

Exhibit 2001

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ORTHOCISION, INC.,
Petitioner,

v.

PAIN TEQ, LLC,
Patent Owner.

Patent No. 11,020,129
Issue Date: June 1, 2021

Title: DRILL-LESS METHOD OF FUSING A SACROILIAC JOINT

Inter Partes Review No. IPR2023-00625

DECLARATION OF DR. CHRISTOPHER J. BOVINET

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I, Christopher J. Bovinet, hereby declare and state as follows:

I. INTRODUCTION

1. I have been engaged by Hill Ward Henderson, P.A. on behalf of Pain TEQ, LLC (“Patent Owner”) for the above captioned *inter partes* review (“IPR”) by the U.S. Patent & Trademark Office Patent Trial and Appeal Board.

2. I have been asked to provide my analysis and expert opinions with respect to the validity of claims 1, 2, 9, and 10 (“the Challenged Claims”) of U.S. Patent No. 11,020,129 (“the ‘129 Patent”).

3. It is my opinion that the Challenged Claims are patentable over the prior art cited in Petition at least for the reasons set forth in this declaration. The explanation of the deficiencies of the invalidity grounds asserted in the Petition, as well as the rationale for my opinions, are set forth below.

4. I am being compensated for my time at a rate of \$500 per hour, plus reimbursement for my expenses. My compensation in this matter is not dependent on or related to the outcome of this matter.

5. I understand that the ‘129 Patent was filed on October 5, 2020 and issued on June 1, 2021. I understand that the ‘129 Patent is currently assigned to Patent Owner.

6. I have reviewed and am familiar with the specification of the ‘129 Patent and understand that it has been provided as Exhibit 1001. I have also reviewed and am familiar with the prior art references identified in the Petition (Paper 1).

7. The ‘129 Patent is for a “drill-less method of fusing a sacroiliac joint.” (Ex. 1001, at 1:1-2). I am familiar with the methods and associated medical tools described in the ‘129 Patent as of its filing date (October 5, 2020), as well as the filing dates of its Parent (April 17, 2020) and Provisional (October 4, 2019).

II. QUALIFICATIONS

8. My *curriculum vitae* is attached to this Declaration as Exhibit 2002 and describes my qualifications in detail.

9. I am a Board Certified physician in Physical Medicine & Rehabilitation by American Board of Physical Medicine and Rehabilitation, with a sub-specialty in Pain Medicine.

10. I am an interventional pain management physician and the medical director at The Spine Center of Southeast Georgia and The Brunswick Pain Treatment Center, both located in Brunswick, Georgia. I have held these positions since 2014. In my medical practice, I specialize in spinal injections and minimally-invasive spinal and sacroiliac joint surgery techniques. I have performed over three hundred minimally-invasive posterior sacroiliac joint (SI joint) fusion procedures.

11. I am the director-at-large of the Georgia Society of Interventional Pain Physicians. In addition, I serve as a consultant for several spine and neuromodulation medical advisory boards. In the past, I have served on the medical advisory board for St. Jude's Medical.

12. I graduated *cum laude* with a Bachelor of Science degree in Biochemistry from Lee University in Cleveland, Tennessee in 2001. I graduated with a Doctor of Osteopathy degree from Michigan State University College of Osteopathic Medicine in East Lansing, Michigan in 2008. I have completed my residency in 2013 and fellowship at Virginia Commonwealth University Physical Medicine & Rehabilitation in Richmond, Virginia in 2014.

III. LEVEL OF ORDINARY SKILL IN THE ART

13. I believe that a person of ordinary skill in the art ("POSA") with respect to the subject matter claimed in the '129 Patent would have had an engineering or a medical degree and would have at least three years of experience with the sacroiliac joint fusion procedures and the surgical tools required to perform them.

14. I am a person of ordinary skill in the art and was such as of the earliest effective filing date of the '129 Patent, which is October 4, 2019.

15. In forming my opinions, in addition to my own knowledge and experience, I have considered the '129 Patent, the cited prior art references, and any other references referred to or cited in this declaration.

IV. RELEVANT LEGAL STANDARDS

16. In developing my opinions, I have discussed with Patent Owner's attorneys various legal principles. I understood those legal principles and have relied upon them in forming my opinions set forth in this declaration. I am not an attorney and have not researched legal issues of patent validity. I am relying solely on explanations from Patent Owner's attorneys for these legal standards.

17. I understand that an *inter partes* review (IPR) is a proceeding before the Patent Trial and Appeal Board (PTAB) for evaluating patentability of a challenged patent claim based on prior art patents and publications.

18. I understand that Petitioner is challenging the validity of claims 1, 2, 9 and 10 of the '129 Patent and that Petitioner has the burden of establishing that these claims are unpatentable.

