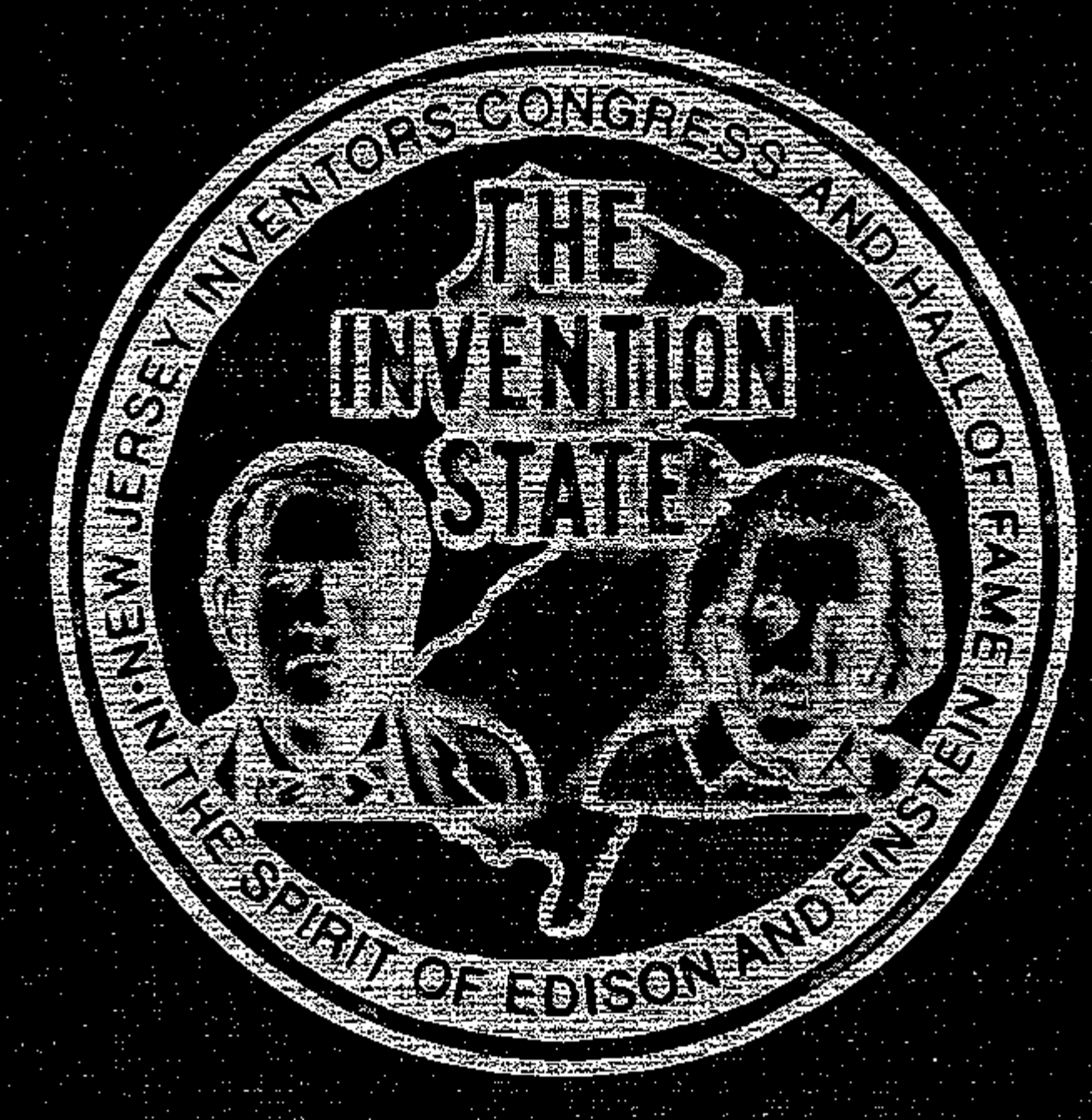
NEW JERSEY INVENTORS CONGRESS AND HALL OF FAME INC.
THE INVENTION STATE
IN THE SPIRIT OF EDISON AND EINSTEIN

New Jersey Inventors Congress and Hall of Fame

Inaugural Hall of Fame Induction Banquet

Friday, February 10, 1989

William Hazell Center
New Jersey Institute of Technology
Newark, New Jersey

Greetings
Hugh Fenwick, Associate Director for Venture Development,
New Jersey Commission on Science and Technology

Grand Entrance of the Inaugural Members
of the New Jersey Inventors Hall of Fame and the Inventors of the Year

Welcome
Saul K. Fenster, President,
New Jersey Institute of Technology

About the New Jersey Inventors Congress and Hall of Fame
Hugh Fenwick

Invocation
Rev. Robert Barrowclough, Pastor
North Reformed Church, Newark

Dinner

Keynote Speaker
Carlyle G. Caldwell, Chairman, Executive Committee,
National Starch and Chemical Corporation

Presentation of Awards
James H. Blow, Jr., National Society of Inventors
Philip Sperber, Chairman of the Board of Trustees,
New Jersey Inventors Congress
Hugh Fenwick

Closing Ceremony

John Stevens (Hoboken)
John Stevens invented the multitubular boiler, launched the first steamboat operated by twin screw propellers, developed the first sea-going steamship, initiated regular ferry service from New Jersey to New York, and designed and built the first American steam locomotive. In addition, he proposed a vehicular tunnel under the Hudson River, and the use of an elevated railroad in New York City.

