Memorial to René Laurent Engel
1887–1980
PIERRE ST. AMAND
1800 Blueridge Road, Ridgecrest, California 93555

Dr. René Laurent Engel, distinguished, long-time resident of the Kern Valley, died on October 18, 1980, as the result of injuries sustained in a fall. He led a long, useful life as a scientist, soldier, artist, diplomat, and educator. Memorial services were held at the All Faith Chapel at China Lake.

René Engel was born in Chatou, France, in 1887. His mother was a singer in the Opera de Paris. His father was an operatic tenor and professor of the Conservatoire National de Musique. As a child, René was trained to be a musician, and he developed into a well-known concert pianist. His parents were friends of César Franck and Darius Milhaud, among others, who inspired him to continue his musical studies. His older brother, José Engel Garry, was a well-known painter.

In 1906 René entered the University of Paris, graduating as chemical engineer in 1909, and he received a master of science degree in 1912. His growing knowledge of chemistry and science was applied to determining the authenticity of old paintings, stained-glass windows, ceramics, and ancient Hispano-Moorish pottery. From 1905 to 1912, while a student, he worked at the French Industrial Museum and the Conservatoire de Arts et Metiers, turning from a career as a performing artist to one that used science to serve art. He began graduate work at the French Museum of Natural History in geology, mineralogy, and paleontology under the famous mineralogist Alfred Lacroix. He collaborated with Dean Byron Cummings, a noted archeologist at the University of Utah, in the reconstruction of Indian cliff dwellers' pottery and arranged displays of the pottery in the Archeological Museum at Salt Lake City. He then directed his attention to exploration for vanadium and uranium in Colorado and Montana for the Curie Company.

When World War I broke out, Dr. Engel was commissioned an officer in the French Artillery and Chemical Corps. He did research on explosives and screening smokes at the Vincennes Ordnance and at the Military Research Laboratory at the Sorbonne. He was sent to England as a member of an international team to coordinate production by the allies of explosives and similar materials. He was formally commended by Winston Churchill because his fluency in English and several other languages added greatly to the effectiveness of the commission. Later in the war he was sent to Washington as scientific member of the French Mission to the United States.

After the war he was a member of the Reconstruction Commission for the Ruhr and Saar where he was charged with restoring production in the coal mines and establishing several chemical plants needed for the reconstruction of Europe.

Dr. Engel left the French Army with the rank of major, having been decorated with the War Medal for his services. In 1934, because of his wartime scientific contributions, a grateful France elected him Officier d’Academie, the equivalent of the National Academy of Sciences in the United States.

In 1920 he returned to the United States. He entered Graduate School at Stanford in 1925, but transferred to the California Institute of Technology at the request of Professors Chester Stock and John Peter Buwalda, who were at that time setting up a Department of Geology at Cal Tech. He continued as a faculty member and a graduate
student until he received his Ph.D. degree in geology in 1935. His thesis on the Elsinore fault zone, published by the State of California, is a classic in the evaluation of faulting in the state. He became a United States citizen in 1933. He remained on the faculty at Cal Tech until 1939 when he entered private consulting practice in San Francisco.

In 1940 Dr. Engel went to the Philippines where he was involved in the establishment of basic chemical industries in the islands. This work continued until the Japanese invasion of the Philippines, when he was imprisoned at Santo Tomás. During his stay in Santo Tomás, he organized an educational program for the children and prisoners, teaching science, French, and history. While in prison he met an artist, Marcelle Launspach Bailey, who became his wife in 1950.

Released in 1945, he continued with the work he had been doing for American intelligence while in prison, and after helping in re-establishment of order in Manila, he returned to the United States, having been awarded the Asiatic Pacific Campaign, Philippine Defense, and Philippine Liberation Ribbons.

He was curator of mineralogy at the Los Angeles County Museum until 1950, when he went to Cuba to set up the firm of geological and engineering consultants of which he was president. He remained in Cuba until 1952 when difficulties with the unstable Cuban political situation forced him to return to California. He and Marcelle then moved to their cottage in Wofford Heights where at age 65 he retired. He set up a mining and milling company and opened a tungsten mill at Weldon.

This palled, and in 1958 Dr. Engel joined the Naval Ordnance Test Station at China Lake. He organized a program in oceanography and began studies in the use of porpoises as helpers for divers and seal teams. His research into cetaceans extended to investigation of physiology, neurology, and hematology. He began work on a series of small submarines from which the Navy's capability in submarine search and rescue and oceanographic research from small submersibles grew. He was instrumental in bringing Picard's deep-diving vehicle *Trieste* to this country and in bringing Jacques Cousteau's diving saucer to San Clemente Island and participated personally in several dives. He began research into instrumentation that would measure oceanographic parameters necessary for operational use in submarine warfare. He sponsored a research effort in the microbiology of plankton with Dr. Giorgio Soli. He began a program of undersea geology that ultimately led to a series of worldwide expeditions to map the deep ocean trenches. Studies on fish and cetacean locomotion were begun.

In 1966, while still at the peak of his intellectual powers, Dr. Engel was caused to retire because of his age. He once again returned to Wofford Heights with Marcelle.

At age 79, finding himself with time on his hands, he turned to consulting in mining and geology. He was chief scientist of the task force that prepared the seismic safety element of Kern County's General Plan. At the time of his death he was engaged in a theoretical paper on the geochemistry of tungsten minerals. In the latter years of his life, he was active in Common Cause and in numerous public-interest affairs where his scientific talent and accumulated wisdom were put to the service of the community.

Dr. Engel was a Fellow of American Association for the Advancement of Science, Geological Society of America, American Association of Petroleum Geologists, and American Chemical Society. He was a member of the Legion of Honor of the American Institute of Mining and Metallurgical Engineers and a member of the Mineralogical Society of America. He was U.S. representative for the Société des Ingénieurs Civiles de France. He was a member of the honorary scientific societies of Sigma Xi and the Research Society of America. He was author of many scientific papers published in learned journals, a frequent speaker at public events, an aggressive scientific innovator, unparalleled scientific entrepreneur, and distinguished public figure.