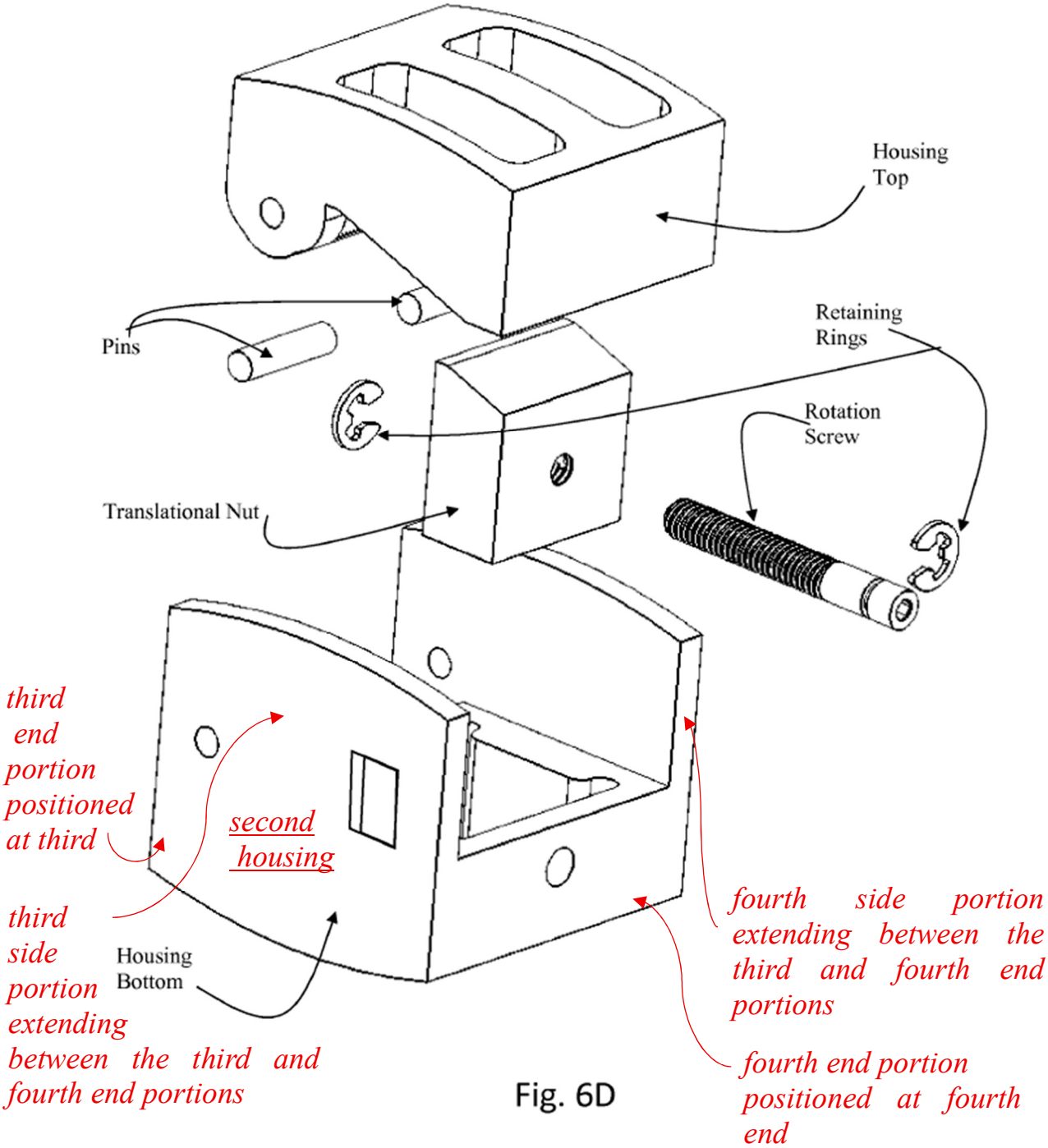


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings thus corroborate prior conception of this limitation.

The October 25, 2012 provisional application later disclosed the same structure, documenting the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–139, 150–152. Figure 6D, for example, illustrates a second implant

housing extending between opposing ends, with corresponding end and side portions forming part of the expandable implant structure. Ex. 2053, Fig. 6D.

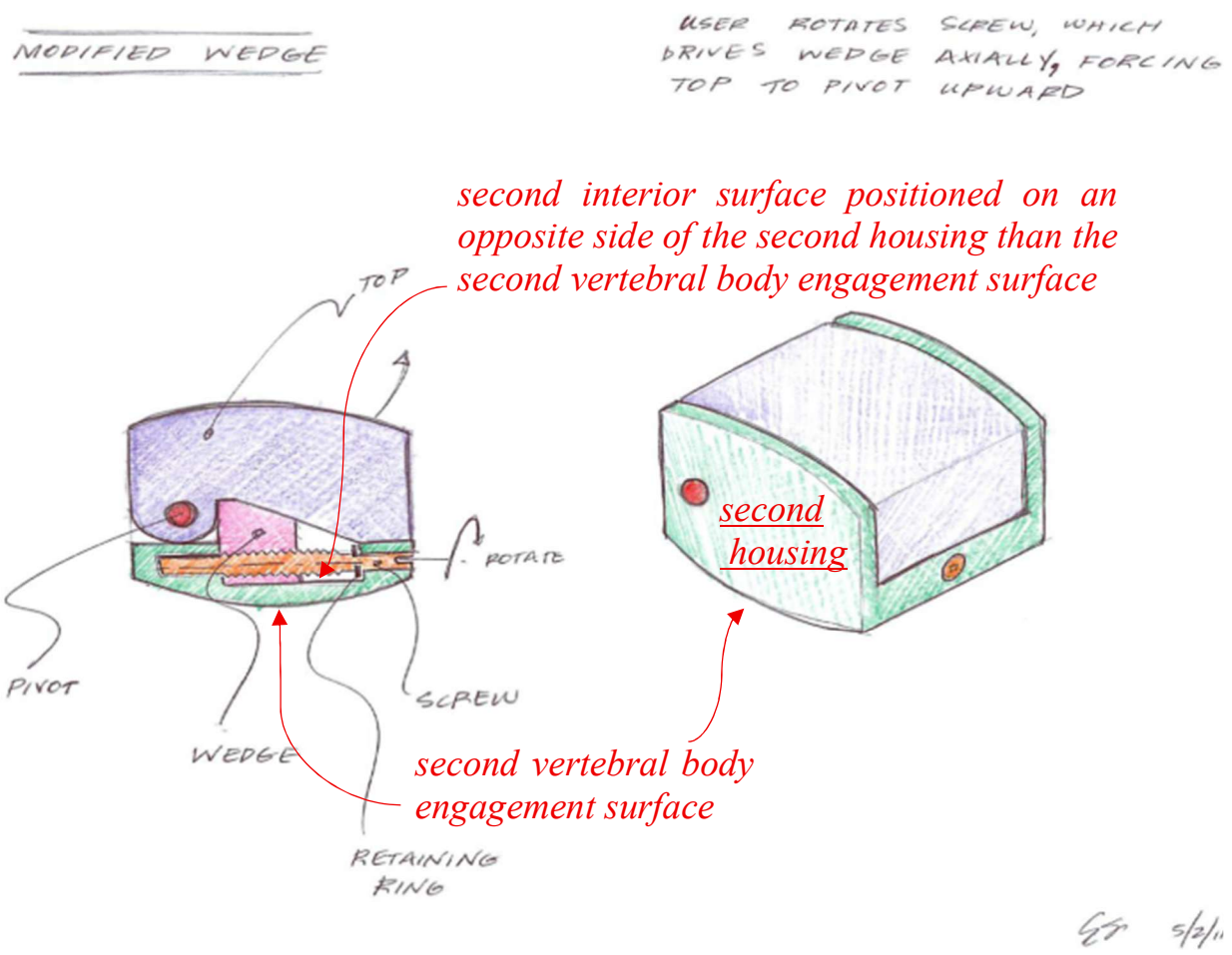


Ex. 2053, Fig. 6D (Annotated)

4. [1.e] "wherein the second housing has a second vertebral body engagement surface and has a second interior surface positioned on an opposite side of the second housing than the second vertebral body engagement surface"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had already determined that the second housing would include a vertebral body engagement surface on one side of the housing and a corresponding interior surface on the opposite side. Ex. 2024 ¶¶ 24, 26–34; Ex. 2027, 2056, 2057.

Those features appear in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.

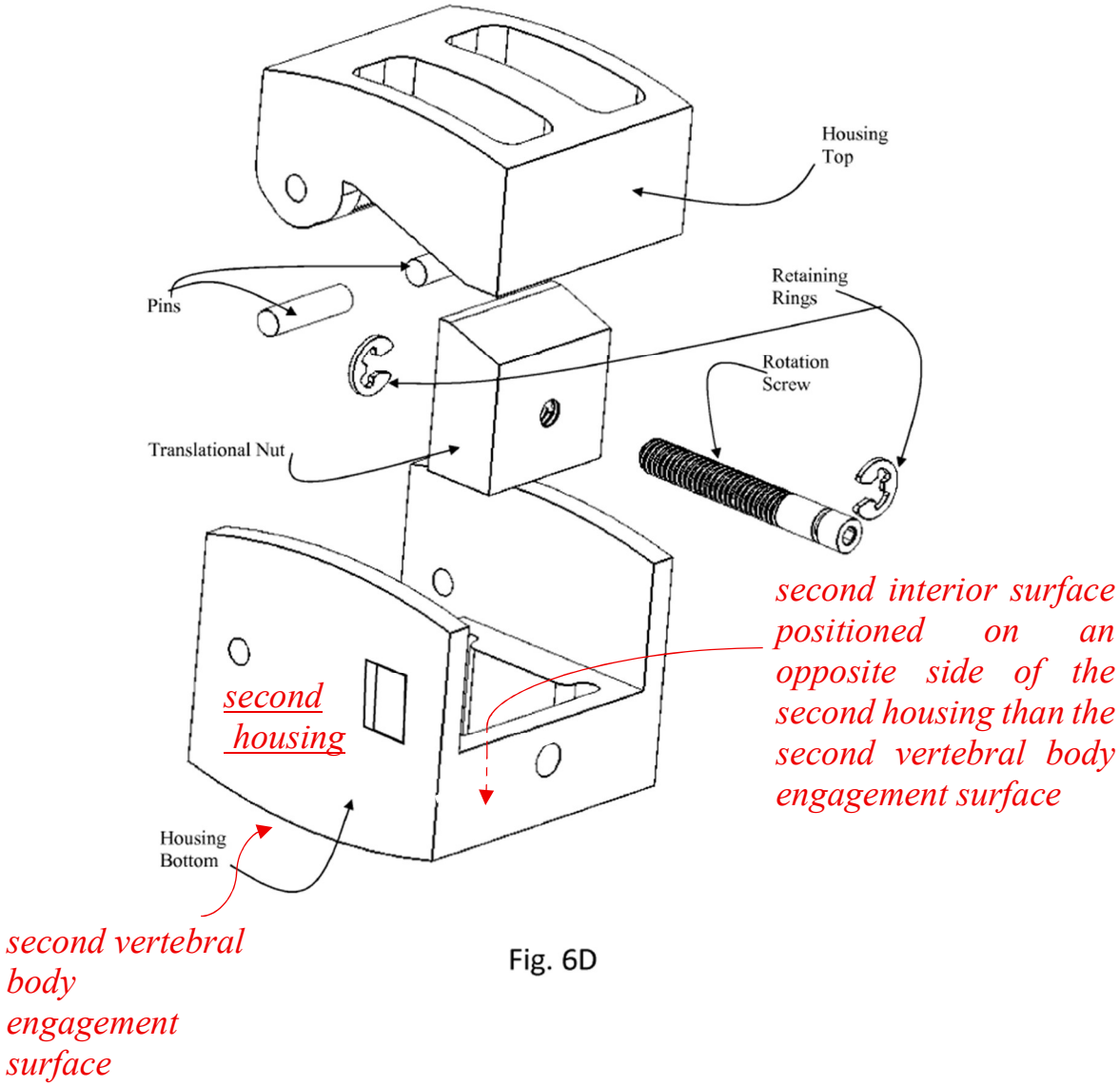


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate prior conception of this limitation.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–144, 150–152. For example, Figure 6D of

the ’707 provisional illustrates the second implant housing having a vertebral body engagement surface and a corresponding interior surface positioned on the opposite side of the housing. Ex. 2053, Fig. 6D.



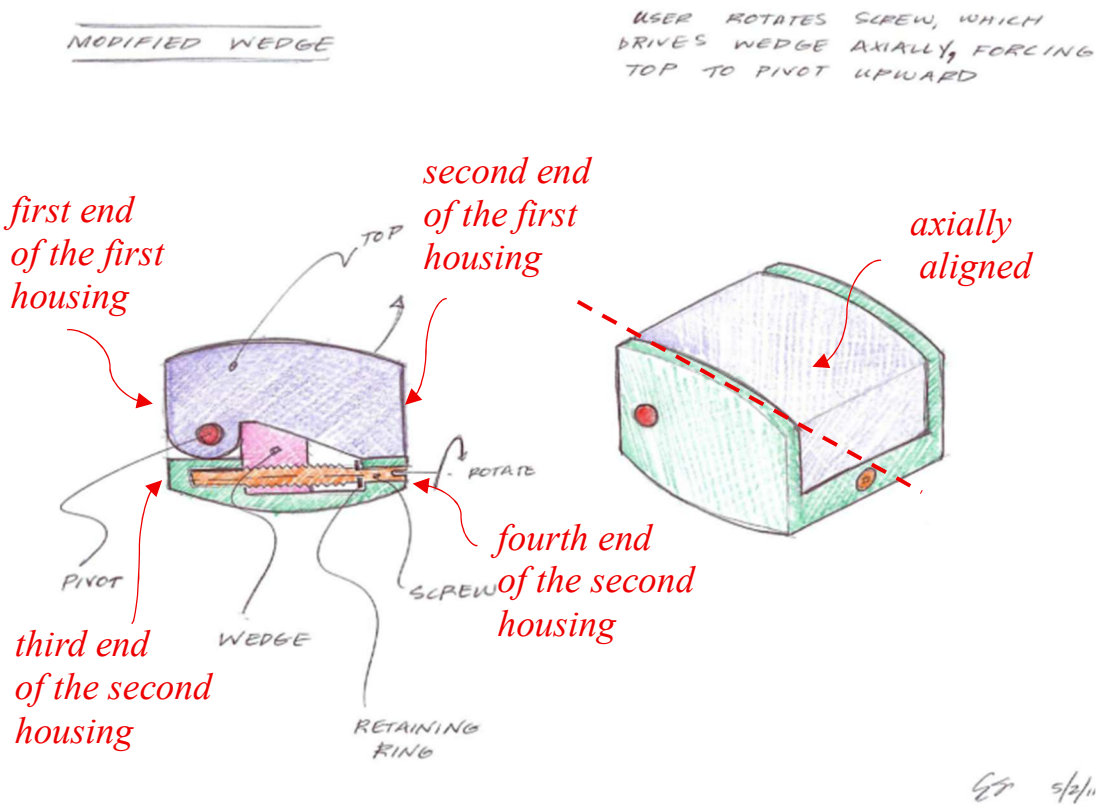
Ex. 2053, Fig. 6D (Annotated)

5. [1.f] “wherein the first housing is aligned with the second housing such that the first end of the first housing is axially aligned with the third end of the second housing and the

second end of the first housing is axially aligned with the fourth end of the second housing"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had determined that the two housings would be positioned in axial alignment so that the corresponding ends of the housings aligned with respect to the longitudinal axis of the implant. Ex. 2024 ¶¶ 29–33; Ex. 2027.

That alignment appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate prior conception of this limitation.

The October 25, 2012 provisional application later disclosed the same structural relationship, documenting the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 138, 141–144, 150–152. For example, Figure 6A of the '707 provisional illustrates the first and second implant housings arranged with respect to the same longitudinal axis, with the corresponding ends of the implant housings aligned as recited in this limitation. Ex. 2053, Fig. 6A.