Alfred Vail (Morristown)
Alfred Vail bought an interest in Samuel F. B. Morse's telegraph in 1837, and agreed to manufacture a complete set of telegraphic instruments and to finance American and foreign patents. He participated in the first public exhibition of the telegraph in New York City and before the Franklin Institute and United State Congress. He invented the horizontal lever motion for the telegraph, devised the dot-dash alphabet, and built the grooved roller and automatic telegraph lever.

Selman Waksman (Rutgers University, New Brunswick)
Selman Waksman investigated soil microbiology and the medicinal properties of soil organisms, leading to his discovery of streptomycin, actinomycin, neomycin and candicidin. The streptomycin discovery was especially important because the antibiotic attacks bacteria against which penicillin and previous antibiotics were ineffective. He received the 1952 Nobel Prize in Physiology and Medicine.

Roy Weber (AT&T Bell Laboratories, Holmdel)
Roy Weber developed the Intelligent Network Services Architecture for AT&T Bell Laboratories. Combined with other advanced technology, such as advanced network signaling and intelligent data bases throughout the worldwide telecommunications network, the Intelligent Network Services Architecture enabled the development of flexible customer services such as the 800 number, calling cards, and software defined network arrangements.

Vladimir Zworykin (RCA, Camden and Princeton)
Holder of more than 120 patents, Vladimir Zworykin developed the kinescope (Picture tube) and the iconoscope (television camera), which made television a reality. He worked on gunnery controls, electronically controlled missiles, and automobiles, and made important contributions to the development of the electron microscope. He was a member of the National Inventors Hall of Fame.

AT&T Bell Laboratories, Corporate Member
A premiere source of American inventions, Bell Laboratories has more than 22,000 patents to its credit, an average of more than one each day during the past 63 years. Perhaps the most significant single invention was the transistor, developed at Murray Hill in 1947. Other inventions include the superheterodyne broadcast radio receiver, the rhombic antenna for shortwave radiotelephony, the horn-reflector antenna used on microwave relay towers, microwave transmission technology, optical fiber transmission systems, molecular beam epitaxy, gas and semiconductor lasers, the UNIX operating system, C language for computer software systems, magnetic bubble technology, charge-coupled devices, the touch tone telephone, and cellular radiotelephony. Seven Bell Labs scientists have been awarded Nobel Prizes, and the company recently became the first corporate recipient of the President's National Medal of Technology.

Inventors of the Year

Frank Gutleber (United States Army and Department of Defense, Fort Monmouth)
Frank Gutleber developed multiplexer noise codes and adaptive multiple interference tracking and cancelling antennas, which have been used to improve military communication in jamming environments.

Sheldon Haresh and **Dusan Prevorsek** (Allied-Signal, Morristown)
Sheldon Haresh and Dusan Prevorsek developed the revolutionary high-strength SPECTRA polyethylene fiber. Applications for this fiber include cut-resistant gloves for surgeons, bullet-proof vests, helmets and armor for law enforcement agenices, sports equipment such as kayaks, canoes, bicycles, boats, sails and skis, and artificial tendons, ligaments and joint prostheses.

Leo Harwood (David Sarnoff Center, Princeton)
Leo Harwood has made key contributions to the integration of circuits for color television, especially in the application of automatic controls for television signal processing. He developed the automatic Chroma control, selective tint correction, automatic Chroma gain control and controllable gain signal amplified circuits.

Amos Joel, Jr. (AT&T Bell Laboratories, Whippany and Holmdel)
Amos Joel participated in the development of the electronic switching system, which revolutionized the handling of operator-assisted telephone calls and mobile telephony. He holds patents for the traffic services position system and cellular mobile telephone switching systems.

Glenn Johnson, Jr. (Aircast, Inc., Summit)
President of Aircast, Glenn Johnson developed a series of pneumatic braces that made the functional management of ankle sprains and lower limb fractures practical. In addition, he holds patents in the fields of pavement markers, reflective highway traffic signs, and pneumatic timing devices.

Raymond Ketchledge (AT&T Bell Laboratories, Whippany and Holmdel)
The late Raymond Ketchledge helped transform telecommunications by contributing to the development and implementation of electronic switching systems. He oversaw the equipment phase of the project to develop the first central office electronic switching system placed into service in Succasunna in 1965. He held more than 60 patents, with 31 directly related to electronic switching systems.

Walter Kosonocky (David Sarnoff Center, Princeton)
Now distinguished professor of electrical engineering and holder of the Foundation Chair in Optoelectronics and Solid State Circuits at New Jersey Institute of Technology, Walter Kosonocky has 54 patents representing advancements in semiconductor technology. He developed new concepts for photonic switching devices and for visible and infrared image sensors.

