

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

ALTUS PARTNERS, LLC,	:	CIVIL ACTION
	:	
Plaintiff,	:	
	:	
vs.	:	
	:	
GLOBUS MEDICAL, INC.,	:	NO. 13-822
	:	
Defendant.	:	

MEMORANDUM

ROBERT F. KELLY, Sr. J.

OCTOBER 28, 2013

Presently before the Court are Plaintiffs/Counterclaim Defendant Altus Partners, LLC's ("Altus") and Defendant/Counterclaimant Globus Medical Inc.'s ("Globus") Claim Construction Briefs. This Memorandum addresses the appropriate construction of the disputed terms.

I. BACKGROUND

On February 14, 2013, Altus filed a patent infringement action against Globus. The patent at issue is United States Patent No. 8,162,989, entitled "Orthopedic Rod System" ("the 989 patent").¹

A. The 989 Patent Technology

Altus owns the 989 patent. As the title suggests, the 989 patent is generally directed to a "pedicle screw and rod system . . . for joining two or more bone segments, such as

¹The original Complaint was amended on two occasions the last being August 7, 2013. Globus has filed an Answer and Counterclaim.

vertebrae.” Joint Appendix² Ex. 1. col. 1, 11. 14-16. The “Background of the Invention” discloses that “pedicle screw systems used for fastening spinal rod systems to the pedicle region of two or more vertebral bodies exist in a variety of forms.” *Id.*, col. 1, 11. 20-22. However, prior art pedicle screw systems had associated problems of “difficulty of installation and cross-threading.” *Id.*, col. 1, 11. 30-31. For example, in some prior art designs, installation was difficult because “the surgeon must manipulate and tighten the cap while holding the pedicle screw and rod at a particular desired angle.” *Id.*, col. 1, 11. 28-30. The 989 patent was intended to overcome the problems associated with prior known designs. *Id.*, col. 1, 11. 40-42.

All seven claim terms/phrases in dispute are found in independent claim 1, bolded and underlined below:

1. An apparatus for bridging one or more vertebrae of a spine, the apparatus comprising:

a fastener having a threaded shaft adapted to be driven into the vertebrae and a head at a proximal end of the shaft;

a tulip having: (a) outer and inner walls defining opposing, and generally circularly open, first and second ends, (b) opposing first and second slots extending from the open first end toward the open second end, and (c) first and second **grooves, each extending in opposing relation to one another along the inner wall from at least one of the first and second slots toward the other of the first and second slots**, wherein: (i) **the head of the fastener is retained within the tulip** and proximate to the second end thereof, with the threaded shaft extending out of the tulip through the second opening thereof, and (ii) the opposing first and second slots are sized and shaped to receive a rod therethrough in a transverse orientation with respect to the threaded shaft of the fastener, such that the rod passes over the head; and

a cap including: (a) a generally cylindrical body having first and second opposing ends, an outer surface, and a bore extending through the first and second opposing ends of the body along a central, longitudinal axis, (b) **first and second shoulders** disposed in

²The parties have filed with the Court a Joint Appendix for purposes of the *Markman* briefings. The Joint Appendix will be referred to herein as “J.A.”

opposing relationship to one another proximate to the first end of the body, and extending radially away, and circumferentially along, the other surface of the body, (c) **third and fourth shoulders** disposed in an opposing relationship proximate to the second end of the body, and extending radially away, and circumferentially along, the outer surface of the body, wherein:

the third and fourth shoulders are sized and shaped to be: (i) received into the first and second slots, respectively, to positions adjacent to the first and second grooves, respectively, and (ii) slidingly received into the first and second grooves by rotation of the cap about the longitudinal axis; and

at least portions of the first and second shoulders are sized and shaped to **slide over**, and overlie, respective portions of **a lip of the tulip at the periphery of the first open end of the tulip** by the rotation of the cap about the longitudinal axis.

Id., col. 5, l. 40- col. 6, l. 15.

