

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 SUR-REPLY

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Exhibit No.	Exhibit
2001	Declaration in Support of Motion for <i>Pro Hac Vice</i> Admission of Kadie M. Jelenchick
2002	Declaration in Support of Motion for <i>Pro Hac Vice</i> Admission of Michelle A. Moran
2003	Scheduling Order, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 2:21-cv-02213-GMN-EJY, Dkt. 36 (D. Nev.)
2004	Case Transfer Confirmation, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 2:21-cv-02213-GMN-EJY, Dkt. 47-1 (D. Nev.)
2007	Complaint, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)
2009	Patent Owner's Amended and Supplemental Infringement Contentions served February 3, 2023, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 2:21-cv-02213-GMN-EJY (D. Nev.)
2013	Petitioner's Initial Invalidity Contentions served July 7, 2022, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 5:23-cv-00598, Dkt. 92 (N.D. Ohio)
2016	Patent Owner's Sur-Reply, filed May 31, 2023, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 5:23-cv-00598, Dkt. 92-1 (N.D. Ohio)
2017	Case Management Notice, filed April 11, 2023, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , Case No. 2:21-cv-02213-GMN-EJY, Dkt. 30 (D. Nev. May 31, 2022)
2020	Scheduling Order, <i>Ravin Crossbows, LLC v. Hunter's Mfg. Co., Inc.</i> , 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	<i>Reserved</i>
2033	Errata for October 11, 2023 Deposition of Stephen A. Batzer
2034	Curriculum Vitae of Jonathan Teater

I. Introduction

Petitioner's Reply should be disregarded because it presents new arguments that could have been included in the Petition and were not. The newly crafted Batzer Reply Declaration is similarly problematic as it attempts to circumvent the Reply word limit while containing opinions well outside the scope of any qualifications he may have as an expert. Claim 1 of the '015 Patent is not unpatentable; all Grounds in the Petition should be rejected for at least the following reasons:

- a. Darlington teaches away from Petitioner's proposed combinations in Grounds 7-8, and the Board cannot disregard such teachings;
- b. Petitioner's proposed construction of "mounted to" remains unsupported and fails to establish that any Stanziale reference discloses a string guide "mounted to" a bow limb (Grounds 1-6);
- c. Petitioner fails to establish that Stanziale '302 or Stanziale '062 disclose displacing the power cables "away from" the drawstring's planes of rotation (Grounds 1-4);
- d. Kempf '871 does not disclose a second power cable journal even under Petitioner's new, untimely theories (Grounds 9-11); and
- e. Islas would be rendered inoperable by Petitioner's proposed modifications even if implemented as argued in Reply (Ground 12).

II. Petitioner's Reply and Supporting Batzer Declaration Should Not Be Considered

A. Petitioner's New Arguments That Could Have Been Presented in its Petition Should Be Ignored

Many of the arguments presented in the Reply and Dr. Batzer's related opinions are an improper attempt to raise arguments that should have been included in the Petition. It is too late to raise these arguments; they should be disregarded.

"It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial petition identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim.'" *Intelligent Bio-Systems, Inc. v. Illumina Cambridge, Ltd.*, 821 F.3d 1359, 1369 (Fed. Cir. 2016) (quoting 35 U.S.C. §312(a)(3)). Thus, a petitioner "may not submit new evidence or argument in reply that it could have presented earlier, e.g. to make out a prima facie case of unpatentability." Consolidated Trial Practice Guide, November 2019, 73. "Once the Board identifies new issues presented for the first time in reply, neither this court nor the Board must parse the reply brief to determine which, if any, parts of that brief are responsive and which are improper." *Intelligent Bio-Systems*, 821 F.3d at 1369. Rather, the Board is perfectly within its discretion to disregard the Reply in its entirety. *Id.* at 1370-71.

As the Board already concluded when it denied Petitioner's Motion to Submit Supplemental Information, (Paper 32), certain arguments that Batzer (and by

extension Petitioner) repeat in Reply are improper attempts to belatedly backfill deficiencies in the Petition. *Rembrandt*, on which Petitioner relies, (Reply, 1, n.1), does not support revival or consideration of these new theories.

1. Kempf '871 (Grounds 9-11)

The Board has already concluded that the same arguments Petitioner makes with respect to Kempf '871 are “change[d]” from those made in the Petition. *See* Paper 32, 13-14 (discussing Batzer's Supplemental Declaration and concluding it differed substantively from his original Declaration); *see also, e.g.*, POR, 66 (explaining that Batzer Declaration repeats Petition arguments *verbatim*). Simply because Petitioner regurgitates the new arguments in its Reply and Reply Declaration does not mean they are no longer “change[d]” from the arguments made in the Petition. Rather, the Board should disregard these arguments in view of its past findings that they are beyond the scope of the Petition.

Likewise, as to Dr. Batzer's new opinions, the Board has already concluded that his (and by extension, Petitioner's) reliance on materials such as U.S. Patent No. 6,267,108 and Kempf '001 is different from his opening Declaration, and thus “appears to change, rather than clarify, the substance of his original Declaration.” Paper 32, 13-14. The Board correctly concluded that these materials “were manifestly known to Petitioner prior to filing the Petition,” rendering Dr. Batzer's reliance on them to change his opinions regarding Kempf '871 improper. *Id.*, 14.

The Batzer Reply Declaration does nothing different and continues to rely on these materials just as the rejected Supplemental Declaration did. Indeed, apart from some modest reorganization and refinement of superfluous paragraphs and language, the Reply Declaration's discussion of Kempf '871's supposed journal elements is virtually identical to the "Journals of the Cam of Kempf '871" section in the rejected Supplemental Declaration. *Compare* EX1037, ¶¶109-131 *with* EX1029, ¶¶18-39. These repeat arguments should again be rejected.

Petitioner cannot now argue that the claimed journal elements are disclosed by the cited Kempf '871 embodiment when such an argument was wholly lacking from the Petition. The Petition relied only on components of the pulley for the journal elements without ever even mentioning the purported features of the cam (either in words or through the use of figures). That is, as Patent Owner correctly noted, Petitioner never argued in the Petition that Kempf '871's cams disclosed either a power cable journal or a drawstring journal and thus never identified a second power cable journal or second drawstring journal. POR, 62-65. Batzer cannot get his new, modified versions of certain Kempf '871 figures – figures that Patent Owner asserts are incorrectly annotated – through the backdoor of any reply. There is no reason whatsoever that the Petition could not have included these very figures if Petitioner had actually intended to make such an argument. It did not, and as such, Petitioner's new arguments must be disregarded. *Henny Penny Corp. v. Frymaster*

LLC, 938 F.3d 1324, 1331 (Fed. Cir. 2019); *see also Colas Sols., Inc. v. Blacklidge Emulsions, Inc.*, 759 F. App'x 986, 989-90 (Fed. Cir. 2019) (finding the Board properly refused to consider new obviousness theory advanced in reply that relied on the purported overlap between the disclosure in the cited reference and other prior art). This is especially true as Patent Owner, unlike Rembrandt, has not forfeited any objection to the inclusion of the new material. *See Rembrandt Diagnostics, LP v. Alere, Inc.*, 76 F.4th 1376, 1382 (Fed. Cir. 2023).

2. Stanziale Obviousness Arguments (Grounds 2, 4, and 6)

As with *Kempf '871*, Dr. Batzer's proffered testimony regarding the purported motivation to modify the various Stanziale references so the power cables would be displaced away from the drawstring's planes of rotation is virtually identical to the arguments presented in the rejected Supplemental Declaration. *Compare* EX1037, ¶¶43-59 *with* EX1029, ¶¶83-90, ¶¶51-55, ¶¶71-75. As the Board found in denying Petitioner's Motion to Supplement, there is "no reason why the substance of Dr. Batzer's [opinions], relating to the above-identified features of the Stanziale references, could not have been provided with the Petition." Paper 32, 15-16. Thus, just as with Petitioner's arguments regarding *Kempf '871*, Petitioner's new arguments for Grounds 2, 4, and 6 regarding the Stanziale references must be disregarded. *Henny Penny*, 938 F.3d at 1331; *Colas Sols.*, 759 F. App'x at 989-90.

