

**UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS**

DEPUY SPINE, INC., f/k/a DEPUY
ACROMED, INC. and
BIEDERMANN MOTTECH GMBH

Plaintiffs

v.

CIVIL ACTION NO.:
01-CV-10165 EFH

MEDTRONIC SOFAMOR
DANEK, INC., f/k/a SOFAMOR
DANEK GROUP, INC., and
MEDTRONIC SOFAMOR
DANEK USA, INC.,

Defendants.

MEMORANDUM AND ORDER

February 6, 2008

HARRINGTON, S.D.J.

The defendants have raised three issues in their Motion for a New Trial on the Question of Infringement: the admission of evidence pertaining to the design history of the Vertex screws, the relevance of other polyaxial screws (not in suit) for determining infringement, and the Court’s questioning of defense witness, Prof. Thomas Oxland. Because the Court concurs in the plaintiffs’ analysis of the first two issues and considers those matters adequately addressed therein,

the Court adopts the plaintiffs' arguments on those two topics.¹ As for the third issue, although the Court agrees with the plaintiffs' analysis, the Court believes that some further amplification of the plaintiffs' argument may be useful.²

Prof. Oxland testified on direct examination that in the '678 patent, the radius of the screw head is substantially equal to the corresponding receiver portion. This substantial equality, he asserted, results in a "mating" between the receiver chamber and the screw head and creates a "mating surface friction fit around the screw head." (Tr. 1212). In the Vertex devices, by contrast, the screw head presses against the edge of the receiver portion, resulting in a higher concentration of force at the point of contact. This, according to Prof. Oxland, creates an "interference fit." Prof. Oxland also testified that because the '678 patent uses a mating friction fit and the accused products rely on an interference fit, the two devices do not operate in substantially the same way.

On cross-examination, Prof. Oxland acknowledged that under the governing claim construction (as set forth by the Federal Circuit in DePuy Spine, Inc., v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1014 (Fed. Cir. 2006), *cert. denied* 128 S. Ct. 58 (2007)), the radius of the screw head does not have to be equal to the spherically-shaped receiver portion and that

¹As to the first issue, the Court specifically agrees that the design history evidence was relevant to lost profit damages and to the engineering insignificance of a conical, as opposed to a spherical, receiver portion. The Court also concurs in the plaintiffs' analysis of the second issue. In particular, the Court agrees that the '678 patent's pioneering status was not relevant to the jury's determination under the doctrine of equivalents. Even if the '678 patent was entitled to only a narrow range of equivalents, that fact alone would not have assisted the jury in determining whether the accused products fell within that narrow range.

²The Court denied the defendants' Motion for a Judgment as a Matter of Law without comment because the plaintiffs' Memorandum in Opposition clearly sets forth ample grounds on which to deny that motion.

the '678 patent includes edge contact between the screw-head and the receiver portion.³ He also was asked about a series of figures, arrayed from left to right, featuring screw heads that become progressively smaller in relation to their respective receiver portions (that is, the figures progressed from mating surfaces to edge contact). (Exhibit 5178A, introduced by the plaintiffs). Prof. Oxland conceded that he compared the Vertex products to only the embodiment described in the specification of the '678 patent, which had matching radii (that roughly corresponded to the figures on the left in the series) and that his function/way/result analysis did not reflect the fact that the Federal Circuit's claim construction encompassed non-matching radii as well (as depicted by the figures to the right, which featured smaller screw-heads). In response to these admissions, the defendants, on redirect, elicited testimony that even if the figures on the right literally reflected all of the claim elements, they would not infringe the '678 patent pursuant to the "reverse doctrine of equivalents" because they "locked the screw head[s] in a substantially different way than in the '678 patent." (Defendants' Memorandum at 4 (citing Tr. 1309-1313)). In an effort to understand Prof. Oxland's testimony, the Court questioned him about this proposition, namely, that there could be literal infringement, but no infringement under the doctrine of equivalents. Because the defendants voiced concerns over the Court's colloquy with the witness, the Court, out of an abundance of caution, gave two curative instructions, instructing the jury not to draw any inferences from the exchange.

³The Federal Circuit explicitly held that "'hollow spherically-shaped portion' includes the edge of that portion and that the screw head is 'pressed against' the 'hollow spherically-shaped portion' if it presses against all or any part of that portion – including the edge." Depuy Spine, 469 F.3d at 1014-15. The Court also stated that independent claim 1 of the '678 patent "must be broad enough to read on a device with components [*i.e.*, the screw-head and receiver portion] of unequal radii that nonetheless are pressed against each other." Id. at 1014.

The defendants contend that they were incurably prejudiced by the Court's colloquy with Prof. Oxland. As the plaintiffs note, however, the Court gave two curative instructions. The defendants have offered this Court no reason to conclude that these instructions were insufficient to cure any undue prejudice the colloquy might have caused.

Moreover, the reverse doctrine of equivalents was simply inapplicable in this case and served only to confuse the jury. The reverse doctrine of equivalents provides that

where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used to restrict the claim and defeat the patentee's action for infringement.

Graver Tank & Mfg. Co. v. Linde Air Prod. Co., 339 U.S. 605, 608-09 (1950). From this enunciation, it is apparent that the reverse doctrine of equivalents requires: 1) a comparison between the patent claims and a device; and 2) that the device in question not only meets the patent claims, but also reflects some additional features or elements that cause it to perform its function in a substantially different way from the patented article. Neither requirement was met here. First, the figures depicted in Exhibit 5178A were not, as the defendants have suggested, "hypothetical devices" (Defendants Memorandum at 4). They were instead graphic illustrations of the claim construction enunciated by the Federal Circuit and served to highlight the fact that Prof. Oxland did not conduct a function/way/result analysis that compared the accused Vertex products to the '678 patent claims as construed by the Federal Circuit. Second, it is difficult to see, and neither Prof. Oxland nor the defendants have ever explained, what additional features or aspects these figures possess that would substantially alter the way they function. Indeed, these figures do not "function" at all — they simply illustrate a progression from mating surfaces to

edge contact. It also bears mention that, as the plaintiffs correctly observe, the reverse doctrine of equivalents is seldom used and arguably moribund. See Tate Access Floors, Inc. v. Interface Architectural Res., Inc., 279 F.3d 1357, 1368 (Fed. Cir. 2002) (noting that the doctrine is an “anachronistic exception, long mentioned but rarely applied”). Also, as the defendants acknowledge, the doctrine (which requires literal infringement) does not apply to the accused Vertex devices themselves because they do not literally infringe the ‘678 patent. Prof. Oxland’s testimony on the reverse doctrine of equivalents thus served no legitimate purpose in this case and had the potential to seriously confuse and distract the jury. Indeed, his testimony was part and parcel of the defendants’ consistent attempt throughout the trial to circumvent, obfuscate, and undermine the Federal Circuit’s claim construction in this case.

In sum, for the reasons set forth by the plaintiffs in their memorandum, as well as those outlined above, the defendants’ Motion for a New Trial on the Question of Infringement is denied.

SO ORDERED.

/s/ Edward F. Harrington
EDWARD F. HARRINGTON
United States Senior District Judge

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