

United States District Court,
N.D. Illinois, Eastern Division.

EAZYPOWER CORPORATION,
Plaintiff.

v.

ALDEN CORPORATION,
Defendant.

Sept. 6, 2007.

Background: Patent owner brought action against competitor alleging infringement of patents directed toward bit used to remove damaged screws and fasteners. Court set forth to construe disputed claims terms.

Holdings: The District Court, Morton Denlow, United States Magistrate Judge, held that:

- (1) term, "point," meant position where scraping edges intersected or position where scraping edges and rearward edges intersected;
- (2) language that appeared in portion of patent specification purporting to describe invention as whole was highly relevant in construing every claim;
- (3) prior art patent was not entitled to any weight in construction of term "point";
- (4) affidavit of president of corporation was not entitled to any weight in construction of term "point";
- (5) term, "straight," meant single, continuous, uninterrupted straight line;
- (6) prior art patent was not entitled to any weight in determination of whether serrated scraping edge was "straight";
- (7) phrase, "scraping edges," meant edges formed at tip of bit by longitudinal scraping surfaces and relief surfaces which dug into and engaged damaged fastener upon rotation; and
- (8) claim differentiation presumption that claim did not require combined angles of scraping edge to be obtuse was overcome by specification language indicating that both invention in general and specific embodiments required obtuse angle between edges.

Claims construed.

6,595,730, 6,742,416. Construed.

Jody L. Factor, Factor & Lake, Ltd, Chicago, IL, for Plaintiff.

Jeffrey E. Schiller, Deutsch, Levy & Engel, Chtd., John C. Linderman, McCormick, Paulding & Huber, LLP, Hartford, CT, for Defendant.

MEMORANDUM OPINION AND ORDER

Before the Court are the claim construction briefs of Plaintiff Eazypower Corporation ("Eazypower"), the accused infringer, and Defendant Alden Corporation ("Alden"), the patentee. The patents at issue are 6,595,730 ('730) and 6,742,416 ('416), which both describe a bit used to remove damaged screws and fasteners. The disputed terms are: (1) "point"; (2) "in a plane including the axis"; (3) "straight"; (4) "scraping edges"; and (5) "acute angle relative to the axis."

I. CLAIM CONSTRUCTION RULES

The basic rules of claim construction were summarized and affirmed by the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed.Cir.2005).

A. The Claim Terms Themselves

[1] [2] [3] Proper claim construction begins by analyzing the claims themselves because "the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312. "[T]he words of a claim are generally given their ordinary and customary meaning." *Id.* at 1312. FN1 "The ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

FN1. Internal quotation marks and citations are omitted throughout Section I.

[4] [5] [6] The context in which a claim term is used is important, and the usage of the term in other claims, both asserted and unasserted, can be instructive as well. *Id.* "Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims." *Id.* In many cases, however, the meaning of claim terms is not readily apparent from the claims themselves, and a court must consider additional sources of information.

B. The Specification

[7] [8] [9] A person of ordinary skill in the art is "deemed to read the claim term not only in the context of the particular claim ... but in the context of the entire patent, including the specification." *Id.* at 1313. Therefore, "claims must be read in view of the specification, of which they are a part." *Id.* at 1315. The specification is always highly relevant and usually dispositive. *Id.* "[I]t is the single best guide to the meaning of a disputed term." *Id.* "The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316.

[10] [11] [12] The specification may reveal a special definition of the claim term or a disclaimer of claim scope. *Id.* There is a fine line, however, between properly construing the claim terms in light of the specification and improperly importing limitations from the specification. *Id.* at 1323. Where the specification describes specific embodiments of the invention, a court should not confine the claims to those embodiments. *Id.* If the patentee has described "the invention" in the specification, however, as opposed to

describing a particular embodiment, it is appropriate to construe the claim terms consistent with the patentee's description. *Honeywell Intern., Inc. v. ITT Industries, Inc.*, 452 F.3d 1312, 1318 (Fed.Cir.2006).

C. The Prosecution History

[13] [14] [15] The prosecution history, meaning the complete record of proceedings before the Patent and Trademark Office and the prior art cited during the patent examination, is relevant to claim construction. *Phillips*, 415 F.3d at 1317. The prosecution history "provides evidence of how the PTO and the inventor understood the patent." *Id.* Prosecution history enjoys less weight than the claim terms and specification, but "can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.*

D. Claim Differentiation

[16] [17] [18] [19] Under the doctrine of claim differentiation, a court may construe a claim based on how it differs from other claims. *Id.* at 1314-15. For example, if a dependent claim adds a particular limitation not found in an independent claim, a rebuttable presumption arises that the limitation is not found in the independent claim. *Id.* The doctrine of claim differentiation has less force, however, where there are additional differences between the claims. *SRAM Corp. v. AD-II Engineering, Inc.*, 465 F.3d 1351, 1358 (Fed.Cir.2006). The presumption arising from claim differentiation is overcome if the result conflicts with the specification or prosecution history. *Andersen v. Fiber Composites, LLC*, 474 F.3d 1361, 1369-70 (Fed.Cir.2007).