II. STANDARDS FOR CLAIM CONSTRUCTION

In order to prevail in a patent infringement action, a plaintiff must show that the patent claim “covers the alleged infringer’s product or process.” Markman v. Westview Instruments, Inc., 517 U.S. 370, 374 (1996). Thus, the initial step in an infringement analysis focuses on determining the meaning and scope of the claims of the patent. Wyeth v. Abbott Labs., No. 08-230, 2010 WL 3001913, at *1 (D.N.J. July 28, 2010) (citing Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 988 (Fed. Cir 1995)). Notably, “[c]laim construction is a matter of law . . . therefore, it is ‘[t]he duty of the trial judge . . . to determine the meaning of the claims at issue.’” *Id.* (citing Exxon Chem. Patents, Inc. v. Lubrizoil Corp., 64 F.3d 1553,1555 (Fed. Cir. 1995)).

In Phillips v. AWH Corp., The United States Court of Appeals for the Federal Circuit (“Federal Circuit”) emphasized that “[i]t is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” 415 F.3d

1303, 1312 (internal quotations omitted) (citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“[W]e look to the words of the claims themselves . . . to define the scope of the patented invention.”)) Generally, the words of a claim are given their “ordinary and customary meaning,” which is defined as “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” Phillips, 415 F.3d at 1312-13 (citations omitted). In this regard, the Federal Circuit has noted the following:

It is the person of ordinary skill in the field of the invention through whose eyes the claims are construed. Such person is deemed to read the words used in the patent documents with an understanding of their meaning in the field and to have knowledge of any special meaning and usage in the field. The inventor’s words that are used to describe the invention-the inventor’s lexicography-must be understood and interpreted by the court as they would be understood and interpreted by a person in that field of technology. Thus the court starts the decisionmaking process by reviewing the same resources as would that person, viz., the patent specification and the prosecution history.

Id. (quoting Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1477 (Fed. Cir. 1998)).

Importantly, in determining the meaning of a claim as understood by a person of ordinary skill in the art, the court may look to various sources from which the proper meaning may be discerned. Wyeth, 2010 WL 3001913, at *2. Specifically, “[t]hese sources include ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” Phillips, 415 F.3d at 1314 (citations omitted). “While a court is permitted to turn to extrinsic evidence, such evidence is generally of less significance and less value in the claim construction process. Extrinsic evidence would include evidence that is outside the patent and prosecution history, and may include expert testimony, dictionaries and treatises.” Wyeth, 2010

WL 3001913, at *2. As courts have explained, “[s]uch evidence, though ‘shed[ding] useful light on the relevant art,’ is ‘less significant than the intrinsic record in determining the legally operative meaning of claim language,’ and ‘is unlikely to result in a reliable interpretation of patent claim scope unless considered in context of the intrinsic evidence.’” Eppendorf AG v. Nanosphere, Inc., No. 09-0504, 2010 WL, 2757097, at *2 (D. Del. July 12, 2010)(citing Phillips, 415 F.3d at 1317-19).

III. DISCUSSION

A. Groove

Altus’s Proposed Construction	Globus’s Proposed Construction
<p>No construction necessary - the plain and ordinary meaning applies.</p> <p>If the Court decides to construe the term, it means “long narrow channels or depressions”</p>	<p>channel with a side inclined in a radially outward direction</p>

Altus proposes that the term “groove” does not need to be construed because it is a commonly understood term with no technical meaning within the context of the 989 patent.

Globus argues that the term “groove” must include “a side inclined in a radially outward direction.”

Globus also argues that in every instance that “grooves” and “shoulders” are described in the originally-filed application that issued as the 989 patent, the “grooves” and “shoulders” are described as including an incline or angled surface.

Globus cites numerous examples from the specifications and the procedural history, all of which make reference to the “groove” having angled sides or dove-tail like grooves. Claims are generally given their plain meaning unless a patentee: “(1) sets out a definition and acts

as his own lexicographer,” or (2) “disavows the full scope of a claim term either in the specification or during prosecution.” Thorner vs. Sony Computer Entertainment America, LLC, 669 F.3d 1362, 1365, (Fed. Cir. 2012). The 989 patent does not show any clear expression that the meaning of the term “groove” should depart from its common meaning.

