

United States Court of Appeals for the Federal Circuit

05-1168

BICON, INC. and DIRO, INC.,

Plaintiffs-Appellants,

v.

THE STRAUMANN COMPANY
and INSTITUT STRAUMANN AG,

Defendants-Appellees.

Frank P. Porcelli, Fish & Richardson P.C., of Boston, Massachusetts, argued for plaintiffs-appellants. With him on the brief were Charles Hieken and Thomas A. Brown. Of counsel were Colter Paulson, Fish & Richardson P.C., of Boston, Massachusetts; and Berj A. Terzian, of Newbury, Massachusetts.

Milton Sherman, Kaye Scholer LLP, of New York, New York, argued for defendants-appellees. Of counsel was Stephen J. Elliott.

Appealed from: United States District Court for the District of Massachusetts

Judge George A. O'Toole, Jr.

United States Court of Appeals for the Federal Circuit

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DECIDED: March 20, 2006

Before MICHEL, Chief Judge, BRYSON, and GAJARSA, Circuit Judges.

BRYSON, Circuit Judge.

This case turns on the construction of a patent that claims an apparatus used with dental implants. The patent, U.S. Pat. No. 5,749,731 (“the ’731 patent”), describes a plastic cuff that is designed to preserve a space around a dental implant so that when a dental crown is placed on top of the implant, the base of the crown can fit beneath the patient’s gum line.

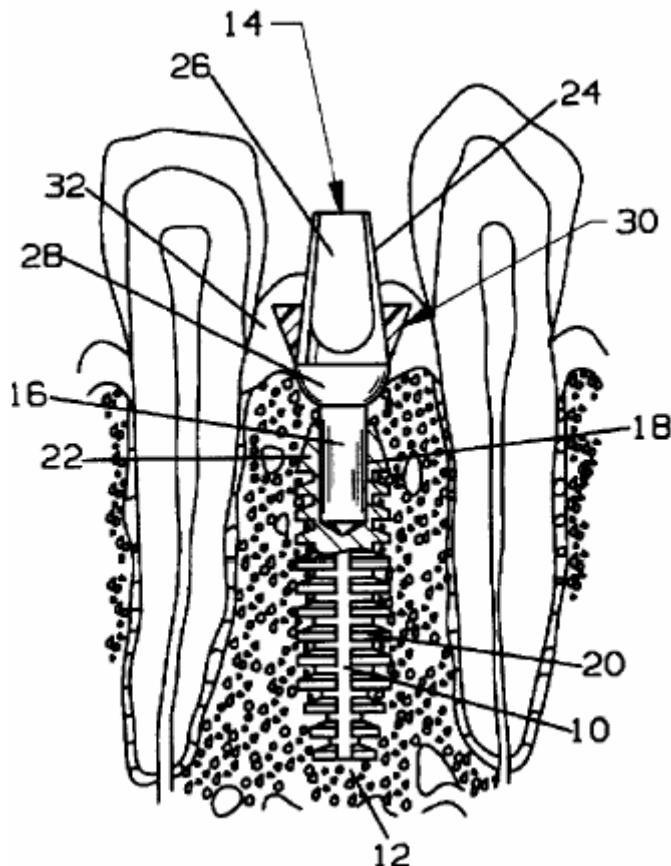
Diro, Inc., owns the ’731 patent. Joined by its licensee (Bicon, Inc.), Diro sued The Straumann Company and Institut Straumann AG (collectively, “Straumann”) for patent infringement based on Straumann’s sale of two devices that are used in the preparation of crowns for dental implants. The United States District Court for the

District of Massachusetts granted Straumann's motion for summary judgment of noninfringement and dismissed Bicon as a party plaintiff for lack of standing. Bicon, Inc. v. The Straumann Co., Civil Action No. 01-10269 (D. Mass. Nov. 16, 2004). We affirm.

