# UNITED STATES PATENT AND TRADEMARK OFFICE \_\_\_\_\_

#### BEFORE THE PATENT TRIAL AND APPEAL BOARD

US ENDODONTICS, LLC, Petitioner

V.

GOLD STANDARD INSTRUMENTS, LLC Patent Owner

Case: PGR2015-00019 U.S. Patent No. 8,876,991

DECLARATION OF A. JON GOLDBERG

PGR2015-00019 – Ex. 1002 US Endodontics, LLC, Petitioner



### **EXHIBIT LIST**

| Exhibit # | Exhibit Description   |
|-----------|---|
| 1001      | U.S. Patent No. 8,876,991   |
| 1002      | Declaration of A. Jon Goldberg  |
| 1003      | Prosecution history of U.S. Patent No. 8,876,991  |
| 1004      | Fujio Miura et al., The super-elastic property of the Japanese NiTi alloy wire for use in orthodontics, 90 Am. J. Orthodontics & Dentofacial Orthopedics 1 (1986) |
| 1005      | Satish B. Alapati, "An investigation of phase transformation mechanisms for nickel-titanium rotary endodontic instruments," PhD thesis, 2006                      |
| 1006      | Alan R. Pelton et al., <i>Optimisation of Processing and Properties of Medical-Grade Nitinol Wire</i> , MINIMALLY INVASIVE THERAPIES & ALLIED TECHS. 107 (2000)   |
| 1007      | U.S. Patent No. 5,697,906 to Ariola et al.  |
| 1008      | Prosecution history of U.S. Patent No. 8,727,773  |
| 1009      | Prosecution history of U.S. Patent No. 8,083,873  |
| 1010      | Prosecution history of U.S. Patent No. 8,062,033  |
| 1011      | U.S. Patent No. 8,727,773   |
| 1012      | Prosecution history of European Patent Application No. 05756629.1   |
| 1013      | Excerpts of Transcript of Motion Hearing, Nov. 25, 2014, <i>Dentsply International, Inc. v. US Endodontics, LLC</i> , Docket No. CV-2-14-196 (E.D. Tenn.)         |
| 1014      | International Standard ISO 3630-1, 2 <sup>nd</sup> ed. (2008)   |
| 1015      | Declaration of Walter Zanes   |



| Exhibit # | Exhibit Description  |
|-----------|--|
| 1016      | Edgar Schäfer et al., Bending Properties of Rotary Nickel-Titanium Instruments, 96 ORAL SURGERY ORAL MEDICINE ORAL PATHOLOGY 757 (2003)                          |
| 1017      | Luca Testarelli et al., Bending Properties of a New Nickel-Titanium Alloy with a Lower Percent by Weight of Nickel, 37 J. ENDODONTICS 1293 (2011)                |
| 1018      | Declaration of Adam Kozak  |
| 1019      | Excerpts of Expert Report of Robert Sinclair, Ph.D., <i>Dentsply International, Inc. v. US Endodontics, LLC</i> , Docket No. CV-2-14-196 (E.D. Tenn.)            |
| 1020      | Alan R. Pelton et al., <i>The Physical Metallurgy of Nitinol for Medical Applications</i> , 55 J. METALS 33-37 (May 2003)  |
| 1021      | S. Miyazaki et al., Characteristics of Deformation and Transformation Pseudoelasticity in Ti-Ti Alloys, 43 J. Physique Colloques C4-255 (1982)                   |
| 1022      | U.S. Patent App. Pub. No. 2008/0032260 A1 to Luebke  |
| 1023      | International Standard ISO 3630-1, 1st ed. (1992)  |
| 1024      | U.S. Patent No. 5,628,674 to Heath et al.  |
| 1025      | U.S. Patent Application Publication No. US 2006/0115786 A1 to Matsutani et al.   |
| 1026      | Japanese Unexamined Patent Application Publication Number 2006-149675 to Matsutani et al.  |
| 1027      | English translation of Japanese Unexamined Patent Application Publication Number 2006-149675 to Matsutani et al.   |
| 1028      | Transmittal from prosecution history of U.S. Patent Application Serial No. 11/287,771, enclosing Japanese Patent Application No. 2004-344717 to Matsutani et al. |



| Exhibit # | Exhibit Description  |
|-----------|--|
| 1029      | Transmittal from prosecution history of U.S. Patent Application Serial No. 11/287,771, with English translation of enclosed Japanese Patent Application No. 2004-344717 to Matsutani et al.                                    |
| 1030      | Grégoire Kuhn & Laurence Jordan, Fatigue and Mechanical Properties of Nickel-Titanium Endodontic Instruments, 28 J. ENDODONTICS 716 (2002)   |
| 1031      | U.S. Patent App. Pub. No. 2002/0137008 A1, McSpadden et al.  |
| 1032      | Teresa Roberta Tripi et al., "Fabrication of Hard Coatings on NiTi Instruments," 29 J. ENDODONTICS 132 (2003)  |
| 1033      | Harmeet Walia et al., An Initial Investigation of the Bending and Torsional Properties of Nitinol Root Canal Files, 14 J. ENDODONTICS 346 (1988)   |
| 1034      | M. G. A. Bahia, Fatigue Behaviour of Nickel–Titanium Superelastic Wires and Endodontic Instruments, FATIGUE & FRACTURE OF ENG'G MATS. & STRUCTURES 29, 518–523 (2006)  |
| 1035      | Printout of the webpage: http://www.tulsadentalspecialties.com/default/endodontics/RotaryFile s/ProFileISO.aspx, accessed on July 22, 2015, and Safety Data Sheet for Nickel Titanium Wire: NITINOL 55, linked on that webpage |
| 1036      | Masao J. Drexel et al., <i>The Effects of Cold Work and Heat Treatment on the Properties of Nitinol Wire</i> , Proc. Int'l Conference on Shape Memory & Superelastic Techs., SMST-2006, pp. 447-454 (2008)                     |
| 1037      | Prosecution history of U.S. Patent No. 8,562,341   |
| 1038      | W.A. Brantley et al., Differential Scanning Calorimetric Studies of Nickel Titanium Rotary Endodontic Instruments, 28 J. ENDODONTICS 567 (2002)  |

Prosecution history exhibits are cited using page numbers added by Petitioner. Other exhibits are cited by their original page or paragraph numbers.



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