# ALUMNI

# news

#### **BOARD VACANCIES**

IN ACCORDANCE with Section 3.04 of the By-Laws of the Association, the Directors met as a nominating committee on February 15, 1949. Five vacancies will occur on the Board at the end of the current fiscal year, one vacancy to be filled from the present Board and four to be elected by the Association. The present members of the Board and the year in which their terms of office expire, follow:

N. A. D'Arcy, Jr. '28	1950 R.	F. Mettler '44	1950
E. R. Hoge '18	1949 W.	B. Miller '37	1949
R. M. Lehman '31	1950 W.	D. Sellers '25	1949
H. B. Lewis '23	1949 G.	K. Whitworth '20	1950
J. W.	Lewis '41	1949	

The four members of the Association nominated by the Directors are:

Richard C. Armstrong '28 Robert P. Sharp '34 Fritz W. Karge '18 Carl Tutschulte '31

In accordance with Section 3.04 of the By-Laws of the Association: "... Additional nominations may be made by petitions signed by at least ten (10) regular members in good standing, provided that the petitions must be received by the Secretary not later than April fifteenth."

Statements about the nominees of the Directors are presented in this issue of *Engineering and Science*.

D. S. CLARK, Secretary

# The nominees:



RICHARD ARMSTRONG, M.D., received his B.S. in Applied Chemistry in 1928. After a few months in chemical research with the Union Oil Co., he joined the research department of the Riverside Cement Co., working under Hubert Woods '23. In 1931-32 he managed to get some necessary pre-medical credits for part-time studies in Caltech's Biology Division, and in 1935 he left Riverside

Cement for the University of Michigan Medical School at Ann Arbor. There followed "four years of hard labor."

From 1939 to 1942 he served his internship, followed by residency in Ophthalmology, at the University Hospital in Ann Arbor—with a few months out in the winter of 1941-42 as a fellow in residence at the Wilmer Eye Institute, Johns Hopkins Hospital.

From 1942 to 1946 he was a medical officer assigned to the U.S. Army Air Force. Two years of this was spent in duty at the Aero Medical Laboratory at Wright Field. In August of 1946 he returned to Pasadena at long last and started in private practice limited to the eye.

He is a member of Tau Beta Pi and the medical society Alpha Omega Alpha. On the staff of the Huntington Memorial Hospital and St. Luke Hospital, he is also Instructor in Ophthalmology at the College of Medical Evangelists in Los Angeles, a member of several Ophthalmological organizations, and a Fellow of the American Medical Association.



FRITZ KARGE received his B.S. in Civil Engineering in 1918, on leave of absence from the Union Oil Company of California. He was a member of the Dorm Club, and chairman of the Executive Committee in his senior year. After graduation he became Supervisor of Civil Engineering Design for Union Oil, then Chief Engineer of the Pipe Line Department, and—currently—Civil and Mechanical Engineer

in the Plant Process Division of the Manufacturing Department.

His service with the company was interrupted from February 1942 to July 1943 when he was connected with the Fluor Corporation.

A member of Tau Beta Pi, the American Society of Civil Engineers, and the American Society of Mechanical Engineers, Mr. Karge has served the Alumni Association on another occasion—as President, in 1920-21.



ROBERT P. SHARP received his bachelor's degree in 1934 and his master's degree in 1935 in Geology. He was a three-year letterman — quarterback of the football team, and in his senior year captain of the team, as well as vice-president of the student body. He was a member of Tau Beta Pi, and was awarded the honor key on graduation.

In the fall of 1935 he went to Harvard on a schol-

arship. In 1936-37 he was an Austin Teaching Fellow, and in 1937-38 he held the Woodworth Fellowship at Harvard. He received his Ph.D. at Harvard in 1938, for a thesis involving structural and physiographic study of the Ruby-East Humboldt Mountains in Nevada.

In 1938 Dr. Sharp joined the faculty of the University of Illinois, where he remained until after the outbreak of the war, when he was commissioned in the Arctic, Desert, and Tropic Information Center of the Army Air Forces. His work there was largely with the Arctic Section. After his discharge he went to the University of Minnesota as Professor of Geomorphology, and in September 1947 he returned to Caltech as Professor of Geomorphology. His research projects include

studies of existing glaciers in Alaska and Canada—and if you missed reading about these in E & S (Nov. '48) Dr. Sharp will be telling about them, in person, at this year's Alumni Seminar (see below).



