

## CHAPLAIN ARMY CORPS.

Under the present provisions army chaplains are appointed in the initial grade of First Lieutenant and after successful periods of service are promoted to the grades of Captain,

Major and Lieutenant Colonel. They have an actual rank (without command), pay and allowances of the grade held and the same retirement features common to all officers of the service.

## BOOK NOTICES AND REVIEWS.

*Die aetherischen Oele*, VON E. GILDEMEISTER UND FR. HOFFMANN. *Dritte Auflage*, VON E. GILDEMEISTER. Bearbeitet im Auftrage der Schimmel & Co. Aktiengesellschaft, Miltitz bei Leipzig. Zweiter Band, pp. XXIII, 959, mit neun Karten und zahlreichen schwarzen und bunten Abbildungen, Verlag der Schimmel & Co. Aktiengesellschaft, Miltitz bei Leipzig (Fuer den Buchhandel: L. Staackmann, Leipzig) 1929.

Upon opening the second volume of the third edition, the reader is in doubt what to admire more, the book as a scientific treatise or the tome as a product of the art of bookmaking. Always of a high order, the present volume is enhanced by a number of colored illustrations already familiar to the readers of Schimmel & Co's. "Bericht." These plates, the originals of which were donated to the Duetsches Museum in Muenchen, bear the following legends:

"Edeltannenzapfendestillation in der Schweiz" (opposite page 176).

"Destillation von Palmarosaeol in Vorderindien" (opposite page 296.)

"Destillation von Lemongrasaeol in Vorderindien" (opposite page 304).

"Irisanpflanzen in Nord-Italien" (opposite page 418).

"Destillation von Sternanisaeol in Tongkin" (opposite page 566).

"Canangablueten-Destillation auf Java" (opposite page 582).

"Campherbaum" (opposite page 652).

In addition there are fifty-six black and white illustrations, also nine maps (including one chart) two of which are printed in colors.

However, the general excellence of the workmanship of the bookmaker has not been accomplished at the expense of the real contents, the text. The 674 pages of the corresponding volume of the previous edition have been increased to 959 pages. The number of volatile oil monographs has been increased from 416 to 584.

If the 178 additional monographs in a measure represent the growth of the volatile oil literature represented in the second volume,

they do not by any means represent all of the progress. This may be studied by comparing some of the monographs. Thus, the monograph on camphor oil has been increased from approximately thirty-two to thirty-eight pages. What is more, however, the number of known constituents has been increased from twenty-four to thirty-six. Some of these are caryophyllene, sesquicamphene, sesquicamphenol, sesquiterpene alcohol,  $\alpha$ - and  $\beta$ -camphorene (two diterpenes), ethyl guaiacol, *n*-capronic acid, caprylic acid, *d*, *l*-citronellic acid, lauric acid and piperonylic acid. What a contrast this represents when compared with our knowledge of the volatile constituents of the camphor tree little more than a generation ago. It, like many other plant products, constitutes a veritable gold mine for the chemist who has sufficient material and is willing to devote the time to a detailed study of any one of these volatile oils.

Valuable as are these contributions to our knowledge of the volatile oils as a commercially important class of plant products, the greater significance of our increased knowledge lies in the new vistas opened up in the study of the life processes of plants. When one considers how little we know even now, the so-called "pure" scientist must be grateful to those who are making commercially available these products in sufficiently large quantities so as to make possible such detailed studies.

The appearance of the second volume within approximately a year after that of the first of the third edition speaks well for revisor and publisher. It makes us hopeful of being able to welcome volume three before the year 1930 has slipped by.—E. K.

*Betäubungsmittel und Rauschgifte*. "Stupefacients and Intoxicants, Their Sources, Properties and Dangers." By PROFESSOR HERMANN THOMS. Urban & Schwarzenberg, Berlin and Vienna. Price 7.20 marks.

