IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF CONNECTICUT

TYCO HEALTHCARE GROUP LP and UNITED STATES SURGICAL CORPORATION,	)	
Plaintiffs and Counterclaim-Defendants,	)	
v.	)	**Civil Action No. 3:10cv0060 (JBA)**
ETHICON ENDO-SURGERY, INC.,	)	
Defendant and Counterclaim-Plaintiff.	)	

ETHICON'S FINAL POST-TRIAL BRIEF

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PRELIMINARY STATEMENT

Ethicon submits this final memorandum of law in support of its motions for judgment and in opposition to Tyco's motions for judgment as a matter of law.[1] As the Claim Chart appended to this brief summarizes, each of Tyco's asserted claims fails under at least two of Ethicon's three primary defenses: non-infringement, invalidity under 35 U.S.C. § 102(g), and obviousness under 35 U.S.C. § 103. Because Tyco has failed to establish that Ethicon has infringed any valid claim, judgment should be entered for Ethicon.

I. DR. DURFEE'S NON-INFRINGEMENT TESTIMONY IS CONTRARY TO THE RECORD

In its motion for judgment on infringement, Tyco relies exclusively on Dr. Durfee's opinion to support its position that the accused devices have cam mechanisms. Tyco Infringement Br. (Doc. # 211) at 4-10. But as Ethicon has shown, Dr. Durfee's theory is both analytically flawed and flatly inconsistent with how those of skill in the art actually described the accused devices before the issuance of the patents in suit. Ethicon Opening Br. (Doc. # 209) at 2-10; Ethicon Closing Slides 3-33.

Perhaps the most dramatic illustration of the deficiency of Dr. Durfee's analysis is his testimony at trial that he "[didn't] know" and "[couldn't] recall" whether single-tooth gear or rack and pinion mechanisms even exist. Durfee Tr. 1885:6-12. Denying the existence of such mechanisms was necessary to Dr. Durfee's infringement opinion, because as he conceded, the clamp-arm mechanisms in the accused devices function the "same" as a single tooth in a rack and pinion mechanism. *E.g.*, Durfee Tr. 1899:9-11. And while Tyco sought to salvage its non-infringement case at closing by suggesting that the accused devices could be both cams and rack

[1] As Ethicon noted in its opening brief, the Court is entitled to weigh all the evidence and make credibility determinations in deciding the parties' Rule 52 motions. Ethicon Opening Br. (Docket # 209) at 2. As a result, the standards for granting Ethicon's motions and denying Tyco's motions are identical.

and pinions, *see* Tyco Liability Slides at 11, that was not Dr. Durfee's testimony. He testified that a single tooth of a rack and pinion mechanism was ***not*** a rack and pinion, Durfee Tr. 1775:20-25, explaining that engineers "presented with [a] one tooth mechanism" would "think about it as a cam." *Id.* at 1899:25-1900:7; *see also id.* at 1885:13-1886:10.

Dr. Durfee's testimony that single-tooth pinions are considered to be cam mechanisms and Tyco's latest twist that they can be both are contrary to the record. The inventors of the accused devices, as well as an engineering textbook relied on by Dr. Durfee himself, refer to single-tooth rack and pinions as rack and pinion mechanisms, not cams. Ethicon Opening Br. at 8-10; Ethicon Closing Slides 6-12, 32. In addition, single-tooth gears and pinions are disclosed in dozens of U.S. patents, of which the Court can take judicial notice. *See* FED. R. EVID. 201(b)-(c); *Hoganas AB v. Dresser Indus., Inc.*, 9 F.3d 948, 954 n.27 (Fed. Cir. 1993) (taking judicial notice of patent); *cf. Island Software & Computer Serv. v. Microsoft Corp.*, 413 F.3d 257, 261 (2d Cir. 2005) (taking judicial notice of copyright registration).