CARL TUTSCHULTE received his B.S. in Mechanical Engineering in 1931. He was a member of the Varsity Club, and on the staff of the California Tech. He worked in a film processing laboratory and on construction work until 1934, when he became an engineer engaged in sub-surface structural interpretations and correlations for the Shell Oil Company. In 1936 he joined the Tide

Water Associated Oil Company as a production engineer, and in 1937 he was placed in the Los Angeles Basin District to initiate production engineering work in the field. After he had spent a year and a half organizing and building up this application of engineering to production operations, the company decided to have all its young engineers trained for production experience in the Los Angeles Basin District under his supervision and that of the Division Superintendent. During the past four years he has engaged in all his company's unitization and gas injection studies.

He is a member of several A.P.I. and A.I.M.E. committees, and has written numerous technical papers for the oil industry.

## WASHINGTON CHAPTER NOTE

TWENTY ALUMNI and fifteen wives and guests met at the Roger-Smith Hotel in Washington for a dinner-meeting on January 14. As the purpose of the gathering was primarily that of making and renewing acquaintances, no important business was transacted. Tentative plans were made for a meeting in April.

#### HONORARY MEMBERSHIP

N JANUARY 18, Dr. J. E. Wallace Sterling (see page 16) was elected an honorary member of the Alumni Association. He was presented with a special framed certificate by the Board of Directors.

Dr. Sterling is the seventh man to be so honored by the Alumni Association. Other honorary members are President L. A. DuBridge, Dr. R. A. Millikan, Prof. William Clapp, Prof. George R. MacMinn, Charles Schwieso, and Prof. Royal W. Sorensen.

## SEMINAR ROUNDUP

THE 12TH ANNUAL ALUMNI SEMINAR, set for Saturday, April 9, will include talks by ten members of the Caltech faculty, in addition to an address by President DuBridge at the Seminar Dinner. As a supplement to the planned program for the Seminar (E & S—February '49), résumés of the ten scheduled lectures appear below:

Scientific work in Postwar Europe by Linus Pauling DURING THREE European trips, extending over a total of twelve months, Dr. Pauling had an opportunity to observe scientific work in a dozen countries. He will

report on some new scientific discoveries, on the postwar problems which are interfering with scientific development, and on the efforts to solve them.

# High energy accelerators by Robert V. Langmuir

HIGH ENERGY accelerators like the betatron and the cyclotron are limited to particle energies below 100 million electron volts. The new synchrotrons and frequency modulated cyclotrons have made greatly increased energies available to nuclear physicists. These machines have already produced mesotrons in the laboratory, and it is expected that the studies of such mesotrons will lead to a better understanding of nuclear forces. Dr. Langmuir will discuss the principles of the various machines. Construction of a 600 MEV synchrotron at Caltech is now under consideration.

# Sun and earth's atmosphere by Oliver R. Wulf

THE SUN EMITS a vast amount of light, of which only a minute fraction falls on the earth. Of this small fraction, moreover, a considerable portion is reflected back into space. Dr. Wulf's talk will concentrate on the light that is absorbed in the high atmosphere, where it carries out photochemical reactions that are of significance for biological processes as well as for everyday life.

# Nerve repair by A. van Harreveld

AFTER DAMAGE to a peripheral nerve, processes of degeneration and regeneration take place which may result in a restoration of the function of the organs innervated by the afflicted nerves. Dr. van Harreveld will describe the processes which lead to functional repair, and the measures which can be taken to support them.

#### The gas turbine by W. D. Rannie

MR. RANNIE WILL cover the history of the gas turbine and its possible applications in the future, in view of its known advantages and limitations.

# Science mission to Japan by Royal W. Sorensen

AS A MEMBER of the Scientific Advisory Committee, Prof. Sorensen, with five other scientists, visited Japan in 1947 to review scientific and industrial development. As a V.I.P. Sorensen had an unusual opportunity to observe occupied Japan. His talk will include not only technical developments in Japan, but also comments on Japanese life today, and Caltech alumni in that country.

# Goals of industrial relations by Robert D. Gray

MR. GRAY WILL furnish a much-needed definition of "good" industrial relations, as well as a practical explanation of the real goal of industrial relations—which is only incidentally industrial peace.

#### Alaskan glacier studies by Robert P. Sharp

DR. SHARP WILL give a first-hand account of Caltech's glaciological investigations of the Malaspina Glacier in Alaska, and the Seward Ice Field in Canada, in the summer of 1948. The talk is to be illustrated with Kodachrome slides.

