United States District Court,
N.D. New York.

Donald W. PIERSONS, Jr,
Plaintiff.
v.
QUALITY ARCHERY DESIGNS, INC., et al,
Defendants.

Civ. Action No. 3:06-CV-0408 (TJM/DEP)

Oct. 22, 2007.

Coughlin, Gerhart Law Firm, James P. O'Brien, Esq., Matthew J. Sante, Esq., of Counsel, Binghamton, NY, for Plaintiff.

Hiscock, Barclay Law Firm, Michael A. Oropallo, Esq., Gabriel M. Nugent, Esq., Douglas J. Nash, Esq., of Counsel, Syracuse, NY, for Defendants Copper John Corporation; Cobra Manufacturing Company, Inc .; Golden Key-Futura, Inc.; H.H. & A. Sports, Inc.,; Inventive Technology; John Schaffer Performance Archery Products, Inc.; Quality Archery Designs, Inc.; RipCord Technologies, Inc.; Bass Pro Outdoor World, LLC; Bass Pro Outdoors Online, LLC; Gander Mountain Company; Hunter's, Friend LLC and Lancaster Archery Supply, Inc.

Cahill, Von Hellens Law Firm, Marvin A. Glazer, Esq., of Counsel, Phoenix, AZ, Pope, Schrader Law Firm, Alan J. Pope, Esq., of Counsel, Binghamton, NY, for Precision Shooting Equipment.

Sheridan, Ross Law Firm, Benjamin B. Lieb, Esq., of Counsel, Denver, CO, Mintz, Levin Law Firm, Dominic J. Picca, Esq., of Counsel, New York, NY, for Trophy Taker, Inc.

Murnane, Brandt Law Firm, Michael S. Ryan, Esq., of Counsel, St. Paul, MN, Levene, Gouldin Law Firm, Michael R. Wright, Esq., of Counsel, Binghamton, NY, for TR Outdoors Archery Experts, LLC.

Marshall, Gerstein Law Firm, Thomas I. Ross, Esq., of Counsel, Chicago, IL, Leonard, Cummings Law Firm, Hugh B. Leonard, Esq., of Counsel, Binghamton, NY, for Cabela's Incorporated.

None, for Cavalier Equipment Co., Inc., Mack's Sport Shop, LLP, Archery Sports, LLC, and Above Timberline Products, Inc.

REPORT AND RECOMMENDATION

DAVID E. PEEBLES**, United States Magistrate Judge.**

Plaintiff Donald W. Piersons, Jr. has commenced this action against various companies operating within the

archery products industry, asserting various federal and pendent state common law claims based upon their manufacture or sale of bows which include, as an integral component, a pivoting arrow rest mechanism. At the heart of this controversy is United States Patent No. 6,044,832 (the "'832 Patent"), issued to the plaintiff on April 4, 2000, describing a "Fall Away Arrow Rest Assembly" for use in connection with a compound bow. Among the claims asserted by the plaintiff against the various defendants in this action are those alleging infringement of the '832 patent.

Currently pending before the court is an application by the parties for construction of certain terms within plaintiff's patent. The following constitutes my reported findings and recommendations to Senior District Judge Thomas J. McAvoy regarding claim construction, based upon comprehensive submissions from the parties and a claim construction hearing conducted on October 10, 2007.

I. *BACKGROUND*

During the mid 1970's, the field of archery was revolutionized by virtue of a migration away from traditional bows and the increasingly widespread use of the compound bow, which consists of an elongated handle defining a hand grip and supporting a pair of extending flexible limbs on either end, as well as tuning cables and a bowstring attached to wheels and/or cams located at the ends of each arm. Compound bows provide an enhanced mechanical advantage, in comparison to traditional archery equipment, requiring the user to apply less force when holding the bow in the drawn position, and thereby affording the archer additional time and increased steadiness in aiming.

With the refinement of this technology came the need for an improved arrow rest to eliminate any unpredictable and undesirable deflection of an arrow during firing. According to background information set forth in the '832 patent, the arrow rest plays a crucial role in fulfilling this need, serving to prevent deflection of the arrow due to 1) contact between the feather fetching of the arrow, which is cemented to the shaft of the arrow on a slight angle or helixed about the shaft, and the arrow rest; 2) bending of the arrow upon loading; or 3) unintentional movement of the archer during shooting.

Prompted by a desire to combat the problems associated with arrow rest deflection, various arrow rest assembly configurations were developed within the industry. Prior art cited in the '832 patent involved flexible or moveable arrow rests designed to give way from the arrow's path as the fletchings overtake or contact the rest, as well as arrow lock devices which work in conjunction with an overdraw device to prevent an arrow from falling from the rest. The pitfalls associated with these assemblies included their unreliable performance, due primarily to the complexity of their designs, as well as the failure of arrow lock devices to work properly with common spring-loaded arrow rests. '832 Patent, col. 2, Ins. 14-18, 45-48. FN1

FN1. The '832 patent is included in the record at several locations, including as an exhibit to plaintiff's complaint. *See* Dkt. No. 1, Exh. A. For ease of reference, the patent will be cited in this report simply as the "'832 Patent."

To address the undesirable qualities associated with earlier arrow rest assemblies, plaintiff Donald W. Piersons, Jr. set out to meet "a continuing need for an improved arrow rest assembly which provides a relatively secure rest for the arrow shaft, and which spontaneously falls away as the arrow is released from the bowstring, thereby resulting in minimal contact between the arrow and the rest as the arrow is launched from the bow." '832 Patent, col. 2, Ins. 49-54. Among the objectives of the invention listed in the '832 patent

is the desire to provide 1) "a precision arrow rest assembly for use on compound bows especially suitable for hunting, 3D, and field archery, which provides for a more accurate and reliable shot of an arrow from such bows"; 2) "an arrow rest assembly that was of simple design and comprised of a minimal number of moving parts, that simple design, coupled with that minimal number of moving parts, resulting in an arrow rest assembly that is resistant to the effects of inclement weather and is inherently quiet"; and 3) "such an arrow rest assembly that is capable of holding a nocked arrow on the rest when the bow is in the relaxed position, but which automatically aligns the arrow immediately prior to the bow reaching the fully drawn position." '832 Patent, col. 2, Ins. 58-67 and col. 3, Ins. 1-5.

