

UNITED STATES DISTRICT COURT
DISTRICT OF CONNECTICUT

Applera Corporation and :
Roche Molecular Systems, Inc., :
 plaintiffs, :
 : :
v. : 3:98cv1201 (JBA)
 : :
MJ Research Inc. and Michael :
and John Finney, defendants. :

Ruling on Defendants' /Counterclaim Plaintiffs' Motion for Summary Judgment That They Do Not Directly or Literally Infringe Claim 16 of U.S. Patent No. 5,656,493 [Doc. #737]

Defendants move for summary judgment that they do not directly or literally infringe claim 16 of U.S. Patent No. 5,656,493 (the "493 Patent). In a separate ruling, the Court completed an infringement analysis of the heating and cooling system limitation of claim 16. See Ruling [Doc. #899]. The following completes the infringement analysis for the '493 Patent, focusing on claim 16's plurality of reaction mixtures limitation. As set forth below, defendants' motion [Doc. # 737] is GRANTED in PART and DENIED in PART.

I. Legal Standards

A. Summary Judgment

Summary judgment "shall be rendered forthwith 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). Summary judgment may be granted "[w]here the record taken as a whole could not lead a rational trier of fact to find for the non-moving party." Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986).

B. Patent Infringement Outline

"Determining patent infringement requires determining whether someone (1) without authority (2) makes, uses, offers to sell, sells, or imports (3) the patented invention (4) within the United States, its territories, or its possessions (5) during the term of the patent." Herbert F. Schwartz, Patent Law & Practice (Fed. Judicial Center, 3d ed. 2001) at 131 (footnote omitted) (citing 35 U.S.C. § 271(a)). It is the third element which is at issue in defendants' motion -- whether defendants' thermal cyclers are the patented invention of claim 16 of the '493 Patent.

When addressing this third element, a two-step process is used: first, the court determines the meaning, as a matter of law, of the particular claim or claims at issue, and second, it must be determined whether the accused product infringes the properly construed claim, which is generally a question of fact. Markman v. Westview Instruments, 517 U.S. 370, 384 (1996); Allen Eng'g Corp. v. Bartell Indus., Inc., 299 F.3d 1336, 1344 (Fed.

Cir. 2002).¹ With respect to the second step, "the grant of summary judgment is appropriate in a patent case where the standards set forth in Rule 56(c) are satisfied." Conroy v. Reebok Int'l, Ltd., 14 F.3d 1570, 1575 (Fed. Cir. 1994).

"To establish infringement, every limitation set forth in a patent claim must be found in an accused product or process exactly or by a substantial equivalent." Laitram Corp. v. Rexnord, Inc., 939 F.2d 1533, 1535 (Fed. Cir. 1991). It is the patentee's burden to prove infringement of either variety - - literal infringement or infringement under the doctrine of equivalents - - by a preponderance of the evidence. See id. "[A]n accused product literally infringes if every limitation recited in the claim appears in the accused product, i.e., the properly construed claim reads on the accused product exactly." Jeneric/Pentron, Inc. v. Dillon Co., 205 F.3d 1377, 1382 (Fed. Cir. 2000) (citing Amhil Enters. Ltd. v. Wawa, Inc., 81 F.3d 1554, 1562 (Fed. Cir. 1996)). "Infringement may be found under the doctrine of equivalents when . . . [1] every limitation of the asserted claim, or its equivalent, is found in the accused subject matter, [2] the latter differs from what is literally claimed only insubstantially, and [3] it performs substantially the same function in substantially the same way to achieve substantially the same result." Wright Medical Tech. v.

¹ The Court has already completed the first step. See Claim Construction [Doc. #715].

Osteonics Corp., 122 F.3d 1440, 1444 (Fed. Cir. 1997) (citing, inter alia, Warner-Jenkinson Co. v. Hilton Davis Chemical, 520 U.S. 17, 40 (1997)).

II. Plaintiffs' Procedural Objection

Plaintiffs point to orders and transcripts in the record stating that post-Markman hearing/Claims Construction [Doc. #715] summary judgment motions would be entertained only if such motions arose from the Claim Construction. See Order [Doc. #333] at 2; Tr. [Doc. #725] at 15:17-16:1, 16:20-17:1; Order [Doc. #718]. With respect to the '493 Patent, plaintiffs identify one argument of defendants, which will be discussed in detail infra, that they assert does not arise out of the Court's Claim Construction [Doc. #715]: that claim 16 of the '493 Patent requires a thermal cycler to be loaded with certain PCR templates and primers and none of MJ's thermal cyclers are sold, offered for sale, or shipped with them. Applera maintains that the Court should not consider this argument because it did not arise out of the Claim Construction and could have been raised years ago. Applera's argument has force in that whether claim 16 of the '493 Patent requires a thermal cycler to be loaded with a PCR reaction mixture was not disputed and thus not a subject of the Court's claim construction. However, at this juncture, the Court sees little gain in postponing a decision to the Fed. R. Civ. P. 50

stage, at the close of Applera's infringement case-in-chief, when ruling now may contribute to a more orderly trial. Applera has not asserted prejudice in having to oppose the PCR templates and primers argument.

III. Claim 16 of the '493 Patent

A. PCR Reaction Mixture

1. Claim Element

As relevant here, Claim 16 of the '493 Patent provides:

A thermal cycling system ... comprising:

a plurality of reaction mixtures comprising at least one single- or double-stranded nucleic acid sequence to be amplified, four different deoxyribonucleotides, and a pair of oligodeoxyribonucleotide primers for each said at least one nucleic acid sequence to be amplified.

