

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STRYKER CORPORATION and
WRIGHT MEDICAL TECHNOLOGY, INC,
Petitioner,

v.

OSTEOMED LLC,
Patent Owner.

IPR2022-00191
Patent 9,763,716 B2

Before SHERIDAN K. SNEDDEN, RICHARD H. MARSCHALL, and
JAMIE T. WISZ, *Administrative Patent Judges*.

SNEDDEN, *Administrative Patent Judge*.

JUDGEMENT

Final Written Decision on Remand
Determining All Challenged Claims Unpatentable
35 U.S.C. §§ 144, 318

I. INTRODUCTION

This proceeding is on remand from the United States Court of Appeals for the Federal Circuit. The court issued its decision in *Stryker Corp. v. OsteoMed LLC*, No. 2023-1925, 2025 WL 2814019 (Fed. Cir. Oct. 3, 2025) (“*Stryker*”) (Paper 38¹), affirming-in-part, reversing-in-part, vacating and remanding-in-part our Final Written Decision (Paper 35) for further proceedings. In its opinion, the Federal Circuit reversed our finding of no anticipation as to independent claims 1, 10, and 16 of U.S. Patent No. 9,763,716 B2 (“the ’716 patent,” Ex. 1001), and vacated and remanded for further proceedings to evaluate whether either of dependent claims 15 and 21 is unpatentable. *Stryker*, slip op. at 17.

We have jurisdiction under 35 U.S.C. § 6. We issue this Final Written Decision on Remand pursuant to 35 U.S.C. §§ 144, 318 and 37 C.F.R. § 42.73 in an *inter partes* review involving Stryker Corporation and Wright Medical Technology, Inc. (collectively, “Petitioner”) and OsteoMed LLC (“Patent Owner”). For the reasons discussed below, after considering the entirety of the record in light of the Federal Circuit’s directives in *Stryker*, we find by a preponderance of the evidence that claims 15 and 21 are unpatentable.

A. Background and Summary

Petitioner filed a Petition to institute *inter partes* review of claims 15 and 21 of the ’716 patent. Paper 2 (“Pet.” or “Petition”). Patent Owner filed a Preliminary Response. Paper 5. Following institution, Patent Owner filed a Response to the Petition (Paper 17, “PO Resp.”), Petitioner filed a Reply to Patent Owner’s Response (Paper 20, “Reply”), and Patent Owner filed a

¹ This decision references the slip opinion at Paper 38.

Sur-Reply (Paper 23, “Sur-Reply”). On March 1, 2023, the parties presented arguments at an oral hearing. The transcript of the hearing has been entered into the record. Paper 33.

On May 30, 2023, we issued a Final Written Decision holding that Petitioner had not shown that claims 15 and 21 were unpatentable over the prior art. Paper 35. Patent Owner appealed the Final Written Decision to the Federal Circuit. Paper 36. On October 3, 2025, the Federal Circuit issued an opinion reversing our finding of no anticipation as to independent claims 1, 10, and 16 of the ’716 patent, vacating and remanding “the Board’s determinations regarding anticipation or obviousness of the dependent claims for reconsideration consistent with this opinion.” *Stryker*, slip op. at 2.

With our authorization, the parties filed an authorized joint notice detailing the parties’ positions as to whether the outcome of the dependent claims was effectively addressed by the Federal Circuit’s decision or whether the Board’s input is required to resolve the dispute between the parties and listing specific locations within the record that they believed identified evidence and arguments relevant to the current dispute. Paper 40.² The parties agree that claims 15 and 21 was not effectively addressed by the Federal Circuit and requires the Board’s input on remand. *Id.*

B. Related Matters

The Petition identifies three other patents as related to the ’716 patent. Pet. 2. Those patents are: U.S. Patent No. 8,529,608 (“the ’608 patent”);

² Our authorization to file the joint notice did not permit the submission of new arguments and evidence not already in the record, and to the extent that the parties submission includes any such material, we do not consider it in our analysis on remand.

U.S. Patent No. 9,351,776 (“the ’776 patent”); and U.S. Patent No. 10,245,085 (“the ’085 patent”). *Id.* The ’608 and ’776 patents issued on grandparent and parent applications, respectively, to the ’716 patent, and the ’085 patent issued on a child application to the ’716 patent. Ex. 1001, code (63); IPR2021-01453 (Exhibit 1001, code (63)).

