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Paper

Date:

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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MEDTRONIC, INC. and MEDTRONIC VASCULAR, INC.,  
Petitioner,

v.

TELEFLEX INNOVATIONS S.À.R.L.,  
Patent Owner.

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IPR2020-00136  
Patent RE45,776 E

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Before SHERIDAN K. SNEDDEN, JON B. TORNQUIST, and  
CHRISTOPHER G. PAULRAJ, *Administrative Patent Judges*.

PAULRAJ, *Administrative Patent Judge*.

JUDGMENT

Final Written Decision

Determining No Challenged Claims Unpatentable

Not Deciding Patent Owner's Motion to Amend

35 U.S.C. § 318(a)

## I. INTRODUCTION

This is our Final Written Decision entered pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons explained in our analysis below, we determine that Petitioner has not demonstrated that any of the challenged claims are unpatentable in this proceeding.

On November 14, 2019, Medtronic, Inc. and Medtronic Vascular, Inc. (collectively, “Petitioner”) filed a Petition requesting an *inter partes* review of claims 25–27, 29–33, 35–39, 41–49, and 52–56 of U.S. Patent No. RE45,776 E (“the ’776 patent,” Ex. 1401). Paper 1 (“Pet.”). Teleflex Innovations S.À.R.L. (“Patent Owner”)<sup>1</sup> filed a Preliminary Response. Papers 9 (confidential version), 10 (redacted version) (“Prelim. Resp.”). In our Institution Decision, we determined that there was a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim and accordingly, instituted an *inter partes* review pursuant to 35 U.S.C. § 314 based on all challenges presented in the Petition. Paper 20 (“Institution Decision” or “Inst. Dec.”).

Following institution, Patent Owner filed a post-institution Response (Papers 39 (confidential), 40 (redacted), “PO Resp.”) and Petitioner filed a Reply (Papers 69 (redacted), 70 (confidential), “Reply”). Patent Owner then filed a Sur-reply. Papers 85 (confidential), 86 (redacted) (“PO Sur-Reply”). Patent Owner also filed a Contingent Motion to Amend. Paper 35 (original),

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<sup>1</sup> Patent Owner represents that “Teleflex Innovations S.A.R.L. merged into Teleflex Medical Devices S.A.R.L,” which subsequently “transferred ownership of [the ’776 patent] to Teleflex Life Sciences Limited.” Paper 7, 2

Paper 81 (corrected) (“Motion”).<sup>2</sup> The Motion requests that if any of claims 27, 33, 37, 42, 43, 45, 47, or 56 is found unpatentable, they should be replaced by proposed substitute claims 58–65. Motion 1. Petitioner filed Oppositions to the original and corrected Motions to Amend. Papers 72, 84 (“Opp.”). Patent Owner filed a Reply in Support of the Corrected Motion to Amend (Paper 88), and Petitioner filed a Sur-Reply (Paper 94).

An oral hearing was held on March 8, 2021, and a transcript of the hearing is included in the record. Papers 102 (redacted version), 103 (confidential version).

*A. Real Parties-in-Interest*

Petitioner identifies Medtronic, Inc. and Medtronic Vascular, Inc. as the real parties-in-interest, and notes that “Medtronic plc is the ultimate parent of both entities.” Pet. 5. Patent Owner identifies the real parties-in-interest for itself as Teleflex Medical Devices S.A.R.L., Vascular Solutions LLC, Arrow International, Inc., Teleflex LLC, and Teleflex Life Sciences Limited and notes that “Teleflex Incorporated is the ultimate parent of the entities listed above.” Paper 4, 2; Paper 7, 2.

*B. Related Matters*

Patent Owner is asserting the ’776 patent against Petitioner in the United States District Court for the District of Minnesota in *Vascular Solutions LLC, et al. v. Medtronic, Inc., et al.* No. 19-cv-01760. Pet. 5–6;

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<sup>2</sup> Pursuant to a stipulation by the parties, we authorized the filing of the corrected Motion to Amend in order to clarify certain antecedent bases and thereby simplify the issues.

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Paper 4, 2. The '776 patent is also the subject of a declaratory judgement action also in the United States District Court for the District of Minnesota filed by another party, *QXMedical, LLC v. Vascular Solutions, LLC*, No. 17-cv-01969, which was stayed pending our Institution Decision. Paper 17; Paper 18. Petitioner further notes that the '776 patent is a reissue of U.S. Patent No. 8,292,850 (“’850 patent”, which was the subject of a prior district court action and *inter partes* reviews in IPR2014-00762 and IPR2014-00763 filed by a different petitioner. Pet. 6.

Petitioner has also filed another petition challenging the '776 patent based on different prior art, and we instituted *inter partes* review based on that petition on June 8, 2020. IPR2020-00135, Paper 22. In addition, Petitioner filed concurrent petitions challenging other related patents: U.S. Patent No. 8,048,032 (IPR2020-00126; IPR2020-00127), RE45,380 (IPR2020-00128; IPR2020-00129; IPR2020-00130; IPR2020-00131), RE 45,760 (IPR2020-00132; IPR2020-00133; IPR2020-00134), and RE47,379 (IPR2020-00137; IPR2020-00138).

### *C. The '776 Patent*

The '776 patent, entitled “Coaxial Guide Catheter for Interventional Cardiology Procedures,” issued on October 27, 2015, as a re-issue of the '850 patent, which claims priority to a non-provisional application filed May 3, 2006. Ex. 1401, codes (45), (60), (64).<sup>3</sup>

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<sup>3</sup> We consider May 3, 2006 to be the effective filing date for purposes of our analysis here, but note that we determined in IPR2020-00135 that Patent Owner demonstrated an earlier conception and reduction to practice in order to antedate the prior art reference at issue in that proceeding. The priority date for the '776 patent is not contested in this proceeding.

The '776 patent relates generally to a coaxial guide catheter for use with interventional cardiology devices that are insertable into a branch artery that branches off from a main artery. Ex. 1401, Abstract. According to the '776 patent, interventional cardiology procedures often include inserting guidewires or other instruments through catheters into coronary arteries that branch off from the aorta. *Id.* at 1:45–47. In coronary artery disease, the coronary arteries may be narrowed or occluded by atherosclerotic plaques or other lesions in a phenomenon known as stenosis. *Id.* at 1:50–55. In treating the stenosis, a guide catheter is inserted through the aorta and into the ostium of the coronary artery, sometimes with the aid of a guidewire, and is passed beyond the occlusion or stenosis. *Id.* at 1:59–65. However, crossing tough lesions can create enough backward force to dislodge the guide catheter from the ostium of the artery being treated, which can make it difficult or impossible for the interventional cardiologist to treat certain forms of coronary artery disease. *Id.* at 1:65–67.

To solve this problem, the '776 patent describes a coaxial guide catheter that is deliverable through standard guidewires by utilizing a guidewire rail segment to permit delivery without blocking use of the guide catheter. *Id.* at 3:15–18. The '776 patent teaches that the coaxial guide catheter preferably includes a tapered inner catheter that runs over a standard 0.014 inch coronary guidewire to allow atraumatic placement within the coronary artery, and this feature allows removal of the tapered inner catheter after the coaxial guide catheter is in place. *Id.* at 3:24–27. Figures 1 and 2, reproduced below, show a coaxial guide catheter and a tapered inner catheter in accordance with the invention described in the '776 patent:

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