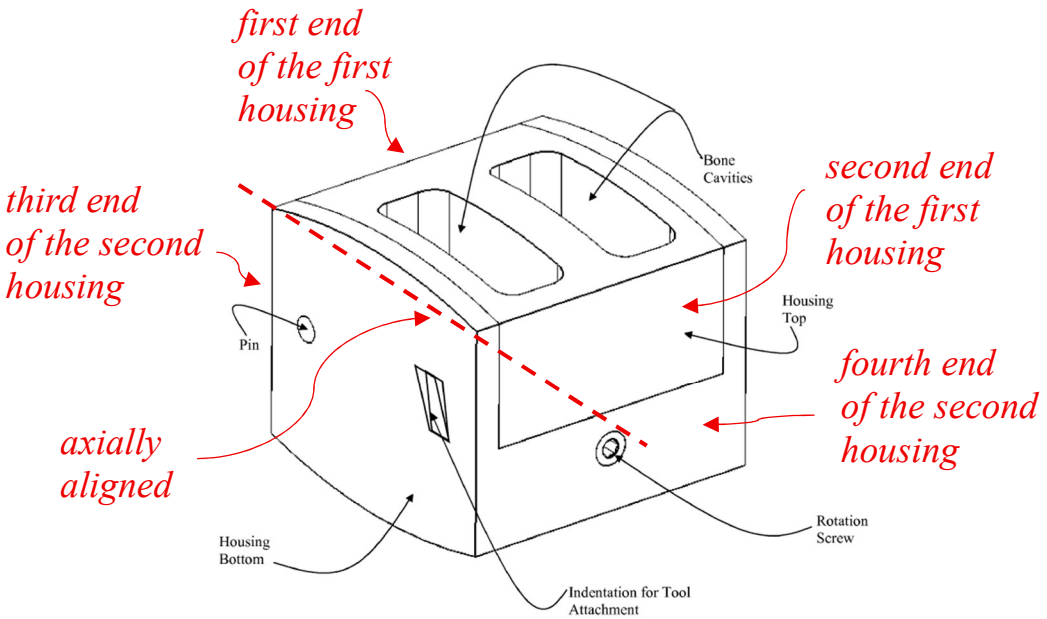


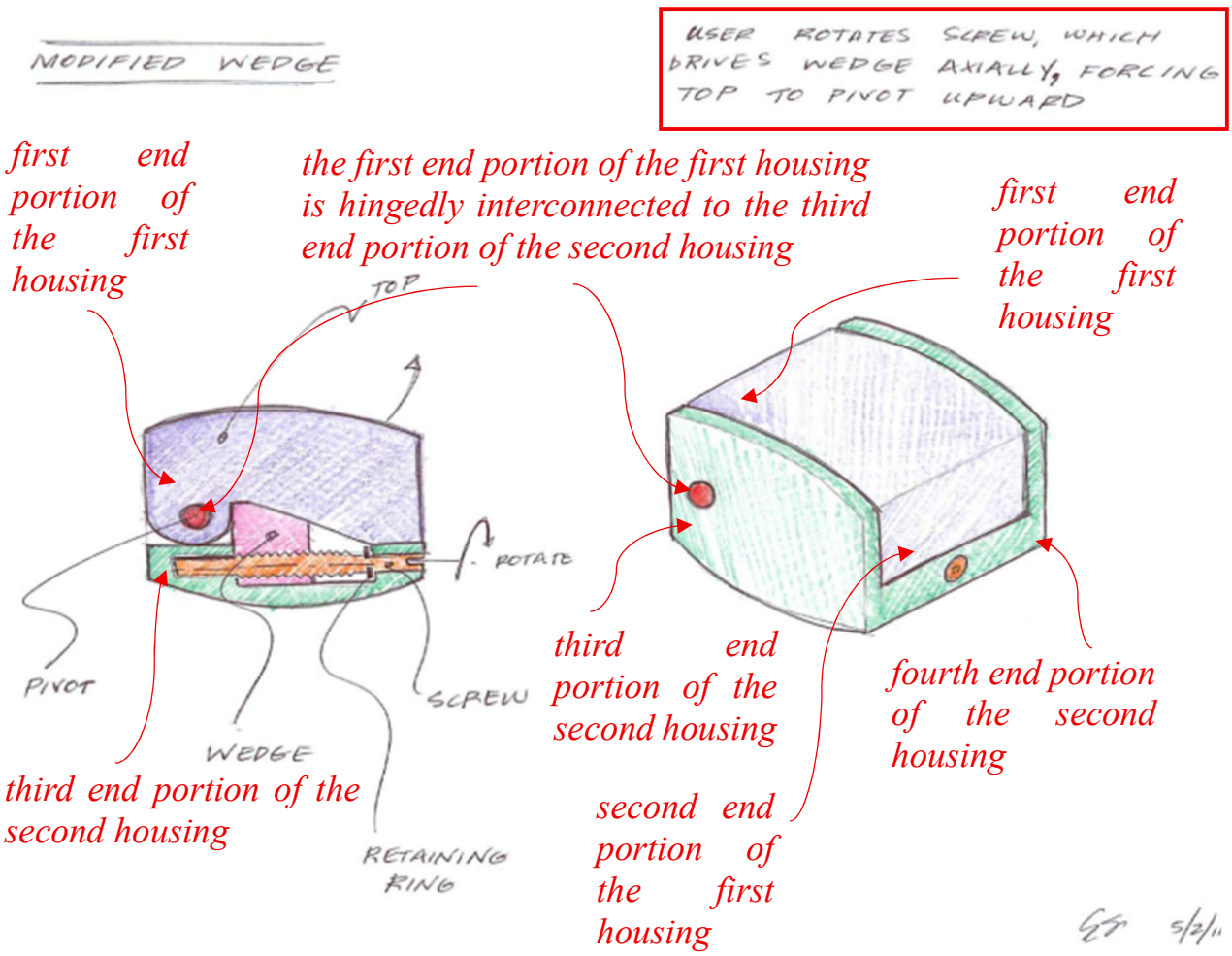
Fig. 6A

Ex. 2053, Fig. 6A (Annotated)

6. [1.g] "wherein the first end portion of the first housing is hingedly connected to the third end portion of the second housing such that the first housing can pivot with respect to the second housing so as to move the second end portion of the first housing away from the fourth end portion of the second housing"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had already determined that the implant housings would be hingedly interconnected at one end so that, during expansion, one housing would pivot relative to the other and move its opposite end away from the corresponding end of the second housing. Ex. 2024 ¶¶ 29–33; Ex. 2027.

This hinged configuration and pivoting motion are depicted in the contemporaneous engineering drawing circulated on May 3, 2011, shown below. In the drawing, the inventors wrote that rotation of a screw drives the wedge axially, forcing the top housing of the implant to pivot upward. Ex. 2027. This description matches the claimed hinged connection and resulting pivoting movement of one housing away from the other during expansion.

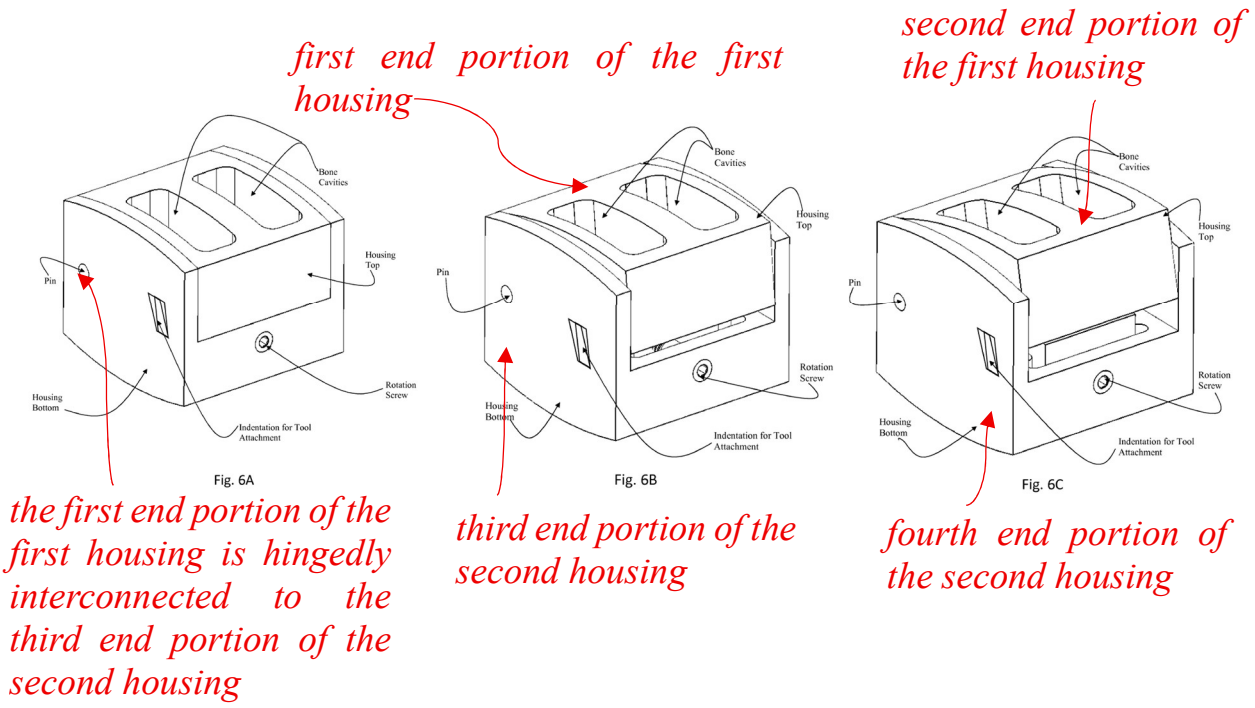


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the development work occurring in spring 2011. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate prior conception of this limitation.

The October 25, 2012 provisional application later disclosed the same hinged configuration and pivoting expansion mechanism, documenting the previously conceived expandable implant embodiments. Ex. 2024, ¶¶ 138–144, 150–152.

Figures 6A–6C illustrate the hinge structure and the resulting pivoting motion of the implant housings during expansion. In those figures, a pin hingedly interconnects the first end portion of the first housing with the third end portion of the second housing, permitting the first housing to pivot relative to the second housing as the wedge is driven axially within the implant. Ex. 2053, Figs. 6A–6C; ¶¶ 34–35. Figure 6C in particular illustrates the pivoted configuration in which the second end portion of the first housing moves away from the fourth end portion of the second housing as the wedge drives expansion of the device.



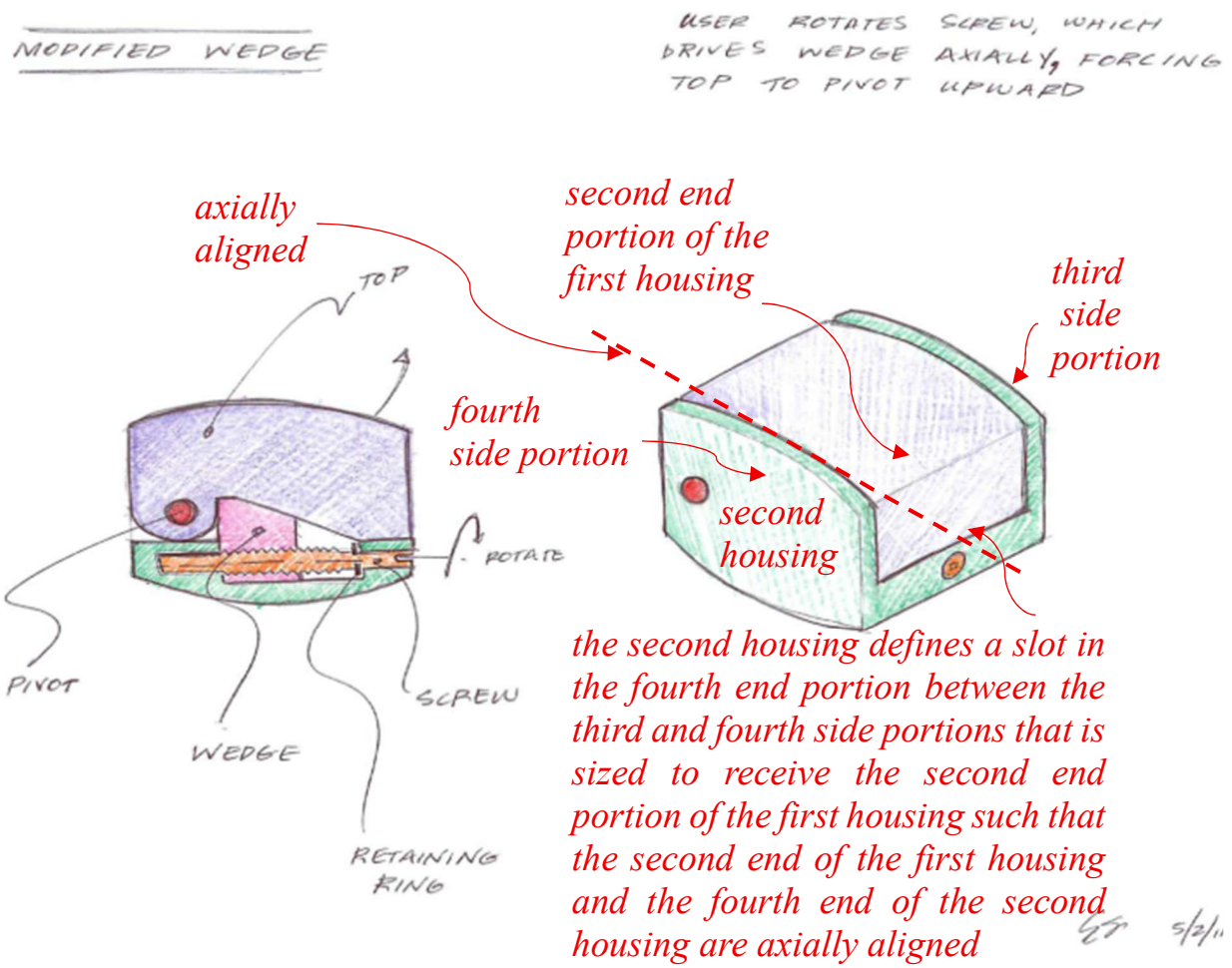
Ex. 2053, Figs. 6A-6C (Annotated)

7. [1.h] "wherein the second housing defines a slot in the fourth end portion between the third and fourth side portions that is sized to receive the second end portion of the first housing

such that the second end of the first housing and the fourth end of the second housing are axially aligned"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had determined that the second housing would include a receiving structure at one end, between its side portions, sized to accept the end of the first housing and keep the two housings axially aligned. Ex. 2024 ¶¶ 29–33; Ex. 2027.

That structural relationship appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate prior conception of this limitation.

The same structural relationship was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–144, 150–152. For example, Figure 6A of

the ’707 provisional illustrates the expandable implant device in a compressed configuration in which the first implant housing is positioned between structural portions of the second implant housing. Ex. 2053, Fig. 6A.

the second housing defines a slot in the fourth end portion between the third and fourth side portions that is sized to receive the second end portion of the first housing such that the second end of the first housing and the fourth end of the second housing are axially aligned

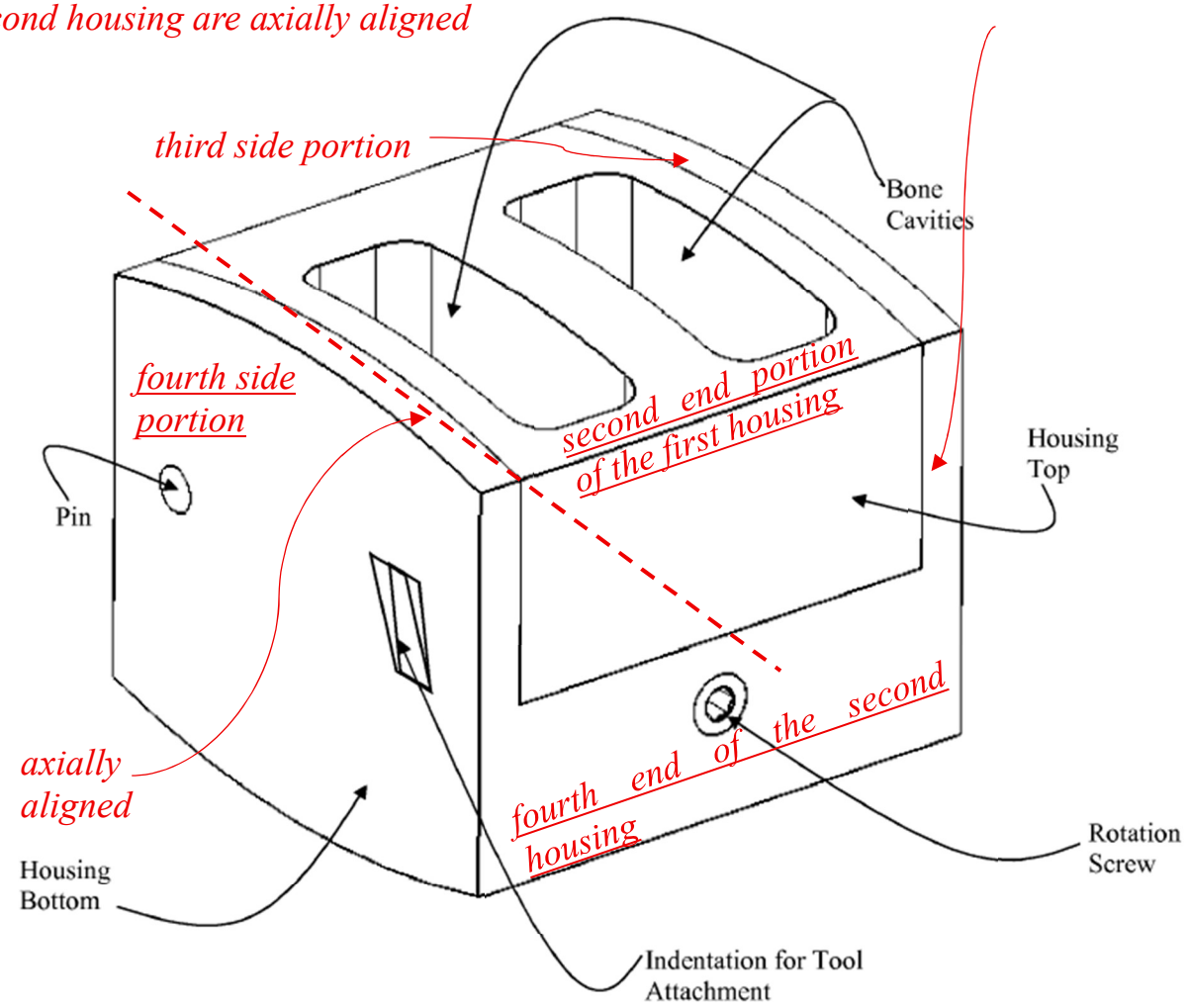


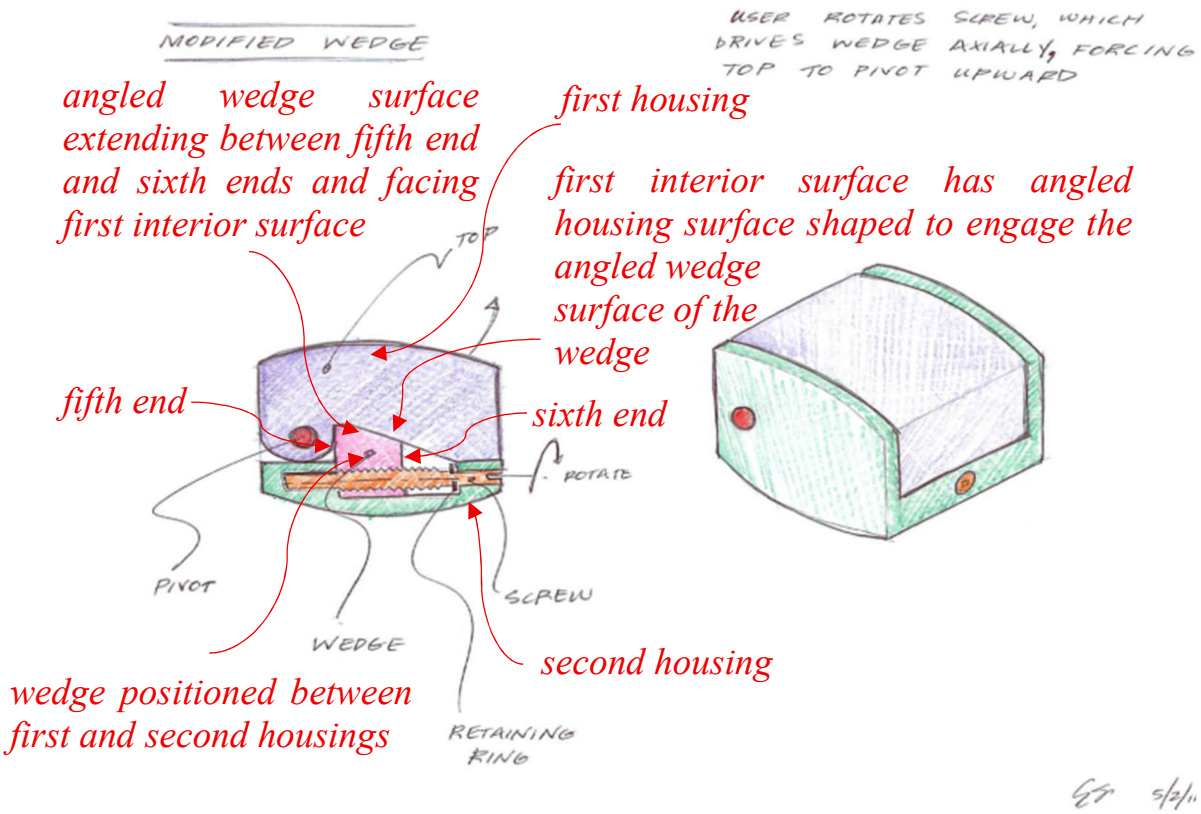
Fig. 6A

Ex. 2053, Fig. 6A (Annotated)

8. [1.i-j] "a wedge extending from a fifth end to a sixth end and having an angled wedge surface extending along at least a portion of a distance between the fifth end and the sixth end, wherein the wedge is positioned between the first housing and the second housing with the angled wedge surface facing the first interior surface of the first housing, wherein the first interior surface of the first housing has an angled housing surface shaped to engage the angled wedge surface of the wedge"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had determined that the device would include a wedge positioned between the housings, with an angled wedge surface arranged to engage an angled interior housing surface of the first housing during expansion. Ex. 2024 ¶¶ 29–33; Ex. 2027.

