



THE **CHESAPEAKE
CHEMIST**

May, 1958

Presented to

Robert B. Woodward

on the occasion of his

Remsen Memorial Lecture

sponsored by

*The Maryland Section of the American
Chemical Society*

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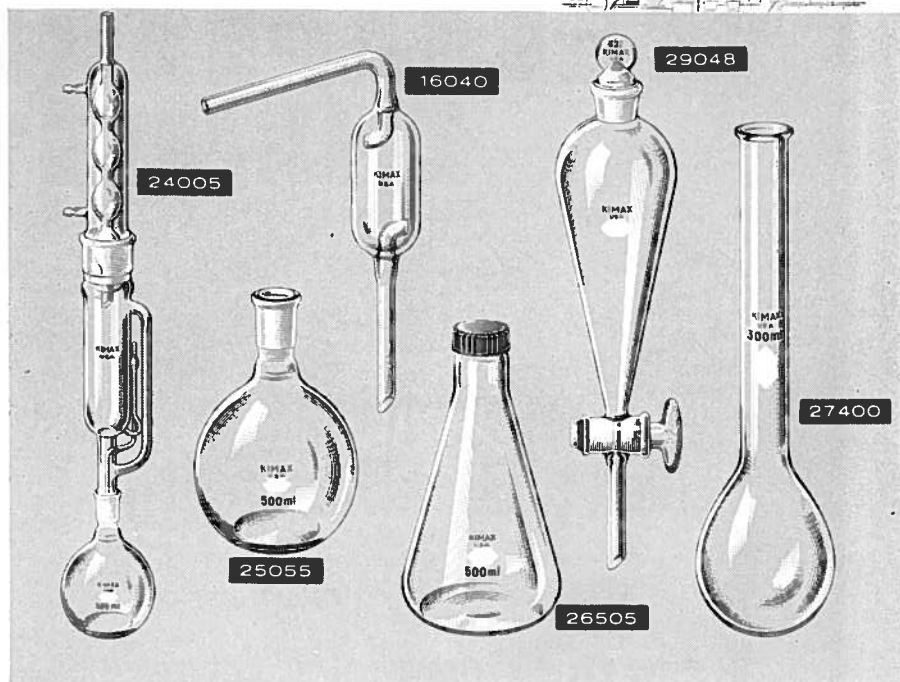
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Teacher, Investigator, Author, Administrator

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THE CHESAPEAKE CHEMIST

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TABLE OF CONTENTS

	Page
The May Meeting	5
Chesapeake Asso. Industries.....	9
Maryland Section News	12
Recent Meetings.....	17

COVER

This month's cover shows the scroll traditionally given to the Remsen lecturer.

- For determination of halogens, sulfur, traces of metals, etc., in organic materials
- A new, simplified technique for micro and semimicro quantities
- End-products free from metallic contaminants

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Consisting of a heavy wall, conical flask, of borosilicate glass, with flaring lip and elongated interchangeable ground glass stopper with attached U-shape, platinum wire gauze sample carrier and small, specially cut, unsized low ash paper sheets which serve as holders for the sample.

In use, the sample is wrapped and folded in the paper holder. Sample is then placed in the platinum

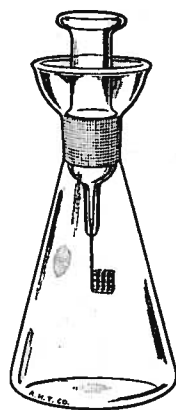
carrier and the flask is charged with a small amount of absorbing liquid as required for the specific reaction and with free-flowing oxygen. The paper tail is then ignited; the stopper with sample is seated in the flask and flask then inverted at an angle. The catalytic combustion proceeds at high temperatures and the combustion products are absorbed in the liquid, which forms a seal around the stopper. After cooling, the inside surfaces of the flask and stopper are thoroughly rinsed. Titrations can then be made directly in the flask. Due to the inherent fragility of glass in the presence of reduced pressure, general safety regulations should be followed, such as the use of shield, goggles, etc.

Results compare favorably, i.e., within $\pm 0.3\%$, with conventional combustion or decomposition methods. The method has been used extensively for analysis of the above elements but, because of the low cost, time and space saving features, should find wide use for materials which undergo complete combustion.

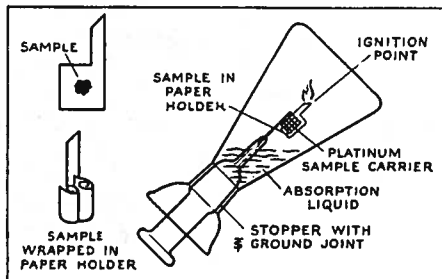
See Wolfgang Schöniger, *Mikrochimica Acta*, 1955, Heft 1, pp. 123-129, and *ibid.*, 1956, Heft 1-6, pp. 869-876.

6470-E. Combustion Apparatus, Thomas-Schöniger (Schöniger Flask) Micro, as above described, 300 ml capacity, for samples up to 10 mg. With No. 34/28 standard taper stopper and platinum wire gauze sample carrier weighing approximately 1.5 grams, 100 Paper Sample Holders and directions for use. **28.35**

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THE THIRTEENTH REMSEN LECTURE

Date:

Friday, May 23, 8:30 P.M.

