LEGAL AND LEGISLATIVE.

PARKER BILL—H. R. 3142.

On May 20, 1929, Representative Parker introduced the following bill; which was referred to the Committee on Interstate and Foreign Commerce and order to be printed—To provide for the coördination of the public-health activities of the Government, and for other purposes:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That upon the request of the head of an executive department or an independent establishment which is carrying on a public-health activity the Secretary of the Treasury is authorized to detail officers or employees of the Public Health Service to such department or independent establishment, in order to coöperate in such work; when officers or employees are so detailed their salaries and allowances shall be paid by the Public Health Service from applicable appropriations.

Sec. 2. (*a*) The Surgeon-General of the Public Health Service is authorized to detail personnel of the Public Health Service to educational and research institutions for special studies of scientific problems relating to public health and for the dissemination of information relating to public health, and to extend the facilities of the Public Health Service to health officials and scientists engaged in special study.

(*b*) The Secretary of the Treasury is authorized to establish such additional divisions in the Hygienic Laboratory in the District of Columbia as he deems necessary to provide agencies for the solution of public-health problems, and facilities therein for the coördination of research by public-health officials and other scientists and for demonstrations of sanitary methods and appliances.

Sec. 3. The administrative office and bureau divisions of the Public Health Service in the District of Columbia shall be administered as a part of the departmental organization, and the scientific offices and research laboratories of the Public Health Service (whether or not in the District of Columbia) shall be administered as a part of the field service.

Sec. 4. (*a*) The Secretary of the Treasury is authorized to order officers in the reserve of the Public Health Service to active duty for the purpose of training and of determining their fitness for appointment in the regular corps, and such active duty shall be credited for purposes of future promotion in the regular corps.

(*b*) Hereafter, under such regulations as the President may prescribe, medical, dental, sanitary engineer and pharmacist officers selected for general service in the regular corps of the Public Health Service and subject to change of station shall be appointed by the President, by and with the advice and consent of the Senate; original appointments shall be made only in the grade of assistant surgeon, except as provided under Sections 5 and 6 of this Act.

Sec. 5. The President is authorized to appoint, by and with the advice and consent of the Senate, to grades in the regular corps not above that of medical director, under such regulations as he may prescribe, not to exceed a total of one hundred and ten medical, dental, sanitary engineer and pharmacist officers in the Public Health Service upon the date of passage of this Act (except commissioned officers of the regular corps). Not more than six such appointments shall be in a grade above that of surgeon. In making such appointments due regard shall be had to the salary received by such officer at the time of such appointment. For purposes of pay and pay period, said officers shall be credited only with active service in the Public Health Service and active commissioned service in the Army and the Navy.

Sec. 6. Whenever commissioned officers of the Public Health Service are not available for the performance of permanent duties requiring highly specialized training and experience in scientific research, the Secretary of the Treasury shall report that fact to the President with his recommendations, and the President, under the provision of this section, is authorized to appoint, by and with the advice and consent of the Senate, not to exceed three persons in any one fiscal year to grades in the regular corps of the Public Health Service above that of assistant surgeon, but not to a grade above that of medical director; and for purposes of pay and pay period any person appointed under the provisions of this section shall be considered as having had on the date of appointment service equal to that of the junior officer of the grade to which appointed.

Sec. 7. Any person commissioned in the regular corps of the Public Health Service under the provisions of this Act of an age greater than forty-five years, if placed on waiting orders for disability incurred in line of duty, shall receive

pay at the rate of 4 per centum of active pay for each complete year of service in the Army, Navy or Public Health Service, the total to be not more than 75 per centum.

Sec. 8. Hereafter commissioned officers of the regular corps of the Public Health Service, after examination under regulations approved by the President, shall be promoted according to the same length of service and shall receive the same pay and allowances as are now or may hereafter be authorized for officers of corresponding grades of the medical corps of the Army, except that—

(*a*) For purposes of future promotion an officer whose original appointment to the regular corps under the provisions of this Act is in a grade above that of assistant surgeon shall be considered as having had on the date of appointment service equal to that of the junior officer of the grade to which appointed; if the actual service of such officer in the Public Health Service exceeds that of the junior officer of the grade, such actual service not exceeding ten years for a passed assistant surgeon, and fourteen years for a surgeon shall be credited for purposes of future promotion;

(*b*) Pharmacists shall not be promoted to the grade of passed assistant surgeon until after five years of service in the grade of assistant surgeon and shall not be promoted above the grade of passed assistant surgeon.