As noted in closing argument, a simple keyword search of the United States Patent and Trademark Office's database reveals more than one hundred U.S. patents, dating back more than one hundred years, that disclose single-tooth gear or pinion systems.[2] The patents refer to these mechanisms as gears or pinions; none refer to them as cams. Like Ethicon's engineers, the inventors of these patents were aware of cam mechanisms; many of the patents disclosing single-

[2] *See, e.g.*, U.S. Patent 979,802, "Controller for Turbines," issued Dec. 27, 1910, col.6 lines 104-105 ("[A] single toothed gear adapted to engage the notch in [the] rack . . . ."); U.S. Patent 1,481,191, "Machine for Cutting Off and Threading Pipes," issued Jan. 15, 1924, col.8 lines 66-68 ("[A] single toothed pinion is provided and positioned to intermittently move the annular rack."); U.S. Patent 2,140,796, "Weighing Apparatus," issued Dec. 20, 1938 col.5 lines 6-7 ("[T]he single tooth pinion engages the tooth on [the] rack . . . ."); U.S. Patent 3,053,100, "Riveting Machine," issued Sept. 11, 1962, col.1 lines 48-49 ("[T]he single tooth of the pinion engag[es] the single tooth of the rack . . . ."); U.S. Patent 5,026,041, "Automatic Sheet Feeding Apparatus," issued June 25, 1991, col.9 lines 12-13 ("[T]he single tooth gear engages with the rack . . . .").

tooth gears or pinions also contain separate and distinct mechanisms referred to as "cams."[3] These patents further confirm that a single-tooth rack and pinion mechanism – which Dr. Durfee concedes is how the accused devices function – is considered by engineers to be a rack and pinion mechanism, not a cam mechanism. The accused devices do not infringe any of the claims that require cam mechanisms.

II. TYCO'S 102(g) CASE IS BASED ON INCORRECT LEGAL STANDARDS

Ethicon has established by clear and convincing evidence that the prototype devices it invented in 1996 anticipate Tyco's claims through two separate and independent paths: prior reduction to practice, and prior conception and diligence. *See* Ethicon Opening Br. at 10-18; Ethicon Closing Slides at 33-133. In response to the indisputable evidence that Ethicon created and extensively tested its prototypes well before Tyco's earliest priority date, Tyco relies on arguments that are simply legally incorrect.

A. Path One: Reduction to Practice Requires Only That the Prototypes Worked For Their Intended Purpose of Cutting and Coagulating Tissue

In its opening brief and closing argument, Tyco relies on cases purporting to show that the existence of "significant unresolved problems" in Ethicon's 1997 goat labs defeats reduction to practice. Tyco Invalidity Br. (Doc. # 210) at 6; Tyco Closing Slides at 22, 29, 45. Yet as the very cases Tyco cites indicate, reduction to practice requires only that the devices work for their intended purpose and does not require satisfaction of commercial standards. *See Wiesner v. Weigert*, 666 F.2d 582, 588 (C.C.P.A. 1981) ("[R]eduction to practice of a commercially saleable product is not required."); *Scott v. Finney*, 34 F.3d 1058, 1063 (Fed. Cir. 1994) ("In

[3] *See, e.g.*, U.S. Patent 4,070,916, "Speedometer-Odometer Apparatus," issued Jan. 31, 1978, col.3 lines 4-5 ("In one embodiment, a circular cam is mounted slightly off center . . . ."), col.3 1.22 ("Another embodiment involves a single tooth gear . . . ."); U.S. Patent 3,107,854, "Postage Metering Machine," issued Oct. 22, 1963, col.29 line 21 ("cam 288"), col.22 line 54 ("single tooth gear 394"); U.S. Patent 373,771, "Clock Striking Mechanism," issued Nov. 22, 1867, col.4 lines 76-77 ("[A]s the cam revolves, the point *c* will ride up on space between the notch *d'* . . . ."), col.4 lines 113-116 ("The actuating power of the striking rack is imparted through a single toothed pinion, P, arranged for operation in the ordinary and well-known way.").

tests showing the invention's solution of a problem, the courts have not required commercial perfection nor absolute replication of the circumstances of the invention's ultimate use."); *DSL Dynamic Sciences Ltd. v. Union Switch & Signal, Inc.*, 928 F.2d 1122, 1126 (Fed. Cir. 1991) ("[T]here is certainly no requirement that an invention, when tested, be in a commercially satisfactory stage of development in order to reduce the invention to practice."); *Brown-Bridge Mills, Inc. v. Eastern Fine Paper, Inc.*, 700 F.2d 759, 766 (1st Cir. 1983) ("[I]t is not necessary for reduction to practice that a product be at a commercially satisfactory stage of development . . . ."). To rebut Ethicon's evidence of prior reduction to practice, therefore, it is not enough for Tyco to show that Ethicon experienced problems in its goat labs. It must show that these problems meant that Ethicon's prototypes did not work for their intended purpose, *i.e.*, that they were not able to cut and coagulate tissue ***of any kind***. Tyco has failed to make this showing.