The four related patents are asserted in two pending lawsuits. Pet. 1–2; Paper 4, 1. Those lawsuits are: *OsteoMed LLC v. Stryker Corporation*, Case No. 1:20-cv-06821 (N.D. Ill.) and *OsteoMed LLC v. Wright Medical Technology, Inc.*, Case No. 1:20-cv-01621 (D. Del.). *Id.*

In addition to this IPR proceeding, other claims of the ’716 patent and the related patents are challenged in other matters before the Board. Those matters include: IPR2021-01450 and IPR2022-00189 (challenging claims of the ’608 patent); IPR2021-01451 and IPR2022-00190 (challenging claims of the ’776 patent); IPR2021-01453 (challenging claims of the ’085 patent); and IPR2021-01452 (challenging claims of the ’716 patent). Pet. 2.

C. The ’716 Patent

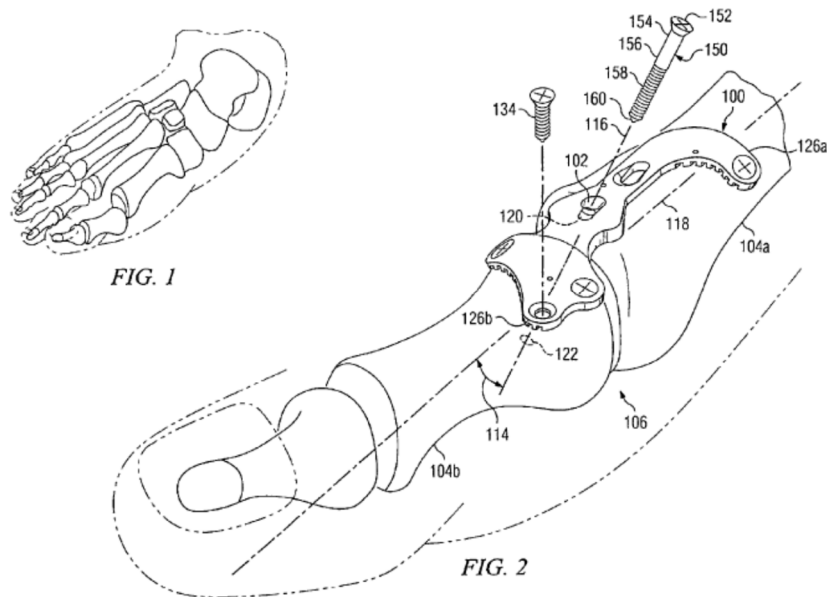
The ’716 patent issued September 19, 2017, from an application filed May 5, 2016. Ex. 1001, codes (45), (22). The ’716 patent claims the priority benefit of an application filed April 28, 2009. *Id.* at 1:7–13.

As background, the ’716 patent explains, when reconstructing a damaged joint, “a surgeon may need to fuse the bones of the joint together in a configuration that approximates the natural geometry of the joint,” and “[o]ne way to achieve this objective is to attach the bones of the joint to a plate that holds the bones together in alignment with one another while they fuse together.” *Id.* at 1:28–31.

The ’716 patent relates to “a device for securing bones together, and more particularly, to a bone plate with a transfixation screw hole.” *Id.* at

