

taxable, and licorice put up in sticks, lozenges or other forms suitable for medicinal purposes and sold under a trade-mark is subject to the tax. (See articles 12 and 15.)

Art. 19 (b) The autographic name of the company or manufacturer of a medicinal preparation, or the possessive use thereof, printed

on the label, may or may not constitute a trade-mark and may or may not amount to a holding out of the preparation as proprietary, within the meaning of section 907 (a) (2), depending on the character of the preparation and the manner in which it is held out or recommended. (See article 14.)

BOOK NOTICES AND REVIEWS.

Laboratory Manual for the Detection of Poisons and Powerful Drugs. By Dr. William H. Autenrieth. Fifth American edition translated by William H. Warren, Ph.D., from the Fourth German Edition. Published by P. Blakiston's Son & Co., Philadelphia, 1921. Pp. xv + 342. Price \$3.50.

The fifth English edition is a translation of the fourth German and contains but little matter not found in the fourth English edition which very closely followed the text of the fourth German edition.

An author's index has been added to the very complete subject index. Methyl alcohol has been added to the list of volatile poisons. Strange to say the author mentions none of its many synonyms and even the term "methanol" is missing.

The author has chosen the following from the long list of qualitative tests: Hinkel's, Denigès-Simonds, Copper Oxidation and Permanganate Oxidation Tests. Under the United States Pharmacopoeia test a very curious error appears: "If methyl alcohol is present, the liquid will be colorless after ten minutes' standing." This of course should read "If methyl alcohol is absent, etc."

The book will undoubtedly continue to be very popular both as a textbook for the student and as a reference for the laboratory worker.

JEANNOT HOSTMANN.

An Introduction to Chemical Pharmacology. By Hugh McGuigan, Ph.D., M.D., Professor of Pharmacology, University of Illinois. 8 vo. xii + 418 pages. Cloth \$4.00. P. Blakiston's Son & Co., Philadelphia.

The author has made a comprehensive attempt to correlate the chemical structure of medicinal products with pharmacologic action. No book with this object can be expected to be final, yet a very laudable presentation of numerous chemical facts in a small scope has been accomplished.

"The writer is of the opinion that in the teaching of pharmacology, the chemical side should receive much more attention than it

does at present. In this way the student will have an opportunity to review and add to his previous work in chemistry and enter the clinical years better equipped and with a fuller appreciation of the most promising avenue of advance."

To pharmacists, who are quite aware of the imperfections of the average physician in regard to chemical knowledge, the suggestion is made that this book would be a most helpful and appreciated gift. Even the pharmacist with his greater familiarity with things chemical could read it with profit to himself and greater safety to his customers. While obviously not intended to be an elaborate treatise on organic chemistry it contains much useful information in an accessible form.

Structural formulas are freely used throughout the text with identification tests and a brief statement of pharmacological action.

Paraffins, important drugs of the methane series, anesthetics, narcotics, soporifics, hypnotics, aldehydes, ketones, organic acids, iodoform, benzene, phenols, aromatic alcohols, aniline derivatives, carbohydrates, fats and oils, waxes, resins, glucosides, alkaloids, proteins, enzymes and colloids are all considered, which clearly shows that between the covers of this little book may be found a wealth of information which may be of practical value to the pharmacist, medical student and physician.

W. A. PEARSON.

PUBLICATIONS RECEIVED.

Theses, which have been presented to the Pharmaceutical Faculty of the University of Paris for Doctor in Pharmacy degree.

No.1, Zinc in the Human Organism. By Sinicha Giaya, Pharmacist of the 1st Class; Licentiate in Science University of Belgrade.

The conclusions have been reached by him that zinc exists in all organs of the human body, and in the bodies of all animals, the proportion augmenting with the age of the subject—oscillating between 10 and 50 milligrammes per kilogramme of viscera.

That the organs which contain the most are in the following order: The brain, lungs, stomach, intestines, liver, kidneys, heart, spleen, bones contain traces; urine, very little; human milk, about .0013 Gm. per liter.

