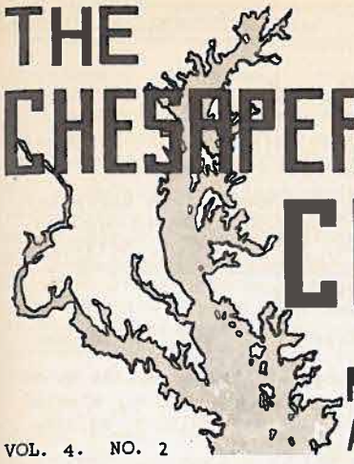
FEBRUARY 1948

THE CHESAPEAKE CHEMIST



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THE FEBRUARY MEETING

At the meeting on February 27, Dr. Lawrence F. Hafstad will speak on "Government Organizations for the Support of Science." Our speaker is especially well informed on this subject by reason of his appointment, last July first, as Executive Secretary of the Research and Development Board of our unified Department of Defense, which is charged with the responsibility of planning the entire research program of the Armed Services.

Dr. Hafstad received the B.S. and E.E. degrees from the University of Minnesota in 1926 and pursued graduate study at that university for two additional years. He was co-winner of the American Association for the Advancement of Science Award in 1931 and completed his work for the Ph.D. degree in 1933 at The Johns Hopkins University. He served as Research Physicist at the Carnegie Institution of Washington and, later, as Vice-Chairman of Section T, Office of Scientific Research and Development, while he was also doing research at the Applied Physics Laboratory of The Johns Hopkins University. During this war period he directed the research which led to the development and manufacture of the VT Proximity Fuse, the Mks 57 and 61 Fire Control Gun Director and the Mk 9 Torpedo Exploder. In 1945 he was made Assistant Director, and in 1946 Director, of Research of the Applied Physics Laboratory. In July, 1947, he was given a one-year leave of absence from this responsibility so that he could accept the appointment as Executive Secretary of the Research and Development Board. In March, 1947, he was also made Director of the Institute for Cooperative Research of The Johns Hopkins University, and he is continuing his work in this capacity.

The dinner preceding the meeting will be held at the Johns Hopkins Club. Reservations must be made before noon, Thursday, February 26, with Dr. A. H. Corwin, Department of Chemistry, The Johns Hopkins University, Baltimore 18 - telephone HOpkins 3300, Extension 58. The dinner is open to all members of the Section.

Section Officers
Chairman J. A. Herculson, 407 Murdock Road, Baltimore 12
Vice-Chairman A. H. Corwin, Department of Chemistry, The Johns Hopkins University, Baltimore 18
Secretary-Treasurer H. H. Lloyd, Goucher College, Baltimore 18

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MARYLAND SECTION NEWS

The Treasurer will be glad to accept $1 for your local dues.

Membership in the Section is now large enough to entitle us to four councillors. The fourth councillor for the Section, elected for a one year term at the December meeting, is Edward S. Hopkins, Associate Engineer, Bureau of Water Supply.

Chairman Herculson has announced the names of the Chairmen of Section Committees for 1948. They are Dr. A. H. Corwin (Johns Hopkins) - Program Committee, Dr. Robert D. Fowler (Johns Hopkins) - Remsen Lecture Committee, Dr. Winslow H. Hartford (Mutual Chemical Co.) - Publicity, Dr. C. Jelleff Carr (University of Maryland Medical School) - Speakers Bureau, and Dr. R. L. Costa (Mutual Chemical Co.) - Membership. These men, with the officers, councillors, members-at-large and all resident past chairmen of the Section, make up the Executive Committee for 1948.

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CHEMICAL LIBRARIES IN BALTIMORE. IV

Margaret L. Jacobs, Assistant,
Industry and Science Department, Enoch Pratt Free Library

The Glenn L. Martin Plastics Division Library is a small collection of pertinent reference works on plastics and chemistry. It includes complete sets of Chemical Abstracts, Resins, Rubbers, Plastics, British Plastics Abstracts, Bibliography of Science and Industrial Reports, and files of journals from 1943 to date in these special fields. Of particular interest are the patent files which include all patents on vinyls issued by England, Germany, France and the United States. There is an especially prepared subject index of abstracts to these patents. The library has abstracts of literature covering the same subject matter and photostats of many of the literature references mentioned. The library maintains a finding list of chemicals which can assure location of any chemical in the Organization within a few minutes. It also maintains a large file of trade catalogs and house organs as well as Company research reports, and is accumulating a very large file of reports of the German plastics industry and allied fields - many of which are translated. This library handles the reference work for both the local laboratory and the plant in Painsville, Ohio. It is located in the Industrial Building.

from page 4) City Health Department of Food Control occasions submission of approximately 1,000 miscellaneous food samples per year for determination of impurities. Examinations are made for preservatives, harmful chemicals, artificial colors, decomposition and filth, the last by microanalytical methods. Specialized equipment used in these tests includes: Beckman spectrophotometer, refractometer and stereoscopic microscope. Simultaneous bacteriological control tests of milk, water and food are made in the Division of Bacteriology. In this way, consumer protection is more adequately assured. The food regulatory function of the City Health Department supplements at the local level the intrastate control work of the State Health Department and the interstate supervision of food by the Baltimore Station of the U. S. Food and Drug Administration.