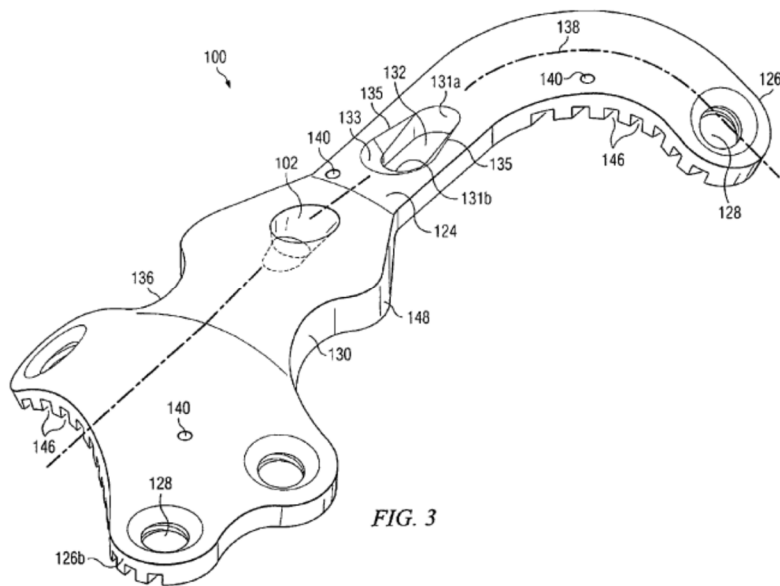
1:18–20. The '716 patent describes a plate that includes, *inter alia*, an elongate spine with first and second ends having attachment points for securing the plate to first and second bones on, respectively, first and second sides of a joint between the bones. *Id.* at 1:39–45. The plate's spine also includes a “bridge portion” configured to span the joint, and a “transfixation screw hole disposed along the spine.” *Id.* at 1:46–49. The transfixation screw hole may be configured to direct a transfixation screw such that the screw extends alongside the bridge at a trajectory that passes through a first position on a first bone and a second position on a second bone when the plate is placed across a joint. *Id.* at 1:49–55.

Figures 1 and 2 of the '716 patent, reproduced below, illustrate various features of an exemplary bone plate, and the plate's placement across a joint. Figure 1 shows a failed joint in a human foot, and Figure 2 shows a bone plate being used to repair the aforementioned joint.



Id. at Figs. 1–2. Figure 1 is a perspective view of a human foot and illustrates the bones within the foot, including a failed metatarso-phalangeal joint of the big toe. *Id.* Figure 2 depicts a bone plate (100) being used in combination with a transfixation screw (150) to repair the joint (106) between a first bone (104a) and a second bone (104b) when the transfixation screw is screwed through the joint along a trajectory defined by the central axis (116) of transfixation screw hole (102) that crosses neutral bending axis (118) of the joint. Ex. 1001, 4:25–43, 6:7–11, 6:62–67.

Figure 3, reproduced below, is an enlarged isometric view of the top surface of the plate of Figure 2.



Id. at Fig. 3. Figure 3 shows plate (100) and various features, including elongate spine (124) having a first end (126a) and a second end (126b), each end with attachment points (128). *Id.* at 7:41–49. The attachment points (128) may be made to accept a bone screw (134, as depicted in Fig. 2) for attaching the first and second ends to first and second bones. *Id.* at 7:53–61. The plate includes bridge portion (130) configured to span a joint between the bones, which bridge portion includes a “thickened section 136 . . . to

increase the bending strength” and minimize bending or breaking when load is applied to the joint. *Id.* at 7:47–50, 8:32–36. The plate further includes a transfixation screw hole (102) “disposed along the center line 138 of spine 124, immediately adjacent to bridge portion 130.” Ex. 1001, 8:56–58.

According to the ’716 patent, the inner surface of the transfixation screw hole may direct a transfixation screw along a path that passes through a portion of first and second bones and crosses a neutral bending axis of the joint. *Id.* at 2:59–63. The patent explains that “[t]his technical advantage may create a ‘tension band’ construct that enables the transfixation screw to absorb a portion of the mechanical stress that would otherwise be imposed upon the plate above the joint when a load is applied to the joint.” *Id.* at 2:63–67; *see also id.* at 6:7–11 (“When transfixation screw 150 is screwed into joint 106 along a trajectory that crosses neutral bending axis 118 (as show[n] in FIG.2), a ‘tension band’ construct is created that puts transfixation screw 150 under tension when joint 106 flexes.”).

D. Illustrative Claims

The challenged claims are claims 15 and 21, which depend, respectively, from claims 10 and 16. We reproduce claims 10 and 15 as illustrative below:

10. [10.P] A plate for securing two discrete bones together across an intermediate joint, comprising:

[10.1] an elongate spine having:

a first end comprising:

at least one fixation point for attaching the first end to a first discrete bone on a first side of a joint; and

a first inner surface configured to substantially conform with a geometry of the first bone;

[10.2] a second end comprising:

at least one fixation point for attaching the second end to a second discrete bone on a second side of the joint; and a second inner surface configured to substantially conform with a geometry of the second bone; and

[10.3] a bridge portion disposed between the first end and the second end; and

[10.4] a transfixation screw hole disposed along the spine, the transfixation screw hole comprising an inner surface configured to direct a transfixation screw through the transfixation screw hole such that the transfixation screw extends alongside the bridge portion at a trajectory configured to pass through a first position on the first bone and a second position on the second bone, enabling said screw to absorb tensile load when the second bone is loaded permitting transfer of the tensile load through said screw into said bridge,

[10.5] wherein at least a portion of said bridge portion and said transfixation screw hole has a depth greater than at least a portion of said first and second ends.

