



## STATEMENT OF FACTS<sup>1</sup>

Oleksy worked at the Preferred Machine and Tools Products Corporation in Bedford Park, Illinois. (GE 56.1 ¶ 7.) While there, he developed a computer-controlled process for improving the manufacture of steam turbine blades at the Bedford Park plant. (*Id.* at ¶ 8; HO 56.1 Resp. ¶ 8.) The USPTO issued United States Patent No. 6,449,529 (the “Oleksy patent”), covering Oleksy's method, on September 10, 2002. (HO 56.1 ¶ 11.)

GE manufactures turbines. (GE 56.1 ¶ 13.) A turbine consists of a rotary wheel and blades. (*Id.*) The blades are connected to the wheel by a root section component. (*Id.*) Specifically, projections on the interior surface of the root sections, called “hooks,” attach and hold turbine blades to the rotary wheel. (HO 56.1 ¶¶ 24-25; GE 56.1 Resp. ¶¶ 24-25.) To prevent the blades from wobbling, the curvature of the hook in the root section must be machined to specific dimensions. (GE 56.1 ¶ 14; HO 56.1 ¶ 26.)

The Oleksy patent claims a method of determining the machining instructions for purposes of milling root sections of turbine blades. (HO 56.1 at Ex. A.) This method uses a CNC milling machine to cut a concave internal hook in the root section of a turbine blade. (*Id.*) An alleged benefit of the Oleksy method is that it requires only one machine setup and therefore simplifies the procedure for machining the curved surface of the hook. (*Id.*)

Specifically, the Oleksy patent’s abstract describes the patented method as: “[a] method of determining machining instructions during machining of a workpiece using a machine having a cutter, the surfaces of the workpiece being defined by a plurality of programmed instructions

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<sup>1</sup> Throughout this Opinion, the Court refers to the Parties’ Local Rule 56.1 Statements of Undisputed Material Facts as follows: citations to GE’s Statement of Uncontested Facts have been abbreviated to “GE 56.1 ¶ or Ex. , p. .”; citations to Oleksy’s Statement of Uncontested Facts have been abbreviated to “HO 56.1 ¶ or Ex. , p., .”; citations to either party’s responses have been abbreviate to “GE or HO 56.1 Resp. ¶ .”

obtained by trigonometric analysis of the required curvatures of the surfaces.” (HO 56.1 at Ex. A.)

Claim 1 recites several components used in combination to accomplish the “method of determining machining instructions . . . during machining of a workpiece”: (1) at least a three-axis milling machine having a spinning form cutter and a rotary table; (2) a workpiece to machine precise concave and convex surfaces within a metal block; (3) the surfaces of said workpiece defined by of a plurality of programmed instructions that are obtained by trigonometric analysis; (4) that the trigonometric analysis is performed using a diagram of concave and convex surfaces and movements of the cutter and rotary table; and (5) a root section having at least a first hook as a holding hook. (GE 56.1 ¶ 24; HO 56.1 ¶ 12; HO 56.1 Ex. A.) The claim states that the spinning form cutter moves in a convex path defined by trigonometric analysis, while the rotary table simultaneously rotates. (*Id.*) The resulting programmed instructions are used by the CNC machine to determine machining instructions that are used by the CNC machine to cut the required concave hook in the root section. (*Id.*)

Claim 2 recites “[t]he method of claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces comprises analysis of a diagram of a graphical construction of the required curvatures of the surfaces and the movements of said spinning cutter and said rotary table relative to the application of said spinning form cutter to the required curvatures of said root section of said turbine blade, said graphical construction consisting essentially of a trigonometric analysis, said root section comprising at least one holding hook.” (GE 56.1 ¶ 42; HO 56.1 ¶ 13; HO 56.1 Ex. A.)

Claim 3 recites “[t]he method of claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces and movements of said spinning cutter and said rotary table

determines the path of said spinning form cutter as a curved convex radius of E plus R wherein E is the distance from center of rotary table to first holding hook and R is the radius on the first holding hook.” (GE 56.1 ¶ 43; HO 56.1 ¶ 14; HO 56.1 Ex. A.)

Claim 4 recites “[t]he method of claim 1 wherein said trigonometric analysis of the required curvatures of the surfaces and movements of said spinning cutter and said rotary table determines the path of said spinning form cutter as a curved convex radius of E plus R wherein E+R of the convex radius is determined by points L,C, and A, L being the minimum distance P and distance M determined by angle +Q, the angle of rotation to the left, C being the minimum distance E determined by the angle 0; A being the minimum distance F and distance Y determined by angle –Q, the angle of rotation to the right; E being the distance from the center of rotary table to first holding hook, and R the radius on the first holding hook.” (GE 56.1 ¶ 44; HO 56.1 ¶ 15; HO 56.1 Ex. A.)

The Oleksy Patent was reexamined by the Patent Office at the request of GE and the Patent Office affirmed patentability of all claims of the Oleksy Patent. (HO 56.1 ¶ 16.)

## **DISCUSSION**

### **I. The Validity of Oleksy’s Patent Under 35 U.S.C. § 101**

#### **A. Summary Judgment Standard**

Summary judgment is proper when “the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” Fed.R.Civ.P. 56(c)(2). In determining whether a genuine issue of fact exists, the Court must view the evidence and draw all reasonable inferences in favor of the party opposing the motion. See *Bennington v. Caterpillar Inc.*, 275 F.3d 654, 658 (7th Cir. 2001). However, in doing so, the Court will limit its analysis of the facts

on summary judgment to evidence that is properly identified and supported in Local Rule 56.1 statement submitted by the parties. *See Bordelon v. Chicago Sch. Reform Bd. of Trustees*, 233 F.3d 524, 529 (7th Cir.2000). Where a proposed statement of fact is supported by the record and not adequately rebutted, the court will accept that statement as true for purposes of summary judgment. *Id.*

**B. The Patent Is Valid Under Section 101**

The parties agree that there is no genuine issue of material fact with respect to whether the Oleksy patent is valid because determining the validity of a patent is a question of law. *See CyberSource Corp v. Retail Decisions, Inc.*, 654 F.3d 1366, 1369 (Fed. Cir. 2011) (“Issues of patent-eligible subject matter are questions of law.”); *see also Parker v. Flook*, 437 U.S. 584, 589 (1978) (deciding as a matter of law that, “[a] process is “within the statutory definition when it was either tied to a particular apparatus or operated to change materials into a ‘different state or thing.’”).

While a patent issued by the USPTO enjoys a presumption of validity, Section 101 of the Patent Act defines patentable subject matter. It provides that:

Whoever invents or discovers any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

35 U.S.C. § 101. However, “laws of nature, natural phenomena, and abstract ideas” are not patentable. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981); *see also Bilski v. Kappos*, 130 S.Ct. 3218, 3222 (2010); *Mayo Collaborative Services, dba Mayo Medical Laboratories v. Prometheus Laboratories, Inc.*, 132 S.Ct. 1289 (2012); *Association for Molecular Pathology v. Myriad Genetics, Inc.*, No. 12-398, --- S.Ct. ---, 2013 WL 2631062, at \*7 (June 13, 2013). This is because “they are the basic tools of scientific and technological work.” *Gottschalk v. Benson*,

409 U.S. 63, 67 (1972); *see also Mayo*, 32 S.Ct. at 1293 (noting that “the Court has written that a new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that  $E=mc^2$ ; nor could Newton have patented the law of gravity. Such discoveries are manifestations of ... nature, free to all men and reserved exclusively to none.”) (internal citations and quotations omitted).