I

A dental implant prosthesis of the type described by the patent has two separate parts—the root member or implant, which is implanted in the patient's jaw bone and secures the device in place (number 10 in the figure below, which is Fig. 1 of the '731 patent); and the head member or abutment, which attaches to the root member and sticks up above the patient's gum line to provide the structure for attaching a crown (number 14 in the figure below). See '731 patent, col. 1, ll. 18-23. The '731 patent explains that after the patient's jaw and mouth heal from the surgery to implant the root member, the permanent abutment member is mounted on the root member. Because gum tissue "tends to heal taut to the head of the abutment member so that when the permanent crown is placed on the abutment member the margin of the crown is not concealed," id., col. 2, ll. 6-9, the patent describes using the claimed emergence cuff (number 30 in the figure below) to keep the gum from closing around the abutment while the patient's jaw and mouth continue to heal. When the healing process is complete, the dentist can remove the cuff and can take advantage of the space left by the cuff to affix the permanent crown to the abutment at a point beneath the patient's gum line. Securing the permanent crown below the gum line has the cosmetic advantage of preserving the natural look of the patient's gum line with the crown installed. Id., col. 2, ll. 5-63; col. 3, ll. 61-64. In addition, use of the cuff enables the

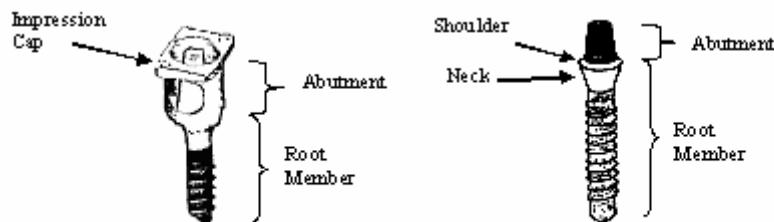
dentist to bond a temporary crown to the cuff at the time it is placed on the abutment, while the permanent crown is being prepared. Id., col. 2, ll. 65-67.



In the complaint, Diro and Bicon (collectively, “Diro”) alleged that Straumann had infringed at least claim 5 of the ’731 patent by manufacturing, using, selling, and offering to sell products that incorporated the subject matter of the claims. In the course of the litigation, Diro identified two Straumann products that are used with dental implants as the allegedly infringing devices.

The first device, called an “impression cap,” is a plastic device that attaches to the shoulder portion of the root member in Straumann’s system while the dentist is taking a mold that is used to prepare the crown that is to be fitted on the abutment. The impression cap is the superstructure that fits over the abutment and the shoulder of the

root member while the mold for the crown is being taken. The impression cap is removed as soon as the mold is completed, a process that takes only a few minutes. The first figure below depicts the Straumann impression cap fitted over the Straumann abutment and attached to the shoulder of the Straumann root member. The second figure depicts the Straumann root member with the shoulder and neck portions designated.



The second device, called a "burnout coping," is a cone-shaped plastic structure that is used in fabricating the permanent crown. The burnout coping is never placed in the patient's mouth, but instead is used in the laboratory in the process of constructing the crown. It fits over a device known as the analog, which has the same shape as the abutment and shoulder portion of the root member in the patient's mouth. The figure below depicts the Straumann burnout coping.



Claim 5 of the '731 patent provides as follows (in reproducing the claim, we have subdivided it so as to facilitate reference to different portions of the claim):

An emergence cuff member for use in preserving the interdental papilla during the procedure of placing an abutment on a root member implanted in the alveolar bone of a patient in which

- [a] the abutment has a frusto-spherical basal surface portion and

- [b] a conical surface portion having a selected height extending therefrom comprising
- [c] a generally annular member formed of biocompatible synthetic plastic having first and second ends,
- [d] a bore extending from the first to the second ends,
- [e] the bore having a taper generally matching that of the conical surface portion of the abutment,
- [f] the larger end of the bore being at the first end,
- [g] the outer surface of the annular member forming a feathered edge with the bore at the first end of the annular member,
- [h] the distance between the first and second ends being less than the height of the conical surface,
- [i] the diameter of the cuff member increasing in the direction going from the first end to the second end, and
- [j] a radially inwardly extending flexible lip formed at the first end of the cuff member.