A. Person of Ordinary Skill In the Art

19. I understand that a person of ordinary skill in the art is a hypothetical person who is presumed to have average knowledge and skill in the technical field of the invention at the time it was invented. I understand that a person of ordinary skill in the art understands related references in the technical field and reasonably understands the problem the claimed invention attempts to address.

B. Obviousness

20. I understand that a patent claim is unpatentable for being obvious if the difference between the claimed subject matter and the prior art as a whole, would have been obvious to a person of ordinary skill in the art at the time of invention.

21. I understand that an obviousness analysis is based on the understanding of a person of ordinary skill in the art at the time of the claimed invention and involves a consideration of the scope and content of the prior art, the differences between the prior art and the challenged claims, the knowledge of a person of ordinary skill in the art in the pertinent art, and objective factors indicative of non-obviousness, when such are present.

22. I understand that in determining whether a patent claim would have been obvious over a combination of prior art references, a person of ordinary skill in the art must have had a reason for combining teachings from these references in the fashion proposed and would have reasonably expected success in such combination.

23. I understand that an obviousness analysis requires comparing the properly construed claim language to the prior art on a limitation-by-limitation basis.

V. CLAIM CONSTRUCTION

24. I understand that claim construction is a matter of law. Further, I understand that during an IPR, claim terms are generally given their plain and

ordinary meaning as understood by a person of ordinary skill in the art at the time of the invention of the patent at issue, in light of the specification and the prosecution history.

25. I have understood all terms of the claims and interpreted them in accordance with their plain and ordinary meaning, as would be understood by a person of ordinary skill in the art.

26. I have read Petitioner's proposed claim constructions and I believe that the prior art combinations analyzed in this declaration fail to teach all limitations of the Challenged Claims under the proper claim construction.

1. "Open tip"

27. The term "open tip" appears in claim 1 in of the '129 Patent. Ex. 1001 at 13:6-7. Specifically, claim 1 recites that the "abrading device" comprises an "abrading head" which has an "open tip." *Id.* at 12:65-67, 13:6-7. Claim 1 further specifies that the "open tip" has a cutting edge at its leading edge. *Id.* at 13:6-7. The specification describes the "open tip" as "compris[ing] a cutting edge 36 around all or part of the leading edge of the open tip 34." *Id.* at 6:26-30.

28. FIGS. 14 and 15 of the '129 Patent provide a perspective view of the abrading heading and its open tip and are reproduced below.

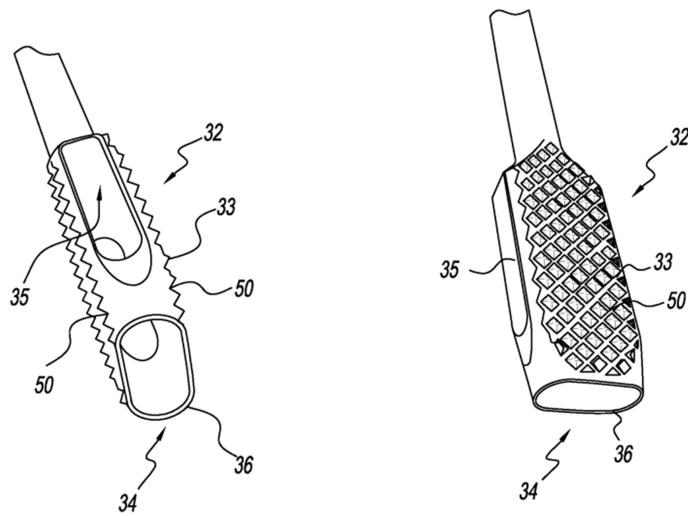


FIG. 14

FIG. 15

29. These figures clearly show that the abrading head is hollow, and the specification refers to the hollow interior of the abrading head as a “void.” *Id.* at 6:35-38. Figures 14 and 15 further show that the terminal edges of the walls of the abrading head collectively form a single leading edge at the distal end of the abrading head that encloses an opening into the interior void.

30. Thus, based on the specification, claims, and drawings of the ‘129 Patent, I believe that the word “tip” refers to distal end of the abrading head, while the term “open” refers to the opening enclosed by the leading edge of the tip, as shown in Figures 14 and 15. Accordingly, a POSA would understand the term “open tip” to mean “a distal end of the abrading head whose leading edge encloses an opening thereinto.”

2. “Releasing means”

31. I have been informed that “releasing means” is a means-plus-function limitation and that interpretation of a means-plus-function limitation is a two-step process requiring (1) identification of claim function and (2) identification of corresponding structure for performing that function.

32. For the first step, the claimed function performed by the “releasing means” is plainly stated in claim 1: “for transitioning the slide hammer assembly between the locked position and the released position.” Ex. 1001 at 13:15-17.