B. Petitioner's Challenge to Mr. Teater's Qualifications Is Improper

The Reply and portions of the Batzer Reply Declaration purporting to opine on Mr. Teater's qualifications are improper and should not be considered. Batzer Paragraphs 7-14, which parrot Section I of the Reply, have no factual basis and are attorney argument thinly disguised as expert testimony. *See Unified Patents Inc. v. Uniloc 2017 LLC*, IPR2019-00480, Paper 10, 3 (PTAB Aug. 16, 2019) ("Just because an expert regurgitates attorney argument does not make the argument either persuasive or worthy of blind acceptance...."); *see also Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9, 15 (PTAB Aug. 24, 2022) (citing 37 C.F.R. § 42.65(a)) (precedential) (determining that an expert's verbatim, conclusory assertion adds little to the conclusory assertion for which it is offered to support and is entitled to little weight). Further, such speculative criticism on how Mr. Teater spent his time and what he did to prepare his opinions says nothing about the substance of his opinions, which neither Petitioner nor Dr. Batzer credibly challenge, and is undermined by Dr. Batzer's apparent lack of investment in his own Declaration, which merely parrots the Petition.

Additionally, Dr. Batzer's arguments (and related Reply arguments) regarding Mr. Teater's qualifications should be disregarded because they are divorced from the Petition's definition of a POSA by requiring practical experience in crossbow design. In the Petition, Petitioner (relying on the Batzer Declaration) defined the

qualifications of a POSA as follows: “A hypothetical POSA to which the ‘015 Patent pertains would be a technical person who has at least some experience working in the field of archery, reviewing crossbows or engineering related to bows and/or crossbows, and is generally familiar with prior art crossbows.” Petition, 28 (emphasis added). Notably, nothing in this definition suggests that personal experience designing crossbows is required. Petitioner plainly concocted these new criteria for purposes of its Reply in an effort to discredit Mr. Teater’s well-reasoned and detailed testimony demonstrating the gross deficiencies in the Petition’s arguments. As illustrated in Paragraphs 2-7 of his Declaration (EX2029), Mr. Teater is at least a POSA under Petitioner’s definition,¹ which is all that is needed for Mr. Teater to qualify as an expert and for the Board to consider his opinions. *Kyocera Senco Indus. Tools Inc. v. ITC*, 22 F.4th 1369, 1376-77 (Fed. Cir. 2022).

Moreover, Batzer himself fails to meet these new supposed qualifications for an expert despite the fact that Dr. Batzer’s Reply Declaration purports to adopt the newly articulated requirement that an expert must have personally designed a crossbow (*see* EX1037, ¶10). Dr. Batzer concedes his alleged expertise is not based on personal experience designing a crossbow, but rather, like Mr. Teater, his

¹ Solely for purposes of this proceeding, Patent Owner does not dispute the Petition’s POSA definition. POR, 3.

experience is with **testing** crossbows, namely for purported design flaws. *See* EX1030, 93:14-95:16 (describing basic familiarity with firearms generally as basis for his “expert” credentials and opining that he thinks he “could” design a crossbow), 97:15-100:10 (testifying that his experience with crossbows relates solely to products liability matters and crossbow failure case studies, with no personal or professional experience designing or optimizing crossbows). If the Board accepts Petitioner’s new level of skill arguments and concludes on this basis that Mr. Teater is not a qualified expert, then Dr. Batzer’s opinions should also be disregarded as he too would not meet these new requirements.

III. Claim Construction

With respect to “mounted to” – the sole term in dispute for purposes of claim construction – none of Petitioner’s arguments in Reply support its purported construction or acknowledge the unbounded nature of its definition, which would render the term meaningless. These deficiencies are particularly glaring given the Institution Decision’s express statement that “the parties ha[d] not fully developed this claim construction issue” in the Petition and preliminary briefing and “encourage[d] the parties to do so in subsequent briefing.” D.I., 13-14. Despite this express invitation to explain its own proposed construction, Petitioner opted not to elaborate further, leaving its proposed construction woefully underdeveloped and unsupported.

The deficiencies in Petitioner's proposed construction are readily apparent, which resulted in the district court in parallel litigation rejecting Petitioner's construction. Chief Judge Lioi of the U.S. District Court for the Northern District of Ohio determined that Petitioner's proposed construction, including specifically its allowance for any indirect connection without limitation, cannot be correct:

Defining "mounted to" to include any direct or indirect connection makes it difficult to discern the relationship between the various parts of the crossbow. Ravin offers a simple example that highlights the problem. Under Tenpoint's proposed construction, the trigger of the crossbow could be said to be indirectly connected to the limbs of the bow because the trigger is connected to the center rail, which is itself connected to the mounts, which are connected to the limbs. A construction that includes any indirect connection, without some other limiting principle, makes it impossible to determine how various parts of the bow fit together and does not aid the jury in determining whether the patents-in-suit were infringed.

Ravin Crossbows, LLC v. Hunter's Mfg. Co., Case No. 5:23-cv-598, Dkt. 148, 8 (N.D. Ohio Mar. 1, 2024) (construing "mounted to" to have its plain and ordinary

meaning).² Notably, Petitioner's purported expert, Dr. Batzer, took the district court's "example that highlights the problem" with Petitioner's proposed construction to the extreme, testifying emphatically that even a sticker attached to a crossbow's stock would be "mounted to...all other components" of the crossbow under the Petitioner's construction. EX1030, 146:14-147:7. As the district court correctly found, such a broad interpretation of "mounted to" is "impossible" to apply in any meaningful way and must be rejected.

Additionally, Petitioner's arguments, and particularly its arguments regarding the Stanziale references in Grounds 1-6, are premised entirely on its incorrect construction of "mounted to." Indeed, as detailed in the Patent Owner Response, the Stanziale references each contain numerous intervening components between the limbs and the structures Petitioner identifies as the string guides. POR, 11-18, 28-33, 38-43. Yet even with the benefit of the Board's express invitation to further develop the "mounted to" claim construction issue, Petitioner offers no explanation whatsoever as to how these references could meet the "mounted to" limitation under any construction apart from its own meaningless and unsupported construction. Without any plausible explanation as to how the alleged prior art supposedly meets

² At the Board's invitation, Patent Owner will submit the March 1, 2024 Memorandum Opinion and Order directed to claim construction.

the “mounted to” limitation under any other construction, Petitioner’s arguments relying on its improper construction of “mounted to,” and particularly those related to Grounds 1-6, must be rejected.

IV. The Challenged Claim Is Not Unpatentable

A. Petitioner Misstates the Law of Obviousness

In an attempt to bolster its inadequate obviousness arguments, Petitioner cites *Gen. Elec. Co. v. Raytheon Techs. Corp.*, 983 F.3d 1334, 1351-52 (Fed. Cir. 2020) for the proposition that “[a]ny given course of action often has simultaneous advantages and disadvantages, but this does not necessarily obviate motivation to combine” because “[a] POSA would be able to make any adjustments required to make the combination operable.” Reply, 11. *General Electric*, however, does not say anything about operability whatsoever, let alone hold that the Board may ignore the fact that a proposed combination would be rendered wholly inoperable. Rather, it stands for the uncontroversial proposition that “[i]t does not matter that [the petitioner] did not explain why an artisan would be motivated to use each element disclosed in [the prior art]. That [prior art] treats the claim parameters as desirable is enough motivation for an artisan to combine them with [the specific missing limitation], *as long as the artisan can make the combination with a reasonable expectation of success.*” *Gen. Elec.*, 938 F.3d at 1352 (emphasis added). Of course a device that is rendered inoperable or experiences significant performance problems

as a result of the proposed modifications is not reasonably successful, and by extension, a POSA would not be motivated to make such a combination or modification. *See Plas-Pak Indus. v. Sulzer Mixpac AG*, 600 F. App'x 755, 760 (Fed. Cir. 2015) (affirming that, where proposed modifications would render reference “inoperable for its intended purpose,” a POSA would “not have been motivated to pursue the combination”).

