

# United States Court of Appeals for the Federal Circuit

02-1107

ALL DENTAL PRODX, LLC and  
DMG DENTAL-MATERIAL GESELLSCHAFT MBH,

Plaintiffs-Appellees,

v.

ADVANTAGE DENTAL PRODUCTS, INC.,

Defendant-Appellant.

Jeffrey M. Butler, Kenyon & Kenyon, of New York, New York, argued for plaintiffs-appellees. With him on the brief were Richard L. Mayer, and Jeffrey S. Ginsberg.

Douglas W. Sprinkle, Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C., of Birmingham, Michigan, argued for defendant-appellant.

Appealed from: United States District Court for the Eastern District of New York

Senior Judge Jacob Mishler

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DECIDED: October 25, 2002

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Before NEWMAN, Circuit Judge, FRIEDMAN, Senior Circuit Judge, and LOURIE, Circuit Judge.

LOURIE, Circuit Judge.

Advantage Dental Products, Inc. appeals from the decision of the United States District Court for the Eastern District of New York granting the declaratory judgment plaintiffs All Dental Prodx, LLC and DMG Dental-Material Gesellschaft mbH (collectively, "All Dental") summary judgment that Advantage Dental's U.S. Patent 5,213,498 is invalid and not infringed by All Dental. All Dental Prodx, LLC v. Advantage Dental Prods., Inc., CV-00-2393,-5785 (E.D.N.Y. Aug. 7, 2001). Because the '498 patent has not been shown to be invalid, we reverse that portion of the judgment. Because there are no

genuine issues of material fact that All Dental does not infringe the patent, we affirm that portion of the judgment. Accordingly, we affirm-in-part and reverse-in-part.

## BACKGROUND

Advantage owns the '498 patent, which is directed to a method for making a custom dental impression tray. Dentists typically form an impression of a patient's tooth or teeth as part of the process for constructing a crown, cap, or other dental appliance. '498 patent, col. 1, ll. 14-16. The '498 patent describes the prior art impression process as utilizing a suitably sized tray filled with alginate and then placing the tray over the tooth or teeth of which an impression is desired; as the alginate sets, it forms an impression of the area of interest. *Id.* at ll. 19-26. The invention of the '498 patent improves this process by utilizing less expensive materials and reducing the patient's "chair time." *Id.* at ll. 31-49. The '498 patent discloses that polycaprolactone, after being heated to the point of pliability (approximately 140°F), can be comfortably molded directly over a person's teeth, without the need for a tray or container. *Id.* at col. 2, ll. 36-43. After cooling to body temperature, the polycaprolactone mold is rigid, thus forming an impression. *Id.*

The patent contains two claims, both of which are independent method claims reciting, *inter alia*, the following step:

- (1) heating an original unidentified mass of thermosetting\* material to a predetermined temperature range at which the thermosetting material becomes pliable, . . .

*Id.* at col. 4, ll. 46-49, 58-61 (emphasis added). The specification does not define the phrase "original unidentified mass," which was introduced into the claims during prosecution. In the first Office Action, the claims were rejected as unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,227,877, issued to Tureaud et al., which discloses an acrylic thermoplastic material shaped anatomically in the form of a dental impression tray that can be directly molded within a person's mouth. In response to the rejection, the applicant remarked that Tureaud "does not teach or disclose providing the thermosetting material in an original unidentified mass." Not persuaded, the Examiner again rejected the claims on the same ground, explaining that the "claims do not recite the material in an 'original unidentified mass', rather, they simply recite a material." The applicant later amended the claims to recite that phrase. The Examiner then withdrew the rejection based on Tureaud and rejected the claims as being anticipated by U.S. Patent 4,413,979, issued to Ginsburg et al., which discloses a sheet of moldable thermoplastic material having two ridges to facilitate folding of the sheet into a U-shape to encompass a quadrant of a person's teeth. The applicant traversed the Ginsburg rejection,

explaining that the claimed invention “teaches away from applying the thermosetting material in any specific form, such as the preformed sheets disclosed by Ginsburg.” The Examiner then allowed the claims and the patent thereafter issued.

