

# HIGHLIGHTS OF THE FOURTH ANNUAL ALUMNI SEMINAR WEEK END

Alumni and their friends will gather on the Institute campus Saturday and Sunday, April 5th and 6th for the Fourth Annual Seminar Week End.

The Seminar Board composed of H. Fred Peterson, Wesley Hertenstein, Fred A. Hough and Donald P. MacFarlane has organized its committees to facilitate the efficient handling of the great amount of work required to present such an Alumni affair.

Conrad Scullin, L. G. Fenner, Kenneth Belknap, Frank Wiegand, Richard W. Stenzel, Leonard L. Snyder, Frank W. Bell and Charles F. Thomas comprise the Program Committee.

## GENERAL SESSION LECTURES

The general assembly on Saturday morning will be conducted by Professor Franklin Thomas and Dr. Earnest C. Watson. They will discuss the part the California Institute of Technology is playing in the National Defense Program. Professor Thomas is in charge of organizing the National Defense courses at the Institute, while Dr. Watson is Chairman of the Committee for Coordinating Research in National Defense.

Dr. Edwin Francis Gay who is a member of the Research Staff of the Huntington Library and Associate in Economic History at the Institute will speak on the problems of competing with Nazi economy if Germany is victorious in the present world war.

Dr. Alfred Henry Sturtevant, Professor of Genetics, will speak on a phase of genetics.

Kermit Roosevelt, Jr. of the Humanities Department is scheduled to talk on modern propaganda methods.

Dr. J. E. Wallace Sterling will discuss the issues confronting the United States as a result of the Axis threat. Those who attended the Seminar program two years ago will remember the interesting lecture given by Dr. Sterling at that time. His subject this year is very timely and should be of general interest to the Seminar audience.

An illustrated lecture will be given by Dr. Theodore von Karman on the causes of the failure of the Tacoma Narrows Bridge. The Government appointed Dr. von Karman to make a scientific report and study of the failure. He has prepared and tested models of the bridge and made a thorough study of the physical conditions surrounding the bridge failure. This Seminar lecture will be one of the first occasions when the results of Dr. von Karman's scientific report will be discussed in public.

Dr. John August Anderson, a member of the staff of the Mount Wilson Observatory of the Carnegie Institution in Washington and Research Associate in Astrophysics, will discuss the problem confronting the modern astronomer.

Dr. William Hayward Pickering will speak on ultra short wave technique in aircraft navigation.

Arthur Howland Young of the Institute Industrial Relations Department and former Vice-President of U. S. Steel Corporation will lecture on the importance of human relationship in the Defense Program.

Dr. John R. Macarthur will present an illustrated lecture on the art treasures of the Huntington Library. This lecture is planned for Saturday afternoon from 1:00 p.m. to 2:30 p.m. after which there will be a tour through the Huntington Library in lieu of any Humanities Departmental Seminar.

## DEPARTMENTAL SEMINARS

Departmental Seminars are to be a feature of the week end again this year on Saturday afternoon. Seminars will be held in Industrial Relations, Electrical Engineering, Physics, Chemistry, Mechanical Engineering, Civil Engineering, Geology and Aeronautics. It is expected that the departmental heads at the Institute will lead and preside over the Seminars.

The Industrial Relations Seminar will consist of a discussion of the validity of testing techniques in personnel work by Professor Robert D. Gray. The schedule indicates that the new library and laboratory where time and motion studies are made will be on exhibit.

The Electrical Engineering Seminar will be presided over by Professor Royal W. Sorensen. Wendell A. Morgan will speak on the stability limit of transmission lines. George W. Dowd will present a demonstration of dynamic mechanical and electrical measurements by means of a recording oscillograph.

Dr. Earnest Watson will preside over the Physics Seminar. Dr. Morris Hassler will speak on the spectroscopic examination of materials and Professor William V. Houston is scheduled to talk on the tentative subject, "The Electron Microscope."

For the Chemistry Seminar, Professor L. Zechmeister will discuss developments in chromatography, and Dr. Eugene H. Eyster will speak on the tentative subject "Phases of Military Explosives". It is expected that Dr. Linus Pauling will be present to preside.

