Electrician's proof is in the patents

Power from wind and sun can lead the world to a more bountiful life, says Richard Lee (Dick) Snyder, nationally-known electrical engineer described by those who know him best as a genius in his field.

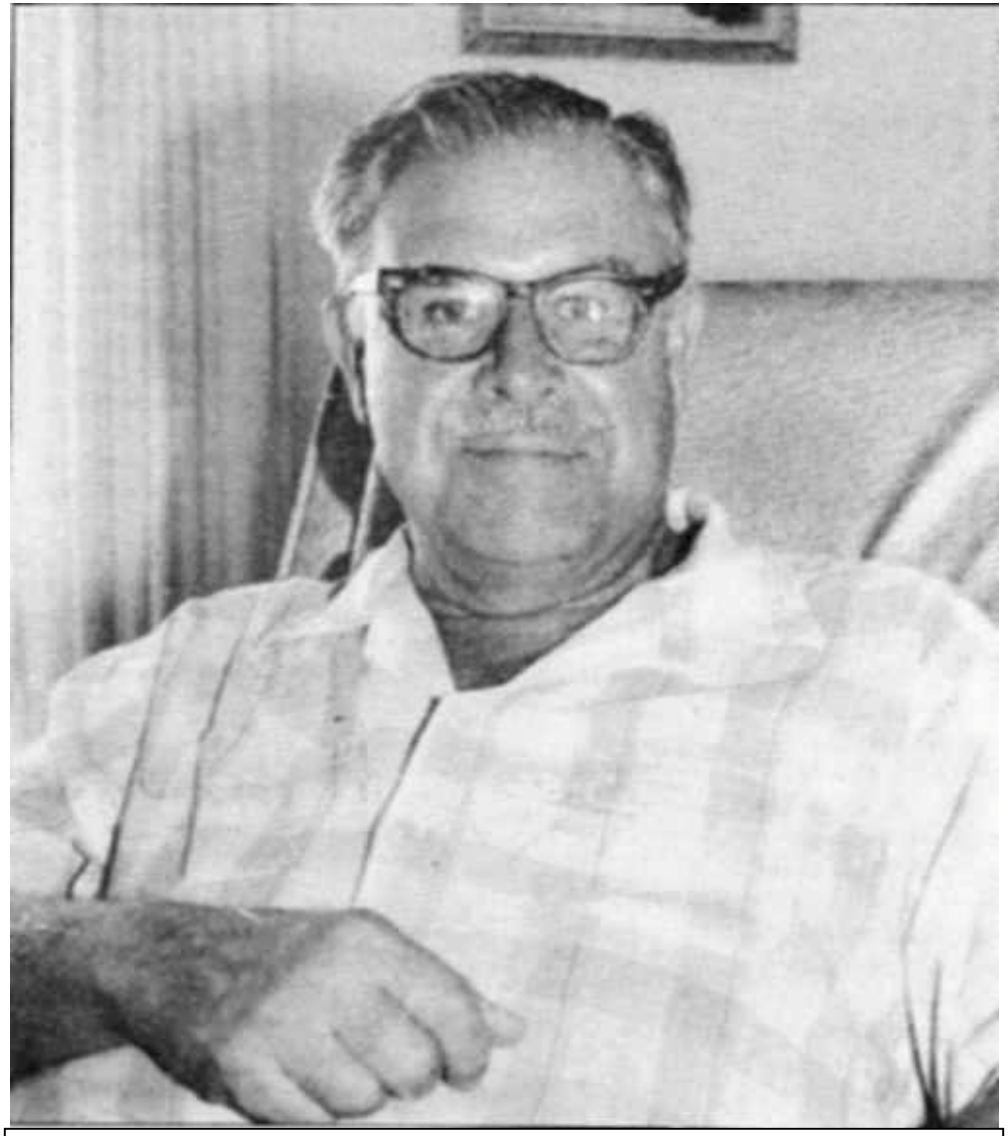
A New Smyrna Beach resident for 17 years. Snyder is a pioneering scientist whose name appears on about 50 electrical patents and others classified secret by U.S. Government. In an interview at his south beachside home, 4625 Van Kleeck, he said, "I would have erected a power windmill on my property long ago if I did not fear that adventurous youth combing the beach might climb the tower, endangering their lives."

He has a plan for a solar power system for his home, but has not had time to install it himself because of professional and personal considerations.

"Wind turbines and solar engines can generate electricity more economically than any other means," said Snyder in considering the continuing world oil crisis. "Solar energy can easily-be stored as heat in materials contained in insulated chambers so that power can be generated without interruption, during darkness and cloudy weather.

