

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent of: Shelton, IV  
U.S. Pat. No.: 8,479,969 Attorney Docket No.: 11030-0049IP5  
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

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**DECLARATION OF DR. BRYAN KNODEL IN SUPPORT OF PETITION  
FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,479,969  
(ANDERSON AS PRIMARY REFERENCE)**

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I, Bryan Knodel, declare as follows:

1. I have been engaged as an expert by Fish & Richardson P.C. on behalf of Intuitive Surgical, Inc. (“Petitioner”) for the above-captioned *inter partes* review.

I understand that this proceeding involves United States Patent No. 8,479,969 entitled “Drive Interface for Operably Coupling a Manipulatable Surgical Tool to a Robot” by Frederick E. Shelton IV, filed February 9, 2012, and issued July 9, 2013 (the “’969 Patent” or “’969”). I understand that the ’969 Patent is currently assigned to Ethicon LLC.

2. I have reviewed and am familiar with the specification of the ’969 Patent. I will cite to the specification using the following format (’969 Patent, 1:1-10). This example citation points to the ’969 Patent specification at column 1, lines 1-10.

3. I have reviewed and am familiar with the file history of the ’969 Patent (“FH”). I understand that the file history is being provided as an exhibit in a single PDF document. I will cite to the PDF pages when I cite to the file history.

4. I have also reviewed the Petition for *Inter Partes* Review of the ’969 Patent and am familiar with the following prior art used in the Petition:

- 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 U.S. Patent No. 6,783,524 to Anderson *et al.* (“Anderson”)
- IS1011 U.S. Patent No. 7,510,107 to Timm *et al.* (“Timm”)
- IS1012 U.S. Patent No. 5,465,895 to Knodel *et al.* (“Knodel”)
- IS1013 U.S. Patent No. 5,954,259 to Viola *et al.* (“Viola”)
- I also considered U.S. Published Application No. 2008/0167672 (IS1014), which is the grandparent application to the ’969 Patent (filed as U.S. Application No. 11/651,807 (“’807 Application”)).

I have been asked to provide my technical review, analysis, insights and opinions regarding the ’969 Patent and the above-noted references.

## I. QUALIFICATIONS

5. My resume is being provided with this Declaration. As indicated there, I have eight publications and I am a named inventor on over 130 patents for medical devices. I have extensive experience with surgical instruments, and surgical staplers in particular, which is the subject matter of the ’969 Patent.

6. Specifically, I have been involved in the research and development, design, and manufacture of medical devices including surgical cutting and stapling devices since 1992, and am qualified to present the analysis provided in this declaration.

7. I was employed in the Research and Development department as an engineer of Ethicon Endo-Surgery. I was the lead design engineer for endoscopic linear staplers/cutters. In this lead design engineer role, it was my responsibility to understand every aspect of these devices.

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