

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

SMART DENTURE CONVERSIONS,
LLC,

Plaintiff,

v.

STRAUMANN USA, LLC,

Defendant.

Case No. 1:24-cv-00507-JCB

Jury Trial Demanded

FIRST SUPPLEMENTAL COMPLAINT

Plaintiff Smart Denture Conversions, LLC (“SDC”) brings this patent infringement action against defendant Straumann USA, LLC, (“Straumann”) alleging as follows:

NATURE OF THE CASE

1. SDC is a family-run company that sells an innovative patented system to convert removable dentures into fixed prostheses much more quickly, and with better outcomes, than conventional conversion procedures. SDC’s system allows smaller holes to be drilled in the dentures and produces better bite alignment than conventional methods, resulting in a more durable and more comfortable prosthesis. The system is life changing for individuals injured in accidents, aging patients, and anybody else who relies on dental prostheses.

2. After observing SDC’s contributions to, and success in, the dental prosthesis industry, Straumann, a corporate group that has consolidated various dental

manufacturing brands under one umbrella, used its considerable resources to replicate the functionality of SDC's patented system and undercut SDC in the market.

3. With this action, SDC seeks compensation for Straumann's repeated acts of infringement and to prevent Straumann's continued misappropriation and use of SDC's patented innovations.

PARTIES, JURISDICTION AND VENUE

4. SDC is a North Carolina limited liability company with its principal place of business in North Carolina.

5. Straumann is a Delaware limited liability company with its principal place of business in Massachusetts.

6. This Court has exclusive subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338 because all claims arise under the patent laws of the United States.

7. Straumann is subject to general personal jurisdiction in this Court because it is a limited liability company organized under the laws of Delaware.

8. Venue is proper in this Court under 28 U.S.C. § 1400(b) because Straumann, as a Delaware limited liability company, resides in this judicial district.

BACKGROUND

9. On March 26, 2024, the U.S. Patent and Trademark Office issued U.S. Patent No. 11,937,992 (the "'992 patent"), entitled "Screw-Attached Pick-Up Dental Coping System and Methods." A copy of the '992 patent is attached as Exhibit A. On December 3, 2024, the U.S. Patent and Trademark Office issued U.S. Patent No.

12,156,781 (the “’781 patent”), which is a continuation patent of the ’992 patent. On January 7, 2025, the U.S. Patent and Trademark Office issued a Certificate of Correction for the ’781 patent. A copy of the ’781 patent, together with its Certificate of Correction, is attached as Exhibit B.

10. The ’992 patent and the ’781 patent disclose systems and methods for converting removable dentures into fixed prostheses.

11. The systems and methods of the ’992 patent the ’781 patent were invented by Dr. Brandon Kofford, an SDC principal and a prosthodontist in Cary, North Carolina, and Charles Albert Rudisill, an SDC principal, engineer, and a former patient of Dr. Kofford’s.

12. Dr. Kofford and Mr. Rudisill developed systems and methods that are more efficient than conventional denture conversion procedures. While a conventional conversion procedure typically requires more than two hours, conversions using the patented systems and methods can be done in 30 minutes. The result is a win-win for patients, who experience less time and discomfort in the dental chair, and practitioners, who are able to serve more patients.

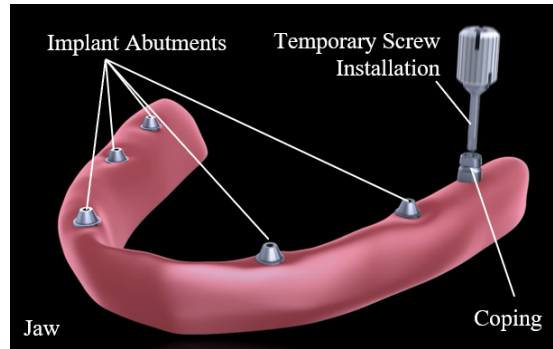
13. SDC’s patented technology also results in a stronger prosthesis by allowing smaller holes to be drilled than in a conventional conversion procedure. The resulting prosthesis will last longer and be less likely to fracture, delivering long-term value to patients.

14. SDC's patented technology also allows practitioners to better position the denture in the mouth as compared to a conventional conversion procedure, resulting in a more functional, more comfortable, and better-looking end result.