Place:

Shriver Hall, Johns Hopkins University

Speaker:

Dr. Robert B. Woodward
Department of Chemistry
Harvard University
Cambridge, Massachusetts

Subject:

Chemistry of Natural Products



The Speaker

Dr. Woodward was born in Boston, Mass., on April 10, 1917. He graduated from Massachusetts Institute of Technology in 1936 and received his Ph.D. from the same institution in 1937. He has been given the D.Sc. honorary degree from Wesleyan University (1945), University of Manchester (1954); Bucknell University (1955); University of New Brunswick (1956); Yale University (1956) and A.M. (1945) and D.Sc. (1957) from Harvard University.

In 1937, Dr. Woodward was appointed a postdoctoral fellow at Harvard University; appointed to the Society of Fellows in 1938-40; Instructor in Chemistry 1941-44; Assistant Professor in 1944-46; Associate Professor 1946-50; Professor in 1950-53. He was appointed Morris Loeb Professor of Chemistry at Harvard University in 1953 to present.

In 1948, Dr. Woodward was appointed honorary lecturer by the American Swiss Foundation; the Harrison Howe Lecturer in 1950; centenary Lecturer of The Chemical Society (London) in 1951; Stieglitz Lecturer in 1952; National Phi Lambda Upsilon Lecturer in 1953; Section Lecturer of the XIVth International Congress of Pure and Applied Chemistry in 1955 and the Ciba Foundation Lecturer in 1956.

His awards include the John Scott Medal in 1946; the Baekeland Medal in 1955; Lederle Prize in 1955; Research Corporation Award in 1955; Nichols Medal in 1956; American Chemical Society Synthetic Organic Chemistry Award in 1957, and the Richards Medal in 1958.

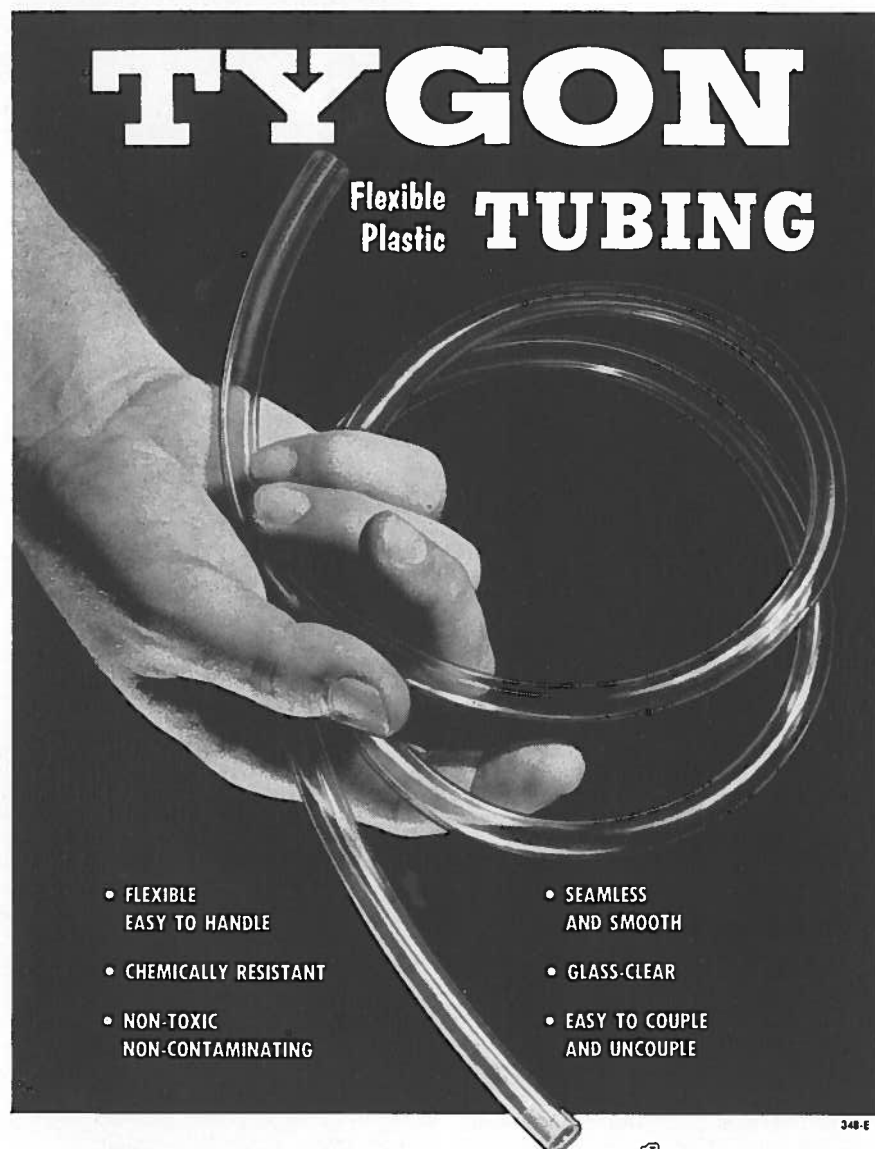
He is a member of the National Academy of Sciences; Fellow of the American Academy of Arts and Sciences; Honorary Member of the German Chemical Society; Honorary Fellow of the Chemical Society (London); Foreign Member of the Royal Society; Honorary Member of the Royal Irish Academy, as well as member of the American Chemical Society and many other Societies.

Dr. Woodward is consultant to the Polaroid Corporation (Since 1942); Chas. Pfizer and Co., Inc. (since 1951); Eli Lilly and Co. (1945-57); Mallinckrodt Chemical Works (1947-57); Monsanto Chemical Co. (1948-57) and has been consultant to the Committee on Medical Research (1944-45) and the War Production Board (1944-45).

In addition to Dr. Woodward's teaching awards, honors, and other accomplishments he is outstanding in his synthesis of many natural organic products and has many publications to his credit.