Perceiving that the prior art formulations were inefficient and overly complex, Piersons developed an arrow rest assembly which becomes engaged mechanically toward the end of the drawing motion and, through the use of a tension spring, quickly falls away upon release of the bowstring. Plaintiff's patented mechanism is comprised of "a static assembly of parts which is rotated about an axis synchronously with the movement of the bow's cabling system as the bow is drawn." '832 Patent, col. 3, Ins. 16-18. According to a summary of the invention, as detailed in the patent, as the bow nears the full draw position an actuator cord attached to the arrow rest assembly and the downward acting cable of the bow becomes taut and begins to rotate the arrow holder upward, causing the arrow to move into firing position. Id., col. 3, Ins. 19-22. A spring internally mounted within the rest assembly resists this movement, forcing the rest to return to its normal position after the release of the arrow. Id., col. 3, Ins. 23-26.

On August 10, 1998, Piersons filed a patent application for his improved fall away arrow rest. Following examination of the patent by the United States Patent and Trademark Office ("PTO"), and amendment of the patent by Piersons in response to two separate PTO office actions, the '832 patent was issued on April 4, 2000.

Principally at issue in this case is the defendants' manufacture and sale of various products that, according to Piersons, infringe his inventive device by integrating an arrow rest assembly rotatable about an axis synchronously with the movement of the tuning cables and whose subassembly contains an internally mounted spring, as well as an actuator cord comprised of a strong, flexible, relatively inelastic material attached to the arrow rest subassembly and the downwardly acting tuning cable.

II. ***PROCEDURAL HISTORY***

Plaintiff commenced this action on March 30, 2006, asserting claims against various defendants some of which, it was later determined, were either inappropriately or incorrectly named. Dkt. No. 1. Remaining in the case as defendants at this juncture are Copper John Corporation, Cobra Manufacturing Company, Inc., H.H. and A. Sports, Inc., Golden Key-Futura, Inc., John Schaffer Performance Archery Products, Inc., Quality Archery Designs, Inc., RipCord Technologies, Inc., Inventive Technology, Hunter's Friend, LLC, Lancaster Archery Supply, Inc., Gander Mountain Company, Bass Pro Outdoor World, LLC, Bass Pro Outdoor World, LLC and Bass Pro Outdoors Online, LLC, all represented by counsel (collectively, the "Copper John Defendants"); Precision Shooting Equipment, Inc. ("PSE"), Trophy Taker, Inc. ("Trophy Taker"), and Cabela's Incorporated ("Cabela's"). FN2 On August 30, 2006, following a conference conducted pursuant to Rule 16 of the Federal Rules of Civil Procedure, I issued a Uniform Pretrial Scheduling Order governing the progression of the case. Dkt. No. 100. While there has been some exchange of materials since the issuance of that order, for the most part there has been a hiatus in discovery in the action due in part to the fact that various of the deadline dates set forth in that scheduling order will be triggered by the issuance of a claim construction decision. *See id*.

FN2. Plaintiff's claims against defendant Eder, Inc., have been dismissed, on stipulation of the parties. Four other defendants, including Cavalier Equipment Co., Inc., Mack's Sport Shop, LLP, Archery Sports, LLC, and Above Timberline Products, Inc., have been served but are currently in default.

Currently pending before the court is a request for the parties for construction of various disputed claim terms within the '832 patent, as well as cross-motions for summary judgment. *See* Dkt. Nos. 139, 152, 156, 159, 161, 163, 164 and 182. The claim construction task has been delegated by Senior District Judge McAvoy to me for the issuance of a report and recommendation. Dkt. No. 208. The various dispositive motions have been taken under consideration by Senior District Judge McAvoy, on submission without oral argument, and remain pending.

III. *DISCUSSION*

A. *Claim Construction*

Patent claim construction implicates an issue of law, to be decided by the court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384 (1996); *see also* Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1304 (Fed.Cir.1999) (citing *Markman*). When engaged in patent construction, a court must define claim terms as one of ordinary skill in the relevant art would understand and interpret them. Markman, 52 F.3d at 986; *see also* K-2 Corp. v.. Salomon S.A., 191 F.3d 1356, 1365 (Fed.Cir.1999).

Perhaps the most comprehensive discourse to date by the Federal Circuit of the claim construction calculus came in its *en banc* decision in Phillips v. AWA Corp., 415 F.3d 1303 (Fed.Cir.2005). In *Phillips,* though with extensive illuminating discussion regarding the relative importance of intrinsic and extrinsic evidence, the Federal Circuit in essence endorsed its earlier decision in Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed.Cir.1996), previously regarded by the courts and patent practitioners as defining the contours of the claim construction inquiry. Phillips, 415 F.3d at 1324.

The principal teaching of *Phillips*-and not a significant departure from earlier claim construction jurisprudence-is that the claims of a patent define the scope of protection afforded to the inventor. Phillips, 415 F.3d at 1312. It therefore follows that the language of a claim itself generally provides the most definitive source of guidance concerning construction. Vitronics, 90 F.3d at 1582. Words contained within a patent normally should be given their ordinary and customary meaning, considered from the perspective of a person of ordinary skill in the art in question at the time of the invention-that is, the effective filing date of the patent application. Phillips, 415 F.3d at 1313 (citing, *inter alia,* Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed.Cir.2004)).

