honorary president for 1933–34. He was president of the American Conference of Pharmaceutical Faculties in 1902 and of the Wisconsin Pharmaceutical Association in 1930. The National Association of Boards of Pharmacy made him an honorary president for 1939–40. He was, furthermore, an honorary member of the Société d'Histoire de la Pharmacie and of the Deutsche Pharmazeutische Gesellschaft and a corresponding member of the Gesellschaft fuer Geschichte der Pharmazie. He was awarded the Ebert Prize twice, in 1887 and in 1900, and received the degree of Sc.D.h.c. from the University of Michigan in 1913 and the Remington Honor Medal in 1930. Finally, the American Institute of the History of Pharmacy, founded in 1941 on the initiative of Dr. A. H. Uhl in the spirit of Kremers and as an attempt to perpetuate the work and the ideals of this pioneer, made him its honorary president.

On July 6, 1892, Edward Kremers married Miss Laura Haase, of Milwaukee. Of their children three, two daughters and one son, are living, the son, Roland E. Kremers, working with the General Foods Corporation, Hoboken, New Jersey, and a well-known research chemist.

A man of highest merit and achievements as well as of rare human qualities has left this world. In opening to his profession new ways to science and simultaneously giving to science a new group of adepts he not only has enriched but changed the world of his activities.

GEORGE URDANG

AMERICAN INSTITUTE OF THE HISTORY OF PHARMACY

RECENT DEATHS

DR. RUDOLF SCHOENHEIMER, since 1933 assistant professor and since 1939 associate professor of biochemistry at Columbia University, died by suicide on September 11 at the age of forty-three years.

DR. ALLAN CAMERON FRASER, professor of plant breeding at Cornell University, died on Setember 17. He was fifty-one years old.

VELLORA M. FOSTER, a geologist in the U. S. Geological Survey assigned to ground-water investigations in Mississippi, died on September 2 at the age of thirty-seven years.

THE death is announced at the age of sixty-eight years of Dr. E. E. Maar, professor of the history of medicine in the University of Copenhagen.

SCIENTIFIC EVENTS

CHEMISTRY IN COLLEGE-GRADE DEFENSE TRAINING

CHEMISTRY is included in the new program of college-grade defense training of the U. S. Office of Education, which began on July 1. The new program, described in the *News Edition* of the American Chemical Society, called Engineering, Science and Management Defense Training (ESMDT), is successor to the Engineering Defense Training (EDT) of last year. Besides engineering and chemistry, it includes physics and production supervision (industrial management). The appropriation of $17,500,000 for defense training was divided as follows: chemistry and production supervision, $500,000 each; physics, $100,000; engineering, $16,400,000. Chemical engineering is included in engineering, and accordingly some types of chemical courses have been given under the old program, but it has not heretofore been possible to offer chemical courses that could not be classed under engineering—*e.g.*, the training of analysts.

Dr. Austin M. Patterson, who retired in June from administrative and teaching work in Antioch College, has been named senior specialist in chemistry education and becomes a member of the Washington staff. Professor Norris W. Rakestraw, of Brown University, has accepted appointment as a member of the National Advisory Committee to represent chemistry. Dr. Irvin H. Solt, formerly of the University of New Hampshire, will handle physics; Victor S. Karabasz, University of Pennsylvania, is consultant on business management. Dean Homer L. Dodge, of the University of Oklahoma, and Dean Clare E. Griffin, of the University of Michigan, have been appointed members of the National Advisory Committee to represent physics and production supervision.

Dean R. A. Seaton, of the Kansas State College, is director, and Dean George W. Case, of the University of New Hampshire, and Dean Harold M. Crothers, of the South Dakota State College, are the principal specialists in engineering education. Dean A. A. Potter, of Purdue University, is chairman of the National Advisory Committee.

The purpose of the defense training program is to provide, through various universities, colleges and technical schools, short practical courses of college grade to meet the shortage of trained persons in fields essential to the national defense. In most cases these are part-time courses, given in the evening and designed for in-service training, on or off campus, but pre-employment courses are also being given to persons wishing to prepare for a specific job. The Government pays the actual expense of the courses, including teachers' salaries, but the institution contributes its facilities.