While a law of nature or mathematical formula is not patentable by itself, the application of the law or formula may be patentable. *See Diehr*, 450 U.S. at 187 (“an application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection”); *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 188 (1939) (“While a scientific truth, or the mathematical expression of it, is not a patentable invention, a novel and useful structure created with the aid of knowledge and scientific truth may be.”); *Funk Brothers Seed Co. v. Kalo Inoculant Co.*, 68 S.Ct. 440, 441 (1948) (“If there is to be invention from [a discovery of a law of nature], it must come from the application of the law of nature to a new and useful end.”) (internal citations omitted); *Association for Molecular Pathology*, 2013 WL 2631062, at \*10 (finding that isolated DNA cannot be patented but noting that innovative method for manipulating genes could potentially be patented). In order for the application of a mathematical formula to be patentable, the process sought to be patented must include an additional element or a combination of additional elements that constitute “an inventive step.” *Flook*, 98 S.Ct. 2522; *see also Mayo*, 132 S.Ct. at 1294 (“the Court has also made clear, to transform an unpatentable law of nature into a patent-eligible application of such law, one must do more than simply state the law of nature while adding the words ‘apply it’”) (internal citations omitted); *Bilski*, 130 S.Ct. at 3218 (“The prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the formula to a particular

technological environment’ or adding ‘insignificant post solution activity.’”) (internal quotations and citations omitted).

Claim 1 of Oleksy’s patent describes his claimed process as follows:

A method of determining machining instructions for milling machinery comprising at least a three-axis computer numerical control milling machine during machining of a work piece to machine precise concave and convex surfaces within a metal block, said method comprising, in combination

1. Using a machine having a spinning form cutter and a rotary table
2. The surfaces of the work piece being defined by a plurality of programmed instructions for said computer numerical control milling machine obtained by trigonometric analysis of required curvatures of the surfaces and movements of said spinning form cutter and said rotary table
3. Said movement of said spinning form cutter being in a convex path and said movement of said rotary table being to rotate simultaneously from a plus rotation angle to a minus rotation angle and, alternatively, from a minus rotation angle to a plus rotation angle
4. Said programmed instructions determined by said trigonometric analysis of a diagram of required concave and convex surfaces of resulting root section of a turbine blade and movements of said spinning form cutter and rotary table
5. Said root section having at least a first hook as a first holding hook.

(GE 56.1 ¶ 24; HO 56.1 ¶ 12 [formatting added].)

The parties do not dispute that Claim 1 of Olesky’s patent describes a process for an application of a normally unpatentable mathematical formula, the “trigonometric analysis.” Therefore, the pertinent question for this Court’s § 101 analysis is whether the claim includes an additional element or a combination of additional elements that constitute “an inventive step.” In reaching the conclusion that it does, the Court finds the Supreme Court’s ruling in *Diehr* instructive.

There, the question was whether a process for molding raw, uncured rubber into cured, molded products was patentable. The process used a known mathematical equation, the Arrhenius equation to determine when to open the rubber mold. The process consisted of the following steps: (1) continuously monitoring the temperature on the inside of the mold; (2) feeding the resulting numbers into a computer, which would use the Arrhenius equation to continuously recalculate the mold opening time; and (3) configuring the computer to signal the appropriate time to open the mold. *See Diehr*, 450 U.S. at 177-79. Despite the reliance on the mathematical equation, the Court found the process to be patentable because of the way the additional steps of the process integrated the equation into the process as a whole. Specifically, it found that the process's steps were not obvious, already in use or purely conventional. As a result, it concluded that the patentees did not "seek to pre-empt the use of the equation;" rather, they sought "only to foreclose from others the use of that equation in conjunction with all of the other steps in their claimed process." *Id.* This was sufficient to confer patentability.

Similarly here Oleksy's process is patentable despite its reliance on mathematical equation because of the way the equation is integrated into a process that also uses steps that are not obvious, already in use or purely conventional. Like the Arrhenius equation was used to mold rubber, Oleksy's process uses a trigonometric algorithm to tell a three-axis computer numerical milling machine how to cut the curved section of a hook. However, the process can only be completed if the trigonometric algorithm is combined with the following steps: (1) using a machine having a spinning form cutter and a rotary table; 2) using the trigonometric analysis to program the software instructions in the CNC milling machine; and (3) causing the spinning form cutter to move in a convex path, while the rotary table simultaneously rotates the work piece from a plus rotation angle to a minus rotation angle and, alternatively, from a minus

rotation angle to a plus rotation angle. This last step, the use of a convex tool path combined with simultaneously rotating the work piece, is an unconventional step that was not previously used at the time of invention. As a result, Oleksy did not patent a mathematical formula, he patented a unique process of milling a root section of a turbine blade that happened to include the use of a mathematical formula as part of the process. Like the patentee in *Diehr*, Oleksy's patent does not pre-empt the use of his trigonometric analysis, he simply forecloses its use with respect to causing a spinning form cutter to move in a convex path to machine the root section of a turbine blade.

As a result, Oleksy's method is also distinct from the processes found unpatentable in *Mayo* and *Flook*. In those cases, the Court found that the proposed processes were not patentable because they simply appended generalized, conventional steps to laws of nature that caused the claim to say nothing more than "apply the law." *See Mayo*, 132 S. Ct. at 1300 (holding that "simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable"); *Flook*, 437 U.S. at 594 (holding that the additional claimed steps were sufficiently "well known" that there was no inventive step outside of the formula and noting that "post solution activity [that is] conventional or obvious can[not] transform an unpatentable principle into a patentable process."). Additionally, the Court was concerned that these patents did not limit the claim to particular applications; rather, these patents sought to patent the natural law for all uses. *See Mayo*, 132 S. Ct. at 1302 ("The 'determining' step too is set forth in highly general language covering all processes that make use of the correlations after measuring metabolites, including later discovered processes that measure metabolite levels in new ways."); *Flook*, 437 U.S. at 594. Conversely here, Oleksy's patent contains specifically defined, non-conventional

steps. Moreover, the patent is limited to the particular application of milling the curvature of a hook. Since Oleky's patent includes a specific, inventive step that neither the patents at issue in *Mayo* nor *Flook* did, Oleky's process is patent eligible under Section 101. Accordingly, Oleky's motion for summary judgment on this issue is granted and GE's is denied.<sup>2</sup>

## II. Claim Construction

### A. Legal Standard

The construction of a claim is a legal determination made by the Court that resolves disputed meanings in a patent to clarify and explain what the claim covers. *See Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1382 (Fed. Cir. 2005) (citing *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995)). Generally, the terms of a claim are given the ordinary and customary meaning that the terms would have to a person of ordinary skill in the art at the time of the filing date of the patent application and "read in the context of the entire patent." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005). An exception arises: "1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Medtronic Inc. v. Boston Sci. Corp.*, 695 F.3d 1266, 1275 (Fed. Cir. 2012). When interpreting a claim, the court looks first to intrinsic evidence: the words of the claims, the patent specification, and the prosecution history. *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record").

