UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MEDTRONIC, INC.,

Petitioner

v.

MOSKOWITZ FAMILY LLC,

Patent Owner

IPR2026-00121
Patent 11,864,755

PATENT OWNER'S PRELIMINARY RESPONSE

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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)
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2006	October 3, 2025 Update to USPTO Interim Director Discretionary Process
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2009	Complaint, *Moskowitz Family LLC v. Zimvie Inc.,* No. 1:22-cv-01632-UNA, ECF No. 1 (D. Del. December 23, 2022)
2010	Information Disclosure Statement citing early publication of ’755 great-great-great-grandparent U.S. 7,704,279 (U.S. App. Pub. No. 2006/0241621) in Medtronic/Warsaw U.S. Patent Application No. 12/326,682 (December 3, 2008)
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2020	Letter from Michael Fink, Counsel for Nathan Moskowitz to Newton Metcalf Jr., Director of Advanced Technologies Program for Medtronic, Inc., dated June 30, 2015
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I. INTRODUCTION

The Petition rests on prior art disclosures that do not teach the coordinated structural and actuation relationships required by the claims. It advances six grounds—anticipation by Schäfer (Ground 1), obviousness based on Schäfer (Grounds 2–3), and obviousness based on Yeh in view of Berry (Grounds 4–6). Each theory depends on showing that the prior art discloses or renders obvious a coordinated shell-based implant in which an expansion mechanism is coupled to opposing shell surfaces and actuated by a tool whose rotation drives a turning mechanism while remaining engaged along a direction of insertion. The Petition does not make that showing.

Ground 1 fails because Schäfer does not disclose the coordinated structural relationships required by the claims. Schäfer's concentric sleeve device is built differently. Its drive element is not coupled to the identified opposite surfaces, and its supporting ring does not rotate when the tool is turned. Those are not peripheral limitations. They define how the implant expands.

Grounds 2 and 3 rely on the same Schäfer mapping. Re-labeling the same structural deficiencies as "obviousness" does not cure them.

Grounds 4-6 fare no better. Petitioner turns to Berry not because Yeh's disclosed tool is inoperable or incompatible, but because Berry's gearbox-driven expander more closely tracks the actuation features recited in the claims based on hindsight. But even if combined, Berry's circumferential, gear-like tooth interface does not teach the claimed longitudinally retained engagement—where the tool remains engaged along a direction of insertion while rotating about its axis and driving rotation of the turning mechanism.

Petitioner's expert declaration does not supply the missing analysis. It largely mirrors the Petition's limitation-by-limitation assertions without independent mechanical explanation addressing coupling, coordinated rotation, or longitudinal engagement.

Petitioner has not shown a reasonable likelihood of prevailing on any challenged claim. Institution should therefore be denied.

II. THE '755 PATENT

The '755 patent addresses a practical surgical problem: how to stabilize adjacent vertebrae across a disc space using an implant that can be inserted in a compact configuration and then expanded in situ to achieve secure fixation—without the bulk, rigidity, and surgical complications associated with traditional pedicle-screw constructs and anterior plating systems.

The specification explains that conventional fixation techniques can introduce excessive rigidity, prolonged surgical time, and risk of neurovascular injury. *Id.* at 2:20-27. In cervical procedures, protruding plates may even cause esophageal irritation. *Id*. at 2:45-65. The patent responds to these clinical realities by disclosing implant systems that secure fixation internally—within the disc space itself—while maintaining a lower profile and reducing surgical morbidity. *Id.* at 6:58-7:9.

At the core of the invention is a coordinated mechanical relationship between opposing shell structures, an expansion mechanism positioned between them, and a tool that drives expansion through controlled rotation. *Id.* Abstract. The implant is inserted between adjacent vertebrae in a compact, closed configuration. Once properly positioned, the surgeon actuates an internal drive mechanism that converts rotational input from a tool into outward expansion. That expansion anchors the implant into opposing vertebral bodies above and below the disc space.

Figures 1A–1D illustrate this principle. A compact implant body houses opposing screw members. Upon actuation, those screw members—one left-handed and one right-handed—are driven outward in opposite directions. The screws embed into vertebral structures, resisting migration and stabilizing the segment. Prior to actuation, the screws are contained within the implant body; after rotation of the drive mechanism, they extend outward to achieve fixation. The expansion is controlled, symmetrical, and mechanically linked to the rotational input provided by the tool. *Id.* at 5:41-6:7.