Federal Circuit precedent makes clear that a tribunal cannot ignore an express teaching regarding the goals of a prior art reference when determining whether a POSA would understand that reference to teach away from or otherwise acknowledge disadvantages in making the proposed combination or claimed invention. *See, e.g., Arctic Cat Inc. v. Bombardier Rec. Prods.*, 876 F.3d 1350, 1360 (Fed. Cir. 2017) (“[T]he prior art could contain one reference suggesting a combination and others critiquing or otherwise discouraging the same. Even a single reference can include both types of statements, and...it is error to fail to consider the entirety of the art.”); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983) (holding that district court erred by “considering the references in less than their entireties, i.e., in disregarding disclosures in the references that diverge from and teach away from the invention at hand”). Petitioner's assertion that the Board may simply disregard express disadvantages in the prior art simply

because Petitioner claims a POSA would be able to make some unidentified “adjustments” to account for them is baseless and contrary to law.

To the extent Petitioner's arguments rely on such incorrect legal principles, they should be disregarded.

B. Petitioner's Arguments Fail to Support the Grounds and Instead Rely on Hyperbolic, *Ad Hominem* Attacks

In Reply, Petitioner advances arguments that do not support the Petitioner's grounds for challenge, instead relying on bad faith, hyperbolic, *ad hominem* attacks on Patent Owner's counsel and expert. Such arguments cannot meet Petitioner's burden to show unpatentability.

Petitioner makes a number of arguments regarding terminology that are intentionally obtuse. For example, although Petitioner criticizes Patent Owner's use of the phrase “degrees of freedom,” going so far as to argue that Patent Owner and Mr. Teater “fundamentally err in their understanding” of the term, (Reply, 12), this argument does nothing more than set up and attack a strawman. The term “degrees of freedom” in the POR clearly refers to the degrees of freedom between certain elements and the flexible limb, not degrees of freedom relative to some arbitrary point in space as Petitioner seems to contend. *See, e.g.*, POR, 13-16, 31-33, 41-43 (each describing the “degrees of freedom between” the element(s) Petitioner identifies as the string guide and limb). Petitioner's efforts to confuse the issues by

distorting Patent Owner's arguments and questioning its expert's intelligence reek of bad faith and should be ignored.

Likewise, Petitioner distorts Patent Owner's arguments regarding what constitutes a reverse-draw configuration. Patent Owner never argued, as Petitioner contends, that a "reverse draw configuration" **requires the *limbs* to be facing forward.**" Reply, 9 (bold emphasis added). Rather, Petitioner simply provided an example of a reverse-draw configuration version of Islas based on its understanding of the Petition's vague and cursory description of the modifications proposed in Ground 12 and stated – correctly – that implementing such a configuration would render Islas inoperable. Reply, 71-72; *see also* EX2029, ¶169 (explaining that the provided figures illustrate "the reversed positions of the power string and drawstring attachment points" when Petitioner's proposed modifications are made in a "simplified figure").

Nothing about Patent Owner's discussion of the modified Islas' figures suggests that reversing the limb orientation is the only way to implement a reverse-draw configuration. And importantly, Petitioner does not deny that Patent Owner's figures do, in fact, depict a reverse-draw configuration. Patent Owner's modified figures were plainly intended to demonstrate the relative positions of the attachment points after implementing Petitioner's proposed modifications and how those attachment points necessarily result in conflict between the drawstring and power

cables. Notably, Petitioner's argument that implementing a reverse-draw configuration simply by "flipping the cams" alone would not result in such conflict is plainly incorrect. As discussed in further detail below, the same conflict would exist in this alternative modified version.

C. The Board Should Reject Petitioner's Untimely Attempted Rehabilitation of its Darlington Arguments (Grounds 7-8)

Petitioner's untimely efforts to rehabilitate its arguments regarding Darlington should also be rejected. Nowhere in its Reply does Petitioner dispute that Darlington teaches away from devices wherein the power cables are displaced relative to the drawstring's plane of rotation. *See* Reply, 20-21. Rather, Petitioner appears to request that the Board disregard Darlington's teaching away from the proposed combination, as well as the related objection of increased accuracy, because Darlington also contains teachings regarding other desirable features. This is improper and should be rejected.

The Board cannot ignore an express teaching regarding the goals of a prior art reference when determining whether that reference teaches away from the proposed combination or claimed invention. *See, e.g., Arctic Cat*, 876 F.3d at 1360 ("[I]t is error to fail to consider the entirety of the art."); *W.L. Gore*, 721 F.2d at 1550 (holding that district court erred by "considering the references in less than their entireties, i.e., in disregarding disclosures in the references that diverge from and

teach away from the invention at hand”). Petitioner argues (without any further explanation, examples, or credible identification that Dr. Batzer has the experience to opine on this issue) that “[t]he crossbow market features myriad different bows (with multiple models often offered by the same manufacturer), each with different characteristics and tradeoffs, targeting consumers that have their individual preferences and priorities,” and argues this would have motivated a POSA to modify Darlington anyway. Reply, 21. Petitioner misses the point. The question before the Board is not whether a POSA at the time of invention would have been willing to sacrifice accuracy to improve other features in the abstract. Rather, as the Board has found in similar circumstances, the question is whether a POSA at the time of invention would have been motivated to modify *Darlington specifically* in the way Petitioner describes. *See Surgalign Spine Techs., Inc. v. Lifenet Health*, IPR2019-00570, Paper 71, 61 (PTAB Aug. 26, 2020) (rejecting obviousness argument where reference taught away from proposed combination, further noting that “we need not decide whether ordinarily skilled artisans in 1999 preferred autografts or allografts in the abstract. The pertinent question is narrower and more focused: whether an ordinarily skilled artisan in 1999 would have been motivated to modify Wolter’s autograft to an allograft.”).

To the extent Petitioner implies that Darlington does not teach away from a configuration in which the power cables are displaced further away from the

drawstring plane of rotation when the device is drawn because it discloses certain shoot-over configuration devices, (Reply, 20), this is simply incorrect and misrepresents Darlington's teachings. Indeed, Mr. Teater addressed this issue in his Declaration, explaining that, even with a shoot-over configuration in which the power cables are positioned and deflected below the drawstring journals, "the power cable attachment points...are kept as close as possible to the drawstring journals so as to minimize any twisting on the limbs" and so that "the orientation of the power cables and the drawstring relative to one another is consistent throughout the draw cycle." EX2029, ¶202; *see also* POR, 58 (citing foregoing opinion for principle that "Darlington explains at length the advantages in accuracy provided in its crossbow in *either shoot-over or shoot-through configurations...*") (emphasis added). Thus, even Darlington's shoot-over configurations teach that displacing the power cables away from the plane of rotation is to be minimized, if not avoided, whenever possible as any such displacement reduces accuracy. *See also* POR, 47-52 (discussing Darlington's shoot-over configurations).

Because Grounds 7-8 are premised on modifying Darlington in a way that is fundamentally incompatible with Darlington's teachings, these Grounds should be rejected.

D. Grounds 1-6 and 9-12 Should Be Rejected

The Board should finalize its preliminary rejection of Grounds 1-6 and 9-12 as articulated in the Institution Decision. *See* D.I., 40 (finding likelihood of success only as to Grounds 7-8).