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<sup>2</sup> While not dispositive, the machine or transformation test also supports a finding that Oleky's process is patentable. Under the machine or transformation test, a process likely passes muster under § 101 if it "(1) is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing." *Bilski*, 130 S. Ct. at 3224. Oleky's process meets both prongs. It is tied to a specific machine: the three axis computer numerical control milling machine. Second, it transforms a metal block into a root section of a turbine blade.

The claim language is the starting point for claim construction analyses because it frames and ultimately resolves all issues of claim interpretation. *See Robotic Vision Sys., Inc. v. View Eng'g Inc.*, 189 F.3d 1370, 1375 (Fed. Cir. 1997). In some cases, the “ordinary and customary” meaning of the claim may be readily apparent and the court applies the widely accepted meaning of the commonly understood words. *See Phillips*, 415 F.3d at 1314. In many cases, however, the court must proceed beyond the bare language of the claims and examine the patent specification. *See Id.* at 1314-15. “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.” *Id.* at 1313. The specification itself may be dispositive; “it is the single best guide to the meaning of a disputed term.” *Id.* at 1315 (*quoting Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In the specification, the patentee provides a written description of the invention that allows a person of ordinary skill in the art to make and use the invention. *See id.* at 1323. Explanations within the specification may result in finding that a claim has a different scope than its plain meaning suggests. *See Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed.Cir. 2008); *see also Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed. Cir. 2001) (stating that a patentee may use the specification to “set forth an explicit definition for a claim term that could differ in scope from that which would be afforded by its ordinary meaning.”)

The court may also look to the patent’s prosecution history. *See Phillips*, 415 F.3d at 1317. While the prosecution history often lacks the clarity of and is less useful than the specification, it may illustrate how the inventor understood the invention and reveal limitations to the scope of the invention. *See id.* The history is generally relevant if a particular interpretation of the claim was considered and specifically disclaimed during the prosecution of

the patent. *See Schumer v. Lab. Comp. Sys.*, 308 F.3d 1304, 1313 (Fed. Cir. 2002). Moreover, reexamination proceedings are considered part of the prosecution history and may clarify the scope of a patent. *See St. Clair Intellectual Prop. Consultants, Inc. v. Canon Inc.*, 412 F. App'x 270, 275–76 (Fed. Cir. 2011) (“Because an examiner in reexamination can be considered one of ordinary skill in the art, his construction of the asserted claims carries significant weight.”).

A court may also consult “extrinsic evidence,” such as dictionaries, treatises, and expert testimony, to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317-18. Generally, extrinsic evidence is “less reliable” than intrinsic evidence and is “unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. With respect to the use of dictionaries, technical or general, a court may consult such evidence “so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents.” *Id.* at 1322-23.

Finally, the issue of claim indefiniteness is “inextricably intertwined with claim construction.” *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1368 (Fed. Cir. 2006) (quoting *Atmel Corp. v. Information Storage Devices, Inc.*, 198 F.3d 1374, 1379 (Fed. Cir. 1999)). The Federal Circuit has found that it is useful for a court to determine indefiniteness during “the court’s performance of its duty as the construer of patent claims.” *Exxon Research & Eng’g Co. v. U.S.*, 265 F.3d 1371, 1376 (Fed. Cir. 2001). Claims are only indefinite if they are “insolubly ambiguous” or “not amenable to construction.” *Halliburton Energy Servs., Inc. v. M- I LLC*, 514 F.3d 1244, 1250 (Fed. Cir. 2008) (quoting *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005)). “Claims are not indefinite merely because they present a difficult task of claim construction.” *Halliburton*, 514 F.3d at 1249. Rather, proof of indefiniteness requires “an exacting standard” that is met where the challenger “shows by clear

and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as his knowledge of the relevant art area.” *Id.* at 1249-50. “If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree. . . . the claim [is] sufficiently clear to avoid invalidity on indefiniteness grounds. *Exxon Research*, 265 F.3d at 1375.

**B. Construction of the Claim at Issue**

Pursuant to the Local Patent Rules of the Northern District of Illinois, the parties submitted ten phrases that they deemed this Court should construe. Those phrases are:

Term / Phrase	Oleksy's Proposed Construction	GE's Proposed Construction
Claim 1 in its entirety	Oleksy maintains that Claim 1 is amenable to construction and not indefinite.	Insolubly ambiguous; cannot be construed
“determining machining instructions”	converting programmed instructions to machine language instructions for a machine to execute machining functions	Insolubly ambiguous; cannot be construed
“concave and convex surfaces”	the hook’s curvature	Plain meaning; no construction necessary
“said method comprising, in combination using a machine”	“said method” – the claimed method  “comprising” – including the following recited features without excluding non-recited features  “in combination” – together  “using” – employing  “a machine” – at least a three axis milling machine	Insolubly ambiguous; cannot be construed

“spinning form cutter”	a spinning cutting tool shaped like the cut it makes	Plain meaning; no construction necessary
“programmed instructions”	software program instructions	Insolubly ambiguous; cannot be construed
“trigonometric analysis”	using a computer program to determine relationships between the sides and angles of triangles and associated functions, such as sine and cosine	Insolubly ambiguous; cannot be construed;
“a convex path”	a curved path which is bowed in the opposite direction of the hook’s curvature	Plain meaning; no construction necessary
“a diagram of a graphical construction” (Oleksy) (claim 2)  “graphical construction” (GE) (claim 2)	a software image demonstrating the workings of a procedure	3-dimensional image created by imaging software such as CAD
“a diagram” (claim 1)	a software representation of an object	drawing that includes at least the ‘needed coordination points, angles and radius the sum of E+R

### 1. Claim 1 in its Entirety

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
Claim 1 in its entirety	Oleksy maintains that Claim 1 is amenable to construction and not indefinite.	Insolubly ambiguous; cannot be construed

GE contends that Claim 1 is insolubly ambiguous in its entirety. However, it fails to meet its burden in proving this assertion because the language of Claim 1 renders it amenable to construction. When construing patent claims, the court’s “analytical focus must begin and

remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to ‘particularly point[] out and distinctly claim[] the subject matter which the patentee regards as his invention.’” *Honeywell Int’l, Inc. v. Int’l Trade Comm’n*, 341 F.3d 1332, 1338 (Fed. Cir. 2003) (quoting *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001)).

Here, the preamble explains that the patent provides a method to determine machining instructions by which a CNC milling machine cuts or “machines” concave and convex surfaces in a metal block. (*See* Doc. 306, the Joint Appendix (“JA”) at JA009.) The claim then proceeds to describe the combined steps that the method is composed of. First, to “machine” the concave and convex surfaces in the metal block, the method user must use a CNC milling machine that has a “spinning form cutter and a rotary table.” (*Id.*) Second, the method user uses the trigonometric analysis to program the computer of the milling machine to direct the spinning form cutter to move in a convex path and to direct the rotary table to rotate from a plus rotation angle to a minus rotation angle and vice versa. (*Id.*) The implementation of these instructions in the computer causes the spinning form cutter to move in a convex path and the rotary table to rotate, which results in the CNC milling machine cutting concave hooks in the metal block so as to form the root section of a turbine blade. (*Id.*) Therefore, because the plain language of the claim renders it amenable to construction, GE has failed to establish by clear and convincing evidence that it is indefinite.

