authorities (one for England and Wales and the other for Scotland) responsible for general policy.

The conference remains in being. Its honorary secretary, Dr. G. F. Herbert Smith, Society for the Promotion of Nature Reserves, British Museum (Natural History), London, S.W.7.

CHEMICAL ABSTRACTS

Chemical and Engineering News gives the following account of the work of *Chemical Abstracts,* published by the American Chemical Society:

In spite of war *Chemical Abstracts* published more abstracts in 1941 than in 1940. The small increase (505 abstracts) is to be attributed to success during 1941 in the abstracting of European chemical patents after overcoming difficulties which interfered with this abstracting for a considerable period after the outbreak of war in Europe. The 1941 volume contained 5,541 more abstracts of patents and 5,036 fewer abstracts of papers than in the 1940 volume. The abstracts for 1941 total 52,764 in number as contrasted with 52,259 abstracts published in 1940. Of the 1941 abstracts 35,588 are of papers and 17,176 are of patents.

Chemical Abstracts endeavors to cover the chemical literature of the world completely. World-wide warfare presents many serious handicaps in this effort. *Chemical Abstracts* did not approach completeness so closely in 1941 as in normal years. Nevertheless, the record for 1941 is good. Abstracts from many of the papers published during 1941 in the warring or conquered European countries were obtained by some success in getting the needed periodicals (good success until Russia's entry into the war closed the trans-Siberian route), by searching this country for periodicals received in one library or another, and by having abstracts made in Europe, particularly in Switzerland and Germany, and sent by clipper ship.

In general, the policy of *Chemical Abstracts* is to publish informational rather than merely descriptive abstracts. Special emphasis has been placed on this for European and other publications not readily accessible to most Americans at the present time. The average page of *Chemical Abstracts* in 1941 contains 11.5 abstracts of papers or 18.6 abstracts of patents. The corresponding figures for 1940 are 12.1 and 18.0, respectively.

The edition of *Chemical Abstracts* averaged approximately 15,000 copies during 1941.

The much-used list of periodicals abstracted by *Chemical Abstracts,* with its key to library files, is normally published in revised form every five years. The list was due for revision in 1941, but the war has made postponement necessary. Satisfactory revision with American libraries in their present war-handicapped condition is not possible. The *Chemical Abstracts* office is keeping as well informed as possible concerning scientific periodicals and is willing to help users of abstracts locate full papers whenever possible. Hundreds of inquiries are answered monthly.

The only editorial change during the year was the well-earned elevation of Charles L. Bernier to an associate editorship following the regretted resignation of Janet D. Scott, who left to join the Chemical Warfare Service staff at Edgewood, Md. Miss Scott is continuing to help in the naming and indexing of inorganic compounds. The editor gratefully acknowledges the valuable help of all of the assistant editors and abstractors, many of whom are continuing their work for *Chemical Abstracts* in spite of heavy national defense assignments. Our work is regarded as being in the same category.

THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY

THE Federation of American Societies for Experimental Biology will meet in Boston from March 31 to April 4. The general chairman of the meeting is Dr. Albert G. Hogan, University of Missouri, and the general secretary is Dr. Donald R. Hooker, the Johns Hopkins University. The following table gives the date of meeting of the constituent societies, and the names of the presidents and secretaries.

SOCIETY	PRESIDENT	SECRETARY
	April 1 to 2	
American Institute of Nutrition	Dr. Albert G. Hogan University of Missouri	Dr. Arthur Smith Wayne University
	April 2	
American Physiological Society	Dr. Philip Bard The Johns Hopkins University	Dr. Carl J. Wiggers Western Reserve University
	April 2 to 4	
American Society of Biological Chemists	Dr. Rudolph J. Anderson Yale University	Dr. Arnold K. Balls George Washington University
	April 2 to 4	
American Society for Pharmacology and Experimental Therapeutics	Dr. E. M. K. Geiling University of Chicago	Dr. Raymond N. Bieter University of Minnesota
	April 2 to 4	
American Society for Experimental Pathology	Dr. Jesse L. Bollman Mayo Clinic, Rochester, Minn.	Dr. H. P. Smith State University of Iowa

PHI LAMBDA UPSILON

THE results of the recent election of the national officers of Phi Lambda Upsilon, honorary chemical society, are announced in the January issue of the *Register,* the official publication of the society. Professor William M. Sandstrom, of the department of agricultural biochemistry of the University of Minnesota, was reelected president. Professor T. F. Buehrer, head of the department of agricultural chemistry of the University of Arizona, and for twelve years national secretary-treasurer, was elected to the vice-presidency. Both men have long been identified with the national activities of Phi Lambda Upsilon.