Numerous successful pig laboratories conducted in 1996 (involving primarily jejunal mesentery tissue for gastrointestinal procedures), and the videotaped goat hysterectomy performed by Dr. Amaral in February 1997 demonstrate that Ethicon's prototypes were reduced to practice. *See* Ethicon Closing Slides at 49-55, 63-64; DTX-1460, 1461, 1463, 1465, 1525, 1184. As Dr. Gallagher testified and Tyco cannot seriously dispute, it was only ***after*** these successful demonstrations that Ethicon conducted rigorous goat laboratories designed to prove that its prototypes could reliably cut and coagulate the large vessels necessary to perform hysterectomies at the same level of performance as its existing LCS-10 device. *See* Ethicon Closing Slides at 74-76. While Ethicon experienced problems coagulating the uterine artery or ovarian pedicle in some (though by no means all) of these labs, these labs cannot possibly show that the prototypes were unable to cut and coagulate the jejunal mesentery tissue that was at issue

in the pig labs,[4] nor do they show problems in the smaller vessels involved in the goat labs. *See* Ethicon Closing Sides at 76-78. Indeed, small mesenteric vessels (from canines) were what Tyco relied in establishing its reduction to practice of its AutoSonix device; Tyco never performed a single goat hysterectomy. *See* Ethicon Closing Slides at 71-72. As a result, Tyco's arguments concerning the problems in Ethicon's 1997 goat laboratories are largely irrelevant. They do not change the fact that Ethicon's prototypes could cut and coagulate tissue before March 1997.

B. Path Two: Tyco's Case Is Riddled With Flaws

Tyco's arguments in response to Ethicon's second path for establishing its 102(g) defense are even more egregiously flawed than Tyco's case against prior reduction to practice. Tyco cannot dispute that Ethicon possessed physical 5mm prototypes anticipating all but six of the claims in suit no later than May 1996, or that Ethicon worked continuously to develop these devices until its release of commercial 5mm products containing all of the same elements in 1998. Instead, Tyco contends that these facts are somehow insufficient to establish conception and diligence because Ethicon tested its prototypes extensively in 1996 and 1997 and modified them by switching from one purported "cam" slot to two in order to accommodate a larger blade in July 1997. Tyco's arguments are contrary to the law.

i. Ethicon's Testing of Its Prototypes Does Not Mean The Prototypes Were Not Conceived

Tyco's argument with respect to conception boils down to the assertion that Ethicon's prototypes were not conceived because, according to Tyco, the prototypes underwent further

[4] Tyco cites comments in the pig lab reports as evidence of failure, Tyco Invalidity Br. at 7-8, but according to these very reports, the devices "performed acceptably" in 1996. DTX-1461 at 6; *accord* DTX-1460 at 6; DTX-1463 at 4; DTX-1465 at 7; DTX-1525 at 1, 2; *cf.* DTX-1539 (1997 porcine labs). Indeed, not a single pig laboratory was labeled as "unacceptable" or a failure. In addition, the surgeon who made the comments Tyco relies on, Dr. Amaral, testified at the first trial that the prototypes worked for their intended purpose. *See* Ethicon Closing Slides at 50.

testing and development before they were successfully reduced to practice.[5] Tyco Invalidity Br. at 16-19; Tyco Liability Slides at 64-67. Not surprisingly, this argument finds no support in the case law. None of the three cases that Tyco relies on remotely supports its position that Ethicon's prototypes were not conceived. *See* Tyco Liability Slides at 64. On the contrary, in each of the three cases Tyco cites, the inventor established conception based on less corroborating evidence than Ethicon has put forward – and in one of the cases, the Federal Circuit rejected the very argument Tyco is making here.

In *Cooper v. Goldfarb*, 154 F.3d 1321 (Fed. Cir. 1998), which Tyco cites for the need to show a "complete and operative" invention in order to establish conception, *id*. at 1327, the court held that entries in the appellant's laboratory notebook established conception, but that subsequent experimental failures defeated reduction to practice, *id.* at 1328. *Cooper v. Goldfarb* therefore stands for the opposite of what Tyco relies on it for. It shows that a conception can be complete even when subsequent attempts to reduce the invention to practice fail.