While it is true that the words of a patent claim will generally control, they should not be interpreted in isolation, casting aside other portions of the patent including the specification; instead "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." Phillips, 415 F.3d at 1313. In this regard a patent specification, which some liken to an internal dictionary, must be reviewed to determine whether the inventor has used any term in a manner inconsistent with its ordinary meaning. Id. at 1313-14; *see also* Vitronics, 90 F.3d at 1582 (citing Markman, 52 F.3d at 979). A patent's specification often constitutes the "single best guide to the meaning of a disputed term." Vitronics,

90 F.3d at 1582.

When resorting to a patent's specification for guidance with respect to disputed claim terms one must consider it as a whole, and all portions should be read in a manner that renders the patent internally consistent. Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1379-80 (Fed.Cir.2001). "Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question." SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed.Cir.2001).

"[W]hile it is true that claims are to be interpreted *in light of* the specification and with a view to ascertaining the invention, it does not follow that limitations from the specification may be read into the claims[.]" *See* Sjolund v. Musland, 847 F.2d 1573, 1581 (Fed.Cir.1988) (emphasis in original). Moreover, as another judge of this court has observed, "[n]or should particular embodiments in the specification be read into the claims; the general rule is that the claims of a patent are not limited to the preferred embodiment." Cornell Univ. v. Hewlett-Packard Co., 313 F.Supp.2d 114, 126 (N.D.N.Y.2004) (Mordue, J.) (citing, *inter alia,* Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1204 (Fed.Cir.2002)).

In addition to the claim terms themselves and the patent's specification, a third category of relevant intrinsic evidence to be considered is the history surrounding the prosecution of the patent. That history, which is customarily though not always offered to assist a court in fulfilling its claim construction responsibilities, is generally comprised of the complete record of proceedings before the PTO including, significantly, any express representations made by the applicant regarding the intended scope of the claims being made, and an examination of the prior art. Vitronics, 90 F.3d at 1582-83. Such evidence, which normally chronicles the dialogue occurring between an inventor and the PTO, and thus acts as a reliable indicator of any limitations or concessions on the part of the applicant, can often be highly instructive on the issue of claim construction. Accordingly, courts supplied with such evidence strive to avoid definitions upon which the PTO could not reasonably have settled in order to ensure against the possibility of an applicant obtaining a scope of protection which encompasses subject matter that, through the conscious efforts of the applicant, the PTO did not examine. Genentech, Inc. v. Wellcome Found. Ltd., 29 F.3d 1555, 1564 (Fed.Cir.1994). Similarly, representations made in an attempt to overcome objections by the patent examiner can provide enlightenment in construing claims and estopping inventors from later attempting to broaden the dimensions of their claimed invention beyond the scope of the claims presented before the PTO. Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 535 U.S. 722, 733-34, 122 S.Ct. 1831, 1838-39 (2002); *see also* Vitronics, 90 F.3d at 1583.

If analysis of the available intrinsic evidence resolves a perceived ambiguity in a disputed claim term, the inquiry ends there. Vitronics, 90 F.3d at 1583. When, on the other hand, there remains uncertainty regarding a claim after consideration of all intrinsic evidence, the court should turn to examination of such available extrinsic sources as expert testimony, inventor testimony, dictionaries, and technical treatises and articles, for guidance in reconciling any conflicting intrinsic indicators. Id. at 1584. It should be noted, however, that extrinsic evidence may only be used to aid the court in understanding patent claims, and cannot be relied upon to justify any departure from or contradiction with the actual claim language employed by the applicant. *Id*. To assist in resolving an ambiguity, in its discretion, a court may admit and rely on prior art, whether or not cited in the specification or file history. *Id*. at 1584-85. Prior art and dictionaries, as publicly accessible, objective information, are for obvious reasons preferable to expert testimony as tools for resolving ambiguity. *Id*. at 1585; *see also* Texas Digital Sys., 308 F.3d at 1202-03.

Ultimately, interpretation of the terms of a patent claim can only be determined with a full understanding of what the inventor actually invented and intended to envelop within the claim. Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir.1998). For this reason, when inventors distinguish their invention from prior art, that prior art is properly excluded from the claims' coverage. Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc., 267 F.Supp.2d 533, 543 (N.D.W.Va.2003) (citing SciMed Life Sys., Inc., 242 F.3d at 1343).

B. ***Person Of Ordinary Skill In The Art***

Before turning to the task of claim construction, the court must first determine the relevant prism through which the patent's terms must be viewed in order to resolve disputes regarding their intended meaning. In addressing claim construction, a court must ascertain how a person of ordinary skill in the art would have understood the disputed claim terms at the time of the invention. Markman, 52 F.3d at 986. Accordingly, patent claims must be construed not through the eyes of the court, nor those of any proffered experts, but rather from the standpoint of a person skilled in the art. Interactive Gift Express, Inc. v. CompuServe Inc., 256 F.3d 1323, 1332 (Fed.Cir.2001). In constructing the hypothetical of a person of ordinary skill in the art, a court should consider the educational level of the inventor, the type of problems encountered in the art, the prior art solutions to the problems, the rapidity with which innovations are made in the field involved, the sophistication of the technology, and the educational level of workers in the field. Helifix Ltd. v. Blok-Lock, Ltd., 208 F.3d 1339, 1347 (Fed.Cir.2000) (citation omitted).

In this instance, the technology associated with plaintiff's arrow rest invention appears to be relatively elementary, and the terminology utilized in the '832 patent claims seems capable of being understood by a person of average intelligence. The configuration of the hypothetical person of ordinary skill in the art thus appears to take on less significance in the case. FN3

FN3. In their submissions the parties have not addressed this issue to any significant degree, quite possibly for this reason.

Based upon my review of the record, including the patent in suit and the parties' oral submissions, I find that at a minimum a person of ordinary skill in the art, though possessing no particular specialized education, is someone who has developed a working familiarity with the design, mechanics and maintenance of compound bows and arrow rests, developed either through education, experience, or hunting, or a combination of those, with at least a handyman level of mechanical sense and capability of constructing or repairing compound bows and their components, including arrow rests.