Globus argues that, “[w]here the specification ‘describes the features of the ‘present invention’ **as a whole,**’ the Court should limit the scope of the claims to the patentees characterization of the present invention.” Globus Opening Br. at 12. The cases cited by Globus can be distinguished from the present factual situation. In Mangosoft Inc. vs. Oracle Corp., 525 F.3d 1327, 1331 (Fed. Cir. 2008), the Court did limit the term “local” to mean directly-attached memory device because, in part, “the specification specifically contrasts local memory devices with ‘network memory devices’, which are remote, network devices providing centralized shared storage for multiple computers.” In contrast, the 989 patent does not specifically contrast the word “groove” with an “incline or angled surface to one with no incline or angled surface.”

In TiVo Inc. vs. EchoStar Commc’n Corp., 516 F.3d 1290, 1300 (Fed. Cir. 2008), the Court limited the scope of the claims to the disclosed embodiment because the specification referred to “the ‘invention’ and not merely one embodiment of a broader invention.” In C.R. Bard, Inc. vs. U.S. Surgical Corp., 388 F.3d 858 (Fed. Cir. 2004), the Court limited the claims to require a pleated surface, in part, because the specification defined the present invention to be as specifically stated: “the present invention is an implantable prosthesis” and “the implant includes a pleated surface.” The Court went on to explain that “[s]tatements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term.” *Id.* at 864.

In this case TiVo and C.R. Bard do not apply because when using the term “present invention,” the 989 patent refers to preferred embodiments and various aspects of the present invention; unlike the specifications at issue in the cases relied on by Globus, the 989 patent does not consistently refer to the invention as a whole as being or including one particular thing. For example, the 989 patent states “[i]n another embodiment of the present invention,” J.A. Ex. 1 at col. 1, 1.59 and “[i]n one aspect of the present invention.” *Id.* at col. 1, 1.45. *See also, Id.* at col. 3, 1.38; (“A second embodiment of the present invention”); *Id.* at col. 4, 1.19 ([T]he third embodiment of the present invention”); *Id.* at col. 5, 1.8 (“In accordance with one or more embodiments”). The use of this language distinguishes the 989 patent from TiVo and C.R. Bard.

Statements in the specification describing “one aspect of the present invention” are references to the preferred embodiment and are not claim limitations. *See Sandisk Corp. vs. Memorex Prods.*, 415 F.3d 1278, 1286 (Fed. Cir. 2005). Even where a patent describes only a single embodiment, claims will not be “read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using ‘words or expressions of manifest exclusion or restriction.’” Liebel-Flarsheim v. Medrad, Inc., 358 F.3d 898, 906 (Fed. Cir. 2004), (quoting Teleflex, Inc. vs. Ficocisa N. Am. Corp., 99 F.3d 1313, 1327 (Fed. Cir. 2002)).

In this case, we find that Globus has failed to show clear intent on the part of the applicant to define “groove” as something other than its plain and ordinary meaning. We find, therefore, that no construction is necessary.

B. First and Second Shoulders

Altus’s Proposed Construction	Globus’s Proposed Construction
<p>No construction necessary - the plain and ordinary meaning applies.</p> <p>If the Court decides to construe the phrase, it means “first and second abrupt projections that form an abutment on an object or limits motion.”</p>	<p>two discrete projections, no more or less, each with an angled or sloping surface.</p>

Globus proposes that “first and second shoulders” means “two discrete projections no more or less, each with an angled or sloping surface.”

After considering the briefs and arguments of counsel, we conclude that the plain and ordinary meaning of shoulder is not limited to one with “an angled or sloping surface.” As with the term “groove”, Globus must overcome the heavy presumption that claim terms be given their full and ordinary meaning and prove clear intentions by the applicant, expressed in the specifications, to import a new and different meaning to the term “shoulder.” Phillips, 415 F.3d at 1312-13 (citing Innova\Pure Water Inc. v. Safari Water Infiltration Sys., Inc., 381 F.3d 1116 (Fed. Cir. 2004).