Most of Dr. Woodward's work has been in the field of natural products—the proof of their structure and, where possible their synthesis. Among the outstanding accomplishments achieved by him and his co-workers, are the following: the first total synthesis of quinine; first total synthesis of cortisone; the elucidation of the structure of terramycin; the synthesis of reserpine; contributions to structure of strychnine and its total synthesis. Dr. Woodward has made as his special field not

(Continued on page 7)



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only the achievement of difficult syntheses but also the systematic understanding of organic reaction theory which makes the successful achievement of these syntheses a practical possibility.

Dr. Karl J. Brunings

Dr. Karl J. Brunings, director Chemical Research and Development Division, Chas. Pfizer & Co., Inc., Brooklyn, New York, will introduce Dr. Woodward.

Dr. Brunings was born in Baltimore, Maryland, December 4, 1913. He was a research chemist at Eastman Kodak Co. from 1939-41; a Graffin teaching fellow at Johns Hopkins University from 1941-45; instructor in organic chemistry from 1943-44. In 1944, he was appointed assistant professor at New York University; an assistant professor at Johns Hopkins University 1946-47 and associate professor 1947-48. In 1948, Dr. Brunings went with Chas. Pfizer & Co., Inc., as a research chemist; in 1950 he was advanced to assistant director; then associate director in 1952, and finally director of Research and Development in 1953.

Dr. Brunings has done research in color photography, pyrrole pigments, proteins, amino acids, antibiotics, pharmaceuticals, organic synthesis, and food chemistry. He is a member of American Chemical Society and the New York Academy of Science.

Cocktails

Cocktails will be served in the Game Room at the Johns Hopkins Club at 6:30 P.M.

Dinner

Dinner will be served in the Ladies Dining Room, Johns Hopkins Club, banquet style, at 7:00 P.M. Kindly send in your reservations to Mr. Edward Hoshall, 224 Homewood Terrace, Baltimore 18, Md. (Phone: TUXedo 9-8515). Cost \$3.25.

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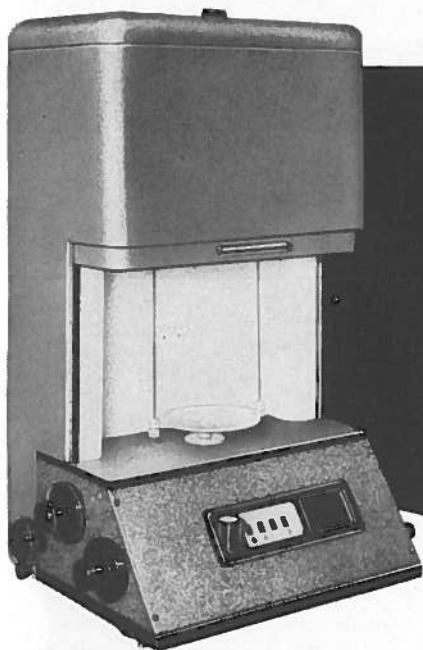
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Bulletin 280

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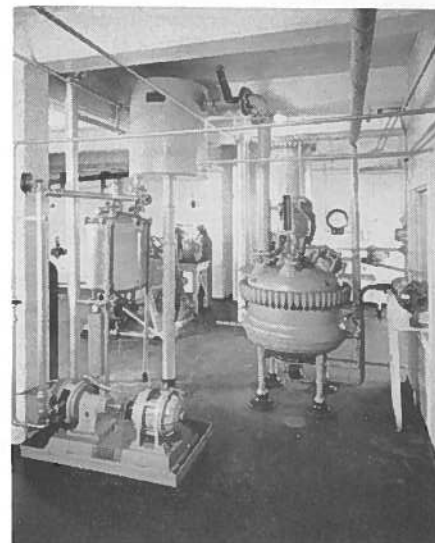
**CHEMISTRY AND CHEMICAL ENGINEERING
IN CHESAPEAKE AREA INDUSTRIES**

Edited by F. Timothy Parr

The following is the fifth in a series of articles which will be published from time to time describing the various chemical industries in the Chesapeake Area.

**HYNSON, WESTCOTT & DUNNING
ETHICAL PHARMACEUTICAL CHEMISTS**

Sixty-nine years ago, Henry P. Hynson and James W. Westcott founded an ethical pharmaceutical laboratory specializing in dispensing and other public health services. In 1894 they were joined in this endeavor by H. A. B. Dunning and thus the firm became known as Hynson, Westcott & Dunning. The founding of the business was occasioned by the fact that at that time, there were few strictly ethical pharmacies. Realizing the need for such a facility in Baltimore, the founders of Hynson, Westcott & Dunning established their firm with the specific objective of dispensing drugs and prescriptions accurately, and using only the finest materials available. They also intended to provide the medical profession with preparations and services not elsewhere available. The pharmacy soon acquired an excellent local reputation and many staff members of the Johns Hopkins and University of Maryland medical schools were frequent visitors. As a result of these early associations, a number of special preparations were later developed.



View of some of the manufacturing facilities in the plant Sterile Products



Dept. Lab of Hynson, Westcott & Dunning

Special Preparations

A few years after Dr. Dunning joined the firm, his interest in preparing experimental preparations for physicians led to the manufacturing of special products, many of which were suggested by medical friends.

The history of Hynson, Westcott & Dunning, as pharmaceutical manufacturers, can be said to begin at this time. Previously the company had confined its attention to retail pharmacy, but now it began to prepare products for general distribution. In the early days much

time was devoted to experimental work on minor problems such as improvement in methods of dispensing, appearance, palatability and method of administration of finished products. Studies were made of drug incompatibilities and of means of stabilizing biological stains.