The expansion mechanism itself is a mechanical drive system that translates tool-driven rotation into bidirectional threaded movement. In Embodiment I (Figs. 1A–1D), a tool engages a drive screw or pinion within the implant. Rotation of that drive element turns an interposing gear arrangement, which in turn drives the opposing threaded screw members outward simultaneously. *Id.* In Embodiment II (Figs. 2A–2G), a drive pinion engages left and right gears that independently rotate corresponding screw members. The specification explains that one screw may be nested within the other in the closed position—for example, a narrower solid screw residing within a wider hollow screw—allowing increased extension length during expansion. *Id*. at 6:8-20. In Embodiment III (Figs. 3A–3E), two separate drive pinions provide independent control over the opposing screw members. *Id*. at 6:21-37. Across these embodiments, the common feature remains constant: rotational input from a tool is mechanically converted into controlled expansion between opposed shell structures through an internal drive mechanism positioned between those structures.

The disclosure then builds, integrating this expandable fixation principle into broader implant constructs. Figures 4A–4C show one or more expandable screw devices placed across the disc space. One embodiment positions a single expandable screw anteriorly between adjacent vertebrae, serving both as a stabilizer and as a barrier against cage extrusion. Another embodiment arranges three expandable screws in a triangulated configuration spanning anterior and middle spinal columns. This triangular placement is described as preventing subsidence while leaving open space between the screws for bone graft or osteoinductive material, thereby supporting fusion while maintaining a relatively open construct. *Id*. at 6:38-57.

Figures 5A–5D disclose integration of expandable screws into a "zero-profile" horizontal linear mini-plate formed from upper and lower portions that interdigitate through alignment pins and recesses. Slots in the plate receive the expandable screws. Once implanted, the screws are expanded outward into the vertebral bodies, anchoring the plate flush with or recessed relative to vertebral surfaces. The structure avoids the protruding hardware characteristic of conventional anterior plates. *Id*. at 6:58-7:3.

Figures 6A–6G describe a triangular mini-plate working with multiple expandable screws, including a posteriorly placed screw, providing triangulated stabilization while maintaining a low profile. *Id*. at 7:4-9. Figures 6H–6I disclose a hollowed "three-in-one" configuration in which the triangular plate functions as a cage capable of receiving bone graft material. In this unified device, functions traditionally divided among a cage, a plate, and fixation screws are combined into a single implant that is inserted and then expanded to lock into adjacent vertebral bodies. *Id*. at 7:10-21.

The '755 patent further discloses an expandable intervertebral body fusion device (IBFD). Figures 7A–7B illustrate a boomerang-shaped implant with shells capable of multi-dimensional expansion. The shells include spikes that engage vertebral endplates, and adjustable elements permit height expansion. After positioning, the shells expand to purchase into the endplates, and expandable fixation screws are driven into vertebral bodies across the disc space. Bone fusion material may be packed within the interior of the device and surrounding disc space to promote fusion. *Id*. at 7:22-8:6.

Claim 1 captures the mechanical and clinical essence of these embodiments. It recites first and second shells having vertebral-engaging surfaces, and an expansion mechanism positioned between the shells and coupled to their opposing surfaces. The expansion mechanism includes a tool-engagement surface and threaded components that translate rotational input into expansion. The claim further requires that rotating the tool about its longitudinal axis while the tool remains engaged with the tool-engagement surface causes rotation of a turning mechanism and expansion of the implant. The shells may include cavities and circumferentially positioned engagement features, reinforcing fixation at vertebral interfaces.

Thus, the claims are directed to a coordinated structural system: shells, an interposed expansion mechanism, and a tool-driven rotational actuation that produces controlled, internal expansion to secure vertebral fixation within the confined surgical environment of the spine.

III. SUMMARY OF THE ASSERTED REFERENCES

The asserted references describe implants and associated tools. But the mechanical relationships disclosed in those references differ in important respects from the coordinated shell–expansion–tool system recited in the ’755 patent.

A. Schäfer (Ex. 1010)

Schäfer describes an extendable intervertebral implant capable of height adjustment. Ex. 1010, Abstract. Its structure is built around two coaxially arranged outer sleeves—an upper outer sleeve and a lower outer sleeve—that form the exterior load-bearing body of the device. *Id.* at 2:13-23. Within those outer sleeves sits an internal drive element composed of two inner sleeves. *Id*. at 2:24-29. Each inner sleeve includes an external thread that cooperates with corresponding internal threads formed along the inner circumferences of the outer sleeves. *Id*. at 2:15-21. When the inner sleeves are rotated, they threadingly advance relative to the outer sleeves, axially displacing the outer sleeves apart and thereby extending the implant. *Id.* Figs. 1-2.