C. ***Claim Construction In This Case***

While the parties have offered varying interpretations of several material claim terms, with defendants seemingly going to some lengths to manufacture controversy over even the most simple claim terms, the chief battlegrounds appear to involve interpretation of the phrase "relatively inelastic" and the significance of preambulatory language contained within claim one, and in particular whether it imposes limitations not otherwise disclosed in the remaining portions of the claim. The parties also seek construction of the terms "bracket subassembly", "arrow rest subassembly", "synchronously", "internally mounted spring", "arrow holder/guide", "pivotally mounted", "attached", and "about 2-4 inches", as articulated in claim one of the '832 patent, and additionally request guidance regarding terms in claims two and three of the patent,

addressing the bending of end tabs on prongs described in those claims.FN4

FN4. While the meanings of additional terms contained within dependent claims two and three, including "bent backwards at an angle" and "between about 30 (deg.) and 60 (deg.)", as related to the bending of the fork shaped structure's prongs and their end tabs, were initially disputed, during the recent hearing it appeared that the parties are somewhat in accord with regard to interpretation of those provisions.

1. ***Preamble***

Before setting forth the precise contours of its express limitations, claim one of the '832 patent begins with the following prefatory language introducing the claim:

An arrow rest assembly for use with a compound bow, said bow comprising a frame, optionally equipped with an overdraw assembly, having a cable guide bar extending therefrom, a bow string having an upwardly acting tuning cable and a downwardly acting tuning cable which are attached to a cable slide slidably mounted on said cable guide bar, set assembly comprising:

'832 Patent, col. 7, Ins. 20-26. Plaintiff asserts that this is mere preambulatory language which, under controlling Federal Circuit law, does not read further limitations into claim one which are otherwise not specified. Defendants take a different view, asserting that the prefatory language provides context and breathes life into the claim, and that the features mentioned in the preamble, some though not all of which are included within the limitations set forth in claim one, should be read into the claim as providing additional limitations which must be satisfied in order for infringement to be shown.

The Federal Circuit has addressed this issue in a number of cases, on one occasion observing that

[i]n general, a preamble limits the invention if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. Conversely, a preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.

Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed.Cir.2002) (quotations and citations omitted); *see also On* Demand Machine Corp. v. Ingram Indus., Inc., 442 F.3d 1331, 1343 (Fed.Cir.2006). This statement is consistent with the principle that it is the body of a claim, rather than the intended use specified in such introductory language, that controls and provides the critical attributes of a patented device. *See* Catalina Mktg., 289 F.3d at 808; *see also* Schumer v. Lab. Computer Sys., Inc., 308 F.3d 1304, 1310 (Fed.Cir.2002).

There is no particular bright line test to be followed in every case when determining whether preambulatory language is limiting; there are, however, guideposts which can inform a court's analysis. Catalina Mktg., 289 F.3d at 808. Among them is the principle that "when the preamble is essential to understand limitations or terms in the claim body, the preamble limits claim scope." *Id*. (citing Pitney Bowes, 182 F.3d at 1306); *see also* Seachange Int'l, Inc. v. C-Cor Inc., 413 F.3d 1361, 1375-76 (Fed.Cir.2005). Critically, in *Catalina Mktg*. the Federal Circuit noted that "preambles describing the use of an invention generally do not limit the claims because the patentability of apparatus or composition claims depends on the claimed structure, not on the use or purpose of that structure." Catalina Mktg., 289 F.3d at 809 (citing *In re:* Gardiner, 36 C.C.P.A.

748, 171 F.2d 313-16, 80 UPSQ 99, 101 (1948)). As an illustration of the point being made, the Federal Circuit in that case hypothesized an invention of "a composition for polishing shoes", noting that a subsequent inventor determining that the very same composition could be used to grow hair "cannot invoke this use limitation to limit [the patent holder's] composition claim because that preamble phrase states a use or purpose of the composition and does not impose a limit on [the patent holder's] claim." Id. at 809-10.

In this instance, the preambulatory language at issue sets forth structural terms associated with the compound bow for use with the specified arrow rest assembly. The disputed language is exceedingly particular in describing the attributes of the compound bow described, with many though not all of the features referenced being specifically repeated in the ensuing claim language. The preamble at one point refers to an attribute-an overdraw assembly-as optional equipment, intimating that the remaining structural components must be present on the compound bow described for use with the inventive arrow guide assembly.

It has been said that a patentee is entitled to serve as his or her own lexicographer. Bell Atlantic Network Servs., Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1268 (Fed.Cir.2001). In this instance, plaintiff Piersons, as the inventor, could well have limited the preambulatory language of claim one to reference only a compound bow, an interpretation which he now urges the court to adopt. He did not do so, however; instead, the preamble goes on to specify the particular elements associated with the compound bow specified. Under these circumstances, while no one has advanced an argument as to why the patented invention would not be appropriate for use in connection with a compound bow that did not contain, for example, "a cable slide slidably mounted on [the] cable guide bar", an element not referenced in any of the claim terms, and the prosecution history associated with the '832 patent does not suggest why, I conclude that the structural language set forth in the preambulatory language "states a necessary and defining aspect of the invention" rather than being "simply an introduction to the general field of the claim." *On* Demand Machine Corp., 442 F.3d at 1343; *see* Seachange Int'l, 413 F.3d at 1375-76 (finding that the preamble, which indicated the claimed method for storing data as a "distributed computer system" having "at least three processor systems", offered the only antecedent basis for "said processor systems" referenced in the body of the claim, thereby providing the essential context to understand the meaning of "processor system" and limiting the scope of the claimed invention).

2. "*Bracket Subassembly*"

While seemingly not a controversial term, the parties differ over the meaning of the phrase "bracket subassembly". Plaintiff asserts that the term needs no further refinement, and that the bracket subassembly specified could consist of a single constituent.FN5 Various of the defendants, including Cabela's, urge an interpretation that requires at least two elements and that the court import into the term the requirement that it include a "high/low stop point pin" mounted to the bracket.