(*c*) When an officer, after examination under regulations approved by the President, is found not qualified for promotion for reasons other than physical disability incurred in line of duty—

(1) If in the grade of assistant surgeon, he shall be separated from the service and paid six months' pay and allowances;

(2) If in the grade of passed assistant surgeon, he shall be separated from the service and paid one year's pay and allowances; and

(3) If in the grade of surgeon or of senior surgeon, he shall be reported as not in line of promotion, or placed on waiting orders and paid at the rate of $2^1/_2$ per centum for each complete year of active commissioned service in the Public Health Service, but in no case to exceed 60 per centum of his active pay at the time he is placed on waiting orders.

Sec. 9. (*a*) The President is authorized to prescribe appropriate titles for commissioned officers of the Public Health Service other than medical officers, corresponding to the grades of medical officers. Hereafter officers of the Public Health Service in the grade of Assistant Surgeon-General (except those in charge of bureau divisions) shall be known and designated as medical directors. The limitation now imposed by law upon the number of senior surgeons and Assistant Surgeons-General at large of the Public Health Service on active duty is hereby repealed. There is created in the regular corps of the Public Health Service the grade of senior medical director, and the salary and allowances of officers commissioned in said grade, of whom there shall be two in number on active duty, shall be the same as that authorized in Section 8 of the Act approved June 10, 1922 for the Surgeon-General of the Public Health Service.

(*b*) Hereafter the Surgeon-General of the Public Health Service shall be entitled to the same pay and allowances as the Surgeon-General of the Army; and a regular commissioned officer of the Public Health Service who serves as Surgeon-General shall, upon the expiration of his commission, if not reappointed as Surgeon-General, revert to the grade and number in the regular corps that he would have occupied had he not served as Surgeon-General.

(*c*) The officer detailed as chief of the narcotics division of the Public Health Service shall, while thus serving, be an Assistant Surgeon-General, subject to the provisions of law applicable to Assistant Surgeons-General in charge of other administrative divisions of the Public Health Service.

Sec. 10. Hereafter the Secretary of the Treasury shall appoint, in accordance with the civil service laws, all officers and employees, other than commissioned officers, of the Public Health Service, and may make any such appointment effective as of the date on which the officer or employee enters upon duty.

Sec. 11. Hereafter officers of the Public Health Service when disabled on account of sickness or injury incurred in line of duty shall be entitled to medical, surgical and hospital services and supplies under such regulations as the Secretary of the Treasury may prescribe.

Sec. 12. Hereafter the advisory board for the Hygienic Laboratory shall be known as the National Advisory Health Council, and the Secretary of the Treasury is authorized to appoint, from representatives of the public-health profession, five additional members of such council. The terms of service, compensation and allowances of such additional members shall be the same as the other mem-

bers of such council not in the regular employment of the Government, except that the terms of service of the members first appointed shall be so arranged that the terms of not more than two members shall expire each year. Such council, in addition to its other functions, shall advise the Surgeon-General of the Public Health Service in respect of public-health activities.

NATIONAL LAW ENFORCEMENT COMMISSION.

George W. Wickersham, Attorney-General in the Taft Administration, was named chairman of the National Law Enforcement Commission; the other members are:

Newton D. Baker, former Secretary of War in the Wilson Administration and now chairman of the National Crime Commission.

Frank J. Loesch, Chicago attorney and vice-president of the Crime Commission of Chicago.

Roscoe Pound, dean of the Harvard Law School and former president of the Association of American Law Schools.

William I. Grubb, Federal judge for the district of Northern Alabama.

Monte M. Lemann, New Orleans, member of law faculty at Tulane University and member of the council of the American Bar Association.

William S. Kenyon, former United States Senator from Iowa; former Assistant United States Attorney-General and now judge of the United States Circuit Court of Appeals for the Eighth Federal district.

Kenneth R. Mackintosh, chief justice of the Supreme Court of the State of Washington.

Paul J. McCormick, Federal judge for the district of Southern California.

Henry W. Anderson, Richmond attorney; formerly special assistant to the United States Attorney-General.

Ada L. Comstock, president of Radcliffe College since 1923.

NARCOTIC ADDICTION.

According to Alfred L. Tennyson, in a contributed article to the *United States Daily*, of June 3rd, "the principal source of supply of the so-called non-medical addict is that represented by narcotic drugs unlawfully introduced into this country from foreign countries, particularly those of Europe, since a very small quantity of narcotic drugs of domestic manufacture is unlawfully diverted to illicit channels, and comparatively few violations of narcotic law are reported against registered dealers and practitioners in the United States. Even with the present drug addict population of the United States as above estimated, however, the quantity of narcotic drugs so unlawfully introduced is very large, for if we assume that there are 100,000 drug addicts each requiring from six to eight or more grains of morphine daily, the yearly supply for such persons will be found to be over 20 tons."