Schäfer’s expansion mechanism thus operates through relative threaded movement between concentric sleeve components. The outer sleeves translate axially as the inner sleeves rotate.

A central structural feature of Schäfer is a supporting ring positioned between the opposed inner sleeves. *Id*. at 2:44-46. The inner sleeves rest upon this supporting ring. *Id*. The ring includes radially extending openings that allow a tool to access teeth formed on the inner sleeves. *Id*. at 2:63-67, 3:11-15. Through those openings, a tool engages the teeth and rotates the inner sleeves to produce threaded advancement. The supporting ring spaces and supports the inner sleeves and provides a structure for actuation. *Id*. at 2:44-46. It does not rotate.

The outer sleeves terminate at front surfaces identified in the figures as surfaces 16. *Id*. at 4:38-41. In the collapsed configuration, those surfaces face the supporting ring. *Id.*; *see also id.* at Fig. 1. They are not coupled to it. Nor are they coupled to the inner sleeves. During actuation, the inner sleeves rotate relative to the outer sleeves, and the outer sleeves translate axially as a result of the threaded engagement. Surfaces 16 remain rotationally stationary while moving axially relative to the rotating inner sleeves and supporting ring.

Thus, Schäfer's device expands through concentric threaded sleeve interaction, with rotation occurring in the inner sleeve components and axial translation occurring in the outer sleeve components supported by a non-rotating ring positioned between them.

B. Yeh (Ex. 1008)

Yeh describes a spinal column fixation device intended to stabilize spinal segments during treatment. Ex. 1008, Abstract. The device is organized around a central support member extending between a top seat and a bottom seat. *Id.* ¶ 21.

Each seat includes fixation teeth configured to engage adjacent spinal structures, allowing the assembly to secure relative to vertebral anatomy. *Id.*

The central support member incorporates a height-adjusting mechanism to vary the spacing between the top and bottom seats. *Id.* ¶¶ 21, 26. In one embodiment, that mechanism includes an upper support body, a lower support body, and an adjustment ring positioned between them. *Id.* The adjustment ring contains internal threading that cooperates with threaded teeth formed on the upper support body. *Id.* When the adjustment ring is rotated, the threaded interaction causes the upper support body to advance toward or retract from the lower support body, thereby changing the overall height of the support member. *Id.* ¶ 26. Yeh explains that the adjustment ring may include tool holes to permit rotational actuation. *Id.*

Yeh therefore discloses a fixation system in which rotational actuation of an externally accessible adjustment ring alters the spacing between structural components through threaded interaction within a central support member.

C. Berry (Ex. 1009)

Berry describes an adjustable vertebral implant assembly that expands after implantation within the spinal column. Ex. 1009 ¶¶ 18-19. The device includes a threaded tubular body 22 positioned between endplate assemblies 24 and 26. *Id.* ¶ 19. Rotation of the tubular body causes the implant to expand or contract by threadingly advancing endplate assemblies 24 and 26. *Id.* The tubular body includes multiple apertures 28, which serve both as installation/adjustment features and as openings that permit tissue ingrowth after placement. *Id.* ¶¶ 19, 31, 34.

To actuate the tubular body within the confined surgical field of the spine, Berry discloses an expander apparatus 50. *Id.* ¶¶ 22-23. The expander includes a handle section 52 and a gearbox arrangement designed to transmit rotational input from the handle to an engager 58. *Id.* ¶ 23, 25-26. Rotation applied at the handle is transferred through an axle 62 to a main gear/tooth assembly 80, which in turn drives a toothed section 86. *Id.* ¶ 31. The toothed section 86 includes radially arranged teeth 93 sized and spaced to engage the apertures 28 in the tubular body 22. *Id.* As the toothed section rotates, it engages the apertures and causes the tubular body to rotate, thereby expanding the implant. *Id.*

The engagement disclosed in Berry is achieved through a lateral tooth-to-aperture interface at the outer surface of the tubular body. The toothed section 86 protrudes into an engagement area 91 and meshes with the apertures 28 as rotation proceeds. Engagement is maintained only so long as successive teeth align with successive apertures during rotation of the tubular body.