Professor L. F. Audrieth, of the University of Illinois, was reelected editor of the *Register*. Dr. C. S. Carlson, assistant professor of chemical engineering at the University of Pennsylvania, and Professor Herschel Hunt, of Purdue University, were chosen for the offices of secretary and treasurer, respectively.

Phi Lambda Upsilon has enjoyed a remarkable growth since it was founded at the University of Illinois in 1899 as a society for the promotion and recognition of high scholarship and achievement in the field of chemistry. Only seven collegiate honorary organizations antedate the founding of Phi Lambda Upsilon. There are now thirty-eight chapters with an active and alumni membership exceeding 11,000.

For many years Phi Lambda Upsilon has recognized outstanding American investigators by election to honorary membership. During the past year two distinguished chemists have been awarded this distinction—Dr. Linus C. Pauling, director of the Gates and Crellin Laboratory at the University of California and Nobel Laureate, and Professor William Lloyd Evans, retired head of the department of chemistry at the Ohio State University and president of the American Chemical Society.

THE CHARLES FREDERICK CHANDLER MEDAL OF COLUMBIA UNIVERSITY

FOR outstanding achievements in chemical science, Dr. Robert R. Williams, chemical director of the Bell Telephone Laboratories, New York, and Dr. Roger J. Williams, of the University of Texas, received on February 26 awards of the Charles Frederick Chandler Medal of Columbia University. This is the first double award of the medal since it was established in 1910.

Dr. Robert R. Williams was cited for "his years of work on the isolation of vitamin B_1 and his contributions to the elucidation of its chemical structure." Vitamin B_1, which Dr. Williams synthesized and named thiamin, is the antineuritic beriberi vitamin, vital to nerve health and life.

The award to Professor Roger J. Williams was made in recognition of his discovery of pantothenic acid, powerful regulator of growth popularly known as "the acid of life," and for his contributions to the knowledge of the vitamin B complex.

The medal ceremony was held in the Horace Mann Auditorium. Dr. George B. Pegram, dean of the Columbia Graduate Faculties, presented each recipient with a certificate in lieu of a gold medal, presentation of which will be postponed until after the war. The university, as part of its conservation policy, has discontinued striking bronze, silver or gold medals during the war period.

Vitamins will increase intelligence and morality as well as give people better physical and mental health, was stated by Dr. Roger J. Williams in a joint discussion on "Vitamins in the Future." He pointed out that "Since an ample supply of vitamins can foster a higher intelligence in human subjects, it has also the capability of fostering morality. Recent studies, several of them in New York City, have shown without question that intelligence and morality go together."

Discussing novel approaches to the treatment of diseases by chemical means, Dr. Roger Williams described a new "definite guiding principle" that chemists may follow in their investigations. He said:

> It seems a reasonable working hypothesis to assume that chemical substances which have striking physiological effects have these effects because of their resemblance to naturally occurring tissue constituents. Continuing, we may assume that many substances of potential therapeutic value will be found which bear chemical resemblances to the various vitamins, of which we now have a considerable variety.
>
> If these remarks are valid, chemotherapy can now develop, not in a hit-and-miss and entirely empirical fashion, but by making use of at least one definite guiding principle.
>
> One of the most important applications of vitamin knowledge will be, I believe, to the study of cancer. Our work as well as that of others indicates that the vitamins in the diet make a difference in cancers other than those induced by butter-yellow.

All the vitamins which are required to check the great nutritional plagues of mankind have already been discovered and produced commercially. Dr. Robert Williams stated that:

> The lesser vitamins, if we may call them such for the sake of brevity, may afford us, however, great revelations regarding physiological and even pathological processes and so must be classified as lesser only in a narrowly defined sense.
>
> The point in distinguishing between major and lesser vitamins is one which concerns present-day technology, present-day economics and present-day sociology. I should like to divert the minds of food processors, teachers of nutrition, practicing physicians and laymen from speculating about the latest surmise of vitamin science and persuade them to devote their major energies to the intelligent application of the vitamins which stand in the front row on the shelf.
>
> It is high time we should be systematically eradicating the long known deficiency diseases. The first impulsion of our present knowledge of vitamins and their essential roles should be to promote restoration of values lost to the masses by these restrictions. A general removal of economic restraints would largely achieve the result because appetites lead to diversity when income permits.
>
> This, however, is a Utopian ideal far beyond our immediate reach. Education, if universal, would largely accomplish the result, for avoidance of refinement is not inherently costly. However, education of the most needy