The Engineering, Science and Management Defense Training operates through a system of 22 regional advisers, each of whom is chairman of a committee composed of representatives of the participating institutions in that region. It is the duty of these committees to study the needs in their respective regions; the institutions then make detailed proposals of courses to be offered to meet these needs. If these proposals are approved by the Washington office, courses are organized. The courses are not substitutes for the regular ones leading to a degree and are not (with rare exceptions) given for credit.

In the EDT program now nearing completion, more than 100,000 trainees were enrolled in engineering courses. The number of participating institutions was 144, and the estimated cost about $7,500,000.

THE SUBMICROSCOPICAL RESEARCH CENTER AT STANFORD UNIVERSITY

THE Stanford project for the establishment of a submicroscopical research center for which a grant of $65,000 was made by the Rockefeller Foundation can be divided into three main phases of the work:

(1) Construction of a "service" electron microscope embodying some improvements based on the experience with different actually existing instruments. It will be of such a design that all further developments and improvements can be easily adapted to it. This first instrument should be applied to research projects in the various fields of biology, chemistry, physics, metallography, etc., without forgetting the defense applications of the instrument.

(2) Development of the electron microscope and of all the methods used in conjunction for exploring submicroscopical dimensions. This development program calls for improvements in the resolving power of the electron microscope, improvements in the methods applied for the study of various problems, further physical investigation of the conditions of image formation in the electron microscope, development of auxiliary apparatus and development of any such methods or means which may contribute to the knowledge of the dimensions below the limit of visibility of the light microscope.

(3) With the development of electron optics and electron microscopy, there is an increasing demand for specialized personnel in this new field. The third important task of the research center is the education of such specialists.

A NEW BIOLOGICAL LABORATORY IN ALASKA

THE U. S. Fish and Wildlife Service, formerly the Bureau of Fisheries, recently completed the construction of a permanent field laboratory in southeastern Alaska for the study of the natural reproduction of the pink salmon. The laboratory is located at Little Port Walter on the southern tip of Baranof Island, approximately eighteen miles from the open ocean. There is only one stream flowing into the bay at this location. It originates in a series of mountain lakes and is supplied with a continuous flow of well-aerated water at all times. The bed of the stream varies from sand to large rocks, thus providing opportunity to study the suitability of various types of bottom for the spawning and incubation of the salmon. The entire watershed of the stream, which includes an area of five square miles, has been set aside by the U. S. Forest Service for the exclusive use of the Fish and Wildlife Service.

The populations of pink salmon that reproduce in the stream do not enter the commercial fishery to any great extent and practically all the adults returning from the ocean can be accounted for. By tallying the number of adult salmon that enter the stream each season to spawn and the number of fry that migrate from it to the ocean, it is possible to determine the natural mortality of each year's brood, both in the stream and in the ocean.

The experimental set-up at Little Port Walter consists of a permanent concrete weir by means of which the adult salmon are counted into the stream in the fall of each year and the resulting fry are counted as they migrate from the stream in the spring of each year. Continuous year-round observations are being made of variations in the weather conditions and other natural factors that may influence the survival of each year's brood while in the stream. For this purpose a large laboratory and residence building was constructed at this location which includes a small apartment for the resident biologist and living quarters for the crew necessary in the seasonal operation of the weir. Space is also provided in the building for guest investigators and upon completion of the laboratory facilities accommodations will be available for visiting biologists.

F. A. DAVIDSON,
Fish and Wildlife Service

THE USE FOR DEFENSE PURPOSES OF THE BUILDING IN WASHINGTON OF THE NATIONAL ACADEMY OF SCIENCES

DR. FRANK B. JEWETT, president of the National Academy of Sciences, has written a letter to members of the academy which reads as follows:

The purpose of this letter is to advise you concerning developments in the use of the Academy-Research Council Building for scientific work concerned with defense problems.

As you are all doubtless aware the development of the defense program has directed a steadily increasing amount of work to the academy and research council. Present indications are that still further demands will be made on them and their facilities.

In addition to an added burden on the administrative