As was said earlier with respect to the term “groove”, the 989 patent specification does not describe the “present invention as a whole,” rather it states “[i]n one aspect of the present invention” and “[i]n another embodiment of the present invention” J.A. Ex. 1 at col. 1,11. 45-59. Therefore, the cases cited by Globus holding that where the specification “describes the features of the ‘present invention’ as a whole” the Court should “limit [] the scope of the invention” to the described characteristics do not apply.

The only portion of the specification that relates to the shape of the “first and

second shoulders” only requires that they are “sized and shaped to slide over and overlie respective portions of a lip of the tulip.” J.A. Ex. 1 at col. 5, 11. 29-31.

In accordance with one or more embodiments, the cap 420 may include a generally cylindrical body having first and second opposing ends, 432A, 423B, an outer surface, and a bore extending through the first and second opposing ends 432A, 423B of the body along a central, longitudinal axis. The cap 420 may further include **one or two shoulders 421A, 421B**, disposed in opposing relationship when there are two such shoulders (as illustrated), and disposed proximate to the first end 423A of the body, and extending radially away, and circumferentially along, the outer surface of the body. As can best be seen in FIG. 13, **at least portions of the shoulders 421A, 421B are sized and shaped to slide over, and overlie, respective portions of a lip of the tulip 406**, at the periphery of the open end that receives the cap 420, by the rotation of the cap 420 about its longitudinal axis. **The shoulders 422, 424 are sized and shaped to be:** (i) received into the first and second slots (e.g. element 28 in FIG. 1), respectively, to positions adjacent to the opposing grooves (e.g. element 118 in FIG. 7), respectively, and **(ii) slidingly received into the grooves 118 by rotation of the cap 420 about its longitudinal axis**. As shoulders 422, 424 slide into the gooves 118 by rotation of the cap 420, **the one or two shoulders 421A, 421B slide over the respective portions of the lip of the tulip 406 and abut respective associated tabs 425A, 425B**, thereby operating to stop the cap 420 from rotating beyond a predetermined amount.

Id., at col. 5, 11. 8-34.

This portion of the specification starts with the non-limiting phrase “[i]n accordance with one or more embodiments.” *Id.* at col. 5, 11. 8. The specification then describes two sets of “shoulders”: the first and second shoulders 421A and 421B; and the third and fourth shoulders 422 and 424. *Id.* at col. 5, 11. 8-34. The only requirement for the size and shape of the first and second shoulder is that they “are sized and shaped to slide over, and overlie, respective portions of a lip of the tulip 406, at the periphery of the open end that receives the cap.” *Id.* at col. 5, 11. 19-21. The

only requirement for the size and shape of the third and fourth is that they are sized and shaped to be: (i) received into the first and second slots . . . and (ii) slidably received into the grooves 118 by rotation of the cap 420 about its longitudinal axis. *Id.* at col. 5,11. 24-29. There is no disclosure whatsoever that clearly expresses the intent to have shoulder with an angled or sloping surface.

Globus argues also, that Altus relies on portions of the specifications that are not part of the claimed invention. This is based on applicant's election not to pursue claims on the embodiments depicted in figures 1-7 as part of the application that issued as the 989 patent. (*Id.*) Altus points out that this argument was rejected in Plantronics Inc. v. Aliphus Inc., 203 U.S. App. LEXIS 15615, 107 U.S. P.Q. 2d 1706 (Fed. Cir. July 13, 2013), which found that the patentee's election of species in response to a restriction requirement "did not amount to a surrender of claim scope." Altus points out that, during the prosecution, the applicant explicitly stated that the claims were generic and not restricted to any particular species, which the examiner did not contest. *See* J.A. Ex. 2 at GLO-ALT 0000230 ("Of the new claims presented, applicant respectfully asserts that claims 68 and 71 are generic"). From all of the above, we decline to adopt Globus's interpretation, requiring an angled or sloping surface.

