

Curriculum Vitale-Edward Earl Elson

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EDUCATION:

1962 BS Mechanical Engineering, (Deans List) Drexel University Philadelphia, PA
1968 MS Mechanical Engineering, (Bio-Medical Minor) University of Southern California, Los Angeles, CA
1978 MA Management Peter Drucker School of Management, Claremont Graduate School, Claremont, CA
1997 Graphics Design, University of California, Irvine, CA
2002 SolidWorks 3D Design, Orange Coast College, Costa Mesa, CA

ENGINEERING EXPERIENCE SUMMARY:

I am considered to be a creative and effective individual who applies a pragmatic approach to the conception, design, development and commercialization of new products. I am the inventor or co-inventor of 28 U.S. Patents with four additional patent applications pending.

My 40 years of engineering experience includes research and development, design, manufacturing and management activities in the medical device, packaging, toy, consumer product and aerospace industries. Responsibilities have ranged from original product conception through high volume manufacturing, including plastic extrusion, injection molding, assembly, decorating and packaging. I have served on several medical standards committees and interacted with industry and governmental regulatory agencies. I have intimate knowledge and experience with FDA requirements and Good Manufacturing Procedures (GMP's), producing prototype models, performing computer aided plastic part design (SolidWorks) and failure and hazard analysis.

EXPERT WITNESS EXPERIENCE SUMMARY:

During the past 11 years I have served as an Expert Witness working with attorneys and insurance companies in medical product, patent, packaging and product liability legal proceedings. This experience has resulted in a greater appreciation of the critical importance in developing responsible, fail-safe designs early in and throughout the product development cycle to assure the safety and well being of care givers, patients and consumers. In March, 2006 I was invited to be the "Expert for the Plaintiff" at the annual Mock Trial sponsored by the California Chapter of the American Board of Trial Advocates.

Below is a representative listing of "Areas of Expertise" for which I have been retained.

• Product design, performance and labeling issues related to medical devices, hydroclators, moist heat pads, thermal cooling pads and cooling apparatus, laser and thermal hair removal devices, dermal abrasion equipment, luggage and costume jewelry • patient transport gurneys • surgical staplers • surgical fluid warmers • external and implanted drug delivery devices, test and evaluation of two models of battery powered external insulin pumps • valuation of lost toy prototypes, valuation of toy packaging, smoke damage assessment of 25 different types of electronic medical devices • injury potential of chiropractic devices, dental burr and drill failures • defective counter stools, failure of pilates exercise devices • patent infringement issues relative to butane lighters, safety syringes and needles, disposable injection molded valves and medical temperature sensing devices • trade secrets relative to manufacturing processes • failure of injection molded plastic components • drug container packaging integrity • defibrillator mechanical design issues • surgical laser power cord design reliability • gel ball patent infringement • gel cushioning patent infringement • shipping carton package integrity • engineering contract norms.

Below is a summary of industry positions held and areas of experience.

1980 to Present IDCO (Engineering Consulting and Design Firm) - President

Clients have included the following:

Gary Frugard & Assoc.	Thermometrics, Inc.	ENSOL, Inc.	Dr. John Stevenson
AccuLase, Inc.	International Diversified Prod.	Optical Radiation Corp. (Lens Pkg)	Luther Medical Partners
TherOx, Inc.	Abbott Laboratories	LifePoint, Inc.	Sutura, Inc.
Luther Medical Products	Baxter Healthcare	Venetec, Inc.	Merlin Technologies
UROHEALTH Inc.	Servall Industries	Intertherapy, Inc.	X-Technologies, Inc.

1991 to 1995 UROHEALTH - Vice President of Research & Development

Joined at company start-up and managed research and development activities and created line of patented products including incontinence pads, disposable diapers, micro-filtration fluid collection systems, programmed centrifuge, urinalysis systems and ambulatory IV drug infusion devices. Designed and developed company's products, developed documentation, methods and systems to bring products into production.

1979 to 1989 Baxter-Edwards Division - Director of Catheter Development

Managed 30 engineers, scientists and technicians engaged in the design and development of sterile disposable medical devices, including pressure monitoring, cardiac pacing, venous catheters and catheter introducers. I managed the polymer development laboratory and the labeling and sterile packaging groups which serviced all of the division's disposable product lines. Responsibilities included liaison with domestic and Puerto Rico facilities to transfer designs to production. New products introduced during tenure accounted for over \$700,000,000 in sales.