FN5. While arguing that the term "bracket subassembly" could comprise of only a single element-the bracket-when addressing the term "arrow rest subassembly" plaintiff has asserted in his principal *Markman* brief that "[a]ny reasonable person, should understand that a "subassembly" consists of at least two parts...." Plaintiff's Claim Construction Brief (Dkt. No. 154) at 17.

Having reviewed the parties' submissions, I can discern no peculiar meaning attributed to this term by those of ordinary skill in the art. Accordingly, I turn at the outset to common usage and definitions associated with

the phrase. The term "subassembly" typically connotes an assembly to be incorporated into a larger assembly, being defined by one authoritative source as "an assembled unit designed to be incorporated with other units in a finished product." Merriam-Webster's Collegiate Dictionary 1170 (10th ed.1999). The term "assembly", in turn, suggests the joining of two or more parts into a single unit, being defined, *inter alia,* to include "the fitting together of manufactured parts into a complete machine, structure, or unit of a machine...." *Id.* at 69. In short, it appears that the phrase "bracket subassembly" was intended by the inventor to include within it two or more components. The only additional element referenced with regard to the bracket subassembly is a "high/low stop point pin". '832 Patent, col. 5, Ins. 35-37. It is true that this component is referenced in the portion of the claim specification describing the preferred embodiment, and claim terms ordinarily should not be construed in such a way with reference to the preferred embodiment, to the exclusion of broader definitions which could have been intended by the inventor. Verizon Servs. Corp. v. Vonage Holdings Corp., 503 F.3d 1295, 2007 WL 2781869, at (Fed.Cir. Sept. 26, 2007) (" 'This court has cautioned against limiting the claimed invention to preferred embodiments or specific examples in the specification.' ") (quoting Texas Instruments, Inc. v. United States Int'l Trade Comm'n, 805 F.2d 1558, 1563 (Fed.Cir.1986)). In this instance, however, there is no further clue provided in the patent history or in the specification of what the additional components of a bracket subassembly could be. Accordingly, I construe the term "bracket subassembly" to mean an assembled unit, comprised of a bracket into which a high/low stop point pin is mounted, designed to be incorporated with other units into a finished product.

3. "***Arrow Rest Subassembly***"

Plaintiff asserts that the phrase "arrow rest subassembly" is also a term which is commonly understood and readily susceptible of definition, without the need for further refinement. Defendants, on the other hand, once again including principally Cabela's, urge the court to import from the specification further limitations associated with that term.FN6

FN6. As will be seen, defendants also assert that the claim term "arrow rest subassembly" must be interpreted as including, as a component, an arrow holder/guide. *See infra* at Part III.C.6.

The '832 patent specification speaks to the "inventive arrow rest subassembly", providing that it "consists of a truncated, forked-shaped arrow holder/guide comprised of a pair of prongs which are inserted into [sic] cylindrical axle rod and individually secured therein by set screws." '832 Patent, col. 5, Ins. 44-47.

For much the same reason as prompted my finding with regard to the previous term I find, looking to common usage, that use of the term assembly implies more than one component, and thus construe the term "arrow rest subassembly" as an assembled unit, comprised at a minimum of an arrow holder/guide and an axle, designed to be incorporated with other units into a finished product.

4. "***Synchronously***"

The parties next differ over the meaning of the term "synchronously". According to the plaintiff, the term was intended to signify that the rotational movement of the subassembly around an axis was to occur in step, or in phase, with the movement of the tuning cables stemming from the drawing and releasing motions of the bow user. At least one of the defendants, PSE, urges a restrictive reading of this term to require that the subassembly rotation around the axis occur at precisely the same time as movement of the tuning cables resulting from drawing and releasing of the bow.

It is true that the term synchronous, of which "synchronously" derives, admits of several definitions, some of which require greater precision. One authoritative source defines that term, *inter alia,* as "happening, existing, or arising at *precisely* the same time" or "recurring or operating at *exactly* the same periods ...." Merriam-Webster's Collegiate Dictionary 1196 (10th ed.1999) (emphasis supplied). Other sources attribute a less exacting definition. Another dictionary, for example, defines "synchronous" as "existing or happening at the same time, belonging to the same period of time, occurring at the same movement; contemporary; simultaneous." The New Shorter Oxford English Dictionary, Vol. 2 at 3118 (Oxford University Press 1993).

It does not appear from any of the parties' submissions or the court's research that this term has any peculiar meaning within the relevant art. Having carefully reviewed the '832 specification and patent history, in light of the parties submissions, I find no basis to conclude that absolute precision in the specified movement is a critical element of the patented invention. Instead, I find that the term signifies two separate movements which are interrelated and occurring in step, or in phase, though not necessary with the precision advocated by PSE. Accordingly, I will define "synchronously" to mean "simultaneously", so that the phrase "rotable about an axis synchronously with the movement of said tuning cable as said bow is drawn and released" should be defined to mean that "the arrow rest subassembly rotates simultaneously with the movement of the tuning cables as the bow string is drawn and as the bow string is released."

5. "***Internally Mounted Spring***"

While it does not appear from the parties' submissions that this term is in dispute, during the recent claim construction hearing some of the defendants in this action nonetheless offered an interpretation which is distinctly different from that which would ordinarily be commonly understood, and which is proposed by the plaintiff. Plaintiff asserts that it is evident from the patent, including its specification, that in describing the required spring as being "internally mounted", as the inventor he was simply signifying that the spring is mounted within some sort of enclosure which, he maintains, has the intended purpose of protecting it from the elements. Some of the defendants counter that the phrase "internally mounted" means that the spring must be located somewhere within the parameter of the arrow rest subassembly, though not necessarily within a protective housing.