2. Parties' Arguments

Defendants assert that claim 16 of the '493 Patent requires the presence of certain PCR reagents, and, because none of MJ's thermal cyclers have ever been sold, offered for sale, or shipped loaded with the PCR templates (the nucleic acid to be amplified, single or double stranded) or the pair of oligodeoxyribonucleotide primers required by claim 16, defendants are entitled to summary judgment that they do not directly infringe (literally or under the doctrine of equivalents) the patent.

In opposition, plaintiffs argue that, although they have no evidence to dispute that "...defendants' thermal cyclers are not shipped with a PCR mixture," Plaintiffs' Opp'n [Doc. #799] at 18, defendants do not eliminate the direct infringement issue completely by showing that they do not sell or ship their thermal cyclers with a PCR mixture. Plaintiffs point to admissions of MJ's senior scientist Dan Sullivan that he was performing PCR on MJ's thermal cyclers, some of which were not authorized, approximately 10-15 times per week for various purposes, including testing improvement and consumables and ensuring that Finnzymes worked as hoped and intended. See Hoffner Decl. [Doc. #801] Ex. 15 (Sullivan Depo.) 149:21-150:3; 170:4-6; 382:17-383:15; 674:21-675:4. Plaintiffs reason that each performance of PCR without a license on an unauthorized MJ thermal cycler directly infringed claim 16 of the '493 Patent under Aro Mfg. Co. v. Convertible Top Replacement, 377 U.S. 476, 484 (1964) ("unauthorized use, without more, constitutes infringement"), and thus assert there are jury questions precluding summary judgment on their claim of direct infringement. Defendants essentially concede a triable issue on whether defendants have performed PCR in-house on unauthorized thermal cyclers.

3. Conclusions re Claim 16:

a. Thermal Cyclers Distributed to End Users

Without evidence that defendants sell, offer to sell, or ship their thermal cyclers models with the PCR templates and primers required by claim 16 of the '493 Patent, plaintiffs fail to raise a genuine issue of material fact on defendants' direct infringement of claim 16 in connection with defendants' selling and shipping practices. Thus, defendants are entitled to summary judgment on plaintiffs' claims of direct infringement (both literal and under doctrine of equivalents) of claim 16 with respect to the sale and shipping of all defendants' thermal cycler models. Combined with the Court's prior ruling on claim 16, which held that "[a]ny MJ thermal cycler model that uses a sample holder like the one depicted in the exhibits to Michael Finney's and Margulies' declarations, see Decl. of Michael Finney [Doc. #744] ¶ 7, Ex. E; Margulies' Decl. [Doc. #802] ¶ 13, Ex. 1, does not as a matter of law literally infringe claim 16 of the '493 Patent," see Ruling [Doc. #899] at 35, it becomes apparent that, with respect to defendants' selling, offering to sell, and shipping of thermal cyclers that employ such sample holders, plaintiffs have only one viable claim of infringement of claim 16 remaining, inducement of infringement under the doctrine of

equivalents.² Threshold questions for jury determination on that claim will be: 1) whether the differences between the metal block structure of claim 16 and defendants' sample holder are insubstantial, and, if so; 2) whether defendants have induced end users without a license for PCR to load unauthorized thermal cyclers with the PCR mixture element (or equivalent) of claim 16.³ With respect to defendants' selling, offering to sell, and shipping of thermal cyclers that employ blocks in which the metal block structure of claim 16 may literally be present (e.g. the PTC 100-60 and 384 well block), there remain triable issues of fact with respect to inducing both literal infringement and infringement under the doctrine of equivalents.

b. In-House Thermal Cyclers

Plaintiffs have presented evidence that could support a jury finding that the PCR reaction mixture element of claim 16 is literally present in defendants' in-house thermal cyclers during internal and unauthorized performance of PCR. In combination with the Court's prior holding that the metal block structure of claim 16 is not literally present in defendants' thermal cycler

² Inducing an end user's literal infringement in this context is not a viable claim as an end user would not be able to reconfigure such a sample holder into a block with recesses machined into it without destroying the sample holder or its utility.

³ Plaintiffs do not argue that defendants induce end users to replace the sample holders with the metal block structure of claim 16.

models that employ the sample holder of the Michael Finney and Margulies declarations, a triable issue of fact on infringement of claim 16 with respect to those models remains only under the doctrine of equivalents and the threshold questions for jury determination will focus on: 1) whether the differences between the metal block structure of claim 16 and such sample holder are insubstantial, and, if so; 2) whether defendants loaded such sample holder thermal cyclers with the PCR mixture of claim 16 (or equivalent) for unauthorized performance of PCR. With respect to defendants' possible unauthorized performance of PCR on in-house thermal cyclers that employ blocks in which the metal block structure of claim 16 may literally be present (e.g. the PTC 100-60 and 384 well block), there remain triable issues of fact with respect to both literal infringement and infringement under the doctrine of equivalents of claim 16.

IV. Conclusion

As set forth above, defendants' motion [Doc. #737] is GRANTED in PART and DENIED in PART.

IT IS SO ORDERED.

/s/

Janet Bond Arterton, U.S.D.J.

Dated at New Haven, Connecticut this 24th day of February 2004.