

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

TABLE OF CONTENTS

	Page No.
TABLE OF CONTENTS.....	i
I. Scope of Work and Summary of Opinions.....	1
II. Qualifications.....	1
III. Compensation	7
IV. Materials on Which My Opinion Is Based	7
V. Level of Skill in the Art.....	7
VI. Applicable Legal Standards.....	9
VII. Claim Construction.....	13
VIII. The '850 Patent.....	15
A. Subject Matter of the '850 Patent (Ex. 1001).....	15
B. File History of the '850 Patent (Ex. 1002).....	19
IX. The Prior Art.....	21
A. Damon (Ex. 1003)	22
B. Chi (Ex. 1004)	23
X. Obviousness Opinion.....	26
1. Independent Claim 1	28
2. Dependent Claim 2.....	61
3. Dependent Claim 4.....	63
4. Dependent Claim 6.....	66
5. Dependent Claim 7	68
6. Dependent Claim 10.....	73
7. Dependent Claim 11	77
8. Dependent Claim 12.....	82
9. Dependent Claim 13	83
10. Dependent Claim 14.....	86
XI. Summary of Opinions.....	88
Appendix A	A-1

TABLE OF CONTENTS

	Page No.
Appendix B	B-1
Appendix C	C-1

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

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.