As the tubular body rotates relative to the engager, the interaction between teeth 93 and apertures 28 necessarily progresses from one aperture to the next. The mechanism operates through gear-like meshing at discrete contact points around the circumference of the tubular body. The engagement is therefore dependent on circumferential alignment between the toothed section and the apertures as rotation continues, not through a longitudinally retained engagement that stays in place while both the tool and tubular body rotate.

Thus, Berry's expander apparatus transmits rotational input through a gearbox to a toothed interface that engages apertures on the outer surface of a rotating tubular body to axially expand its endplates.

IV. SCHÄFER FAILS TO ANTICIPATE CLAIMS 1 & 12

Schäfer does not disclose the structural relationships required by independent claims 1 and 12. Because Grounds 2 and 3 rely on the same Schäfer mapping, those grounds fail for the same reasons.

Two deficiencies are dispositive. First, Schäfer does not disclose that rotating the tool causes rotation of the claimed turning mechanism. Second, Schäfer does not disclose an expansion mechanism "coupled to" the claimed opposite shell surfaces. The anticipation theory therefore fails at the element level.

A. Schäfer does not disclose that "rotating of the tool causes a rotation of the turning mechanism" as required by claims 1 & 12.

Schäfer does not disclose a system in which rotating the tool causes rotation of the claimed turning mechanism. The Petition's anticipation theory depends on that coordinated rotational relationship, but Schäfer's mechanics do not show it.

Claims 1 and 12 require that "rotating of the tool causes a rotation of the turning mechanism." Petitioner defines Schäfer's "turning mechanism" as comprising bevel teeth 26 on inner sleeves 34 and 36 together with supporting ring 18. Pet. 30. Under Petitioner's mapping, the turning mechanism therefore includes both the rotating inner sleeve teeth and the supporting ring.

Petitioner further asserts that tool 70 engages opening 22 and is "turned in the supporting ring" so that teeth 72 engage and rotate inner sleeve teeth 26. Pet. 33. That description reflects rotation of the tool within supporting ring 18 in order to drive rotation of the inner sleeves. It does not reflect rotation of the supporting ring itself.

Figure 8 confirms the mechanical arrangement. Tool 70 is received within openings 22 of supporting ring 18, with shoulder 66 positioned on either side of the tool. Ex. 1010, Fig. 8. The geometry of shoulder 66 constrains the tool within the ring during actuation. The tool rotates relative to the supporting ring to transmit torque to the inner sleeves. Any attempt to rotate supporting ring 18 along with the tool would be mechanically impeded by the shoulder configuration shown in Figure 8. Schäfer does not describe the ring as rotating, nor depict it as part of a rotating assembly.

Petitioner acknowledges that Schäfer's tool "does not need to be reinserted after each rotational turn of inner sleeves 34, 36." Pet. 33. That statement is consistent with a tool rotating within a stationary supporting ring while driving rotation of the inner sleeves. It is not consistent with rotation of the supporting ring itself.

Thus, under Petitioner's own definition, rotation of the tool does not cause rotation of all components comprising the alleged "turning mechanism." The supporting ring does not rotate.

This limitation matters because the claims require a coordinated actuation chain: tool rotation must drive rotation of the turning mechanism that performs the expansion. That relationship defines how the implant is actuated—particularly in a confined surgical environment where controlled, predictable rotation is central to deployment. Schäfer instead discloses rotation of inner sleeves within a concentric threaded assembly while a supporting ring remains non-rotational and outer sleeves translate axially. The Petition does not demonstrate that this structure satisfies the claimed rotational relationship.

Petitioner's corresponding expert discussion mirrors the Petition's assertions without technical analysis addressing the supporting ring's non-rotational role or the mechanical constraints shown in Figure 8. *Compare* Pet. 30, 33 *with* Ex. 1002 at pp. 52, 55 (Appendix A).

Because Schäfer does not disclose that rotating the tool causes rotation of the claimed turning mechanism, it does not anticipate independent claims 1 or 12. Grounds 1–3 therefore fail as to claims 1–6, 8–12, and 17–20.

B. Schäfer also does not disclose an "expansion mechanism coupled to the first opposite surface and the second opposite surface" as required by claims 1 & 12.

Schäfer does not disclose an expansion mechanism that is coupled to the claimed opposite surfaces. That surface-specific structural connection is required by claims 1 and 12, and it is absent from Schäfer's design.

