

ALUMNI REVIEW

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EDITORIAL

Most of the alumni will be both surprised and amused by the change in editorship of the Review. Amused, because the present editor is completely lacking in editorial experience, which will be apparent as time goes on. However, this circumstance can be attributed to the war. If, however, the consolidation of the work associated with the publication of the Review with the work of the Alumni Office will assure its continuance, the appointment of your new editor will not have been in vain. Practically all work on the publication will be done by Miss Bertha Lee and Miss Charlotte Tompkins, in their spare time; they are effectively the editors. The editor extends to them his appreciation for their efforts in making publication possible.

The editorial group is interested in your criticisms and suggestions on the subject matter of articles and the general composition of the Review. With careful guidance of the editorial board it is hoped that the Review will continue with the high standards established during the past five years of publication.

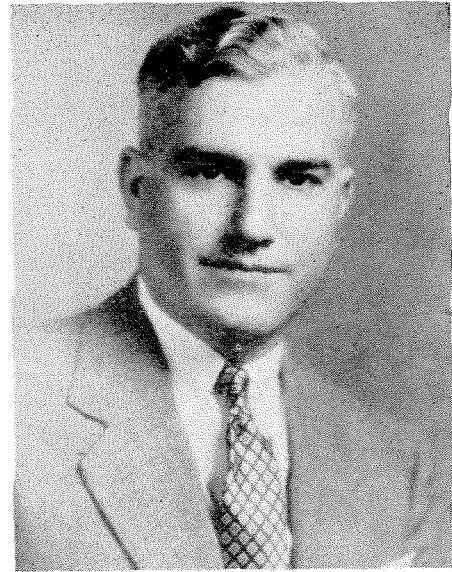
The articles appearing in this issue are timely and definitely related to war activities. One should give serious thought to Professor Fraser's article on the mineral situation; in some ways this situation is rather disturbing. An encouraging side of the picture is presented by Stanley Swingle in his article "The Chemists' War on Disease." The development of synthetic anti-serums seems to be promising. Many will be interested in the innerworkings of our communications system as it is related to civilian defense, described by Harry Farrar. Arthur Ellings' experiences in England are interesting as a check on the news we read in the papers. Your editor knows of no one who is more capable of presenting the world situation in as clear and interesting manner than Professor Sterling. It will pay every reader to study his article carefully.

The editorial board and staff wishes to express their appreciation to those who have so generously contributed to this issue of the Review.

COVER

Illustrated by the author of the article, "The Chemists' War on Disease", the cover is a diagrammatic representation of a possible configuration for the antibody complementary to the antigen, arsanilic acid coupled to albumin. Weak bonds may form where the atoms (represented as spheres) of the antibody are near atoms of the antigen. This drawing is about ninety million times natural size.

GREETINGS FROM THE BOARD OF DIRECTORS



ALBERT D. HALL

The year 1942-43 promises to be a period of rapid changes. Tech Alumni, because of their technical training and experience, are moving into key positions not only in civilian life but also on the firing line. A salute to the membership in these war undertakings, and greetings from the officers of the Association to all alumni.

We on the home front will this year dedicate our efforts to the maintenance of contacts with and between alumni whether they be near or far. Through the medium of the magazine we intend to let you know what many of your friends are doing and, if regulations permit, where they are located.

In addition to the magazine it is the present plan to continue all major association activities; insofar as these can be accomplished under current conditions. With the assistance of the membership we are confident that this can be achieved without sacrifice to the high standard of quality set by previous administrations. In the programing of these functions however, we solicit constructive suggestions in order that each event will be of maximum benefit.

An innovation this year will be the scheduling of some of our local get-togethers at noon in downtown Los Angeles. In line with the war effort such a move should conserve tires and free "all too busy" evenings. These noon meetings will be streamlined with snappy programs designed for quality appeal, favoring popular subject material. We believe that the freedom from formality possible at such a gathering will recommend itself and merit approval and support even in these strenuous times.

—ALBERT D. HALL
President.

CONTRIBUTORS

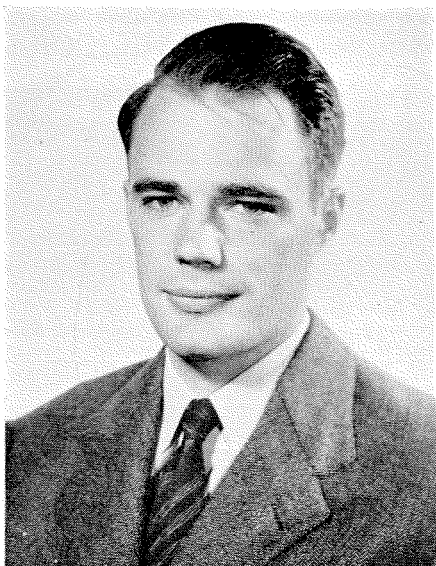


Photo by O. K. Harter

STANLEY M. SWINGLE

In 1939, Stanley M. Swingle received his B.S. degree from the Montana State College. He is now a teaching fellow at the California Institute of Technology, where he expects to receive his Ph.D. degree in June. During the past year Mr. Swingle has been working with Dr. Linus Pauling, doing research on structural chemistry and immunochemistry. His article, "The Chemists' War on Disease", in this issue of the Alumni Review gives a resume of the important work that they are doing.

Mr. Swingle was married last spring to Miss Elizabeth Carter, an instructor in bacteriology at the Montana State College.

