

William Noble Lacey

1890-1977

A Tribute by Ernest Swift

WILLIAM N. LACEY, one of the pioneering members of the Institute faculty and professor of chemical engineering emeritus since 1962, died March 26 in San Diego. His association with the Institute extended over 60 years.

Lacey came to what was then Throop College of Technology in 1916, and during the following years, in close cooperation with Arthur A. Noyes, he helped in formulating the general policies for chemistry and chemical engineering. He was largely responsible for bringing the program in chemical engineering from the original single senior required course to one of high national ranking. Its subsequent growth in recognition can be attributed in large measure to his policies and leadership during this period.

Lacey was born in San Diego in 1890, did his undergraduate plus one year of graduate work in chemical engineering at Stanford, and obtained his doctorate in physical chemistry at Berkeley where he worked with G. N. Lewis, one of the outstanding chemists of that era. He spent one year with the Giant Powder Company in San Francisco, and then in early 1916, upon the recommendation of Lewis, he accepted an invitation from A. A. Noyes to move to MIT as a research associate in chemistry.

Although Noyes was professor of physical chemistry at MIT, he had been persuaded in 1913 by George E. Hale, a former student of his, to spend a part of each year in Pasadena. By 1916 Noyes had decided to join with Hale in his plans for transforming the fledgling Throop College into the MIT of the West Coast.

Lacey must have become part of these plans, because later in that year he accepted an appointment as instructor in industrial chemistry at Throop. I

have always thought that Lacey was a cautious and deliberate person, and have often wondered what visions of the future Noyes must have pictured for him. What would cause him to leave a prestigious institution, such as MIT, and move to one that had only recently emerged from being essentially a trade school; one whose campus consisted of one permanent building situated in the midst of weed patches and neglected orange trees; and finally, one where chemistry and chemical engineering had to share the second story of this one building?

Lacey must have had some apprehensions on noting in the January 1916 catalog that he would be joining only two other professors, Stuart Bates and Howard Lucas, in handling a chemistry and chemical engineering curriculum that listed class and laboratory courses in inorganic, organic, and theoretical chemistry; quantitative, technical, and food analysis; plus classwork in chemical engineering, industrial chemistry, and petroleum technology. By 1919 when the disruptions of World War I were past, James Bell, James Ellis, and Roscoe Dickinson had been added to the group; but for many years Lacey taught courses in industrial chemistry, chemical engineering, and even technical analysis.

It is surprising that in spite of this teaching load he was able to begin to do some research and also to engage in various consulting activities. He established and for several years directed the research laboratory of the Riverside Cement Company. Also for several years he traveled back and forth on weekends over the rough desert roads to Trona Lake to direct research for the American Potash and Chemical Corporation on the chemistry involved in the crystallization of their various products from the lake brine.

During the early twenties he contributed his engineering experience to a biochemical project being carried out in the basement of Gates Laboratory by Gordon Alles and Albert Raymond (then graduate students) for the commercial production of insulin. This work also resulted in a publication announcing the first preparation of crystalline insulin. It is significant that some 40 years later Alles and Raymond were instrumental in establishing the W. N. Lacey Fund. Contributions to this fund have made possible the very successful W. N. Lacey Lectures, which each year bring to the Institute internationally known chemical engineers for lectures and discussions.

In 1927 he initiated a pioneering series of studies on the fundamental properties and behavior of hydrocarbons at various pressures and temperatures. He was later joined in this work by Bruce Sage. Aided by support from the American Petroleum Institute the studies extended over 40 years and have been of great value to the oil and gas industries, and subsequently to the petrochemical industry.

This project brought wide recognition to the Institute and many honors to Lacey. Among these were the Lucas Medal of the American Institute of Mining and Metallurgical Engineers (1947), the Hanlon Award of the Natural Gasoline Association of America (1946), the Certificate of Appreciation of the American Petroleum Institute (1952), and the Founders Award of the American Institute of Chemical Engineers (1968).