This conclusion is further supported by the prosecution history and the extrinsic evidence. First, the patent office successfully construed Claim 1 twice. (*See* Doc. 306 at JA093, JA329 [initial grant and re-examination of Oleksy Patent].). While indefiniteness determinations are not made during reexamination, the patent office was able to compare the prior art to Claim

1. This indicates it was able to ascertain the meaning of Claim 1. *See, e.g., Shell Global Solutions (US) Inc. v. RMS Eng'g, Inc.*, 782 F. Supp. 2d 317, 349 (S.D. Tex. 2011) (determined claim was not indefinite based on Patent Office's comparison of prior art to claims on reexamination). Moreover, Oleksy's and one of GE's experts were able to construe the patent. (*See* Doc. 311, Ex. E, Declaration of Dr. Meung Kim, Oleksy Expert; Ex. H, Deposition of Jacek Przybylski, GE Expert). While not dispositive, this evidence considered within the scope of intrinsic evidence described above demonstrates there is not clear and convincing evidence that Claim 1 is insolubly ambiguous.

GE's arguments to the contrary are unpersuasive. First, GE argues that the preamble to Claim 1 is ambiguous because the words "machining instructions" do not appear in the specification so it is unclear whether "determining machining instructions" has a meaning distinct from determining "programmed instructions." (*See* Doc. 305 at 7-8.) However, it is clear that a method for determining machining instructions is a general description of the patent as a whole, while programming instructions are simply a step in the method. (*See* Doc. 306 at JA009.) Thus, this argument fails.

Additionally, GE argues the preamble is ambiguous because "determining machining instructions" must occur prior to the "machining of the work piece" but the patent states that it occurs at the same time. (Doc. 305 at 7-8.) However, GE presents no support for its conclusory assertion that "that determining machining instructions must precede machining of a work piece." (*Id.*) Indeed, it appears that when Oleky's method is applied the machining instructions would be determined continuously until all of the required cuts are made to the work surface so "determining machining instructions" would necessarily occur during the machining of the work piece. (*See, e.g.,* Doc. 311, Ex. E, Kim Decl. at ¶12 ["During machining of a work piece in a

method of Claim 1, determining of the machining instructions would be repeated continuously until all of the programmed instructions are read and all of the machining instructions are carried out by the CNC machine.”].)

GE’s arguments with respect to the steps in the claim are similarly flawed. (Doc. 305 at 8-11.) GE essentially repackages its argument with respect to the preamble and argues that the claim steps are ambiguous because they are inconsistent with the definition of the method in the preamble and do not correspond to the physical act of machining the metal. This is because, according to GE, the language of the claim appears to require that (1) “the act of obtaining ‘programmed instructions’ by ‘trigonometric analysis’ must occur prior [to] the act of ‘determining machining instructions’” and (2) this all must take place prior to the physical machining process.” (Doc. 305 at 14.) However, this argument again mistakes the phrase “determining machining instructions” to be a step in the patent claim when it is a general description of the patent as whole. As described above, the implementation of the programmed instructions is a step within the method itself and the machining instructions are determined while the metal is milled. (*See, e.g.*, Doc. 306 at JA009; Doc. 311 at Ex. 5, Kim Decl., ¶¶ 5, 12 [explaining that the programmed instructions are inputted and then the CNC machine begins the process of translating a line of code to machining instructions, making a cut, and then translating more code].)

The remainder of GE’s argument revolves around perceived ambiguities in the specification and prosecution history. (Doc. 305 at 11-13.) The Court has already explained why the prosecution history supports a finding that the claim is not indefinite. The GE’s specification arguments are similar to its arguments with respect to the preamble and claim steps. It fails for the same reasons. Since the patent is amenable to construction when read as a whole,

the Court finds that GE has failed to meet its burden of proving by clear and convincing evidence that Claim 1 is indefinite.

**2. Claim 1: “determining machining instructions”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“determining machining instructions”	converting programmed instructions to machine language instructions for a machine to execute machining functions	Insolubly ambiguous; cannot be construed

For the reasons set forth above with respect to Claim 1 as a whole, GE has failed to prove by clear and convincing evidence that the phrase “determining machining instructions” is insolubly ambiguous and not amenable to construction. *See Halliburton*, 514 F.3d at 1249-50 (setting forth standard for determining indefiniteness). GE makes the same faulty argument described above that the steps delineated in Claim 1 all occur prior to the determining of machining instructions. (*See Doc. 305 at 13.*) This fails because the determination of the machining instructions is the description of the patent itself. (*See Doc. 306 at JA009*). Moreover, the language of Claim 1 and the abstract support Oleksy’s position because they specifically describe that the machining instructions are determined by inputting the programmed instructions into the computer of milling machine so as to define how the milling machine cuts the work piece. (*Id.* at JA001, JA009.) Since Oleksy’s construction derives naturally from the phrasing and the language of the claim, it will be adopted.

### 3. Claim 1 : “concave and convex surfaces”

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“concave and convex surfaces”	the hook’s curvature	Plain meaning; no construction necessary

The Court finds that the phrase “concave and convex surfaces” should be given its plain and ordinary meaning. The general rule is that the terms of a claim are given the ordinary and customary meaning that the terms would have to a person of ordinary skill in the art and “read in the context of the entire patent.” *Phillips*, 415 F.3d at 1312-13. When the ordinary meaning of the claim language is readily apparent to lay people, the claim construction should “involve[] little more than the application of the widely accepted meaning of commonly understood words.” *02 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (quoting *Phillips*, 415 F.3d at 1314). “Concave” and “convex” are commonly understood terms. Indeed, Oleksy concedes that “this phrase is well known to those skilled in the art.” (Doc. 311 at 17.) Therefore, there is no need to construe these terms.

Oleksy contends that the phrase may not be well known to a jury. His proposed definition does not explain to the jury what a concave or convex surface is; rather, he seeks to inform the jury that the curvature of the hook is composed of concave and convex surfaces. However, since the entire dispute revolves around the method used to cut the hooks, it will be obvious to the jury that the convex and concave surfaces refer to the hook’s curvature. *02 Micro* does not dictate a different result. In that case there was a dispute over the scope of the disputed claim. Since the Court refused to construe the term both interpretations of the scope of the claim were argued to the jury. The Federal Circuit found that the district court erred because “[w]hen

the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.” *Id.* at 1362. Here there is no dispute over the scope of what “convex and concave surfaces” mean; rather, Oleksy simply seeks to graft on a definition that identifies where the convex and concave surfaces are located. The Court believes this will be obvious to the jury and that there is no need to further construe the phrase.