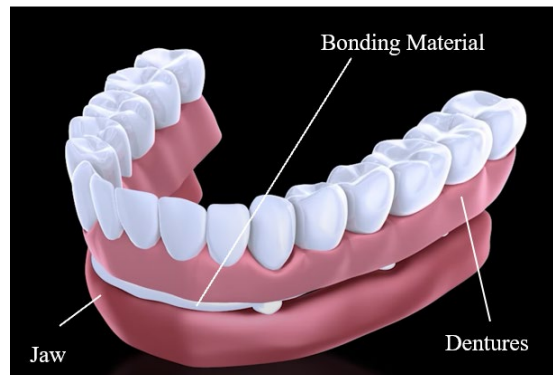
15. For these reasons, dental practitioners and patients around the country have praised SDC's technology.

16. SDC owns the '992 patent and the '781 patent by assignment.

17. SDC's patented technology works by using temporary screws to connect copings to abutments installed on the dental implants in the jaw.

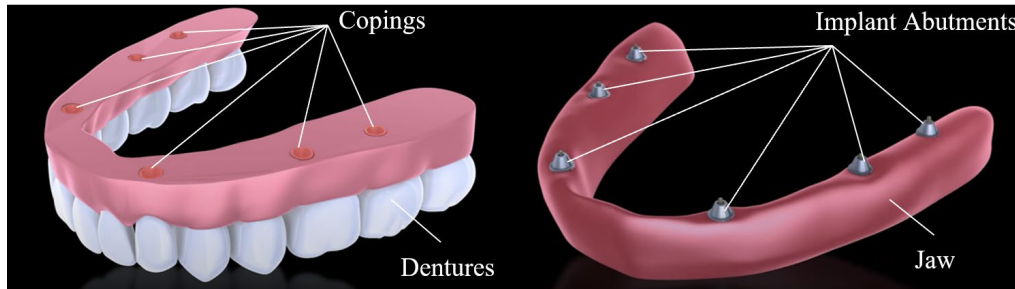


18. The dentures are then set on the jaw with bonding material, so that the copings become bonded to the dentures.

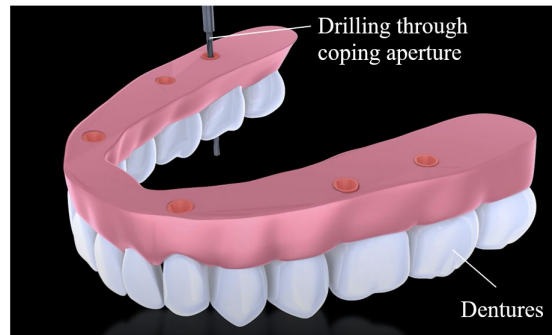


19. Once the copings are bonded to the dentures, the dentures can be removed. The temporary screw will release the copings from the implant abutments, allowing the

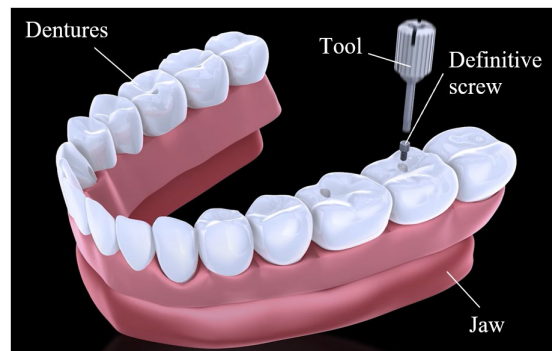
dentures to “pick up” the copings. Now, the dentures have the copings installed, which are accurately aligned with the implant abutments.



20. The next step is to drill clearance holes in the denture. These holes will be used to screw the dentures into the jaw.



21. After drilling, the dentures are placed back on the jaw, with the copings and implant abutments accurately aligned, and a definitive screw is used to attach the dentures to the implant abutment.



THE ACCUSED PRODUCTS

22. Straumann is an established entity in the dental implant and prosthesis markets with 2023 global revenues of \$2.6 billion. Over the last two decades, Straumann has taken interests in some manufacturers, and outright acquired other manufacturers, to consolidate its position in the industry and expand its reach across the globe. It manufactures implants and prostheses under various brand names.

23. Under the brand name Neodent®, Straumann manufactures a product called the NeoConvert™ system to convert removable dentures into fixed prostheses.