1976 to 1979 C. R. Bard-Inspiron Division - New Products Engineering Manager

Managed research and development activities and developed patented line of arterial and venous catheters, respiratory care devices including, humidifiers, nebulizers, heaters and spirometers. I developed production methods and procedures, product labeling, instructions and packaging and managed the prototype machine shop.

1969 to 1976 Automatic Helium Balloon Systems - Vice President of Engineering

Key player in start-up company where I invented and developed a variety of helium balloon valves and inflation systems still being sold and was responsible for developing manufacturing methods and assembly equipment to produce company's products.

1962 to 1965 Autonetics Div. North American Rockwell - Design Engineer

1965 to 1969

Responsibilities included conceptual design, testing and development of equipment protocols for space, hospital and medical systems. I designed mobile pharmacy equipment and a chemical agent detector system for the US Army. I helped to develop methods and equipment requirements for extricating vehicular accident victims at crash scenes.

MILITARY SERVICE 1963-1965: Engineering Company Commander, 1st Lieutenant, U.S. Army Corps of Engineers.

ORGANIZATIONS:

Member, Society of Plastic Engineers

Member, Institute of Packaging Professionals

Member and former Board Member, Forensic Expert Witness Association (Orange County, CA)

Former member of AAMI Standards Sub-Committee: Human Factors for Medical Devices

Former member of AAMI Standards Sub-Committee: IV Catheters

Former member of AAMI Standards Sub-Committee: Humidifiers & Nebulizers.

U. S. PATENTS EARNED TO DATE:

1. 223,475 Balloon Inflator, Apr. 18, 1972
2. 3,724,516 Gas Dispenser And Inflation Gauge, Apr. 3, 1973
3. 3,728,227 Microorganism Culture Apparatus, Apr. 17, 1973
4. 3,768,501 Inflatable Article Valve, Oct. 30, 1973
5. 3,871,422 Dual Balloon Valve, Mar. 18, 1975
6. 4,170,228 Variable Flow Incentive Spirometer, Oct. 9, 1979
7. 4,202,334 Cap And Stopper, May 13, 1980
8. 4,241,739 Volume Calculator For Incentive Spirometer, Dec. 30, 1980
9. 4,632,125 Right Heart Ejection Fraction And Cardiac Output Catheter, Dec. 30, 1986
10. 4,643,389 Tubing Occlusion Clip, Feb. 17, 1987
11. 4,651,751 Guiding Catheter And Method Of Use, Mar. 24, 1987
12. 4,745,928 Right Heart Ejection Fraction And Cardiac Output Catheter, May 24, 1988
13. 4,759,378 Flexible Tip Cardiac Pacing Catheter, July. 26, 1988
14. 5,029,585 Conformable Intralumen Electrodes, July 9, 1991
15. 5,346,476 Fluid Delivery System, Sept. 13, 1994
16. 5,242,370 Centrifuge, Sept. 7, 1993
17. 5,395,590 Valved Container Lid, March 7, 1995
18. 5,409,667 Tube Rack, April 25, 1995
19. 5,466,229 Fluid Collection System, Nov. 14, 1995
20. 5,593,477 Gas and Odor Absorber, Jan. 14, 1997
21. 5,814,018 Needle Point Guard Safety Cap Assembly, Sept. 29, 1998
22. 5,971,957 Through-The-Needle Cannula And Split Needle Placement Apparatus And method Of Use, Oct. 26, 1999
23. 5,593,460 Bag Closer, Nov. 16, 1999
24. 6,015,397 Needle Point Guard Safety Cap Assembly, Jan. 18, 2000
25. 6,088,889 Clamp Operable As A Hemostasis Valve, July 18, 2000
26. 6,248,096 Male Urinary Incontinence Device Having Expandable Flutes, June 19, 2001
27. 6,248,077 System For Sensing A Characteristic Of Fluid Flowing To Or From A Body, June 19, 2001
28. 6,336,902 System For Sensing A Characteristic Of Fluid Flowing To Or From A Body, Jan 8, 2002
29. Allowed Male Urinary Incontinence Sheath (Filed Nov. 10, 2003) Awaiting Publication
30. Allowed Improved Male Urinary Incontinence Sheath (Filed June 15, 2004) Awaiting Publication