**4. Claim 1: “said method comprising, in combination using a machine”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“said method comprising, in combination using a machine”	<p>“said method” – the claimed method</p> <p>“comprising” – including the following recited features without excluding non-recited features</p> <p>“in combination” – together</p> <p>“using” – employing</p> <p>“a machine” – at least a three axis milling machine</p>	Insolubly ambiguous; cannot be construed

Claim 1 also describes the process by which the “method of determining machining instructions” is used in combination with “a machine having a spinning form cutter and a rotary table.” The patent language is clear that “said method” refers to the claimed method of the patented invention. (*See* Doc. 306 at JA009.) “Comprising” is routinely defined as a term of art within patent law to mean “the named elements are essential, but other elements may be added and still form a construct within the scope of the claim.” *Genentech, Inc. v. Chiron Corp.*, 112 F.3d 495, 501 (Fed. Cir. 1997) (citing *In re Baxter*, 656 F.2d 679 (Ct. Cust. App. 1981.)). In the context of the rest of the claim, “using a machine” refers to the employ of “at least a three-axis

computer numerical control milling machine” as recited in the preamble of Claim 1. (*See* Doc. 306 at JA009.)

GE’s argument that this phrase is insolubly ambiguous rests again on the presumption “that determining machining instructions” must occur before the actual machining of the work piece. (*See* Doc. 305 at 15.) Since this argument fails for the reasons set forth above, GE has failed to meet its burden to show that this phrase is not amenable to construction. Accordingly, this Court finds that Oleksy’s proposed construction accurately describes the claim language and should be given effect.

**5. Claim 1: “spinning form cutter”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“spinning form cutter”	a spinning cutting tool shaped like the cut it makes	Plain meaning; no construction necessary

The Court finds that the phrase “spinning form cutter” should be given its plain and ordinary meaning because that meaning is readily apparent. *See Phillips*, 415 F.3d at 1312-13; *02 Micro Int’l Ltd.*, 521 F.3d at 1360. Oleksy concedes that “the meaning of the phrase ‘spinning form cutter’ is well known to those skilled in the art and machining industry in general” but contends that his additional definition will assist the jury. (Doc. 311 at 16.) However, there is no reason to elaborate on the plain meaning of a “spinning form cutter.” First, the patent does not provide a special definition for a “spinning form cutter.” *See Chef Am., Inc. v. Lamb- Weston, Inc.*, 358 F.3d 1371, 1373 (Fed. Cir. 2004) (“ordinary, simple English words whose meaning is clear and unquestionable... mean exactly what they say.”). Second, there is no dispute over the scope or meaning of the term “spinning form cutter.” Indeed, neither party

suggests that the term has more than one ordinary meaning or that the term has different applications. Therefore, there is no reason to construe the term differently than its plain and ordinary meaning. *See 02 Micro Int'l, Ltd.* 521 F.3d at 1361 (stating that a “determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.”). Since the jury will be well acquainted with a “spinning form cutter” by the conclusion of a trial, there is no need to construe the term.

**6. Claim 1: “programmed instructions”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“programmed instructions”	software program instructions	Insolubly ambiguous; cannot be construed

Claim 1 of the Oleksy patent also describes a “method of determining machining instructions” using a “plurality of programmed instructions.” The intrinsic evidence supports Oleksy’s proposed construction of the claim. First, the claim explains that the “programmed instructions” are for a “computer numerical control milling machine.” (*See* Doc. 306 at JA009.) Second, the specification provides that the “invention comprises computer aided program for a milling machine.” (*Id.* at JA007.) The specification further provides that “[t]he invented process uses a commercially available computer program for the process for machining the root section of the turbine blades.” (*Id.* at JA008.) It also provides the example that by entering certain “points coordination,” “angles,” and the radius into a computer assisted design (“CAD”) simulation program a user would obtain the g-code instructions. (*Id.*) Therefore, one skilled in

the art would understand “programmed instructions” to mean “software program instructions.” Accordingly, the Court adopts this construction.

Oleksy’s argument that the term “programmed instructions” cannot be construed is based on the same misunderstanding of the patent that a number of its prior arguments were based on. Specifically, Oleksy argues that because “programmed instructions” are an input into the “method of determining instructions” they are not a step in “the method of determining machining instructions.” (*See* Doc. 305 at 17.) However, as explained above, the programmed instructions are a step in the method of determining machine instructions thus the inconsistencies perceived by GE simply do not exist. Accordingly, GE fails to meet its burden in proving “programmed instructions” cannot be construed.

**7. Claim 1: “trigonometric analysis”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“trigonometric analysis”	using a computer program to determine relationships between the sides and angles of triangles and associated functions, such as sine and cosine	Insolubly ambiguous; cannot be construed;

The next term the parties dispute is the construction of “trigonometric analysis.” Claim 1 of the patent states that the “programmed instructions” are to be obtained by “trigonometric analysis of required curvatures of the surfaces...” As above, the intrinsic evidence supports Oleksy’s construction of the claim. The claim and the specification repeatedly state that the trigonometric analysis is done by way of computer. (*See* Doc. 306 at JA007-9 [stating that: (1) “programmed instructions” are for a “computer numerical control milling machine”; (2) specifying that the “invention comprises computer aided program for a milling machine”; (3)

specifying that “[t]he invented process uses a commercially available computer program for the process for machining the root section of the turbine blades”; and (4) specifying as an example that by entering certain “points coordination,” “angles,” and the radius into a computer assisted design (“CAD”) simulation program a user would obtain the g-code instructions.]

This construction also supported by extrinsic evidence. (*See* Doc. 311 at Ex. E, Kim Decl. ¶ 18 [“The Oleksy Patent uses trigonometry for a specific purpose of determining the tool path. The analysis used in the patent involves computer modeling using commercially available software programs, such as CAD.”].) GE also does not dispute that trigonometry refers to study of the relationships between the sides and angles of triangles and associated functions, such as sine and cosine. This interpretation is also supported by the extrinsic evidence. *See, e.g.*, McGraw-Hill Dictionary of Sc. and Tech. Terms 2191 (6<sup>th</sup> ed. 1997) (defining trigonometry as “[t]he study of triangles and the trigonometric functions” and defining trigonometric functions as “[t]he real-valued functions such as  $\sin(x)$ ,  $\tan(x)$ , and  $\cos(x)$  obtained from studying certain ratios of the sides of right triangles.”); Kim Decl. ¶ 17 (“Trigonometry involves determining relationships between the sides and angles of triangles and associated functions, such as sine and cosine.”).

GE contends that this term is insolubly ambiguous for two reasons: 1) it is defined inconsistently because Claim 1 first refers to trigonometric analysis of the required curvatures of the surfaces and movements of the spinning form cutter but later refers to the analysis of a diagram of required concave and convex surfaces; and 2) it is overbroad. (Doc. 305 at 18-20.) First, GE's contention that the phrase is defined inconsistently is incorrect. There is no inconsistency in performing a mathematical analysis of both a diagram and its analogs. One having ordinary skill in the art would understand that the trigonometric analysis would be

performed according to Figures 2-5 of the specification. (See Doc. 311, at Ex. E, Kim Decl., ¶¶ 15-19 [discussing use of trigonometric analysis in the Oleksy Patent].) Therefore, the trigonometric analysis concerns the surfaces of the root section and the movement of the spinning form cutter regardless of whether a diagram is involved. GE’s second argument also fails because the patent does not pre-empt the field of trigonometry because the trigonometric analysis at issue is limited to the specific application in the patent.