This wedge-based expansion mechanism appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings thus corroborate prior conception of this limitation.

The same wedge-driven expansion mechanism was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 141–144, 150–152. For example, Figure 6D of the '707 provisional illustrates a wedge component positioned between the implant housings with an angled surface that interacts with

a corresponding interior housing surface to cause expansion of the implant. Ex. 2053, Fig. 6D.

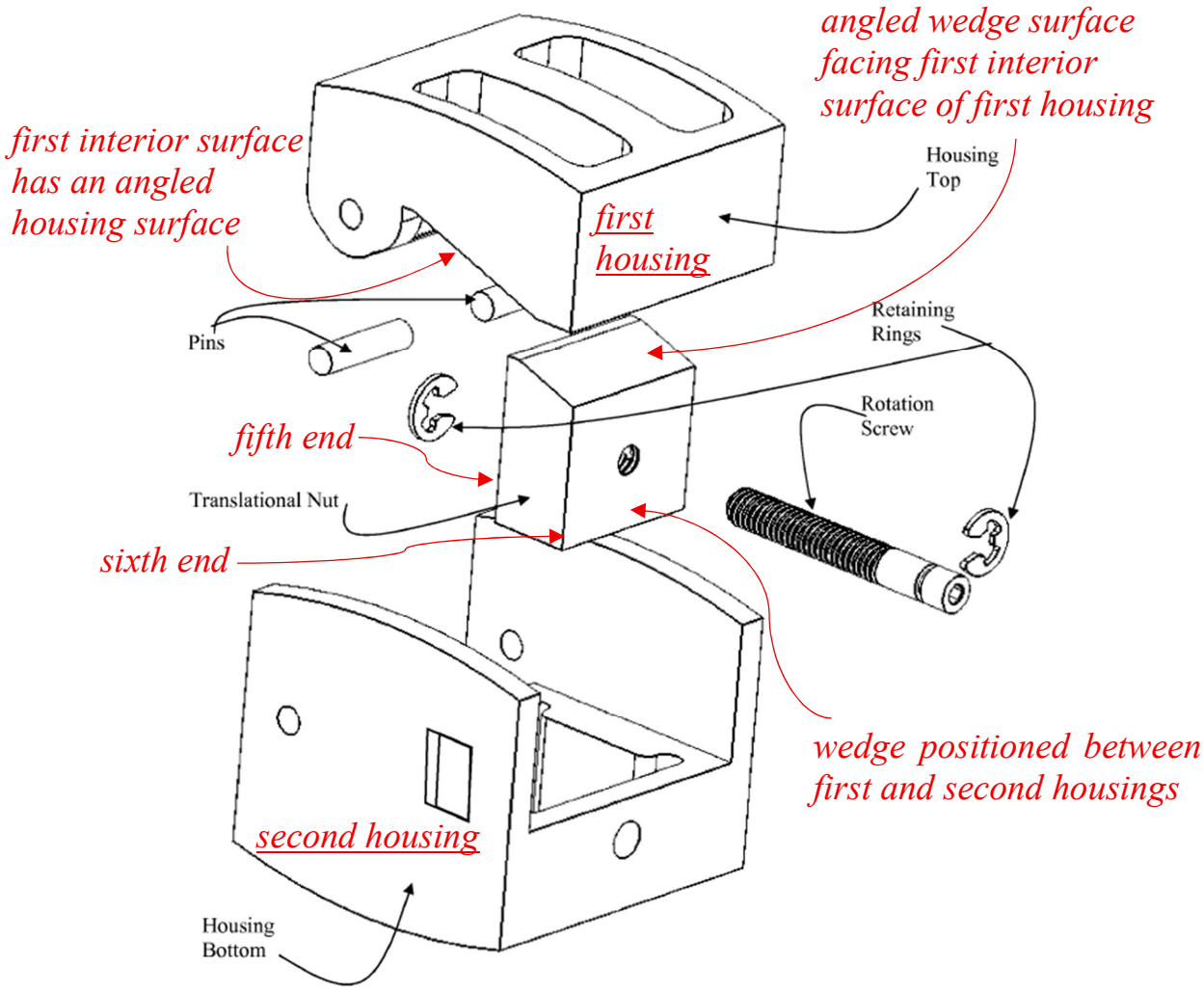


Fig. 6D

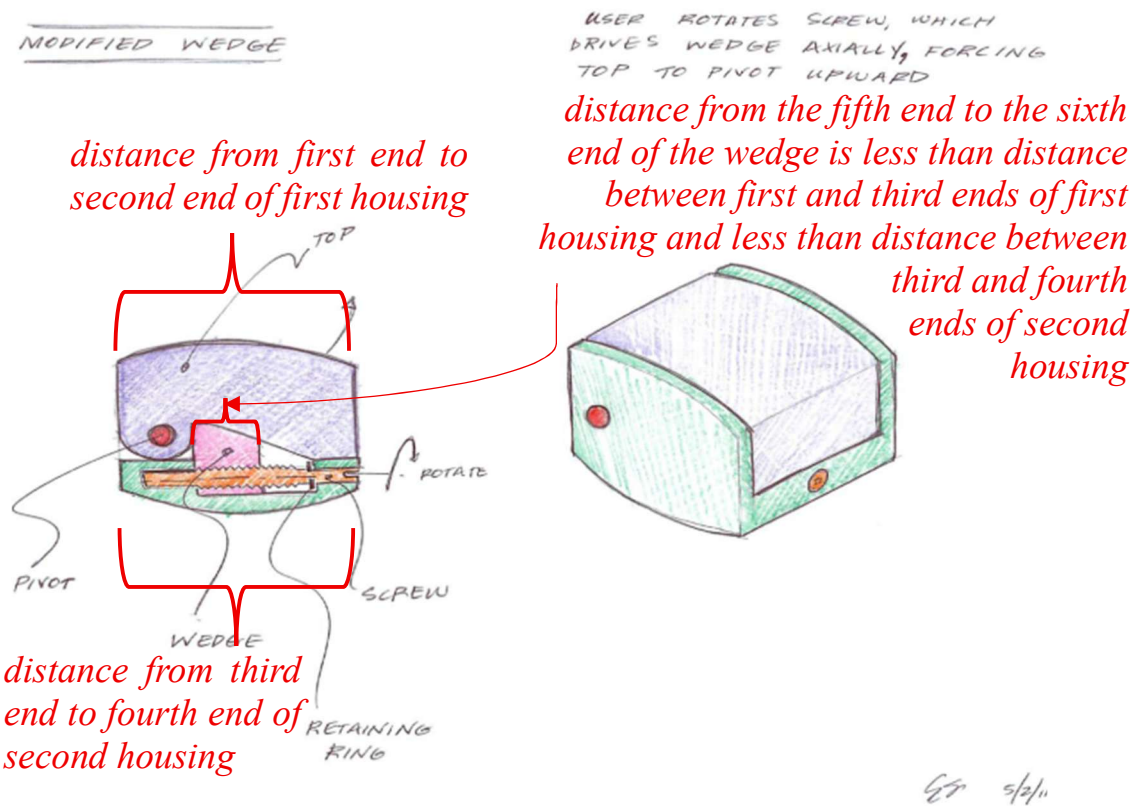
Ex. 2053, Fig. 6D (Annotated)

9. [1.k] "wherein a distance from the fifth end to the sixth end of the wedge is less than a distance from the first end to the

second end of the first housing and is less than a distance from the third end to the fourth end of the second housing,"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By then, the inventors had determined that the wedge positioned between the implant housings would be shorter in length than either housing. Ex. 2024 ¶¶ 29–33; Ex. 2027.

This configuration appears in the contemporaneous engineering drawing circulated on May 3, 2011, shown below. The annotated drawing illustrates the wedge positioned between the implant housings and extending a distance between a fifth and sixth end. As shown in the drawing, the wedge occupies only a portion of the longitudinal distance of the implant and is therefore shorter than the distance between the first and second ends of the first housing and shorter than the distance between the third and fourth ends of the second housing. Ex. 2027.

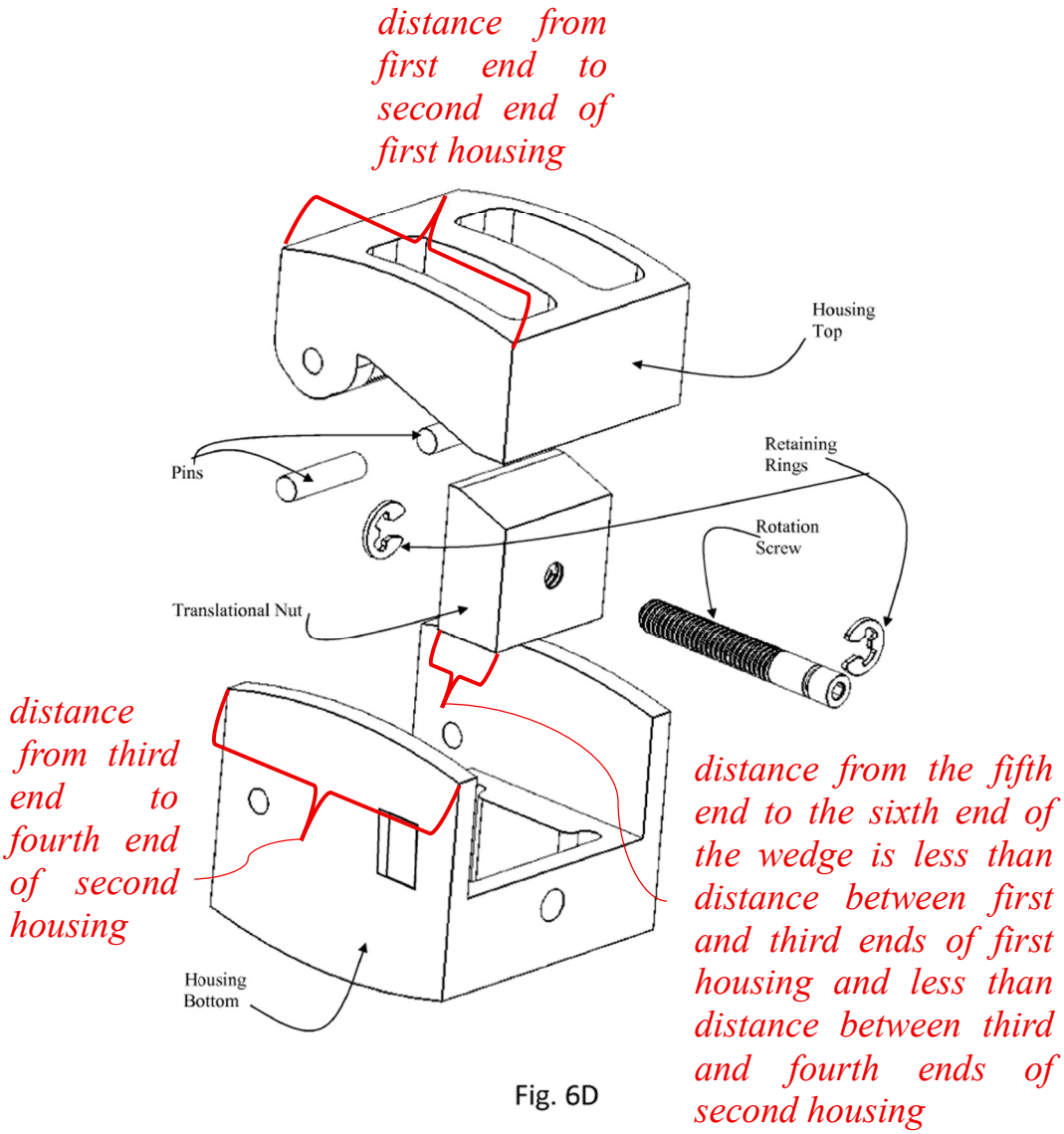


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings thus corroborate prior conception of this limitation.

The same structural relationship was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 141–144, 150–152. For example, Figure 6D illustrates the wedge positioned between the implant housings and occupying a shorter longitudinal distance than the implant housings themselves, allowing the

wedge to translate within the interior space of the device during expansion. Ex. 2053, Fig. 6D.



Ex. 2053, Fig. 6D (Annotated)

10. [1.l] "wherein the wedge is configured to slide within a spaced defined by the first housing and second housing in a direction toward the second and fourth ends of the first and second housings from a first wedge position that allows the first and second housings to pivot to a housing position that is substantially closed to a second wedge position whereby the

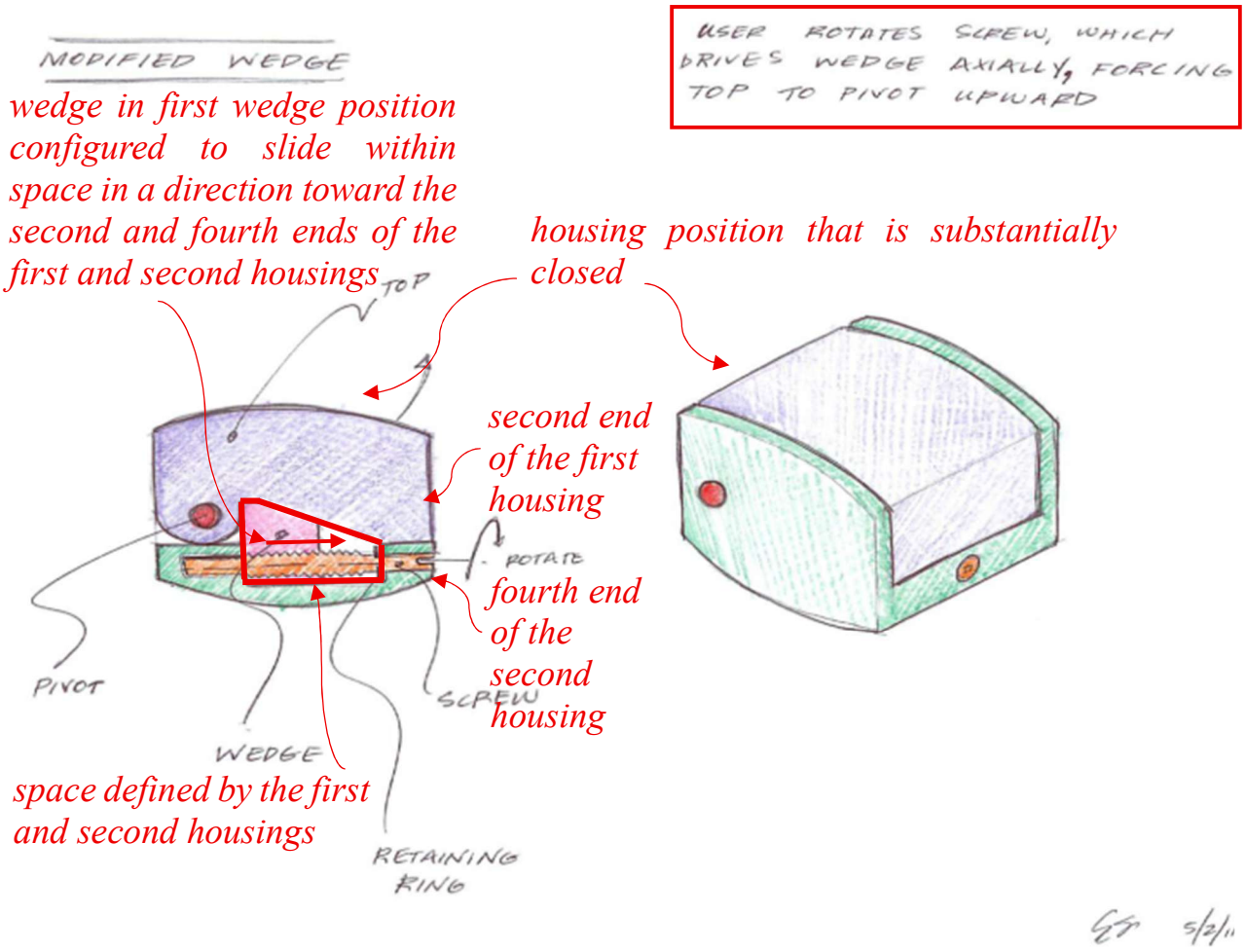
angled wedge surface presses against the first interior surface of the first housing to hingedly open the first housing with respect to the second housing whereby the wedge remains axially confined within the space defined by the first and second housings in the first and second wedge positions; and"

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. This limitation has two related parts: first, the wedge slides within the space between the housings from a first wedge position toward a second wedge position, where it presses against the first interior surface of the first housing to hingedly open the device; second, the wedge remains axially confined within that space in both wedge positions.

By May 3, 2011, the inventors had determined that the wedge positioned between the implant housings would slide axially within the device toward the distal ends of the housings and, as it moved, press against the angled interior surface to pivot the housing from a closed position to an open one. Ex. 2024 ¶¶ 29–33; Ex. 2027.

