UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

HUNTER'S MANUFACTURING COMPANY, INC. d/b/a
TENPOINT CROSSBOW TECHNOLOGIES,

Petitioner,

v.

RAVIN CROSSBOWS, LLC,

Patent Owner.

IPR2023-00407
Patent 9,354,015

PATENT OWNER'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

TABLE OF EXHIBITS

Exhibit No.	Exhibit
2001	Declaration in Support of Motion for *Pro Hac Vice* Admission of Kadie M. Jelenchick
2002	Declaration in Support of Motion for *Pro Hac Vice* Admission of Michelle A. Moran
2003	Scheduling Order, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt. 36 (D. Nev.)
2004	Case Transfer Confirmation, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt. 77 (D. Nev.)
2005	Animation of Figure 12 of U.S. Patent No. 9,354,015
2006	Joint Claim Construction Chart, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt. 47-1 (D. Nev.)
2007	Complaint, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt. 1 (D. Nev.)
2008	Patent Owner's Supplemental Rule 26(a) Disclosures served March 10, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)
2009	Patent Owner's Amended and Supplemental Infringement Contentions served February 3, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)

Exhibit No.	Exhibit
2010	Excerpt from U.S. District Courts – National Judicial Caseload Profile, through December 2022, including time to trial statistics for Northern District of Ohio (also available at https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distprofile1231.2022.pdf)
2011	Time to Trial Statistics for the Northern District of Ohio, LexMachina.com
2012	Patent Owner's Preliminary Infringement Contentions served May 23, 2022, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)
2013	Petitioner's Initial Invalidity Contentions served July 7, 2022, *Ravin Crossbows, LLC v. Hunter's Mfg. Co.*, Inc., Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)
2014	Redacted Patent Owner's Opposition to Petitioner's Motion to Stay Case filed May 19, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 5:23-cv-00598, Dkt. 88 (N.D. Ohio)
2015	Patent Owner's Motion for Leave to File Sur-Reply, filed May 31, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 5:23-cv-00598, Dkt. 92 (N.D. Ohio)
2016	Patent Owner's Sur-Reply, filed May 31, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 5:23-cv-00598, Dkt. 92-1 (N.D. Ohio)
2017	Case Management Notice, filed April 11, 2023, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 5:23-cv-00598, Dkt. 83 (N.D. Ohio)
2018	Draft Joint Report of Parties' Planning Meeting for Case Management Conference, dated May 17, 2023

Exhibit No.	Exhibit
2019	Order Denying Defendant's Motion to Defer Deadline for Responsive Pleading, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt. 30 (D. Nev. May 31, 2022)
2020	Scheduling Order, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 2:21-cv-02213-GMN-EJY, Dkt.36 (D. Nev.)
2021	Exhibit from August 24, 2023 Deposition of Stephen A. Batzer: Batzer POSA Credentials
2022	Exhibit from August 24, 2023 Deposition of Stephen A. Batzer: Screen printout from www.batzerengineering.com/untitled1.html
2023	Exhibit from August 24, 2023 Deposition of Stephen A. Batzer: Screen printout from www.batzerengineering.com/index.html
2024	Exhibit from August 24, 2023 Deposition of Stephen A. Batzer: annotated pages from WO 2011/141771, Stanziale '771, showing Figures 11-14
2025	July 25, 2023 Email String Between Counsel
2026	August 23, 2023 Email String Between Counsel
2027	Excerpts from the Transcript of the August 24, 2023 Deposition of Stephen A. Batzer
2028	August 24, 2023 Email String Between Counsel
2029	Expert Declaration of Jonathan Teater
2030	Transcript of the October 11, 2023 Deposition of Stephen A. Batzer

Exhibit No.	Exhibit
2031	Copy of an article titled: "Untunable Bow? Nock Travel Could be Your Problem," downloaded from: https://www.bowhuntingmag.com/editorial/untunable-bow-nock-travel-could-be-your-problem/382681
2032	Reserved
2033	Errata for October 11, 2023 Deposition of Stephen A. Batzer
2034	Curriculum Vitae of Jonathan Teater
2035	Memorandum Opinion and Order, *Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.*, Case No. 5:23-cv-00598-SL, Dkt. 148 (N.D. Ohio March 1, 2024)

Patent Owner respectfully requests that the Board adopt its proposed construction as revised by Patent Owner:

> Each string guide is connected, directly or indirectly, to a respective bow limb, such that the application of force to the string guide, by the drawstring, causes the string guide to rotate, thereby causing the power cable to wrap onto the power cable journal and apply a force to the string guide, such that the string guide impacts the force to the bow limb.

Patent Owner's Initial Claim Construction Brief ("PO Initial Brief"), Paper 47, 2-3. Nothing Petitioner offered in its Initial Brief commands a different a result.