In order to give a just and adequate review of any book, the critic must take into consideration not only the contents of the literary

production itself but also the *author*, on the one hand, and the *purpose* of the work, on the other. The author of the well-printed book of 192 pages before us is Professor Hermann Thoms, a distinguished authority in pharmacy and, more particularly, in pharmaceutical chemistry. This important earmark confronting us on the very title-page of the work is, unfortunately, perhaps one of the most deplorable features of the book for, to the unbiased reviewer, it is at once evident that the present work does not reflect glory on the writer and, indeed, is altogether below the dignity of one occupying such an eminent position in his chosen field. The reason undoubtedly is the incontrovertible fact that the author has ventured into a field of science for which he is not particularly qualified. Much of the reading matter deals not with pharmacy or pharmaceutical chemistry but with pharmacology. Of course, this comment is greatly extenuated by another feature to be considered by every critique, namely, the object or purpose of the writing. This can best be expressed in the author's own words from the brief preface which read as follows: "The writer has endeavored to set forth in fourteen lectures, given before students of all faculties of the Friedrich Wilhelm University in Berlin, during the winter semester of 1928 and 1929, the question of stupeficients and intoxicants from the botanical, chemical, physiological, hygienic and economic points of view, subjects which are of interest to the general public. At the expressed desire, on many sides, to put these lectures in book form, the present work has been published."

The title, "Stupeficients and Intoxicants," is rather an unfortunate one because some of the subjects treated here are not all classified under these headings. Thus, for instance, various sedatives and hypnotics can hardly be classed pharmacologically under the title of "stupeficients," or even "narcotics." Again, the lumping together in one chapter, entitled, "Stimulants and Condiments," of various spices, such as ginger, cinnamon, mustard, saffron, nutmeg, pepper, etc., volatile oils, such as anise, cardamom, coriander, thyme, etc., with caffeine-containing beverages such as coffee, cocoa, maté, and cola, is not a very logical one.

The book opens with a brief introductory chapter of an historical nature which is very readable. Indeed, the historical portions are perhaps the most valuable and certainly the

most interesting features of the book. Then come two chapters, comprising from 12 to 30 pages, devoted to the discussion of alcohol. The first chapter deals with its sources, chemical and physiological properties; the second is devoted to the consideration of alcoholic beverages and the measures for the control of alcoholism. While the purely pharmaceutical portions of this discussion on alcohol are of considerable interest, the exposition of its pharmacological and physiological effects is, to say the least, a very superficial one. Any student can obtain a greater fund of information on even a cursory reading of an ordinary textbook on pharmacology. Chapter III, dealing with the liquor question, is an interesting contribution to the problem of prohibition from the German point of view and here one finds references to the United States' prohibition law and the activities of the Women's Temperance League and similar organizations. Some interesting statistical data are also furnished. In Chapter IV, the author discusses caffeine-containing beverages, together with condiments and spices, and one wonders whether the German *Rauschgift*, best translated as an "intoxicant," can be justly applied to such drugs. Chapters V and VI, covering 28 pages, are devoted to the discussion of tobacco. This is perhaps the most valuable portion of the book. Here are some extremely interesting historical data on the subject well worth reading. These are followed by a discussion of the chemistry of nicotine, the chemical composition of tobacco smoke, and the pharmacological effects of it. The author expresses a very interesting opinion in regard to the deleterious effects of smoking in that he thinks such effects are not produced by the nicotine alone but that the nicotine effect is potentiated by the synergistic action of some of the other chemical products in tobacco smoke. The sixth chapter discusses tobacco from the hygienic and sociological points of view. The treatment in this case is excellent but, unfortunately, the author has neglected the pharmacological literature on the subject. Chapters VII and VIII are entitled "Anesthetics" and discuss the inhalation of anesthetics such as nitrous oxide, ether, chloroform, etc., on the one hand, and local anesthetics, on the other. Here again, a pharmacologist is somewhat puzzled about the propriety of including the volatile anesthetics such as laughing gas, ether and chloroform under the head of *Rauschgift*, or "intoxicants." While