Claims 1 and 12 recite a coordinated structure: a first shell having a vertebral-engaging surface and a first opposite surface; a second shell having a corresponding vertebral-engaging surface and second opposite surface; and an expansion mechanism positioned between those shells and "coupled to the first opposite surface and the second opposite surface." The claims require that the expansion mechanism be coupled to the identified opposite *surfaces* themselves. And Petitioner points to nothing in Schäfer that is coupled to its surfaces 16—which Petitioner maps to the claimed surfaces.

Specifically, Petitioner maps Schäfer's surface 16 of upper outer sleeve 12 to the claimed first opposite surface (Pet. 25) and surface 16 of lower outer sleeve 14 to the claimed second opposite surface (Pet. 27). Petitioner then identifies the drive element formed by inner sleeves 34 and 36, supporting ring 18, and locking element 42 as the claimed expansion mechanism (Pet. 28-30). But Petitioner does not identify any part of the expansion mechanism that couples to surfaces 16.

Figure 3 illustrates the relevant relationships. Inner sleeves 34 and 36 include external threads 50 that engage internal threads 46 formed along the inner circumferences of outer sleeves 12 and 14. Ex. 1010, Abstract; 2:15–21; 5:8–22; Fig. 3. That threaded engagement occurs along the cylindrical interior of the outer sleeves—not at surfaces 16. Surfaces 16 are planar faces perpendicular to the threaded interfaces 46/50. No component of the alleged expansion mechanism is coupled to those faces.

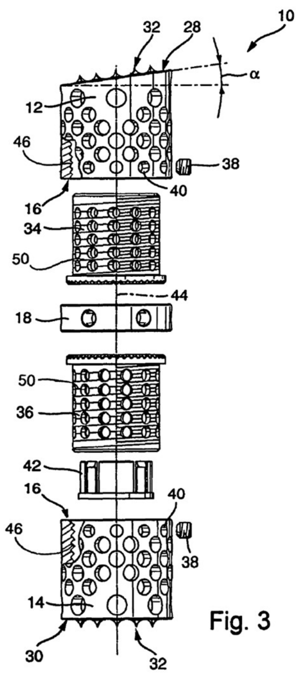

Fig. 3

<u>Ex. 1010, Figure 3</u>

As shown in Figures 1 and 2, surfaces 16 translate axially as the inner sleeves rotate. They do not rotate with the inner sleeves, and they are not structurally tied to the rotating drive element. *Id.* Figs. 1–2.

Petitioner attempts to bridge this gap by asserting that surfaces 16 "rest against" supporting ring 18 (*id.* at 4:38–41), which Petitioner characterizes as part of the "expansion mechanism." Pet. 30. Even assuming arguendo that supporting ring 18 is part of the expansion mechanism, surfaces that merely rest against one another—and only in a compressed configuration—are not thereby coupled together, especially as Figure 2 illustrates surfaces 16 translate axially away from supporting ring 18. Schäfer does not disclose that surfaces 16 are coupled to supporting ring 18.

Petitioner also identifies locking element 42 as part of the expansion mechanism, but it does not identify any structure showing that locking element 42 is joined or linked to surfaces 16. There is none.

Petitioner cites no evidence demonstrating that the expansion mechanism is coupled—directly or indirectly—to the claimed opposite surfaces. Its expert declaration merely repeats the Petition's assertion without technical analysis. *Compare* Pet. 29–30 *with* Ex. 1002 at p. 52 (Appendix A).

Because Schäfer does not disclose that the expansion mechanism is coupled to the claimed opposite surfaces, it does not anticipate independent claims 1 or 12. Grounds 1–3 therefore fail.

V. YEH IN VIEW OF BERRY DOES NOT RENDER CLAIMS 1 AND 12 OBVIOUS.

Petitioner has not shown that Yeh in view of Berry renders independent claims 1 and 12 obvious. The failure is fundamental: Petitioner does not identify a technological reason why a person of ordinary skill would have combined these references in the manner proposed, and the combination fails to teach or suggest a tool that remains engaged with a tool-engagement surface along a direction of insertion during rotation of the tool about its longitudinal axis and rotation of a turning mechanism. Because Grounds 4–6 rely on this same combination, they fail as well.