1. Grounds 1-6 (Stanziale References)

The Board should reject Petitioner's arguments in Grounds 1-6 that the Challenged Claim is anticipated by or obvious over any of the three Stanziale references.

a. The proper "mounted to" construction undermines Grounds 1-6

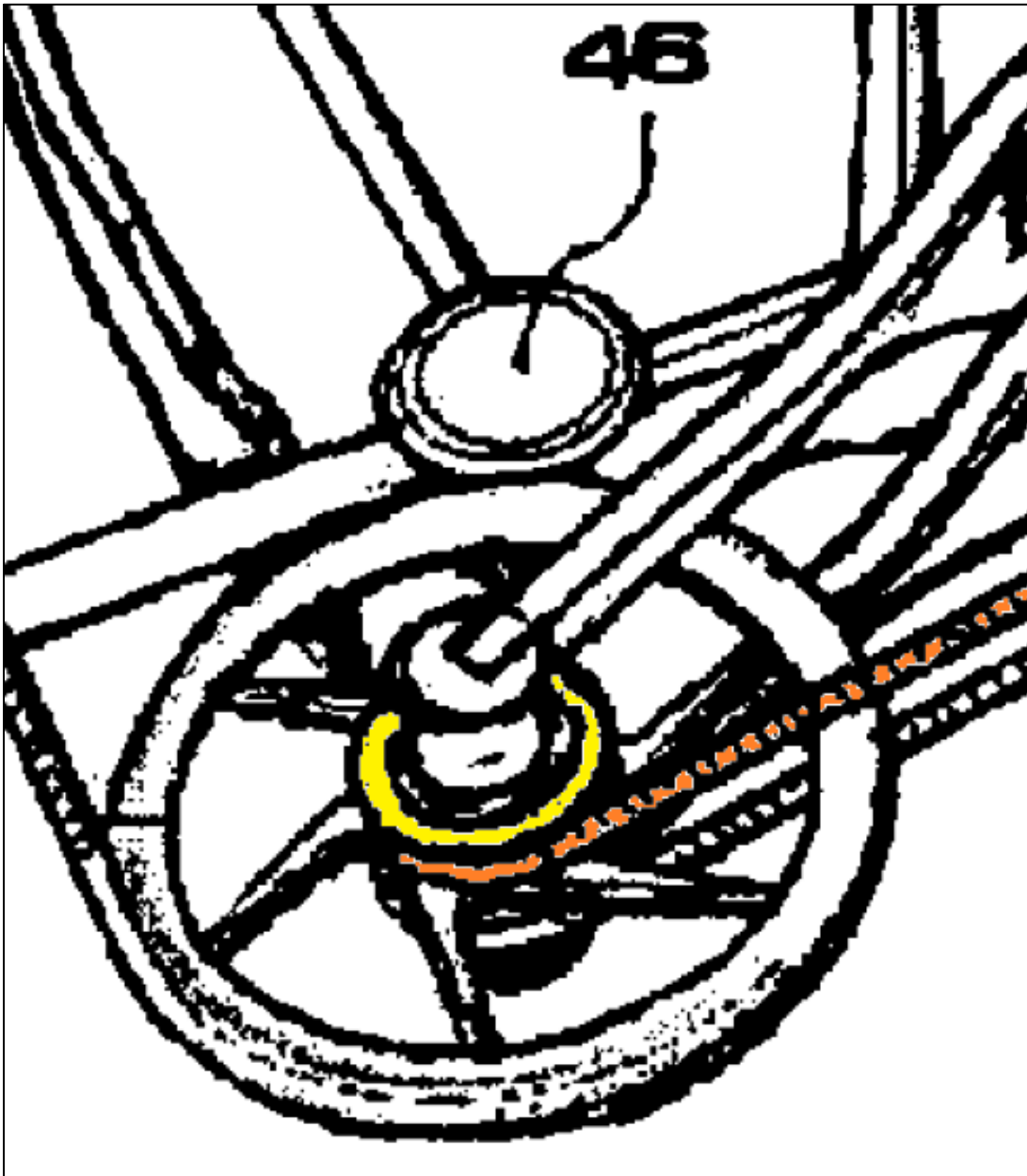
Petitioner's arguments that Stanziale '302, Stanziale '062, and Stanziale '771 each allegedly disclose a string guide "mounted to" a bow limb remain inextricably tied to its incorrect claim construction of "mounted to." Indeed, Petitioner does not even attempt to argue that any Stanziale reference is capable of meeting this limitation under another construction. Because Petitioner's claim construction is wrong, Grounds 1-6 must be rejected on this basis alone.

b. Other Stanziale arguments fail

(i) Grounds 1-2 (Stanziale '302)

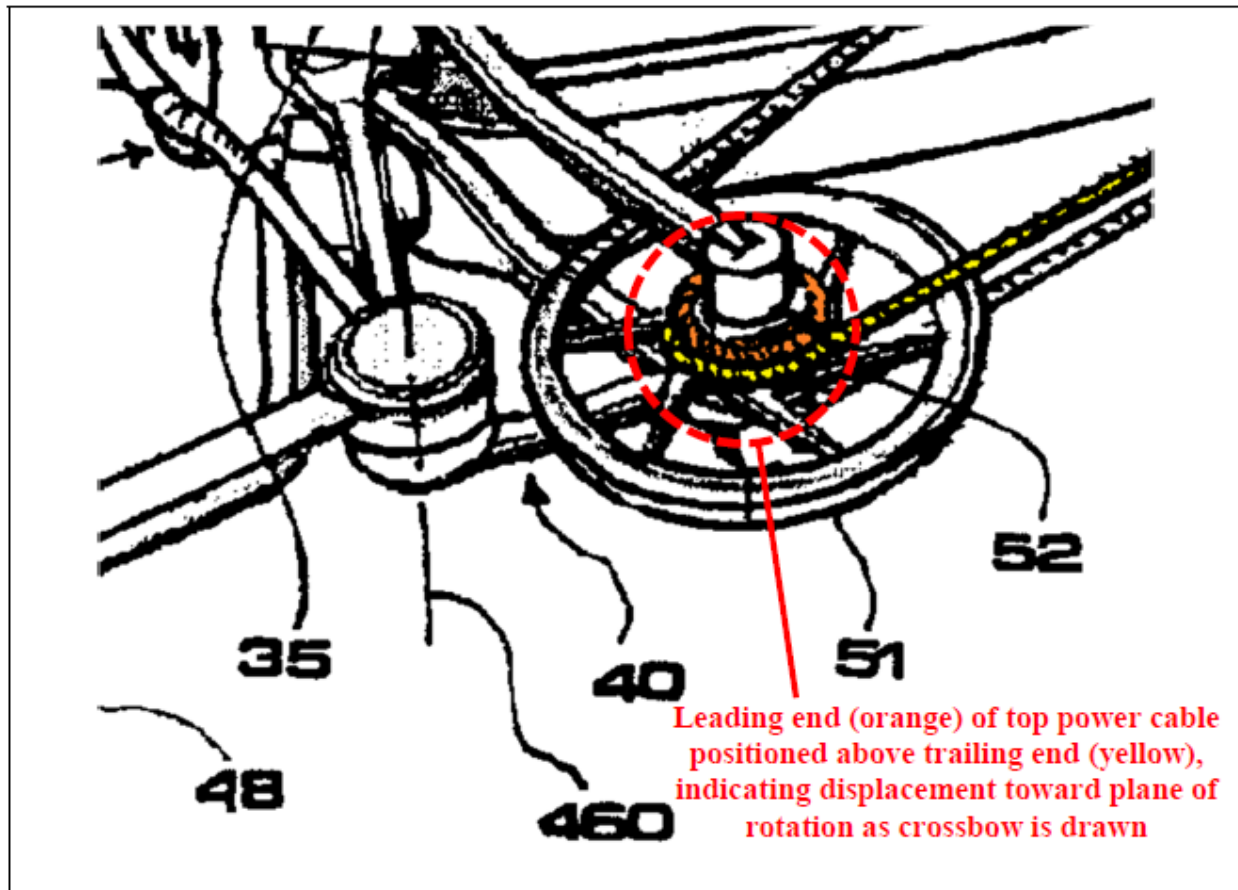
Petitioner's argument in Ground 1 that Stanziale '302's Figure 3 shows displacement away from the plane of rotation is without credible support. Indeed, it is based solely on a mischaracterization of Figure 5. Petitioner's argument

necessarily relies on the idea that the portion of the figure Petitioner colors yellow represents an empty section of the journal ready to receive the power cable when the device is drawn. Petitioner, however, identifies no other evidence to support this position and ignores the fact that it is directly contradicted by Figure 5 itself, which shows that the yellow portion is **wider** than the power cable itself, as seen in Petitioner's own annotated figure:



Reply, 13. This indicates that the power cable would be actively **prevented** from wrapping onto the depicted structure and away from the plane of rotation. Instead, the only direction the power cable could be displaced is towards the plane of rotation, as Patent Owner explained with reference to Figure 3.

Moreover, Petitioner's characterization of Figure 5 contradicts what is depicted in Figure 3. Notably, Petitioner does not contest that Patent Owner's interpretation of Figure 3 is correct or offer any alternative explanation for what is depicted therein, relying instead on its strained and unsupportable interpretation of Figure 5. As discussed in the Petition and shown below, Figure 3 clearly demonstrates that the power cables are displaced toward the first and second planes of rotation, not away as required by Claim 1:



POR, 19-20. Accordingly, Stanziale '302 does not disclose this limitation, and Grounds 1-2 should be rejected.