Globus's construction for "shoulders" requires "two discrete projections no more or less" for both of the "first and second shoulders" and "third and fourth shoulders." We agree with Altus's argument that such a construction would violate a well-established claim- construction principle that rejects importing a dependent claim limitation into an independent claim. *See Phillips*, 415 F.3d at 1315 ("[T]he presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.") Further, "[t]hat presumption is especially strong when the limitation in dispute is the only

meaningful difference between an independent and a dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” Sunrace Roots Enter Co. v. SRAM Corp., 336 F.3d 1298, 1303 (Fed. Cir. 2003) (citing Ecolab Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375 (Fed. Cir. 2002)).

Here independent claim1 describes a cap with first, second, third and fourth shoulders. But claim1 is not limited to only four total shoulders. That limitation is imposed by dependent claim 2. Claim 2 reads: “The apparatus of Claim 1, wherein the cap includes no further shoulders beyond the first, second, third and fourth shoulders.”

Globus’s proposed construction would render claims 1 and 2 identical in scope. “Since independent claims are presumed to have broader scope than their dependents, the presumption is that claim one should not be limited in the manner [Globus] urges.” *See* Accumed, LLC v. Stryker Corp., 483 F.3d 800, 806 (Fed. Cir. 2007).

Globus argues that because the applicant amended the specification from “[t]he cap 420 may include one or more shoulders 421A, 421B” (J.A. Ex. 2 at GLO-ALT 0000382) to “[t]he cap 420 may include one or two shoulders 421A, 421B” (*Id.* at GLO-ALT 0000426) in response to a lack of written description rejection, the construction of “shoulder” should be limited to “two . . . projections, no more or no less.” However, we find that the rejection and applicant’s subsequent amendment only applies to the first and second shoulders, 421A and 421B, and does not limit the total number of shoulders on the cap.

For the foregoing reasons, we construe “first and second shoulders” to mean “first and second abrupt projections that form an abutment on an object or limits motion” and “third and fourth shoulders” to mean “third and fourth abrupt projections that form an abutment on an object

or limits motion.”

C. Extending . . . from at least one of the first and second slots toward the other of the first and second slots

Altus’s Proposed Construction	Globus’s Proposed Construction
No construction necessary - the plain and ordinary meaning applies If the Court decides to construe the phrase, it means “extending from at least one of the first and second slots in the direction of the other of the first and second slots”	extending from one slot to the other

Altus takes the position that the phrase “extending . . . from at least one of the first and second slots toward the other of the first and second slots” does not require construction because its meaning is clear in context of the specification and prosecution history and is readily understandable to a jury. Altus Opening Br. at p. 13. Globus argues that the phrase should be construed as “extending from one slot to the other.” Globus supports its position by arguing “[A]s described in the specification, ‘[t]he shoulders 422, 424 are sized and shaped to be (i) received into the first and second slots (e.g., element 28 in FIG. 1), respectively, to positions adjacent to the opposing grooves (e.g., element 118 in FIG. 7), respectively, and (ii) slidably received into the grooves 118 by rotation of the cap 420 about its longitudinal axis.’” *Id.* (citing J.A. Ex. 1, col. 5, 11. 23-29). As shown in Figure 13, the specification does not limit which direction the user can rotate the bottom shoulders of the cap to slide them into the grooves. *Id.* at ALT 0000008 Instead, the grooves extend from one slot to the other allowing the bottom shoulders to be rotated in either direction. This is an argument with some merit, but not enough to persuade us to adopt Globus’s construction.

It is well established that claim terms should be “given their ordinary and customary meaning,” and construed in context with the other claims because “terms are normally used consistently throughout the patent.” Phillips, 415 F.3d at 1312, 1314.