A. Petitioner Fails to Establish a Proper Motivation to Combine Yeh and Berry.

Petitioner's obviousness theory depends on the assertion that a person of ordinary skill in the art would have combined Yeh's spinal fixation device with Berry's gear-driven expander to render the challenged claims obvious. But the Petition does not identify any deficiency in Yeh that would have prompted such a substitution.

Petitioner argues that Yeh "discloses that a 'tool is engaged with the tool-engagement surface'" and that "rotating of the tool causes a rotation of the turning mechanism," but then abandons Yeh's tool and turns to Berry because "Yeh does not disclose the specific design of the tool that expands the lower (110) and upper (120) support bodies. Berry, however, discloses a tool that satisfies limitation [1.g]." Pet. 66–67. That is not a technological rationale. That is hindsight.

The Federal Circuit has cautioned that conclusory assertions of combination based on the "modular" nature of references are insufficient and risk hindsight bias.

ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc., 694 F.3d 1312, 1327 (Fed. Cir. 2012). Here, Petitioner treats Yeh's fixation device and Berry's expander as interchangeable modules, assembling them to mirror the claim language.

Because of this use of hindsight to pivot to Berry, the obviousness theory for claims 1 and 12 fails.

B. Yeh in View of Berry Does Not Teach the Claimed Longitudinally Retained Rotational Engagement as Required by Claims 1 & 12.

The Petition's Yeh–Berry combination fails for a second, independent reason: it does not teach or suggest the coordinated actuation relationship required by claims 1 and 12.

The claims require more than simple rotation. They recite a specific mechanical configuration in which:

- the tool is rotated about its longitudinal axis;
- the tool remains engaged with the tool-engagement surface during that rotation;
- the tool-engagement surface is positioned and configured to be engaged by the tool extending along a direction of insertion; and
- rotation of the tool causes rotation of the turning mechanism.

Read together, these limitations require a longitudinally retained engagement: the tool must remain engaged along its direction of insertion while it is rotated about its axis and while the turning mechanism rotates. The engagement is axial and maintained during rotation. Petitioner's mapping does not satisfy that requirement.

Petitioner identifies Yeh's adjustment ring 130 as the claimed "turning mechanism" and the contours of "tool holes 131" as the claimed "tool-engagement surface." Pet. 63. Petitioner then imports Berry's expander apparatus 50 as the claimed tool. *Id.* at 67. Petitioner argues that, due to Berry's bevel gear mechanism, rotating handle 64 of Berry's expander apparatus "causes a rotation of the turning mechanism," and that it would have been obvious to use a tool like Berry's to rotate Yeh's adjustment ring 130. Pet. 68.

But Petitioner overlooks how Berry's tool actually operates. As shown in Figures 3–5 of Berry, expander apparatus 50 includes a selector gear box 70 (or cap member 74) within handle section 52 that rotates axle 62. Ex. 1009 ¶¶ 25–26, Figs. 3–5. Rotation of axle 62 drives secondary gear assembly 82. *Id.* ¶ 29 ("The secondary gear assembly 82 may engage with the gear section 84 of the main gear/tooth assembly 80 causing any rotational force from the axle 62 to be transferred to the main gear/tooth assembly 80."). The main gear/tooth assembly 80 is connected to tooth section 86, which "may include a plurality of teeth 93 that are sized, spaced, and shaped to engage the apertures 28 on the tubular body 22." *Id.* ¶ 31. As tooth section 86 rotates, it engages successive apertures 28, and the tubular body 22 rotates accordingly. *Id.*

This is a gear-like, circumferential interaction. Teeth 93 mesh with apertures 28 at discrete contact points around the outer surface of tubular body 22. As in any gear interface, relative rotation causes successive teeth to engage successive apertures. The interaction progresses circumferentially as rotation continues.

That structure does not maintain longitudinal engagement along a direction of insertion during rotation.

Berry's tooth section 86 protrudes laterally into engagement area 91 to contact apertures 28 on the outer surface of tubular body 22. The engagement is not axially retained; it is circumferential and dependent on alignment between successive teeth and apertures. As the tubular body rotates relative to the tooth section, engagement shifts from one aperture to the next. The tool does not remain fixed along a longitudinal insertion axis while both the tool and the turning mechanism rotate as an integrated, axially retained unit.

And this defect persists even under Petitioner's Yeh–Berry combination. If Berry's expander were applied to Yeh's adjustment ring 130, Berry's teeth would necessarily interact circumferentially with Yeh's tool holes 131 in the same gear-like manner. As rotation proceeds, successive teeth would engage successive holes. The engagement would progress around the ring. The tool would not remain engaged along a direction of insertion while the adjustment ring rotates.