Additionally, with respect to Petitioner's Ground 2 argument that it would be obvious to modify Stanziale '302 to allow for displacement away from the planes of rotation, this argument should be rejected for the reasons set forth in the POR. Petitioner never identified a specific motivation to combine or otherwise clearly articulated why the claimed invention would purportedly be obvious in Ground 2 of its Petition. Petitioner merely argues in cursory fashion that it would have been "obvious to try" displacement in either direction. Petition, 36. While Petitioner now points to a passing statement in **Ground 1** that "the helical configuration of the power cable journals 521 would need to be such that the power cables 32 extend away from (rather than towards) the draw string journal 511 to avoid interference with the draw string 31," (Reply, 15 (citing Petition, 36)), this argument was never made in support of motivation to combine. Indeed, Petitioner presented this argument for the proposition that a POSA would understand Stanziale '302 to **expressly** disclose displacement away from the planes of rotation – an assertion that is directly contradicted by Stanziale '302 Figure 3.

Thus, Petitioner's efforts to reframe this argument as relating to motivation to combine is simply another example of how Petitioner's Reply goes beyond the scope of the Petition and presents arguments in an untimely and improper manner. As with Petitioner's other late and shifting theories, the Board should reject this attempt to backfill the Petition's deficient Ground 2.

(ii) Grounds 3-4 (Stanziale '062)

With respect to Stanziale '062's failure to disclose displacement of the power cable away from the drawstring's planes of rotation, Petitioner's Reply simply reiterates in two short sentences that "a POSA would immediately envisage" such displacement based on the disclosure of a helical groove 1461. It offers no caselaw or evidence in support of this argument, nor does it attempt to rebut controlling caselaw cited by Patent Owner, which expressly states that the law "does *not* permit the Board to fill in missing limitations simply because a skilled artisan would immediately envision them." *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 851 F.3d 1270, 1275 (Fed. Cir. 2017) (emphasis added). Because Petitioner's arguments are contrary to law, they should be rejected.

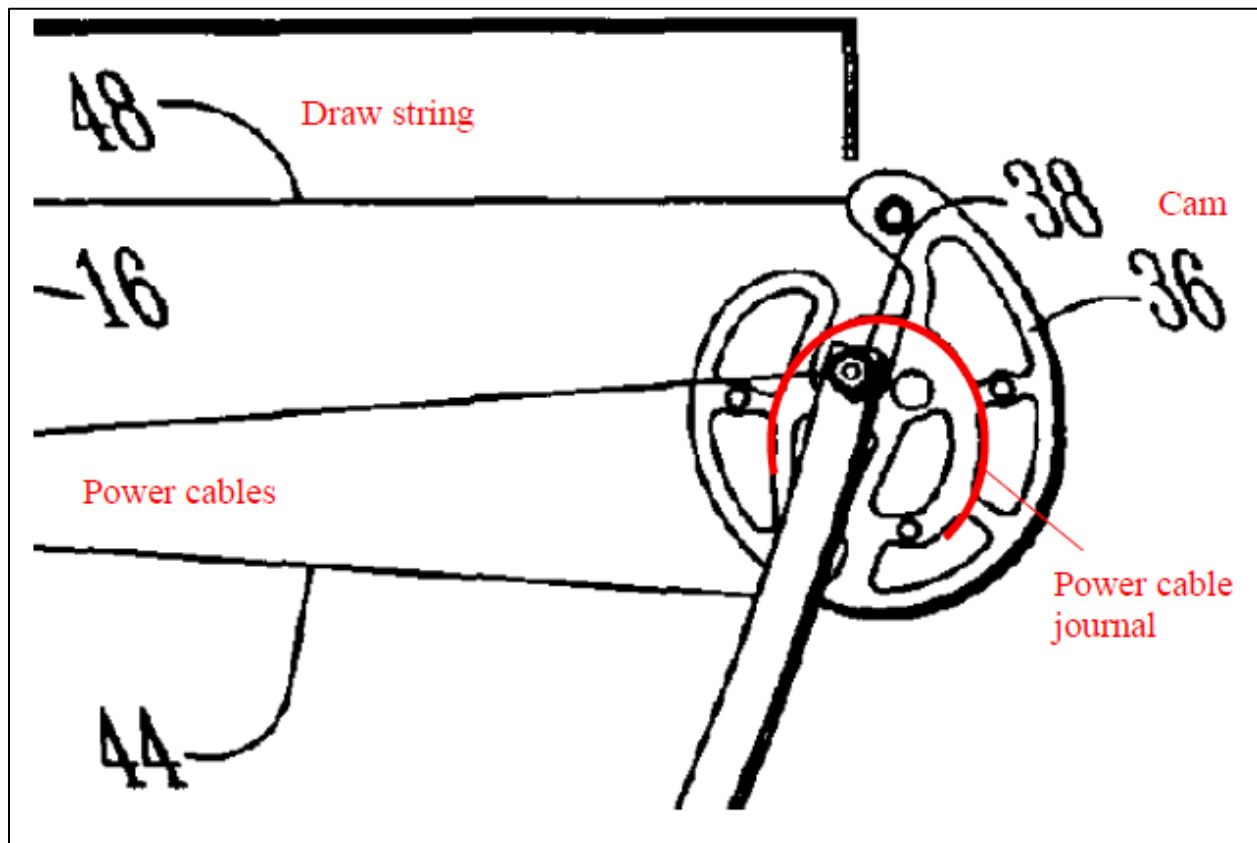
2. Grounds 2, 4, 6, and 9-11

As noted above, the Board has already found Petitioner's new arguments with respect to Grounds 2, 4, 6, and 9-11 to be improper as they both change the arguments presented in the Petition and rely on materials that could have readily been included in the Petition but were not. *See generally* Paper 32 (denying motion to submit supplemental evidence). Nothing has changed by retreading them in Reply. These Grounds should be rejected for the reasons previously discussed.

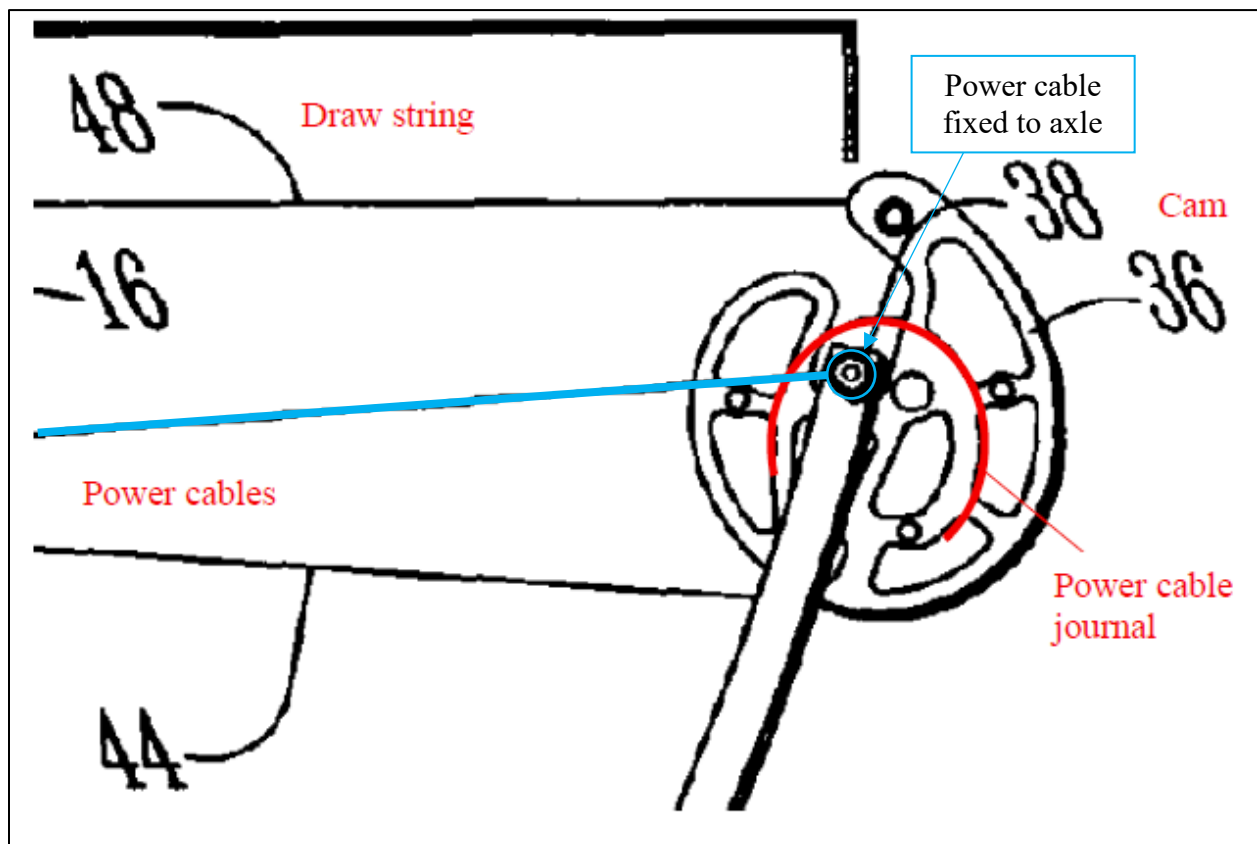
3. Grounds 9-11 (Kempf '871)