**8. Claim 1: “a convex path”**

Term / Phrase	Oleksy’s Proposed Construction	GE’s Proposed Construction
“a convex path”	a curved path which is bowed in the opposite direction of the hook’s curvature	Plain meaning; no construction necessary

The Court finds that the phrase “a convex path” should be given its plain and ordinary meaning because that meaning is readily apparent. See *Phillips*, 415 F.3d at 1312-13; *02 Micro Int’l Ltd.*, 521 F.3d at 1360. Oleksy concedes that the meaning of this phrase is well known to those skilled in the art but again contends that his additional definition will assist the jury. (Doc. 311 at 21.) Not so. Indeed, if the Court had adopted Oleksy’s proposed definition for a “concave and convex surface” as the “the hook’s curvature,” Oleksy would now be proposing that a convex path is a curved path which is bowed in the opposite direction of a convex surface. Since that would not be the case, the Court finds that this construction could needlessly confuse the jurors. Therefore, the Court declines Oleksy’s proposed construction and instead agrees with GE that no construction is necessary because the meaning of a “convex path” is readily apparent.

**9. Claim 1: “a diagram” and Claim 2: “a diagram of a graphical construction” (Oleksy) “graphical construction” (GE)**

Term / Phrase	Oleksy's Proposed Construction	GE's Proposed Construction
“a diagram of a graphical construction” (Oleksy) (claim 2)  “graphical construction” (GE) (claim 2)	a software image demonstrating the workings of a procedure	3-dimensional image created by imaging software such as CAD
“a diagram” (claim 1)	a software representation of an object	drawing that includes at least the ‘needed coordination points, angles and radius the sum of E+R

Oleksy and GE moved for construction of two separate terms involving a “diagram.” Both terms require separate construction; however, the Court believes it will make the constructions clearer to discuss the claims together. Oleksy defines a “diagram” to be an image created by software in both claims. However, GE proposes that a “diagram” is a “drawing that includes at least the ‘needed coordination points, angles and radius the sum of E+R.” GE then contends that a “graphical construction” means a “3-dimensional image created by imaging software such as CAD.” While Oleksy defines a graphical construction as the workings of a procedure.

There is a general principle of claim construction that “the same claim term in the same patent or related patents carries the same construed meaning.” *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003); *see also Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1087 (Fed. Cir. 2009) (“We apply a presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions

of the claims.”). In addition, claims should be interpreted “with an eye toward giving effect to all terms in the claim.” *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2005); *see also Phillips*, 415 F.3d at 1314 (holding that claim terms should be interpreted in light of the surrounding claim language so that words in a claim are not rendered superfluous.). Additionally, the claims should be given the ordinary and customary meaning that the terms would have to a person of ordinary skill in the art and “read in the context of the entire patent.” *Phillips*, 415 F.3d at 1312-13. When that meaning is readily apparent, the claim construction should “involve[] little more than the application of the widely accepted meaning of commonly understood words.” *02 Micro Int’l Ltd.*, 521 F.3d at 1360 (quoting *Phillips*, 415 F.3d at 1314). Moreover, artificial limitations should not be imported into the claim terms from the specification. *See Phillips* 415 F.3d, at 1320 (reading limitations from the specification into the claims prohibited); *Abbott Laboratories v. Sandoz, Inc.*, 566 F.3d 1282, 1288 (Fed. Cir. 2009) (“courts must take care not to import limitations into the claims from the specification.”). Therefore, the term a “diagram” should be given its ordinary and customary meaning but should also be given the same meaning in both claims and should be interpreted in a way that does not render any additional language superfluous.

Here, neither party’s proposed construction appears to accurately describe the meaning of a “diagram” as that term is used in Claim 1 and Claim 2. GE’s definition that a “diagram” is a “drawing that includes at least the ‘needed coordination points, angles and radius the sum of E+R” artificially imports limitations from the specification. Specifically, the specification describes that “[a]s a particular example” the programmed instructions could be obtained by a trigonometric analysis of “points coordination’s (A and L), angles (+Q and –Q) and radius (E+R).” (Doc. 306 at JA008.) GE’s proposed construction attaches this example of

trigonometric analysis of a diagram as the required trigonometric analysis to be performed. However, the patent does not require that this example of a trigonometric analysis is necessary for the method to be performed. Therefore, GE's proposed construction fails because it seeks to import a limitation from the specification into the claim.

Oleksy's proposed construction of "a software representation" is faulty because it is contrary to the meaning of "diagram" and finds no support in the intrinsic or extrinsic evidence. The plain meaning of the term a diagram is readily apparent, it is a drawing designed to demonstrate or explain how something works or to clarify the relationship between the parts of a whole. *See* AMERICAN HERITAGE DICTIONARY (4th ed. 2000). Nowhere does the Oleksy patent replace this plain meaning with the definition "a software representation." Indeed, this construction is contradicted by both the patent's prosecution history as well as the extrinsic evidence. First, no dictionary this Court is aware of defines a "diagram" as a software representation. More importantly, during the patent prosecution, Oleksy emphasized that the diagram was a drawing "on paper" of a root section. (*See* Doc. 306 at JA127, Oleksy's Response to Examiner's Office Action Mailed on April 11, 2002 [distinguishing Oleksy's method from a separate method patent entitled Rathi '572 and stating that "[a]pplicant submits that without the existence of an object to serve as the sensing object, the method of Rathi '572 is inapplicable to devise machining instructions for an object for which only a sketch diagram is present and only on paper."].) Therefore, since neither proposed construction is appropriate and because the term "diagram" has a plain meaning to those of ordinary skill in the art and is readily apparent, the Court finds that "diagram" should be given its plain meaning.

Similarly, neither party's proposed construction appears to accurately describe "a diagram of graphical construction" in claim 2. GE contends that the "graphical construction"

must be three-dimensional; however, nothing in the claim or the specification requires the graphical construction to be three-dimensional. GE appears to argue that the diagram of graphical construction must be three-dimensional so that it is distinct from the term “diagram” in Claim 1. However, this cannot be the case because both claims, through the specification, refer to three-dimensional diagrams in the forms of Figures 1-4. (*See* Doc. 306 at JA007-9.)

Both parties do agree that a “diagram of graphical construction” involves an image created by software. The Court agrees and finds this to be the distinction between a diagram in Claim 1 and a diagram of graphical construction in Claim 2. The graphical construction relates to the software representation of the diagram. Accordingly, the Court construes a “diagram of graphic construction” in Claim 2 to mean a software representation of a diagram.

### **III. Oleksy’s Motion to Strike GE’s Affirmative Defenses**

#### **A. Legal Standard**

Federal Rule of Civil Procedure 8(c) requires parties to set forth affirmative defenses in their responsive pleading. A Rule 12(f) motion to strike is the appropriate means of removing "impertinent or redundant matter in any pleading and is the primary procedure for objecting to an insufficient defense." *Van Schouwen v. Connaught Corp.*, 782 F. Supp. 1240, 1245 (N.D. Ill. 1991). Courts disfavor motions to strike affirmative defenses, and only grant them "if the affirmative defenses are insufficient as a matter of law or present no questions of law or fact." *Man Roland Inc. v. Quantum Color Corp.*, 57 F. Supp. 2d 576, 579 (N.D. Ill. 1999). Nonetheless, a motion to strike can be a useful to remove "unnecessary clutter" from a case. *Heller Fin., Inc. v. Midwhey Powder Co., Inc.*, 883 F.2d 1286, 1294 (7th Cir. 1989). Since a motion to strike is a procedural question not pertaining to patent law, the Court applies Seventh Circuit precedent. *See McZeal v. Sprint Nextel Corp.*, 501 F.3d 1354, 1356 (Fed. Cir. 2007).