Ovarian Products First

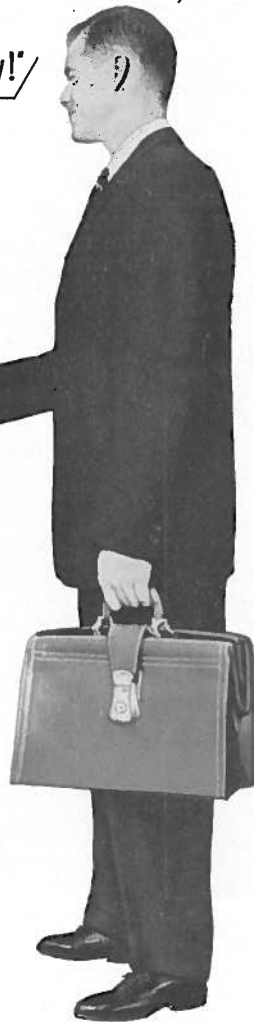
The early pharmaceutical specialties were of a biological nature. Ovarian products came first and were soon followed by a dehydrated culture of *Lactobacillus Bulgaricus* in tablet form.

(Continued on page 11)

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(Continued from page 9)

Research in ovarian products has led, after more than 50 years, to the discovery of an orally active, non-steroid, uterine relaxing hormone—LUTREXIN—which is used widely for treatment for premature labor, dysmenorrhea, and threatened and habitual abortion.

The first dehydrated cultures of *Lactobacillus Bulgaricus* were a far cry from the present day preparations—LACTINEX TABLETS and LACTINEX GRANULES—which contain many millions of the organisms *Lactobacilli Acidophilus* and *Bulgaricus* per gram. These products are employed in treating diarrheas (including those induced by antibiotics), and other gastro-intestinal disturbances.

One of the most important events at that time was the commercial preparation of the dye Phenolsulfonphthalein, which led indirectly to the development of "Mercurochrome." Synthesis of the dye was announced by Dr. Ira Remsen of the Johns Hopkins University in 1889. Subsequent pharmacological and clinical study of material prepared by Dr. H. A. B. Dunning, who originated the commercial process, led to development of the Rowntree-Geraghty kidney function test. At about that time Dr. Dunning also prepared, in cooperation with Dr. Geraghty, a mercury compound of the dye which was investigated by Drs. Hugh H. Young and E. G. Davis as a possible urinary antiseptic. Extension of this study by Dr. E. C. White led to the synthesis of "Mercurochrome," the process for preparing the soluble sodium salt being worked out by Dr. Dunning.

Dunning Synthesized Merodicein

A third compound, the sodium salt of monohydroxymercuridiiodoresorcinsulfonphthalein, known commercially by the trade-name "Merodicein," was synthesized by Dr. J. H. F. Dunning, son of Dr. H. A. B. Dunning. This compound is widely used in medicine as one of the two active drugs in "Thantis" Lozenges.

All these developments can be said to stem from Dr. Remsen's synthesis of Phenolsulfonphthalein, and it is interesting to note that this synthesis, which became so closely related to the history of the firm, occurred in the same year that the company was formed.

Many other diagnostic and therapeutic products have been made available to the medical profession during the past thirty years as a result of cooperative research between the staff and clinical investigators. This has been possible be-

cause Dr. Dunning, from the beginning, recognized the importance of research in industry. Development of research departments within the organization began at an early date, the first step in this direction began the establishment of a chemical research laboratory. At first some of the senior research men were on a part-time basis, being associated also with the educational institutions of Baltimore, but this arrangement changed as the laboratories expanded. Pharmacological and bacteriological laboratories were added when interest turned to biological products and have now been developed into a general biological department. Laboratory facilities have been greatly expanded in recent years and research is carried on continuously with independent investigators.

Firm Developed Heparin

The firm's laboratories, in cooperation with Dr. W. H. Howell, developed the first commercial preparation of the blood anticoagulant, Heparin. They were also the first to supply ovarian products, Phenolsulfonphthalein, and organic mercurial antiseptics.

Among recent developments, an entirely new system of preparing sterile chemical and biological ampule products has been completed and was used as a model for some of the large Penicillin plants in this country and abroad.

During the Second World War the company's staff engaged in a number of research projects with the Army and Public Health Service. The laboratory, for example, developed a sterile dispenser package of Sulfanilamide for the Armed Services. The device was patented, but the rights were relinquished to permit other concerns to supply civilian medical requirements. Many millions of these packages were supplied under contracts with the United States Services and Allied Governments.

Hynson, Westcott & Dunning, Inc., also supplied all military requirements of BAL Ampules. This product, which was on a "secret" basis until recently, has since been disclosed to be 2,3-dimercaptopropanol. As the name, British Anti-Lewisite, suggests, this substance is an effective therapeutic agent against the action of certain arsenical war gases. Clinical trials have shown it to be of value also in some types of heavy metal poisoning.

Business activities are still restricted to the production of therapeutic and diagnostic agents developed in the firm's

(Continued on page 17)

MARYLAND SECTION NEWS



INDUSTRIAL

DAVISON CHEMICAL CO.

Production of nuclear reactor feed materials has started at a new plant of the Davison Chemical Company Division of W. R. Grace & Co. at Erwin, Tenn., it was announced yesterday. Occupying an essential intermediate position between primary producers of thorium and uranium raw materials and ultimate industrial users of nuclear materials in reactors of one type or another, the plant is considered a major step forward in the practical development of nuclear power by private capital.