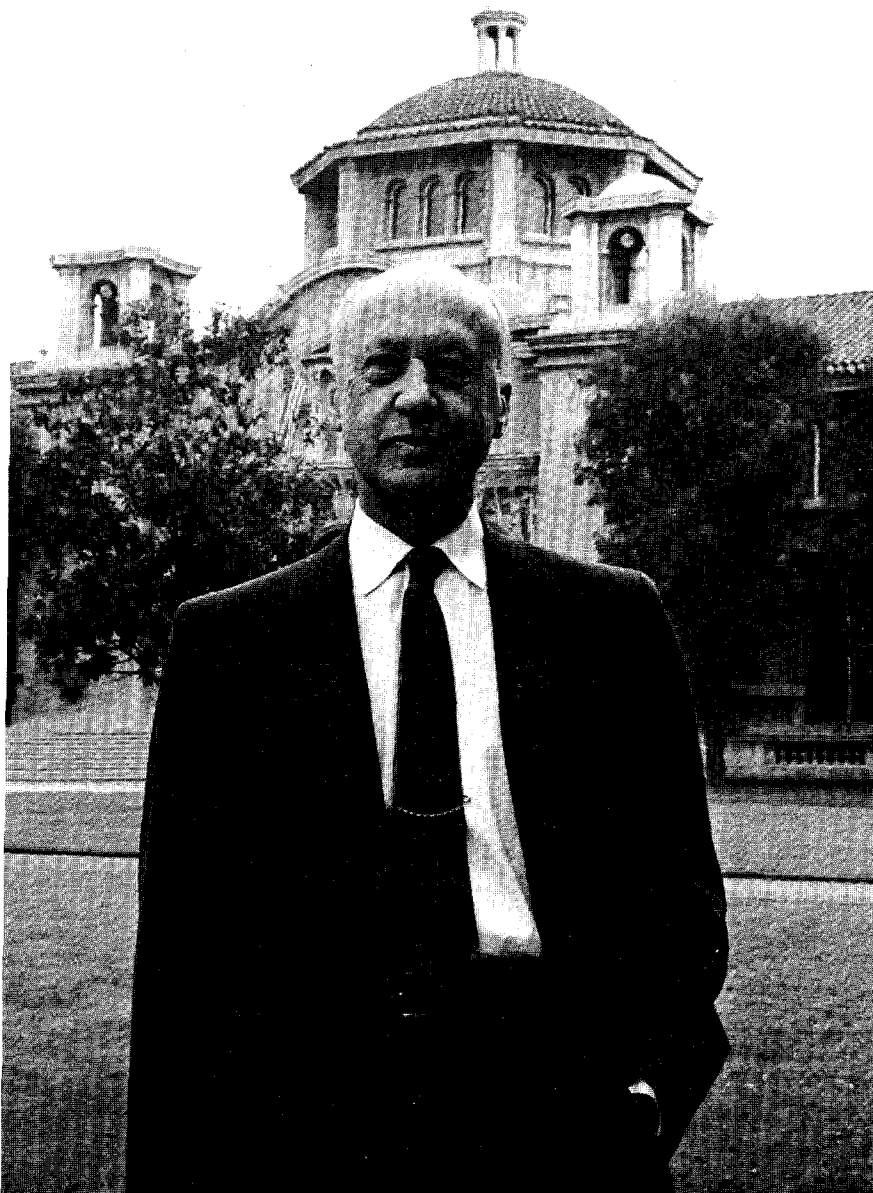
As the staff in chemical engineering was gradually enlarged, Lacey's instructional duties became lighter, and he was persuaded to serve as dean of graduate studies from 1946 to 1956. He was so conscientious toward the duties of this office that he was loath to dele-

gate to his staff any duties that might affect the graduate students. For example, he read every word of every thesis submitted for his approval. Many proud authors of theses were chagrined when their prized efforts were returned for scientific or literary improvement, but most of them came to appreciate the value of his comments. He also served as interim dean of the faculty in 1961-62.

Lacey was active in various professional societies. He was a member of the American Chemical Society and was chairman and a counselor of the Southern California Section; a member of the American Institute of Chemical Engineers and the first chairman of the Southern California Section; and a member of the American Society for Engineering Education. He found time to author or co-author six text books and over 140 scientific papers. He was active in both World Wars, serving as a first lieutenant in the ordinance corps from 1917 to 1919, and as supervisor for a rocket development project for the Navy from 1940 to 1945. He was awarded the Presidential Certificate of Merit for this work.

Lacey's professional and research accomplishments brought him recognition and honor, but I believe he would have cherished most the respect and affection universally accredited him by both colleagues and students. His consideration for others was well known. I have never forgotten a small but typical example that occurred shortly after my arrival at the Institute in May of 1919 as a lowly graduate student. Lacey had reached the quarter finals of a faculty-graduate student tennis tournament. Learning that I played tennis, he thought it would be nice to involve this newcomer, so — disregarding tournament rules — he arranged for me to be drawn into his quarter-final bracket and thus to participate in the tournament.

Looking back over the years, I cannot recall an instance in which he appeared to lose his temper or even to show impatience with others. This is not to say that he did not have firm opinions or that he was not quite adamant in defending a position about



which he had strong convictions. I first realized this when serving with him shortly after World War II on a faculty committee to formulate an Institute patent policy. The war research projects had produced numerous patentable results, and the administration recognized that royalties from these patents could represent much needed financial support. To my surprise this chemical engineer was uncompromising in his opposition. He argued that in spite of the short-range financial advantages such a policy was not to the best interest of the general public or the Institute. In spite of strong initial opposi-

tion his view finally prevailed and the present policy resulted.

On concluding this tribute I think I cannot do better than to quote from a statement by Lee DuBridge. It was given in 1963 at a standing-room-only dinner in the Athenaeum to honor Lacey upon his retirement. Dr. DuBridge said: "The Caltech star would be several magnitudes fainter than it is today if it were not for Will Lacey's devoted and distinguished service."

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