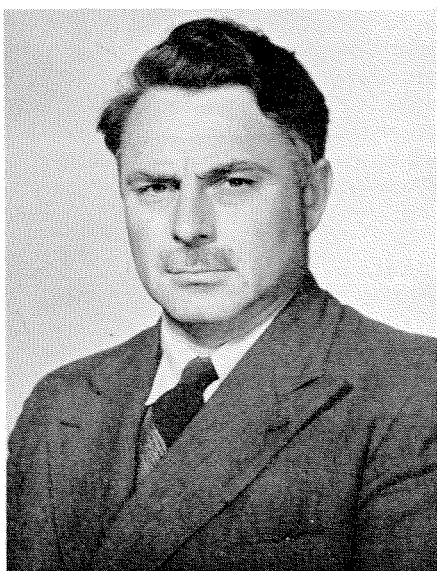
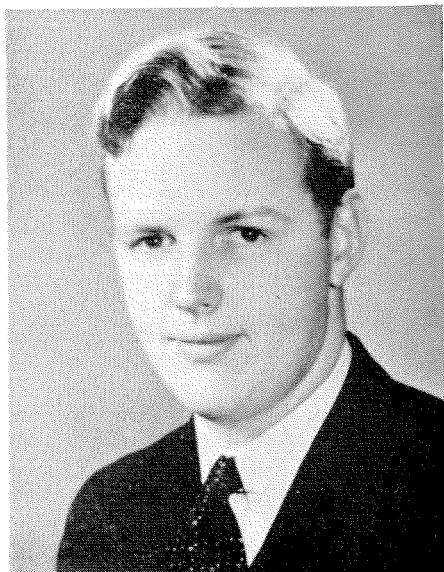


Photo by O. K. Harter

HORACE J. FRASER

Dr. Horace J. Fraser, who has been the Assistant Professor of Metalliferous Geology and Mineralogy at the California Institute of Technology since 1935, received his B.S. and M.S. degrees from the University of Manitoba. While there, he served as Lecturer in Geology, and later as a Travelling Fellow. Dr. Fraser received his M.A. and Ph.D. degrees at Harvard University, and also served as an instructor in Economic Geology and as a research associate at the Harvard Engineering School. From 1932 to 1935, he was a geologist with the International Nickel Company of Canada, Ltd.



ARTHUR C. ELLINGS

Arthur C. Ellings received his B.S. degree in Applied Chemistry from Caltech in 1938. For three years he was employed as laboratory assistant and junior chemist by the Shell Development Company at Emeryville, California. In November, 1941, he accepted a position with Basic Magnesium, Inc., at Las Vegas, Nevada, and was among the engineers sent by that firm to study a similar magnesium plant in England.

Mr. Ellings is married, and has two daughters, the youngest born while he was in England.



Photo by O. K. Harter

PROF. J. E. WALLACE STERLING

The Alumni Review again presents an article by Professor Sterling dealing with the latest aspects of the war, as of August 26. This feature has already proved to be exceedingly popular, and will undoubtedly be the highlight of the 1942-43 Review. In the December issue of the Review, Dr. Sterling will summarize the developments of the next few months.

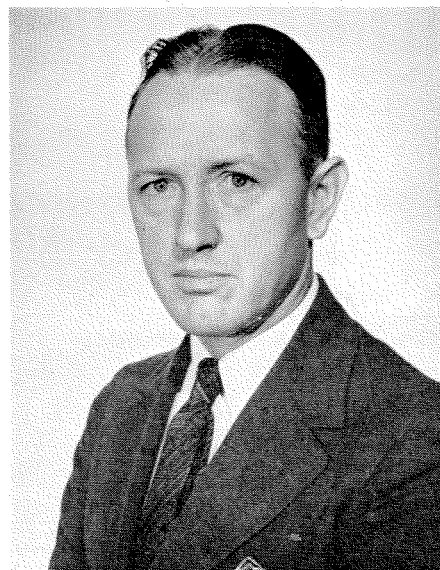


Photo by O. K. Harter

HARRY K. FARRAR

The second in a series of articles on utilities in the war is presented in this issue of the Alumni Review; the activities of the telephone companies in the present emergency are discussed by Harry K. Farrar, Class of '27. Mr. Farrar joined the technical staff of the Bell Telephone Laboratories in New York in 1937, where he was a member of the Inspection Engineering Department until 1926, when he became a member of the Transmission Apparatus design staff. In 1941 Mr. Farrar became a member of the engineering department of the Southern California Telephone Company where he is now engaged in transmission engineering.

Two Tech Men Awarded Distinguished Flying Crosses

Heroic feats of a Caltech alumnus, flying for the Navy in the Pacific, were written into the national war record when Lieutenant Richard Blair Forward was awarded the Distinguished Flying Cross for heroism displayed in a battle of the lamented U.S.S. Lexington. Announcement of the honor was made in Washington by Secretary of the Navy Knox.

Lieutenant Forward received his B.S. degree in mechanical engineering in 1938. Shortly after his graduation, he entered the Navy Flying school at Pensacola, Florida, and upon receiving his "wings" was assigned to the Lexington. He was married in February, 1941, to Miss Ruth Angwin of Santa Barbara, and they are now living in Lanham, Maryland. Lieutenant Forward is with the Ordnance Department of the Navy in Washington, D. C.

Ensign Richard M. Rowell, who also received his B.S. degree in mechanical engineering in 1938, was awarded the Distinguished Flying Cross for heroism on the Lexington. He is listed as missing in action.