I. PETITIONER FAILS TO ADDRESS THE EXTENT OF THE INDIRECT CONNECTION BETWEEN "STRING GUIDE" AND "BOW LIMB" PERMITTED BY "MOUNTED TO"

During Oral Argument and again in its Initial Brief, Petitioner fails to address the basic question as to how much or to what degree of indirect connection is permitted between the string guide and the bow limb under the "mounted to" language of claim 1 of the '015 Patent. Similar to the Board's questioning of the metes and bounds of Petitioner's proposed construction during Oral Argument, Petitioner noted that "[the District] Court was concerned with, namely, [the] extent" of the indirect connection permitted for a string guide mounted to a bow limb. Paper 48, 9. This left the District Court to conclude that Petitioner's proposed construction for the plain and ordinary meaning of "mounted to" "would not be helpful to a jury

because of the lack of a limiting principle for an indirect connection." Paper 48, 7. Nevertheless, while Petitioner is aware of the problematic nature of its proposed construction, Petitioner omits addressing whether the Board's proposed construction offers a sufficient limiting principle for an indirect connection. And Petitioner stays silent as to how the Board's proffered construction impacts the indirect connection between "string guide" and "bow limb" via the various levers in the Stanziale References, which is the reason the construction of "mounted to" is in dispute in both this IPR and the related District Court case.

In sharp contrast, Patent Owner's proffered revision to the Board's proposed construction of "mounted to" provides a limiting principle as to how much and to what degree of indirect connection is permitted between the string guide and bow limb. Patent Owner's revised construction of "mounted to" makes clear that an indirect connection between the string guide and the bow limb is permitted **so long as** the force imparted by the string guide to the bow limb is the same force imparted by the power cables to the string guide.

II. PATENT OWNER'S REVISED CONSTRUCTION IS SUPPORTED BY PETITIONER'S INITIAL BRIEF

Petitioner does not overtly address whether the Board's proposed construction accounts for the operative features of the claim in full. However, Petitioner inherently recognizes that the power cables must be accounted for when construing

"mounted to" with reference to the operative features of the claim, as Patent Owner detailed in Patent Owner's Initial Brief.

First, Petitioner states that "[t]he specification thus confirms a POSA's understanding that the string guides are used, **in conjunction with the power cables to load the limbs** by the drawing of the drawing of the draw string, which supports the Board's proposed construction." Paper 48, 5 (emphasis added). Second, Petitioner summarizes the operative features of claim 1 of the '015 Patent as: "when the bow is being cocked/drawn, the draw string *winds off* the string guides, while the power cables *wind/wrap onto* the string guides," Paper 48, 4 (emphasis in original), citing extensively to the '015 Patent's specification that includes both the rotation of the string guides and that the string guide's rotation "winds up the power cables on the string guides, thus bending the limbs." Paper 48, 4-5.

In view of this, the parties are in apparent agreement that the construction of "mounted to" must account for the power cables. As such, Patent Owner's proffered revision to the Board's proposed construction – to encompass the operative features

of the claim to include that the power cable wraps on the power cable journal when the string guide rotates – reflects Petitioner's arguments as well as Patent Owner's.[1]

Petitioner's reliance on other references – U.S. Patent App. Pub. 2011/0030666 ("Darlington"), U.S. Patent 7,836,871 ("Kempf '871"), and U.S. Patent App. Pub. 2011/0308508 ("Islas") – that "amply supports the Board's proposed construction," (Paper 48, 6-7), also support Patent Owner's revision to the Board's proposed construction.[2] Each of these references highlight the importance of including the operation of the power cable and its corresponding application of force to the string guide. For example, Darlington describes that as the bowstring (32) imparts force to the cams (24, 26), this causes the cams (24, 26) to rotate, which

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[1] Petitioner also relies on patents related to the '015 Patent and U.S. Patent No. 7,708,001 ("Kempf '001") as disclosing indirect connections between the string guide and bow limb, (Paper 48, 5-6), which Patent Owner has already addressed in its Initial Brief. *See* Paper 47, 6-8.

[2] It is unclear why Petitioner included discussions about Darlington, Kempf '871, or Islas as supporting the Board's proposed construction because Patent Owner has not argued that any of these references fail to meet the "mounted to" limitation under either parties' proposed constructions.

then causes power cables (28, 30) to wrap on to take up grooves (24C, 26C), therefore applying force to the cams (24, 26) such that the cams (24, 26) then impart that force to the limbs (16, 18). EX1013, [0002-0003], claim 23.

Kempf '871 describes that as the bowstring (48) imparts force to the cam (36) and pulley (28), this causes the cam (36) and pulley (28) to rotate, which then causes power cable (44) to wrap on to take up groove of the pulley (32), therefore applying force to the cam (36) and pulley (28) such that the cam (36) and pulley (28) then impart that force to the limbs (24, 26). EX1014, Figure 10.

Islas describes that as the bowstring (22) imparts force to the cams (20), this causes the cams (20) to rotate, which then causes power cables (26) to wrap on to take up grooves (28*a*, 28*b*), therefore applying force to the cams (20) such that the cams (20) then impart that force to the limbs (16). EX1015, claim 1.

Accordingly, all three of Darlington, Kempf '871, and Islas support Patent Owner's proffered construction, under which the force imparted by the power cables to the string guide is the same force imparted by the string guide to the bow limb.

Dated: May 8, 2024

Respectfully submitted,

/Christopher M. King/
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Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

This Patent Owner's Responsive Claim Construction Brief complies with the Board's Order that it is no more than five (5) pages. Paper 45, 4.

Dated: May 8, 2024

/Christopher M. King/
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Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **Patent Owner's Responsive Claim Construction Brief** was served on May 8, 2024, by email to Petitioner's counsel of record:

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Dated: May 8, 2024

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