

NOTE: This disposition is nonprecedential.

**United States Court of Appeals
for the Federal Circuit**

RAVIN CROSSBOWS, LLC,
Appellant

v.

**JOHN A. SQUIRES, UNDER SECRETARY OF
COMMERCE FOR INTELLECTUAL PROPERTY
AND DIRECTOR OF THE UNITED STATES
PATENT AND TRADEMARK OFFICE,**
Intervenor

2024-2136

Appeal from the United States Patent and Trademark
Office, Patent Trial and Appeal Board in No. IPR2023-
00407.

Decided: August 6, 2026

KADIE M. JELENCHICK, Foley & Lardner LLP, Milwau-
kee, WI, argued for appellant. Also represented by
MICHELLE A. MORAN, SARAH E. RIEGER.

MONICA BARNES LATEEF, Office of the Solicitor, United

States Patent and Trademark Office, Alexandria, VA, argued for intervenor. Also represented by JUSTIN BOVA, NICHOLAS THEODORE MATICH, IV.

Before MOORE, *Chief Judge*, CUNNINGHAM, *Circuit Judge*, and KOVNER, *District Judge*.¹

MOORE, *Chief Judge*.

Ravin Crossbows, LLC (Ravin) appeals a final written decision of the Patent Trial and Appeal Board (Board) holding claim 1 of U.S. Patent No. 9,354,015 unpatentable. For the following reasons, we *affirm*.

BACKGROUND

Ravin owns the '015 patent, which relates to archery bows and crossbows, wherein rotatable string guides are in tension with the draw string that drives an arrow. '015 patent at Abstract, 1:66–2:23. Claim 1 is at issue:

1. A crossbow, comprising:

a central portion comprising a down-range side and an up-range side;

first and second flexible limbs attached to the central portion;

a first string guide mounted to the first bow limb and rotatable around a first axis, the first string guide comprising a first draw string journal having a first plane of rotation perpendicular to the first axis, and a first helical power cable take-up journal

¹ Honorable Rachel P. Kovner, District Judge, United States District Court for the Eastern District of New York, sitting by designation.

extending in a direction perpendicular to the first plane of rotation of the first draw string journal;

a second string guide mounted to the second bow limb and rotatable around a second axis, the second string guide comprising a second draw string journal having a second plane of rotation perpendicular to the second axis, and a second helical power cable take-up journal extending in a direction perpendicular to the second plane of rotation of the second draw string journal;

a draw string received in the first and second draw string journals and secured to the crossbow in a reverse draw configuration with the draw string adjacent the down-range side of the string guides in a released configuration, wherein the draw string translates from the down-range side toward the up-range side and unwinds between the first and second string guides to a drawn configuration;

a first power cable received in the first helical power cable take-up journal; and

a second power cable received in the second helical power cable take-up journal,

wherein as the bow is drawn from the released configuration to the drawn configuration the first and second power cables wrap onto the first and second helical, power cable take-up journals and are displaced along the first and second axes away from the first and second planes of rotation of the first and second draw string journals, respectively.

Id. at 7:63–8:34 (emphases added).

Ravin sued Hunter's Manufacturing Company, Inc. dba TenPoint Crossbow Technologies (TenPoint) in the U.S. District Court for the District of Nevada for infringing six of Ravin's crossbow patents. *Ravin Crossbows, LLC v.*

Hunter's Mfg. Co., No. 5:23-CV-598, 2024 WL 895156, at *1 (N.D. Ohio Mar. 1, 2024) (*Claim Construction Order*). The case was transferred to the District Court for the Northern District of Ohio. *Id.* Ravin later voluntarily withdrew two asserted patents, including the '015 patent. *Id.* Like claim 1 of the '015 patent, several claims of the remaining asserted patents recite the “mounted to” limitation. *Id.* at *3. The parties disputed the meaning of “mounted to.” *Id.* at *3–5. The district court concluded “mounted to” did not require construction because the term was readily understood by a skilled artisan and should thus be given its plain and ordinary meaning. *Id.* at *5. The district court rejected the proposed constructions (i.e., “mounted to allow only rotation about a fixed axis” and “connected to, either directly or indirectly”) as unhelpful. *Id.* at *3–4.