After construing the claim, the district court granted summary judgment of noninfringement to Straumann on several grounds. First, the court concluded that the lengthy preamble of claim 5 (the portion from the beginning of the claim through part [b]) is an integral part of the claim and limits the claim. The court then held that one of the limitations in the preamble—an abutment having a frusto-spherical basal surface portion—is not satisfied by either of the accused devices.

Second, the court held that the Straumann impression cap and burnout coping do not have the structure recited in part [e] of the claim. With respect to the impression cap, the court held that the taper of the portion of the cap at issue matches the shoulder portion of the root member in the Straumann system, not the conical surface of the abutment. With respect to the burnout coping, the court noted that while the taper of the upper portion of the internal bore in the Straumann burnout coping generally matches the taper of the conical outer surface of the Straumann abutment, Diro's infringement argument rested on the contention that it was the lower portion of the burnout coping that constituted the claimed annular member. The taper of the bore in that portion of

the burnout coping, the court explained, matches the taper of the shoulder of the root member, not the taper of the abutment.

Third, the court held that part [h] of the claim does not read on the accused devices because the distance between the first and second ends of the annular member in the impression cap and burnout coping is not less than the height of the conical surface of the abutment. Finally, the court ruled that part [i] of the claim does not read on the burnout coping, because the burnout coping does not contain any structure consisting of an annular member with a diameter that is greater at the second end than at the first.

The court further held that the complaint had to be dismissed as to plaintiff Bicon, Inc., for lack of standing. Although Bicon claimed to be a licensee of Diro's patent, the court held that the evidence proffered in the course of the summary judgment proceedings did not justify a finding that Bicon had an exclusive license to the patent. As a mere nonexclusive licensee, the court held, Bicon was not entitled to sue for infringement of the patent, even as a co-plaintiff with the patent owner, Diro.

II

A

Claim 5 of the '731 patent is a difficult claim to make sense of. Despite the claim's detailed description of and references to an abutment, in Diro's view the claim is in no way limited by the abutment. Diro's argument in support of that construction boils down to two fundamental contentions. First, Diro points out that the claim recites "[a]n emergence cuff member," not a combination consisting of an emergence cuff member and other features, such as an abutment having certain specific characteristics.

Second, Diro assigns critical significance to the fact that the abutment's description is in the preamble of the claim—the preamble consisting of everything in the claim preceding the word “comprising,” including what we have labeled as parts [a] and [b]. The preamble, Diro argues, in no way limits the claim because it merely sets forth the purpose or use of the emergence cuff. Accordingly, Diro characterizes claim 5 as encompassing any device having the structure of the annular member recited in the body of the claim that is capable of cooperating with any abutment.

The problem with Diro's argument is that, because claim 5 includes a detailed description of the abutment's physical characteristics and defines the emergence cuff in a way that depends on those physical characteristics, the invention that is recited in claim 5 and described in its supporting specification can only be understood as being limited by the abutment recited in the claim. Together, the preamble and the body of the claim contain a detailed description of the features of the abutment used in connection with the emergence cuff. The preamble states that the abutment has “a frusto-spherical basal surface portion and a conical surface portion having a selected height extending therefrom.” The body of the claim states that the internal bore of the emergence cuff has “a taper generally matching that of the conical surface portion of the abutment.” The body adds that “[t]he distance between the first and second ends [of the emergence cuff is] less than the height of the conical surface” of the abutment. For several reasons, that detailed recitation of the features of the abutment is incompatible with Diro's theory that the claim concerns only the features of the emergence cuff and that the references to the abutment merely describe the intended use of the emergence cuff.

First, the requirement that the cooperating abutment have “a frusto-spherical basal surface portion” would have no meaning if the claim were limited to the structure of the emergence cuff. Diro argues that the claim requires only that the emergence cuff “interoperate with an abutment that does contain such an element.” But nothing in Diro’s argument suggests how the shape of the basal surface portion of the abutment has any effect on the required structure of the emergence cuff. If there is no such effect, then under Diro’s proposed claim construction the recited “frusto-spherical basal surface portion” of the abutment has no role in the claim and thus is entirely superfluous.