In the Mechanical Seminar, Donald E. Hudson will speak on the vibration dampening in metals. Mark Serrurier is to

*Dr. Theodore von Karman — who will discuss the failure of the Tacoma Narrows Bridge at the Fourth Annual Alumni Seminar.*



# PAULING RECEIVES NICHOLS MEDAL

Dr. Linus Pauling, head of the division of chemistry and chemical engineering at the Institute and one of the world's leading theoretical chemists, received the 1941 William H. Nichols Gold Medal of the New York Section of the American Chemical Society at a joint dinner of the Section and the Society of Chemical Industry March 7 in New York.

In presenting the medal, outstanding distinction in chemical science, Professor Arthur W. Hixson of Columbia University, chairman of the jury, cited Dr. Pauling, who is 40 years old, for his "fundamental inquiry into the nature of the chemical bond." Professor Paul H. Emmet of the Johns Hopkins University spoke on "Linus Pauling — The Man", and Professor Joseph E. Mayer of Columbia University on "The Work of the Medalist." Dr. Pauling delivered the annual medal address on "The Structural Chemistry of the Future." Dr. Robert Calvert presided.

"Linus Pauling and his students started a series of researches which are responsible for most of our present precise quantitative information about the geometry of organic molecules," Professor Mayer said. "This information, in turn, has led to revision and improvement in theory. Few scientists have ever been able to claim such successful parenthood of both the experimental and theoretical bases for so wide a field.

"The influence of a scientist is not limited to the papers that

bear his name. There are few scientists who at Dr. Pauling's age can claim as many intellectual children of note. His students, or most of them, bear a clear stamp of his influence. They have carried his gospel even to the east coast, from Harvard to Princeton. Perhaps a future historian, in evaluating Pauling's work, will count their contributions to his, and adjudge their education to have been his greatest work.

"Dr. Pauling is a rarity among scientists — a chemist with mathematical and geometrical intuition. There are many physicists who are good mathematicians, and some of these work on chemical problems; some are even employed by departments of chemistry. But Pauling has that chemical sense, the respect for, and knowledge of chemical fact, which differentiates the true chemist from the physicist.

"The hundred and twenty odd articles and books by Pauling cover a wide variety of subjects, experimental and theoretical, physical and chemical. But Pauling is no dabbler. In every article one is impressed by originality and by knowledge, by ingenuity and by thoroughness.

"Pauling's papers on the nature of the chemical bond and on resonance have altered even the language of structural organic chemistry. The theory of the structure of molecules which has developed out of work by Pauling and his students is most beautifully and simply presented in his recent book,

(Continued on page 22)

discuss the problems of mounting the 200 inch telescope. Regis S. Gubser will speak on the methods used in large scale refrigeration. Mr. Serrurier is Construction Engineer in Astrophysics, while Mr. Gubser is an Electrical Engineer with California Consumers Corporation.

The Civil Engineering Seminar will have as speakers Professors Fred J. Converse and R. R. Martel speaking respectively on "Investigation on Foundations of Dock Facilities for a Naval Base at Terminal Island," and "Earthquake Forces in Terms of Design Factors."

At the Aeronautical Seminar, Charles F. Thomas, '35, technical sales engineer at Lockheed, will preside. Holley B. Dickinson, '36, aerodynamics research engineer at Lockheed, will discuss manufacturing activities.

Registrations under the direction of C. M. Wakeman will take place early Saturday morning, April 5th and a registration fee of \$.50 per person will be charged. Saturday lunch may be obtained in the Student House at \$.50 per plate. This year each member of the Association will be permitted to bring two male guests.

## ALFRED NOYES TO SPEAK

Alfred Noyes is to be the guest speaker at the banquet Saturday evening which will be held at the Annandale Country Club. Dr. Robert A. Millikan is expected to appear on the program during the evening. Musical entertainment will be featured during the banquet. Dinner tickets are \$1.50 each.

George Rice III is in charge of the printing for the Seminar and Paul Schaffner is handling publicity.



## 3 STREAMLINED TRAINS

... EACH ONE ALONE IN ITS FIELD

★ **Super CHIEF** ... the only all-Standard Sleeping Car streamlined train operating on a 39¾ hour schedule between Los Angeles and Chicago.

★ **The CHIEF** ... The only all-Pullman daily streamliner between Los Angeles and Chicago, and the fastest daily train between these two points.

★ **El CAPITAN** ... This silver streak is the only deluxe all-chair car streamlined train between Los Angeles and Chicago in just 39¾ hours.

★ **FOR COMPLETE INFORMATION—SANTA FE TICKET OFFICES**