The contemporaneous May 3, 2011 drawing circulated, shown below, addresses the first part of that limitation. In that drawing, the inventors wrote that rotation of a screw drives the wedge axially, forcing the top housing of the implant to pivot upward. Ex. 2027. This description corresponds directly to the claim language requiring a second wedge position in which the angled wedge surface presses against the first interior surface of the first housing to hingedly open the first

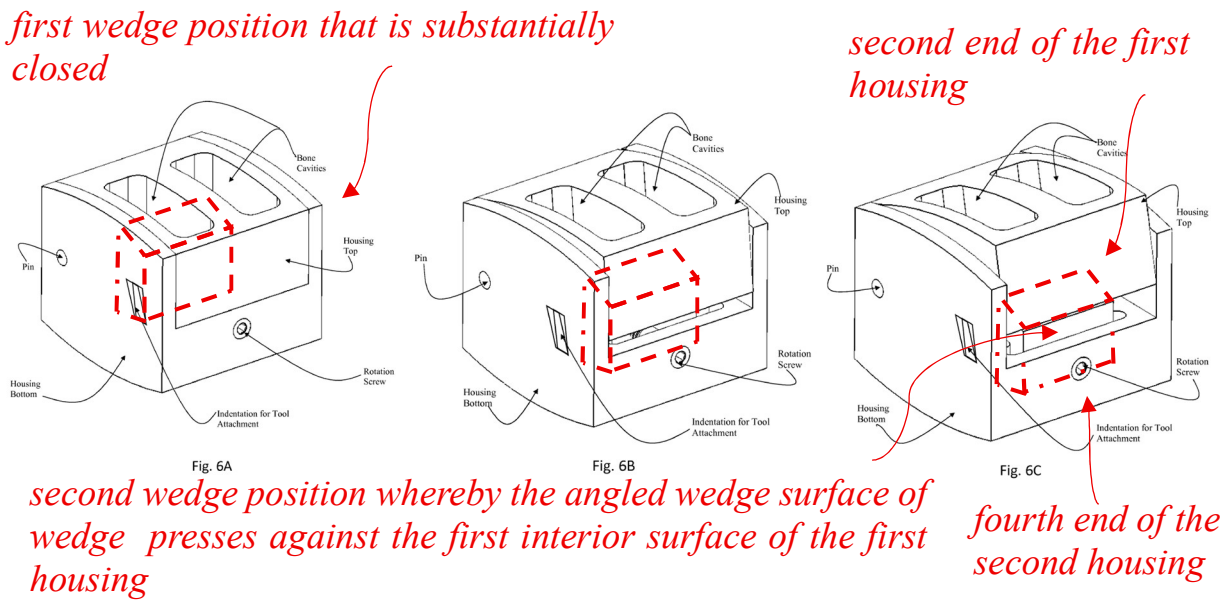
housing with respect to the housing. The remaining structural and operational features of this mechanism are visually apparent in the annotated drawing:



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings thus corroborate prior conception of this limitation.

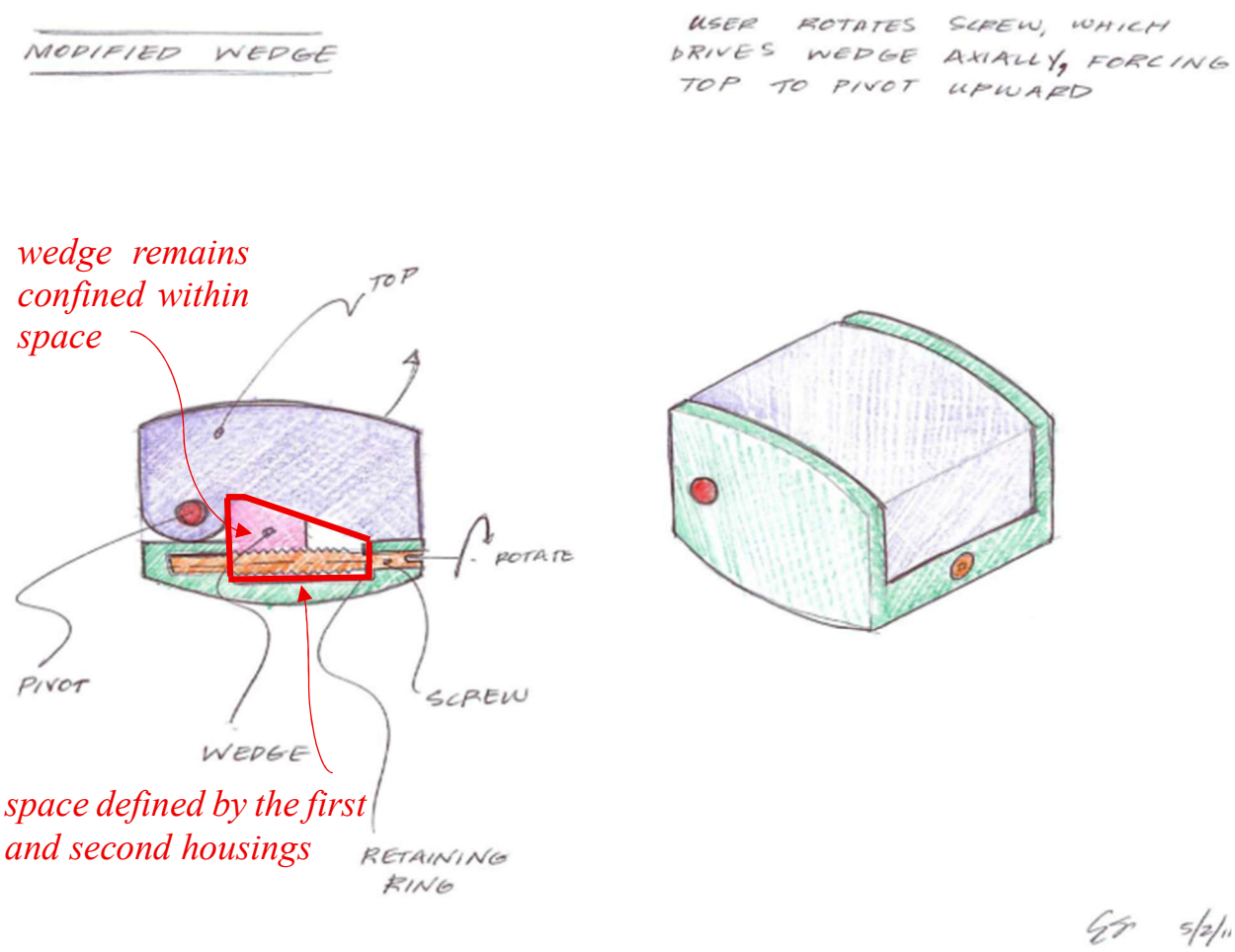
The same mechanism and sequence of operation were later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 138–144, 150–152. Figures 6A–6C of the '707 provisional illustrate the operation of the wedge mechanism. Figure 6A depicts the implant in a first wedge position in which the device is in a substantially closed housing position. As the wedge moves axially toward the second and fourth ends of the first and second housings, the angled wedge surface presses against the first interior housing surface of the first housing to hingedly open the first housing with respect to the second housing. This movement is illustrated in the intermediary configuration shown in Figure 6B and the second wedge position shown in Figure 6C, where the wedge can be seen axially driven to hingedly open the first housing with respect to the second housing. Ex. 2053, Figs. 6A–6C; ¶¶ 34–35 ("As the screw is rotated by an external tool (Figure 8), it causes lateral motion of a wedge-shaped translation nut ( ). The nut ( ) engages the inner tapered surface of the top housing ( ) and forces the top housing piece ( ) to rotate away from the bottom housing ( ).").



Ex. 2053, Figs. 6A-6C (Annotated)

The inventors had also conceived the final part of this limitation before Palmatier's December 19, 2011 filing date: that the wedge remains axially confined within the space defined by the first and second housings in both the first and second wedge positions. By May 18, 2011, the inventors had already determined that the wedge would move axially within the space between the implant housings while remaining confined within that space during operation. Ex. 2024 ¶¶ 29–33; Ex. 2027.

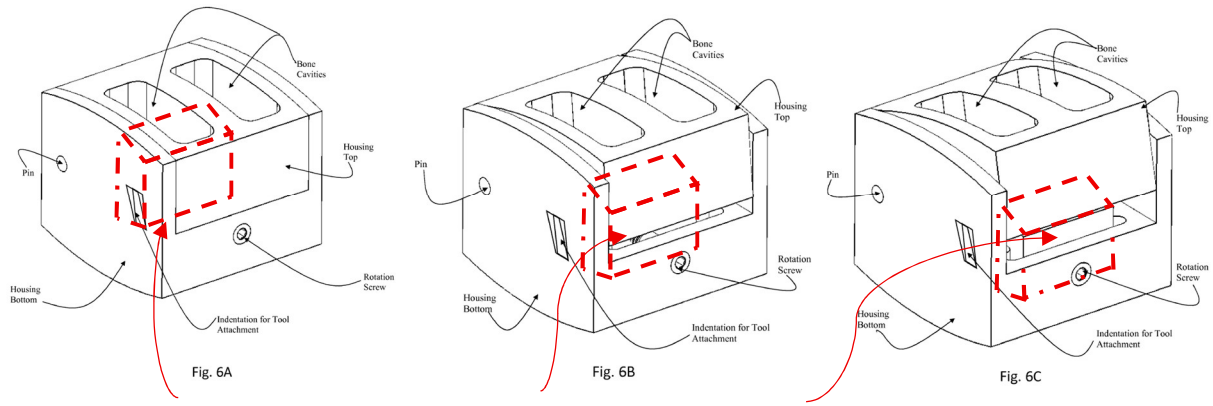
This same May 3, 2011 drawing, shown below, also shows that confinement. The annotated drawing illustrates the wedge positioned within the space defined by the first and second implant housings. That space permits the wedge to move axially to drive expansion of the implant while remaining confined between the implant housings during operation.



Ex. 2027 at 10 (Annotated)

As illustrated in the drawing, the wedge is driven by a screw mechanism that is threaded through the second implant housing and the wedge itself. Because the wedge remains engaged with this threaded mechanism and positioned within the space defined by the implant housings, the wedge remains axially confined within that space even as the implant transitions from the first wedge position to the second wedge position.

The same configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 138–144, 150–152. Figures 6A–6C illustrate the wedge remaining confined within the space defined by the implant housings throughout operation of the device. Figure 6A shows the implant in the first wedge position, Figure 6B shows the intermediary configuration during expansion, and Figure 6C shows the second wedge position. In each configuration, the wedge remains positioned within the space defined by the first and second implant housings while moving axially to drive expansion of the implant. Ex. 2053, Figs. 6A–6C.



wedge axially confined within space defined by first and second housings in first and second wedge positions

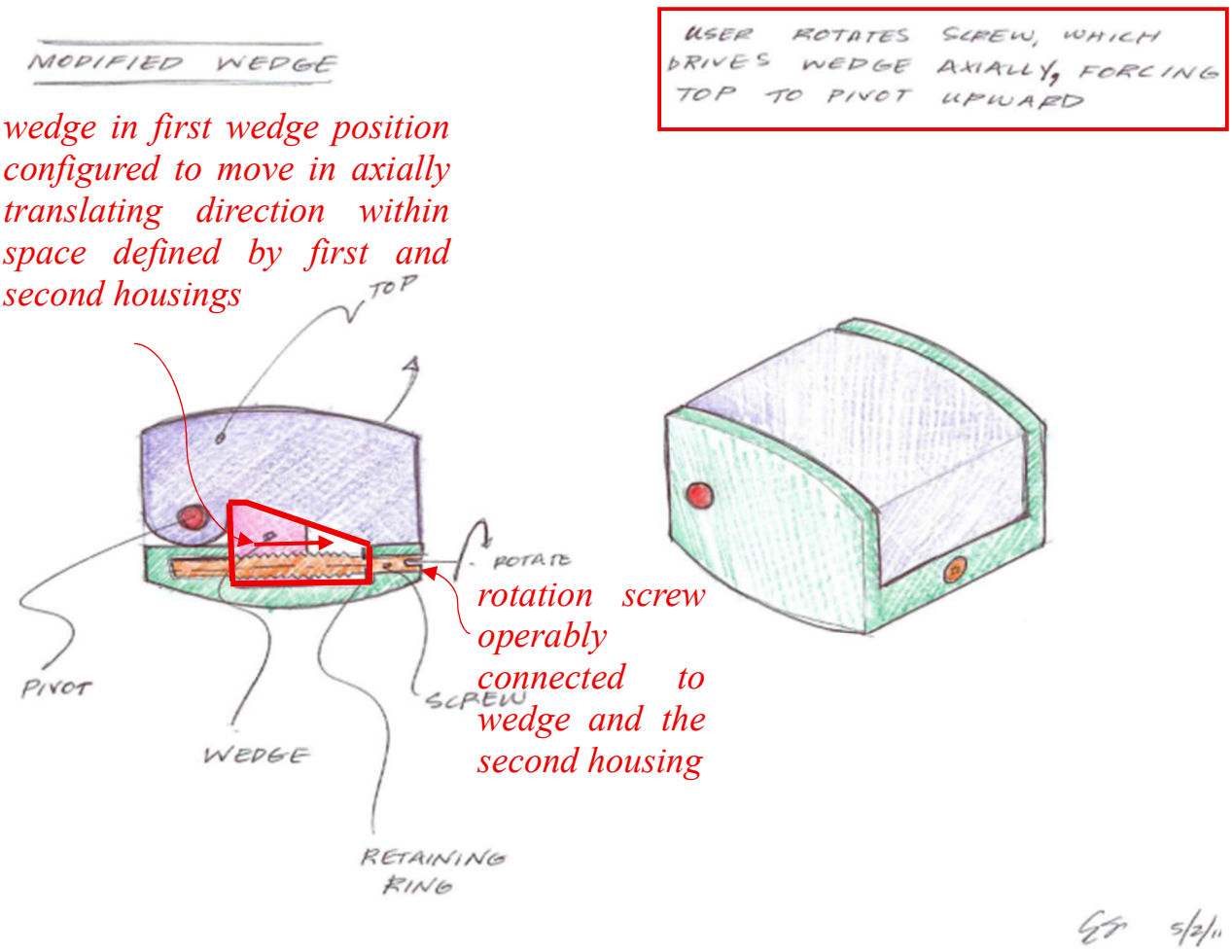
Ex. 2053, Figs. 6A-6C (Annotated)

11. [1.m] "a rotation screw operably connected to the wedge and to the second housing, wherein rotation of the rotation screw moves the wedge in an axially translating direction with respect to the first housing and the second housing within the

space defined by the first and second housings from the first wedge position to the second wedge position."

The inventors had conceived this limitation by at least May 18, 2011, before Palmatier's December 19, 2011 filing date. By May 3, 2011, the inventors had determined that the wedge would translate axially within the implant by rotation of a screw connected to the wedge and the second housing, moving the wedge from an initial position to a more distal position during expansion. Ex. 2024 ¶¶ 26–33; Ex. 2027.

The contemporaneous May 3, 2011 drawing confirms this understanding. In the drawing, the inventors wrote that rotation of a screw drives the wedge axially, forcing the top housing of the implant to pivot upward. Ex. 2027. This description corresponds directly to the claim language requiring a rotation screw operably connected to the wedge and to the second housing, wherein rotation of the rotation screw moves the wedge in an axially translating direction with respect to the first housing and the second housing within the space defined by the first and second housings from the first wedge position to the second wedge position. The remaining structural and operational features of this mechanism are visually apparent in the annotated drawing shown below.

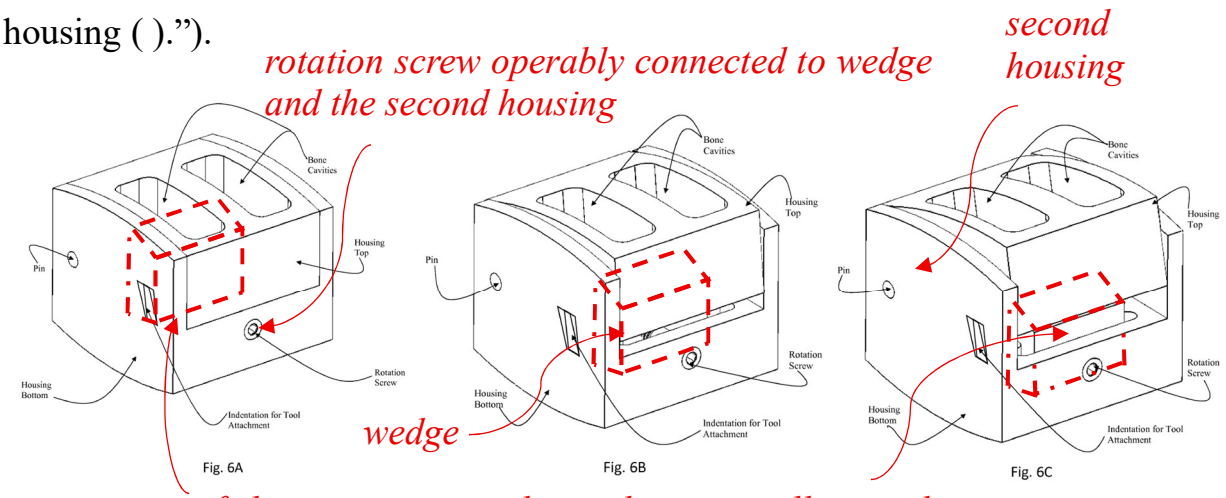


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings thus corroborate prior conception of this limitation.

The same mechanism and sequence of operation were later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 138–144, 150–152.

Figures 6A–6C of the '707 provisional illustrate the operation of the wedge mechanism. Figure 6A depicts the implant in the first wedge position. As the rotation screw is rotated, the wedge moves in an axially translating direction within the space defined by the first and second housings. This movement is illustrated in the intermediary configuration shown in Figure 6B and the second wedge position shown in Figure 6C, where the wedge can be seen axially driven to pivot the first housing relative to the second housing. Ex. 2053, Figs. 6A–6C; ¶¶ 34–35 ("As the screw is rotated by an external tool (Figure 8), it causes lateral motion of a wedge-shaped translation nut ( ). The nut ( ) engages the inner tapered surface of the top housing ( ) and forces the top housing piece ( ) to rotate away from the bottom housing ( ).").



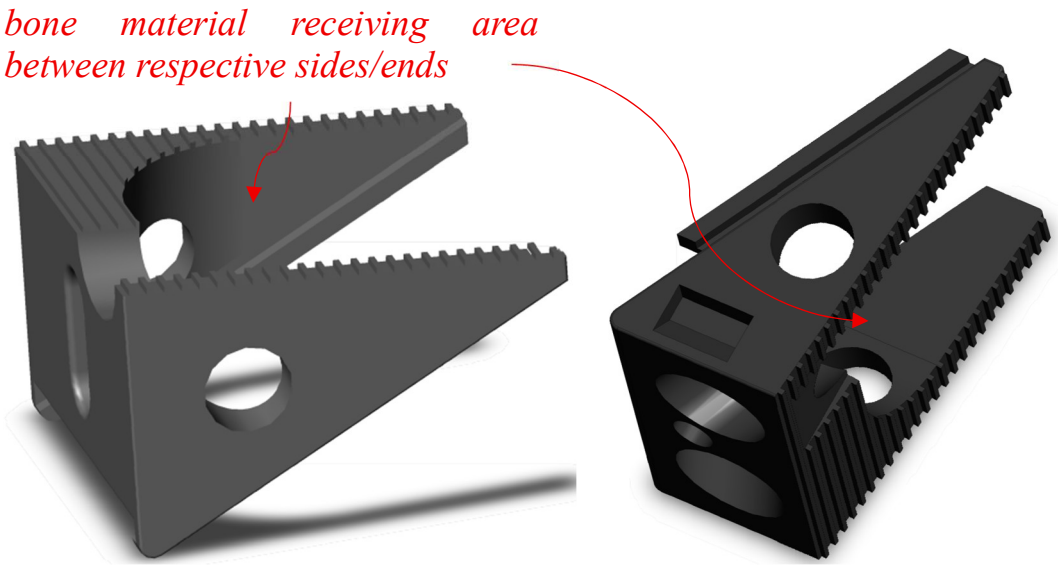
Ex. 2053, Figs. 6A-6C (Annotated)

C. Claim 2: "The device of claim 1, wherein the first housing defines a first bone material receiving area between the first and second end portions and the first and second side portions, and wherein the second housing defines a second bone material receiving area

between the third and fourth end portions and the third and fourth side portions."