these substances, in common with the alcohols, act on the central nervous system and are, broadly speaking, "narcotic," using the term in Lillie's sense, we certainly cannot logically include them in a series of popular lectures on narcotics and intoxicants. Under local anesthetics, cocaine is considered at length and the pharmaceutical and historical treatment of it is excellent. The pharmacological treatment, however, is very superficial. Chapter IX is devoted to synthetic local anesthetics which certainly do not fall within the scope of the book as expressed in its title. This chapter is followed by another on sedatives and hypnotics, giving a list of old and newer sleep-producing drugs, chloral, luminal, propional, dial, urethane, sulphonal and trional. The rest of the book, with the exception of a chapter which mixes illogically a consideration of various drugs, hashish, hyoscyamine, atropine and scopolamine, is devoted, for the most part, to the true narcotics, opium and its derivatives. The author gives an interesting historical sketch on opium, discusses briefly the chemistry of its principal alkaloids and, very inadequately, considering the importance of the subject, their pharmacodynamics. A greater proportion of space is devoted to the consideration of morphinism and heroinism. Some excerpts are appended from the narcotic laws on the subject and the concluding sentence of the book is, "*Mens sana in corpore sano.*" The lack of sufficient literary references is deplorable but is to be explained by the fact that these were originally a series of popular lectures.

A perusal of this little book leads us to the following conclusions: It is of the greatest interest in regard to its historical contents. It is useful to the pharmacist and general public from the point of view of statistics. It is inadequate and not up-to-date in respect to its pharmacological content.—D. I. M.

*Chemical Dictionary.* Based on recent chemical literature, containing the words generally used in chemistry, and many of the terms employed in the related sciences of physics, astrophysics, mineralogy, pharmacy and biology, with their pronunciations. By INGO W. D. HACKH, professor of Chemistry, College of Physicians and Surgeons. Author of "Chemical Reactions and Their Equations." Publishers, P. Blakiston's Son & Co., Inc., 1012 Walnut St. Philadelphia. Large octavo, 790 pages, 232 illustrations and over 100 tables. Fabricoid, \$10.00.

Dr. Hackh has contributed a number of articles to the JOURNAL, most of them dealing with structure-symbols of organic compounds; we refer to the JOURNAL for 1920, 1921 and 1924.

The author has been successful in the preparation of a useful work; he has defined not only words used in chemistry but has included terms of related sciences and a helpful key to the pronunciation of words of foreign origin, as well as of words in the pronunciation of which there is great variance. There are brief biographic sketches and reproductions of portraits of many prominent scientists. In a comprehensive work, such as this, errors are bound to creep in and the author's viewpoints naturally differ in some instances from those who make use of the *Dictionary*. Well and favorably known scientists have aided the author and he gives them due credit and also credits standard works which have been consulted in the preparation of the *Dictionary*.

The great progress of chemistry in recent years and its specialization has emphasized the need for a dictionary which records the science in terms of modern concepts. Theories, laws and rules of chemistry are given; elements compounds, drugs, minerals, vegetable and animal products are defined and described.

The book contains a number of original charts and diagrams of practical value. The author, who devoted a number of years of thoughtful study has, as stated, been eminently successful in completing a helpful publication. We commend the dictionary for the library of the pharmacist as well as the chemist; there is no question in the writer's mind about that; however, the effort to make the work a comprehensive reference brings it to the attention of those who look for other information than that which is strictly of a chemical nature. The following notes are offered in a helpful spirit. The U. S. Pharmacopœia and National Formulary are not rigidly followed in terms and definitions; the source of an official drug is not always correctly given and there is some lack of uniformity in capitalization. It is impossible to sketch all chemists of note, but Caventou should not have been omitted. Scheele is named as noted chemist; he was an apothecary during all the years of his active life; quite a number of the chemists sketched were pharmacists, but in glancing over the pages we failed to note the mention of pharmacists. Tincture is defined as "a medicated liquid made by extraction of a drug