Petitioner's Ground 9-11 should be rejected. Even considering Petitioner's new arguments regarding Kempf '871, Kempf '871 still does not disclose at least a second power cable journal.

Although Petitioner now identifies (via the Batzer Reply Declaration) the following structure as the power cable journal in Kempf '871's cam, even a cursory review of the figure cited highlights that this supposed feature does not even contact the power cables, let alone serve as a power cable take-up journal:



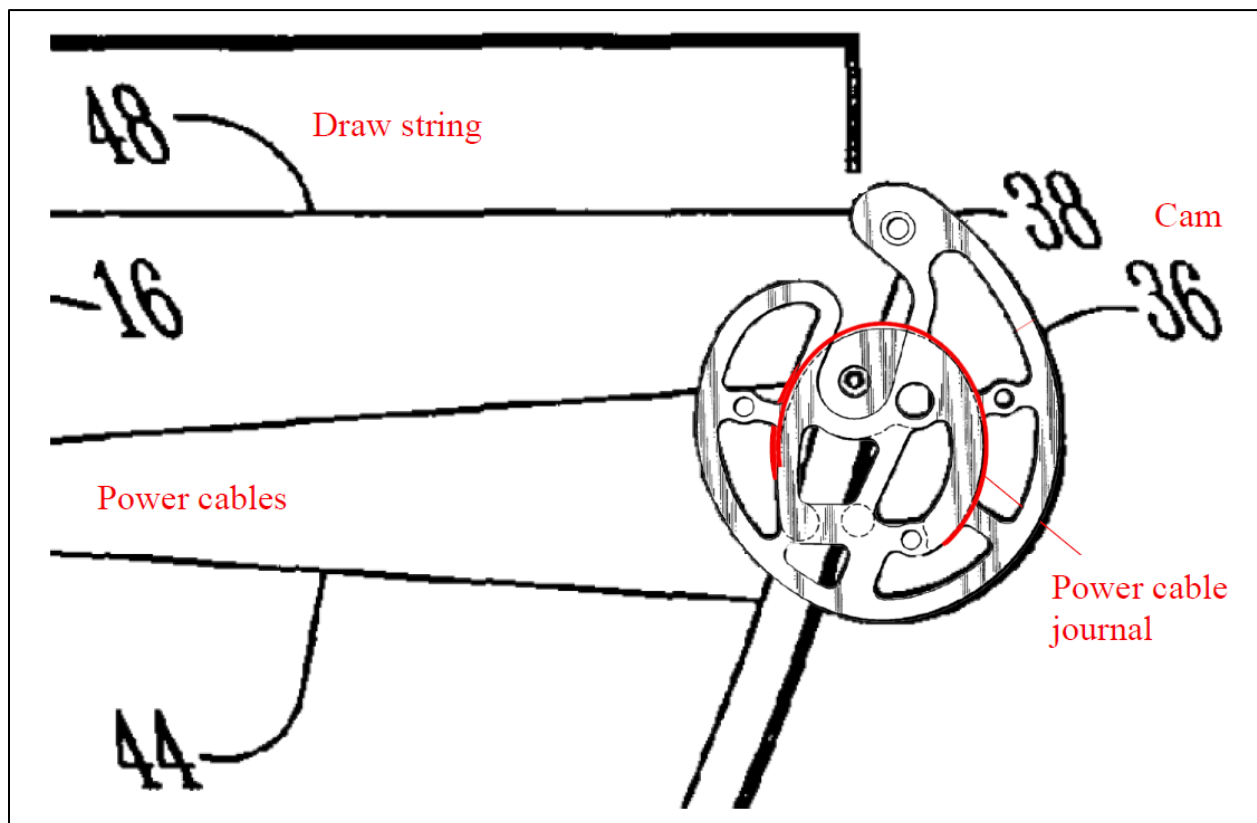
EX1037, ¶116. Rather, as shown in the annotated figure below, the top power cable 44 is instead attached to a fixed anchor point on the cam, which is shown without any journal or other groove that would take up the power cables. It does not sit within a groove formed by the supposed power cable take-up journal Petitioner identifies, as can be seen below:



Id. (blue annotations added).

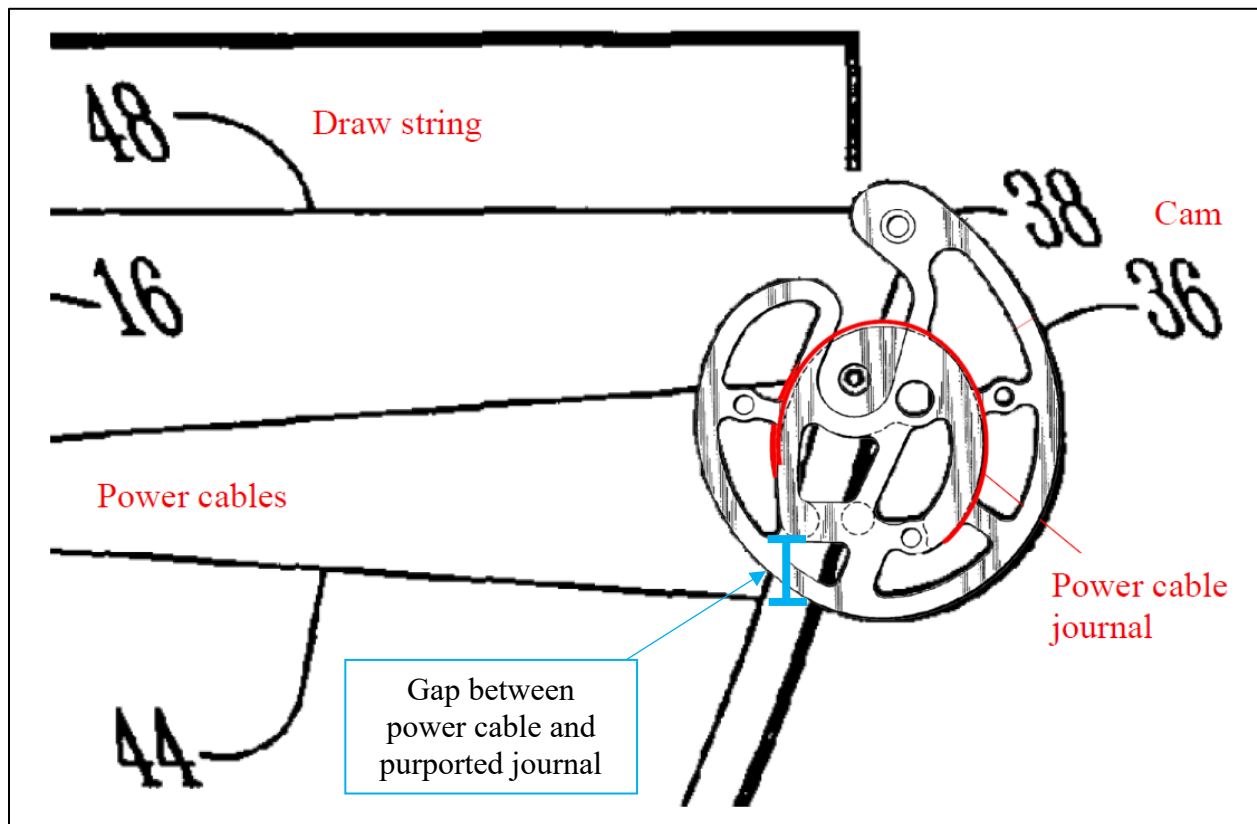
Likewise, while the anchor point for the lower power cable is not shown in Figure 1 or any other Kempf '871 figure, it is also apparent that the lower power cable does not interact with the supposed power cable take-up journal Petitioner

