

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE TRIAL AND APPEAL BOARD

FUSION ORTHOPEDICS, LLC,
Petitioner,

v.

EXTREMITY MEDICAL, LLC
Patent Owner.

Case IPR2023-00894
Patent 11,298,166

PETITIONER'S PRELIMINARY REPLY

PETITIONER'S UPDATED LIST OF EXHIBITS

Exhibit No.	Description
1001	U.S. Patent No. 11,298,166 B2 to Jeff Tyber, <i>et al.</i> , filed on May 18, 2021, issued on April 12, 2022. ("166 patent").
1002	Expert Declaration by Leonel Dominguez.
1003	French Patent Publication No. FR2,861,576 A1 to Cognet Jean Michel, filed on October 31, 2003, published on May 6, 2005. ("Cognet")
1004	French Patent Publication No. FR2,861,576 A1 to Cognet Jean Michel, filed on October 31, 2003, published on May 6, 2005. Translated into English. ("Cognet").
1005	Cognet Translation Affidavit.
1006	U.S. Patent No. 4,827,917 to David L. Brumfield, filed on December 30, 1986, issued on May 9, 1989. ("Brumfield").
1007	U.S. Patent Publication No. 2003/0187447 to Joseph Ferrante, <i>et al.</i> , filed on April 7, 2003, published on October 2, 2003. ("Ferrante").
1008	U.S. Patent Publication No. 2006/0206044 to William Simon, filed on August 1, 2003, published on September 14, 2006. ("Simon").
1009	U.S. Patent No. 6,270,499 B1 to Dieter Leu, <i>et al.</i> , PCT filed on October 20, 1997; PCT published on April 29, 1999; issued on August 7, 2001. ("Leu")
1010	Extremity Medical, LLC's Response to Defendant Fusion Orthopedics, LLC's First Set of Interrogatories (Nos. 1-6). No. CV-22-00723-PHX-GMS.
1011	Case Management Order, No. CV-22-00723-PHX-GMS, Document 49, Filed December 16, 2022.
1012	Memorandum: Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation, June 21, 2022
1013	Declaration in Support of Pro Hac Vice Admission
1014	U.S. Patent No. 9,044,282 B2 to Jeff Tyber, <i>et al.</i> , filed on February 11, 2010, issued on June 2, 2015. ("282 patent").
1015	U.S. Patent No. 9,044,282 file history selections ("680 application")
1016	U.S. Patent Application Serial No. 12/906,454, filed on October 10, 2010, file history selections

I. Introduction

Petitioner submits this Reply to Patent Owner's Preliminary Response ("POPR") to address Patent Owner's inconsistent construction of "bore" and "at a terminal end" between the prosecution history and the Preliminary Response. The Board authorized a reply and sur-reply limited to these issues. Ex. 3001.

II. Discussion

A. "Bore"

Patent Owner's argument in the Preliminary Response that the claim term "bore" must be limited to a cylindrical shape with an unvarying diameter (POPR 24–25) contradicts its unequivocal position during prosecution of a parent application that a "bore" can taper along its length.

The '166 patent is a continuation of application serial No. 12/658,680 through a series of intervening continuation and divisional priority claims detailed in the "Related U.S. Application Data" on the first two pages of Ex. 1001. The '680 application issued as U.S. Pat. No. 9,044,282 (submitted here as Ex. 1014). The '680 application and the '166 patent have identical specifications. The claims that issued from the '680 application recite the term "bore." Ex. 1014, 14:50 (claim 1).

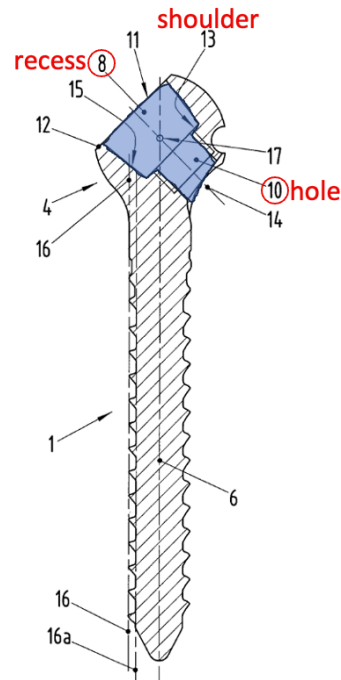
During prosecution of the '680 application, Patent Owner amended claim 1

to recite a “bore.” Ex. 1015, 21:11. When explaining the support for claim 1 in a subsequent amendment, Patent Owner stated that the recited “bore” is shown in Figures 9 and 11 as “extending along a third axis 1102 from the first aperture 1130 to a second aperture on an exterior surface 1135.” Ex. 1015, 109:11–13.

The specification common to the ’680 application and the ’166 patent discloses that the “bore” Patent Owner identified in prosecution tapers along its length. The specification describes structure 1130 as a “tapered aperture 1130” that “traverses” the device along “axis 1102” to “emanate from surface 1135.” Ex. 1001, 9:46-49; *accord* Ex. 1014, 9:23–26. Thus, the very “bore” structure Patent Owner identified in the specification tapers along its length. Patent Owner cannot now argue that its recited “bore” excludes apertures with varying diameters. It is precluded from taking one position to obtain a patent and then an inconsistent position to defend another patent in the same family.