"Some of such electricity can be used to produce hydrogen for fueling vehicles. Hydrogen is an ideal motor fuel because the exhaust from engines consuming it is pure water.

"I wish I could induce industrialists to establish corporations large enough for the mass production of solar engines and wind turbines, at prices low enough to drive objectionable fuels, with their dangerous wastes and contamination, from the market. This would lead to the elimination of conservation programs and allow the world to proceed in normal, unfettered progress to a more bountiful life."



Richard Snyder . . .He's not an "egg head idealist."

Snyder said the lack of rainfall plaguing Florida and other parts of the world will become more severe, partly due to an oil film spreading over oceans.

"This film," he said, "reduces evaporation of moisture, cutting down the source of rain and has been developing for a number of years.

"Marine life has been steadily declining. Fifteen years ago one could usually count on catching an excellent fish for dinner in about an hour on the surf. Now, catching any kind within 10 hours is considered lucky.

"Seven years ago the use of fans to increase the flow of sea breezes through an open window had to be stopped at my home because of oil and grease collected on the fan blades and then thrown off, landing on carpets and furnishings. At the present time, unless windows are kept closed when there is an ocean wind, mirrors and other shiny surfaces in the air stream quickly collect an oil film. Windows have to be cleaned of oil mixed with ocean spray.

"While the adverse effects of the wind-borne oil on the comfort, and probably the health, of those living near the ocean, are distressing, the condition is much more serious. It threatens the livelihood of farm and industrial workers. If not checked, it is

sure to reduce the food supply for everyone."

The scientist said the problem is international and no one government can solve it. That's why he wants new and cheaper sources of energy, such as wind and sun power, developed quickly so that dangerous wastes can be driven away.

Snyder is no egg-head visionary. His credentials in the electrical and electronic field speak for themselves. His patents have contributed to the advancement of radio, television, aviation, medical examination, computers and other fields. (See separate story for a list of patents carrying his name.) A native of Pittsburgh, Pa., son of the late Richard L. Snyder, and Henrietta Brennan Snyder, the New Smyrna Beach scientist — a 69-year-old, six-foot, 200-pounder who has worn a mustache since his college days — said he knew what he wanted to do in life when he was five. Inspiration was his father, an electrical engineer and graduate of Lehigh, who worked first for, and knew, the great George Westinghouse. He remembers that his father and Leopold Stokowski worked together for Bell Telephone in Philadelphia and developed standards for the quality of music relayed or recorded. After retirement in 1936, the senior Snyder was asked by the government to set up a military communications system at the Pentagon and helped in opening the massive building.

Along the way. Dad invested in a micro splitting machine, bought by the Japanese government; electric soldering irons, the patent for which he sold to the group which formed the American Beauty Corporation; and the first loud speaker," Snyder said. "He installed the loud speakers for announcing trains in Pittsburgh Union Station in 1909 and they operated until replaced in 1922."

…and the list goes on

For those studying or practicing electrical engineering, the following is a list of patents carrying the name of Richard L. (Dick) Snyder of New Smyrna Beach:
Radio frequency multiplier amplifier; six different electron multipliers; power multipliers; stabilizers of photoelectric electron mulitpliers; two types of electron microscopes; electron optical instrument; electronic calculating device; electronic computing circuit; electronic computer; electronic computing devices; incremental deflection of cathode rays; computer system; themmionic [sic] tube circuits; selector switching apparatus; saturable reactance circuits; saturable reactance flip-flop device; switch devices; six different plated wire memories; and 15 different computer and memory systems. A number of his patents on storage tubes and cathode rays are classified by the U.S. Government.

Scientific motive works

When Dick Snyder was experimenting as a young electrical engineer, he smoked two to three 25-cent packages of cigarettes a day. Money was scarce and he needed transistors for his laboratory. He recalled: "I made up my mind that my need for the transistors was greater than the pleasure of smoking. I quit cold turkey, not easy at first, and let the quarters multiply. Soon I had enough cash to purchase 100 transistors. I have never smoked again, although I could have afforded the habit after my patents started paying off." So, says Snyder, have a good motive, not just a desire, to quit the weeds, and stop cold turkey.

So it was at an early age Dick Snyder began talking and learning electricity. He followed his father's footsteps at Lehigh and won a degree in electrical engineering in 1934.

Snyder's record of employment shows that he did research from coast to coast before he chose New Smyrna Beach as his home in 1964 and set up a laboratory in half of his spacious garage.

Briefly, here is that record:

—Farnsworth Television Corporation of Philadelphia from graduation until 1937.

—Radio Corporation of America, Camden, N.J. and Princeton, N.J. from 1937 until 1945.