All Dental sells a TEMP TABS TRUE BLUE product, which is a flat, oval-shaped polycaprolactone tablet. The tablet is heated until pliable and then molded over a person’s tooth where it cools and hardens, thereby making a dental impression. All Dental brought suit seeking a declaratory judgment that the ’498 patent was invalid and not infringed by its tablet. The court construed the phrase “original unidentified mass” to mean “a mass that does not have specific preformed size and shape.” All Dental Prodx, slip op. at 11. The court granted All Dental summary judgment of noninfringement apparently because the All Dental tablets have a specific preformed shape and size. Id. The court also held both claims of the patent invalid under § 112, ¶¶ 1 and 2. Id. Finding no definition of the phrase “original unidentified mass” in either the patent specification or the prosecution history, the court concluded that “a person skilled in the art would not be able to understand the bounds of the claims.” Id. The court also concluded that the patent “lacks a written description of the invention.” Id.

Advantage Dental appeals from the district court’s grant of summary judgment. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

## DISCUSSION

We review a district court’s grant of summary judgment de novo, reapplying the same standard used by the district court. Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). “The evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.” Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986).

A determination of patent infringement requires a two-step analysis. “First, the court determines

the scope and meaning of the patent claims asserted . . . [Second,] the properly construed claims are compared to the allegedly infringing device.” Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc) (citations omitted). Step one, claim construction, is an issue of law, Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71, 34 USPQ2d 1321, 1322 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996), that we review de novo, Cybor, 138 F.3d at 1456, 46 USPQ2d at 1172. Step two, comparison of the claim to the accused device, requires a determination that every claim limitation or its equivalent be found in the accused device. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 29 (1997). Those determinations are questions of fact. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353, 48 USPQ2d 1674, 1676 (Fed. Cir. 1998).

The question whether the subject matter of a patent claim fails to meet the written description requirement of 35 U.S.C. § 112, ¶ 1 is a question of fact. Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). A determination that a patent claim is invalid for failure to meet the definiteness requirement of 35 U.S.C. § 112, ¶ 2 is “a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims[, and] therefore, like claim construction, is a question of law that we review de novo.” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1378, 53 USPQ2d 1225, 1227 (Fed. Cir. 1999) (citing Personalized Media Communications, LLC v. Int’l Trade Comm’n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)).

Advantage argues that the district court improperly concluded that the ’498 patent fails to satisfy both paragraphs of 35 U.S.C. § 112, without providing reasoning for those conclusions. As to the adequacy of the written description, Advantage contends that, while the phrase “original unidentified mass” does not literally appear in the specification, one skilled in the art would recognize and know how to practice the claimed invention using “an original unidentified mass” upon reading the specification. As to definiteness, Advantage contends that, while the meaning of the phrase “original unidentified mass” is neither facially apparent nor defined in the patent specification, the prosecution history clarifies the phrase to mean any shape different from a complete impression tray. On the issue of infringement, Advantage argues, based upon its proposed construction of the phrase “original unidentified mass,” that

All Dental infringes the patent because its tablets are clearly not in the form of a dental impression tray.

All Dental responds that the “original unidentified mass” language does not appear anywhere in the originally filed patent application, and that it was new matter added during prosecution, arguably in violation of the statute. While acknowledging that the specification need not provide in haec verba support for the language added to the claim, All Dental argues that the originally filed disclosure did not allow one skilled in the art to immediately discern that an “original unidentified mass” limitation was part of the definition of the invention. All Dental also contends that the applicant did not properly act as his own lexicographer in defining the meaning of the phrase “original unidentified mass,” as he failed to clearly define the phrase. All Dental further contends that if the phrase “original unidentified mass” is to have any meaning at all, then it must be that the material lacks a specific preformed shape and size, as the district court concluded. All Dental asserts that its accused tablets do not infringe the ’498 patent because they clearly have a preformed shape, viz., a generally flat, oblong shape.

We agree with Advantage that there are no genuine issues of material fact concerning whether its patent claims comply with the written description requirement of section 112, first paragraph. While the contested language is not a model of clarity, it is also fairly simple and intelligible, capable of being understood in the context of the patent specification. It is thus reasonably clear what the invention is and that the patent specification conveys that meaning.

Section 112, first paragraph, states, inter alia: “The specification shall contain a written description of the invention.” 35 U.S.C. § 112, ¶ 1 (2000). In order to comply with the written description requirement, the specification “need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed.” Eiselstein v. Frank, 52 F.3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (citing Vas-Cath, 935 F.2d at 1562, 19 USPQ2d at 1115, and In re Wertheim, 541 F.2d 257, 265, 191 USPQ 90, 98 (CCPA 1976)).