Ex. 1001, 13:34–62 (adding indentation and Petitioner’s labels for claim elements in brackets); Pet. 12–13. Independent claim 16 is identical to claim 10, except the final wherein clause recites a screw hole having “a thickness greater than” instead of “a depth greater than.” Ex. 1001, 14:19–48.

15. [15.1] The plate of claim 10, further comprising a first flared hip on a first side of the plate and a second flared hip on a second side of the plate, [15.2] the flared hips comprising two generally parabolic wings extending laterally from the spine and being symmetrically opposed to one another about the transfixation screw hole.

Ex. 1001, 14:13–18 (adding Petitioner’s labels in brackets); Pet. 12. Claim 21 is identical to claim 15 except that claim 21 depends on claim 16 instead of claim 10. Ex. 1001, 14:65–15:3.

E. Remanded Grounds of Unpatentability

We reconsider the following challenge set forth in the Petition in view of the Federal Circuit’s directives in *Stryker*.

Remanded Claims	35 U.S.C. §	Reference(s)
15, 21	102(b) ³	Slater ⁴

Petitioner relies upon the Declarations of Dr. Kenneth A. Gall (Ex. 1002 and Ex. 1028) to support its contentions.

Patent Owner relies upon the Declaration of Mr. Mark B. Sommers (Ex. 2002).

F. Summary of Slater (Ex. 1005)

Slater is an international patent application published on November 22, 2007. Ex. 1005, code (43). Slater relates to an ankle fusion plate for fusion of the anterior ankle. *Id.* at 1:6–7. Slater discloses that orthopedic devices can repair diseased bones and bone fractures. *Id.* at 1:21–22. Slater explains that bones that have been fractured must be kept together for lengthy periods of time to permit recalcification and bonding. *Id.* at 3:1–3. According to Slater, internal fixation techniques require “the fracture be stable axially, torsionally and rotationally.” *Id.* at 3:25; 7:1–2. To achieve such objectives, Slater discloses a fixation screw and plate design in which “the plate depth changes at different locations” so that “the depth at the beginning a[n]d end points of the L shaped contour [of the plate] over the ankle joint in the second region will be at it[s] maximum thickness.” *Id.* at

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), amended 35 U.S.C. §§ 102 and 103. Based on the putative effective filing date of the ’716 patent, we apply the pre-AIA versions of §§ 102 and 103.

⁴ Slater, WO 2007/131287 A1, published Nov. 22, 2007 (Ex. 1005, “Slater”).

8:31–34. Slater further discloses that “[t]he plate will taper at least one but preferably two different points of the plate” and that “[t]hese points will preferably resemble and conform to the typical geometry of the anatomical region.” *Id.* at 9:3–4, 11–12.

Figure 1, reproduced below, shows a side elevation view of a plate attached via fixation screws “to an abbreviated ankle joint (dotted lines).” *Id.* at 9:28–30.