Equipped and staffed to serve an industry still in the research and development stage, the plant can provide whatever is specified in the way of uranium or thorium materials for nuclear power. It takes thorium or uranium concentrates from industrial sources, or enriched uranium hexafluoride from Atomic Energy Commission gaseous diffusion plants, and converts these source materials to thorium oxides, nitrate, metal or alloys; uranium oxides, nitrate, metal or alloys; uranium oxides, tetrafluoride, metal, alloys and other components.

Employing about 100 persons, and representing an investment of nearly \$2,000,000, the operation is broad enough to require three different types of structure for processing purposes—metals, chemical process, and ceramics buildings. With this equipment it can perform nearly all feed material functions. It is the first completely integrated plant of this description to be constructed by private industry.

Laboratories, which are part of the facility, assist in development work and maintain purity standards. Purity requirements are such that certain elements, boron for instance, must be practically eliminated.

The plant has these distinctions, among others:

It is the only facility in private industry where the pulse type solvent extraction process developed by the AEC

is used for purification of uranium and thorium. For practical purposes, this means the plant can produce in quantity higher purity materials than any other privately owned facility.

It is the only plant in private industry equipped to convert in quantity slightly enriched uranium hexafluoride—the form in which enriched uranium is produced by AEC—to uranium oxide or uranium metal.

It is the only completely integrated facility for producing uranium and thorium oxides—powder forms—compacting and heat treating them, assembling them into finished fuel elements, and recovering scrap. A job of this sort is now under way for a major reactor installation.

Although the plant is intended primarily as a processor of materials, the additional steps such as pelleting, high temperature sintering, loading pellets into rods and fabricating metal or alloy ingots into bars, rods, sheets and other forms are undertaken if the customer desires. Scrap recovery is also offered to feed material customers. Such diversified services were hitherto available only from scattered independent sources.

Familiarity with thorium and uranium processing, and suitable equipment, enable the plant to produce for non-nuclear purposes thorium metal, magnesium-thorium master alloys, and ingots of finished alloy for processing to structural or cast components. These are in demand for aircraft components, refractories and in the electronics field, among others.

General manager of the Erwin plant is T. C. Runion, who has been in the atomic energy field for 12 years, with experience in both development and production. He was with the AEC center at Fernald as assistant to the technical director, in charge of thorium production and development and assisting in the administration of various other technical activities.

The Davison Chemical Company Division of W. R. Grace & Co. has named Milton Winyall, chemical engineer, recipient of the Marlin G. Geiger award for individual accomplishment by employees, it was announced by H. B. DeVinney, vice-president, industrial and public relations. Mr. Winyall was chosen for his contributions to process improvement in petroleum catalysis.

(Continued on page 13)

(Continued from page 12)

The award, which is \$1,000 and a scroll, is named for Mr. Geiger, executive vice-president in charge of Gracc's chemical group, and he and W. E. McGuirk, Jr., president of the Davison division, made the presentation to Mr. Winyall.

Basis of the award is stated as "outstanding and effective contributions to the development of all phases of the management skill or technique in operations, research, marketing, accounting, purchasing, traffic or human relations within the Davison organization." Mr. Winyall is the second recipient; previously it had been conferred on James E. Elston.

Mr. Winyall, a graduate of Lawrence Institute of Technology, Detroit, who served in the U. S. Air Force, came to Davison in 1950, first in research and later attached to the Petroleum Catalyst Department.

A. R. Worrall, who was general manager, industrial chemicals, Davison Chemical Company Division of W. R. Grace & Co., has been appointed managing director for all service and staff organizations at Davison's Curtis Bay (Baltimore) Works. He will also be responsible for the production of superphosphate and sulphuric acid, and will report to D. N. Houseman, vice-president, Agricultural Chemicals Division.

David P. Barrett has been named general sales manager, industrial chemicals, by the Davison Chemical Company Division of W. R. Grace & Co. He was formerly general manager, rare earths, and in his new post will continue to have responsibility for these products. He reports to Robert D. Goodall, vice-president and general manager, Chemicals Division.

Davison Chemical Company, Division of W. R. Grace & Co., announces the appointment of John F. Quinn and Albert J. Gnesin as District Representatives.

Mr. Gnesin will be in charge of the Davison office in New York and Mr. Quinn in San Francisco.

Both have been with Davison in other assignments and have extensive background in the oil and chemical industries.

BALTO GAS & ELEC. & PEMCO

Mr. Andrew Rekus of Baltimore Gas and Electric Company and Mr. Wm. A. McLeran, Jr. of Pemco Corporation represented The Baltimore — Washington Spectroscopy Society at the annual meeting of The Federation of Spectro-

scopic Societies at Pittsburgh on March 6, 1958.

The main purpose of this meeting was to establish a constitution for a National Society of Spectrographers. The new organization will probably be called the "Society for Applied Spectroscopy."

C. O. MONK, INC. of MD. Our Technical Director, Mr. Charles A. Haase, recently attended a meeting of the research committee of The National Printing Ink Research Institute in Chicago. He has been selected as a member of the research committee and attended the committee meeting of the National Printing Ink Research Institute at the Lehigh University early in March.

This research committee is an industry-wide group of technical people whose primary object is cooperative research and development upon basic problems inherent in the printing ink industry.

CRIPPEN & ERLICH LABORATORIES, INC.