24. The NeoConvert™ system uses SDC's patented technology. It works by implementing the patented characteristics of SDC's invention.

25. First, temporary screws are used to connect copings to abutments installed on the dental implants in the jaw. The dentures are then set on the jaw with bonding material, so that the copings become bonded to the dentures. Next, the dentures are removed to "pick up" the copings, as the temporary screw releases the copings from the implant abutments. Clearance holes are drilled in the denture assemblies. Finally, definitive screws are screwed through the holes to fix the dentures to the implant abutments.

26. On information and belief, Straumann analyzed SDC's commercial products with the objective of replicating its functionality in the NeoConvert™ system.

27. SDC sells its products to prosthodontists and other dental professionals throughout the United States. Straumann sells the NeoConvert™ system to the same channels of customers.

28. Straumann competes head-to-head with SDC. On information and belief, no other manufacturer sells a system to convert temporary dentures into permanent prostheses in as little time.

29. Straumann uses its considerable resources and capital to undercut SDC's prices.

30. Straumann's price cutting is costing SDC lost customers and lost sales. SDC has the capacity to fulfill all orders it has received and does receive, as well as to fulfill all orders it has lost and continues to lose to Straumann's sales of NeoConvert™ systems and products.

31. The effects of Straumann's price cutting in the market are long lasting and are causing irreparable harm to SDC.

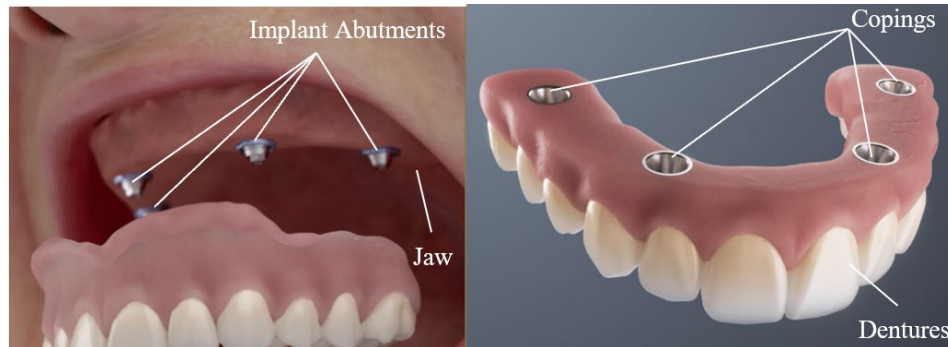
COUNT I: INFRINGEMENT OF THE '992 PATENT

32. SDC incorporates all preceding allegations by reference.

33. By making, using, importing, offering for sale, and selling the NeoConvert™ system, Straumann directly infringes at least claim 1 of the '992 patent.

34. For example, claim 1 defines an invention, denominated in the preamble as a "dental system". Based on SDC's examination of a NeoConvert™ system that it

purchased and based on publicly available materials published by Straumann, the NeoConvert™ system satisfies each limitation of claim 1.



35. The first limitation of claim 1 is “an implant abutment having threads.” The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes two threaded abutment options, referred to as the “GM Mini Conical Abutment” and the “GM Exact Mini Conical Abutment,” which each satisfy this limitation, as shown below.

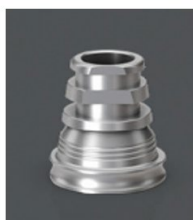


36. The second limitation of claim 1 is “a definitive screw having an axis with a length measured along the axis and a width measured perpendicular to the axis, the definitive screw having a proximal head end having a tool interface and a distal post portion having threads configured to engage the threads of the implant abutment.” The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system

includes a definitive screw with these features referred to as the “Neo Mini Conical Abutment Coping Screw 4.1,” which satisfies this limitation, as shown below.



37. The third limitation of claim 1 states “a coping having a proximal end with an aperture wherein the aperture is larger than the distal post portion of the definitive screw and smaller than the proximal head end of the definitive screw.” The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes two coping options, referred to as the “Mini Conical Abutment Coping NeoConvert 5.0” and the “Mini Conical Abutment Coping NeoConvert 6.5,” which each satisfy this limitation, as shown below.



38. The fourth limitation of claim 1 states

- a temporary screw having an axis with a length measured along the axis and a width measured perpendicular to the axis, the temporary screw comprising:
 - a proximal head portion with a width larger than the aperture of the coping; and
 - a distal shaft portion with threads in a pattern that is shaped differently from a pattern of the threads of the definitive screw

The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes a temporary screw referred to as the “Pin Capture NeoConvert,” which satisfies this limitation, as shown below.

