UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 13-10628

EXERGEN CORPORATION

v.

KAZ USA, INC.

MEMORANDUM AND ORDER ON KAZ'S MOTIONS FOR SUMMARY JUDGMENT OF OBVIOUSNESS AND NO WILLFUL INFRINGEMENT

August 20, 2015

STEARNS, D.J.

Plaintiff Exergen Corporation accuses defendant Kaz USA, Inc., of infringing 17 claims of U.S. Patent Nos. 6,292,685 (the '685 patent) and 7,787,938 (the '938 patent). As previously described, the '685 and '938 patents are both entitled "Temporal Artery Temperature Detector." The patents disclose methods and apparatuses for measuring human body temperature by detecting the temperature at the forehead over the temporal artery and computing internal body temperature using an arterial heat balance approach.[1] Kaz contends that the asserted claims are

[1] Of the asserted claims, claim 14 of the '685 patent is representative:

> 14. A method of detecting human body temperature comprising:

invalid because they are obvious over prior art. Kaz also moves for a summary determination that it is not liable for willful infringement of the asserted claims.[2]

Obviousness

> Nonobviousness is a requirement of patentability. 35 U.S.C. § 103.
>
> A party seeking to invalidate a patent on the basis of obviousness must demonstrate by clear and convincing evidence that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.

Kinetic Concepts, Inc. v. Smith & Nephew, Inc., 688 F.3d 1342, 1360 (Fed. Cir. 2012) (internal quotation marks and citation omitted). Whether the claims of a patent are obvious is ultimately a question of law, the

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> detecting temperature at a forehead through a lateral scan across the temporal artery; and
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> computing an internal body temperature of the body as a function of ambient temperature and sensed surface temperature.

[2] The court has previously issued memoranda and orders on the parties' cross-motions for summary judgment on Kaz's license defense, and on Exergen's motion for summary judgment of no inequitable conduct. Kaz's motion for summary judgment of non-infringement and a related motion to strike are pending awaiting final briefing.

determination of which is based on underlying findings of fact. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007).

An analysis of obviousness involves multiple inquiries: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art at the time the invention was made; and (4) applicable relevant secondary considerations of nonobviousness, such as commercial success, long felt but unsolved need, and failures of others to address that need. *See Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966). "What the prior art teaches, whether it teaches away from the claimed invention, and whether it motivates a combination of teachings from different references are questions of fact." *In re Fulton*, 391 F.3d 1195, 1199-1200 (Fed. Cir. 2004).

> While the Supreme Court made clear that a mechanical application of the teaching-suggestion-motivation test, requiring an explicit teaching in the prior art, is inappropriate, [w]e must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.

Kinetic Concepts, 688 F.3d at 1368 (internal quotation marks and citation omitted).

Kaz's pitch for obviousness relies primarily on Exergen's U.S. Patent No. 5,012,813 (the '813 patent).[3] The '813 patent is entitled "Radiation Detector Having Improved Accuracy" and lists Dr. Francesco Pompei, the inventor of the patents-in-suit, as a co-inventor. The '813 patent describes "a tympanic temperature measurement device which would provide accuracy to within one-tenth degree over a wide range of ambient temperatures." '813 patent, col. 1, ll. 36-39.

> When used to measure a biological temperature, the radiation detector is further improved by providing an indication of an internal temperature within biological tissue. The electronic