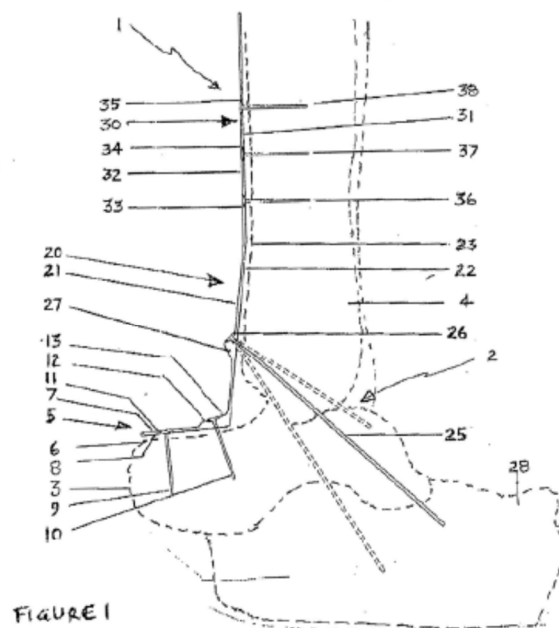


Figure 1 shows plate (1) attached to an ankle joint (2) opposing the talus bone (3) and the tibia bone (4). *Id.* at 12:2–4. Figure 1 depicts plate (1) having inner (22) and outer (21) surfaces, with inner surface (22) opposing the anterior surface (23) of the tibia (4). *Id.* at 12:18–19. Portion (30) of the plate includes openings (33, 34, 35) for receiving fastening screws (36, 37, 38), which engage tibia (4). *Id.* at 12:28–31. Portion (5) of the plate has inner (8) and outer (7) surfaces that oppose surface (6) of the talus bone (3) for fixation thereto by screws (9, 10), which pass through openings (11, 12) and into the talus. *Id.* at 12:5–10.

In addition, portion (20) of Figure 1's plate resides between portions (5) and (30), and includes opening (26) in formation (27), for receiving fixation screw (25). *Id.* at 12:18–22. According to Slater, “[f]ormation 27 is configured so that screw 25 is implanted at an angle within a predetermined allowable angular range . . . preferably within a 40 degree arc.” *Id.* at 12:21–23; *see also id.* at Fig. 2 (front elevation view of plate 1, showing another view of plate portions (20, 30), openings (33, 34, 35) and formation (27) relative to the underlying anterior tibia (4) and talus (3) to which the plate is attached).

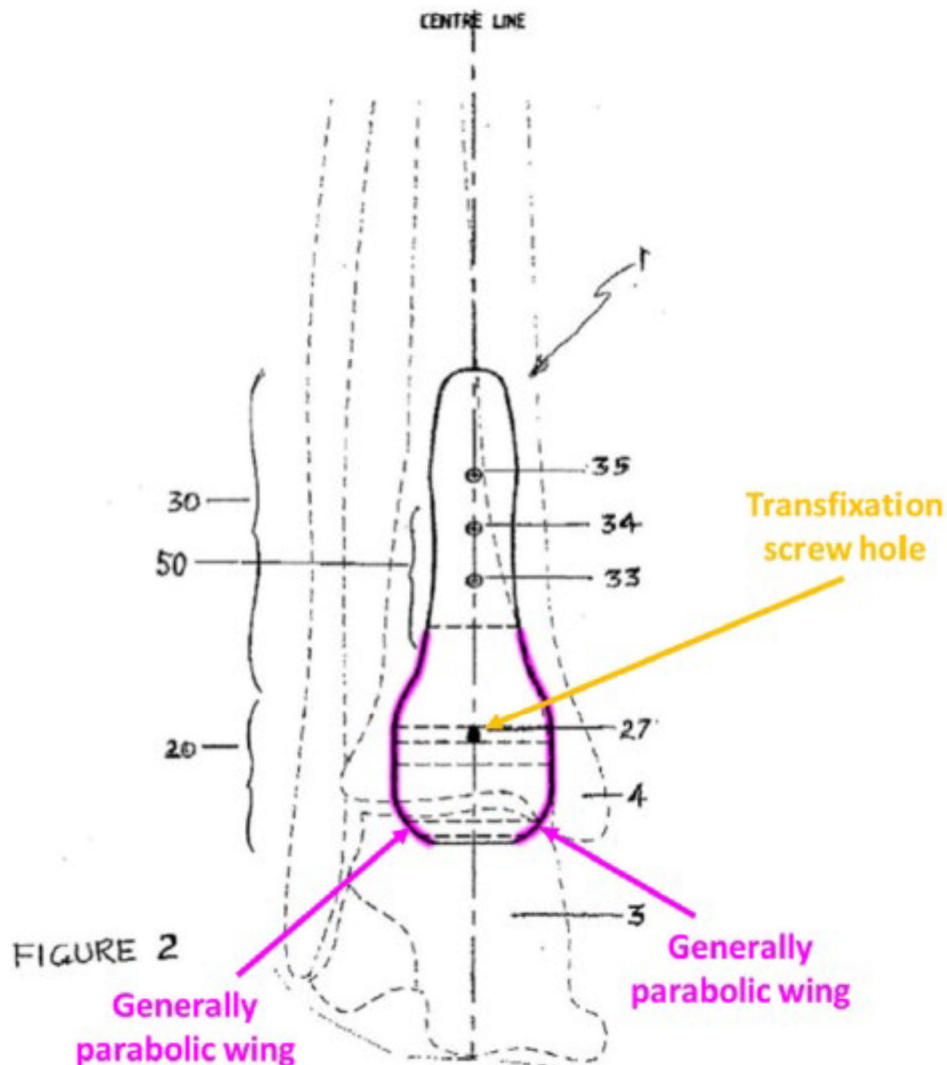
Slater discloses that “[s]crew 25 engages tibia 4, talus 3, and calcaneus 28 [(i.e., heal bone)] effectively providing three points of fixation according to this embodiment.” *Id.* at 11:23–25. Continuing, Slater teaches that, “[a]s may be seen in figure 1 the screws are placed in a particular orientation and required angle to the joint/s required for arthrodesis,” and “[t]his is also necessary to achieve maximal compression of the fusion site/s.” *Id.* at 12:3–5.