The purpose of a patent claim is to define the precise scope of a claimed invention, thereby “giv[ing] notice both to the examiner at the U.S. Patent and Trademark Office during prosecution, and to the public at large, including potential competitors, after the patent has issued.” Johnson & Johnston Assocs. Inc. v. R.E. Serv. Co., 285 F.3d 1046, 1052 (Fed. Cir. 2002) (en banc). Allowing a patentee to argue that physical structures and characteristics specifically described in a claim are merely superfluous would render the scope of the patent ambiguous, leaving examiners and the public to guess about which claim language the drafter deems necessary to his claimed invention and which language is merely superfluous, nonlimiting elaboration. For that reason, claims are interpreted with an eye toward giving effect to all terms in the claim. See, e.g., Elekta Instrument S.A. v. O.U.R. Scientific Int’l, Inc., 214 F.3d 1302, 1305, 1307 (Fed. Cir. 2000) (claim language “only within a zone extending between latitudes 30°-45°” does not read on a device with radiation sources extending between 14° and 43° because “[a]ny other conclusion renders the reference to 30°

superfluous"); Unique Concepts, Inc. v. Brown, 939 F.2d 1558, 1563 (Fed. Cir. 1991) ("When the language of a claim is clear, as here, and a different interpretation would render meaningless express claim limitations, we do not resort to speculative interpretation based on claims not granted."); In re Danly, 263 F.2d 844, 847 (CCPA 1959) (limiting claims to require that the claimed device actually be connected to an alternating current source because, although the claims "do not positively recite a source of alternating current as an element of the claims," any other interpretation would render certain language in the claims meaningless). If we were to accept Diro's arguments, we would be requiring the public to look past the plain language of the claims and guess whether a detailed description of a structural feature in a claim is superfluous to the scope of the claimed invention and unnecessary to establish infringement.

The second problem with Diro's argument is that if the claim reads on any hypothetical abutment, limitations [e] and [h] are rendered meaningless. If the claim limitations include only those elements of the claim that pertain to the structural features of the emergence cuff, as Diro contends, the requirement that "the distance between the first and second ends [of the emergence cuff must be] less than the height of the conical surface" of the abutment would make no sense. Since the abutment, in Diro's view, refers to any abutment that could cooperate with the emergence cuff, the height limitation would never exclude any device. No matter what the distance between the first and second ends of the emergence cuff in question, an abutment could always be hypothesized that would have a height greater than that distance. Thus, Diro's claim construction would read the height limitation out of the claim altogether.

Similarly, if the claim is construed to include any hypothetical abutment that could cooperate with the emergence cuff, the requirement that the bore of the emergence cuff have a taper “generally matching that of the conical surface portion of the abutment” would be meaningless. That is because an abutment could always be hypothesized that would have a taper matching the taper of the bore of any emergence cuff. The “matching taper” limitation would therefore be reduced to requiring only that the bore of the emergence cuff have a taper.

In sum, the effect of adopting Diro’s proposed claim construction would be to read limitations [a], [b], [e], and [h] out of the claim. Not only would that be contrary to the principle that claim language should not treated as meaningless, but it would be contrary to the specification, which describes the features of the claimed abutment in detail, not only in the description of the preferred embodiments, but in the background and summary of the invention portions of the specification as well. See ’731 patent, col. 1, ll. 43-51 (the abutment “has an upstanding generally tapered, conical exterior surface with an anti-rotational flat surface portion for mounting the prosthetic crown and a basal portion having a convex, frusto-spherical exterior surface which extends downwardly from the tapered portion”); col. 2, ll. 47-53 (tapered bore of the cuff matches that of the conical surface portion of the abutment, “i.e., a taper generally approximately 7 degrees,” with the feathered edge of the cuff “adapted to serve as a smooth continuation of the frusto-spherical surface of the basal portion of the abutment”); col. 3, ll. 44-54 (the abutment “has an upstanding, generally tapered, conical surface . . . with an anti-rotational flat surface . . . for mounting a prosthetic crown and a basal portion . . . having a convex, frusto-spherical exterior surface which extends downwardly from the

tapered portion"); col. 4, ll. 3-14 (referring to the diameter of the frusto-spherical portion and the taper of the conical surface portion of abutments typically used with the emergence cuff).