No. 2, Urea, Ammonia and the Urinary Amino-acids—from the Analytical Point of View. By Jean Philibert, Pharmacist of the 1st Class, Ex-Interne Paris Hospitals, Prize Winner (1st and 2nd Prizes) Superior School of Pharmacy, Paris.

No. 3, On Some Derivatives of Anisic-Acetone. By Emilien Le Brazidec, Pharmacist of the 1st Class, Ex-Interne Paris Hospitals.

No. 4, On the Decomposition of the Quaternary Iodides of Hexamethylenetetramine by Boiling Water. By Edgard Deroux.

No. 5, Researches on the Oxidization of Mesityl Oxide by Potassium Permanganate and Hydrogen Dioxide. By Charles Launay, Pharmacist of the 1st Class, Ex-Interne Paris Hospitals, Pharmacist Aide-Major 1st Class attached to the Chemical Laboratory of the 11th Army.

No. 6, Preparation and Study of Isoamyl-camphor and Some of Its Derivatives. By Felix Henri Martin, Pharmacist of the 1st Class, Licentiate in Science, Member of the Chemical Society of France, Commercial Assay-Chemist.

No. 7, Action of Iodine on Arsenous Acid and Its Phenyl Derivatives—A Comparative Study with Applications. By Paul Fleury, Chief Pharmacist of Asylums of the Seine, Preparer of Experiments to the Pharmaceutical Faculty.

No. 8, Microbic Fermentation in War Wounds. By Paul Jean-Marie Muraz, Pharmacist of the 1st Class, Prize Winner of the Pharmaceutical Faculty, Silver Medal in Micrography, Ex-Interne Paris Hospitals.

Conclusions reached in the foregoing study of Microbic Fermentation of War Wounds.

The infection of war wounds is nearly always progressive. The infection of the torn tissues by the projectiles (primitive infection) is soon increased in most cases by the introduction of new germs from dressings, manipulations, etc. (secondary infection).

1. The primitive infection is due to association of aërobes and anaërobes or to the aërobes alone. The wounds which contain the an-

aërobes are much more grave—comprising 40% to 80% of those sent from the front.

The immediate gravity of the infection comes from the development of anaërobes in the wound. Healthy, living tissue is not favorable ground for the development of anaërobes—they can only germinate in a tissue favorably prepared.

The preventive action of healthy tissue is due to living blood—a medium rich in oxygen, possessing powerful microbicidal properties. The more or less rapid extension of the anaërobic development depends upon the aërobic with which it is associated. The anaërobic microbes which develop in war wounds are the same as one finds in putrifying animal matter. They are associated with the same anaërobes as one finds in the same cases. They act in the same manner in tissue disorganized by projectiles as in putrifying meats.

The noxious action of these microbes is exercised in two ways:

- a. Toxic action due to the absorption of putrid products.
- b. Progressive invasion of the anaërobic putrid process.

The primitive infection can be also due to the action of aërobes alone—it then passes into a banal aërobic putrefaction, much less dangerous than the first and much less redoubtable.

Its noxious action upon the organisms is equally due:

- a. To the absorption of the products of cytolyse.
- b. (Cases happily more rare.) To the invasion, more or less rapid, of the organism by putrid aërobic germs (septicemia-pyemia).

2. The secondary infection is due to a species of aërobes; this is very frequent in war wounds—one can say that every wound left open will acquire new germs. Secondary infection comes along to complete the putrid action of the microbes in the primitive infection. It is less dangerous, the organism having had time to prepare new means of defense.

3. Each microbe in a war wound has an evolution peculiar to itself, and upon which antiseptics have but little action.

The suppression (amputation) of disorganized tissue—that is to say, of the putrescible region—is at the base of all treatments. In war wounds there is no specific infection, save in the presence of Streptococci and Tetanus bacilli—only a putrid progression.

W. H. GANO.