E. Extrinsic Evidence

[20] [21] A court may also consider evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and treatises. *Phillips*, 415 F.3d at 1317-18. These sources are entitled to less weight than the patent's intrinsic evidence. *Id.* at 1318.

II. DISCUSSION

A. "Point" as used in Claims 1, 5, 6, 8, 21, and 27 of the '416 Patent and Claim 6 of the '730 Patent FN2

FN2. The claims and patents are hereafter abbreviated as follows: [Patent number]: [Claim number(s)]. For example, claim 1 of the '416 patent is claim 416:1; claims 1, 5, 6, and 8 of the '416 patent are claims 416:1, 5, 6, and 8.

[22] The term "point" is found in several claims and in both patents. Alden asserts that the term should be construed to mean "a small central area of the tip of the bit where the scraping and rearward edges and tapered surfaces converge. The term point does not refer to a dimensionless dot." Alden Br. at 5.

Eazypower's construction is "the position where the scraping edges intersect" for claims 416:1, 5, 6, and 8 and "the position where the scraping edges and rearward edges intersect" for claims 416:21 and 27 and 730:6. Eazypower Br. at 10, 25. The dispute is essentially whether, as Alden asserts, the "point" can have some amount of material to it such that the edges do not intersect at the axis, or is a geometric dot where edges intersect, as Eazypower asserts.

1. Claim Language

a. Claim 416:1

The claim reads, in full:

For removing damaged screws, a bit having an axis and a tip end formed with a point and a rear end formed in hexagonal cross-section adapted for installation in a chuck of a variable speed reversible drill, the tip end having a plurality of longitudinal recesses uniformly disposed about the tip end, each bordered by a longitudinal surface facing in a counter-clockwise direction, the surface formed with a distal straight scraping edge, the scraping edges of the recesses each being in a plane including the axis and being at an acute angle less than 70 (deg.) to the axis, and a support portion behind each scraping edge, the support portions each defined by a relief surface curving away from the scraping edge down to a rearward edge bordering one of the longitudinal recesses, each rearward edge also lying in a plane including the axis and being disposed at more acute angle to the axis than the scraping edge angle.

DX B, col 3, lns 50-65. FN3 The relevant language is "a bit having an axis and a tip end formed with a point." Nothing in the claim either refers to the intersection of edges or describes the point as a "central area."

FN3. Plaintiff's exhibits are abbreviated PX; Defendant's are DX. For patents, the column ("col"), line ("ln" or "lns"), and/or figure ("fig" or "figs") numbers are provided. Internal cross-reference numbers in the Detailed Description of Embodiments sections are omitted.

b. Claim 416:5

Claim 416:5 reads:

A method for unscrewing threaded fasteners installed in an object and having a head with a deformed end surface, the method comprising the steps of:

- a. providing a bit having an axis and a tip end formed with a point, the tip end having a plurality of longitudinal recesses uniformly disposed about the tip end, each bordered by a longitudinal surface facing in a counter-clockwise direction and being in a plane including the axis, and formed with a straight scraping edge, the scraping edges of the recesses each being at acute angles to the axis and a support portion behind each scraping edge, the support portions at the tip end each defined by a relief surface curving away from the scraping edge down to a rearward edge bordering one of the longitudinal recesses, each rearward edge also lying in a plane including the axis and being disposed at more acute angle to the axis than the scraping edge,
- b. engaging the head with the tip end with the scraping edges engaging the end surface of the fastener,
- c. rotating the bit in a counter-clockwise direction.

DX B, col 4, lns 12-32. There is no material difference in the language of claims 416:1 and 5 related to the term "point."

c. Claim 416:6

Claim 416:6 reads:

In combination:

a. a threaded fastener having an axis, a threaded section and a head section, the head section being formed with a generally radial end surface having a damaged cross slot having sloping sidewall portions defining a first angle to the axis, and

b. cylindrical extraction bit having an axis aligned with the axis of the fastener and a tip end formed with a point, the tip end having a plurality of longitudinal recesses about the tip end, each bordered by a longitudinal scraping surface facing in a counter-clockwise direction and having a scraping edge, the scraping edges each lying in a plane including the axis of the bit and disposed at a second angle to the axis, the second angle being less sharp than the first angle, the scraping edges engaging the end surface of the faster at the margin of the cross slot.

