

CHEMICAL HERITAGE FOUNDATION

SOL ROSENBLATT

Transcript of an Interview
Conducted by

Lee Sullivan Berry and Zack Biro

Rosenblatt home
Philadelphia, Pennsylvania

on

30 September 2015 and 22 October 2015

(With Subsequent Corrections and Additions)

CHEMICAL HERITAGE FOUNDATION
Center for Oral History
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SOL ROSENBLATT

1929 Born in Brooklyn, New York on 17 July

Education

1952 BS, City College of New York, Chemistry

Professional Experience

1952-1955 City of New York, Quality Control Paints & Materials Department of Water Supply

1955-1958 Paints and Plastic Division, Heyden-Newport Corporation
Paint and Polymer Chemist

1958-1962 Aerojet General
Solid Rocket Propellant Polymer Chemist, Polaris Program

1962-1964 Pratt & Whitney Aircraft
Materials Development Chemist, Advanced Power Systems and Life Support for Apollo Program

1964-1969 Chemplast Corporation
Director of Research, R&D/Teflon Materials

1969-1972 Amex Corporation
Technical Director/Teflon Recovery

1972-1974 Consultant
University of Oxford Biomedical Lab
Johnson & Johnson, Surgikos Division
Proctor & Gamble
Electro-Catheter Corporation

1974-1990 Merocel Corporation
Executive Vice President, Founder/Biomedical Products

1991-present Various Companies
Consultant/Inventor

Honors

1965-1969	John C. Vaaler Award
1965-1969	Award of Merit-Materials in Design Engineering
1965-1969	Putnam Food Award
1965-1969	Top Invention of the Year

ABSTRACT

Sol Rosenblatt was born and grew up in Brooklyn, New York, one of two children. His father was in the garment industry, his mother a housewife. The family was of Russian Jewish heritage. Rosenblatt attended public schools and was always interested in science. He had a small chemistry lab in his basement and liked especially to produce chemical effects involving colors. The Depression was hard on the family, but Rosenblatt's father insisted that Rosenblatt remain in school and go to college. Rosenblatt followed a cousin's example and attended City College of New York, which was well-respected and tuition-free. The curriculum was technical, with few electives used mainly for "resting."

Rosenblatt's first job, with the City of New York, involved assessing paint quality for city structures, before moving on quality control of cement for the new water tunnel. He developed a new water based enamel for the Ford Motor Company during his time as a paint chemist with Heyden Newport Corporation where technical management was Jewish. At that time, many of the chemical/drug companies were influenced by Germans and anti-Semitism was rampant. He met his wife, Vicky, during this time.

The Rosenblatts moved to Sacramento, California, where at first Rosenblatt helped designate his chemical lab facilities and began work on Polaris missile propellants; he developed an epoxy based propellant hoping to develop a safe and stable composition to contain hydrazine perchlorate oxidizer. Moving back to the East Coast, Rosenblatt next took a job with Pratt & Whitney Aircraft Company, which had a contract to build a space capsule for the Apollo program. Fuel cells were necessary for power, so Rosenblatt developed high temperature membranes separators. Using membrane technology he also investigated producing potable water from the fuel cell's production of water as part of the life support program for the astronauts. He also conceived of a method to achieve self-sealing of space radiators as a protection against potential meteorite collisions.

Upon leaving Pratt with his membrane experience Rosenblatt received equity in Chemplasts Corporation, where his membrane technology for chemical filtration, sensing instruments such as for gas detection, medical applications and cable wraps named Zitex was developed and marketed. Chemplast was sold to US Stoneware.

Next he started Polytech Company to refine Teflon waste, but a competitor burglarized his plant and stole his technical information. Continuing his interest in the medical field, Rosenblatt developed semipermeable membranes for heart-lung machines. Johnson & Johnson (J&J) brought in Brian Bellhouse from the University of Oxford to provide proper hemodynamic mechanisms for an oxygenator using Rosenblatt's membranes. Alas, J&J shelved the product for business reasons and Rosenblatt brought a suit for loss of royalties and they were found guilty of unethical business practices. He then worked for Electro-Catheter Corporation developing and marketing diagnostic catheters.