# The Guam model at Azusa by Robert T. Knapp

A DESIGN STUDY for Apra Harbor at Guam has just been completed in the harbor laboratory at Azusa. It has been carried out for the Navy's Bureau of Yards and Docks, which is improving the harbor for use as a naval base. The model covers about 15,000 square feet, and represents an area of some 50 square miles. Waves

and currents are produced in the model, and the effects of various breakwater configurations are investigated. Measurements of the wave motion are made both electrically and photographically. The model will be in operation during the inspection trip, scheduled for 3 p.m., following Dr. Knapp's talk.

The impact of psychology by Hunter Mead

IT IS SOMETIMES said that we live in a world different from that of our grandfathers because of three men:

Darwin, Marx and Freud. The psychologist believes that in the long run Freud will prove the most influential of the three—or rather, he believes that psychology may do more to influence our thinking than social and economic systems, or even discoveries in the better established sciences, can do.

In view of the youth of psychology (about 70 years) no one can predict a limit to the modifications this infant science may bring in human thinking. Dr. Mead will discuss some of the modifications it has already brought about.

# **PERSONALS**

#### 1922

Donald W. Darnell was recently made President of the Fluor Corp., Ltd., of Los Angeles. Darnell joined the company in 1925 as an engineer, climbed to the top through the positions of chief engineer, vice-president, and—since 1947—vice-president and general manager.

#### 1927

D. Lewis Gazin M.S. '28, Ph.D. '30, who was active in organizing the new Alumni Chapter in Washington, is Curator of Vertebrate Paleontology at the Smithsonian Institution. Currently he is doing research in Eocene and Paleocene mammals, plans to spend next summer in field studies in New Mexico and Wyoming.

#### 1928

Jean E. (Ed) Joujon-Roche is Safety Engineer for Shell Oil on the Pacific Coast. Ed has been with the company for the past nineteen years, except for a stint with the U. S. Army Engineers from 1941-45. Also with Shell: Alex Clark, M.S. '32, Exploration Manager in the Rocky Mountain Division, and Frank W. Bell, M.S. '33, Division Geologist of San Joaquin Valley.

#### 1929

Stanley W. Lohman, M.S. '38, is with the Ground Water Branch of the U.S. Geological Survey, as District Engineer for Colorado and Wyoming.

#### 1930

Ira C. Bechtold is Director of Research

and Development for the Fluor Corp., Ltd., in Los Angeles.

#### 1933

Ygnacio Bonillas, M.S. '35, is, now Vice-President and Director, as well as Chief Geologist, of the Richmond Exploration Co., subsidiary of Standard Oil of California, in Venezuela.

#### 1936

Victor Veysey announces his retirement as Works Manager of the General Tire and Rubber Co's South Pasadena plant. He is moving to Brawley, Calif., to operate a large ranch, owned by his family for many years.

#### 1939

Walter H. Munk, M.S. '39, Ph. D. '47, has returned to the Scripps Institute of Oceanography at La Jolla, where he is Assistant Professor of Geophysics, after spending six months in Oslo, Norway, as a Fellow of the Guggenheim Foundation.

#### 1940

Mortimer Staatz is doing graduate work in geology at Columbia University. He expects to get his doctorate at the end of this year.

George F. Wheeler, M.S., married Dorothy Wilson of Atlanta, Georgia, in that city on January 26. He is instructor of physics at Georgia Tech.

David H. Steinmetz, III, was married in February to Miss Verna Louise Pace of San Marino. Mrs. Steinmetz is a graduate of Stanford, a member of Delta Gamma and of Phi Beta Kappa. After an extensive wedding tour through the West Indies, the couple will settle in Los Angeles.

#### 1941

Charles L. Dailey, M.S. '42, is co-author of a new book, Computation Curves for Compressible Fluid Problems, published in January by John Wiley & Sons. Dailey works on the Navy Jet Propulsion Project at the University of Southern California.

Dale Turner, as Assistant to the Chief Seismologist for Superior Oil Co., is currently watching progress on the world's deepest well—the Superior Limoniera Well in the San Joaquin Valley. It reached 17,992 feet in February.

#### 1942

Willard P. Fuller, M.S., is Resident Geologist for Anaconda in the Tintic Mining District, Utah. He reports that he is sometimes overly-resident, as for example in January, when he was three days snowbound at the North Lily Mine.

#### 1944

George G. Shor writes from Lovington, New Mexico, that he has been promoted by Seismic Explorations, Inc., from Computer to Party Chief of a seismic field crew. "For the benefit of any alumni who are amateur radio ops," he says, "I'm active on the 40-meter ham band every night around midnight—call sign W5PHL—and glad to talk."

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