After being sued for infringement, TenPoint filed a petition for *inter partes* review (IPR) challenging claim 1 of the '015 patent as anticipated or obvious over the prior art. J.A. 68–135. The Board instituted IPR. J.A. 237–78. While acknowledging the district court's claim construction order in the related litigation, the Board adopted TenPoint's proposed construction of “mounted to” to mean “connected to, either directly or indirectly” because both parties disputed the plain and ordinary meaning of the term. *Hunter's Mfg. Co. v. Ravin Crossbows, LLC*, No. IPR2023-00407, 2024 WL 3347293, at *8–10 (P.T.A.B. July 9, 2024) (*Final Written Decision*). The Board then held claim 1 unpatentable as anticipated by International Patent Application Publication No. WO 2011/141771 (Stanziale) without reaching any other grounds presented in TenPoint's petition. *Id.* at *12–14. Ravin appealed, arguing the Board erred in its construction of “mounted to” and that under

Ravin's proposed claim construction,² claim 1 would not have been anticipated by Stanziale. TenPoint withdrew from the appeal after the parties settled the underlying dispute, and the Director intervened to defend the Board's decision. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A).

DISCUSSION

We review the Board's claim construction and any supporting determinations based on intrinsic evidence de novo. *Seabed Geosols. (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1287 (Fed. Cir. 2021). Claim terms are generally given their plain and ordinary meaning, i.e., the meaning the terms would have to a skilled artisan at the time of the invention when read in the context of the specification and prosecution history. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Ravin argues the Board erred in construing “mounted to” in claim 1 to mean “connected to, either directly or indirectly.” Appellant's Br. 22–26; *Final Written Decision*, 2024 WL 3347293, at *10. According to Ravin, this construction is overbroad because it allows components to be mounted to one another no matter how far apart they are or how many components are between them. Appellant's Br. 28–38. Ravin further argues the Board's construction conflicts with the specification's teachings that the string guide be able to rotate about an axis relative to the limb.

² Ravin's proposed construction before the Board differs slightly from its proposed construction before the district court. *Compare Final Written Decision*, 2024 WL 3347293, at *3 (“physically connected to allow only rotation about a fixed axis”), with *Claim Construction Order*, 2024 WL 895156, at *3 (“mounted to allow only rotation about a fixed axis”).

Appellant’s Br. 39–42. In Ravin’s view, the correct construction of “mounted to” is “physically connected to allow only rotation about a fixed axis.” Appellant’s Br. 40. The Director responds that the Board properly determined the plain and ordinary meaning of “mounted to” is “connected to, either directly or indirectly.” Intervenor’s Br. 20. The Director asserts the claim’s functional language constrains the meaning of “mounted to” such that force applied to the string guide affects the bow limb. Intervenor’s Br. 26–31; *see also* Oral Arg. at 14:10–15:04. We agree with the Director that claim 1’s structural limitations help define the scope of the claim.

The parties do not dispute the plain and ordinary meaning of “mounted to” applies but contend that their respective proposed construction is the plain and ordinary meaning. *See* Appellant’s Br. 40; Intervenor’s Br. 20. Claim 1 recites “a first string guide *mounted to* the first bow limb and *rotatable* around a first axis,” and “a second string guide *mounted to* the second bow limb and *rotatable* around a second axis.” ’015 patent at 8:1–2, 8:8–9 (emphases added). This language requires that a string guide not only be “mounted to” a bow limb, but also “rotatable around” an axis. The parties agree that “mounted to” encompasses both direct and indirect connections, such as the intervening first or second axis between the string guide and bow limb. *See* Intervenor’s Br. 20–23; Reply Br. 4. Thus, the “mounted to” connections are bounded by these claim limitations (i.e., “rotatable around a first axis” and “rotatable around a second axis”) because intervening components would not read on the claim if the string guide were not “rotatable around” the first or second axis.