DX B, col 4, lns 33-49. Again, nothing about the claim language dictates either proposed interpretation.

d. Claim 416:8

This claim reads:

A tool for removing damaged screws comprising: a bit having an axis and a tip end formed with a point and a rear end formed in hexagonal cross-section adapted for installation in a chuck of a variable speed reversible drill, the tip end having a plurality of longitudinal recesses uniformly disposed about the tip end, each bordered by a scraping surface facing in a counter-clockwise direction, the scraping surface formed with a distal straight scraping edge, the scraping edges of the recesses each being disposed at a scraping edge acute angle to the axis less than about 70 (deg.), and a support portion behind each scraping edge, the support portions each defined by a relief surface curving away from the scraping edge down to a rearward edge bordering one of the longitudinal recesses the rearward edge being disposed at a more acute angle to the axis than the scraping edge acute angle.

DX B col 4, lns 58-67; col 5, lns 1-5. This claim does not materially differ from claim 416:1.

e. Claim 416:21

This claim states:

A tool for removing damaged screws as defined in claim 16 herein the rearward edge borders one of the longitudinal recesses and meets at a point with the scraping edge associated with the scraping surface of the one of the longitudinal recesses.

DX B, col 6, lns 13-17. The limitations added to claim 416:16 by claim 416:21 refer to the recesses meeting "at a point." This language, by itself, does not lead the to Court to accept either proposed claim construction, as the recesses could meet at a point regardless of whether the intersection of the recesses forms the point. In other words, even if the "point" is more than the intersection of the recesses and has its own material, the recesses could meet "at [the] point."

f. Claim 416:27

This claim uses the same "meets at a point" language as claim 416:21. DX B, col 6, lns 52-56. There are no other relevant differences.

g. Claim 730:6

This claim reads exactly the same as claim 416:6, except that claim 730:6 refers to "a pair of longitudinal recesses," as opposed to "a plurality of longitudinal recesses." DX A, col 4, lns 37-54.

2. Specification

[23] The '416 specification states, under the heading of "Summary of the Invention," that "[t]he edges meet in a point at an obtuse angle." DX B, col 1, lns 35, 43-44. Because this language appears in the portion of the specification purporting to describe the invention as a whole, it is highly relevant in construing every claim. *See Honeywell*, 452 F.3d at 1318. Stating that the edges "meet in a point" implies that the point is formed by the intersection of the edges.

Under the heading "Detailed Description of the Embodiments," the patent states that "the two scraping edges are in the same plane and intersect at the axis of the bit in a point." DX B, col 2, lns 7, 38-39. The figures that illustrate the embodiments also show edges intersecting to form a point. DX B, figs 1, 2, 4, 5a, 5b, 5c, 5d, 6, 7a, 7b, 7c, 7d. This supports Eazypower's position, but because the language and figures describe only particular embodiments, they are accorded limited weight in construing the claim terms. *See Phillips*, 415 F.3d at 1323. Nonetheless, the embodiments are consistent with the language found under "Summary of the Invention."

The specification to the '730 patent, beneath the heading "Detailed Description of Embodiments," states that "[t]he point, having the angle of about 110 (deg.) to 140 (deg.) when engaging the vestiges of a standard screw slot serves as a centering means." DX A, col 2, lns 51-53. Alden argues that this implies a structural area of contact with the damaged screw, but has not explained why a point formed by the intersection of the edges would not serve the same purpose. Further, Figure 2, to which this language points, shows what appears to be a dimensionless point at the tip of the bit that does not contact the damaged screw. DX A, fig 2.

Because the '416 patent is a continuation of the '730 patent, the Court considers the '730 specification in construing all of the claims. *Cf. Advanced Cardiovascular Systems, Inc. v. Medtronic, Inc.*, 265 F.3d 1294, 1305 (Fed.Cir.2001) ("The prosecution history of a related patent can be relevant if, for example, it addresses a limitation in common with the patent in suit.").

3. Prosecution History

[24] During the examination process for the '730 patent, the examiner cited patent 500,213 ("Richards patent"). DX A (cover sheet). In rejecting the '730 patent on September 24, 2002, the examiner stated that "Richards discloses the claimed invention comprising, as shown in Figs. 2 and 4, a bit having an axis and a tip end formed with a point" and concluded that the '730 patent was anticipated by Richards. DX C, tab 5, page 3. FN4 Alden amended the '730 patent in light of the September 24 rejection, keeping the "tip end formed with a point" phrase. Alden argues that because the patent was issued with the phrase "tip end

formed with a point," "point" should be construed by reference to the Richards patent. DX C, tab 8, page 2.

