

## LEGAL AND LEGISLATIVE.

### ILLICIT DRUG TRAFFIC IN THE FAR EAST.

The Egyptian government's narcotics central bureau, in its report for 1931, shows that Turkey appears to have become an important center of illicit traffic, though the Turkish government is taking steps to deal with the matter. In Greece, again, traffickers are aided by the absence of provisions for the preventive arrest and detention of persons accused. Unfavorable comment is made on the number of cases in which members of certain steamship lines figure as traffickers' agents. The most striking fact of the report is that whereas the number of drug addicts in Egypt decreased considerably last year, the number of traffickers increased. In 1930, 2828 traffickers and 4580 addicts were arrested; in 1931 the numbers were 4327 and 2882.

### DRAFT OF A GERMAN LAW REGULATING MEDICINAL PRODUCTS.

A number of existing provisions in the German Medicinal Products law have been recast in a different form, while for other matters, such as the supervision of production and the introduction of a test for certain medicinal products (vaccines, therapeutic and protective serums, arsphenamines, digitalis leaves) new provisions have been drafted.

"One of the important paragraphs contains the regulations concerning the manufacture and sale of medicinal products. The needs of the situation are to be the determining factors in the promulgation of regulations concerning

manufacture and sale. It is peculiar that it is not the production of a single preparation that requires authorization but the establishment of a pharmaceutical manufacturing plant. Such authorization may not be given an industrial plant unless the owner furnishes proof that he has the necessary scientific knowledge to carry on such an enterprise in a satisfactory manner. The aim is to eliminate the production of injurious medicaments or such as are likely to deceive the consumer, without imposing more burdens than actually necessary on the manufacture of unobjectionable products. All parties concerned have, on the other hand, an urgent interest in seeing that concessions are conferred only on reliable producers. It is, for example, in no wise desirable that persons without scientific training shall interest themselves in the production of specialties."

It is said that whatever form the law shall assume, it will lead to a clarification of the complicated legal situation in the field of legislation pertaining to medicinal products and will furnish a broad basis for opposing with great energy the illegal traffic in medicinal products and advance the standards of the professions for better medical and pharmaceutical service.

Among the demands are provisions for a responsible, scientifically trained director of a pharmaceutical manufacturing plant; declaration of the active ingredients, holding the producers responsible for the agreement of the declared ingredients with the actual composition, and the abolition of exaggerated or deceptive advertisements.

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## BOOK NOTICES AND REVIEWS.

*Colloid Aspects of Foods, Chemistry and Technology.* By WILLIAM CLAYTON, D.Sc. (Liverpool), F.I.C. VII + 571 pages, with 64 illustrations. P. Blakiston's Son & Co., Inc., 1932.

In the preface the author states his reason for presenting this book and the function which he expects it to fulfil as follows:

"Whilst there are several textbooks available in English, German and French which deal with the organic chemistry of foods, the chemical aspects of nutrition and with food analysis, no attempt seems to have been made to survey the field in relation to those physico-chemical aspects of food chemistry which come within

the range of modern colloid chemistry. The present volume seeks to fill this gap in the textbook literature."

"It is not a treatise on food technology, but rather an introductory guide to those aspects and problems of a colloid nature which may be unfamiliar to the food chemist who has not specialized in colloid chemistry and physics."

On the whole it may be said that the author has achieved what he set out to accomplish; but before discussing the book in somewhat greater detail, it will be instructive to review briefly the historical background of modern colloid chemistry. Colloid substances, as we now call them, are not at all new to mankind,

though colloid chemistry is one of the newly recognized branches of chemical science. In general properties, most of mankind's basic foodstuffs, clothing materials and structural elements are still much the same as those known to the ancients. In fact, except as Nature offered certain minerals, the early civilizations were more familiar with colloid, or at least amorphous materials than with crystalline. However, the realization that a crystalline condition was indicative of a high degree of purity made the crystallization of compounds one of the fundamentals of chemistry. The early advances of modern chemistry were based largely on the study of crystalline, that is purified, substances. The generalizations deduced therefrom naturally pertained to these crystalline materials and a distinction was gradually built up between the better understood crystalline group and the less well understood amorphous materials which seemed to defy crystallization (*i. e.*, purification). Attendant upon the description of the preparation and chemical reactions of crystalline compounds there was assembled an ever-growing mass of data pertaining to their physical properties. Thus physical chemistry had its inception and development. Not content with studying crystalline compounds alone, physical chemists extended their inquiries to amorphous bodies as well. So it came about that Graham, inspired by his observations on diffusion, classified all substances as crystalloid or colloid because the structural differences coincided roughly with the extremes in this physical property. The acceptance of Graham's classification led in time to the development of colloid chemistry, which is really a branch of physical chemistry.

While the organic chemist has been relatively slow in unraveling the structure of colloids, owing to the inherent difficulty in purifying, *i. e.*, crystallizing, these materials, the physical chemist has forged ahead with an ambitious program to explain the particular behavior of colloids through the study of their physical properties. Hence Clayton's book is essentially a summary of physical properties of foodstuffs, consisting of a collection of descriptive essays on selected materials or processes. These include: the scope of colloid chemistry; agar-agar and gums; the chemistry of the proteins; gelatin; colloids in cereal chemistry; emulsions; the colloid chemistry of milk and milk products; colloid aspects of nutritional chemistry; colloid problems in sugar tech-

nology; fruit jellies, jams and marmalades; colloid phenomena in brewing; the freezing and thawing of colloid systems; the treatment of water and factory effluents. Supplementing the text are a glossary of terms, a bibliography of more than 2000 references, author and subject indices. The treatment of these subjects is largely narrative and descriptive; the style is simple, direct and very readable. Numerous tables, graphs and illustrations facilitate a ready comprehension of the subject matter. Of the mathematical discussions, few involve directly the concepts of the calculus.

With the exception of the chapter on freezing, there appears to be almost no treatment of the colloid chemistry of foodstuffs from the standpoint of a common phenomenon. Gelatin swells, casein precipitates or causes distress to an infant by the nature of its curd, flour is baked to bread, beer foams, sugar does not crystallize perfectly unless the colloids are refined out or the color absorbed by active carbons. That is, each colloid has been studied largely with respect to some distinctive or technologically important property rather than as a member of a group possessing generalized properties. Which means, with all due respect for the brilliant achievements of the colloid chemists, that the study of the physical properties of colloids has not proved an open sesame for all the difficulties in this field. Much interesting and valuable information has been assembled. But here, as elsewhere in chemical science, a really complete description is not possible until physical and structural knowledge is balanced. The reviewer is disappointed that more effort was not devoted to discussing foodstuffs generally, according to specific physical properties in addition to the reverse classification. The fault, if such it be, of course does not rest solely with the author. The science of colloid chemistry is still too recent in origin to have permitted the recording of all the data necessary to complete such discussions.

As regards the pharmaceutical profession, this book will ordinarily not interest the retailer. Students, teachers or manufacturers will be more likely to profit. To them the book is recommended for its dispassionate description of the present status of researches and technology in food chemistry and for the numerous suggestions for the study of pharmaceuticals which will surely be forthcoming from a perusal of its pages.—ROLAND E. KREMERS.