[3] Kaz contends that the asserted claims are obvious over the '813 patent in combination with any of U.S. Patent No. 3,531,642 (the '642 patent), U.S. Patent No. 3,526,135 (the '135 patent), or Exergen's Dermatemp device. The '642 patent is entitled "Thermographic Scanner and Recorder" and describes "an improved thermographic scanner and recorder . . . [that] permits scanning across a portion of a patient's body, for example a forehead, and is provided with an improved means for recording in graph form the scan, calibrating for particular ranges so that the full width of the recording paper can measure the particular range of temperature or scanning without recording, or moving paper without recording." '642 patent, col. 1, ll. 13-22. The '135 patent is entitled "Temperature Detecting System," discloses "[a] radiation thermometer for detecting changes in temperature of localized body regions as an indication of vasomotor activity in response to stimuli," '135 patent, col. 1, ll. 11-16, and notes that the region over the temporal artery is particular suitable for measurement "for its accessibility to measurement and the response [(constriction or dilation)] which it displays. *Id.* col. 2, lls. 62-67. As previously described the court's memorandum and order on Exergen's motion for summary judgment of no inequitable conduct, Dermatemp is series of commercial infrared thermographic skin temperature scanners manufactured by Exergen. The operating manual suggests scanning the skin temperature at the forehead in clinical applications, such as shock detection.

> circuit determines the internal temperature by adjusting a measured temperature of surface tissue for ambient temperature. In particular, the biological surface tissue may be tympanic membrane or the ear canal adjacent to the membrane, and the display may provide an indication of core temperature.

Id. col. 2, ll. 46-54. The '813 patent discloses the equations for computing a person's internal or core temperature as correlative functions of the measured ear temperature and the ambient temperature. *See id*., col. 10, l. 63-col. 11, l. 15.

Although the '813 patent focuses on measuring temperature at the ear, Kaz maintains that it teaches the key elements of the asserted claims. According to Kaz, Exergen is bound by principles of judicial estoppel to the positions it took in prosecuting *Exergen Corp. v. Wal-Mart Stores, Inc.*, 575 F.3d 1312 (Fed. Cir. 2009. "As a general matter, the doctrine of judicial estoppel prevents a litigant from pressing a claim that is inconsistent with a position taken by that litigant either in a prior legal proceeding or in an earlier phase of the same legal proceeding." *Alternative Sys. Concepts, Inc. v. Synopsys, Inc.*, 374 F.3d 23, 32-33 (1st Cir. 2004). In the *Wal-mart* case, Exergen asserted Claim 7 of the '813 patent against temporal artery thermometers similar to the accused products. Claim 7 is directed to a thermometer for measuring temperature at any "biological surface tissue:"

> 7. A radiation detector comprising:

> a thermopile mounted to view a target of biological surface tissue;
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> a temperature sensor for sensing ambient temperature;
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> an electronic circuit coupled to the thermopile and temperature sensor and responsive to the voltage across the thermopile and the temperature sensed by the sensor to provide an indication of an internal temperature within the biological tissue adjusted for the ambient temperature to which the surface tissue is exposed; and
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> a display for providing an indication of the internal temperature.

In the *Wal-mart* litigation, Exergen succeeded in convincing the court and jury that the term "biological surface tissue" encompasses any "living layer of external human tissue having a temperature that can be measured," including the forehead. *Wal-mart*, 575 F.3d at 1317. The jury also agreed with Exergen that claim 7 of the '813 patent was enabled.[4] Kaz contends that, having persuaded the jury that claim 7 enabled a person of ordinary art in the skill to make a temporal artery thermometer without "undue experimentation," Exergen cannot now take the position that the '813 patent does not disclose essential elements of the asserted claims. *See In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988) ("[I]t is well established that enablement

[4] The Federal Circuit overturned the jury's verdict of infringement on other grounds. *See Wal-mart*, 575 F.3d at 1320-1321.

requires that the specification teach those in the art to make and use the invention without undue experimentation.").

Exergen responds, and the court agrees, that its position in *Wal-mart* – that claim 7 of the '813 patent is both enabled and covers temporal artery thermometers – is not, as a matter of law, so inconsistent with its contention in this case – that temporal artery thermometers were invented years after the '813 patent – as to exclude the latter. To trigger estoppel, "the estopping position and the estopped position must be directly inconsistent, that is, mutually exclusive." *Alternative Sys. Concepts*, 374 F.3d at 33. As Exergen notes, patent law "allows for after-arising technology to be captured within the literal scope of valid claims that are drafted broadly enough." *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1371-1372 (Fed. Cir. 2008). Thus, that Exergen asserted claim 7, a broadly-drafted claim, against the later-invented temporal artery thermometer does not compel the conclusion that the '813 patent disclosed the later invention.