identifies. This can be seen by comparing the supposed journal in Figure 3 (which sits entirely within the footprint of the cam body) and the location where the lower power cable would with the cam as depicted in Figure 1. For example, the following figure superimposes the cam as depicted in Figure 3 over the cam positioned on the limb in Figure 1 while retaining Petitioner's annotations:



EX1037, ¶116 (annotations added); *see also* EX1014, 3:15-16 (“Fig. 3 illustrates a bottom plan view of the cam associated with the crossbow of Fig. 1....”).

As further shown below, there is a significant gap between the lower power cable and the structure that Petitioner identifies as the power cable take-up journal:



EX1037, ¶116 (annotations added). While it remains unclear what the lower power cable does attach to,³ it is plainly not the structure Petitioner identifies.

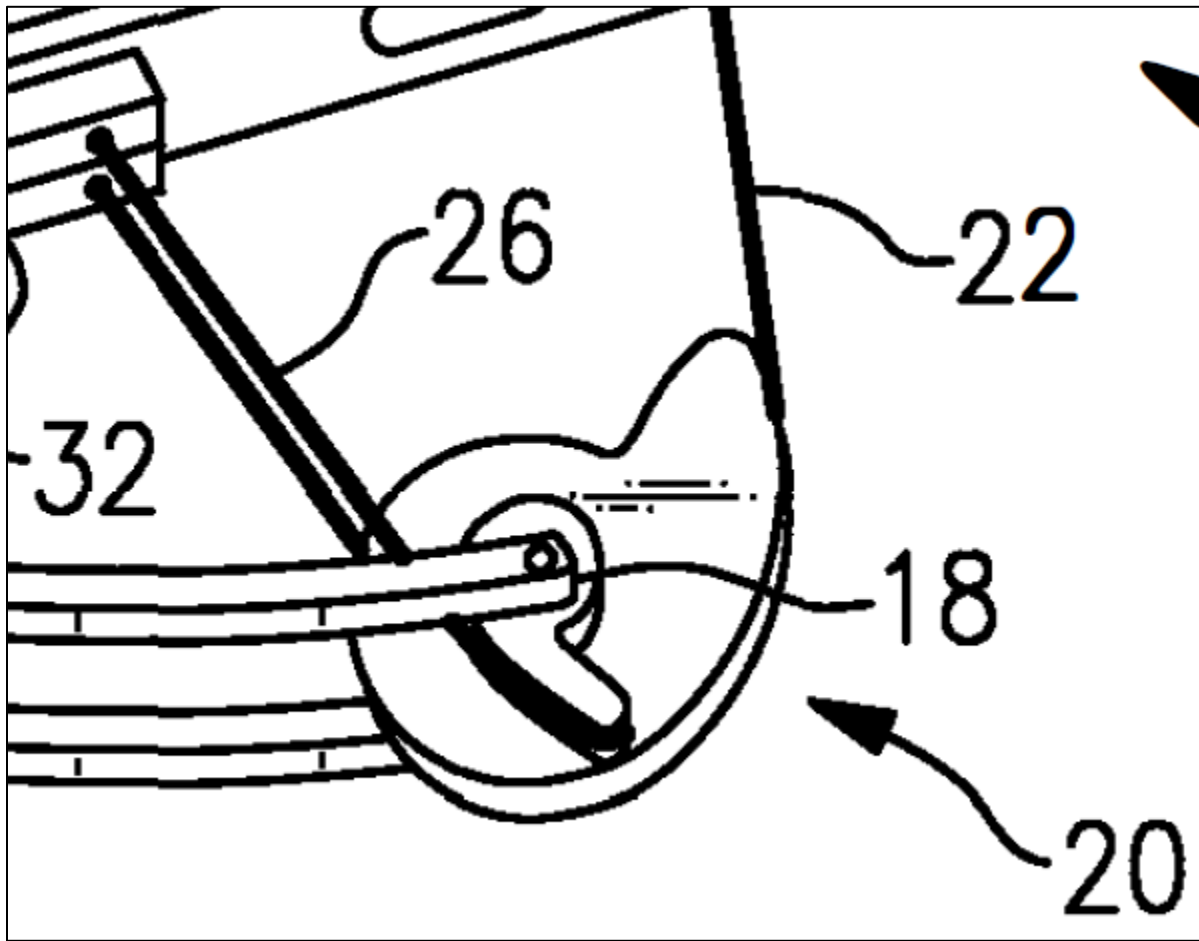
Thus, even if the Board considers Petitioner's untimely arguments regarding Kempf '871, Petitioner still at least fails to establish that Kempf '871 discloses a second power cable table-up journal as required by the single Challenged Claim. Grounds 9-11, which all rely on Kempf '871 for this limitation, must be rejected.

³ For example, there could be a post and the power cable could wrap around the axle of the post. EX1034, 222:8-223:7.

4. Ground 12 (Islas)

Likewise, even if the Board considers Petitioner's untimely arguments regarding Islas, the modifications Petitioner proposes in its Reply would still result in an inoperative device.

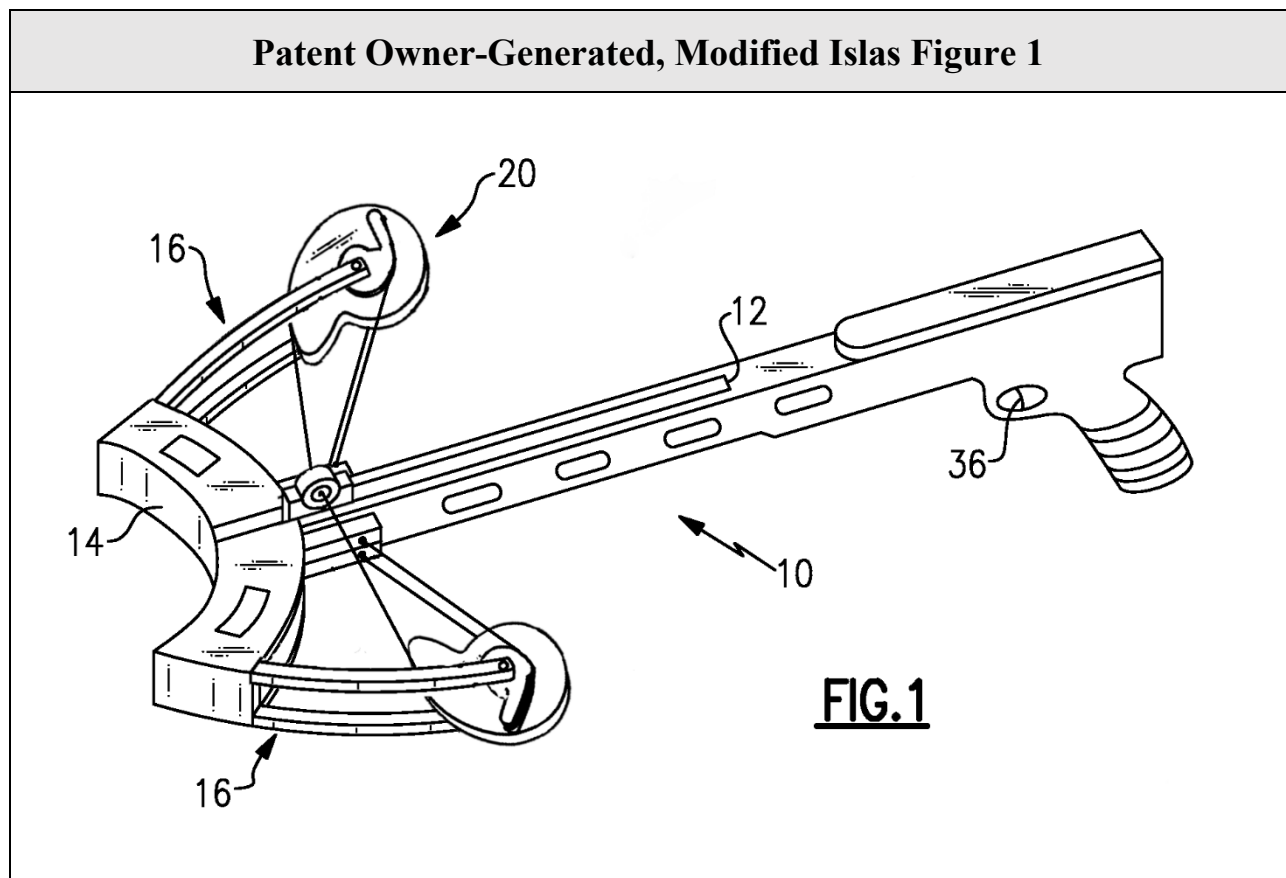
Although Petitioner now argues (for the first time) that a reverse-draw configuration could be implemented "simply by flipping the cams (such that the bowstring rests on the downrange side)," (Reply, 24), a POSA would immediately recognize that this configuration results in the same conflict between the drawstring and power cables as flipping the limbs would entail. *See* POR 70-73. As seen below, Islas' power cords are fixed both to the stock and to the cams and therefore cross the cam body; in contrast, the drawstring wraps around the outer perimeter of the cam:

