### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent of: Shelton, IV

U.S. Pat. No.: 8,479,969 Attorney Docket No.: 11030-0049IP9

Issue Date: July 9, 2013 Appl. Serial No.: 13/369,609 Filing Date: Feb. 9, 2012

Title: DRIVE INTERFACE FOR OPERABLY COUPLING A

MANIPULATABLE SURGICAL TOOL TO A ROBOT

### **Mail Stop Patent Board**

Patent Trial and Appeal Board U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450

### PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 8,479,969 PURSUANT TO 35 U.S.C. §§ 311–319, 37 C.F.R. § 42



### TABLE OF CONTENTS

INTRODUCTION	3
MANDATORY NOTICES UNDER 37 C.F.R § 42.8	7
A. Real Parties-In-Interest Under 37 C.F.R. § 42.8(b)(1)	7 7
PAYMENT OF FEES – 37 C.F.R. § 42.103	8
REQUIREMENTS FOR IPR UNDER 37 C.F.R. § 42.104	8
A. Grounds for Standing Under 37 C.F.R. § 42.104(a)	
SUMMARY OF THE '969 PATENT	9
SUMMARY OF THE PRIOR ART	11
A. Prisco B. Cooper C. Wallace D. Tierney	22 24
PROSECUTION HISTORY	27
PRIORITY DATE	28
CLAIM CONSTRUCTION UNDER 37 C.F.R. § 42.104(B)(3)	28
THERE IS A REASONABLE LIKELIHOOD THAT AT LEAST ONE CLAIM OF THE '969 PATENT IS UNPATENTABLE	29
A. Ground 1: Claims 23-26 are Anticipated under § 102(e) by Prisco  B. Ground 2: Claims 23-26 Would Have Been Obvious Under § 103  over Prisco in View of Cooper	
C. Ground 3: Claims 23-26 Would Have Been Obvious over Prisco in View of Cooper and Tierney	
over Prisco in View of Cooper and Wallace, and, If Necessary,	79
CONCLUSION	87
	MANDATORY NOTICES UNDER 37 C.F.R § 42.8



IPR of U.S. Pat. No.: 8,479,969 Attorney Docket No. 11030-0049IP9

### **EXHIBITS**

IS1001	U.S. Pat. No. 8,479,969 to Shelton, IV ("the '969 Patent")
IS1002	Prosecution History of the '969 Patent (Serial No. 13/369,609)
IS1003	Declaration of Dr. Bryan Knodel (Prisco as Primary Reference)
IS1004	Reserved
IS1005	Reserved
IS1006	U.S. Patent No. 8,545,515 to Prisco et al. ("Prisco")
IS1007	U.S. Patent No. 6,817,974 to Cooper et al. ("Cooper")
IS1008	U.S. Patent No. 6,699,235 to Wallace et al. ("Wallace")
IS1009	U.S. Patent No. 6,331,181 to Tierney et al. ("Tierney")
IS1010	Reserved
IS1011	Reserved
IS1012	Reserved
IS1013	Reserved
IS1014	U.S. Patent App. No. 2008/0167672 to Giordano et al.
	("Giordano")



IPR of U.S. Pat. No.: 8,479,969 Attorney Docket No. 11030-0049IP9

### I. INTRODUCTION

Intuitive Surgical, Inc. ("Petitioner") petitions for *Inter Partes* Review ("IPR") of claims 23-26 of U.S. Patent 8,479,969 ("the '969 Patent"). The '969 Patent is entitled "Drive Interface for Operably Coupling a Manipulatable Surgical Tool to a Robot." Drive interfaces for surgical robots were well-known in the prior art. In fact, the '969 Patent incorporates by reference, and largely copies, the prior art drive interfaces designed by Petitioner and disclosed in its prior art patents:

[T]he tool arrangement described above may be well-suited for use with those *robotic systems manufactured by Intuitive Surgical, Inc.* of Sunnyvale, Calif., U.S.A., many of which may be described in detail in various patents incorporated herein by reference. The unique and novel aspects of various embodiments of the present invention serve to *utilize the rotary output motions supplied by the robotic system* to generate specific control motions....

IS1001 at 31:52-59.<sup>1</sup> Not surprisingly, the robotic surgical system described in the '969 Patent is uncannily similar to the prior art robotic surgical system described in Petitioner's patents, including, for example, Petitioner's prior art "Tierney" patent (U.S. Patent No. 6,331,181). IS1002 at 280-284; IS1009 ("Tierney"):

<sup>&</sup>lt;sup>1</sup> Emphasis added in quotations throughout.



IPR of U.S. Pat. No.: 8,479,969 Attorney Docket No. 11030-0049IP9

# '969 Patent **Tierney Prior Art Robotic Controller** FIG. 23 FIG. 8B. Robotic Manipulator FIG. 3A. FIG. 25

## DOCKET

### Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

### **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

### **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

#### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

#### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