—Telecon Corporation, New York City, from 1945 to early 1947.

—Institute for Advanced Study. Princeton, N.J., for six months in 1947.

—University of Pennsylvania, Philadelphia, from late 1947 to mid-1949.

—Aberdeen Proving Ground, Maryland, from mid-1949 to rnid-1952

—Consulting engineer, operating in his own laboratory, at Moorestown, N.J. from mid-1952 to late 1959.

—Hughes Aircraft Company, Ground Systems Group. Fullerton, Calif., and Research Laboratory, Malibu, Calif., from late 1959 to early 1964.

Poor hearing handicapped Snyder some until he took the position with Hughes Aircraft. The noise of Hughes planes at Fullerton made his ear condition worse and the quietness of an elaborate office at Malibu didn't relieve him. Hearing aids did him no good. They caused a jumble of noises in his brain when he tried them. Thus, his hearing condition caused him to abandon high-paying positions with corporations, go into semi-retirement, and seek a new home where he could work quietly and carry on experiments.

New Smyrna Beach was his choice after a visit to other Florida areas, and Balboa, where prices were too high.

Snyder was a bachelor until May. 1950, when he married Miriam Alice (Mimi) Tigue at Moorestown, N.J. Then the same age, 39, the couple decided it was too late for children.

The daughter of James and Mary Tigue. "Mimi", native of Pittston. Pa., studied architectural engineering for two years in Wilkes Barre, Pa., before joining an architect's office, where her efficiency led to the position of administrator. She first met Snyder when he was a student at Lehigh. The next time she saw him was at Princeton when she visited one of her two sisters 18 years later. Late romance then blossomed as Snyder carried on his private experiments at Moorestown. Mrs. Snyder joined her husband i". . .he didn't have to pay me") in the private laboratory and learned much about electrical work, including how to wind coils he needed.

Mrs. Snyder has dabbled in oil painting since youth. She sold some originals, but kept the best which add to the attractiveness of the white New Smyrna Beach home fronting the Atlantic.

Many New Smyrna Beach area residents know the Snyders best for their contributions to and work for the PAGE6A

Little Theatre, and for gracious hospitality, temporarily ended now while Mrs. Snyder recuperates from an operation which left her breathing impaired. Twenty four hours a day, she breathes oxygen through tubes in her nose. Snyder rigged up long extensions for the tubes so that "Mimi" doesn't have to stay in one room. Their home is air-conditioned and free of outside air contamination through filters Snyder installed.

"Dick has been an angel (he doesn't like my affectionate term) ever since we married," said Mrs. Snyder. "He likes people. People like him, too. He is kind and courteous, never swears (I do), and devotes almost all of his time now to helping me get well." Mrs, Snyder served one term as president of the Little Theatre and Snyder is the unpaid chief electrician. He led in installing a lighting system which he believes good for 15 years or more. The couple was active in the Smyrna Yacht Club until Mrs. Snyder's illness.

—He was a substitute speaker on a photo multiplier at the Institute of Radio Engineers Convention in New York. "When I finished my remarks," he said, "and was about to demonstrate the equipment, a well-known scientist from Bell Telephone Laboratories got up and gave me quite a bit of abuse for trying to tell about an impossible accomplishment. I invited him to come to the platform and conduct the demonstration. He left the meeting instead. Later, the vice president of Bell laboratories, John O'Malley, apologized for the commotion his colleague caused and bought me a drink. I, of course, was pleased with the whole thing and still am I amused." The multiplier proved a success.

—The University of Pennsylvania and the Institute for Advanced Study in Philadelphia hired him to develop a magnetic memory. "I was able," Snyder said, "to work out the first proposal for a magnetic core memory, but
unfortunately for me, the government insisted on owning all such proposals."

—He became chief of the computer research branch — OS14 — at Moore School at the University of Pennsylvania. Snyder supervised the operation of many projects: the ENIAC, the first large tube electronic computer, the Bell relay computer, a Busch differential analyzer and the ORDVAC, from the University of Illinois, an electronic differential analyzer. He also was able to build the first magnetic core memory and the first high speed tape handler for computers.

Dick Snyder knows what is a millionth of a billionth. That, if nothing else, qualifies him as a genius, says an admirer.

Well, it has taken all types of brilliant people to bring the world to its present great progress — and to the mercy of oil. Dick Snyder, as you've read, has some answers to the problem.

STILL TINKERING at home.

Author Ed Ray of New Smyrna Beach retired as managing editor of the Memphis Press-Scimitar in 1977. He is the author of the biography of Judge Roy Hofheinz entitled “The Grand Huckster.”

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