33. For the second step, the specification explicitly provides a direct definition of this term: “[t]he releasing means is any means for releasably connecting the hammer sleeve 31 to the base 51, thereby transitioning the slide hammer assembly between its released position and its locked position.” *Id.* at 7:5-9. The next sentence of the specification provides a list of specific mechanical structures that could be used as releasable connectors between the hammer and the base: “a mating threaded connection, a quick disconnect attachment, a depressible tab, a latch, a clasp, a clip, a clamp, or other equivalent connection structure.” *Id.* at 7:9-12. Thus under Step Two of the means-plus-function interpretation, the structural component of the term “releasing means” should be construed as follows: “a mating threaded connection, a quick disconnect attachment, a depressible tab, a latch, a

clasp, a clip, a clamp, or other equivalent connection structure releasably connecting the hammer sleeve to the base.”

34. FIGS. 20-21 illustrate a mating threaded connection that releasably connects that hammer sleeve to the base. By selectively engaging or disengaging the mating threads, a surgeon can transition the slide hammer assembly between the locked position depicted in FIG. 20 and the unlocked position depicted in FIG. 21. This method of operating the releasing means is also described in the specification: “[t]o operate the slide hammer assembly 40, the threaded connector 48 is disengaged from the external threads 43 of the collar 41, placing the slide hammer assembly 40 in its released position, which is shown in FIG. 21.” *Id.* at 7:37-40.

35. In addition, the Summary of the Invention section of the ‘129 Patent also describes “a releasing means that releasably *connects a hammer sleeve to the base*” and further explains that “[t]o operate the slide hammer assembly, the hammer sleeve is *disengaged from the base*, placing the slide hammer assembly in its released position.” *Id.* at 2:59-67 (emphasis added).

36. Thus, based on my review of the drawings and the specification, the requirement that the “releasing means” must be configured to selectively connect or disengage the hammer sleeve from the base is the fundamental principle of operation of the claimed invention and the only embodiment envisioned by the inventors. Therefore, it is my opinion that the correct construction of the term “releasing

means” is “a mating threaded connection, a quick disconnect attachment, a depressible tab, a latch, a clasp, a clip, a clamp, or other equivalent connection structure releasably connecting the hammer sleeve to the base for transitioning the slide hammer assembly between the locked position and the released position.”

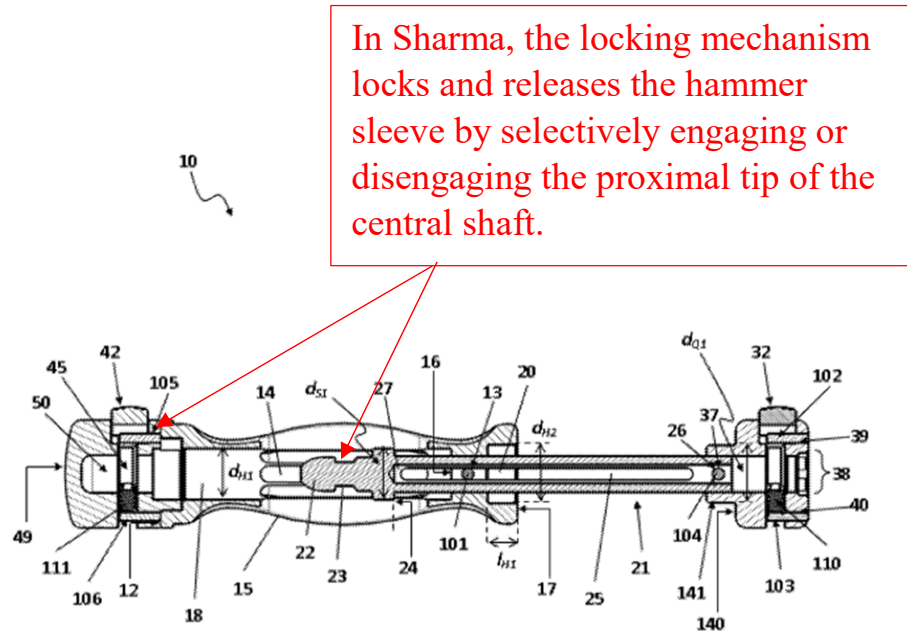
VI. THE PRIOR ART CITED IN THE IPR PETITION DOES NOT TEACH OR SUGGEST ALL ELEMENTS OF CLAIM 1

