

ceutical service and should be more carefully regulated by law. "The growth of 'patent medicine' sales illustrates not so much improvement in the quality of medicine as improvement in advertising technique." Public control has been directed more toward the purity and quality of drugs and medicines than toward their therapeutic value. It is incongruous that the members of the medical professions should be controlled by strict laws and rigid codes of ethics while the manufacturer of drugs and medicines should be free to use the methods of ordinary business enterprise, and to freely distribute secret remedies.

It is felt that self-medication by the people should be limited to the treatment of simple and minor conditions, understood by patient and pharmacist, with non-secret remedies and that the laws regulating the manufacture and distribution of drugs and medicines, both federal and state, are inadequate. The most effective control now is through the educational activities of medicine, pharmacy and dentistry with the public. The importance of drugs and medicines in relation to public health would seem to warrant complete and not partial regulation of them in the interest of the public welfare.

The annual expense for medicines is too large. It might be reduced by \$300,000,000, assuming that the costs of prescriptions and home remedies cannot be materially reduced; and that only about 20 per cent of the secret-formula products are actually useful in medical care. The present system of the manufacture and distribution of secret-formula preparations can be justified only on the assumption that the public is qualified to diagnose its diseases and to select suitable remedies.

The authors submit four recommendations. In brief they are: (1) that there should be more adequate use of the professional knowledge and skill of the pharmacist; (2) that selected lists of home remedies, prepared by a committee of physicians and pharmacists, should be distributed by agencies established for the purpose and that self-medication be rigorously discouraged; (3) formula disclosure of the kind and quantity of medicinal ingredients; (4) federal licensing of all the manufacturers of drugs and medicines based upon satisfactory conditions as to personnel, equipment, sanitation and standardization of products. Although some of these recommendations are in keeping with the thoughts of many who have studied the situation, they do not, as a whole,

seem to cover all of the requirements the authors have indicated as desirable and necessary. Possibly it was felt that their adoption or even partial adoption, would mark a long step in pharmaceutical advancement.

The public have so far reserved the right to purchase and use drugs and medicines, as a part of their medical care, without the advice of physicians or the services of hospitals and clinics. This applies, in increasing proportion, to prescriptions, through refilling, to home remedies and to patent medicines. That the public continues to exercise this right and that the exercise of it constitutes a very important phase of medical care is apparent. Until, through education or some other process, the public decides to adopt a different attitude to drugs and medicines, it is the manifest duty of pharmacy to prepare and distribute them and to see as far as possible that the people are not imposed upon.

The authors of "The Cost of Medicines" are to be commended for so frankly and fully discussing the situation as they see it and for raising questions which relate as much to public policy and to the other public health groups as to pharmacy.—E. F. K.

The Structure and Composition of Foods. By Andrew L. Winton, Ph.D., and Kate Barber Winton, Ph.D. Volume I. Cereals, Starch, Oil Seeds, Nuts, Oils, Forage Plants. 710 pages, with 274 illustrations by the authors. John Wiley & Sons, Inc., New York, 1932.

In view of A. L. Winton's earlier contributions to the scientific literature on foods, the appearance of Volume I of the above titled work has been awaited eagerly ever since the announcement of its preparation. Now that the book has been published it is at once evident that the authors have produced a valuable treatise and that it is no mere revision of a few sections of earlier publications enlarged by the mechanical interleaving of data compiled from the literature in the interim. We are dealing rather with a perfected work of scholarship.

Among the questions which the reviewer likes to answer first about a new book are those of scope and content. Or, to phrase it humanly, what did the author try to cover, what did he actually put into his book? They may be answered in this instance by quotation:

"Appreciating the lack of a comprehensive work in the English language, comparable with, yet differing from, the

voluminous works in German and French, the writers' task has been partly to collect, select, summarize, and unify, so far as expedient, results on the composition of a great variety of products scattered through numerous journals, and partly to add their own contributions, largely hitherto unpublished, on the gross and microscopic structure of these products."

"Special stress is laid on the relation of structure to chemical composition, which is analogous to that of animal anatomy to physiology, one being incomplete without the other."

"The products described—cover a broad geographical range—oriental and occidental, temperate and tropical. Analytical methods and vitamins, adequately treated elsewhere, are not included."

"No emphasis is placed on the application of the subject matter in any one particular field; it is presented as general information for any who may have need."

The authors also have stated succinctly the pattern by which they organized their material:

"The plan followed in this and succeeding volumes is quite simple. The classification is *first* by economic groups as shown on the covers and title pages, *second* by parts—fruits, seeds, leaves, etc., *third* by families, *fourth* by genera, and *fifth* by species.—After brief statements of origin, habitat, botanical relationships, and uses, the scientific subject matter is treated under three main heads: (1) macroscopic structure, with due regard to morphology; (2) microscopic structure, which is equivalent in most cases to histology or morphology of tissues; and (3) chemical composition of the natural product and when practicable, its parts separated mechanically whether in the laboratory or in the factory."

A further guiding principle was expressed in the words: "Too great emphasis cannot be laid on the importance of studying each morphological part by itself whenever it is possible to effect a separation. An investigation carried out, for example, on a mixture of starchy endosperm and oily embryo is as unscientific as an analysis of a mixture of a mineral crystal and its matrix."

These precepts have been well adhered to, consequently the volume is a well-organized compendium of a vast amount of specific in-

formation hitherto largely scattered. More restricted in scope than Wehmer's *Die Pflanzenstoffe*, the presentation is less condensed, hence more readable. The illustrations, all originals by the authors, are a monumental contribution to the subject and visualize for the lay reader the otherwise unintelligible descriptions of morphology and histology. In fact they constitute the outstanding feature of the book. Another valuable characteristic is the extensive documentation by footnote references to original sources which, like the introductory acknowledgments, shows that the authors have indeed covered "a broad geographic range."

While this treatise will appeal primarily to workers concerned with nutritional or industrial food problems, the pharmacist will also find much interesting and useful information, there being no real demarcation between foods and *materia medica*. This book would be valuable as a means of enlarging the general education of any pharmacist. Then, there is much information which should prove professionally important, for instance, the recent data on the occurrence of the minor ash constituents of foods, iron, copper, manganese, zinc, boron and others. The illustrations are an excellent supplement to texts on pharmacognosy. Of technical interest, too, are the sections dealing with the purified starches, the various fatty oils, the seeds of the mustard and rose families, of hemp, flax, poppy, etc. Even some poisonous plants, because of their association with foodstuffs, are discussed. In short, the reviewer heartily recommends this book to the pharmaceutical profession.—
ROLAND E. KREMBERS.

"*Prescription Department Sales Analysis in Selected Drug Stores.*"—Domestic Commerce Series No. 61, Department of Commerce, Bureau of Foreign and Domestic Commerce, April 1932, pages 37. By FRANK A. DELGADO and ARTHUR A. KIMBALL. This is the first of a series of three publications to be released concerning the professional phase of the National Drug Store Survey, which has been conducted in St. Louis for the past year by the United States Department of Commerce in cooperation with 33 professional and trade associations of the drug industry. This report should be of value to all branches of the pharmaceutical profession and industry in solving some of the problems confronting them at this time.

The prescription departments of 13 retail