Because defendants' proposed meaning derives no support from the patent specification or prosecution history, I reject the strained reading offered by the defendants and instead will interpret the phrase "internally mounted" to imply that the tension spring at issue be located within a housing designed to protect it from outside influences, including the elements.

6. "***Arrow Holder/Guide***"

The next term upon which the parties differ is "arrow holder/guide". While plaintiff maintains that this phrase needs no further refinement or interpretation, defendant Cabela's would further restrict the phrase to require that the guide be a part of the arrow rest subassembly.

Defendant Cabela's interpretation fails to draw support from the patent language. Undeniably, use of the term "carries" in subparagraph (b) of claim one interjects at least some degree of ambiguity into the equation, and that subsection appears to be fully integrated in describing the contents of an arrow rest subassembly. If the patent drafter had intended the meaning now ascribed by defendant Cabela's, however, the section in all likelihood would have been written as including "an arrow rest subassembly rotatable about an axis synchronously with the movement of said tuning cables as said bow was drawn and released which contains an internally mounted spring and an arrow holder/guide, ..." Instead, in contrast, it specifies

that the subassembly *contains* an internally mounted spring, and *carries* an arrow holder/guide. Moreover, it is not at all clear from this language or any other portion of the patent or patent prosecution history that the arrow holder/guide must be viewed as part of the arrow rest subassembly. Accordingly, I find that the term arrow holder/guide should be construed as not requiring further refinement, taking on the ordinary meaning of its collective terms, and reject defendant Cabela's effort to require that it be included within the arrow rest subassembly.

7. "*Pivotally Mounted*"

While it is unclear precisely why, the parties appear to disagree concerning the meaning of this seemingly simple term. While plaintiff argues that this simply denotes that the arrow rest subassembly be "mounted such that the subassembly can rotate about an axis", defendants urge a slightly different interpretation of that term, asserting that it should be construed to require that the arrow rest subassembly be mounted to a bracket subassembly such that the arrow rest subassembly can rotate around an axis relative to the bracket subassembly.

Once again, this phrase does not appear to have any particular meaning within the relevant art. When taken in context, however, it does appear that the phrase supports the meaning urged by the defendants, including PSE and Cabela's. Accordingly, I will define the term to mean that the arrow rest subassembly is mounted to the bracket subassembly in such a manner that it can pivot relative to the bracket subassembly.

8. "*Relatively Inelastic*"

The phrase "relatively inelastic" is one of the more controversial terms within the '832 patent, which in claim one provides for the use of "an actuator cord prepared from a strong, flexible, but relatively inelastic, material ...." '832 Patent, col. 8, Ins. 6-8. Plaintiff urges the court to assign the words of this claim term their ordinary and customary meaning; tellingly, however, plaintiff fails to offer to the court the particulars of that ordinary and customary meaning. Defendants, by contrast, in addition to asserting that the use of this phrase forms a basis for invalidating the patent altogether for fatal indefiniteness, assert various proposals which, while perhaps providing the requisite degree of definiteness necessary to salvage the patent, would severely restrict the amount of inelasticity permitted in the actuator cord of invention.FN7

FN7. Defendant Trophy Taker, for example, offers the term "non-elastic" as a suitable substitute. Defendant Cabela's, on the other hand, urges a finding of invalidity or, short of that, a construction that the court be "inelastic to a degree that it directly transfers movement of the tuning cable to the arrow rest subassembly." *See* Joint Submission of Claim Construction Statements (Dkt. No. 126-2) at Exh. D. Defendant PSE proposes yet another construction, offering as a definition that the court "has a modulus of elasticity comparable to that of a nylon cord, and 'not easily stretched' ". *Id.,* Exh. E.

In order to satisfy the requirements of 28 U.S.C. s. 112, a patent must "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his [or her] invention." This claim definiteness requirement ensures that patent claims are " 'sufficiently precise to permit a potential competitor to determine whether or not he [or she] is infringing.' " Amgen Inc. v. Hoechst Marion Roussel, Inc ., 314 F.3d 1313, 1342 (Fed.Cir.2003) (quoting Morton Int'l, Inc. v. Cardinal Chem. Co., 5 F.3d 1464, 1470 (Fed.Cir.1993)). As the Supreme Court has observed, "[i]t has long been understood that a patent must describe the exact scope of an invention and its manufacture to secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them." Markman, 527 U.S. at 373,

116 S.Ct. at 1387 (internal quotations and citations omitted). A claim satisfies the definiteness mandate when one skilled in the art understands the claim parameters as read in light of the specification. Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705 (Fed.Cir.1998) (" 'If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, s. 112 demands no more." ') (quoting *Miles Lab., Inc. v. Shandon, Inc.,* 997 F.2d 879, 875 (Fed.Cir.1993)).

The use of the word "relatively" in the '832 Patent does not necessarily render the patent hopelessly invalid, nor does it necessarily signify an ambiguity which eludes construction. *See* Amgen, 314 F.3d at 1342 ("[A] claim is not indefinite merely because its scope is not ascertainable from the face of the claims ... [r]ather, a claim is indefinite ... if it is insolubly ambiguous, and no narrowing construction can properly be reached.") (internal quotations omitted). The meaning of qualifying words or phrases such as "relatively" hinges on the technological particulars of the patent in issue. *See* Ortho-McNeil Pharm. Corp. v. Caraco Pharm. Labs., Ltd., 476 F.3d 1321, 1326 (Fed.Cir.2007) (construing the term "about"). Thus, when a claim incorporates a word of degree it is essential to discern whether the specification provides any standard for measuring that degree. Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826 (Fed.Cir.1984). The Federal Circuit further has observed that the use of such words

avoids a strict numerical boundary to the specified parameter. Its range must be interpreted in its technological and stylistic context. We thus consider how the term ... was used in the patent specification, the prosecution history, and other claims. It is appropriate to consider the effects of varying that parameter, for the inventor's intended meaning is relevant. Extrinsic evidence of meaning and usage in the art may be helpful in determining the criticality of the parameter ....