FN4. Page number citations to the prosecution history are internal to the document found in the cited tab. For example, tab 5 of the '730 patent is the examiner's written rejection. Page 3 is the page number printed on the page by the examiner, but because tab 5 includes additional material before the written rejection that is not numbered, page 3 is not actually the third page in tab 5.

Alden asserts that "[t]he metal drill shown in the Richards [patent] has cutting edges which taper toward a central area in the center of the tip, not a geometric dot." Alden Br. at 6. The basis of Alden's assertion that the "point" in Richards is not formed by intersecting edges is Figure 1 in the Richards patent. Alden has not sufficiently demonstrated what Figure 1 of the Richard patent shows, and has not cited any portion of the written specification or claims of the Richards patent. Therefore, the Court gives the Richards patent no weight. *Cf.* Franklin Elec. Co. v. Dover Corp., 2007 WL 634430, at * 6 (Fed.Cir. March 1, 2007) (rejecting construction based on figure where written specification did not describe limitation allegedly shown in figure because "patent figures are generally not intended to convey such detail"), *citing* Hockerson-Halberstadt, Inc. v. Avia Group Int'l, 222 F.3d 951, 956 (Fed.Cir.2000). FN5

FN5. *Franklin* was an unpublished opinion, but since it was decided after January 1, 2007, it may be cited, at least in the courts of appeals. *See* Fed. R.App. P. 37.1. It is unclear what weight "nonprecedential" opinions should be afforded in the wake of Rule 37.1, however. *See* Fed. R.App. P. 37.1 Adv. Comm. Notes. *See also* Fed. Cir. L.R. 47.6 (last visited August 28, 2007) ("Any opinion or ordered ... designated [as nonprecedential] must not be employed or cited as precedent."). This is potentially important because while Hockerson-Halberstadt was a published opinion, it addressed attempts to import "precise proportions" into claim terms using patent drawings, not, as here and in *Franklin*, attempts to describe the more general contours of part of an invention. Nonetheless, the Court's conclusion would not change if *Franklin* were omitted and the Court relied solely on Hockerson-Halberstadt.

4. Extrinsic Evidence

[25] Alden submitted the affidavit of Yvon Desaulniers, Alden's President. DX E. The Desaulniers affidavit describes Alden's process for manufacturing bits, which it asserts is consistent with the patent. Desaulniers states that because of manufacturing tolerances and design integrity concerns, the edges "approach close to the axis of the bit at the tip, but do not actually intersect the axis." *Id.* The affidavit does not provide Desaulniers' education or training, and fails to establish that Desaulniers is a person of ordinary skill in the art of designing or manufacturing bits; it merely states that he is the President of Alden. Therefore, the Court finds the Desaulniers affidavit unpersuasive.

5. Construction

The claim language itself does not dictate a construction. The specification states under "Summary of the Invention" that the edges meet in a point. The Richards patent and Desaulniers affidavit on which Alden relies are entitled to no weight. Therefore, the Court accepts Eazypower's proposed construction of "point": "the position where the scraping edges intersect" for claims 416:1, 5, 6, and 8 and claim 730:6, and "the position where the scraping edges and rearward edges intersect" for claims 416:21 and 27. FN6

FN6. Alden has provided a separate argument for the phrase "meets at a point" as used in claims 416:13, 21,

and 27, but asserts the same construction. Eazypower relies on its arguments related to the term "point." The Court construes "meets at a point" as used in claims 416:13, 21, and 27 consistent with its construction of the term "point."

B. "In a plane including the axis" as used in Claims 416:1, 5, 6, and 7 and Claim 730:6

Alden offers the following construction of this language: "The phrase 'in a plane including the axis' must be construed liberally rather than with geometric precision to allow for design integrity and manufacturing tolerances which in the real world offset the surfaces or edges slightly from a plane intersecting the bit axis." Alden Br. at 8. Eazypower argues that the plain language of the claims is sufficient.