In light of the problems presented by Diro's proposed construction, we conclude that the correct construction of claim 5 of the '731 patent is the one adopted by the district court, in which the claim is treated as one to an emergence cuff when used in conjunction with an abutment having the features recited in the claim. Despite the fact that the claim begins with a reference to the emergence cuff alone, the full text of the claim, read in the context of the entire patent, indicates that the claimed invention is the combination of the emergence cuff and the abutment, operating together in the fashion recited in the claim and described in the specification.

Diro's second and related argument in support of its proffered construction is that the abutment's features are described in the preamble, so the only way to limit claim 5 according to those features is to treat the preamble as limiting the claim. To so limit the claim, Diro argues, would violate the principles of this court's decisions governing the role of preamble language in claim construction. Again, we disagree.

While it is true that preamble language is often treated as nonlimiting in nature, it is not unusual for this court to treat preamble language as limiting, as it is in this case. Preamble language that merely states the purpose or intended use of an invention is generally not treated as limiting the scope of the claim. See Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1345 (Fed. Cir. 2003); Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). However, we have stated that there is no "litmus test" for determining whether preamble language is limiting. Catalina Mktg. Int'l,

Inc. v. Coolsavings.com, Inc., 289 F.3d 801, 808 (Fed. Cir. 2002). To the contrary, we have stated that “whether to treat a preamble as a claim limitation is determined on the facts of each case in light of the claim as a whole and the invention described in the patent.” Storage Tech. Corp. v. Cisco Sys., Inc., 329 F.3d 823, 831 (Fed. Cir. 2003).

If the body of the claim “sets out the complete invention,” the preamble is not ordinarily treated as limiting the scope of the claim. Schumer v. Lab. Computer Sys., Inc., 308 F.3d 1304, 1310 (Fed. Cir. 2002). However, the preamble is regarded as limiting if it recites essential structure that is important to the invention or necessary to give meaning to the claim. NTP, Inc. v. Research In Motion, Ltd., 418 F.3d 1282, 1305-06 (Fed. Cir. 2005), cert. denied, 74 U.S.L.W. 3421 (U.S. Jan. 23, 2006); SanDisk Corp. v. Memorex Prods., Inc., 415 F.3d 1278, 1284 n.2 (Fed. Cir. 2005), cert. denied, 126 S. Ct. 829 (2005). That is, if the claim drafter “chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects.” Bell Commc'n Research, Inc. v. Vitalink Commc'n Corp., 55 F.3d 615, 620 (Fed. Cir. 1995) (emphasis in original). Moreover, when the limitations in the body of the claim “rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention.” Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1339 (Fed. Cir. 2003).

We conclude, as did the district court, that the preamble to claim 5 of the ’731 patent recites essential elements of the invention pertaining to the structure of the abutment that is used with the claimed emergence cuff. First, as we have noted, the preamble of claim 5 is not limited to stating the purpose or intended use of the invention,

but contains structural features of the abutment. Moreover, the body of the claim does not recite the complete invention, but refers back to the features of the abutment described in the preamble, so that the references to the abutment in the body of the claim derive their antecedent basis from the preamble. And because the preamble recites structural features of the abutment, it is apparent that the claim drafter chose to use both the preamble and the body of the claim to define the subject matter of the claimed invention. Indeed, as described above, if claim 5 is not limited to the particular abutment described in the preamble, limitations [e] and [h] of claim 5 become meaningless.