Mrs. Hellen L. Crippen, of Crippen & Erlich Labs., Inc. spoke before the Biology Club of Eastern High School on "The Care and Breeding of White Mice." Her talk was illustrated with specimens of live white albino mice in various stages of development from the Baltimore Colony. The colony in Baltimore has been set up to furnish Swiss Webster Albino Mice to the research laboratories of the Baltimore-Washington area.

MUTUAL CHEMICAL DIVISION

Mrs. Cornelia Williamson, Research Librarian at Mutual for the past 2½ years has recently left the company. Mrs. Williamson who was a contributor to the Chesapeake Chemist for Mutual is a graduate of Wellesley College with a B. S. Degree in Chemistry. She taught in the Baltimore County Schools for two years before coming to Mutual. She is a member of the A.C.S. and The Special Librarians' Association. Her future plans after leaving Mutual were uncertain.

Mr. March Darrin, Associate Director of Research for The Mutual Chemical Company of America and the Mutual Chemical Division of Allied Chemical & Dye Corporation since 1936, is retiring. Mr. Darrin holds a B. S. and an M. S. Degree from the University of Washington. Prior to his association with Mutual Chemical, he was a Senior Industrial Fellow at the Mellon Institute for twenty years. He is the author of many papers, particularly on the use of

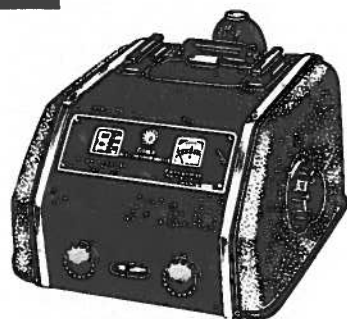
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3 instruments in 1



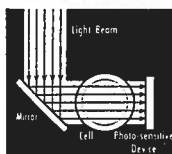
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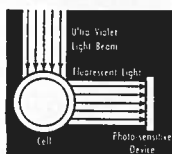


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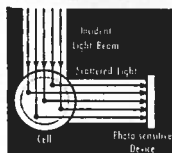
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(Continued from page 14)

chromium chemicals, and a well known series of articles on Chromate Corrosion Inhibitors.

Mr. Jerome Dohan, Technical Consultant at Mutual will be serving as the new contributor for the Chesapeake "Chemist" from the Mutual Chemical Division of Allied Chemical & Dye Corporation.

The new "Chemistry" merit badge pamphlet issued by the Boy Scouts of America, New Brunswick, N. J., will be distributed by the Company to all scout troops and explorer posts in the local scout councils where Solvay plants are located.

Sponsoring institutions at Baltimore, Baton Rouge, Brunswick, Moundsville, Detroit and Syracuse will each receive a copy of the attractive pamphlet through the local councils, for addition to their Merit Badge Series libraries.

Dr. Winslow H. Hartford, chromium chemicals supervisor, research division, Syracuse central office, was one of nine key scientists who did the principal work on the booklet.

Heading the group were Robert F. Gould, Washington, D. C., editor of Chemical & Engineering News, American Chemical Society publication, and Philip S. Baker, Union Carbide Nuclear Corporation, Oak Ridge, Tenn.

Paul A. Keene, assistant to Solvay's director of development, helped with the revision in its early stages, reviewing proposed material and consulting with Mr. Gould on the content and style of the publication.

The 82-page, 17-chapter booklet is divided into three sections written for the teen-age boy. They are "Chemistry in Nature," "Chemistry of Materials," and "Chemistry in Action."

Dr. Hartford was stationed at the Baltimore plant when he made his contribution to the revision of the 1952 edition of the merit badge pamphlet, issued at the end of the year.

Morgan W. Redmore, assistant director of public relations, Syracuse central office, estimates that nearly 2,000 copies will be distributed by Solvay.

GRACE RESEARCH & DEVELOPMENT DIVISION

Dr. Sterling B. Hendricks, Head of Pioneering Research Laboratory, U. S. Department of Agriculture, will speak on 'Ion Absorption' at the W. R. Grace Co. Washington Research Center, Clarksville, Md., 8:30 p.m., May 28. The public is invited.

ville, Md., 8:30 p.m., May 28. The public is invited.

PENNIMAN & BROWNE, INC.

Penniman & Browne, Inc. announce the construction of test facilities for the determination of thermal conductance (U factor) of roofing materials for the Baltimore Concrete Plank Company. The facility meets the requirements of ASTM-C236-54T and while current use is reserved for the Client, the facility will probably be available for other interested parties in late 1958.

E. I. DuPONT deNEMOURS & CO.

The employees of the duPont Baltimore Pigments Plant have worked over 2,000 days without a lost-time accident.

Mr. C. E. Smith, Manager of the Baltimore Pigments Plant of the E. I. duPont deNemours & Co. has been named general chairman of the "Maryland Chemical Industry Activity Committee."

The purpose of the committee is to provide information regarding the chemical industry and its activities. It will serve as a clearing house for public information, and will make speakers available for schools and other meetings.



GOVERNMENT

U.S. CUSTOMS LABORATORY

On February 13, 1958 Mr. Alvin Bober addressed the student affiliate of Morgan State College, Baltimore, the subject being, Analytical Chemistry as practised by the U. S. Customs Laboratory.

FORT DETRICK, MARYLAND

Robert W. Leberherz, attended a Personnel Management for Executives' Conference in Washington, D. C., in March 1958.

Edward J. Schantz, spoke on "Occurrence & Chemical Properties of Shellfish Poisons" at the Army Chemical Center, Md., on April 3, 1958.

Charles E. O'Bryon, Program Coordination Office, attended the recent meeting of the American Chemical Society in San Francisco, California.