As an aid in the control of occupational diseases, samples of dusts, fumes, vapors, gases, solvents and other materials that may affect the health of industrial workers are analyzed to detect harmful chemical substances and to determine their concentrations. The collection and analysis of these samples requires special techniques and adaptations of gravimetric, volumetric, colorimetric, electrometric and photometric procedures. Tests are made for lead, arsenic, chromium, mercury, manganese, zinc, selenium, silicon dioxide, nitrogen oxides, fluorine, carbon monoxide, benzol, halogenated hydrocarbons and many other industrial poisons. Each year about 350 specimens of blood are examined for lead as part of a service offered to local physicians to assist in the diagnosis of lead poisoning. Thus material aid is given the inspection personnel of the Division of Industrial Hygiene and the Bureau of Occupational Diseases in maintaining safe working atmospheres in the more than 3,500 manufacturing plants which employ one-fourth of the local population. In addition, the Division of Industrial Hygiene is equipped with apparatus for making numerous tests and surveys directly in the field. Included in this special equipment are: ventilation measuring instruments, dust and mist collectors, detectors of carbon monoxide, hydrogen sulfide and mercury vapor, micro gas analyzer, sound level meter, combustible vapor detector, Geiger-Müller radiation measurement set and light meters.

Although not organized in a central library, the Health Department has several hundred reference books related to public health, chemistry, bacteriology, sanitation and medicine. Numerous scientific periodicals, journals, official and trade publications are received regularly. The facilities of the department are always available to interested medical and scientific personnel.

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The Johns Hopkins University Chapters of Sigma Xi and Phi Beta Kappa will meet at Levering Hall at 8:00 P.M. on March 15, when President Bowman will speak on "An Excursion into Humanism".

The Maryland Association of Medical and Public Health Laboratories will meet at Mercy Hospital at 2:00 P.M. on February 18 to discuss "Atomic Medicine". Topics announced are "General Aspects with Emphasis on Protection" and "Histological Service".

Dr. Hafstad

NEXT MEETING 8:30 P.M., Friday, February 27
PLACE Room 101, Remsen Hall, Johns Hopkins
Charles & 34th Streets
SPEAKER Dr. Lawrence F. Hafstad
SUBJECT Government Organizations for the
Support of Science
DINNER 6:30 P.M., Johns Hopkins Club
The meeting is open to any who are interested.
Bring another chemist.

GETTING ACQUAINTED WITH CHESAPEAKE CHEMISTRY
XV. Chemistry in the Baltimore City Health Department

(Courtesy of Emanuel Kaplan, Chief,
Division of Chemistry, Bureau of Laboratories)

Chemical laboratory activities in the Baltimore City Health Department began in 1873 with the employment of Dr. William P. Tonry, who at that time was Professor of Analytical and Applied Chemistry at the Maryland Institute. In his private laboratory, Professor Tonry made analyses aimed at the improvement of milk and water supplies. Some 23 years later, on July 1, 1896, provision was made for establishment of official chemical and bacteriological laboratories in the City Health Department. The very earliest public health laboratories to be founded in this country had opened under Dr. Hermann M. Biggs in New York City only four years earlier, in 1892. The chemical laboratory in the Baltimore City Health Department was a unit of the former Bureau of Chemistry and Food until 1933. In that year, Dr. Huntington Williams, the Commissioner of Health, arranged for the consolidation of the chemical laboratories and bacteriological laboratories in the Baltimore City Health Department. This new unit is currently known as the Division of Chemistry of the Bureau of Laboratories.

Public health chemical analysis, the chief work of the Division of Chemistry, is principally concerned with the protection of the public health by the application of chemical methods to the hygienic control of milk, water, food, air and environmental sanitation. The chemistry laboratory staff consists of a Division Chief, a senior chemist, a junior chemist and a laboratory assistant. The laboratories are located in the Municipal Office Building.

The activities of the Division of Chemistry involve routine work and research studies, both of which are integrated principally with the activities of the Sanitary Section of the department. More than 7,000 samples of milk and dairy products are tested annually for proper pasteurization, adulteration and extraneous matter. Tests for proper pasteurization are made daily on samples submitted from each of the city's 14 milk pasteurizing plants which collectively process approximately 100,000 gallons of milk per day. The supervision of more than 11,000 food handling establishments by inspectors of the Bureau (to page 3