The application for the ’498 patent as originally filed did not contain the phrase “original

unidentified mass”; indeed, there is no mention of the starting material’s shape or form anywhere in the patent specification. However, the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented. See Eiselstein, 52 F.3d at 1039, 34 USPQ2d at 1470. Here, the invention involves heating a mass of thermoplastic material that lacks an identifiable form. That invention is described in the specification, albeit not in haec verba. It is also clear what the invention is not. It does not involve heating a thermoplastic mass having an identifiable form or shape. We therefore conclude that there are no genuine issues of material fact that the specification describes the claimed invention within the meaning of the statute. Thus, summary judgment of invalidity for failure to satisfy the written description requirement was erroneous and is therefore reversed.

We also agree with Advantage that its claims comply with the definiteness requirement of section 112, second paragraph. That section states: “The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, e.g., competitors of the patent owner, can determine whether or not they infringe. Warner-Jenkinson, 520 U.S. at 28-29. That determination requires a construction of the claims according to the familiar canons of claim construction. Only after a thorough attempt to understand the meaning of a claim has failed to resolve material ambiguities can one conclude that the claim is invalid for indefiniteness. Foremost among the tools of claim construction is of course the claim language itself, but other portions of the intrinsic evidence are clearly relevant, including the patent specification and prosecution history. See Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985) (“The specification is, thus, the primary basis for construing the claims. . . . [T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”). The prosecution history can thus be relied upon to clarify the claim meaning

and hence provide definiteness. Tex. Instruments Inc. v. Int'l Trade Comm'n, 871 F.2d 1054, 1063, 10 USPQ2d 1257, 1263-64 (Fed. Cir. 1989) (“The public is entitled to know the scope of the claims but must look to both the patent specification and the prosecution history, especially when there is doubt concerning the scope of the claims.” (citing McGill Inc. v. John Zink Co., 736 F.2d 666, 221 USPQ 944 (Fed. Cir. 1984))).

In this case, the prosecution history aids in clarifying the meaning of the claim phrase “original unidentified mass.” The patent applicant twice distinguished his invention over the prior art on the basis of that limitation. First, the applicant distinguished his invention over Tureaud’s anatomically formed tray shape as not being an “original unidentified mass.” Secondly, the applicant distinguished his invention over Ginsburg’s preformed sheets of thermoplastic material as “teach[ing] away from applying the thermosetting material in any specific form.” Each of those statements made during prosecution disclaims a specific shape. Moreover, the second statement amounts to a characterization of the “original unidentified mass” limitation as not embracing “any specific form.” Advantage’s argument that the phrase “original unidentified mass” means any shape other than a complete dental tray gives effect to only the first prosecution statement while ignoring the second. Giving proper effect to both statements and the specification’s clear indication of the nature of the invention, we conclude that the phrase means exactly what the district court said it means: “a mass that does not have a specific preformed size and shape.” All Dental Prodx, slip op. at 11. Where we differ from the district court is on whether the phrase as so construed is indefinite. The meaning of the phrase “original unidentified mass,” arrived at after reviewing the specification and consulting the prosecution history, is indeed definite and clear. Thus, the district court construed the phrase correctly, yet erred in concluding that the phrase was indefinite.

Finally, we agree with All Dental that it is entitled to summary judgment of noninfringement. Our conclusion follows from the construction of the phrase “original unidentified mass.” All Dental’s tablets clearly have a preformed shape; it is uncontested that they are flat, oblong-shaped tablets. Advantage’s infringement assertions therefore fail to raise any genuine issues of material fact, and the court’s grant of summary judgment of noninfringement is affirmed.

## CONCLUSION

The district court erred in granting summary judgment that the '498 patent claims fail to satisfy the requirements of 35 U.S.C. § 112, and we reverse that decision. However, the court correctly granted summary judgment that Advantage's accused product does not infringe the patent, and we affirm that decision. Accordingly, we

AFFIRM-IN-PART and REVERSE-IN-PART.

## COSTS

Costs to All Dental.

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\* At oral argument, counsel for Advantage conceded that the term "thermosetting" should have been "thermoplastic" in order to correctly describe a material that becomes pliable on heating. We will therefore use the term "thermoplastic" further in this opinion.