The correct meaning of “extending toward” in claim 1 is made clear by its usage in claim 11. Claim 11 states “wherein tightening the screw into the bore of the cap causes . . . the second surface of the seat cap to engage and urge the head of the fastener **toward** and **engage** the inside surface of the seating ring.” J.A. Ex. 1 col. 7, 11. 1- 6. We agree with Altus that this usage of “toward” illustrates that its meaning as used in the 989 patent is directional and not indicative of distance because the claim also uses the term “engage” to convey distance - that the head of the fastener makes contact or “reaches” the inside surface when “toward” is intended to be used in the context of not only extending “toward” but reaching, the express language contains that additional limitation. Without the additional language, “toward” does not require actually reaching. The other surrounding claims also support Altus’s plain-meaning construction. The term “toward” is used in other claims of the 989 patent, and in each instance it is used consistently with its plain and ordinary meaning - “in the direction of.” *See Id.*, col. 6, 11. 27-38 and col. 7, 11. 1- col. 8, 1.4; claim 5: “to urge the rod toward the second end of the tulip”; claim 6: “the first surface being oriented toward the first end of the tulip . . . the second surface being oriented toward the second end of the tulip.” None of this claim language suggests “reaching”, but instead plainly means “in the direction of.”

Because the phrase “extending . . . from at least one of the first and second slots toward the other of the first and second slots” is well understood and because nothing in the 989 patent nor its prosecution history indicates any intention to narrow or change its plain meaning, no

construction of the term is necessary.

D. The head of the fastener is retained within the tulip

Altus's Proposed Construction	Globus's Proposed Construction
No construction necessary - the plain and ordinary meaning applies. If the Court decides to construe the phrase, it means "the head of the fastener is held secure or intact with the tulip"	the head of the fastener cannot pass through the bottom of the tulip

The parties dispute is over the construction of "retained within the tulip." Altus proposes either that no construction is necessary or that, if construction is necessary, it means "the head of the fastener is held secure or intact within the tulip." Globus's proposed construction is that "the head of the fastener cannot pass through the bottom of the tulip."

Globus's construction is inconsistent with the intrinsic evidence. The very section that Globus relies on discloses that the head of the fastener may pass through the bottom end of the tulip. Globus Br. at 26. Specifically, the 989 patent discloses that:

A third embodiment of the present invention as shown schematically in FIG. 8...utilizes a seat sleeve (200) for seating the screw head (202) relative to the cup (204) or tulip. In this embodiment, the use of the seat sleeve (200) enables a smaller screw head (202) to be used.... The **sleeve (200) retains the screw (206) in an opening of the cup (204) that the screw (206) would otherwise fall through.**

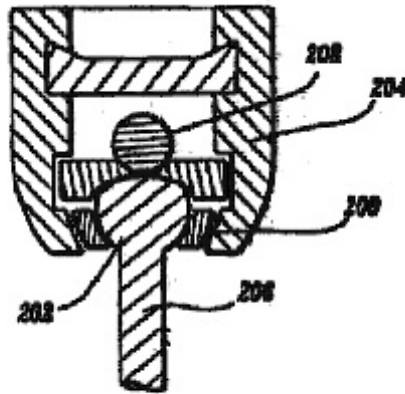


FIG. 8

J.A. Ex. 1 at col. 3, 1. 59-col. 4, 1. 24 and Fig. 8.

Referring to Figure 8 contrary to Globus's construction, the head of the fastener (screw head 202) may pass through the bottom of the tulip. However, it is "retained" or "held secure or intact" within the tulip by the sleeve (200).

Globus's proposed construction is also contrary to the extrinsic evidence. Globus cites two dictionary definitions of "retain/retained." Globus's Br. Ex. 3 at 3. Those definitions are: (1) "[t]o keep or hold in a particular place, condition, or position; and (2) a device for retaining or keeping something in position." *Id.* Those definitions, however, do not support Globus's construction of "cannot pass through."

Globus also argues that during prosecution the applicants repeatedly asserted that the screw head cannot pass through the bottom end of the tulip. Globus Br. at page 27. However, as Altus points out, the portions of the prosecution history that Globus cites do not indicate that the head of the fastener must not be able to pass through the bottom of the tulip. To the contrary, those portions of the prosecution history are consistent with the specification and state either the head of the fastener cannot pass through a seat ring interposed between the bone screw head and the

retention assembly bottom opening, or the head of the fastener cannot pass through the bottom opening. Ex. 2 at GLO-ALT 0000232-33.