In ruling on a motion to strike an affirmative defense, the Court must determine whether the matter is appropriately pled as an affirmative defense and whether it is sufficiently pled pursuant to Federal Rule of Civil Procedure 12(b)(6). *See, e.g., Mittelstaedt v. Gamla-Cedron Orleans LLC*, No. 12 C 5131, 2012 WL 6188548, at \*2 (N.D. Ill. Dec. 12, 2012); *Reis Robotics USA, Inc. v. Concept Indus., Inc.*, 462 F. Supp. 2d 897, 905 (N.D. Ill. 2006); *Renalds v. S.R.G. Restaurant Group*, 119 F. Supp. 2d 800, 802 (N.D. Ill. 2000). A court should only strike an affirmative defense if it appears beyond a doubt that the pleader can prove no set of facts in support of his defense that would plausibly entitle him to relief. *See, e.g., Mittelstaedt*, 2012 WL 6188548, at \*2; *Kimbrew v. Advocate Health & Hosps. Corp.*, No. 10 C 4531, 2010 WL 4531, at \*2 (N.D. Ill. Dec. 8, 2010) (citing *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 555-57 (2007)); *State Farm Fire & Cas. Co. v. Electrolux Home Prods, Inc.*, No. 10 C 7651, 2011 WL 133014, at \*1-2 (N.D. Ill. Jan. 14, 2011).

GE contends that it is not required to meet the *Twombly* standard in pleading its affirmative defenses; rather, pleading affirmative defenses are still subject to the old notice pleading requirements. GE argues that the driving basis for the heightened pleading standard set forth in *Twombly* was to reduce nuisance suits. Since such a concern does not apply to affirmative defenses, *Twombly* should not apply. The Court finds this argument to be unpersuasive.

This Court has previously held that to sufficiently allege an affirmative defense, the pleader must meet the *Twombly* plausibility standard but it did not explain its reasoning in reaching this conclusion. *See Mittelstaedt*, 2012 WL 6188548, at \*2. In *Twombly*, the Supreme Court defined that a complaint is only sufficient under Rule 12(b)(6) if it contains facts that make it plausible that the pleader is entitled to relief. Affirmative defenses, which are pleadings, must

also comply with Rule 8 and Rule 12(b)(6). *See Heller*, 883 F.2d at 1294. Holding that the rule articulated by *Twombly* should not apply to affirmative defenses would create needless confusion and would undoubtedly lead to inconsistent results because it would require courts to interpret pleadings under different standards depending on the form of the pleading.

Indeed, this action is illustrative of potential problems that would result if GE's position were adopted. GE has asserted an affirmative defense that the patent is invalid based on prior use. It has also asserted a counterclaim for a declaratory judgment that the patent is invalid based on prior use. The affirmative defense and the counterclaim rely on the same factual allegations. If the Court were to adopt GE's position, it would then be required to review the same factual allegations under two different standards and could potentially reach a result where it found the affirmative defenses were sufficiently pled but the counterclaim was not despite the fact they relied on the exact same factual allegations. This Court does not believe that it should adopt a rule that would lead to such results. Therefore, this Court, like the majority of courts, holds that affirmative defenses must comply with the pleading requirements set forth in *Twombly*. *See, e.g., Massenbergh v. A & R Servs., Inc.*, No. 10 C 7187, 2011 WL 2909364, at \*1 (N.D. Ill. July 18, 2011); *Riemer v. Chase Bank USA, N.A.*, 274 F.R.D. 637, 639 (N.D. Ill. 2011) (collecting cases).

However, the affirmative defenses for invalidity are also subject to United States District Court for the Northern District of Illinois' Local Patent Rules and standard patent practices approved by the Federal Circuit. These rules only require parties to provide early notice of invalidity contentions and then, subsequently, to provide more detailed invalidity contentions at set times during discovery. *See* N.D. Ill. L.P.R. 2.3; *Trading Techs. Int'l, Inc. v. BCG Partners, Inc.*, 2011 WL 3946581, at \*5 (N.D. Ill. Sept. 2, 2011); *O2 Micro Int'l Ltd.*, 467 F.3d at 1366

(noting that another district’s local patent rules, like the Northern District’s local patent rules, require “early notice of . . . infringement and invalidity contentions” and require the parties “to proceed with diligence in amending those contentions when new information comes to light in the course of discovery.”). Therefore, courts must be cognizant to not prematurely strike invalidity affirmative defenses for failing to set forth the necessary detail required by *Twombly*.

**B. GE’s Defense of Non-Infringement is Properly Alleged**

Oleksy contends that GE’s first affirmative defense of non-infringement should be stricken because it is redundant of the denials contained in GE’s answer to the Third Amended Complaint. However, the Patent Act expressly requires an accused infringer to plead non-infringement as an affirmative defense. *See* 35 U.S.C. § 282(b)(1) (stating that “[n]oninfringement, absence of liability for infringement or unenforceability” shall be pleaded as a defense); *see also Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1334 (Fed. Cir. 2006) (citing 35 U.S.C. § 282 and holding that “affirmative defenses to infringement include noninfringement); *Trading Techs.*, 2011 WL 3946581, at \*5) (holding that the patentee’s assertion that “the defendants’ non-infringement affirmative defenses are not proper affirmative defenses” was meritless.”). Therefore, it was appropriate for GE to plead non-infringement as an affirmative defense and Oleksy’s motion to strike this defense is denied.

**C. GE’s Prior Use Defense Is Sufficiently Alleged**

GE has set forth an affirmative defense that Oleksy’s patent is invalid due to prior use.<sup>3</sup> GE has filed its Final Invalidity Contentions so it should provide more detail with respect to its

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<sup>3</sup> Oleksy only seeks to strike part of GE’s prior use affirmative defense. Oleksy concedes that GE has sufficiently stated a prior use affirmative defense pursuant to 35 U.S.C. 102(b). (See Doc. 301 at 3, n.1.)

prior use affirmative defenses than would have been required earlier in the case. Title 35 U.S.C. § 102<sup>4</sup> provides in relevant part that “[a] person shall be entitled to a patent unless:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent;

(f) he did not himself invent the subject matter sought to be patented; and

(g) another inventor involved therein establishes . . . . the invention was made by such other inventor

GE alleges that Oleksy’s patent is invalid under these sections because:

In the mid-1980’s, GE purchased a 4-axis CNC machine at its Bangor, Maine plant. At that time, GE personnel, including Dave Sprague and Ray Gresser, developed instructions that successfully operated the CNC machine to mill a turbine blade root section. GE personnel, including Ron Banks, also used CNC machines to machine root sections in the late 1990s. GE has been using CNC machines to machine root sections for commercial products since the late 1990s.

These allegations are sufficient to plausibly state a defense under 35 U.S.C. § 102(a), (f) and (g).