The same is true of enablement. Enablement is not determined against the accused device or process. *See CFMT, Inc. v. Yieldup Int'l Corp.*, 349 F.3d 1333, 1338 (Fed. Cir. 2003). "Enablement does not require an inventor to meet lofty standards for success in the commercial marketplace. Title 35 does not require that a patent disclosure enable one of ordinary skill in the

art to make and use a perfected, commercially viable embodiment absent a claim limitation to that effect." *Id.* Indeed, "[t]he enablement requirement is met if the description enables *any* mode of making and using the claimed invention." *Engel Indus., Inc. v. Lockformer Co.*, 946 F.2d 1528, 1533 (Fed. Cir. 1991) (emphasis added). The jury instructions on enablement in the *Wal-mart* litigation made no reference to temporal artery thermometers and the jury's finding that claim 7 of the '813 patent was enabled does not conclusively establish that the '813 patent enabled the making of temporal artery thermometers.

What is left of Kaz's obviousness argument are pertinent questions of fact. The '813 patent disclosed determining the core temperature by taking an external temperature at the ear and applying the arterial heat balance approach to determine the internal temperature, and suggested that the approach may be applied to any "biological surface tissue." The '642 and '135 patents and the Dermatemp device disclose taking external temperatures at the forehead. The Bergensen study (described in the court's memorandum and order on Exergen's motion for summary judgment of no inequitable conduct) disclosed the lack of arteriovenous anastomoses in the temporal artery, but made no suggestion for applying this finding to the field of thermometry.

Exergen's evidence reflects that prior to the inventions of the patents-in-suit, persons skilled in the art were skeptical that accurate internal temperatures could be determined from external measurements taken at exposed locations, such as the forehead. There existed an unmet need in the field, particularly in pediatric medicine, for accurate temperature measurements taken by less intrusive instruments than ear thermometers. Exergen's own temporal artery thermometer was commercially successful and received various accolades for its innovation. It is thus for the jury to decide whether "a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so." *Kinetic Concepts*, 688 F.3d at 1360.

Willful Infringement

Willful infringement has both an objective and a subjective component. "To establish willful infringement, 'a patentee must [first] show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.'" *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010), quoting *In re Seagate Tech., LLC,* 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). "[T]he threshold objective prong of

the willfulness standard enunciated in *Seagate* is a question of law based on underlying mixed questions of law and fact . . . ." *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1005 (Fed. Cir. 2012). "If *Seagate's* objective prong is met, 'the patentee must also demonstrate that this objectively-defined risk [of infringing activity] was either known or so obvious that it should have been known to the accused infringer.'" *Spine Solutions*, 620 F.3d at 1319, quoting *Seagate*, 497 F.3d at 1371.

The "object prong 'tends not to be met where an accused infringer relies on a reasonable defense to a charge of infringement.'" *Advanced Fiber Techs. (AFT) Trust v. J & L Fiber Servs., Inc.*, 674 F.3d 1365, 1377 (Fed. Cir. 2012), quoting *Spine Solutions*, 620 F.3d at 1319. On the basis of the foregoing discussion, the court is of the view that, whatever the ultimate success of Kaz's invalidity contentions, they do not constitute an objectively unreasonable defense to Exergen's charge of infringement. Because the court finds that, as a matter of law, Exergen cannot satisfy the objective prong of *Seagate*, it is unnecessary to decide the subjective prong.

ORDER

For the foregoing reasons, Kaz's motion for summary judgment of invalidity because of obviousness is DENIED. Kaz's motion for summary judgment of no willful infringement is ALLOWED.

SO ORDERED.

/s/ Richard G. Stearns

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UNITED STATES DISTRICT JUDGE