1. Claim Language

a. Claim 416:1

The full text of this claim is set forth above in the section construing the term "point." The relevant language is: "the scraping edges of the recesses each being in a plane including the axis." DX B, col 3, lns 57-58. The construction offered by Alden contradicts the plain language of the claim. Further, the Court notes that Alden failed to use words of approximation, such as "in a plane approximately including the axis," despite using such terms elsewhere in the patent. *See, e.g.*, DX B, col 4, lns 66-67 ("at a scraping edge acute angle to the axis less than *about* 70 (deg.)") (emphasis added).

b. Claim 416:5

The full text of this claim is set forth above in the section construing the term "point." The relevant language is: "longitudinal surface facing in a counter-clockwise direction and being in a plane including the axis" and "each rearward edge also lying in a plane including the axis." DX B, col 4, lns 18-20, 26-27. Claim 416:5 will be construed in the same way as claim 416:1.

c. Claim 416:6

The full text of this claim is set forth above in the section construing the term "point." The relevant language is: "the scraping edges of the recesses each lying in a plane including the axis of the bit." DX B, col 3, lns 44-45. Again, use of the phrase in this claim will be construed in the same way as in claim 416:1.

d. Claim 416:7

This claim states:

The combination as claimed in claim 6 including a support portion behind each scraping edge, the support portions each defined by a relief surface curving away from the scraping edge down to a rearward edge bordering one of the longitudinal recesses, the rearward edges both lying in a plane including the axis and being disposed at a third angle to the axis, the third angle being sharper than the second angle.

DX B, col 4, lns 50-57. Nothing about this language compels a treatment different from the other claims just discussed.

e. Claim 730:6

This claim reads exactly the same as claim 416:6, except that claim 730:6 refers to "a pair of longitudinal recesses," as opposed to "a plurality of longitudinal recesses." DX A, col 4, lns 37-54. The relevant language is: "the scraping edges lying in a first plane including the axis of the bit." DX A, col 4, lns 49-51. Once again, use of the phrase in claim 416:5 will be construed in the same way as in claim 416:1.

2. Specification

Both the "Summary of the Invention" and "Detailed Description of Embodiments" sections of the '416 patent essentially repeat the language used in the claims. DX B, col 1, lns 40-41; col 2, lns 38-39; col 3, lns 10-13. There is no mention of design integrity or manufacturing tolerances in the specifications of either patent.

3. Prosecution History

Alden again refers to the Richards patent in the prosecution history, arguing here that Richards shows a "chisel point" design, in which the edges are slightly offset. For the reasons stated above under the Court's construction of the term "point," the Richards patent is given no weight.

4. Extrinsic Evidence

Alden again relies on the Desaulniers affidavit, here to establish that a person of ordinary skill in the art would understand that phrase is subject to manufacturing tolerances and design integrity limitations. Because the Desaulniers affidavit does not establish that Desaulniers is a person of ordinary skill in the art, the Court rejects the affidavit.

5. Construction

The additional language sought by Alden conflicts with the plain meaning of the phrase "in a plane including the axis." The Richards patent and Desaulniers affidavit are unconvincing. Further, the Federal Circuit has held that reading manufacturing tolerances into a claim is improper. *Senmed, Inc. v. Richard-Allan Medical Industries, Inc.*, 888 F.2d 815, 820 n. 10 (Fed.Cir.1989). FN7 Therefore, the Court accepts Eazypower's proposed construction of "in a plane including the axis," and construes the phrase to mean simply what it says: "in a plane including the axis."

FN7. Alden cites *Dana Corp. v. American Axle & Mfg., Inc.*, 110 Fed.Appx. 871 (Fed.Cir.2004) as support for its proposition that a claim should be construed to account for manufacturing tolerances. The case was unreported and states: "Pursuant to Fed.Cir.R. 47.6, this order is not citable as precedent." *Id.* at 871. Therefore, the Court ignores *Dana Corp.* Alden also cites *Middleton, Inc. v. Minnesota Mining & Manufacturing Co.*, 217 F.3d 860 (Table), 1999 WL 1072246 (Fed.Cir. Nov.16, 1999) (*Middleton II*). In *Middleton II*, the Federal Circuit noted in dicta that the district court's construction allowed for "normal manufacturing tolerances." *Id.* at *6. On a second appeal following remand, the Federal Circuit noted (cont'd) that it had not actually construed the term in *Middleton II*, and then construed the relevant term without allowing for manufacturing tolerances. *Middleton, Inc. v. Minnesota Mining & Manufacturing Co.*, 311 F.3d 1384, 1389 (Fed.Cir.2002) (*Middleton IV*). *Middleton IV* did not discuss whether manufacturing tolerances could ever be read into a claim; rather, the Court found that the evidence allegedly supporting a construction that included manufacturing tolerances was insufficient. *Id.* In any event, *Middleton IV*

destroyed any basis for reading *Middleton II* as approving the practice of reading manufacturing tolerances into claim terms, and further, *Middleton II* was an unreported opinion. Therefore, the Court rejects Alden's reliance on *Middleton II* and follows *Senmed*, noting for the record that the *Middleton* decisions make no mention of *Senmed*.