In summarizing features of its invention, Slater discloses that the plate's depth may change at different locations and “[p]referably, the depth at the beginning and end points of the L shaped contour over the ankle joint . . . will be at its [sic] maximum thickness.” *Id.* at 8:31–34; *see also id.* at 10:3–6 (“The plate will taper at least one but preferably two different points of the plate . . . [and] [t]he desired effect is for the plate to taper in and decrease in thickness proximally.”). Slater further teaches that the plate “will preferably resemble and conform to the typical geometry of the anatomical region. . . . Preferably, the plates are configured to generally conform to the anatomic contours of the ankle joint.” *Id.* at 9:11–15.

II. ANALYSIS

A. Anticipation of Claims 15 and 21 by Slater

In its Petition, Petitioner contends that Slater anticipates dependent claims 15 and 21. Pet. 31–33. Petitioner addresses each limitation of claims 15 and 21, and cites to declarant testimony for support. *See id.* (citing Ex. 1002 ¶¶ 122–123, 138). According to Petitioner, Slater also describes a bone plate with flared hips comprising two generally parabolic wings as claimed (labeled limitations 15.1 and 15.2 by Petitioner). *Id.* Petitioner provides an annotated version of Slater's Figure 2, reproduced below.



Pet 33. Figure 2, above, is a front elevation view of Slater’s plate (the plate as otherwise depicted in a side elevation in Figure 1) and shows the plate oriented for placement on the underlying tibia (4) and talus (3); Petitioner’s annotation shows “Generally parabolic wing[s]” (labeled with purple arrows and highlighting) on the lower left and right sides of the plate, extending laterally on opposite sides of the transfixation screw hole.

With the exception of its arguments as to the independent claims (held unpatentable in *Stryker*), Patent Owner does not address Petitioner’s arguments and evidence as to claims 15 and 21 in the Patent Owner Response. PO Resp. 39.

We have reviewed Petitioner’s arguments and evidence as to the undisputed limitations of claims 15 and 21 and find that Petitioner establishes that Slater discloses each limitation of claims 15 and 21 for the reasons provided by Petitioner. Specifically, Petitioner shows, and Patent Owner does not dispute, that Slater describes a plate with “flared hips” comprising opposing “generally parabolic wings” as recited in dependent claims 15 and 21. Pet. 31–33; Ex. 1005, Fig. 2; Ex. 1002 ¶ 124. We adopt Petitioner’s arguments and evidence as to these limitations as our own. *See* Pet. 31–33. Based on the foregoing, Petitioner proves by a preponderance of the evidence that Slater anticipates claims 15 and 21.

III. CONCLUSION

In summary:

Remanded Claims	35 U.S.C. §	Reference(s)/ Basis	Remanded Claims Shown Unpatentable	Remanded Claims Not Shown Unpatentable
15, 21	102	Slater	15, 21	
Overall Outcome			15, 21	

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 15 and 21 of the '716 patent are determined to be unpatentable; and

FURTHER ORDERED that this is a final written decision of the Board under 35 U.S.C. § 318(a). Parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.22.

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