The inventors had conceived these bone-graft receiving structures before Palmatier's December 19, 2011 filing date. By at least May 18, 2011, the inventors had determined that both implant housings would define internal cavities for bone material between their respective end portions and side portions. Exs. 2030, 2031; Ex. 2024 ¶¶ 27–36.

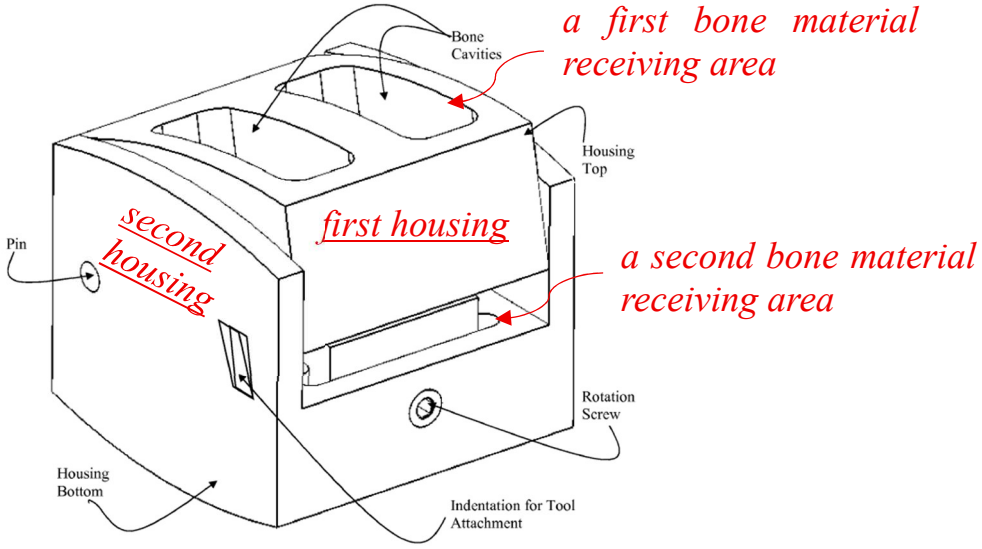
The engineering drawings circulated in a contemporaneous email on April 15, 2011 illustrate implant embodiments in which both the upper and lower implant housings define internal cavities capable of receiving bone graft material. Ex. 2056 at 8, 11. These cavities are positioned within the implant housings between their respective end portions and side portions, and thus correspond to the claimed first and second bone material receiving areas. Exs. 2030, 2031.



Ex. 2056 at 8, 11 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that had already been conceived and were the starting point for the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate that the inventors had already conceived of this limitation and contemplated its inclusion into the new embodiments before Palmatier's filing date.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶ 145, 150–152. For example, Figure 6C illustrates internal cavities defined within both the upper and lower implant housings, corresponding to the claimed first and second bone material receiving areas. Ex. 2053, Fig. 6C. The provisional specification further explains that "[b]one cavities are incorporated into top and bottom housing for bone fusion." *Id*. ¶¶ 10, 35.



Ex. 2053, Fig. 6C (Annotated)

D. Claim 4: "The device of claim 1, and further comprising means for mating with prongs of a tool."

The inventors had conceived these means for mating with prongs of a tool before Palmatier's December 19, 2011 filing date. By at least May 18, 2011, the inventors had determined that the expandable implant housings would include indentations that mate with the prongs of a universal tool. Exs. 2030, 2031; Ex. 2024 ¶¶ 27–29, 34.

The contemporaneous April 17, 2011 emails discuss maintaining insertion tool engagement geometry (e.g., side notches) in the new expandable embodiments. Ex. 2058 at 1; Ex. 2024 ¶ 28. These side notches provided the structure that mates with the prongs of the universal tool. These contemporaneous emails therefore

corroborate that the inventors had already conceived structure for mating the device with the prongs of a tool before Palmatier's filing date.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 146–152. For example, Figure 6C of the '707 provisional illustrates indentions on the side portions of the second housing for attachment to the tool. Ex. 2053, Fig. 6C, ¶ 35 ("It has indentations on their lateral sides close to the top of the device to mate with the prongs of the universal tool to assist in grasping, inserting and impacting the device.").

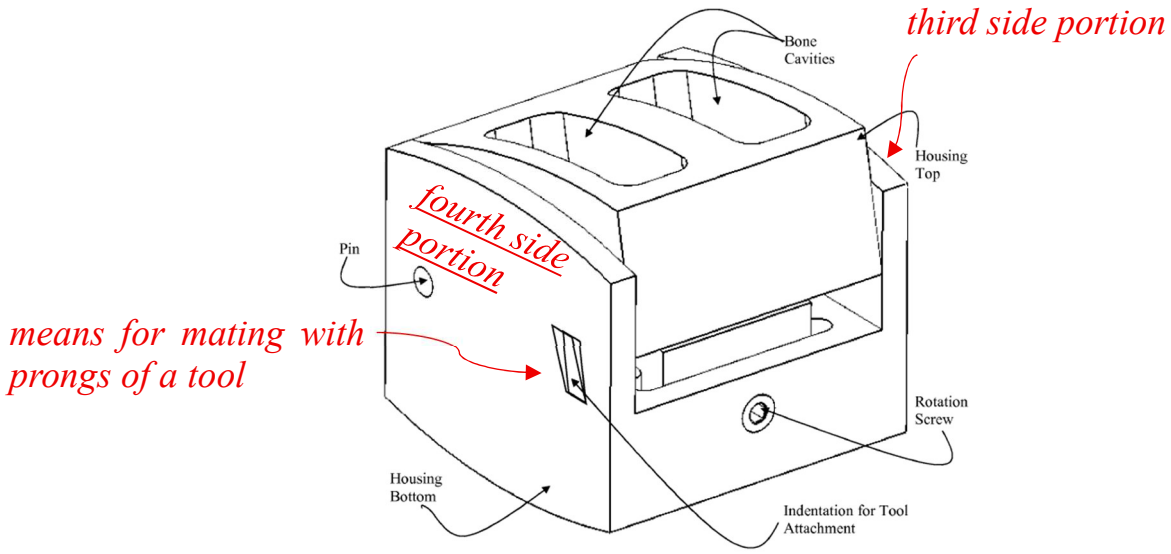


Fig. 6C

E. Claim 7: "The device of claim 1, wherein the third and fourth side portions define first and second indentations configured to be grabbed by an insertion tool."

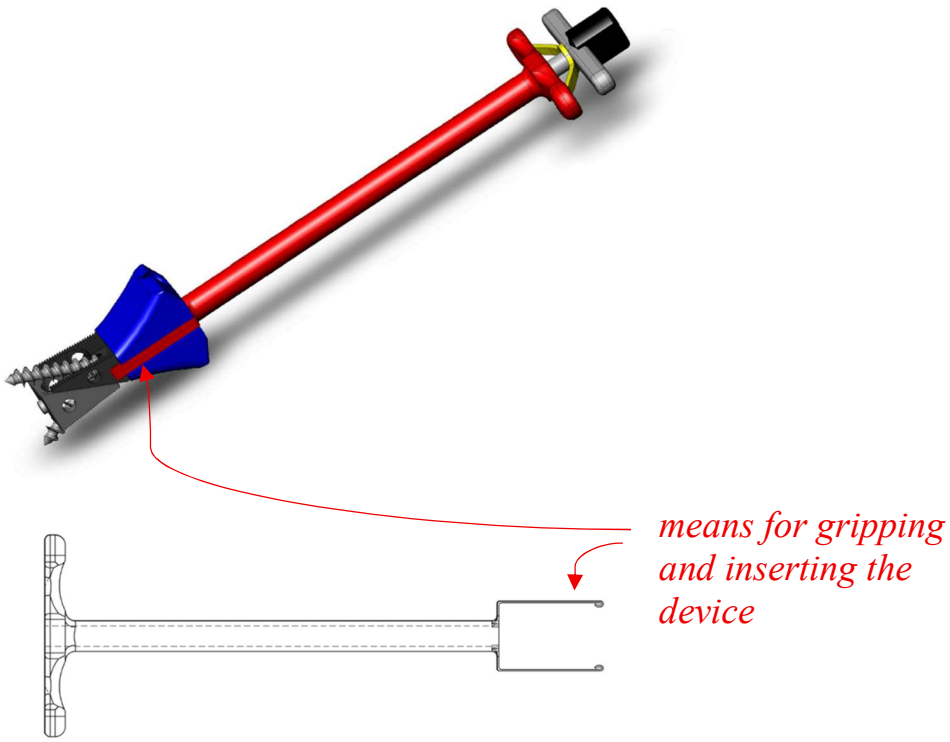
The inventors conceived these features by at least May 18, 2011 and reduced them to practice for substantially the same reasons set forth above in Section III.D

for claim 4. The same indentations in the side portions of the second housing that mate with the prongs of the universal tool are also the first and second indentations configured to be grabbed by an insertion tool.

F. Claim 8: "A system comprising the device of claim 7, wherein the system further comprises: means for gripping and inserting the device."

By May 18, 2011, the inventors had conceived means for gripping and inserting the device, well before Palmatier's filing date. Ex. 2024 ¶¶ 25–28, 33–34, 90–99; Ex. 2056; Ex. 2026.

The contemporaneous April 15, 2011 communication transmitting drawings of a universal tool used to grip and insert the previously-conceived expandable implant embodiments confirms this understanding. In the drawing, the inventors illustrated a universal tool capable of gripping and inserting a multitude of expandable implants. Ex. 2056 at 9–10. Those drawings thus discloses structure corresponding to the claimed means for gripping and inserting the device.



Ex. 2056 at 9, 10 (Annotated).

Dr. Moskowitz confirms that these drawings reflect the tool structure used for gripping and inserting the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 25–28.

The universal tool application filed on April 11, 2011 further confirms that the inventors conceived of means for gripping and inserting the device before Palmatier was filed. That application described a universal tool for gripping and inserting spinal implants, including expandable implants. Ex. 2024 ¶¶ 90–99; Ex. 2026 at 35–36 (¶¶ 68–71), 47–48 (claims 16–17), 64–66, 70.

These contemporaneously circulated drawings and contemporaneously-filed universal tool application therefore corroborate prior conception of this limitation.

The same tool structure was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments and associated instrumentation. Ex. 2024 ¶¶ 146–152. For example, Figures 8A–8C, 8H, and 7D illustrate an external drill/screw guidebox expander universal tool having means to grip and insert an expandable implant. Ex. 2053, Figs. 8A–8C, 8H, 7D, ¶ 38. The provisional specification explains that "the prongs are inserted into the indentations of the sides of all embodiment (I-VII) devices, and implant the device into the intervertebral space." *Id*. ¶ 38.

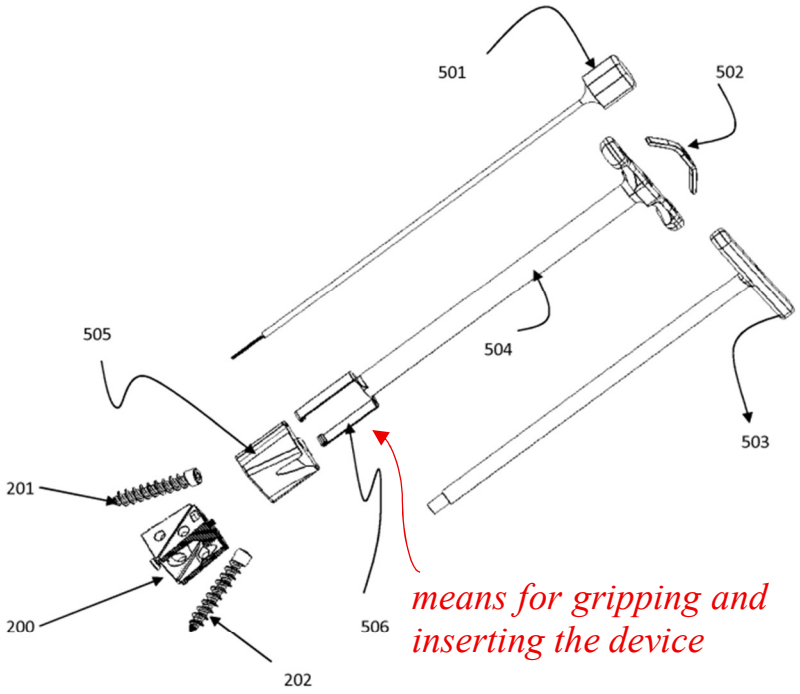


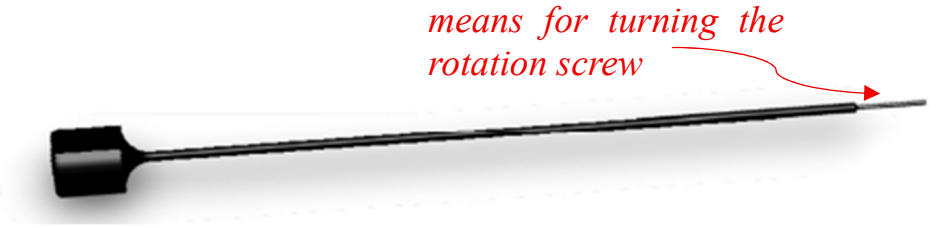
Fig. 8C

Ex. 2053, Fig. 8C (Annotated).

G. Claim 9: "The system of claim 8, and further comprising: means for turning the rotation screw."

The inventors had conceived means for turning the rotation screw well before Palmatier's filing date. By May 18, 2011, the inventors had determined tool structure for engaging and turning the rotation screw. Ex. 2024 ¶¶ 25–28, 33–34, 90–99; Ex. 2056; Ex. 2026. The contemporaneous April 15, 2011 email confirms

this understanding by circulating drawings that illustrate tool structure used to engage and turn the rotation screw. Ex. 2056.



Ex. 2056 at 3 (Annotated).

Dr. Moskowitz confirms that these drawings reflect the tool structure used to engage and turn the rotation screw in the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 25–28.

The universal tool application filed on April 11, 2011 further confirms that the inventors conceived of means for turning the rotation screw before Palmatier was filed. That application described a universal tool including a driver assembly capable of engaging an adjustment mechanism associated with an expandable implant. Ex. 2024 ¶¶ 90–99; Ex. 2026 at 28–29 (¶ 32), 48 (claim 17), 64–66, 68–70.

These contemporaneously circulated drawings and contemporaneously filed universal tool application therefore corroborate that the inventors had already conceived for means for turning the rotation screw before Palmatier's filing date.

The same tool structure was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments and associated instrumentation. Ex. 2024 ¶ 146–152. For

example, Figures 8A-8C, 8F–8H, and 7D illustrates an external drill/screw guidebox expander universal tool. Ex. 2053, Figs. 8A–8C, 8F–8H, and 7D, ¶ 38. The provisional specification further explains that "Once implanted and impacted, the Allen key (Figure 8) expands the device by turning the adjustment (rotation) screw." *Id*. ¶ 38.

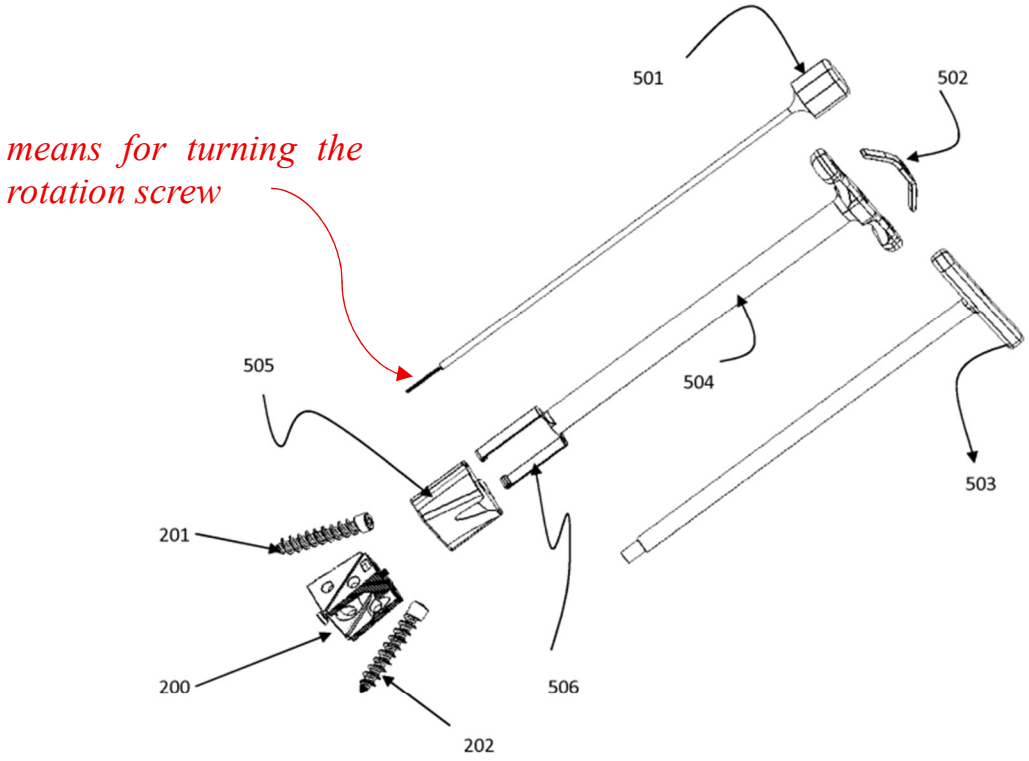


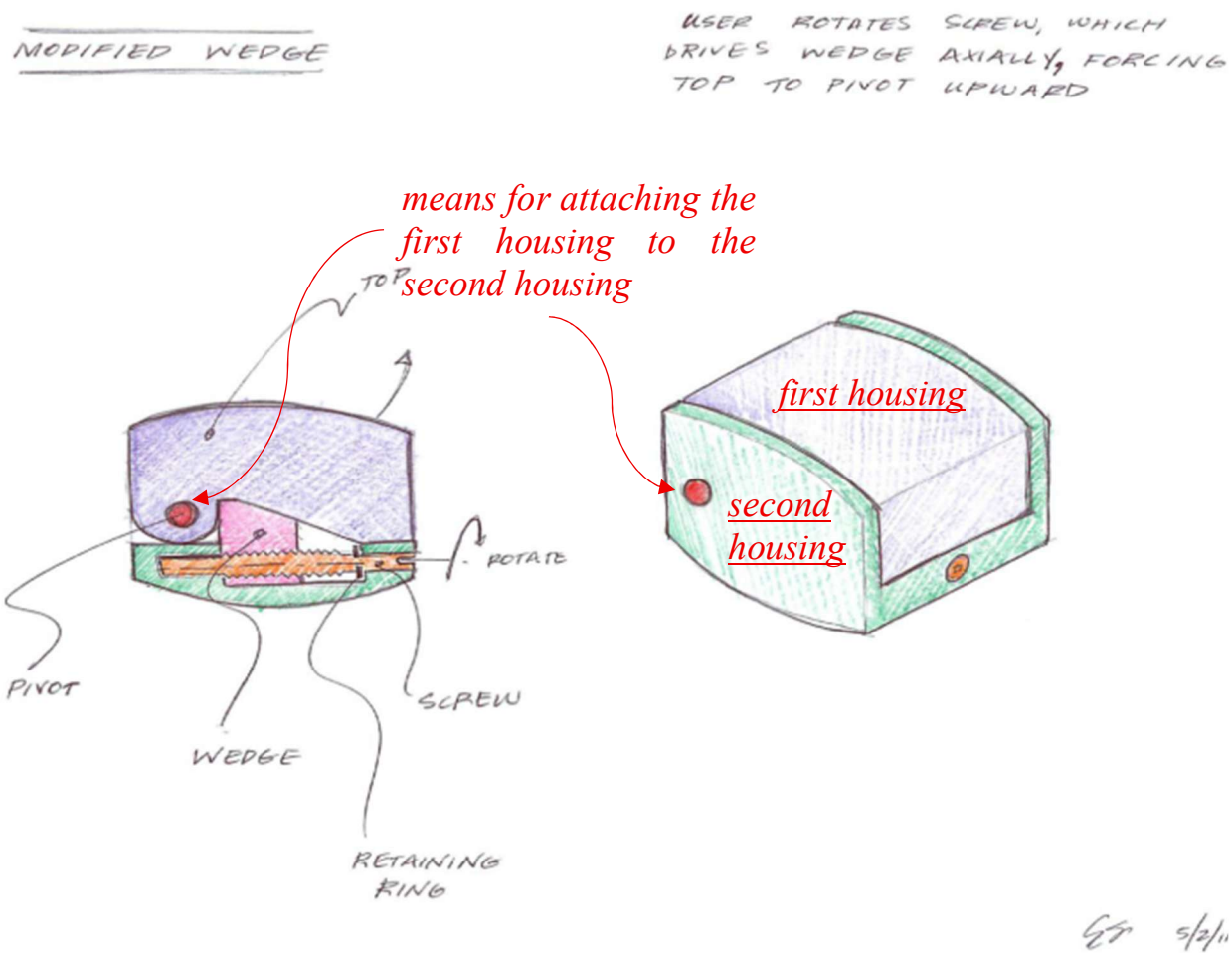
Fig. 8C

Ex. 2053, Fig. 8C (Annotated).