Notebook entries, supported by the testimony of an inventor and a non-inventor, were also sufficient to establish conception in *Spansion, Inc. v. International Trade Comm'n*, 629 F. 3d 1331, 1356-57 (Fed. Cir. 2010). The statement from that case on which Tyco relies, that conception requires an idea so "clearly defined" that it can be reduced to practice "without extensive research or experimentation," refers to the degree of specificity required for an idea to qualify as a conception; conception requires a "specific, settled idea," rather than a "general goal or research plan [the inventor] hopes to pursue." *Id.* at 1356. This does not mean, as Tyco would have it, that difficulties in reducing a clearly defined invention to practice mean that it was never conceived in the first place. The evidence in the present case demonstrates far more than a clearly defined idea in a notebook. The inventors had

[5] As discussed above, the prototypes were in fact reduced to practice in 1996.

dimensioned engineering drawings and even physical embodiments of the prototype devices.

Finally, Tyco cites *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1229 (Fed. Cir. 1994), for the proposition that "experimental failures" or "trial and error" mean that conception is not complete. *See* Tyco Liability Slides at 64. But in that case, the court expressly ***rejected*** the argument that conception "must include a reasonable expectation that the invention will work for its intended purpose," holding that "an inventor need not know that his invention will work for conception to be complete. He need only show that he had the idea; the discovery that an invention actually works is part of its reduction to practice." *Id.* at 1228 (citations omitted).

As the Federal Circuit explained, experimental failure defeats conception only in those specific contexts – such as the identification of previously unknown chemical compounds having beneficial insecticidal or medicinal properties – where "reduction to practice in effect provides the ***only*** evidence to corroborate conception of the invention." *Id.* at 1229 (emphasis added). That was not the case in *Burroughs Wellcome*, where the chemical compound at issue was of a "known structure" that did not need to be "revealed" through experimentation. *Id.* The fact that this known structure was later proven to have certain medicinal properties did not argue against conception.

In the present case, Ethicon's conception is corroborated by numerous engineering drawings and even physical embodiments having all the elements of the claims for which Ethicon asserts anticipation. Accordingly, Tyco's efforts to show a lack of conception fail.

ii. Ethicon's Changes to the Prototype Blade and Clamp Arm Do Not Defeat Conception or Diligence

Tyco's argument that Ethicon lacked diligence is similarly contrary to the law and the facts. Tyco Liability Slides at 69-70; Tyco Invalidity Br. at 19-25. Relying on a single

document stating that the project was "placed on hold" in the summer of 1997, PTX-24, Tyco argues that Ethicon "gave up" on its original prototypes and "moved to a new concept" when it adopted a two-tab design to accommodate a larger blade in July 1997. Tyco Invalidity Br. at 22. This argument fails for a number of reasons.

Tyco's argument is legally defective because Ethicon never changed the elements that it relies on to establish anticipation of the claims in suit. These elements (*e.g.*, tube-in-tube construction, rotation, and "cams") were present in ***every*** embodiment of the prototypes that Ethicon tested between 1996 and 1998. The design "parameters" that Ethicon varied primarily involved features such as blade mass, amplitude, frequency, voltage, and temperature, which are entirely unrelated to Tyco's patents. *See* DTX-1538-0006. While relevant to Ethicon's desire to achieve a high-performance commercially successful product, variations in these parameters are entirely irrelevant to conception, reduction to practice, or diligence.

The only change with any relevance to any of the claims in suit is Ethicon's July 1997 decision to revert to a design (conceived in 1996) by which the clamp arm was actuated by two tabs in the inner tube instead of one, comprising what Tyco contends is a dual "cam" design. Ethicon Closing Slides at 118-26, 163; DTX-1568 at EES0273220. Notably, Tyco does not contend that this change took the prototypes outside the scope of its claims. Moreover, Ethicon does not assert anticipation of Tyco's three dual-cam claims. With respect to the claims for which Ethicon asserts anticipation, all the elements were present continuously throughout Ethicon's development process.

As the Federal Circuit has explained in a case on analogous facts, improving an invention without altering the "contested feature" represents "an improved version of [the] invention, not an entirely new invention," and "creating an improved version of an invention does not in any sense abandon the original invention . . . ." *Eolas Techs., Inc. v. Microsoft Corp.*, 399 F.3d 1325,

1333 (Fed. Cir. 2005). Under a contrary rule, "the public would lose the benefit of diligent efforts to produce a more useful product." *Id.* at 1333-34.