Section 102(a) provides that a patent already known to others cannot be patented because “the later inventor has not contributed to the store of knowledge.” *Woodland Trust v. Flowertree Nursery, Inc.*, 148 F.3d 1368, 1370 (Fed. Cir. 1998). To prove that a patent is invalid based on prior knowledge or use under § 102(a), “that knowledge or use must have been available to the public.” *Id.* (citing *Carella v. Starlight Archery*, 804 F.2d 135, 139 (Fed. Cir. 1986)). Information is generally publicly accessible if it was “disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence, can locate it.” *Kyocera Wireless Corp. v. Int’l Trade Comm’n*, 545 F.3d 1340, 1350 (2008) (internal quotation marks omitted). However, “the publicity requirement in

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<sup>4</sup> Title 35 U.S.C. § 102 was amended in 2011 by the Leahy-Smith America Invents Act. However, the amendment is not retroactive. *See, e.g., Siddiqui v. Holder*, 670 F.3d 736, 747 (7th Cir. 2012) (noting there is a presumption against applying a statute retroactively unless Congress has specifically stated its intent that the statute applies retroactively). Therefore, the Court applies the version of the statute that was in effect when the case was filed.

Section 102(a) means the absence of affirmative steps to conceal.” *Ormco Corp. v. Alighn Tec., Inc.*, 463 F.3d 1299, 1305-06 (Fed. Cir. 2006) (quoting 1-3 Chisum on Patents § 3.05 (2006)). Therefore, it is sufficiently plausible based on the allegations quoted above that GE will be able to prove a defense under § 102(a). First, it is plausible that either Sprague, Gresser or Banks developed machining instructions that were the same as or sufficiently similar to Oleksy’s. Second, while public accessibility is not affirmatively pled, it would be premature for the Court to strike this defense because nothing in the pleading forecloses the defense. In other words, there is nothing to suggest that GE (or Sprague or Gresser or Banks) took affirmative steps to conceal their methods for determining machining instructions. Accordingly, the Court denies the motion to strike the § 102(a) prior use defense.

The Court also finds that GE sufficiently alleged prior use defenses under Sections 102(f) and (g). To establish the defense of derivation under § 102(f), GE must establish: (1) “prior conception of the invention by another;” and (2) “communication of that conception to the patentee.” *Creative Compounds, LLC v. Starmark Labs.*, 651 F.3d 1303, 1313 (Fed. Cir. 2011) (quoting *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1334 (Fed. Cir. 2003)). It is sufficiently plausible based on the allegations quoted above that GE will be able to prove both prongs of this defense. First, it is plausible that either Sprague, Gresser or Banks developed the method for determining machining instructions. Second, it is plausible that Oleksy learned of these milling instructions since GE alleges the company Oleksy worked for was a subsidiary of GE. Therefore, GE has sufficiently stated an affirmative defense of prior use under § 102(f). Since it is plausible that Sprague, Gresser or Banks developed the same or substantially similar method for determining machining instructions as are at issue here, GE has also sufficiently stated a prior use defense under § 102(g). *See Teva Pharms. Indus. Ltd. v. AstraZeneca Pharms.*

*LP*, 661 F.3d 1378, 1382-83 (Fed. Cir. 2011) (holding that to establish a § 102(g) defense, the defendant must establish that someone else invented the method at issue in the United States before the plaintiff).<sup>5</sup>

**D. GE’s Defense of Prosecution Laches is Withdrawn**

The Court denies Oleksy’s motion to strike GE’s defense of prosecution laches as moot based on GE’s representation to the Court that it has withdrawn this defense.

**E. GE’s Defense of Prosecution History Estoppel**

Finally, Oleksy contends that GE failed to allege sufficient facts to support its defense of prosecution history estoppel. The scope of a patent is not limited to its literal terms; rather, it “embraces all equivalents to the claims described.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 732 (2002). However, the doctrine of prosecution history estoppel holds that when a “patentee originally claimed the subject matter alleged to infringe but then narrowed the claim in response to a rejection, he may not argue that the surrendered territory comprised unforeseen subject matter that should be deemed equivalent to the literal claims of the issued patent.” *Id.* at 733-34.

GE’s allegations supporting its defense of prosecution history estoppel are as follows:

Plaintiff is estopped from asserting or maintaining a construction of the patent-in-suit, the ‘529 Patent, or its claims, that would cover or read upon the method of machining and/or manufacturing metal blades sold by GE for the reasons that, during the prosecution of the application for said patent, the Patentee, or the Patentee’s duly authorized representative(s), acting on requirements of the U.S. Patent and Trademark Office, and by reason of references cited against the application, so limited the claims of said patent as to exclude the scope of such claims as any act(s) of GE.

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<sup>5</sup> In addition to asserting these defenses as affirmative defenses, GE filed a two-count counterclaim seeking, in part, a declaratory judgment that the Oleksy patent is invalid based on prior use pursuant to 35 U.S.C. 102(a), (f) and (g). Because the Court finds that GE has adequately alleged its affirmative defenses under these sections, it also finds that GE has sufficiently alleged its counterclaim for a declaratory judgment of invalidity and non-infringement pursuant to these sections.

(Doc. 298, GE's Answer to Third Amended Complaint, at 11.) This allegation is insufficient to establish that GE is plausibly entitled to relief on this defense as it states nothing more than the bare-bones elements of the defense. *See, e.g., Infineon Techs. AG v. Volterra Semiconductor Corp.*, No. 11 C 6239, 2013 WL 1832558, at \*3 (N.D. Cal. May 1, 2013) (striking affirmative defense of prosecution history estoppel where the allegation did "no more than state the obvious, i.e., that an affirmative defense of prosecution history estoppel is based on statements made by the patent applicant during the prosecution of the patent."). Since no facts are alleged that explain how Oleksy narrowed his claim during the prosecution of his patent, this defense is insufficient as currently alleged. Therefore, it is stricken but without prejudice. If GE is able to allege sufficient facts to support this defense, it may amend its defense.

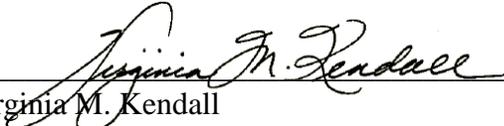
#### **IV. GE's Motion to Dismiss Count III of Oleksy's Third Amended Complaint**

GE moved to dismiss Oleksy's claim for contributory infringement pursuant to Rule 12(b)(6) for failure to state a claim. The parties then agreed that this claim should be dismissed without prejudice. Therefore, Count III of the Third Amended Complaint is dismissed without prejudice.

#### **V. Conclusion**

GE's motion for summary judgment regarding invalidity under 35 U.S.C. 101 is denied and Oleksy's is granted. Oleksy's motion to strike is granted in part and denied in part. The prosecution history estoppel defense is stricken without prejudice. GE's motion to dismiss Count of Oleksy's Third Amended Complaint is granted. Oleksy's claim for contributory infringement is dismissed without prejudice. The claim terms are construed as set forth above. In advance of the next status hearing, the parties shall meet and confer regarding what additional proceedings are necessary in light of the Court's construction. Three days before the status

hearing, the parties shall file a status report reflecting their meet-and-confer and proposing a schedule for future proceedings.

  
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Virginia M. Kendall  
United States District Court Judge  
Northern District of Illinois

Date: June 26, 2013