The rest of claim 1 also constrains the “mounted to” connection between each string guide and bow limb. *See, e.g.,* ’015 patent at 8:19–21 (“draw string translates from the down-range side toward the up-range side and unwinds between the first and second string[] guides”), 8:28–30

(“the first and second power cables wrap onto the first and second helical, power cable take-up journals”). The written description explains the operational effect of these limitations, including that the “power cable take-ups” are “arranged” so that as the bow is drawn, the bow limbs are “drawn toward one another” to store the energy needed to fire an arrow. *See id.* at 1:46–51, 5:49–51. The “mounted to” connection is therefore bounded by the claim’s structural limitations, such that the operation of the draw string upon each string guide applies force to the respective bow limb.

We strongly disfavor construing “terms in a way that renders them void, meaningless, or superfluous.” *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 810 (Fed. Cir. 2021) (quoting *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017)). Because claim 1 provides that the string guides are both “mounted to” and “rotatable,” Ravin’s proposed construction would render the claimed “rotatable around a first axis” and “rotatable around a second axis” limitations superfluous. ’015 patent at 8:1–2, 8:8–9. Similarly, the written description does not limit the “mounted to” connection to allow only rotational movement but repeatedly describes the string guides, “mounted to” the limbs, are “rotatable.” *See, e.g.*, ’015 patent at 2:2–3, 2:8–9, 5:64–65, 6:5–6, 6:34–36; *see also id.* at 5:23–26. The claim’s separate recitation that the string guides are “rotatable” strongly suggests “mounted to” itself is not restricted to “only rotation about a fixed axis.” *See Phillips*, 415 F.3d at 1314 (“[S]teel baffles’ . . . strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”).³

³ Ravin also argues the Board improperly relied on two references that it treated as part of the intrinsic record in rejecting Ravin’s proposed construction: (1) U.S. Patent No. 9,494,379, which issued from an application that is a

Ravin further argues the Board improperly disregarded the district court’s claim construction order from the related litigation. Appellant’s Br. 47–49. We do not agree. In the claim construction order, the district court concluded “mounted to” should be given its plain and ordinary meaning. *Claim Construction Order*, 2024 WL 895156, at *5. The Board considered the order and requested further briefing on the plain and ordinary meaning because the parties disputed it. J.A. 554; *Final Written Decision*, 2024 WL 3347293, at *8–10; 37 C.F.R. § 42.100(b) (“Any prior claim construction determination concerning a term of the claim . . . that is timely made of record in the [IPR] proceeding will be considered.”). After considering the district court’s assessment, the Board could adopt a construction it determined to be correct. *ParkerVision, Inc. v. Vidal*, 88 F.4th 969, 977–78 (Fed. Cir. 2023) (affirming Board’s claim construction despite different construction adopted by a district court in related litigation).

We see no error in the Board’s construction of “mounted to” to mean “connected to, either directly or indirectly,” and Ravin poses no separate challenge to the Board’s anticipation finding under this construction. We therefore affirm the unpatentability of claim 1 of the ’015 patent.

continuation-in-part of the application that issued as the ’015 patent, and (2) U.S. Patent Application Publication No. US 2011/0308508, a prior art reference cited on the face of the ’015 patent. Appellant’s Br. 43–47; *see Final Written Decision*, 2024 WL 3347293, at *6–8. Because the specification does not restrict “mounted to” to a particular type of movement and separately recites the string guide is “rotatable,” we reject Ravin’s proposed construction on those bases and do not address Ravin’s arguments regarding the two references.

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CONCLUSION

We have considered Ravin’s remaining arguments and find them unpersuasive. Because the Board did not err in construing “mounted to,” we *affirm* the Board’s decision holding claim 1 of the ’015 patent unpatentable as anticipated by Stanziale.

AFFIRMED

COSTS

No costs.