He states further that "the prevention of the unlawful importation of this quantity of drugs and the detection, apprehension and punishment of the parties responsible therefor is the outstanding problem confronting Federal officers interested in enforcing the narcotic laws."

Vitamin D, standardization. The question of standardization of vitamin D in butter and vitamin-containing margarines. F. Flury, *Biochem. Z.*, 203 (1928), 14. *Squibb Abstract Bulletin.*

Flury vested the antirachitic action of margarines containing varying amounts of irradiated ergosterol in the form of Radiostol, the British Drug Houses product of which 1 cc. is supposed to contain 10,000 antirachitic units in oily solution. The margarine samples without Radiostol additions were found to be entirely vitamin free, as found in Röntgen examination of the bones of the young white rats used. Animals receiving daily additions of 0.1 or 0.2 Gm., respectively, of a vitamin-containing margarine (*i. e.*, 0.9 or 1.8 antirachitic units, resp., 9 million per ton) with a vitamin-D free diet showed no rachitic bone changes, in contrast to control animals receiving equivalent amounts of the best table butter. Such rachitic control animals already showed marked signs of healing after 10 days when 0.2 Gm. of the vitamin-containing margarines was administered daily. This margarine was thus found to be superior to the best sweet cream butter in point of antirachitic vitamin content. These experiments also show the importance of the valuation of vitamin-D containing preparations and confirm the reputed antirachitic value of Radiostol as 10,000 antirachitic units per cc.—E. G.

C. Leonard O'Connell, Pittsburgh, has been advanced to the presidency of Pennsylvania Pharmaceutical Association, succeeding George O. Yohe, resigned.

BOOK NOTICES AND REVIEWS.

Kurzes Lehrbuch der Chemie in Natur und Wirtschaft. Volume I, General Chemistry and Inorganic Chemistry; Volume II, Organic Chemistry. By PROF. CARL OPPENHEIMER AND PROF. JOHANN MATULA. Second edition, 1928, Georg Thieme, Verlag, Leipzig.

This work, which the chief author, Prof. Oppenheimer, modestly calls "A Short Textbook of Chemistry in Nature and Arts," is in reality not a textbook in the ordinary sense of the word, or of ordinary proportions, the first volume comprising some 566 pages and the second, about 470 pages. In my opinion, this work is undoubtedly one of the finest texts on chemistry that I have seen. The purpose of the work will be best understood by quoting a few statements made by the principal author in his preface. Prof. Oppenheimer, who is an internationally known scientist and brilliant author on chemical subjects, was led to undertake the present work at the instigation of his numerous pupils, the latter comprising persons who not only specialized in chemistry but whose principal occupation was in many cases, along other lines, among them being biologists, pharmacists, physicians, agriculturists, etc. Chemistry, as the author so aptly puts it, has an absorbing interest from two points of view. In the first place, it is one of the most prolific and abstruse pure sciences, inseparably connected in its modern aspects with the other pure sciences of mathematics and physics. On the other hand, chemistry is one of the most practical of sciences and has a direct and important bearing not only on the applied arts but also on all other natural sciences. For this reason, the authors have endeavored to satisfy the needs of both groups of readers, namely, students of chemistry from the purely scientific point of view, on the one hand, and those who are interested in the chemical aspects of other sciences and the arts, on the other hand.

The treatment of the subjects in this work is an extremely interesting and profitable one. Not only are the purely scientific aspects of any one subject given due consideration, but on almost every topic the authors provide a paragraph or two of an historical nature and there is always an invaluable section dealing with the pharmacological and physiological properties of the compounds under discussion.

The first volume is divided into two distinct parts. The first part is by Prof. Matula and deals with general chemistry. This includes really an extensive exposition of physical chemistry. The first section deals with elements, atoms and molecules. Here we find a chapter on stoichiometric laws, on the periodic system, on radio activity and on atomic structure. A second section deals with chemical aggregations and includes chapters on form of matter, gaseous, liquid and solid, on crystallography, on solutions and on colloids. A third section, entitled, Constitution, deals with chemical composition and the laws of valance and molecular structure. A fourth section entitled, Chemical Reactions, contains a general discussion of laws of chemical reaction and chemical equilibria. A fifth section is devoted to transformations of chemical energy and consists of three chapters, one devoted to thermochemistry and thermodynamics, another to electrochemistry, which deals with the whole subject of electrolysis, etc., and a third devoted to photochemistry. This first part of the first volume, dealing with general chemistry, comprises over 250 pages and is followed by the second portion of the volume, the subject of which is inorganic chemistry, by Prof. Oppenheimer.