This distinction matters. The claims require a tool that extends along a direction of insertion and remains engaged with the tool-engagement surface during axial rotation—reflecting a controlled, longitudinally retained actuation mechanism. Berry discloses a laterally meshing, gear-style interface that advances circumferentially during rotation. That is a different mechanical relationship.

Petitioner's expert declaration does not supply any different analysis addressing this axial-retention requirement or explaining how Berry's circumferential tooth engagement would satisfy it; the declaration merely repeats it verbatim. *Compare* Pet. at 66-71 *with* Ex. 1002 ¶¶ 53-61. The Petition cites Berry's rotation mechanics but does not demonstrate that the claimed longitudinal engagement is present. *Id.*

Because Yeh in view of Berry fails to teach or suggest these coordinated engagement limitations, Petitioner has not shown a reasonable likelihood of prevailing on independent claims 1 or 12. Grounds 4–6 therefore fail as to claims 1–6, 8–12, and 17–20.

VI. PETITIONER'S EXPERT DECLARATION DOES NOT CURE THE PETITION'S STRUCTURAL DEFECTS

The Petition's failure to demonstrate the required mechanical relationships is not remedied by Petitioner's expert declaration (Ex. 1002).

Petitioner relies heavily on the Declaration of Brad Culbert as purported technical support for its anticipation and obviousness theories. But the declaration does not supply independent engineering analysis addressing the structural gaps identified above. Instead, it largely mirrors the Petition's limitation-by-limitation mapping, repeating conclusions that the prior art "discloses" the claimed features without explaining how the cited structures satisfy the specific mechanical requirements of the claims.

A comparison of the Petition and Ex. 1002 confirms the redundancy. The Petition's "Detailed Explanation of Grounds" tracks the same limitation-by-limitation structure and substantive content contained in the declaration's corresponding sections and appendices. *See, e.g.*, Petition §§ VI.A.1–VI.B.1, VIII, X; Ex. 1002 §§ V.A–VI, VIII, Appendices A–F. The declaration does not meaningfully expand on those assertions with engineering analysis or technical reasoning.

That absence is significant here. The disputed issues are mechanical and structural. Whether Schäfer discloses an expansion mechanism "coupled to" opposing shell surfaces, whether rotating a tool causes rotation of a claimed turning mechanism, and whether Berry's toothed gearbox interface would remain engaged along a direction of insertion while both tool and turning mechanism rotate are not matters resolved by quotation alone. They require explanation of mechanical interaction, structural relationships, and expected operation in a confined surgical environment.

Yet Ex. 1002 primarily cites passages from the prior art followed by the same conclusory statements from the Petition that the limitation is "disclosed." *Compare, e.g.*, Pet. at 28-31 *with* Ex. 1002 at p. 51-53 (Schäfer coupling); Pet. at 66-68 *with* Ex. 1002 ¶¶ 53-56 (Yeh and Berry tool operation). The declaration does not analyze how the cited structures satisfy the claim language under Petitioner's own mappings, nor does it provide a reasoned explanation of how the proposed Yeh–Berry combination would function as asserted with a reasonable expectation of success.

Nor does the declaration supply meaningful analysis of motivation to combine. It merely repeats the same motivation to combine argument for Yeh with Berry that the Petition does. *Compare* Pet. at 68-71 *with* Ex. 1002 ¶¶ 57-61.

The Board has made clear that expert testimony must provide reasoned technical support, not merely endorse counsel's argument. *See* 37 C.F.R. § 42.65(a); *Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022) (precedential). Where a declaration simply restates the Petition's assertions without independent analysis, it adds little evidentiary weight.

Here, the declaration does not repair the Petition's failure to demonstrate the required structural relationships in the prior art or to establish a supported motivation to combine. Without that technical showing, Petitioner has not demonstrated a reasonable likelihood of prevailing on any challenged claim.

VII. CONCLUSION

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

Date: February 20, 2026

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I certify that this paper complies with the type-volume limitations of 37 C.F.R. §42.24(B)(1) because it contains 4,905 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).

Date: February 20, 2026

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The undersigned hereby certifies that the foregoing **PATENT OWNER'S PRELIMINARY RESPONSE** was served electronically via e-mail on February 20, 2026, in their entireties on the following counsel of record for Petitioner:

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