H. Claim 10: "The device of claim 1, and further comprising means for attaching the first housing to the second housing."

The inventors had conceived this housing attachment mechanism well before Palmatier's December 19, 2011 filing date. By May 18, 2011, the inventors had determined that the first housing would be attached to the second housing by one or more pins that permit relative pivoting. Ex. 2024 ¶¶ 31–33; Ex. 2027.

The contemporaneous May 3, 2011 drawing confirms this understanding. In the drawing, the inventors wrote that rotation of a screw drives the wedge axially, forcing the top housing of the implant to pivot upward, and identified a pin structure at the junction of the housings that permits that pivoting. Ex. 2027. This description and drawing thus discloses structure corresponding to the claimed means for attaching the first housing to the second housing.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect the expandable implant embodiments that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate that the inventors had already conceived structure for attaching the first housing to the second housing before Palmatier's filing date.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable

implant embodiments. Ex. 2024 ¶ 143, 150–152. For example, Figure 6D illustrates pins and corresponding pin holes in the first and second housings for attaching the housings to each other. Ex. 2053, Fig. 6D. The provisional specification further explains that "The top and bottom housing are attached by two pins (_) which allow rotation relative to each other about the axis of the pins." *Id.* ¶ 35.

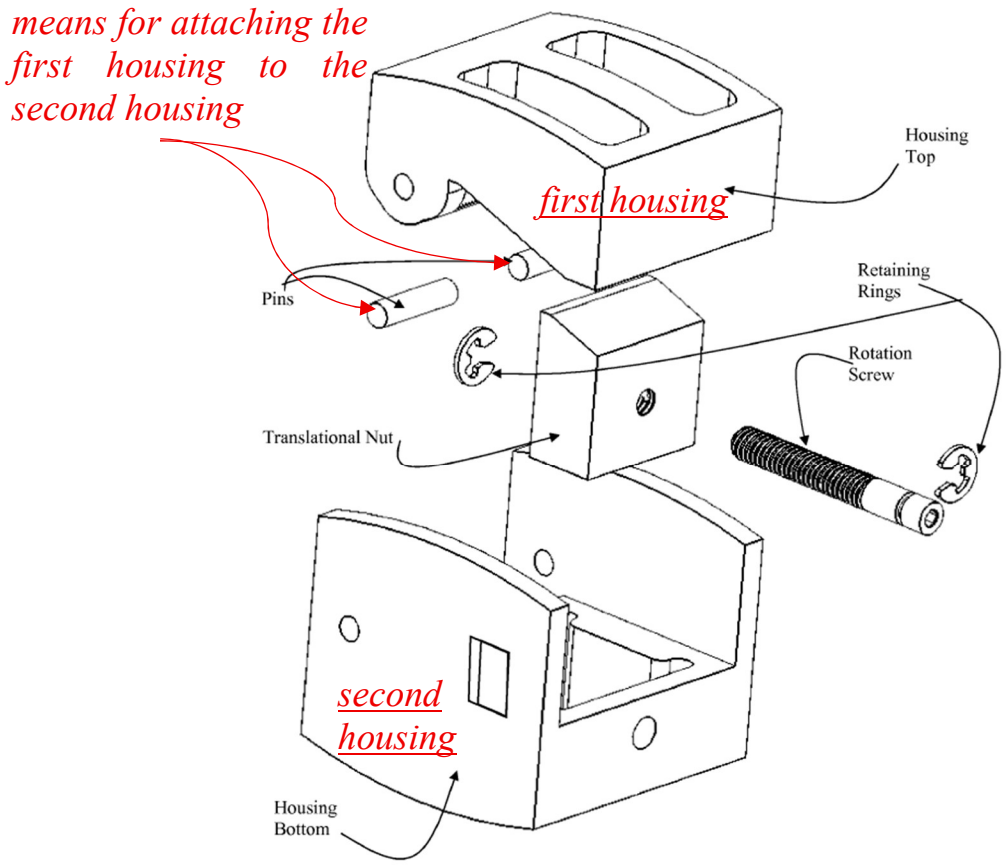


Fig. 6D

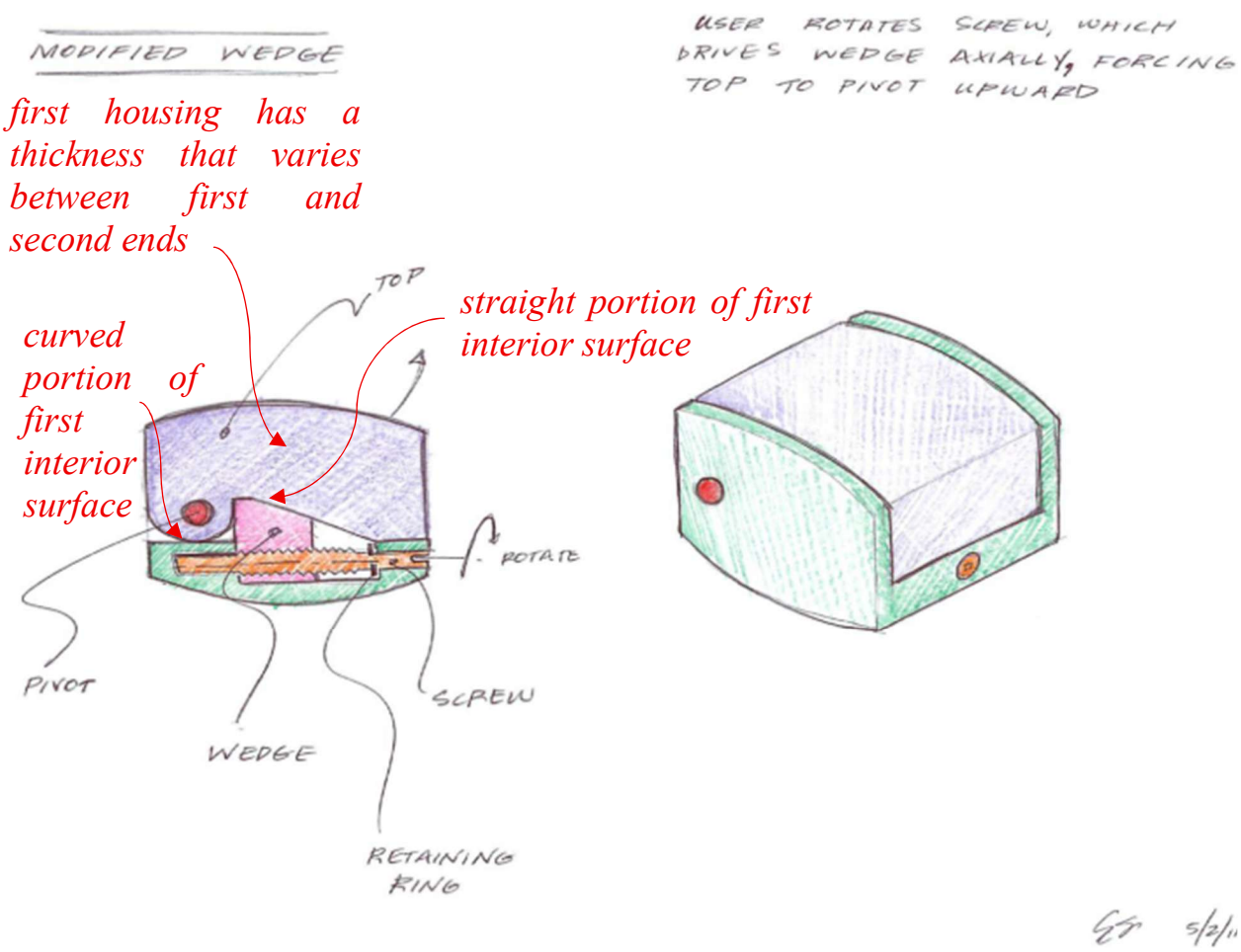
Ex. 2053, Figure 6D (Annotated)

I. Claim 11: "The device of claim 1, wherein the first housing has a thickness that varies between the first end and the second end such

that the first interior surface has at least one curved portion and at least one straight portion."

The inventors had conceived this housing structure well before Palmatier's December 19, 2011 filing date. By May 18, 2011, the inventors had determined that the first housing would vary in thickness between its ends such that its interior surface included both curved and straight portions. Ex. 2024 ¶¶ 31–33; Ex. 2027.

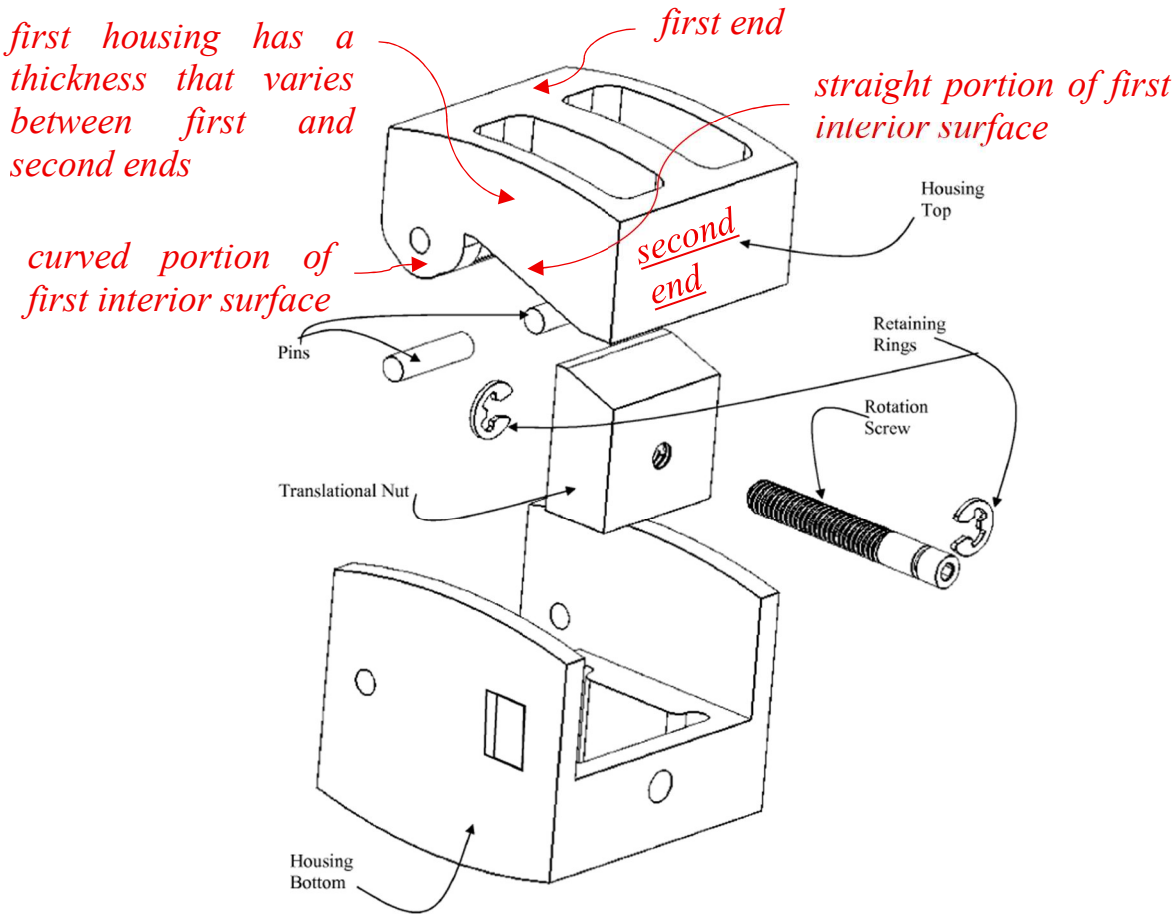
The contemporaneous May 3, 2011 drawing confirms this understanding. In the drawing, the inventors illustrated a curved portion of the first interior surface as well as a straight portion. Ex. 2027. That drawing thus shows the varying thickness of the first housing and the resulting curved and straight portions of the first interior surface recited in this claim.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect expandable implant embodiments with the claimed varying-thickness housing structure that were conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate that, before Palmatier's filing date, the inventors had already conceived a first housing whose varying thickness produced both curved and straight portions on the first interior surface.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 142, 150–152. For example, Figure 6D of the '707 provisional illustrates the varying thickness of the first housing from the first end to the second end, as well as both the straight and curved portions of the first interior surface. Ex. 2053, Fig. 6D.

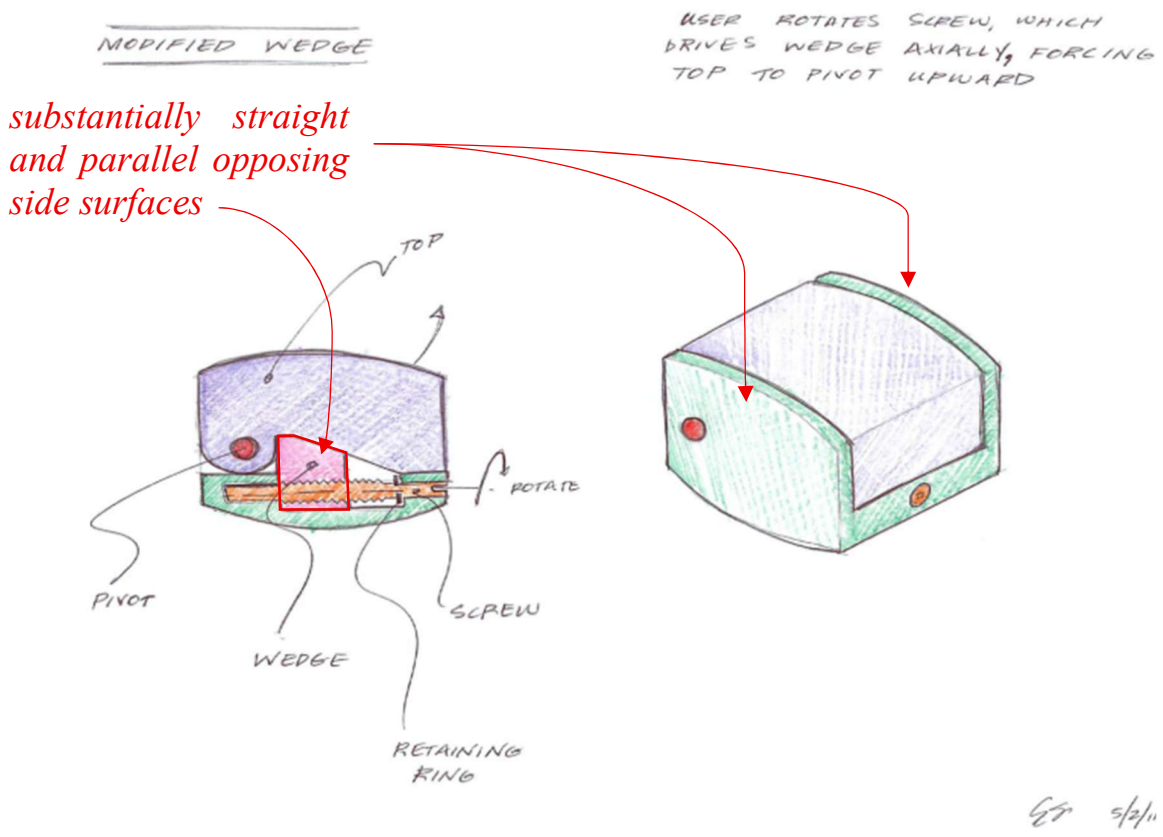


Ex. 2053, Figure 6D (Annotated)

J. Claim 12: "The device of claim 1, wherein the wedge comprises substantially straight and parallel opposing side surfaces."

The inventors had conceived this wedge structure well before Palmatier's December 19, 2011 filing date. By May 18, 2011, the inventors had determined a wedge geometry with opposing side surfaces that were straight and parallel. Ex. 2024 ¶¶ 31–33; Ex. 2027.

The contemporaneous May 3, 2011 drawing confirms this understanding. In the drawing, the inventors illustrated the wedge in cross-section, showing a trapezoidal side profile. Ex. 2027 at 10. That geometry depicts a wedge formed from a rectangular body cut along an incline to create an angled wedge surface. A wedge formed that way has opposing side surfaces that remain straight and parallel along the length of the wedge. The May 3, 2011 drawing therefore corroborates that the inventors had already conceived a wedge with substantially straight and parallel opposing side surfaces.