Just as Ethicon's improvements to the prototypes do not constitute abandonment, they do not establish lack of diligence. As Ethicon showed in closing, the changes it made to its blade and clamp arm in 1997 did not interrupt the continuity of its development efforts. While Tyco relies on a statement that the project was "placed on hold," the documentary evidence of actual events demonstrated clearly and unequivocally that work on the prototypes continued throughout this period without disruption; the change to a larger blade and moving the tabs to the side was accomplished promptly, while animal tests and other project work continued uninterrupted. *See* Ethicon Closing Slides at 118-23.

Because Ethicon worked continuously to develop its prototypes, making improvements only to features with respect to which it is not claiming anticipation, it has established prior conception and diligence.[6]

iii. Ethicon Did Not Conceal the Prototypes

Tyco's argument that Ethicon concealed its prototypes similarly fails as a matter of law and fact. Tyco Invalidity Br. at 25-27. First, any alleged concealment before Tyco's earliest conception date of January 1997 is irrelevant, because Ethicon only needs to show that it was diligent from "just prior" to Tyco's conception date to the time of Ethicon's reduction to practice. *See* Ethicon Revised Conclusions of Law (Doc. # 170:8) ¶ 56. Second, Tyco's contention that Ethicon's efforts at "commercialization" constitute concealment does not apply where, as here, Ethicon disclosed its efforts to the public by releasing a commercial product and worked to improve that product prior to release. *See* Ethicon Revised Conclusions of Law ¶ 70.

[6] For the same reason, it is irrelevant that, as Tyco argues in its brief but did not assert in closing, the original UltraCision inventors, Gary Whipple and Paul Smith, were allegedly not involved with the 1997 blade changes. Tyco Invalidity Br. at 22-25. Because Ethicon retained all elements of the "Whipple/Smith" design throughout its development process, its development of these devices continued to inure to the inventors' benefit. *See* Ethicon's Closing Slides at 130-33.

Finally, Tyco's suggestion that Ethicon's original prototypes (with a single tab) were "never" reduced to practice, Tyco Liability Slides at 62, is belied by the fact that Ethicon filed patent applications in October 1997 disclosing both its one and two-tab designs as alternative embodiments. Indeed, this disclosure was made only a few months after the change from one tab to two tabs in the commercial prototype. *See* Ethicon's Closings Slides at 107-08; DTX-1691. In sum, Tyco has no legally competent response to Ethicon's 102(g) defense.

III. TYCO'S REBUTTAL TO ETHICON'S OBVIOUSNESS CASE DISREGARDS THE RELEVANT LAW

After the expert witnesses' invalidity reports at the first trial, the Supreme Court issued its landmark decision in *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), which "repudiated as 'error'" the Federal Circuit's previous "restriction[s] on the ability of a skilled artisan to combine elements within the scope of the prior art." *In re Kubin*, 561 F.3d 1351, 1359 (Fed. Cir. 2009). *KSR* therefore could only bolster the obviousness opinions of Ethicon's expert, Dr. Cimino, and undermine those of Tyco's expert, Dr. Durfee. Remarkably, however, Dr. Durfee disclosed no opinions addressing the impact of *KSR*, despite having ample opportunity to do so.

At trial, it became clear that Dr. Durfee's opinions with respect to obviousness were riddled with legal defects. For example, Dr. Durfee testified that he could not "understand" how Ethicon's contemporaneous invention of the dual "cam" design could be relevant to obviousness given that Ethicon's engineering drawings containing such designs were not published prior art. Durfee Tr. 1770:1-1771:5; 1853:21-1856:18. Dr. Durfee seems to have disregarded the established principle that "[i]ndependently made, simultaneous inventions, made 'within a comparatively short space of time,' are persuasive evidence that the claimed apparatus 'was the product only of ordinary mechanical or engineering skill.'" *Geo. M. Martin Co. v. Alliance Mach. Sys. Int'l LLC*, 618 F.3d 1294, 1305 (Fed Cir. 2010) (quoting *Concrete Appliances Co. v. Gomery*, 269 U.S. 177, 184 (1925)). Dr. Durfee's admitted failure to consider the relevant law

seriously undermines his obviousness testimony. Indeed, this error is not limited to the dual-cam claims, but pervades Dr. Durfee's analysis of obviousness based on published prior-art references.[7] Even if Ethicon's prototypes were somehow not prior art, they would at least constitute evidence of the contemporaneous invention of features such as tube-in-tube construction, rotation, and a single-"cam" clamp-arm design.