(Continued on page 16)

(Continued from page 15)



ACADEMIC

UNIVERSITY OF MARYLAND,
SCHOOL OF MEDICINE

Dr. Frank H. J. Figge and Harvey Solomon will deliver a paper before the American Academy of Neurology on April 25, 1958 entitled, "Quantitative Determination of Porphyrins in the Central and Peripheral Nervous System."

Dr. Figge also delivered the following papers: "The red-fluorescence of the forestomach of mice and rats," before the American Association of Anatomists, on April 2, 1958, and "Cancer Research—Past, Present, and Future" before the Head and Neck Society (there really is such a society) on April 8, 1958.

Dr. H. Patterson Mack and Dr. Robert E. McCafferty delivered a paper before the American Association of Anatomists, on April 2, 1958: "Hematoporphysin Accumulation in fetal and maternal tissues of the mouse following single intraperitoneal injections."

Dr. Raymond M. Burgison, Department of Pharmacology, delivered a paper at the A.C.S. National Meeting, San Francisco, California on April 15, 1958 entitled: "Preparation and Preliminary Pharmacological Evaluation of 8-Amino-Adenine and 8-Substituted-Aminoadenines."

Dr. Edward B. Truitt and Ann M. Morgan, Dept. of Pharmacology, delivered a paper before the Federated Societies for Experimental Biology, in Philadelphia, Pa., on April 14, 1958 entitled: "Absorption of Aspirin and Buffered Aspirin from the Stomach in Man."

Drs. B. P. Doctor and Edward J. Herbst of the Department of Biochemistry delivered a paper before the American Society of Biological Chemists on April 14, 1958 entitled: "Inhibition of Nucleic Acid Degradation in Bacteria by Spermine." At this same meeting, Donald L. Keister, also of the Dept. of Biochemistry, delivered a paper on "The Occurrence and Properties of Nucleic Acid-Amine Complexes."

COLLEGE OF NOTRE DAME OF
MARYLAND

Four student papers were given at the Student Affiliated Meeting-in-Miniature at Morgan State College on May 3, 1958.

Dr. Bernard L. Strehler of the Gerontology of NIH spoke at a recent meeting of students affiliates at the College. His topic was Chemiluminescence.

May 1st new members were welcomed into the Chapter. Miss Patricia Duffy '56 spoke on her research at NIH, Bethesda, Maryland.

CORNING GLASS WORKS

A 350-page, color-coded Pyrex brand laboratory glassware catalog, containing the most complete listing of borosilicate glass chemical ware and apparatus ever printed, has been issued by Corning Glass Works.

Some 474 new items are among the more than 9,000 described in the catalog. Included in the 385 new custom made apparatus products are a wide range of micro ware pieces and needle valve equipped laboratory ware.

There also are 89 new items among such standard ware categories as pipettes, centrifuge tubes, flasks, burettes, cylinders, and distilling receivers.

The book's six sections cover standard Pyrex brand laboratory glassware, fritted ware, low actinic ware and custom made apparatus, as well as Vycor brand 96 per cent silica labware and Corning brand alkali resistant ware for unusual requirements.

The catalog was designed on basis of a consumer preference survey, according to Olaf M. Loytty, general manager, Laboratory Glassware Sales Department. Among suggestions incorporated were combining of two former catalogs listing standard and custom made items into a single volume, and utilization of a dictionary-type page content folio at the top of each page.

Each section of the volume is color-coded to permit easy location of specific items. Throughout the book, Corning has made liberal use of color and illustrative material.

The catalog contains a two-page chart showing properties, principal uses, and forms available for 32 different glass compositions. The volume has been distributed to customers.

Copies of the catalog, designated LG-1, are available on request on company letterhead from Corning Glass Works, Laboratory Glassware Sales Department, Corning, N. Y.

(Continued on page 17)

(Continued from page 16)

Arthur H. Thomas Co., Philadelphia, Pa. announces the availability of a new paper chromatography apparatus for micro quantities (1 microliter portions) of test solution. The apparatus is simple, inexpensive, durable and compact. All operations can be carried out in a normal size fume hood, and cleaning and storage problems encountered with larger apparatus are minimized.

Developed and recently described by L. C. Mitchell, of the U.S. Food and Drug Administration. The apparatus is based on the ascending technique with 8 x 8-inch paper, and the entire assembly is contained in a Stainless steel tank, 9 x 9 x 3-1/2 inches. Ratio of paper area to tank volume is optimum for rapid equilibration with most solvent systems, eliminating waiting period before development. Small size sheets are easy to process and store, and can be mailed without folding.

For detailed information write to Arthur H. Thomas Co., P. O. Box 779, Phila. 5, Pa.

WILL CORPORATION

Medical technicians will appreciate the new CO₂ Equilibration Apparatus, just announced by Will Corporation. It will saturate blood serum quickly and safely—so that the CO₂ combining power of the serum can be accurately determined with a Van Slyke Blood Gas Apparatus. Results will be more reproducible, too. Moreover, the method is simple and hygienic, replacing the former procedure of blowing into funnels.

Attaching directly to the tank of gas, this Equilibration Apparatus includes a needle valve assembly, glass bead trap and syringe needle adapter. Gas is bubbled through the serum, completely saturating a 1.5 ml. sample within 3 minutes.

The Will CO₂ Equilibration Apparatus is available from Will Corporation's Laboratory Supply and Service Center, located in Baltimore.

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(Continued from page 11)

laboratories for professional use in collaboration with medical investigators and clinicians.

