

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DYNACRAFT BSC, INC.,
Petitioner,

v.

MATTEL, INC.,
Patent Owner.

Case IPR2018-00040
Patent 7,487,850

DECLARATION OF DR. MICHAEL D. SIDMAN

Dynacraft BSC, Inc.

Exhibit 1005

Dynacraft BSC, Inc. v. Mattel, Inc.

IPR2018-00040

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The undersigned, Michael D. Sidman, Ph.D., resident at 6120 Wilson Road Colorado Springs, Colorado, declares the following:

I. Scope of Work and Summary of Opinions

1. I am an expert in the interdisciplinary field of “mechatronics” which encompasses mechanical, electronic, software, signal processing, and control systems technologies.

2. I have been asked to provide my opinion concerning the patentability of claims 1, 2, 4, 6, 7, and 10-14 in United States Patent No. 7,487,850 (“the ’850 patent”) (“the challenged claims”) and whether they would have been obvious to one of ordinary skill in the art as of April 24, 2006. As explained below, I have concluded that each of the challenged claims would have been obvious in light of the combination of U.S. Patent Publication No. 2005/0056474 (“Damon”) and U.S. Patent Publication No. 2005/0087033 (“Chi”).

II. Qualifications

3. My current curriculum vitae is being filed contemporaneously with this Declaration as Exhibit (“Ex.”) 1006.

4. I completed my undergraduate studies at Northeastern University, where I received a Bachelor’s and a Master’s degree in Electrical Engineering concurrently in 1975.

5. I received my Ph.D. from Stanford University in 1986. My work at Stanford as a Digital Equipment Corporation Fellow and University Resident included developing an adaptive digital control system for a lightly-damped mechanism in the Stanford Aero/Astro Robotics Laboratory.

6. I am the named inventor on eighteen U.S. patents relating to technologies including: control of head positioning actuators, active damping of mechanical resonances, servo correction for shock and vibration, runout correction, solid-state relay design, digital control systems, analog and digital electronics, sensing and position control, adaptive control, etc. A complete list of those patents is attached to this Declaration in Appendix A.

7. I have more than 40 years of experience in product design and applied research in mechatronics in a wide variety of commercial and other products and systems. Mechatronic products and systems often include an electric motor or actuator, a sensor, an embedded microcontroller, and power and signal processing electronics. I have authored numerous publications relating to these fields, and a list of selected publications is also attached to this Declaration in Appendix B.

8. I am a member of professional organizations dedicated to mechatronic and control systems technology. I am a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE) where I am a member of the Control Systems Society. I am also a member of the American Society of Mechanical

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