Dr. Durfee also seems to have disregarded the principle that a combination of prior art elements "which only unites old elements with no change in their respective functions'" is likely to be obvious. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007) (quoting *Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152 (1950)). Dr. Durfee conceded that the tube-in-tube construction taught by the patents in suit functions in the same way as the tube-in-tube construction disclosed in the prior art, specifically the Robinson and EP '662 patents. Durfee Tr. 1867:14-1868:6, 1872:4-14, 1878:16-19. Dr. Durfee also conceded that the rotation taught by the patents in suit – a rotation knob operably associated or operably connected to the components being rotated – was disclosed in the prior art Robinson and EP '315 patents. Durfee Tr. 1872:15-1873:22, 1874:5-1875:4. Yet while Dr. Durfee testified about the particular pictures disclosed in these references, he never explained why it would be beyond the skill of those of ordinary skill in the art to adapt Davison to achieve these same functions. Indeed, Dr. Durfee did not offer any overall opinion of non-obviousness at all. *See* Ethicon Opening Br. at 18-20.

Similarly, Dr. Durfee did not deny at trial that the curved blades disclosed in the Davison would perform the same functions when adapted to Ethicon's prototype devices. Indeed, as Tyco's counsel pointed out, Dr. Durfee "said nothing" about the functions of curved blades,

[7] The parties distinguished at trial between the obviousness analysis in which it was assumed that Ethicon's prototypes constituted prior art and the obviousness analysis focusing only on published prior-art references. However, the legal standards governing obviousness are the same regardless of what prior art is considered and Dr. Durfee's analysis is legally defective under either assumption.

instead relying on a previous undisclosed opinion that is the subject of Ethicon's motion to strike. Trial Tr. 1831:3-8. Even if admissible, Dr. Durfee's testimony that "it's entirely unclear" based on the Davison patent "how you are supposed to get a clamp working with that blade" is simply beside the point. Durfee Tr. at 1763:7-9. As Ethicon has noted previously, Dr. Durfee never went so far as to opine that Davison is not enabled, stating only that a particular figure in the patent (8p) did not show how the clamp arm operated. *See* Ethicon Opening Br. at 23-24; Ethicon Closing Slides at 155-59. However, as *KSR* made clear, people of ordinary skill in the art are presumed to know how to combine known prior elements to achieve the same functions, regardless of whether the precise means of doing so are completely spelled out in the patent. *See KSR*, 550 U.S. at 420-21; Ethicon Closing Slides at 156. Indeed, the Tyco patents in suit do not teach how to make every curved blade that comes within the scope of their claims "work" with an accompanying clamp. If Dr. Durfee's analysis were applied to Tyco's patents, they would be invalid for lack of enablement. *See* Ethicon Opening Br. at 23-24.

In addition, Dr. Durfee fails to confront the fact that the prototypes and the Davison patent do show how a clamp and a cylindrical (or conical) blade can be designed to work together. As Dr. Amaral testified in the first trial (without any subsequent contradiction from Dr. Durfee), the same clamp design that Davison disclosed for its other blades could be used with a curved blade. *See* Amaral 2007 Tr. 1565:18-1566:8. Consistent with that testimony is the fact that when Ethicon added a laterally-curved blade to its 5mm products in 2000 it retained the same dual "cam" clamp-arm design it had originally developed for its conical-blade prototypes in 1997.[8] Dr. Durfee's apparent failure to consider the ability of those of skill in the art to combine references leaves Tyco without a competent rebuttal to much of Ethicon's obviousness case.

[8] Similarly, Tyco's patents disclose using the same clamp-arm design for what Tyco contends are "angled" blades as for the blades it contends are curved. *E.g.*, PTX-52, Fig. 10 at 9.

