

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.

Case No. **IPR2023-00407**
Patent No. **9,354,015**

PETITIONER'S RESPONSIVE CLAIM CONSTRUCTION BRIEF

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A. Ravin Flips Course on Construction of “Mounted To.”

For most of last year, Patent Owner Ravin Crossbows, LLC (“Ravin”) insisted that “mounted to” includes only direct connection. (*See* Paper 9, 7 (“While the string guide rotates about the fixed axis, it is otherwise *directly* affixed to and remains in the same position relative to the limb.” (emphasis added); “Resp.,” Paper 25, 7 (same).) But faced with the incontrovertible intrinsic evidence and feedback at oral arguments, Ravin started backtracking and begrudgingly conceded that indirect connections are included, beginning at the claim construction hearing in the parallel case pending in the Northern District of Ohio and most recently with its Initial Claim Construction Brief. (*See* Ex. 1036, 82:4-7, 87:1-2; “Ravin Br.,” Paper 47, 1-2, 7-8.)

B. Ravin’s Arguments on the Stanziale References Are Improper.

The above argument having failed, Ravin now seeks any other argument it can find to avoid invalidity. That is why its Brief, though titled as one on “Claim Construction,” unabashedly argues how the three Stanziale prior art references allegedly do not meet its newly minted construction – even though the Board invited the parties to only “provide additional briefing on claim construction issues” (*Compare* Paper 45, 2-3 *with* Ravin Br. 3, 8-10.) “Claims are properly construed without the objective of capturing or excluding the accused device” or the asserted prior art. *See Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1324 (Fed. Cir. 2009) (citing *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir.

1985) (en banc)). Claims are not construed “to cover” or “not to cover” the accused device or asserted prior art; “it is only *after* the claims have been *construed without reference to the accused device* [or asserted prior art] that the claims, as so construed, are applied to the accused device to determine infringement” or to the asserted prior art to determine invalidity. *See SRI Int’l*, 775 F.2d at 1118 (emphasis in original). Thus Ravin’s discussion of the Stanziale references not only violates the Board’s order setting limits on this briefing but is also legally improper for claim construction and should be disregarded. Lastly on this point, Ravin’s section “C. The Stanziale References” appears under the heading “II. Patent Owner’s Proposed Construction Is Supported by Intrinsic Evidence.” (Ravin Br. 4, 8.) But the Stanziale references were not cited during the prosecution of U.S. Patent 9,354,015 (the “’015 Patent”). (See Ex. 1001, 1-2 (field code 56).)

C. Ravin Tries to Improperly Import Limitations from the Specification.

Turning to Ravin’s proposed construction, Ravin skips over the claim language and moves right into the specification. (See Ravin Br. 4.) This is consistent with Ravin previously (improperly) importing limitations from the drawings and arguing a certain construction because “all figures” allegedly show it. (See Resp. 6; Ravin Br. 1; “Reply,” Paper 31, 8.) Ravin argues that power cables must be included in the construction because the “Background of the Invention” section explains that cams on more advanced bows “*preferably* use power cables that load the limbs.”

(Ravin Br. 4; Ex. 1001, 1:15-16 (emphasis added).) But an optional preference is not a mandatory requirement. The very next sentence states that “[p]ower cables can also be used to synchronize rotation of the cams . . .” (Ex. 1001, 1:16-17), but Ravin does not argue that this optional synchronization aspect also must be included as a mandatory requirement in the construction. Ravin’s inconsistent treatment undercuts its argument. Even aside from the impropriety of importing limitations into the claims, the specification is fully consistent with the Board’s proposed construction, as explained in the Initial Claim Construction Brief filed by Petitioner Hunter’s Manufacturing Company, Inc. d/b/a TenPoint Crossbow Technologies (“TenPoint”). (“TenPoint Br.,” Paper 48, 4-5.)