Elsewhere in the ’166 patent family Patent Owner has acknowledged that a single “bore” may have at least two distinct diameters. In response to a rejection over U.S. Patent No. 7,542,326 to Dierks, Patent Owner did not contest the examiner’s determination that “recess 8” and “hole 10” in Dierks Fig. 1f together

constitute a bore. Ex. 1016, 123:1–5.¹ Patent Owner stated that “the bore has an axis 14 and includes a recess 8 and a hole 10.... Fig. 1f . . . show[s] a recess 8 that tapers from an opening 11 to a shoulder 13 and a hole 10 of uniform diameter.” *Id.* (emphasis added). In doing so, Patent Owner clearly identifies the shaded portion of Dierks Figure 1f (annotated inset) as a single bore which has at least two distinct diameters. In the ’680 application (discussed above), Patent Owner similarly did not contest the examiner’s determination that recess 8 and hole 10 meet the recited bore and instead argued for patentability on other grounds. Ex. 1015, 110-111.



Dierks Fig. 1f *annotated*

Patent Owner’s justification for its argument that the recited “bore” cannot vary in diameter is premised on a misreading of the Petition. Petitioner argued that a “bore” is “a usually cylindrical hole,” and Petitioner’s expert similarly declares that a “bore” is “a cylindrical hole.” Pet. 16 (citing Ex. 1002 ¶ 58). Neither the

¹ Application ser. No. 12/906,454, which is a continuation-in-part of ser.

No. 12/658,680 and has the same specification as the ’166 patent plus additional matter.

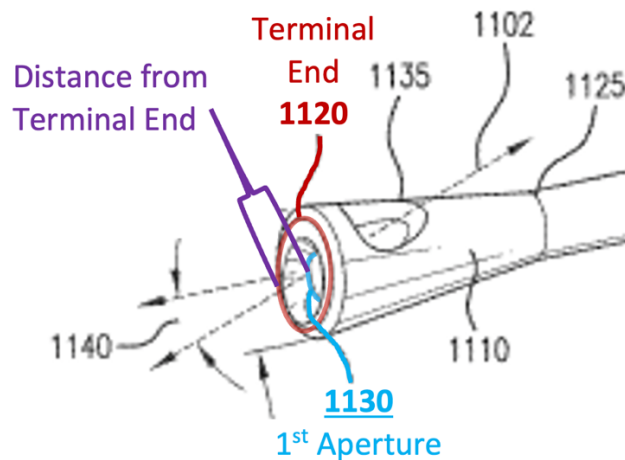
Petition nor the expert contended that a cylindrical shape is the *only* possible configuration. Patent Owner is bound by the construction it chose to present during prosecution of the '166 patent family.

B. “At a terminal end”

In response to the Simon grounds, Patent Owner argues that Petitioner misconstrues “at a terminal end” to mean “*near* a terminal end.” POPR 35. Patent Owner argues that Simon does not meet this limitation because its first aperture (hole 20) is not “at” the terminal end but instead “some distance away” from it. *Id.*

Patent Owner made exactly the opposite argument, however, during prosecution of the parent '680 application. Patent Owner amended claim 1 to recite “a first aperture at a terminal end.” Ex. 1015, 21:10–11. When explaining the support for claim 1 in a subsequent amendment, Patent Owner stated that the “first aperture” corresponds to element 1130 and is located “at a terminal end 1120” of the second end of the second elongated body. Ex. 1015, 109:10–11. Patent Owner also provided these identifications in an annotated version of claim 1. *Id.* at 78:12–13. Patent Owner specifically identified Figure 11 as illustrating these elements. *Id.* at 78:12–13, 108:11.

But Figure 11 shows that terminal end 1120 is at the surface of element 1110, while aperture 1130 is recessed well below that surface, i.e., “at some distance” away from it.



Patent Owner took the position during prosecution of the '680 patent

'166 patent, Fig. 11 (detail) *annotated*

that the separation between first aperture 1130 and terminal end 1120 illustrated in Figure 11 nevertheless provides written description support for “the first aperture at a terminal end” (emphasis added). Patent Owner may not now argue that a comparable separation between Simon’s end and hole 20 fails to do so as well.

III. Conclusion

Petitioner requests institution of trial and cancellation of all claims.

Dated: September 15, 2023

Respectfully submitted,
Fusion Orthopedics, LLC

By:
/Jennifer R. Brinkerhoff/
Jennifer R. Brinkerhoff
Reg. No. 78,696
jen@fusionorthopedics.com

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6, I certify that on the date listed below, a copy of the foregoing document was served electronically on the following counsel of record for the Patent Owner at the following:

David Lindenbaum
DLindenbaum@KelleyDrye.com

Michael Zinna
MZinna@KelleyDrye.com

Dated: September 15, 2023

Respectfully submitted,

/Jennifer R. Brinkerhoff/
Jennifer R. Brinkerhoff