In arguing that no part of the preamble limits the scope of claim 5, Diro relies on language from the lead opinion in C.R. Bard, Inc. v. M3 Systems, Inc., 157 F.3d 1340 (Fed. Cir. 1998). The claim that was at issue in that case, however, is quite different from the claim at issue here. The preamble in Bard described a biopsy needle for use with a tissue sampling device; the device was described as having a housing with two slides to permit longitudinal motion. The body of the claim recited a hollow first needle with a head for coupling the needle to the first slide and a second needle extending through the first needle and having a head for coupling to the second slide. The opinion in Bard explained that the preamble merely described the portion of the housing necessary to define the intended function of the needles that were the subject of the claim. 157 F.3d at 1350. In this case, by contrast, the preamble recites structure for the abutment that goes well beyond what is necessary to describe the intended purpose of the emergence cuff. The recitations of the “frusto-spherical basal surface” of the abutment and the height of the conical surface of the abutment do not serve to describe

the function of the emergence cuff, but instead are necessary to define the structure of the claimed device. Accordingly, the analysis in Bard is not at odds with our conclusion, and that of the district court, that the preamble incorporates limitations relating to the abutment.

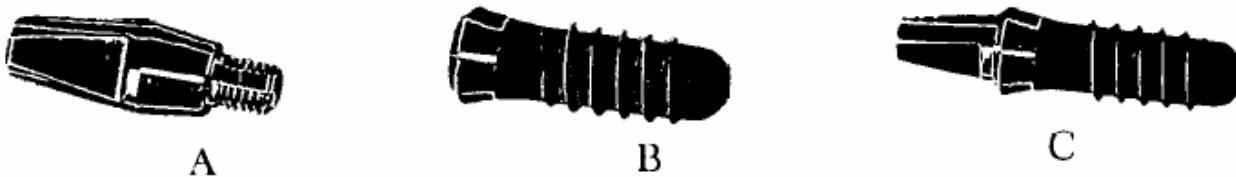
B

After determining that the recited features of the abutment are part of claim 5 of the '731 patent, the district court concluded that the accused impression caps and burnout copings do not infringe. Although we do not address all the grounds on which the district court based its noninfringement ruling, we agree that the accused devices do not infringe, either literally or under the doctrine of equivalents.

1

With regard to literal infringement, we sustain the district court's decision on two grounds. First, as the district court explained, neither of the Straumann devices is used in connection with an abutment having a convex, frusto-spherical basal surface portion, because the basal surface portions of the abutments used in the Straumann system do not have a convex frusto-spherical shape. Although Diro argues that the frusto-spherical basal surface portion of the abutment can be either concave or convex, the written description makes clear that the frusto-spherical basal surface portion was intended to be convex, not concave, as the terms "frusto-spherical" basal surface portion and "convex, frusto-spherical" basal surface portion are used interchangeably in the written description. See '731 patent, col. 1, ll. 46, 48-49; col. 2, ll. 52-53; col. 3, ll. 47-48, 49-50. The convex frusto-spherical basal surface portion of the abutment of the '731 patent is depicted as number 28 in figure 1 from the patent, reproduced above.

Even if the term “frusto-spherical” were interpreted to encompass concave structures, the term would still not read on the Straumann abutment, because the basal portion of the Straumann abutment does not form a portion of a sphere, either convex or concave. Instead, the basal portion of the Straumann abutment has a frusto-conical surface, as shown in the figures below, which depict the Straumann abutment (A), the Straumann root member (B), and the two affixed together (C). The Straumann devices therefore do not read on limitation [a] of the claim.



Second, the Straumann devices do not satisfy limitation [e] of claim 5, because the taper of the pertinent portion of the internal bore of the Straumann devices matches the taper of the shoulder portion of the Straumann root member, not the taper of the Straumann abutment. Diro does not contend that the taper of the bore in the Straumann impression cap and burnout coping matches the taper of the Straumann abutment. Rather, Diro argues that “[s]o long as the caps and copings have bores with a taper that generally matches the conical surface portion of an abutment, the devices infringe” (emphasis in original). In other words, Diro reads limitation [e] as encompassing any device that has a taper matching the taper of any conical surface that could be found on any device that could serve as an abutment. The problem with that argument is that “the abutment” of limitation [e] refers to the particular abutment described in the preamble of the claim, not to any structure that could conceivably serve as an abutment. Claim 5 clearly distinguishes between the abutment and the root

member, as the district court held. Thus, for the purposes of limitation [e] we must look to the taper of Straumann's abutment, not the taper of some other structure such as Straumann's root member. Because Straumann's bores do not match the taper of Straumann's abutment, the devices do not satisfy limitation [e].