Ortho-McNeil, 476 F.3d at 1326 (citations omitted).

Turning to the '832 patent specification, the only reference made to shed light on the meaning of relative inelasticity provides, in relevant part, that

Cord **30** may consist of any strong, relatively inelastic material which is sufficiently flexible to be run from screw **17** and looped around tuning cable **8.** I have found a NYLON(R) cord of about 0.125" diameter especially effective. A cord prepared of a highly elastic material such as rubber, has not been found to function well because of its counteraction to the spring.

'832 Patent, col. 6, Ins. 3-9. The difficulty with this term is that virtually every material, however stiff or unyielding, has some measure of elasticity-a factor which undoubtedly led to the inventor's use of the qualifying word "relatively." Unfortunately the inventor did not provide guidance, either by reference to a modulus of elasticity measurement or some other relative unit, regarding the phrase.

In this instance, the specification is instructive regarding the meaning of the term "relatively inelastic", providing at least some context for the term. *See* Ortho-McNeil, 476 F.3d at 1326 It indicates, for example, that the cord must be comprised of a strong material, and one which is "sufficiently flexible to be run from [a] screw ... and looped around [a] tuning cable." '832 patent, col. 6, Ins. 3-6. The specification provides further enlightenment, in that it specifically excludes the use of highly elastic materials such as rubber, and offers the inventor's observation that a "NYLON(R) cord of about 0.125" diameter [is] especially effective." Yet, while a measure of elasticity associated with a NYLON(R) cord can be readily ascertained, the '832 patent offers no specific standard, and little guidance as to how far from that reference point is included

within the range of "relatively inelastic". The prosecution history of the '832 patent also provides little instruction in this regard. In initially rejecting claim one, the patent examiner described the actuator cord in the prior art, as exemplified by the Pittman patent, by its function rather than by elasticity. *See* Plaintiff's Memorandum (Dkt. No. 154-5) Exh. C at 3. The examiner further noted that the Pittman actuator cord contained an elastic segment and a non-elastic segment, opining that "it is not clear why an elastic segment would be necessary; it appears that the [Pittman] invention would work properly with a single nonelastic [sic] segment." *Id*. at 4. Accordingly, construction of the term "relatively inelastic", as utilized within the '832 patent, to mean "non-elastic" or "inelastic", as advocated by defendants Trophy Taker and Copper John, could render the '832 patent invalid in light of the prior art.

It may be that the court, when deciding the pending summary judgment motions arguing invalidity on the basis of indefiniteness, will consider that use of the phrase "relatively inelastic" renders the '832 patent hopelessly indefinite, and thus invalid under section 112. *See, e.g., Ex Parte* Oetiker, 23 U.S.P.Q.2d 1641, 1644 (Bd. Patent App. & Interf.1990), *aff'd,* 951 F.2d 1267 (Fed.Cir.1991) (finding that the term "relatively flat" rendered claim indefinite where there was no evidence that "one of ordinary skill in the art would understand the metes and bounds or boundaries of protection when the claim is read in light of the specification"). It would be fairly difficult for one of ordinary skill in the art to determine, based on the specification alone, what type of material is "relatively inelastic" as compared to a NYLON(R) cord of about 0.125" diameter. Construing that term, for purposes of the pending infringement action, lacking in any significance guidance, I recommend that the term be interpreted to mean that the actuator cord is inelastic to a degree comparable with the inelasticity with a NYLON(R) cord measuring 0.125 inches in diameter, such that it directly transfers movement of the tuning cable to the arrow rest subassembly in a manner which results in synchronicity of that movement. While somewhat troubled by the vagueness of this definition, I believe that it would be improvident for the court to select a range of elasticity for importation into the claim limitation at issue. *See* Modine Mfg. Co. v. United States Int'l Trade Comm'n, 75 F.3d 1545, 1557 (Fed.Cir.1996), *abrogated on other grounds,* Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 234 F.3d 558 (Fed.Cir.2000), *vacated by,* 535 U.S. 722, 122 S.Ct. 1831 (2002) ("Mathematical precision should not be imposed for its own sake ...."). I note, in this regard, that the efficacy of the claimed invention will depend in large measure upon the relative inelasticity of the actuator cord and that the more elastic the cord, the less precise the synchronicity of the rise and fall of the arrow holder will be. Thus, while something as elastic as a rubberband could ostensibly be considered for use of the patent invention, someone of ordinary skill in the art would readily reject such a material as not providing the requisite synchronicity. Under the circumstances, and because the Federal Circuit does not require absolute certainty with regard to every term, instead permitting use of ranges, *see* Ortho-McNeil, 476 F.3d at 1326, I find that this term requires no further construction beyond that set forth above.

9. "*Attached*"

The term "attached" would appear to be yet another term readily susceptible of understanding without the requirement of further refinement. The parties nonetheless contest this provision as well. While plaintiff offers the ordinary and customary and meaning associated with the term, defendant Trophy Taker suggests that the term should be construed to mean "being joined in *close* association." Joint Submission of Claim Construction Statements (Dkt. No. 126-2) Exh. C (emphasis added).

I consider defendant Trophy Taker's proposed construction to be unduly restrictive. Quite obviously, two objects can be attached to one another without necessarily being in "close" proximity. To accept this additional limitation would be to impermissibly redraft the patent, importing limitations which do not appear

on its face. *See* Vitronics, 90 F.3d at 1584. Accordingly, I find that the word "attached" should be given its ordinary and customary meaning without the need for further refinement.

10. "***About 2-4 Inches***"

Another area of contention concerns the use in claim one of the phrase "about 2-4 inches".FN8 *See* ' 832 Patent, col. 8, Ins. 10, 17-18. The parties quarrel over the term "about", despite its capacity for general acceptance in common parlance.

FN8. The parties are in agreement that reference in the '832 patent at Column 8, line 10, to "about 24 inches" results from a typographical error, and that a corrective memorandum has been issued by the PTO reflecting this fact. *See* Plaintiff's Claim Construction Brief (Dkt. No. 154) Exh. C at 103.