C. "Straight" as used in Claims 416:1, 5, and 8

[26] Alden argues that "straight" means "like a straight line, not curved." Alden Br. at 7. Eazypower would construe the term as "a single, uninterrupted, and continuous straight line." Eazypower Br. at 15. The real issue seems to be whether a serrated scraping edge is "straight."

1. Claim Language

The language of claims 416:1, 5, and 8 are set forth above in the Court's discussion of the term "point." Claim 416:1 refers to "a distal straight scraping edge." DX B, col 3, lns 56-57. Claim 416:8 uses the same phrase. *Id.* col 4, ln 65. Claim 416:5 describes "a straight scraping edge." *Id.* col 4, ln 20. Nothing about the claim language compels the Court to accept either proposed construction.

2. Specification

Alden points to the "Detailed Description of Embodiments" in the '416 patent, which states that the scraping edge is "preferably a straight line from periphery to axis." DX B, col 2, lns 18-19. The rearward edge is described in similar fashion, but without the term "preferably." *Id.* col 2, lns 24-25. This adds nothing to the Court's analysis.

Eazypower argues that all of the embodiments in the '416 patent show a continuous, uninterrupted line representing the scraping and rearward edges. DX B, figs 4, 6, and 8. The Court agrees that the figures show straight lines, but will not limit the claims to the specific embodiments shown. Further, for the reasons the Court refused to interpret the Richards patent based solely on its drawings in the context of the Court's construction of "point," the Court will not rely on these patent drawings to construe "straight."

3. Prosecution History

[27] Alden argues that a piece of prior art cited by the examiner against the '730 patent, patent number 5,570,978 ("Rees patent") shows serrations, and therefore the term "straight," as used in the '730 and '416 patents, includes serrated edges. Like the '416 patent, the '730 patent describes a "distal straight scraping edge" and "straight scraping edge," so the Court considers the prosecution history of the '730 patent in construing the same terms in the '416 patent.

It is clear from the face of the '730 patent that the examiner cited the Rees patent, but not the reasons. DX A (cover sheet). Alden has not explained why Rees was cited nor pointed the Court to any portion of the extensive file history in which Rees was discussed. At oral argument, Alden admitted that Rees was not specifically applied by the examiner. Further, Alden has failed to point out what in the Rees patent shows serrations. Therefore, the Court gives no weight to the Rees patent.

4. Extrinsic Evidence

Eazypower cites the Merriam Webster Online Dictionary definition of "straight" in support of its construction: "free from curves, bends, angles, or irregularities, *straight hair, straight timber*"; "generated by a point moving continuously in the same direction and expressed by a linear equation, *a straight line, the straight segment of a curve*." Merriam Webster Online Dictionary, <http://mw1.merriam-webster.com/dictionary/straight> (last visited Aug. 22, 2007). Webster's defines straight, among other inapplicable definitions, as: "free from curves, bends, or angles: having no irregularities in course"; "of, relating to, or constituting a one-dimensional continuum that is determined throughout its length by any two points included in it: taking a course like that of a taut uninterrupted cord made fast at opposite ends: progressing or projected in an unvarying direction." Webster's Third New International Dictionary at 2254 (1981). These definitions support Eazypower's position that a "straight" edge is uninterrupted and continuous, which would not include a serrated edge.

5. Construction

Neither the claims nor the specification clearly define the term "straight." The prior art that Alden cites is unconvincing. Therefore, the Court is left with only a dictionary definition, which supports Eazypower's construction. "Straight," as used in claims 416:1, 5, and 8, means "a single, continuous, uninterrupted straight line."

D. "Scraping Edges" as used in Claims 730:6 and 416:1, 5, 6, 8, 10, 16, and 22

[28] Alden's asserted construction is "the edges formed at the tip of a bit by the longitudinal scraping surfaces and relief surfaces, which edges dig into and engage the damaged screw upon rotation in the extracting direction so that there is a unitary rotation of the bit and screw in the extraction direction." Alden Br. at 6. Eazypower agrees with the first phrase ending in "relief surfaces," but would omit the remainder of Alden's construction.