Little Change in Management

There has been little change in management since the beginning. Dr. H. A. B. Dunning, who was at first a partner, became president when the company was incorporated in 1930 and chairman of the board in 1945. His eldest son, Dr. J. H. F. Dunning, is now president, and two other sons, Drs. H. A. Brown Dunning, Jr., and C. A. Dunning, are vice-president and secretary-treasurer, respectively.

The present day facilities of Hynson, Westcott & Dunning are located at Charles and Chase Streets, in downtown Baltimore. The staff of the Research and Control Divisions is composed of five chemists, two bacteriologists and one pharmacologist with doctorate degrees as well as five employees holding undergraduate degrees and eight technicians.

Wilton C. Harder

RECENT MEETINGS

The March Meeting

The March Meeting, held at Army Chemical Center, was attended by ninety members and guests, with eighty-four present at the dinner. Dr. Byron Riegel, of G. D. Searle and Co., gave a most enlightening presentation of work currently being done on alterations in the structures of the androgenic and estrogenic hormones in an effort to enhance some of their physiological effects and to diminish some of their other effects. For example, relatively minor changes in the structures of androsterone and androstenone, such as the introduction of an ethyl group in one of the rings of the sterol molecule, increased the protein building effect of the hormone and decreased some of the masculinizing effects.

The mechanisms of synthesis of the oxirons products discussed were presented along with the physiological effects of the compounds synthesized. All of this was described with many delightfully humorous side comments by the speaker. The entire presentation gave an over all insight into the work now being done by many of the large pharmaceutical manufacturers in the development of new drug products.

Henry G. Fremuth

NEW SECTION MEMBERS

The Maryland Section of the American Chemical Society welcomes the following members to its section. We hope that we may have the pleasure of meeting all of you in person at the regular monthly meetings:

New Members

Kamran Aykan
R. J. Baumgartner
John J. Boone
Philip B. Coulter
Leonard A. Ford
T. V. Jackson
C. S. Kumkumion
D. R. Lineback
R. L. Lloyd
G. E. Natarelli, Jr.
J. P. O'Malley
O. O. Owens
Frank G. Pinto
Norman Schwartz
Kathryn G. Shipp
C. J. Sapiano
E. A. Schaefer
Charles J. Shoemaker
S. Solomon
Joan E. Stuber
R. T. Uyeda
W. VanHees
Brother C.F.X. Vernon
J. T. Welch
V. V. Wheeler

Professional Affiliations

Baltimore, Maryland
Johns Hopkins Univ., Chemistry Dept.
National Plastic Prod., Odenton, Md.
Towson, Maryland
Baltimore, Maryland
Edgewood, Maryland
Baltimore, Maryland
Edgewood, Maryland
Frederick, Maryland
Edgewood, Maryland
Army Chemical Center, Md.
Edgewood, Maryland
Army Chemical Center, Md.
The Johns Hopkins University
Frederick, Maryland
Army Chemical Center, Md.
Baltimore, Maryland
Towson, Maryland
Army Chemical Center, Md.
Johns Hopkins Univ., Chemistry Dept.
Baltimore, Maryland
Baltimore, Maryland
Baltimore, Maryland
Baltimore, Maryland
Towson, Maryland

TRANSFERS

New Members

Robert V. Blanke
Robert Blechen
Joseph Casanova, Jr.

Joseph A. Cogliano
2nd Lt. Francois E. Didot
T. H. Elder
E. H. Engquist
Robert C. Gabler
Stratton J. Georgoulis
John A. Henricks
James G. Jewell
R. R. Johnson

F. J. Kreysa

Lt. Gary A. Larsen
Frederick S. Lee
John M. McGuire
James R. Michael
2/Lt. Arlo Moehlenpah
Michael J. Onifer, Jr.
T. R. Steadman
Gerhardt Talvanheim
Charles A. Thomas, Jr.

Professional Affiliation

Office Chief Medical Examiner
Baltimore, Maryland
Directorate of Research
Chemical Warfare Labs.
Davison Chemical Co., Hilltop Lab.
Aberdeen Proving Ground, Md.
Sykesville, Maryland
Bel Air, Maryland
Baltimore, Maryland
Baltimore, Maryland
Baltimore, Maryland
Johns Hopkins University
Chemistry Department
Grace Research & Development
Clarksville, Maryland
Fort Geo. G. Meade, Md.
Owings Mills, Maryland
W. R. Grace & Co., Wash. Res. Labs.
Aberdeen, Maryland
Aberdeen Proving Ground, Md.
North East, Maryland
Grace Research & Development
W. R. Grace & Co., Wash. Res. Labs.
The Biophysics Department, JHU

Previous Section

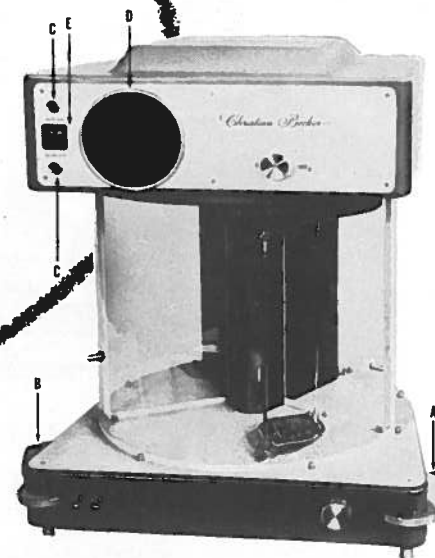
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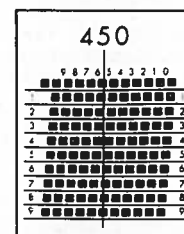
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