Inorganic chemistry is treated under two distinct sections. The first deals with non-metals and the second, with metals. Under the first section are chapters on all the chemical elements, which are classed as non-metals, described in a most attractive form in the manner already mentioned above. The author writes not only of the purely chemical characteristics of the various compounds, but also makes the subject extremely interesting by pointing out historical, physiological and pharmacological bearings and the important rôle played by the compounds in nature and applied arts. The second section of the inorganic part deals with metals, which are treated in very much the same way as the previous compounds.

In the second volume, written entirely by Prof. Oppenheimer, organic chemistry is taken up and discussed over 470 pages. The matter is subdivided into four sections. The first is a general presentation of the subject, dealing with definitions and conceptions of organic chemical structure, their constitution, methods of preparation, isomerism and physical properties. The second section deals with acyclic compounds, the third section

with cyclic compounds, and the fourth with nitrogenous biocolloids. The section on acyclic compounds begins with a discussion of nitrogen-free chemicals, namely, the hydrocarbons and haloids. Here again, the extremely interesting and useful method of presentation adopted by the author is followed. Thus, for instance, under haloids, there is a very interesting and quite complete discussion of narcosis and the relation of chemical structure to pharmacological action. Another chapter in the same way discusses various alkaloids, ethers, aldehydes and ketones, always calling attention to the practical relations of the subject to the arts, pharmacy and medicine. A third chapter under the acyclic compounds is devoted to acids and their derivatives, and there are other chapters dealing with metallic substitution products of the various organic compounds considered, etc. Following the discussion of nitrogen-free compounds, nitrogenous compounds are taken up and here we have a description of the nitroso- and nitro-derivatives of amines and hydrazines, cyanides, etc. The importance of these compounds is emphasized in a discussion of the amino-acids. The next section deals with the carbohydrates, and here again, is a very complete treatment, first of the general subject and then of the special sugars and other carbohydrates and also a description of the rôle played by them in nature and in economics.

Under cyclic compounds are about one hundred pages devoted to various aromatic chemicals, which are treated with all the consideration that their importance in practical life deserves. Not only is the whole chemistry of benzol discussed in full but there is an extensive description of the more concentrated cyclic compounds, naphthalene, anthracene, phenanthrene, etc. The subject is made extremely interesting by the introduction of a great deal of useful material, such as a discussion of dyes, perfumes, etc. There is even an adequate account of the rubber industry. The alkaloids, of course, are very carefully classified and discussed, attention being paid not only to their chemical structure but also to their pharmacological and toxicological effects. The same is true of the purine derivatives and other important heterocyclic compounds. The last subdivision, dealing with so-called biocolloids, is devoted to the presentation of what is really physiological chemistry. Here we have a description of the proteins, giving their structure, as far as is known, and their detection, identification and physiological rôles. Again, another chapter is devoted to the ferments, embracing both their general and specific properties, and finally, a few pages are given to a discussion of antigens and antibodies. The complete work is printed in very clear type on excellent paper and contains seventy-two illustrations, in addition to numerous structural formulas and excellent indices. To repeat, this work, in the opinion of the reviewer, is one of the finest textbooks on chemistry that has even been written. D. I. MACHT.

The Determinations of Water by Distillation Methods by RUDOLPH J. PAULY. *Bulletin* of the University of Wisconsin, Serial No. 1503. General Series No. 1279. The author states "The reversal of the operation by which volatile oils are separated from plant materials by distillation with water, as a means of determining quantitatively the moisture content of natural or artificial products, *viz.*, by distillation with hydrocarbons and directly determining the water by measuring its volume in a calibrated receiving vessel, appears to have first been suggested by Hoffman and Sjollema within the same year—as recently as 1902." The bibliography contains quite a number of illustrations and most of the articles are briefly discussed by the author and the apparatus is described, thus giving concise information. References to distilling liquids cover a page or more and the merits of the distilling liquids are considered by the author. An enumeration of the substances analyzed covers more than two pages. The author closes with a classification of the apparatus used by various workers; the adaptability and usefulness, and references to papers, descriptions, etc.

THE QUARTERLY JOURNAL OF PHARMACY AND PHARMACOLOGY (BRITISH).