Globus’s proposed construction is not consistent with the scope of the invention. We will, therefore, adopt Altus’s proposed construction of this term “the head of the fastener is held secure or intact within the tulip.”

E. Slide over

Altus’s proposed construction	Globus’s proposed construction
No construction necessary - the plain and ordinary meaning applies. If the Court decides to construe the phrase, it means “to move smoothly over a surface”	to move over a surface while maintaining contact

Globus argues that the term “slide over” should be construed as “to move over a surface while maintaining contact.” Altus argues that no construction is necessary because the plain and ordinary meaning applies. However, if we conclude that construction is necessary it should be “to move smoothly over a surface.”

After considering the arguments of counsel, we conclude that the term does not require construction. The term “slide over” is a simple and easily understood term with no specific meaning as used in this patent.

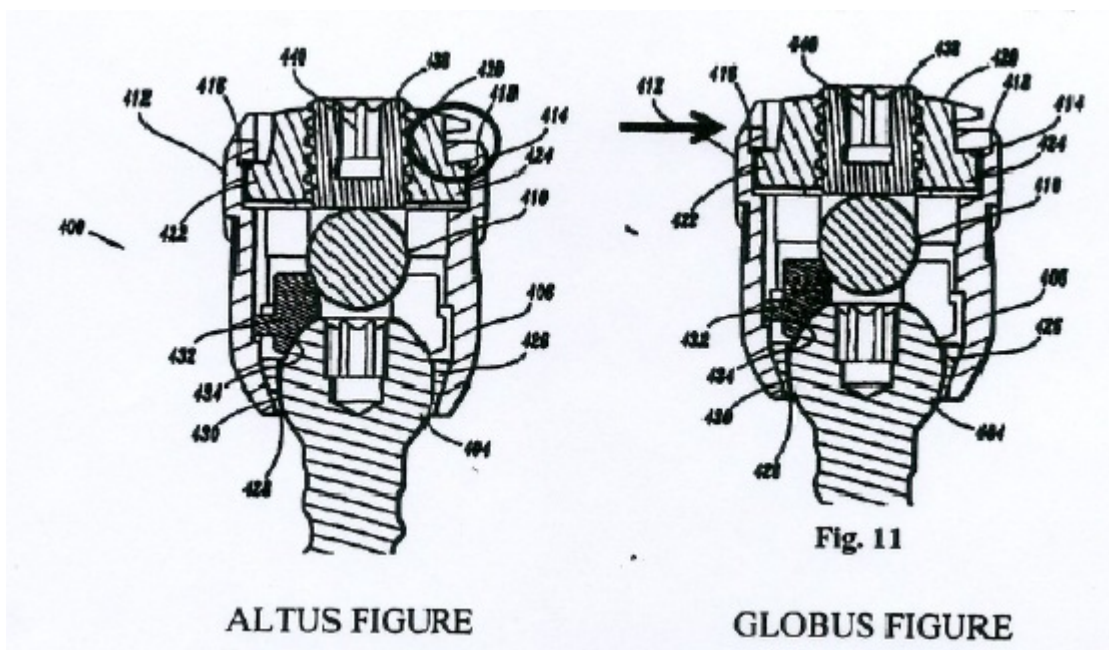
Globus argues on pages 22-23 of its opening brief that contact is described each time the term “slide” is used in the claims. After considering those examples, we are not convinced of Globus’s position.

Globus’s suggested construction “to move over a surface while maintaining contact” could imply constant contact of the two surfaces. This would require closer tolerances

between the two surfaces than this patent seems to require, which is contrary to one of the preferred embodiments at J.A. Ex. 1. col. 3, 11. 34-37 stating:

This design allows loose retention of the components relative to the rod so a surgeon can easily make adjustments. It also enables superior performance without the need for costly high tolerancing.

Globus also argues that its position is supported by Figure 11 which it claims shows, “a top shoulder of the cap is shown in figure 11 to move over the top end of the tulip while maintaining contact.” Globus Opening Br. at 22. Altus counters with its depiction of Figure 11 in which it claims to find space between the shoulder and the tulip on the opposite side of Figure 11.