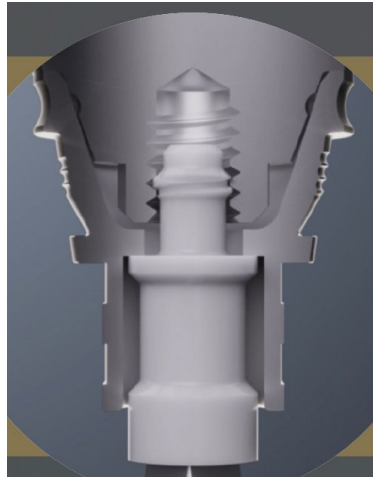


39. The fifth limitation of claim 1 states

wherein the temporary screw is rotatable in a distal direction whereby the distal shaft portion of the temporary screw engages the threads of the implant abutment to a predetermined torque which causes the proximal head portion of the temporary screw to hold the coping in alignment with the implant abutment, and wherein an axial force in a proximal direction from pick-up processing releases the coping and the temporary screw from the implant abutment.

The NeoConvert™ system satisfies this limitation. For example, the interaction of the temporary screw referred to as the “Pin Capture NeoConvert,” the abutments referred to as the “GM Mini Conical Abutment” and the “GM Exact Mini Conical Abutment,” and the copings referred to as the “Mini Conical Abutment Coping NeoConvert 5.0” and the

“Mini Conical Abutment Coping NeoConvert 6.5” satisfy this limitation, as shown in the cross-sectional view below.



40. Straumann also induces and contributes to third parties’ infringement of at least claim 1 of the ’992 patent. Specifically, Straumann indirectly infringes at least claim 1 by encouraging, instructing, and training dental professionals to use or practice infringing the systems and methods in the United States. For example, Straumann advertises the NeoConvert™ system, hosts in-person and virtual trainings on the NeoConvert™ system, and publishes informational brochures on the NeoConvert™ system. In addition, the NeoConvert™ system, including the temporary screw component referred to as the “Pin Capture NeoConvert,” are material parts of the patented technology and not a staple article or commodity of commerce suitable for substantial non-infringing uses.

41. By at least the filing of this Complaint, SDC has disclosed to Straumann the existence of the ’992 patent and has identified at least some of Straumann’s activities that infringe at least one claim of the ’992 patent.

42. Straumann's infringement of the '992 patent is knowing, intentional, and willful, at least as of the date the initial Complaint in this action was filed.

43. Straumann's infringement of the '992 patent has damaged and continues to damage SDC.

COUNT II: INFRINGEMENT OF THE '781 PATENT

44. SDC incorporates all preceding allegations by reference.

45. By making, using, importing, offering for sale, and selling the NeoConvert™ system, Straumann directly infringes at least claim 1 of the '781 patent.

46. For example, claim 1 defines an invention, denominated in the preamble as a "dental system". Based on SDC's examination of a NeoConvert™ system that it purchased and based on publicly available materials published by Straumann, the NeoConvert™ system satisfies each limitation of claim 1. The first limitation of claim 1 is "a coping having a proximal end with an aperture; and an implant abutment having threads." The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes two coping options, referred to as the "Mini Conical Abutment Coping NeoConvert 5.0" and the "Mini Conical Abutment Coping NeoConvert 6.5," which each satisfy this limitation and two threaded abutment options, referred to as the "GM Mini Conical Abutment" and the "GM Exact Mini Conical Abutment," which each satisfy this limitation.

47. The second limitation of claim 1 is "a definitive screw having a proximal head end having a tool interface and a distal post portion having threads configured for securing the coping to the threads of the implant abutment, wherein the distal post portion

having threads is sized to extend through the aperture of the coping.” The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes a definitive screw with these features referred to as the “Neo Mini Conical Abutment Coping Screw 4.1,” which satisfies this limitation.

48. The third limitation of claim 1 states

- a temporary fastener having an axis with a length measured along the axis and a lateral dimension providing different widths along the axis measured perpendicular to the axis, the temporary fastener comprising:
 - a proximal portion with a width larger than the coping aperture; and
 - a shaft comprising a distal shaft portion sized and configured for rotary engagement with the implant abutment threads,

The NeoConvert™ system satisfies this limitation. For example, the NeoConvert™ system includes a temporary screw referred to as the “Pin Capture NeoConvert,” which satisfies this limitation.