In their submissions, defendants suggest an interpretation which essentially renders the term "about" nugatory, urging the court to construe the phrase "about 2-4 inches" to mean between exactly 2 and exactly 4 inches, apparently suggesting that an arrow rest which has all of the attributes of the patented invention but results in a rise of the arrow rest 4.01" from the full draw position would not read on the claims of the '832 patent. Defendants assert that in light of plaintiff's representation to the PTO of the criticality of this dimension, the term "about" should be written out of the patent and instead the court should construe the language as requiring the resulting dimensions to be between precisely two inches and precisely four inches. Plaintiff disagrees, and notes that in many instances the PTO authorizes, and inventors of necessity utilize, such phrases as "about" and "approximately" particularly when mathematical precision is not always achievable.

While stressing the importance of intrinsic source guidance for patent claim terms, the Federal Circuit has not altogether abandoned other, previously well-accepted sources, including dictionaries, to assist in the claim construction exercise. That court confirmed the continued availability of such sources in *Phillips,* stating that

[a]s we have noted above, however, we do not intend to preclude the appropriate use of dictionaries. Dictionaries or comparable sources are often useful to assist in understanding the commonly understood meaning of words and have been used both by our court and the Supreme Court in claim interpretation.

Phillips, 415 F.3d at 1322 (citations omitted).

In this case the term "about" is defined in one source as meaning "reasonably close to", "almost", or "in the vicinity." Merriam Webster's Collegiate Dictionary 3 (10th ed.1999). Accordingly, while it is true that the term "about" lacks universal meaning in patent claim jargon, depending upon the particular facts of the case, *see* Pall Corp. v. Microne Separations, Inc., 66 F.3d 1211, 1217 (Fed.Cir.1995), I will define it in this case based upon its plain and ordinary meaning to be "approximately the value as stated." *See* Novartis Pharm. Corp. v. Apotex Corp., No. 02 Civ. 8917, 2006 WL 626058, at *9-10 (S.D.N.Y. Mar. 13, 2006).

11. "***Bent Backwards At An Angle***"

While plaintiff urges that the phrase "bent backwards at an angle", as used in dependent claims two and three of the '832 patent to describe the position of the fork-shaped prongs and accompanying end tabs comprising the arrow holder/guide, should be given its ordinary and customary meaning, at oral argument

the parties reached a consensus that the phrase "bent backwards" means, as defendant PSE proposes, that "the end tabs initially extend forward from the arrow rest subassembly (*i.e.*, away from the bowstring), and then bend back toward the arrow rest subassembly (*i.e.*, toward the bowstring)." I therefore reject any suggestion by Cabela's that the term "linear" should be interposed within the construction to describe the upper portion of each prong.

12. "***Between About 30 (deg.) and 60 (deg.)***"

While this term is not hotly contested by the parties, plaintiff requests that the court assign this phrase, as used in dependent claim three, its ordinary and customary meaning. In keeping with my prior construction of the term "about", *see supra* at Part III.C.10, I will construe this phrase to mean between approximately the value as stated-that is, between approximately 30 (deg.) and 60 (deg.).FN9

FN9. The parties appear to be in agreement regarding the frame of reference for measurement of the specified angle.

IV. *SUMMARY AND RECOMMENDATION*

The patent in suit describes a relatively simple, mechanical device which is described in the '832 patent claims in non-technical, readily understood terms for the most part. While the defendants have gone to great lengths to manufacture uncertainty where little or none exists, and to some extent to elicit the court's assistance in redrafting the patent, generally the patent terms are well-defined and non-controversial. Based upon the foregoing findings, it is hereby

RECOMMENDED that the court affix the following meanings to the disputed claim terms:

Terms	Construction
Preamble	States a necessary and defining aspect of the invention, rather than being simply an introduction to the general field of the claim
Bracket Subassembly	An assembled unit, comprised of a bracket into which a high/low stop point pin is mounted, designed to be incorporated with other units into a finished product
Arrow Rest Subassembly	An assembled unit, comprised at a minimum of an arrow holder/guide and an axle, designed to be incorporated with other units into a finished product
Synchronously	Simultaneously
Internally Mounted Spring	The tension spring at issue is located within a housing designed to protect it from outside influences, including the elements
Arrow/Holder Guide	No construction necessary

Pivotally Mounted	The arrow rest subassembly is mounted to the bracket subassembly in such a manner that it can pivot relative to the bracket subassembly
Relatively Inelastic	The actuator cord is inelastic to a degree comparable with the inelasticity of a NYLON(R) cord measuring 0.125 inches in diameter, such that it directly transfers movement of the tuning cable to the arrow rest subassembly in a manner which results in the synchronicity of that movement
Attached	No construction necessary
About 2-4 Inches	Approximately the value as state
Bent Backwards At an Angle	The end tabs initially extend forward from the arrow rest subassembly (*i.e.*, away from the bowstring), and then bend back toward the arrow rest subassembly (*i.e.*, toward the bowstring)
Between About 30 (deg.) and 60 (deg.)	Between approximately the values as stated

NOTICE: Pursuant to 28 U.S.C. s. 636(b)(1), the parties may lodge written objections to the foregoing report. Such objections shall be filed with the Clerk of the Court within Ten (10) days. FAILURE TO SO OBJECT TO THIS REPORT WILL PRECLUDE APPELLATE REVIEW. 28 U.S.C. s. 636(b)(1); Fed.R.Civ.P. 6(a), 6(e) and 72; Roldan v. Racette, 984 F.2d 85 (2d Cir.1993).

IT IS FURTHER ORDERED, that the Clerk of the Court serve a copy of this report and recommendation upon the parties in accordance with the local rules of this court.

N.D.N.Y.,2007.
Piersons v. Quality Archery Designs, Inc.

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