Diro argues that when Straumann's root member and abutment are screwed together they constitute a single structure, and that the abutment and the shoulder portion of the root member should be viewed as constituting the abutment of claim 5. Thus defined, the abutment would have two conical surfaces, one corresponding to the shoulder of Straumann's root member, and one corresponding to Straumann's abutment. Even if we were to accept that argument, the specification clearly shows that the conical surface referred to in claim 5 is what the patent abstract refers to as the "crown receiving surface of the abutment." See '731 patent, col. 2, ll. 47-50 ("The cuff has a tapered bore essentially matching that of the crown mounting conical portion of the abutment member, i.e., a taper generally approximately 7 degrees . . ."). That conical surface, the specification notes, "has a taper of approximately 7 degrees," id., col. 4, ll. 6-7, and an "anti-rotational flat surface . . . for mounting a prosthetic crown," id., col. 3, ll. 45-46. In the Straumann system, the crown is mounted on the abutment, which is tapered to approximately 7 degrees and has an anti-rotational flat surface; the shoulder of Straumann's root member, however, has a taper of approximately 45 degrees and no anti-rotational flat surface on which a permanent crown is mounted. Although claim 5 is not limited to any particular angle or anti-rotational flat surface, the specification, the drawings, and the language of claim 5 clearly show that claim 5 references the sort of conical surface found on Straumann's abutment, not the sort

found on Straumann's root member. In other words, the patent calls for a bore that matches the taper of a particular conical surface, not merely a bore that matches the taper of any conical surface found in the dental implant system. For that reason as well, Straumann's devices do not literally infringe claim 5 of the '731 patent.

2

With regard to infringement under the doctrine of equivalents, we again concur in the district court's analysis. We hold that the district court correctly rejected Diro's theory that the trumpet-shaped surface of the neck of Straumann's root member, which Diro characterizes as concave, is equivalent to the convex, frusto-spherical basal surface of the abutment that is described in the '731 patent. As the district court noted, Diro's theory—that a concave structure on the root member is equivalent to a convex structure on the abutment—would be at odds with the claim limitation requiring that the basal surface portion of the abutment be frusto-spherical in shape.

The problem that Diro faces in this regard is that limitations [a] and [b] of the claim contain a detailed recitation of the shape of the abutment, including that it has a frusto-spherical basal portion. A claim that contains a detailed recitation of structure is properly accorded correspondingly limited recourse to the doctrine of equivalents. See Tanabe Seiyaku Co. v. Int'l Trade Comm'n, 109 F.3d 726, 732 (Fed. Cir. 1997) ("The sharply restricted nature of the claims has much to do with the scope we accord to the doctrine of equivalents."). That principle has special application in a case such as this one, where the claim recites a particular shape for the basal portion of the abutment that clearly excludes distinctly different and even opposite shapes. In such cases, we have explained, "by defining the claim in a way that clearly excluded certain subject matter,