A. Under the correct claim construction, Sharma does not teach or suggest the “releasing means” element of claim 1

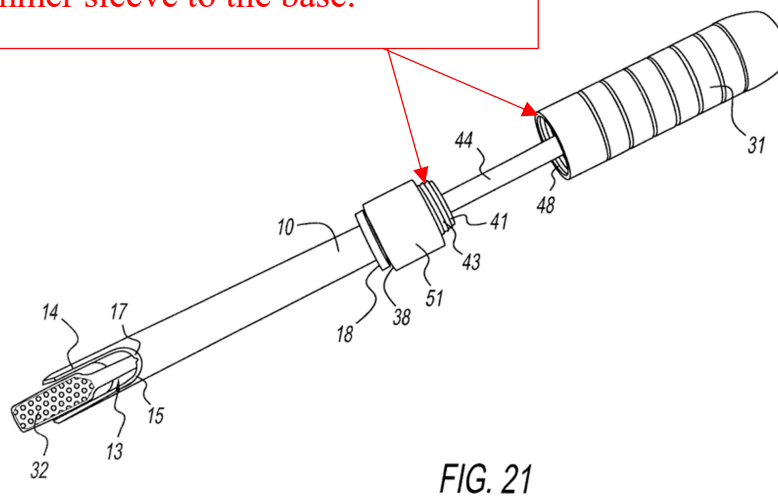
37. Sharma’s “locking mechanism 42” is the only prior art element cited in the Petition against the “releasing means” limitation of claim 1. Petition at 23, 48-50. Thus, every invalidity ground asserted in the Petition hinges on whether Sharma’s “locking mechanism 42” teaches or suggests the “releasing means” of claim 1. It does not.

38. Although Sharma’s locking mechanism serves a similar function as the ‘129 Patent’s “releasing means”—i.e., transitioning the slide hammer between locked and released positions—their structures and principles of operation are very different. On the one hand, the ‘129 Patent explicitly defines the term “releasing means” as a “means for releasably connecting the hammer sleeve [] *to the base.*” Ex. 1001 at 7:5-7 (emphasis added). While on the other hand, Sharma teaches that “[t]he mechanical locking mechanism ... is achieved by the *locking of proximal tip of central shaft* by pressing the proximal button located on proximal impaction end [of

the hammer sleeve].” Ex. 1009 at p. 4, ll. 24-26 (emphasis added). These structural differences are significant and are clearly apparent when FIG. 4 of Sharma is compared against FIG. 21 of the ‘129 Patent, as shown below.



In the '129 Patent, the “releasing means” locks and releases the hammer sleeve by releasably connecting the distal end of the hammer sleeve to the base.



39. The comparison of Sharma's FIG. 4 against the '129 Patent's FIG. 21 demonstrates that their respective structures and principles of operation for locking and releasing the slide hammer are patently different. The '129 Patent's releasing means connects the hammer sleeve to the base, while Sharma's locking mechanism does not.

40. In conclusion, under the correct construction of the term "releasing means" established above, this limitation requires "a mating threaded connection, a quick disconnect attachment, a depressible tab, a latch, a clasp, a clip, a clamp, or other equivalent connection structure *releasably connecting the hammer sleeve to the base*" Because the locking mechanism of Sharma does not releasably connect the hammer sleeve to the base, Sharma does not teach or suggest this limitation of claim 1. This deficiency of Sharma renders every invalidity challenge asserted in the Petition meritless.

VII. RIGHT TO SUPPLEMENT

41. The opinions in this declaration are based upon my work to date. I reserve the right to supplement this declaration should additional information come to light that bears on my opinions contained herein. I reserve the right to consider and comment on additional evidence, if presented by experts for the Petitioner. I reserve the right to add, to alter, or to delete my opinions and my declaration upon

discovery of any additional information and I reserve the right to make such changes as may be deemed necessary.

VIII. CONCLUSION

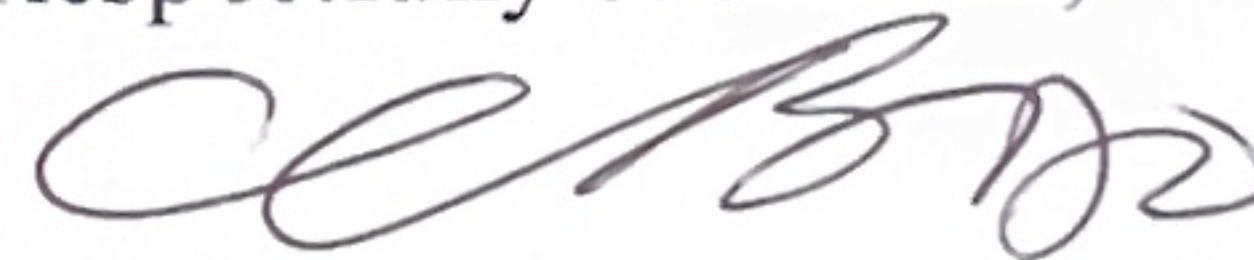
42. For the foregoing reasons, I believe that claims 1, 2, 9, and 10 of the '129 Patent are patentable in over the prior art cited in the Petition.

Inter Partes Review of U.S. Patent No. 11,020,129
Declaration of Dr. Christopher J. Bovinet, D.O.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: June 29, 2023

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'CJ Bovinet', is written over a horizontal line.

Christopher J. Bovinet, D.O.