Finding that J&J had legal difficulties over lint from gauze left behind in surgery, Rosenblatt saw an opportunity and invented and developed a lint-free sponge based on Christopher Wilson's polyvinyl alcohol sponge technology as a substitute for surgical cotton and founded a company with an engineer at Edward Weck which was making cellulose products for microsurgery. They named the sponge Merocel. The company grew to over sixty employees in Mystic, Connecticut plus worldwide agents and Rosenblatt's wife was manager of international sales. After many products based on the sponge in eye, ear, nasal and neuro

surgery the company sold to Medtronic Corporation. Thirty years later, Merocel is still used for many medical applications.

Rosenblatt became aware of the need for infection control during his Apollo program experience and noting the rise of bacteria resistance to antibiotics he developed a wound healing dressing called Merodine. While at Merocel Corporation. It was comprised of an iodine complex with a polymer to control release iodine, a broad effective spectrum antimicrobial. The dressing was initially developed as an improvement for the soldier bandage tourniquet used in the battlefield as well as for chronic wounds. As superbugs continued to being a problem, he began further development of iodophors and is continuing inventing in this field.

Rosenblatt is proudest of his Merocel. He says he remains an optimist for the independent inventor though he has used more energy fighting to bring his inventions to market. Always trying to improve health care his mind never stops inventing.

INTERVIEWER

Lee Sullivan Berry earned a master's degree in medieval studies from the University of Notre Dame, and a bachelor of arts degree in religious studies from the University of Pennsylvania. As a staff member in the Center for Oral History, Berry conducts background research and oral history interviews, edits transcripts of completed interviews, and coordinates with interviewers and interviewees to finalize transcripts. She was the lead interviewer for the REACH Ambler project and has presented her work at meetings of the American Society for Environmental History and Oral History in the Mid-Atlantic Region.

Zack Biro joined CHF in March 2015. He is a program assistant in the Center for Applied History where he develops digital history and public history projects that connect CHF research with larger existing issues. Additionally, he assists the Center for Oral History with processing the oral history collection and helps organize Innovation Day each year. Zack is currently the director of communication for Oral History in the Mid-Atlantic Region. He received a history in religion studies and an MA in history from Lehigh University.

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<p>Attends City College of New York. Technical curriculum; few electives for "resting." Accepted at Chicago Medical School, but too expensive.</p>	
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<p>First job with City of New York. Invented water-based enamel for Ford Motor Company's engines. New job as paint chemist at Heyden Newport Corporation. Importance of safety requirements. Wedding photography for extra income. Meets wife, Vicky, at New Year's Eve party. Beauty of chemistry.</p>	
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<p>Moves to Sacramento, California, to work on Polaris missiles. Builds chemistry lab on gold mine land. Urethanes as rubber substitute. Solid rocket fuel; too humid even in California desert; so developed epoxy. Sent to Aerojet-General Corporation in Ohio to make volume, but Germans still insisted on urethanes. Highly-explosive hydrazine perchlorate (HP) salts versus ammonium perchlorate. Project cooperative, innovation welcome. Work intense but self-obsolcescing.</p>	
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<p>Whitney & Pratt Aircraft Company. Building capsule for space program. Invent fuel cell membranes to prevent overheating. Develops membrane to filter waste water from fuel cell into potable water. Silver palladium foil from Hamilton Watch Company. Confluence of interests in machines, chemistry, materials. Dislike of Germans imported to work in US defense industry. Develops self-sealing device to cure holes in fuel cell caused by meteorites. Thermite chemistry. Freedom to try things. Q clearance.</p>	
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<p>Porous membrane; beginning of new career. Working at home to make commercial. Teflon filter paper. Joined Chemplast Corporation. Company sold to US Stoneware. With a partner from business school started Polytech Company to refine Teflon waste. Technical information stolen by competitor. Develops semipermeable membranes for heart-lung machines. Johnson & Johnson (J&J) brought in Brian Bellhouse from Oxford to provide oxygenator for Rosenblatt's product. Rosenblatt brought suit.</p>	

Advises Proctor and Gamble on speeding up production. Devises angiogram catheters for Electro-Catheter Corporation.

Merocel

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Lawsuit against J&J for lint from gauze; invented lint-free sponge based on Christopher Wilson's polyvinyl alcohol sponge. Good for microsurgery; founded company with Edward Weck. Merocel. Eventually sixty as well as worldwide agents in Mystic Connecticut. Invents many products for surgical applications. Sells company to Medtronic. Hires Tierno to test nasal tampon for toxic shock syndrome. Development of Merodine. Used more energy fighting to market inventions than to produce; discouraging, but still an optimist. Patent law improved. Likes to make something useful from theory; mind never stops inventing.

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