Mandayam Narasimhan (Allied-Signal, Morristown)
Mandayam Narasimhan holds patents for the process, apparatus and strip-product process of planar flow casting, a continuous casting process for the production of rapidly solidified amorphous and microcrystalling metal alloy sheets.

Miguel Ondetti and **David Cushman** (Squibb Corporation, Lawrenceville)
Miguel Ondetti and David Cushman are coinventors of captopril, the first of a new class of drugs known as angiotensin converting enzyme (ACE) inhibitors, used in the treatment of hypertension.

Harold Tillem (United Hospitals, Newark, and Physicians Clinical Laboratory, East Orange)
Harold Tillem developed the sickle cell test, which provided the first reliable and inexpensive procedure for screening patients for sickle-cell trait and sickle-cell anemia. His work has resulted in an enormous decrease in patient injury due to faulty diagnosis and has been an important contribution to the health of African-Americans.

Deger Tunc (Johnson & Johnson, New Brunswick)
Deger Tunc's development of totally body absorbable bone fixation devices eliminated the need for a second operation to remove the stainless steel fixation devices previously used. In addition, his devices simulate the properties of bone better than stainless steel, and prevent stress shielding, thus reducing the chances of refracture.

Judges

James H. Blow, Jr., National Society of Inventors, chairman
Henry Blekicki, executive director for economic development, New Jersey Institute of Technology
Richard Carney, American Chemical Society
Edward Cohen, executive director, New Jersey Commission on Science and Technology
Alan Frazer, former curator, New Jersey Historical Society
Michael Gasparik, Economic Development Corporation
Howard Green, research director, New Jersey Historical Commission
Jeff Howell, New Jersey Branch, American Society of Microbiology
Tom Jeffrey, microfilm editor, Edison Papers
Peter Lewis, New Jersey Society of Professional Engineers
George Pincus, dean, Newark College of Engineering at New Jersey Institute of Technology
Saul Schepartz, associate vice president for academic/industrial relations, UMDNJ/Robert Wood Johnson Medical School
Mark Singley, American Society of Agricultural Engineers
Alan Sinisgalli, director of the office of research and project administration, Princeton University
Raymond Speer, New Jersey Patent Law Association

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Project Director, Newark Business Development Center

Awards - **Walter Kosonocky**
Distinguished Professor of Electrical Engineering
and Foundation Chair in Optoelectronics
and Solid State Circuits,
New Jersey Institute of Technology

Finance - **Gelorma Persson**
Owner, Little Silver Repair Center

Banquet - **William Thornton**
President, Prime Color, Inc.

Inventors - **Jerome Lemelson**
Distinguished New Jersey Inventor

Program - **Mario Monaco**
Director of Patents, Merck & Company

House - **Charles Howarth**
Director, New Jersey Science and Technology Center

Industrial - **Seemon Pines**
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Public Relations - **John Crosbie**
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Contributors

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New Jersey Society of Professional Engineers

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New Jersey Inventors Congress

Saturday, February 11, 1989

New Jersey Institute of Technology
Newark, New Jersey

8:30 a.m. Registration and Coffee
Welcome
Saul K. Fenster, President, New Jersey Institute of Technology
Philip Sperber, President, Refac International, Ltd.

9:00 a.m. Protecting Your Idea
Moderator - **Robert Pearlman**, Group Counsel, Patents, Trademarks and Licensing, The BOC Group, Inc.
Speaker - **John Sinnott**, Patent and Trademarks Department, American Standard, Inc.

9:45 a.m. Starting a New Business by Commercializing an Invention
Speaker - **Hugh Fenwick**, Associate Director for Venture Development, New Jersey Commission on Science and Technology

10:30 a.m. Break

11:00 a.m. Available Resources
Moderator - **Philip Sperber**, President, Refac International, Ltd.
Speaker - **Bette Benedict**, Office of Small Business Assistance, New Jersey Division of Development for Small Business and Women and Minority Businesses

Noon Luncheon
Keynote Speaker - **R. E. Rosensweig**, Scientific Advisor, Exxon Research and Engineering Company

2 p.m. Group I Workshops
A - So You Want to Start a Company
Michael Zanakis, Founder of several companies relating to medically oriented technologies
B - Case Studies - Successes and Failures
William Thornton, Founder, Prime Color, Inc., and Co-founder, Prime Color Optics, Inc.
C - Special Issues Associated with University Life
Lawrence Schmerzler, Professor, New Jersey Institute of Technology

3 p.m. Group II Workshops
D - Protecting Your Invention
John Sinnott, Patents and Trademarks, American Standard, Inc.
Chuck Spillert, Associate Professor, University of Medicine and Dentistry of New Jersey/Robert Wood Johnson Medical School
E - Nurturing the Creative Process
Lawrence Schmerzler, Professor, New Jersey Institute of Technology
F - Inventor-Entrepreneur Roundtable
Calvin MacCracken, President, Calmac Manufacturing Corporation