J.A. Ex. 1 at Fig. 11.

Since the depictions in Figure 11 appear to show a pedicle screw wherein the set screw is tightened down it is not a good representation of the “sliding over” issue in this case.

However, if tightening down on the set screw causes the shoulders to become unbalanced its another indication of play between the surfaces.

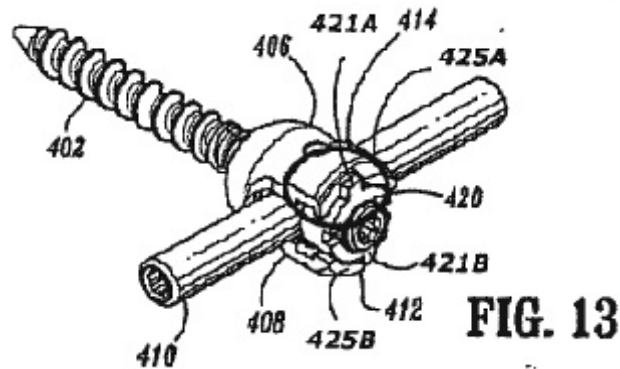
For these reasons we have decided that the term “slide over” does not need to be construed because the plain and ordinary meaning of the words apply.

F. A lip of the tulip at the periphery of the first open end of the tulip

Altus’s Proposed Construction	Globus’s Proposed Construction
<p>No construction necessary - the plain and ordinary meaning applies</p> <p>If the Court decides to construe the phrase, it means “an edge or margin of the external surface of the first open end of the tulip.”</p>	<p>the outer edge of the top end of the tulip</p>

This term appears in the following element of claim 1: “at least portions of the first and second shoulders are sized and shaped to slide over, and overlie, respective portions of **a lip of the tulip at the periphery of the first open end of the tulip** by the rotation of the cap about the longitudinal axis.” (J.A. Ex. 1 at claim 1; *see also, id.* at 5, 11. 18-23.) The parties appear to agree that “lip” means “edge.” The parties also appear to agree that “first open end of the tulip” is the top of the tulip.

This claim phrase refers to shoulders 421A and 421B on cap 420 as shown in Figure 13 below. Using Figure 13 as an illustration, the patent reads “at least portions of the shoulder 421A, 421B are sized and shaped to slide over, and overlie, respective portions of a lip of the tulip 406, at the periphery of the open end that receives the cap 420, by the rotation of the cap 420 about its longitudinal axis.” J.A. Ex 1, col. 5, 11. 18-20.



Altus’s position is that no construction is necessary, but if the Court decides that construction is necessary it proposed “an edge or margin of the external surface of the first open end of the tulip.” Globus’s proposed construction is “the outer edge of the top end of the tulip.” To put this phrase into context, claim 1 states that “at least portions of the first and second shoulder ... overlie ... respective portions of a **lip of the tulip at the periphery of the first open end of the tulip.**” J.A. Ex. 1 at col. 6, 11. 10-15 (emphasis added). Globus’s construction would require that the first and second shoulders must overlie “the outer edge at the top end of the tulip.” (emphasis added) We conclude that Globus’s construction would exclude the illustrated embodiment as shown in Figure 13. Figure 13 shows shoulder 421A on the “inner edge” of the open end of the tulip, not the “outer edge” as Globus’s construction would require. Constructions that exclude a preferred embodiment are rarely, if ever, correct. *See, Vitronics Corp.*, 90 F.3d at 1583 (holding that a claim construction that would exclude the preferred embodiment “is rarely, if ever, correct and would require highly persuasive evidentiary support”). Globus has not provided the persuasive evidence required to convince us that we should adopt a construction that would exclude the preferred embodiment.

After considering the arguments of counsel, we find that the terms “lip” and

“periphery” are commonly understood words with widely accepted meanings and that the intrinsic record does not contain a clear intention to limit the respective claim languages. We, therefore, find that no construction of this term is necessary.

An appropriate Order follows.