the patent implicitly disclaimed the subject matter that was excluded and thereby barred the patentee from asserting infringement under the doctrine of equivalents.” SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1346 (Fed. Cir. 2001); see also Asyst Techs., Inc. v. Emtrak, Inc., 402 F.3d 1188, 1195 (Fed. Cir. 2005) (“To hold that ‘unmounted’ is equivalent to ‘mounted’ would effectively read the ‘mounted on’ limitation out of the patent.”); Moore U.S.A., Inc. v. Standard Register Co., 229 F.3d 1091, 1106 (Fed. Cir. 2000) (“[I]t would defy logic to conclude that a minority—the very antithesis of a majority—could be insubstantially different from a claim limitation requiring a majority, and no reasonable juror could find otherwise.”); Tronzo v. Biomet, Inc., 156 F.3d 1154, 1160 (Fed. Cir. 1998) (to hold that a device with a hemispherical shape infringes a patent requiring that the device have a “generally conical outer surface” would “write the ‘generally conical outer surface’ limitation out of the claims”); Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1317 (Fed. Cir. 1998) (subject matter is “specifically excluded” from coverage under the doctrine of equivalents if its inclusion is “inconsistent with the language of the claim”).

Both of the structures in the Straumann system that are possible candidates for equivalence to the abutment base recited in the claim fall victim to this principle of specific exclusion. As we have noted, the basal portion of the Straumann abutment is frusto-conical, not frusto-spherical, and the neck of the Straumann root member is concave, not convex. Those shapes are clearly contrary to, and thus excluded by, the patentee’s characterization of its abutment as having a convex, frusto-spherical shape. For that reason, neither the basal portion of the Straumann abutment nor the neck of

the Straumann root member can be equivalent to the convex frusto-spherical basal surface portion of the abutment recited in limitation [a].

With respect to limitation [e], Diro essentially argues that the conical top portion of the shoulder of the Straumann root member is equivalent to the conical surface portion of the claim 5 abutment, and therefore that the taper of Straumann's bores is equivalent to the taper required by the claim. We disagree. Diro's equivalence argument would read the taper limitation out of the claim because it would expand the scope of that limitation to encompass any taper that matches any conical surface in the system. As discussed above, limitation [e] of the claim explicitly refers to the abutment that is described in the preamble, and the specification shows that the relevant conical surface is that of the Straumann abutment, not that of the Straumann shoulder. Accordingly, we agree with the district court that Straumann's devices do not infringe, either literally or under the doctrine of equivalents, and we uphold the court's decision granting Straumann's motion for summary judgment of noninfringement.

III

Bicon appeals from the order of the district court dismissing it as a party on the ground that, as a nonexclusive licensee of the '731 patent, it lacked standing to sue for infringement of the patent. The parties do not disagree over the proposition that an exclusive licensee may sue on a patent, if the patent owner is joined as a party, but that a nonexclusive licensee may not. See Schreiber Foods, Inc. v. Beatrice Cheese, Inc., 402 F.3d 1198, 1202-03 (Fed. Cir. 2005); Ortho Pharm. Corp. v. Genetics Inst., Inc., 52 F.3d 1026, 1031 (Fed. Cir. 1995). Instead, what divides the parties is that Bicon argues

that it was an exclusive licensee to the '731 patent, while the district court found, and Straumann argues, that Bicon's license under the patent was nonexclusive.

The district court held that it was uncontroverted that Bicon was a nonexclusive licensee of the '731 patent. Bicon argues, however, that there was a genuine issue of material fact before the district court as to the nature of Bicon's license and that the issue was therefore not one that the district court was entitled to resolve on summary judgment.

We have examined the record references cited by Bicon in support of its contention that its license to the '731 patent was exclusive, and we conclude, as did the district court, that the record does not support Bicon's argument. The only evidence Bicon cites in support of its contention that its license was exclusive is the testimony of its president, Dr. Vincent Morgan. Dr. Morgan testified that Bicon's right to practice the patent was "exclusive at the moment," but he promptly explained that Bicon's right to practice the patent was "exclusive" only in the sense that Bicon was the only licensee of the Diro patent at the time ("[I]t's exclusive because Bicon is the only one doing it right now."). He added that he was aware of nothing that would prevent Diro "from licensing [the patent] to someone else under appropriate circumstances." We conclude that Bicon failed to proffer any evidence that Bicon was an exclusive licensee with the right to exclude other prospective licensees and in that capacity had standing to bring suit for infringement of the '731 patent. We therefore uphold the district court's ruling on the standing issue.

AFFIRMED.