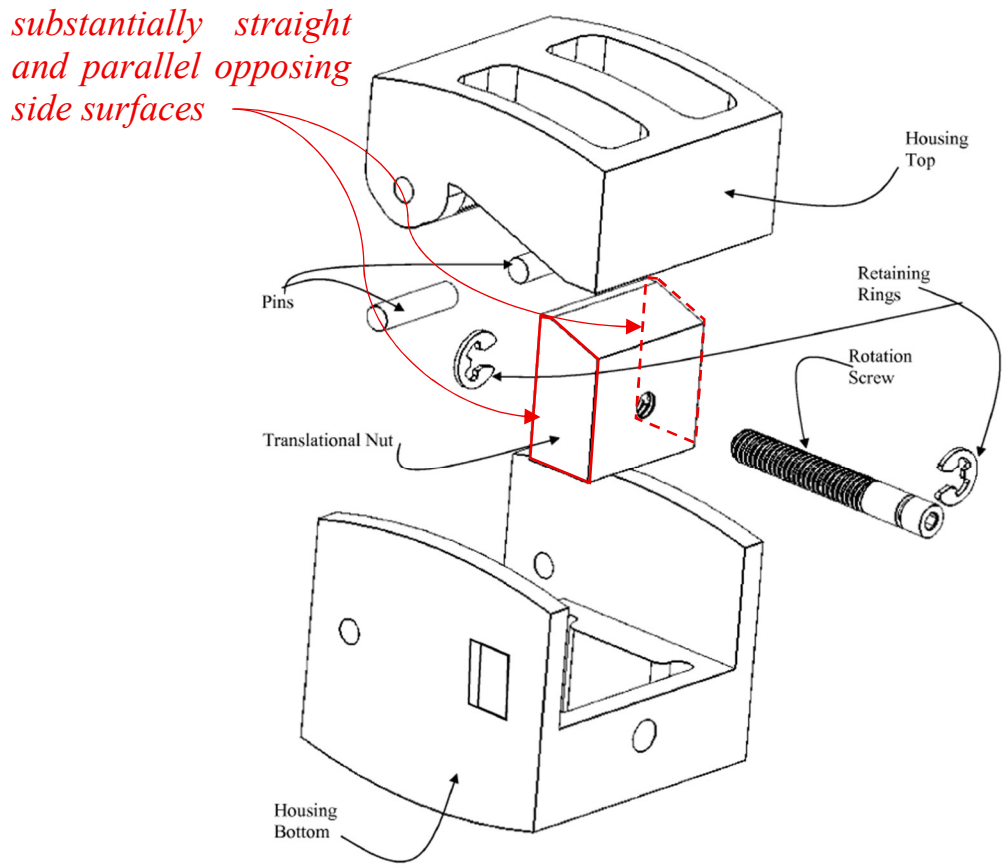


Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect wedge structures for the expandable implant embodiments that had already been conceived during the spring 2011 development work. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings therefore corroborate that, before Palmatier's filing date, the inventors had already conceived a wedge with opposing side surfaces that were substantially straight and parallel.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶ 142, 150–152. For example, Figure 6D of the

'707 provisional illustrates a wedge with substantially straight and parallel opposing side surfaces. Ex. 2053, Fig. 6D. This three-dimensional rendering is consistent with the same wedge geometry reflected in the May 3, 2011 drawing.



Ex. 2053, Figure 6D (Annotated)

K. Claim 13: "A method of operating the device of claim 1, the method comprising: inserting the device in a target surgical location between two vertebrae; and turning the rotation screw to drive the wedge to pivot the first housing away from the second housing while the device is positioned between the vertebrae."

The inventors had conceived this method of using the device well before Palmatier's December 19, 2011 filing date. The device at issue is an expandable

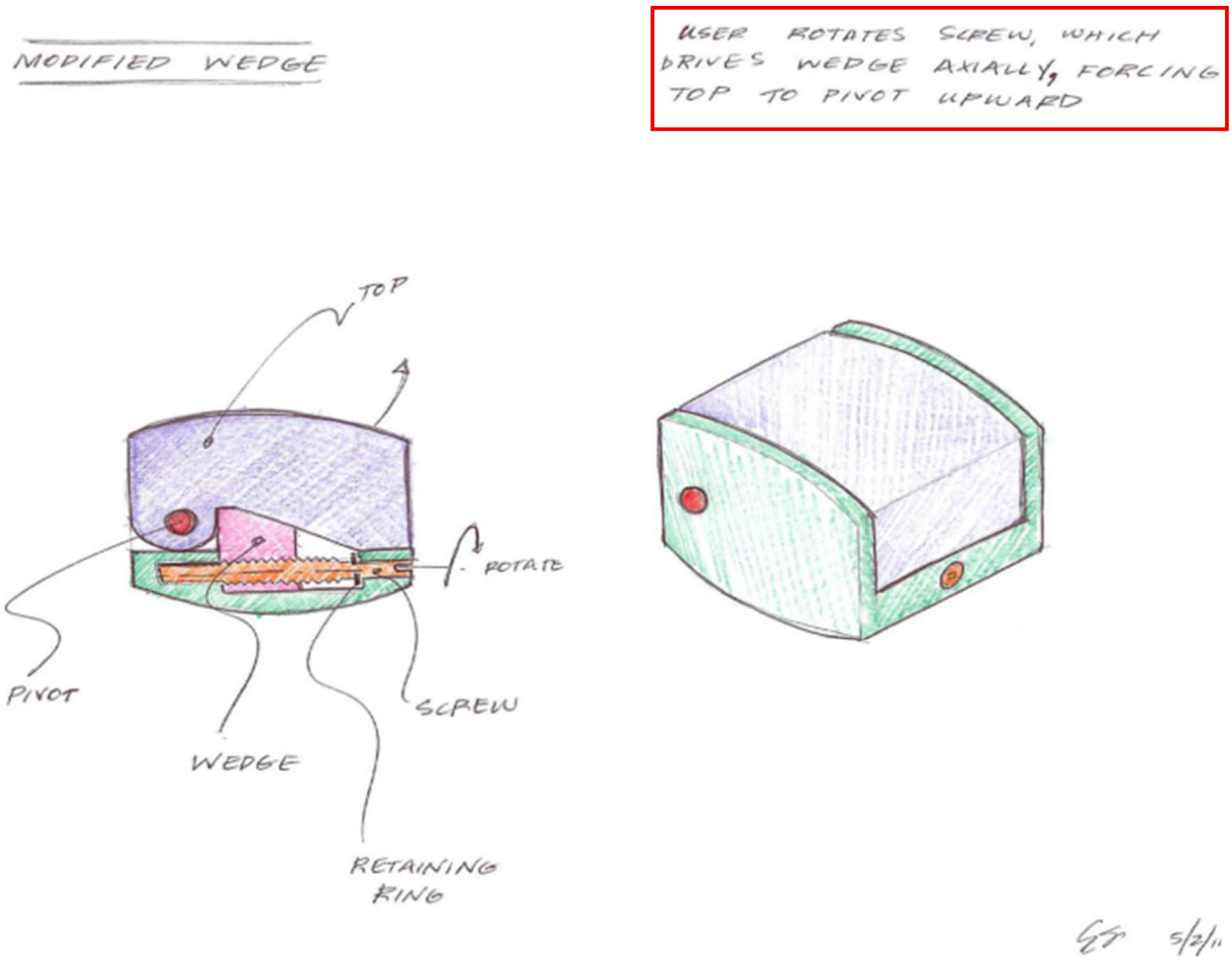
intervertebral device—that is, a spinal implant designed to be inserted into the intervertebral disc space between vertebrae and then expanded in that location. Ex. 2024 ¶¶ 18–43. Dr. Moskowitz explains that, at least by May 18, 2011, the inventors had already formed a definite and permanent understanding of expandable intervertebral implant embodiments that could be inserted into the disc space in a compact configuration and then expanded after placement between adjacent vertebrae. *Id.* ¶¶ 18–21, 41–46.

That intended use is also reflected in the contemporaneous design materials and the later provisional application. For example, the provisional explains that the expandable implants are intervertebral spacer devices used within the disc space to achieve distraction and facilitate spinal fusion. Ex. 2053 ¶¶ 3–6; Ex. 2024 ¶¶ 136–137. It likewise describes a universal surgical tool used to insert the expandable implant into the disc space and then actuate the implant's expansion mechanism after insertion. Ex. 2053 ¶¶ 38–42, 46; *see also* Ex. 2026, 73–74.

By May 18, 2011, the inventors had determined that the implant would be expanded by rotating a screw that drives a wedge axially within the implant and thereby pivots the upper housing relative to the lower housing. Ex. 2024 ¶¶ 29–33; Ex. 2027.

This mechanism is depicted in the contemporaneous engineering drawing circulated on May 3, 2011, shown below. In the annotated drawing, the inventors

wrote that when the user rotates a screw, it drives the wedge axially, forcing the top to pivot upward. Ex. 2027. That description matches the claimed method step of turning the rotation screw to drive the wedge and pivot the first housing away from the second housing.



Ex. 2027 at 10 (Annotated)

Dr. Moskowitz confirms that these drawings reflect expandable implant embodiments that had already been conceived during the development work occurring in spring 2011. Ex. 2024 ¶¶ 31–32. These contemporaneous drawings

therefore corroborate that the inventors had already conceived the screw-driven method of expanding the device before Palmatier's filing date.

The same mechanism and method of operation were later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 135–139, 141–144; 150–152. Figures 6A–6D illustrate the wedge-driven expansion mechanism in which rotation of a screw causes the wedge to translate and pivot the upper implant housing relative to the lower housing. Ex. 2053, Figs. 6A–6D.

The provisional then states the method directly: after the expandable intervertebral implant is inserted into the disc space between adjacent vertebrae, the device is expanded by rotating the screw:

> For embodiments III–VII the ZP-EIS device is inserted into the disc space … Once in the disc space the rotation screw is turned by rotating the Allen key of the tool expanding the device to the desirable disc height achieving the desirable intervertebral distraction deemed necessary for the individual patient and disc space.

Ex. 2053 ¶ 46.

L. Claim 14:

1. Limitations 14.a-b, 14.d-e, 14.g-o

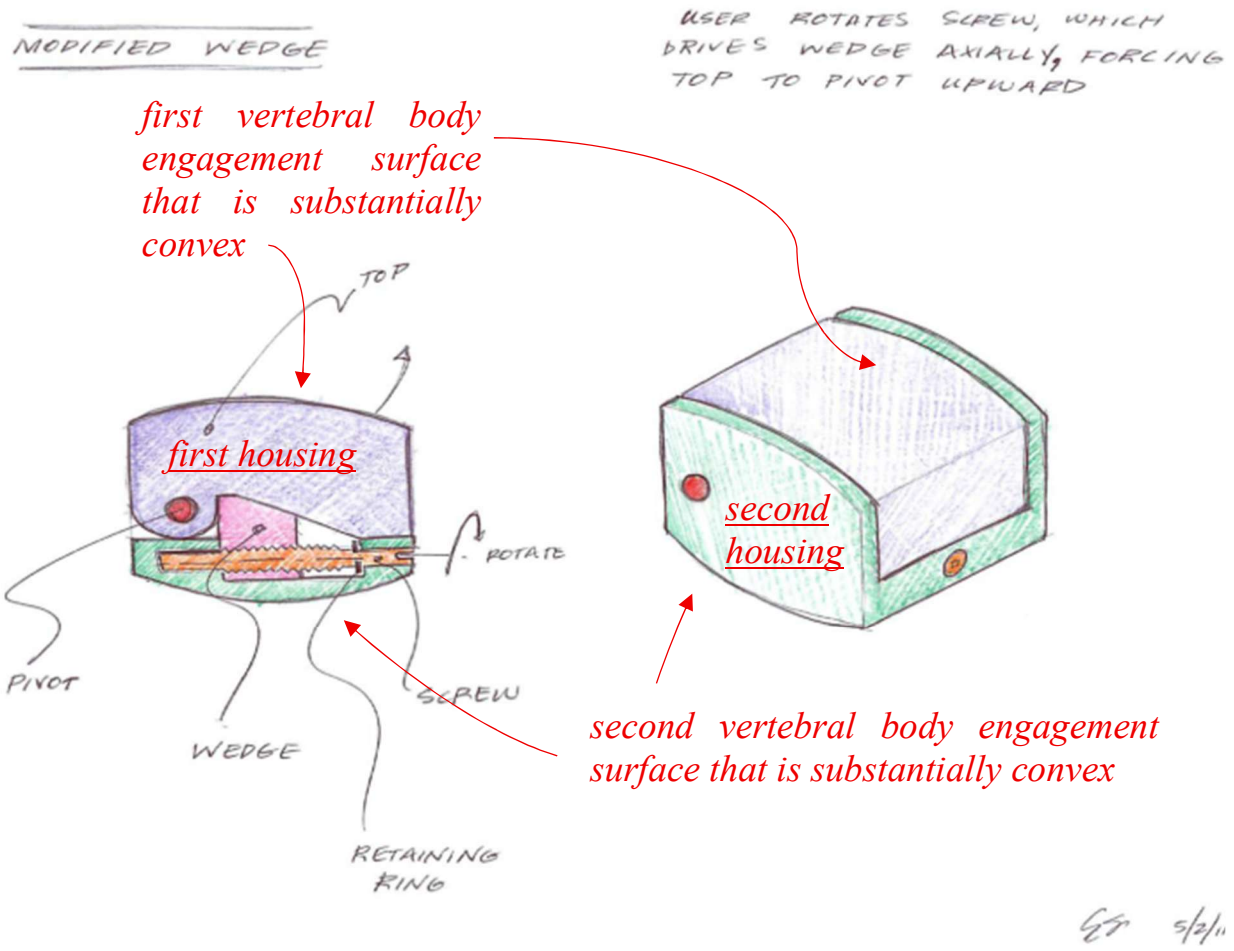
Claim 14 is substantially similar to claim 1 and incorporates the bone-material limitations of claim 2, except that limitations 14.c and 14.f further require that the

first and second vertebral body engagement surfaces are substantially convex. *See* Pet. at 88-95. By at least May 18, 2011, the inventors conceived and reduced to practice the features of limitations 14.a-b for the same reasons as limitations 1.a-b (Section III.B.1), limitations 14.d and 14.g for the same reasons as claim 2 (Section III.C), limitation 14.e for the same reasons as limitation 1.d (Section III.B.3), limitation 14.h for the same reasons as limitation 1.f (Section III.B.5), limitation 14.i for the same reasons as limitation 1.g (Section III.B.6), limitation 14.j for similar reasons as limitation 1.h (Section III.B.7), limitations 14.k-l for the same reasons as limitation 1.i-j (Section III.B.8), limitation 14.m for the same reasons as limitation 1.k (Section III.B.9), limitation 14.n for the same reasons as limitation 1.l (Section III.B.10), and limitation 14.o for the same reasons as limitation 1.m (Section III.B.11). We address limitations 14.c and 14.f in more detail below.

2. Limitation [14.c]: wherein the first housing has a first vertebral body engagement surface that is substantially convex and has a first interior surface positioned on an opposite side of the first housing than the first vertebral body engagement surface,

The inventors conceived these features by at least May 18, 2011 and reduced them to practice for substantially the same reasons set forth above in Section III.B.2 for limitation 1.c. This element further recites that the first vertebral body engagement surface is substantially convex. The inventors conceived these additional features by at least May 18, 2011. These structural features are depicted

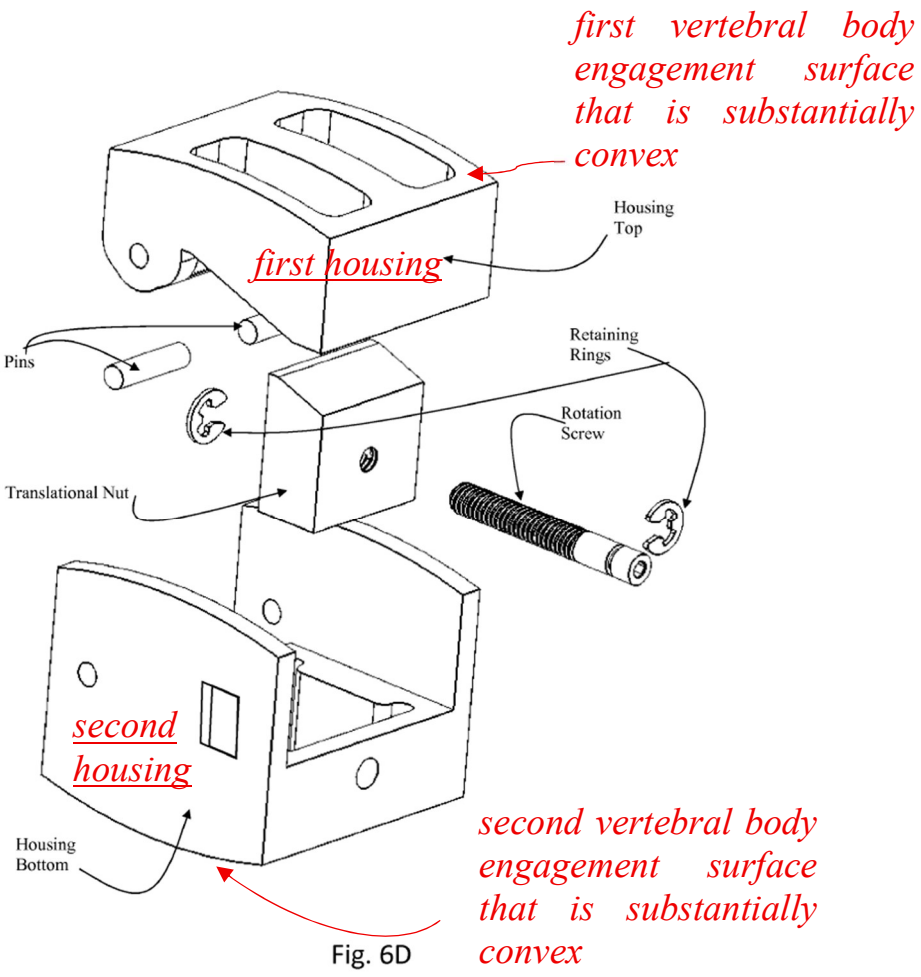
in the contemporaneous engineering drawing circulated on May 3, 2011, shown with annotations below.



Ex. 2027 at 10 (Annotated)

These drawings corroborate Dr. Moskowitz's testimony that the inventors had already determined the structural configuration of the housings, including the substantially convex vertebral body engagement surfaces, during the spring 2011 development work. Ex. 2024 ¶¶ 27–34.

The same structural configuration was later disclosed in the October 25, 2012 provisional application, which documented the previously conceived expandable implant embodiments. Ex. 2024 ¶¶ 137–140, 150–152. For example, Figures 6A–6D of the '707 provisional illustrate implant housings having substantially convex vertebral body engagement surfaces consistent with the designs shown in the earlier engineering drawings. Ex. 2053 at Figs. 6A–6D.