1. Claim Language

a. Claim 730:6

This claim reads exactly the same as claim 416:6, set forth above, except that claim 730:6 refers to "a pair of longitudinal recesses," as opposed to "a plurality of longitudinal recesses." DX A, col 4, lns 37-54. The relevant language is "having a scraping edge" and "the scraping edges engaging the end surface of the fastener at the margin of the cross slot." DX A, col 4, lns 49, 52-54. This claim language supports including in the claim construction a reference to "engaging" the fastener, but no more.

b. Claim 416:1

The full text of this claim is set forth above. The relevant language is "scraping edge." DX B, col 3, lns 57, 50, 61-62. This claim does not describe the function of the scraping edges.

c. Claim 416:5

The full text of this claim is set forth above. The relevant language is "scraping edge," but the claim also describes "engaging the head [of the damaged fastener] with the tip end with the scraping edges engaging the end surface of the fastener" and "rotating the bit in a counter-clockwise direction." The language of the claim supports Alden's construction.

d. Claim 416:6

The full text of this claim is set forth above. It reads the same in all material respects as claim 730:6.

e. Claim 416:8

The full text of this claim is set forth above. The relevant language is "scraping edge," but the claim also states that it is a "tool for removing damaged screws." DX B, col 4, lns 58, 65-66; col 5, lns 2-3. This claim language provides some support to Alden's construction in that it makes clear that the tool is to be used to remove a damaged screw, but does not specify the function of the scraping edges explicitly.

f. Claim 416:10

This claim states, in full:

A tool for removing damaged screws comprising: a bit having an axis of rotation extending between a tip end and rear end, the rear end being formed with a cross-section adapted for installation in and rotation by a chuck of a reversible drill, the tip end having a plurality of longitudinal recesses uniformly disposed about the tip end, each recess bordered by a scraping surface facing in the counter-clockwise direction of rotation, the scraping surface being formed with a distal scraping edge, each of the scraping edges being disposed at a scraping edge acute angle relative to the axis of the bit, and a support portion behind each scraping edge, the support portions each defined by a relief surface leading away from the scraping edge to a rearward edge bordering one of the longitudinal recesses, the rearward edge being disposed at an angle relative to the axis of the bit more acute than the scraping edge acute angle.

DX B, col 5, lns 8-23. There are no material differences between this claim and claim 416:8.

g. Claim 416:16

The full text of the claim is:

A tool for removing damaged screws comprising:

- a. a bit having an axis of rotation extending between a tip end and a rear end,
- b. the rear end being formed with a cross-section adapted for installation in and rotation by a chuck of a reversible drill,
- c. the tip end having a plurality of longitudinal recesses uniformly disposed about the tip end, each recess bordered by a scraping surface facing in the counter-clockwise direction of rotation,
- d. the scraping surface being formed with an associated scraping edge at the tip end of the bit,
- e. the associated scraping edge when viewed perpendicular to the axis being disposed at a first acute angle relative to the axis,
- f. a support portion being located behind the associated scraping edge in the direction of rotation, the

support portion being defined by a relief surface loading away from the associated scraping edge to a rearward edge,

g. the rearward edge when viewed perpendicular to the axis being disposed at a second acute angle relative to the axis, the second acute angle being more acute than the first acute angle.

DX B, col 5, lns 36-57; col 6, lns 1-2. There are no material differences between this claim and claim 416:8.

h. Claim 416:22

This claim is nearly identical to claim 416:16. The differences are not material to the term "scraping edge."

2. Specification

The Abstract to the '416 patent states that the scraping edge "dig[s] into the metal of a deformed screw at points removed from the axis to get a good purchase on the screw." DX B (cover page). Identical language is found in the Abstract to the '730 patent. DX A (cover page).

The Detailed Description of Embodiments in the '730 patent states that the edges perform a "digging function," "engage and effectively scrape ... and rotate the screw out of its hole," and are structured to assure "a firm purchase of the fastener by the scraping surfaces [resulting] in a 'digging' into the top face of the fastener." DX A, col 2, lns 27-31, 54-56; col 3, lns 26-29. Similar language is found in the '416 patent. *See, e.g.*, DX B col 2, lns 45-50.

3. Construction

Alden argues that the function-related language is necessary to distinguish the cutting edges used in the Richards patent. Eazypower points the Court to *Schwing GmbH v. Putzmeister*, which held: "Where a claim uses clear structural language, it is generally improper to interpret it as having functional requirements." 305 F.3d 1318, 1324 (Fed.Cir.2002). *See also* *Toro Co. v. White Consol. Indus.*, 266 F.3d 1367, 1371 (Fed.Cir.2001) ("An invention claimed in purely structural terms generally resists functional limitation.").

In *Schwing*, the Federal Circuit noted, in reaching its decision, that nothing in the claim language or the specification required the structural component at issue to serve any particular function. 305 F.3d at 1323. Here, several claims explicitly state that the scraping edges engage the head of the damaged fastener. The Abstract section of the specification says the same, notes digging, and implies rotation, as does the Detailed Description of Embodiments. Therefore, the Court accepts Alden's proposed construction in part, and construes "scraping edges" to mean "the edges formed at the tip of a bit by the longitudinal scraping surfaces and relief surfaces, which edges dig into and engage the damaged fastener upon rotation." This construction is consistent with the claim language and alleviates Alden's concern that the scraping edges could be confused with cutting edges.