The change in the latter part of the title, which appears on No. 1 of the second volume of the *Quarterly*, is an appropriate one since the term "pharmacy" connotes the "Allied Sciences" which are ancillary or complemental to pharmaceutical science and art. The first number of the new volume is a full one, both in respect to subject-matter and usefulness. It consists of 167 text pages, comprising four research papers, three from the Pharmacological Laboratories, namely: "The Effects of Pituitary Extract and Adrenalin on Ketonuria and Liver Glycogen," by J. H. Burn and

H. W. Ling; "The Influence of Changes in Body Weight of the Test Rats on the Accuracy of the Assay of Vitamin D by Means of the Line Test," by Katharine H. Coward and Majorie R. Cambden; and "The Standardization of Tincture of Digitalis," by Frank Wokes. The other paper, on "The Taxonomic Value of Vein Islet Areas, based upon a Study of the Genera Barosma, Cassia Erythroxylon and Digitalis," by Frederick A. Leven, is from the Pharmacognosy Research Laboratory, and there is a special article by Dr. J. H. Burn on "The Present Position of Ovarian Hormones." The remaining eighty-eight pages are occupied with abstracts, the figures denoting the number of pages under each section: Alkaloids, 6; Analytical, 12; Animal Products, 3; Coloring Matters, 10; Essential Oils, 4; Fats, Fixed Oils and Waxes, 3; Glucosides, Ferments and Carbohydrates, 6; Gums and Resins, 5; Inorganic, 3; Organic Unclassified, 6; Toxicology and Forensic Methods, 3; Pharmacognosy, 2; Dispensing, 1; Galenical Pharmacy, 5; Pharmacopœia Revision Notes, 5; Notes and Formulas, 1; Pharmacology and Therapeutics, 14; Bacteriology and Clinical Tests, 1; New Remedies, 5.—From the *Journal and Pharmacist* of June 1, 1929.

OXIDIZING POWER, IRRADIATED ERGOSTEROL.

Determinations of oxidizing power of cholesterol after their irradiation, by E. ROUSSEAU. *Compt. rend. soc. biol.*, 99 (1928), 1845, No. 37. Through *Squibb Abstract Bulletin*.

Sterols in the dried condition, or in alcoholic solutions and aqueous suspensions, that had been subjected to partial or total irradiation according to a previous report, were titrated after two hours of standing in the cold. The liquids and their yellow precipitates received additions of a $N/100$ solution of sodium hyposulphite, each mg. of reacting agent corresponding to 0.008 mg. of active oxygen. Totally irradiated alcoholic solution of cholesterol and ergosterol each showed the presence of 0.024 mg. of active oxygen. Furthermore, ergosterol totally irradiated both in the dry and aqueous suspension conditions showed active oxygen present to the extent of 0.008 mg. and 0.001 mg., respectively. At 220 mm. distance, the above being for 300 mm., similar but slightly elevated values were obtained. Cod liver oil irradiated for 20 hours indicated 0.0255 mg. of active oxygen per gram as compared with the —.0077 mg. for non-irradiated oil. Activated cholesterol (40 minutes) showed an active oxygen content of 0.2400 mg. per 0.10 Gm., at 220 mm.; at 300 mm., 0.3200 mg. For 0.50 gram of ergosterol at 220 and 300 mm. the figures were 0.4800 mg. and 0.6400 mg., respectively. It is evident that qualitative and quantitative determinations may be made to show whether a sterol, especially in alcoholic or petroleum ether solutions, has been irradiated. In addition, for a definite period of time, the active oxygen present in an irradiated sterol solution, may indicate the frequency of ultraviolet vibrations that had been employed. Wood screen test is an exception. It appears that the short wave lengths emitted by the mercury are more oxidizing in their action.—J. P.

THE HEARST PRIZE—TO GAIN TEMPERANCE.

The grand prize of $25,000 for the best plan to gain temperance, sponsored by William Randolph Hearst, was awarded to Presiding Justice Franklin Chase Hoyt of the Children's Court, New York City, grandson of the late Salmon P. Chase, who was Secretary of the Treasury under President Abraham Lincoln, and later Chief Justice of the Supreme Court of the United States.

MAGNESIUM SULPHATE IDIOSYNCRASY.

A writer in the *Medical Press*, referring to the subject of poisoning by magnesium sulphate, tells the following story:—"Some months ago a young man asked me to give him a dose of Glauber's salts; not having any handy, I gave him a teaspoonful or two of mag. sulph. An hour or so later I found he was delusioned and childish in his conversation. This condition continued all day. The following day he was mentally normal. When I referred to his condition on the previous day, he asked what he had been given, and on being informed said: 'Oh, I never can take Epsom salts.' An instance of a person taking large quantities of this drug with impunity is mentioned by the late Norman Kerr in his book 'Inebriety or Narcomania.' He there states: 'There is the recorded case of a Baptist minister's wife who acquired a liking for Epsom salts. She began at an early age with a small quantity, gradually increasing the dose till, on her death in her ninetieth year, she had arrived at the generous allowance of a pound and a half per diem.'"