Ex. 2053, Fig. 6D (Annotated)

3. Limitation [14.f]: wherein the second housing has a second vertebral body engagement surface that is substantially convex and has a second interior surface positioned on an opposite side of the second housing than the second vertebral body engagement surface,

The inventors conceived these features by at least May 18, 2011 and reduced them to practice for substantially the same reasons set forth above in Section III.B.4 for limitation 1.e. This limitation further recites that the second vertebral body engagement surface is substantially convex, which the inventors conceived and reduced to practice for the same reasons as set forth above in Section III.L.2 for limitation 14.c.

M. Claims 16-18 and 20

Claim 16 is substantially similar to claim 11, claims 17 and 20 are substantially similar to claim 10, and claim 18 is substantially similar to claim 13. Pet. at 81, 95-97. By at least May 18, 2011, the inventors conceived and reduced to practice the features of claim 16 for the same reasons as claim 11 (Section III.I), claims 17 and 20 for the same reasons as claim 10 (Section III.H), and claim 18 for the same reasons as claim 13 (Section III.K).

N. Claim 19

Claim 19 is substantially similar to claims 1-2, 4, 7, and 12. Pet. at 77-81. By at least May 18, 2011, the inventors conceived and reduced to practice the features of limitations 19.a-b for the same reasons as limitations 1.a-b (Section III.B.1), limitation 19.c for the same reasons as limitation 1.c (Section III.B.2), limitations

19.d and 19.g for the same reasons as claim 2 (Section III.C), limitation 19.e for the same reasons as limitation 1.d (Section III.B.3), limitation 19.f for the same reasons as limitation 1.e (Section III.B.4), limitation 19.h for the same reasons as claims 4 and 7 (Sections III.D & III.E), limitation 19.i for the same reasons as limitation 1.f (Section III.B.5), limitation 19.j for substantially the same reasons as limitation 1.g (Section III.B.6), limitation 19.k for the same reasons as limitation 1.h (Section III.B.7), limitation 19.l-m for the same reasons as limitation 1.i-j and claim 12 (Section III.B.8 & III.J), limitation 19.n for the same reasons as limitation 1.k (Section III.B.9), limitation 19.o for the same reasons as limitation 1.l (Section III.B.10), and limitation 19.p for the same reasons as limitation 1.m (Section III.B.11).

O. The Record Establishes Conception of the Claimed Invention Months Before Palmatier.

The detailed mapping above shows that the inventors had already conceived each limitation of challenged claims 1, 2, 4, 7-14, and 16-20 before Palmatier's December 19, 2011 filing date. The contemporaneous record includes May 3, 2011 engineering drawings, CAD files, related communications among the inventors and engineers, and Dr. Moskowitz's testimony confirming that those materials reflected expandable implant embodiments that had already been conceived. Ex. 2024 ¶¶ 15–46; Exs. 2025; 2028; 2029; 2030; 2056; 2057; 2058; 2059.

That is conception. Conception requires "a definite and permanent idea of the complete and operative invention." *Burroughs*, 40 F.3d at 1228. And the record here does far more than show a general idea. It shows the actual structure and operation of the claimed devices: the implant housings, the (substantially convex) vertebral engagement surfaces, the angled housing surfaces, the wedge structure and corresponding expansion mechanism, the hinged interconnection, the bone-graft receiving cavities, and the rotation screw-actuated method of expansion. By at least May 18, 2011, the inventors had already worked out those features in sufficient detail to satisfy the conception standard. Ex. 2024 ¶¶ 15-46; Exs. 2025; 2028; 2029; 2030; 2056; 2057; 2058; 2059.

The contemporaneous record also corroborates that conclusion. The May 2011 drawings and CAD files do not depict vague concepts or aspirational sketches. They show concrete implant designs with enough detail to illustrate how the devices were structured and how they operated. Dr. Moskowitz's declaration confirms that those materials reflected embodiments that had already been conceived, and the October 25, 2012 provisional application in turn disclosed the same previously conceived embodiments when the invention was constructively reduced to practice. *Id.*; *see also* Ex. 2024 ¶¶ 134-152; Ex. 2053.

P. The Record Shows Reasonably Continuous Diligence From Before December 19, 2011 Until the October 25, 2012 Provisional Filing.

The inventors worked with reasonably continuous diligence from before Palmatier's December 19, 2011 filing date until the invention was constructively reduced to practice on October 25, 2012. Ex. 2024 ¶¶ 63–70, 78–118, 124–133; *see also id.* ¶¶ 47–77. Diligence does not require nonstop work every day. It requires reasonably continuous effort directed to reducing the invention to practice. *Brown v. Barbacid*, 276 F.3d 1327, 1335 (Fed. Cir. 2002). That is exactly what the record shows here.

The work did not stop after conception. It continued. And it continued in the ways one would expect for a complex spinal implant system: engineering drawings, technical descriptions, prototype work, tool development, patent drafting, and prosecution strategy. Ex. 2024 ¶¶ 63–70, 78–118, 124–133; *see also id.* ¶¶ 47-77. Dr. Moskowitz's declaration explains that these efforts were all part of a single integrated project—the development, implementation, and protection of the expandable implant system and the associated tool used to implant and actuate it. *Id.* ¶ 118.

In November and December 2011, the inventors continued preparing electronic drawings and technical descriptions of the expandable implant embodiments based on the earlier spring 2011 designs. Ex. 2024 ¶¶ 62–65, 71–74, 77; Ex. 2045. Those materials included drawings showing the implant in compressed

and expanded configurations and written descriptions of the expansion mechanisms. Ex. 2045. By early January 2012, drawings and written descriptions had been prepared and circulated for review. Ex. 2024 ¶¶ 65, 75, 78–80.

The work continued immediately into January 2012. Dr. Moskowitz reviewed those drawings and ensured incorporation of bone-graft cavities into the implant housings to align the drawings with the invention conception. *Id.*; Ex. 2046. During this same period, the inventors and counsel also discussed claim language and written descriptions for the expandable implant embodiments. Ex. 2024 ¶¶ 65, 80, 89, 131–133. This was not idle paperwork. It was part of documenting the already conceived implant designs for patent filing.

The inventors also continued developing the surgical tool designed to implant and actuate the expandable devices. That work matters because the implant and tool were being developed as parts of the same system. Ex. 2024 ¶¶ 25, 90–99, 118. During February and March 2012, Dr. Moskowitz worked with counsel on prosecution of the related tool application, reviewed Office Actions, prepared for an examiner interview, and participated in that interview. *Id*. ¶¶ 65, 102–105; Exs. 2049–2050. After the interview, Dr. Moskowitz provided counsel with draft text and figures describing expandable implant embodiments actuated by that tool. Ex. 2024 ¶ 105. Throughout the spring and summer of 2012, he continued working with

counsel on responses to Office Actions and amendments directed to the tool application and the broader expandable implant system. *Id*. ¶¶ 106–114, 118.

The technical work continued as well. In April 2012, the inventors explored fabrication of additional expandable implant prototypes. Ex. 2024 ¶¶ 81–83; Ex. 2047. After receiving an inquiry from a machining company, Andy Moskowitz followed up regarding fabrication of additional implant prototypes. Ex. 2024 ¶ 82; Ex. 2047. That work was directed toward evaluating additional embodiments of the same expandable implant system.

Then came the August 17, 2012 prototype meeting. Dr. Moskowitz reserved the entire day for review of the expandable implant prototype and related patent materials. Ex. 2024 ¶¶ 84–88; Ex. 2048. He arranged for another physician to cover his emergency-room duties so he could devote the day to that work without interruption. *Id*. ¶ 86–87. During that meeting, the inventors reviewed the prototype, discussed whether additional prototypes should be fabricated, considered budgeting and resource issues, and reviewed patent drawings and claim language in preparation for the forthcoming patent filing. *Id.* ¶¶ 85, 88. That is diligence in its most concrete form: focused technical and patent work directed toward the invention.

The work then accelerated. On September 13, 2012, the Patent Office issued a Notice of Allowance for the tool application. Ex. 2051; Ex. 2024 ¶ 113. Immediately afterward, Dr. Moskowitz communicated with counsel regarding

preparation of a patent application directed to the expandable implant embodiments that were part of the same overall system. Ex. 2024 ¶ 114. On September 25, 2012, contemporaneous correspondence confirmed that the inventors were "currently working on patenting" the expandable fusion device, but that the application had not yet been filed. *Id.* ¶ 115. And in September and October 2012, Dr. Moskowitz participated in teleconferences with prosecution counsel concerning strategy for the expandable implant system. *Id.* ¶ 116.

That work culminated in the October 25, 2012 provisional application. Ex. 2053; Ex. 2024 ¶¶ 117–118, 131–133. The declaration explains that the activities during this period—prototype evaluation, technical documentation, tool development, and patent preparation—were all directed toward implementing and protecting the expandable implant system and ultimately resulted in that filing. Ex. 2024 ¶¶ 65–66, 78–85, 88–89, 114–118.

Petitioner may try to carve this timeline into isolated pieces. The record does not permit that. The work was continuous in substance even if it occurred in different forms at different times. That is enough. The law requires reasonable diligence, not ceaseless motion. And the record here shows far more than the minimum.

Q. The October 25, 2012 Provisional Application Constructively Reduced the Invention to Practice.

The question here is whether the provisional as a whole conveys possession of the claimed invention. *Hologic, Inc. v. Smith & Nephew, Inc*., 884 F.3d 1357,

1362, 1364 (Fed. Cir. 2018). It does. The detailed mapping above shows that the inventors had constructively reduced to practice each limitation of challenged claims 1, 2, 4, 7-14, and 16-20 in the October 25, 2012 provisional application. *See* Sections III.B-III.N; Ex. 2053; Ex. 2024 ¶¶ 134–152. That application discloses multiple embodiments of expandable intervertebral implants and the associated tool used to insert and actuate them. Ex. 2053 ¶¶ 3–42.

The provisional discloses the claimed invention in operative detail. For example, it describes embodiments in which a wedge-shaped component moves from a first wedge position to a second wedge position within the implant, engaging an angled housing surface to expand the device. *Id.* ¶ 35, Figs 6A–6D. It also describes the tool used to insert the implant into the disc space and actuate the expansion mechanism after insertion. *Id.* ¶¶ 38–42, 46, Figs. 8A–8H, 7D. In short, the provisional documented the very invention the inventors had already conceived and then diligently worked to reduce to practice.

The antedating showing is therefore complete. The record establishes that the inventors conceived the challenged claims before December 19, 2011 and then exercised reasonably continuous diligence until the invention was constructively reduced to practice on October 25, 2012. Palmatier is not prior art. And because all Petitioner's grounds depend on Palmatier, the Petition fails.

IV. THE PETITION SHOULD BE DENIED BECAUSE PETITIONER STRUCTURED ITS PETITION TO EVADE THE DIRECTOR'S CLAIM CONSTRUCTION DISCLOSURE REQUIREMENT.

Petitioner asks the PTAB to invalidate the claims under one claim scope while preserving the right to argue a different claim scope in district court. The Director's recent decisions do not permit that tactic. Because the PTAB now applies the same *Phillips* claim construction standard used in litigation, petitioners must identify in their petitions the claim construction on which their invalidity challenges depend and must explain any differences between the positions they take before the PTAB and in district court. Petitioners cannot rely on broad claim construction to pursue invalidity at the PTAB while advancing narrower constructions to avoid infringement—or arguing indefiniteness—in litigation.

That is what Petitioner did here. The Petition tells the Board that no claim construction is necessary and that the claims are unpatentable under "any reasonable construction." Pet. at 24. Yet in the same section Petitioner expressly reserves the right to advance different claim construction arguments elsewhere. *Id.* That reservation is not hypothetical. In district court, Petitioner sought to stay the case before its invalidity contentions and claim construction disclosures came due. And at the March 6 hearing on that motion, Petitioner's counsel acknowledged the Director's decisions in *Revvo*, *Tesla*, and *Generac*, explained that advancing different constructions in district court would jeopardize its IPR petitions, and urged

the Court to pause the case so those positions would not have to be disclosed while its IPR petitions remained pending.

A. Director Precedent Requires Petitioners to Disclose in the Petition Any Claim Construction Positions They Intend to Advance in District Court.

Director precedent makes clear that a petitioner cannot challenge a patent before the PTAB under one claim construction while reserving a different scope for district court. If a petitioner intends to advance different claim construction positions across forums, those differences must be disclosed—and explained—in the petition.

That rule follows directly from the PTAB's claim-construction regulations. A petition must identify "[h]ow the challenged claim is to be construed." 37 C.F.R. § 42.104(b)(3). When the Office adopted the *Phillips* standard for PTAB proceedings, it did so to align PTAB practice with district-court litigation and to reduce forum-dependent claim scope. The Office explained that the change would give petitioners "less flexibility to advance inconsistent arguments about claim scope" and instead require them to "choose a single claim construction that best captures the true meaning of the patent claim." 83 Fed. Reg. 51,340, 51,349-50 (Oct. 11, 2018).

The Director enforced that principle in *Revvo*. There, the petitioner advanced one claim construction before the PTAB and another in district court, but failed to explain the discrepancy. The Director held that when a petitioner advances alternative claim construction positions across forums, it must "explain sufficiently

why the different positions are warranted," and vacated institution because the petition did not do so. *Revvo Techs. v. Cerebrum Sensor Techs.*, IPR2025-00632, Paper 20 at 4–5 (Director Nov. 3, 2025).

The Director applied that same rule in *Tesla*. There, the petitioner argued in district court that a claim limitation was indefinite while asserting in its IPR petition that the same claim should receive its plain and ordinary meaning. The Director denied institution, explaining that treating a claim as definite enough for PTAB review while arguing in court that the same claim lacks reasonably certain scope, without sufficient explanation, undermines the Office's goal of "providing greater predictability and certainty in the patent system." *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00340, Paper 18 at 3–4 (Director Nov. 5, 2025).

The Director reaffirmed that principle in *Generac*. There, the petitioner argued in district court that certain claim terms were indefinite while urging the PTAB to treat those same terms as definite. The Director vacated institution and denied review, explaining that allowing petitioners to advance different claim constructions across forums would defeat the Office's effort to harmonize PTAB and district court claim construction. *Generac Power Sys., Inc. v. Champion Power Equip., Inc.*, IPR2025-00805, Paper 40 at 4–5 (Director Feb. 3, 2026).

Taken together, *Revvo*, *Tesla*, and *Generac* establish a straightforward rule. Petitioners must commit in their petitions to the claim scope on which their invalidity

challenges depend. If a petitioner intends to advance a different claim construction in district court—or argue indefiniteness there—those positions must be disclosed and explained in the petition itself. Petitioners "can't have it both ways and certainly not without a sufficient explanation." *Revvo Techs.*, IPR2025-00632, Paper 36 at 3 (Director Jan. 26, 2026).

B. Petitioner Structured Its IPR Petitions to Avoid Disclosing the Claim Scope It Intends to Advance in District Court.

Despite having ample time to prepare its petitions, Petitioner proposed constructions only for means-plus-function limitations and otherwise asserted that no claim construction is necessary. In the '284 petition, Petitioner expressly reserved the right to raise different claim-scope arguments elsewhere:

> Petitioner reserves all rights to raise claim construction and other arguments in other venues. Specifically, Petitioner is not conceding that each claim satisfies all statutory requirements, nor waiving any arguments concerning claim scope or grounds that can only be raised in district court. Nor is Petitioner conceding that any interpretation offered by Patent Owner thus far in the corresponding litigation is reasonable.

Pet. 23–24 n.4.

The surrounding claim construction discussion reinforces that reservation. After reciting the *Phillips* standard, Petitioner asserts that except for the means-plus-function terms, "the Board need not construe any claim terms" because the claims "are unpatentable under any reasonable construction." Pet. 24. In other words,

Petitioner asks the PTAB to evaluate its invalidity theories under whatever claim scope is broad enough to read on the prior art, while preserving the ability to advance narrower constructions—or indefiniteness arguments—elsewhere.

C. Petitioner's Stay Motion and Hearing Admissions Confirm Its Plan to Withhold Claim Constructions from the Petition.

Petitioner's district court conduct confirms why its petitions avoid committing to claim scope. After filing its IPR petitions, Petitioner asked the district court to halt the case before any petition had been instituted. Ex. 2061. The timing is telling. Petitioner filed its motion just before its invalidity and noninfringement contentions were due and months before claim construction disclosures. Ex. 2009. It sought to stop the case before those positions had to be revealed.

Petitioner's motion explains why. Petitioner argued that the parties should avoid "incurring significant cost crafting invalidity contentions and claim construction positions that may well have a significantly different scope after IPRs." Ex. 2061 at 18. Yet in its petitions Petitioner told the PTAB that no claim construction is necessary and that the claims are unpatentable under "any reasonable construction." Pet. 24. Petitioner cannot tell the PTAB that claim construction does not matter while telling the district court that claim construction across the same patents may materially change.

Moskowitz identified the problem in opposing the stay. A stay would allow Petitioner to postpone disclosing the claim constructions and indefiniteness theories

it intends to pursue in litigation—positions that could bear directly on the viability of its IPR petitions. Ex. 2062 at 1, 10, 12. If Petitioner plans to advance narrower constructions or indefiniteness arguments in district court, Moskowitz explained those positions should have been disclosed in the petitions under *Revvo*, *Tesla*, and *Generac*. *Id.* at 9-10.

Petitioner's statements at the March 6 hearing removed any doubt about what it was doing. Petitioner acknowledged *Revvo*, *Tesla*, and *Generac*. Ex. 2063 at 19-23. It told the district court that claim construction affects its contentions, that in a "typical world" it would disclose theories under multiple possible constructions, and that doing so here could create problems for its IPR petitions under the Director's framework. *Id.* Rather than disclose those positions to the Board, Petitioner asked the district court to stay the case so those disclosures would not come due while the petitions remained pending because it feared the Director would view those positions as inconsistent and deny institution. *Id.* at 17-23.

The sequence leaves little room for doubt. The Director's decisions do not permit such maneuvers. If Petitioner intended to rely on different claim constructions or indefiniteness positions in district court, it had to disclose and explain them in its petitions. It did not.

D. Allowing This Petition to Proceed Would Create a Roadmap for Evading the Director's Claim Construction Disclosure Requirement.

Endorsing Petitioner's behavior would have adverse effects. A petitioner could tell the PTAB that no claim construction is necessary, reserve alternative claim-scope arguments, pause district-court proceedings before claim-construction disclosures come due, and reveal narrower constructions only after the IPRs are over. That is precisely the forum-dependent claim scope *Revvo*, *Tesla*, and *Generac* were meant to eliminate. Institution should therefore be denied.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Director deny institution.

Date: April 22, 2026

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

I certify that this paper complies with the type-volume limitations of 37 C.F.R. §42.24(B)(1) because it contains 12,694 words (determined by the word-processing system used to prepare this paper), excluding the parts of the paper exempted by 37 C.F.R. §42.24(a).

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** and associated exhibits (Exhibits 2024-2063) were served electronically via e-mail on April 22, 2026, in their entireties on the following counsel of record for Petitioner:

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