pany, and only two are members of educational institutions. Most of the authors have published extensively in their fields of specialization.

Some of the chapters are obviously companion articles for reviews in some of the earlier volumes of this series. For example, the chapter on the production of potato granules is a logical and timely follow-up of the general article in volume I on the deterioration of processed potatoes. Also, the chapter on tunnel dehydrators for fruits and vegetables extends the collected information on the spray-drying of foods that appeared in volume II of *Advances in Food Research.*

The reviews are remarkably free from errors, as determined by one reading, and all the authors appear to have covered nearly every aspect of their topics concerning which there exists any published knowledge. Thus, the volume provides an excellent source of dependable and well-documented information. Moreover, in most of the reviews the need for additional knowledge or interpretation of existing information is pointed out. Thus the articles have been written critically, and they are more than compilations of published data.

This volume should be of value to all persons who are concerned with food research and technology.

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Essays in Biochemistry. Samuel Graff, Ed. Wiley, New York; Chapman & Hall, London, 1956. 345 pp. Illus. $6.50.

These essays were written in honor of Hans Thacher Clarke on the occasion of his retirement as professor and chairman of the department of biochemistry, College of Physicians and Surgeons, Columbia University. The authors were either Clarke's former students or academic associates, and in their contributions they academically express their affection and esteem for his excellent help as well as for his generous aid and wise counsel. These scholarly essays reflect in large measure the high standards of excellence instilled in the authors by their teacher and associate.

This book is divided into 25 chapters. In the prefatory remarks it is stated that some of the chapters are critical discussions of the status of biochemical problems, whereas others are frankly speculative or deliberately provocative. A wide range of subjects is included: metabolic products of basidiomycetes (Marjorie Anchel), heterogeneity of DNA (Aaron Bendich), biosynthesis of branch-chain compounds (Konrad Bloch), lysogeny (Ernest Borek), plasma volume expander (Max Bovarnick and Marianna R. Bovarnick), conjugated proteins (Erwin Chargaff), thymine metabolism (Seymour S. Cohen), steroid hormones (Lewis L. Engel), bacterial viruses (E. A. Evans, Jr.), peptide bonds (Joseph S. Fruton), on the nature of cancer (Samuel Graff), lipide metabolism (Samuel Gurin), tetrazoles as carboxylic acid analogs (Robert M. Herbst), structural basis for the differentiation of identical groups in asymmetric reactions (Hans Hirschmann), nitrogen-sparing effect of glucose (Henry D. Hoberman), inositol in microorganisms (Boris Magasanik), ferritin (Abraham Mazur), nitrogen transfer in biosynthetic mechanisms (Sarah Ratner), bigness of enzymes (David Rittenberg), biosynthesis of porphyrins (David Shemin), role of carbohydrates in the biosynthesis of aromatic compounds (David B. Sprinson), determining chemical structure of proteins (William H. Stein), glycogen turnover (DeWitt Stetten, Jr., and Marjorie R. Stetten), veratrum alkamines (Osckar Wintersteiner), and the chemical basis of heredity determinants (Stephen Zamenhof). Herein lies a good education in molecular anatomy and molecular physiology.

Several of the statements in this book are really speculative and/or provocative, and they are couched in rather good syntax so that they could engage a person's thoughts for more than a fleeting moment. There is a vast storehouse of information as well as questions left without answers in this book. All the chapters are stimulating, and I think they will present some new ideas that the reader may wish to consider. Clarke will be pleased with the excellence of this volume, and the contributors will likewise be congratulated for the painstaking job they have performed in organizing and writing their chapters. The thought-perplexing questions raised by Clarke's former students and associates will engage the labors of a whole decade of biologists.

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Sites of Infection. Unstable areas as sources of parasitic diseases; schistosomiasis and fascioliasis. Alan Mozley. Lewis, London, 1955. x + 86 pp. Illus. 9s.

The author has attempted to make an ecological analysis of the conditions conducive to the establishment and maintenance of certain parasitic diseases of man and domestic animals in which the parasites utilize snails as intermediate hosts. He concerns himself in his discussion chiefly with liver-rot of cattle and sheep and with bilharzia (urinary schistosomiasis) of man. His emphasis is on the ecological instability of the places in which dangerous snails live.

In frontier areas it may be possible to effect control by allowing the natural forces to stabilize into a condition where parasite-carrying snails are reduced to very small numbers. In irrigation systems and other bodies of water that are created and maintained by man, these natural forces are interrupted with the result that control must then be achieved through the use of chemicals for killing the snails. It would seem that the ecological approach followed in this treatise might be profitably applied to other parasitic and tropical diseases.

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Suggestion and Hypnosis in the Light of the Concepts of I. P. Pavlov. A popular science survey. K. I. Platonov. State Publishing House of Medical Literature, Moscow, U.S.S.R., 1951. 56 pp. Illus. (In Russian).

This booklet, although described as a popular science essay, is actually limited in its appeal and comprehensibility to a college-trained and science-oriented audience. The author, K. I. Platonov, a student of I. P. Pavlov, has had extensive experience in clinical and laboratory investigations of hypnotherapy and appears well qualified to discuss this subject.

Platonov's chief thesis is that hypnosis is nothing more than partial sleep induced by factors that, under proper conditions, will also produce normal sleep. Sleep is considered as a protective inhibitory state originating in the cerebral cortex and eventually spreading to subcortical areas. The author, therefore, concludes that hypnosis, like natural sleep, cannot be considered to have harmful potentialities, certainly not when it is induced by properly trained physicians.

The exaggerated power of suggestion during hypnosis is viewed simply as one example of the use of words as conditional stimuli belonging to the so-called "secondary signal system." The author reviews briefly Pavlov's classification of conditional stimuli: (i) those belonging to the primary signal system, that is, stimuli affecting directly the sense organs (these signals are shared by man and animals); (ii) those belonging to the secondary signal system (words) which are characteristic for man alone. Since this secondary signal system exerts its effects via the primary signal system, the author