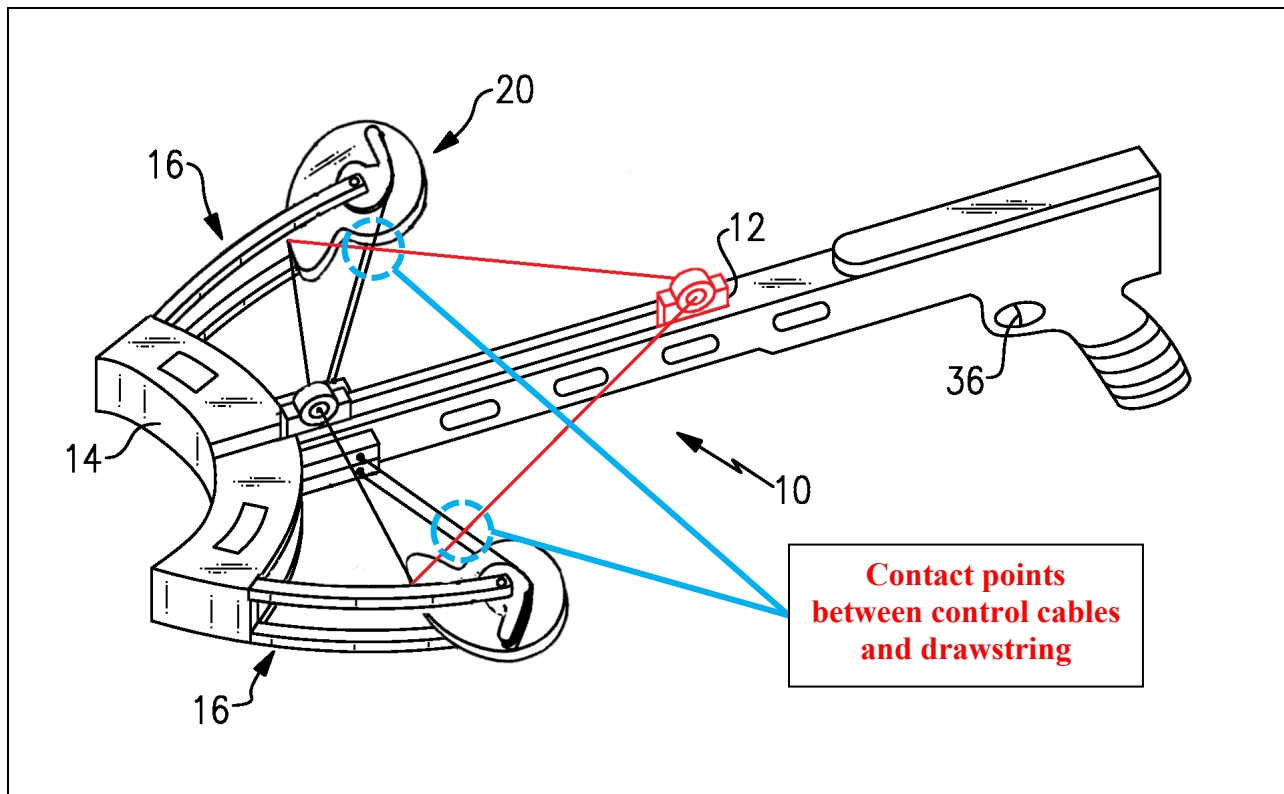


EX1015, Fig. 1 (excerpt).

Just like flipping the limbs, flipping the cams alone would still result in the drawstring coming into contact with the power cords when the drawstring is drawn. Afterall, if the drawstring is positioned downrange of the power cables' anchor point when in its released configuration – as it must be if it is to “rest[] on the downrange side” of the cam while the power cables cross the body of the cam to attach to the top or bottom surface of the cam – the drawstring must cross the power cables in order to translate to the uprange side when drawn. Thus, even if the limbs remain in

the same configuration, the relative relationship between the drawstring and the power cords would be exactly the same as depicted in the POR. And as described and depicted in the POR, a POSA would immediately recognize that this would result in the drawstring contacting the top power cord when a user attempts to draw the modified device and preventing the device from being fully drawn or functioning, as illustrated below:





To the extent Petitioner contends that a POSA would know to use only a single power cable positioned below the drawstring, this argument is found nowhere in the Petition and is belied by Islas itself. While Islas makes passing reference to using “a single power cord cam groove,” (EX1015, ¶[0006]), it does not state whether such a groove would be positioned above or below the bowstring groove, and the Detailed Description only depicts and describes a single embodiment having two power cords, not one. *See generally id.* The Petition also itself never mentions the alternative, single power cord embodiment and, in fact, specifically references multiple power “cables 26” when discussing the power cable journals element. Petition, 58-61.

Just as with its other arguments, Petitioner cannot now change theories – now pointing to a vague alternative embodiment of Islas never mentioned in its Petition – to salvage its obviousness position. This is improper, and Petitioner's new argument regarding an alternative embodiment of Islas with only a single power cord should be disregarded. *See Fredman Bros. Furniture Co. v. Bedgear, LLC*, IPR2017-00524, Paper 35, 41 (PTAB July 13, 2018) (“...Petitioner did not assert Fry's Figure 3 embodiment in the Petition....Thus, we do not consider arguments in Petitioner's Reply related to the embodiment shown in Fry's Figure 3 in determining whether Petitioner shows the unpatentability of claim 12....”). Ground 12 must be rejected.

V. Conclusion

For the foregoing reasons, the Challenged Claim is neither anticipated nor obvious on Petitioner's challenged Grounds.

Dated: March 26, 2024

Respectfully submitted,

/Christopher M. King/
Christopher M. King
Registration No. 71,128
Counsel for Patent Owner

CERTIFICATE OF COMPLIANCE

This Patent Owner Response complies with the type-volume limitations required by 27 C.F.R. §42.24. The word count in this paper totals 5,591 words. Patent Owner has relied upon the word count feature of Microsoft Word.

Dated: March 26, 2024

/Christopher M. King/
Christopher M. King
Registration No. 71,128
Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **Patent Owner's Sur-Reply** was served on March 26, 2024, by email to Petitioner's counsel of record:

jms@etblaw.com

sv@etblaw.com

Dated: March 26, 2024

/Christopher M. King/
Christopher M. King
Registration No. 71,128
Counsel for Patent Owner