49. The fourth limitation of claim 1 states “wherein the shaft of the temporary fastener extends through the aperture of the coping and the distal shaft portion engages the implant abutment threads with an engagement depth at a predetermined torque and is configured to cause the proximal portion of the temporary fastener to hold the coping into alignment with the implant abutment prior to attachment of the definitive screw.” The NeoConvert™ system satisfies this limitation. For example, the sizes and the configurations of the temporary screw referred to as the “Pin Capture NeoConvert,” the abutments referred to as the “GM Mini Conical Abutment” and the “GM Exact Mini Conical Abutment,” and the copings referred to as the “Mini Conical Abutment Coping

NeoConvert 5.0” and the “Mini Conical Abutment Coping NeoConvert 6.5” satisfy this limitation.

50. The fifth limitation of claim 1 states “wherein the temporary fastener is configured to release at least a portion of the temporary fastener and the coping from the implant abutment as a unit when an axial release force is applied in a proximal direction to the temporary fastener.” The NeoConvert™ system satisfies this limitation. For example, the temporary screw referred to as the “Pin Capture NeoConvert” is so configured.

51. The sixth limitation of claim 1 states “wherein the distal shaft portion is sized and configured so that it does not engage the implant abutment threads continuously between a most distal position of the distal shaft portion and a proximal end of the implant abutment threads.” For example, the sizes and configurations of the temporary screw referred to as the “Pin Capture NeoConvert” and the abutments referred to as the “GM Mini Conical Abutment” and the “GM Exact Mini Conical Abutment” satisfy this limitation.

52. The seventh limitation of claim 1 states

wherein the distal shaft portion of the temporary fastener comprises threading which is sized and configured to make contact with the implant abutment threads over a first threading contact area to hold the coping against the implant abutment, wherein the distal post portion of the definitive screw is sized and configured to make contact with the implant abutment threads over a second threading contact area to hold the coping against the implant

abutment, and wherein the first threading contact area is less than the second threading contact area.

The NeoConvert™ system satisfies this limitation. For example, the sizes and configurations of the temporary screw referred to as the “Pin Capture NeoConvert,” the abutments referred to as the “GM Mini Conical Abutment” and the “GM Exact Mini Conical Abutment,” and the copings referred to as the “Mini Conical Abutment Coping NeoConvert 5.0” and the “Mini Conical Abutment Coping NeoConvert 6.5” satisfy this limitation.

53. Straumann also induces and contributes to third parties’ infringement of at least claim 1 of the ’781 patent. Specifically, Straumann indirectly infringes at least claim 1 by encouraging, instructing, and training dental professionals to use or practice infringing the systems and methods in the United States. For example, Straumann advertises the NeoConvert™ system, hosts in-person and virtual trainings on the NeoConvert™ system, and publishes informational brochures on the NeoConvert™ system. In addition, the NeoConvert™ system, including the temporary screw component referred to as the “Pin Capture NeoConvert,” are material parts of the patented technology and not a staple article or commodity of commerce suitable for substantial non-infringing uses.

54. By at least the filing of this Complaint, SDC has disclosed to Straumann the existence of the ’781 patent and has identified at least some of Straumann’s activities that infringe at least one claim of the ’781 patent. Straumann’s infringement of the ’781 patent

is knowing, intentional, and willful, at least as of the date this Supplemental Complaint was filed.

55. Straumann's infringement of the '781 patent has damaged and continues to damage SDC.

JURY DEMAND

SDC demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Smart Denture Conversions, LLC prays that the Court:

1. Enter judgment in favor of SDC;
 2. Preliminarily and permanently enjoin Straumann from infringing the '992 patent and the '781 patent and from making, using, selling, offering for sale and importing the NeoConvert™ system and products;
 3. Award damages sufficient to compensate for Straumann's infringement, together with interest and costs, along with enhanced damages under 35 U.S.C. § 284;
 4. Award reasonable attorneys' fees, expenses, and costs as allowed by law;
- and
5. Grant such other relief to which SDC may be entitled and that the Court deems just and proper.

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Dated: February 4, 2025

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