Regarding Ravin’s addition to the Board’s proposed construction, TenPoint, in principle, does not disagree that (a) drawing the draw string on a typical compound bow causes the string guides to rotate, (b) the string guide rotation causes the power cables to wrap onto their respective journals, or (c) the wrapping of the power cables results in some force being applied to the string guides and other components (depending on what the power cables are attached to¹). (TenPoint Br. 4, 6.) But it

¹ The only relevant (to this discussion) limitation on the power cables in claim 1 is that they be “received” in the respective take-up journals. Claim 1 does not say where else they must be connected, though a connection is required for them to

would be improper to import all of these particular limitations from the specification into the short claim term “string guide mounted to the [respective] limb,” which does not recite those limitations, and when *other* (subsequent) claim language is directed to them. For example, claim 1 already recites (in subsequent language) that the string guides are rotatable and that the power cables wrap onto the respective journals. Importing these limitations into “string guide mounted to the [respective] limb” would render those other limitations superfluous.

D. Ravin’s “Same Force” Addition Is Unsupported and Incorrect.

In addition to Ravin’s extra limitations discussed in the preceding section, Ravin wants to further add that “the force the string guide imparts to the bow limb . . . is the same force the power cables impart to the string guide in response to [their] winding” (Ravin Br. 2.) This addition is unsupported – and incorrect.

It is of course true that the winding power cables impart some force to the string guides and the limbs, as discussed above. But the ‘015 Patent nowhere states that the *only* force applied to the limbs is the force that the power cables apply to the

function. The intrinsic evidence shows various connection examples, including to the opposite axle, to the center portion (or beam), to the riser, or to the opposite cam. (See Ex. 1001, 1:36-38, 6:46-50; Ex. 1008, Fig. 3; Ex. 1013, [0009], [0041]; Ex. 1015, [0006], [0013].)

string guides, and Ravin pointed to no testimony or other evidence to that effect.

As would be well known to a person of ordinary skill in the art, simple bows do not have string guides but only a bowstring attached to the limbs; when the bowstring is drawn, force is certainly applied to the limbs, which thus bend. (Ex. 1016 ¶36; Ex. 1010, Figs. 2, 6; Ex. 1018, 1:11-17.) More modern compound bows add cams to provide a “mechanical advantage,” meaning the cams are eccentric in shape, thus reducing the amount of force needed to finish drawing the bowstring to full draw. (Ex. 1001, 1:12-15; Ex. 1013, [0003]; Ex. 1015, [0002]; Ex. 1018, 1:18-38; Ex. 1010, 1:43-46; Ex. 1016 ¶¶ 37, 45.) Compound bows also often include power cables to help load the limbs. (Ex. 1001, 1:15-16; Ex. 1016 ¶¶ 38, 41, 44; Ex. 1018, 1:18-26; Ex. 1019, 1:11-17.) In other words, while power cables *help* apply force to the limbs (causing them to bend), by no means does the force applied to the limbs come *solely* from the power cables, as the bowstring likewise applies some force (as confirmed by traditional, non-cam bows, where force is applied to the limbs even in the absence of power cables). (*See also* Ex. 1030, 156:2-9.) Thus, the force imparted to the limbs is not the “same” force as imparted by the power cables. If Ravin wanted such a “same force” limitation, it should have expressly recited it in the claim.

For the reasons discussed above and in TenPoint’s Initial Claim Construction Brief, the Board should adopt its proposed construction and reject Ravin’s.

Date: May 8, 2024

Respectfully submitted,

/Sergey Vernyuk/

Sergey Vernyuk, USPTO Reg. No. 71,283

Emerson, Thomson & Bennett, LLC

1914 Akron-Peninsula Road

Akron, Ohio 44313

330-434-9999

sv@etblaw.com

Backup Counsel for Petitioner

CERTIFICATE OF SERVICE

I hereby certify that, on the date indicated below, I served the foregoing

Brief via e-mail on:

Christopher M. King (cking@foley.com)
Kadie M. Jelenchick (kjelenchick@foley.com)
Michelle A. Moran (mmoran@foley.com)

Date: May 8, 2024

/Sergey Vernyuk/
Sergey Vernyuk, USPTO Reg. No. 71,283
Emerson, Thomson & Bennett, LLC
1914 Akron-Peninsula Road
Akron, Ohio 44313
330-434-9999
sv@etblaw.com
Backup Counsel for Petitioner