Finally, it bears note that Dr. Durfee failed to provide ***any*** rebuttal testimony with respect to the obviousness of a potentially significant claim in this case, claim 15 of the 286 patent, which differs from the Davison patent only with respect to the location of its tissue stops. *See* Ethicon Opening Br. at 25. As the Claim Chart appended to this brief makes clear, this claim would be the only claim remaining if the Court concludes (1) that the cam claims are not infringed, (2) that Ethicon's prototypes are 102(g) prior inventions, but (3) that the prototypes lacked a curved blade. Claim 15 is plainly obvious on two independent grounds: over the prototypes combined with Davison's curved blade, and over Davison with the position of the tissue stops moved from the tube to the clamp (as is disclosed in other references such as the EP 315 patent). *See* Cimino Tr. 942:17-943:3; DTX-2437 at 17, 26.

IV. TYCO'S LOST PROFITS CALCULATIONS ARE DIVORCED FROM THE REAL WORLD FACTS

In its rebuttal closing argument, Tyco contended that the shift in sales from the Harmonic line (with a 3mm vessel indication) to the newly introduced Harmonic ACE product line (with a 5mm vessel indication) supports Dr. Ugone's theory that absent the introduction of the Accused Products, utilization would have dramatically shifted from ultrasonic devices to RF devices because of their larger vessel indications.

The shift in Ethicon's marketing efforts and surgeon utilization from one ultrasonic product line to a newer ultrasonic product line with a larger vessel indication does not support the contention that surgeons would move from ultrasonic devices to RF devices simply due to a larger vessel indication. The real world facts demonstrate this point quite clearly. When LigaSure with a 7mm vessel indication was introduced in 2004, surgeons did not abandon the Harmonic line, even though it only had a 3mm vessel indication at the time. *See* Revised Ex. E to Bell Report; Bell Tr. 1565:1-1566:6; 1633:16-1634:23. Even today, LigaSure has a 7mm vessel indication while Harmonic ACE has only a 5mm vessel indication. Yet, Harmonic outsells

LigaSure by 2 to 1. *See* Exs. F-1 & G-1 to Bell Report; Bell Tr. 1630:11-24; Haney Tr. 1387:21-1388:14. What these facts show is that while surgeons may prefer larger vessel indications all else being equal, their demand for Ethicon's ultrasonic technology over Tyco's RF technology is not significantly affected by LigaSure's larger maximum vessel-size indication. Tyco's contention that the vast majority of users would abandon ultrasonic devices for RF in its "but-for" world, like the remainder of its case, is simply contradicted by the evidence.

CONCLUSION

For the above reasons, the Court should grant judgment to Ethicon on all claims.

Respectfully submitted,

Dated: August 14, 2012

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APPENDIX: SUMMARY OF CLAIMS AND DEFENSES

Patent	Claim	Not Infringed	Anticipated by Prototypes	Obvious
050 Patent	1		☑	☑
	5		☑	☑
	9		☑	☑
	10		☑	☑
	11 (dual cam)	☑		☑
	12 (dual cam)	☑		☑
286 Patent	1		☑	☑
	6		☑	☑
	7		☑	☑
	8 (cam)	☑	☑	☑
	9 (cam)	☑	☑	☑
	10 (cam)	☑	☑	☑
	11 (cam)	☑	☑	☑
	12 (cam)	☑	☑	☑
	13 (cam)	☑	☑	☑
	14 (cam)	☑	☑	☑
	15 (curved blade)		☑*	☑
544 Patent	1 (cam)	☑	☑	☑
	2 (cam)	☑	☑	☑
	3 (dual cam)	☑		☑
	6 (cam) (curved blade)	☑	☑*	☑
	8 (cam) (curved blade)	☑	☑*	☑
	9 (cam)	☑	☑	☑
	10 (cam)	☑	☑	☑
	11 (cam)	☑	☑	☑
	12 (cam)	☑	☑	☑
	13 (cam)	☑	☑	☑
	16 (cam)	☑	☑	☑
	18 (cam)	☑	☑	☑
	23 (cam)	☑	☑	☑
	24 (cam)	☑	☑	☑
	25 (cam)	☑	☑	☑

*Anticipation disputed by Dr. Durfee

CERTIFICATE OF SERVICE

I hereby certify that on August 14, 2012, a copy of the foregoing document was filed electronically and served by mail on anyone unable to accept electronic filing. Notice of this filing will be sent by email to all parties by operation of the Court's electronic filing system or by mail to anyone unable to accept electronic filing as indicated on the Notice of Electronic Filing. Parties may access this filing through the Court's CM/ECF System.

/s/ William F. Cavanaugh, Jr.