E. "Acute angle relative to the axis" as used in Claims 416:1, 5, 8, 10, 16, and 22.

[29] Alden's proposed construction of this phrase is: "an angle of less than 90 (deg.) between the scraping edge and the axis of the bit when viewed along a line perpendicular to the axis and the edge, whether the edge and axis intersect or not." Alden Br. at 10. Eazypower's construction is "an angle of less than 90 (deg.), but the combined angle of two scraping edges (relative to the axis) is obtuse." Eazypower Br. at 17.

Eazypower seems to agree that the edge and axis need not actually intersect, although the Court's construction of "point" requires the edges to intersect at the axis. Thus, the dispute is whether the combined angle of two scraping edges must be obtuse.

1. Claim Language

The full text of each of these claims is described above. Each claim recites an acute angle between each scraping edge and the axis. None of the claims state that the combined angle of the scraping edges relative to the axis must be obtuse.

Alden argues that these claims should be construed by comparison to claim 416:14 using the doctrine of claim differentiation. Claim 416:10 is an independent claim that does not restrict the angle between the edge and axis beyond requiring each angle to be acute. Claim 416:14 is dependent on claim 416:10 and further requires the angle between the edges to be obtuse. There is one additional difference between claims 416:10 and 14-Claim 416:10 describes a plurality of edges, but 416:14 describes only two.

Finally, Alden argues that because claim 416:10 describes a plurality of scraping edges, Eazypower's construction makes no sense if there are more than two edges.

2. Specification

Beneath the heading "Summary of the Invention" in the '416 patent lies the following sentence: "The edges meet in a point at an obtuse angle." DX B, col 1, lns 35, 43-44. The Abstract states that "[e]ach scraping surface has a scraping edge at an angle of about 55 (deg.) to 70 (deg.)". DX B (cover page). Both embodiments in the '416 patent are consistent with an obtuse angle between the edges. DX B, col 2, lns 42-43 ("The angle between the edges is obtuse, preferably in the range from 110 (deg.) to 140 (deg.)"); col 3, lns 12-13 ("the edges are at angles to the axis in a range of 55 (deg.) to 70 (deg.)").

3. Construction

[30] While the doctrine of claim differentiation raises a presumption that claim 416:10 does not require the combined angles of the scraping edge to be obtuse, the presumption is overcome by the specification language indicating that both the invention in general and the specific embodiments require an obtuse angle between the edges. *See, e.g.*, Andersen, 474 F.3d at 1369-70. Further, because the patent describes "the invention" as having edges that meet in an obtuse angle, it is appropriate to import this limitation to the claims. *See Honeywell*, 452 F.3d at 1318.

Alden is correct that this construction is potentially problematic if more than two edges are used, but that issue is resolved by requiring each set of two edges to form a combined angle greater than 90 (deg.), which the Court concludes is consistent with the specification. Further, this tension is insufficient to overcome the clear and unequivocal specification language that the angle between the edges is obtuse. Therefore, the Court accepts Eazypower's construction, and requires the combined angle of two scraping edges relative to the axis to be obtuse.

III. CONCLUSION

The Court construes the claim terms as follows:

(1) "Point" means "the position where the scraping edges intersect" for claims 416:1, 5, 6 and 8 and claim 730:6; and "the position where the scraping edges and rearward edges intersect" for claims 416:21 and 27. The Court construes "meets at a point" as used in claims 416:13, 21 and 27, consistent with its construction of the term point.

(2) "In a plane including the axis" means "in a plane including the axis."

(3) "Straight" means "a single, continuous, uninterrupted straight line."

(4) "Scraping edges" means "the edges formed at the tip of a bit by the longitudinal scraping surfaces and relief surfaces, which edges dig into and engage the damaged fastener upon rotation."

(5) "Acute angle relative to the axis" means "an angle of less than 90 (deg.) between the scraping edge and the axis of the bit when viewed along a line perpendicular to the axis and the edge, whether the edge and axis intersect or not. If there are two scraping edges, the combined angles relative to the axis are greater than 90 (deg.). If there are more than two scraping edges, the combined angles relative to the axis of each set of two angles are greater than 90 (deg.)."

SO ORDERED.

N.D.Ill.,2007.

Eazypower Corp. v. Alden Corp.

Produced by Sans Paper, LLC.