

## Book Reviews

**The Diseases of Occupations.** Donald Hunter. Little, Brown, Boston, 1955. vii + 1046 pp. Illus. \$20.

Occupational medicine is the division of the health sciences that seeks to bridge two great technologies: modern industry and modern clinical medicine. Within this broad domain there is room for authoritative textbooks that cover different segments or present different approaches to specific segments of the whole. The present book deals with the disease processes known to be caused by factors of occupation, and does so in an interesting fashion.

An especially delightful feature of the book is a generous presentation of non-clinical information, which serves as the background and general framework for the description of occupational diseases. The story of the industrialization of society and of the full meaning of this for the English worker is accomplished with enviable brevity and clarity. A rather large proportion of the total text is given over to descriptions of the industrial processes at which harmful exposures may occur. These are in terms that are useful to the clinician, and they suggest wide, firsthand acquaintance with these matters on the part of the author.

Those who are especially experienced in one or another occupational disease may find some fault in the location of emphasis, in certain omissions, and in a failure here and there to recognize the clinical variations of dynamic disease processes. In this country, where the present compulsion is to define safe exposures in terms of dose as the product of time and concentration to the end that precise engineering specifications may be developed for the elimination of hazards, there may be some grumbling that numbers are loosely handled. In short, this is not a technical handbook. Rather, it is a full and exciting presentation of a branch of medicine that has until recently been grossly neglected and must be developed more fully if we are to live successfully with an ever-increasing industrialization.

The book provides a much needed framework for both the teacher and the student of occupational medicine. The practitioner who occasionally wonders

about the relationships between employment and the clinical problem at hand will find here a positive stimulus to consider occupational diseases, but he will not always find help in distinguishing these from nonoccupational conditions. For the specialist in occupational medicine, the book will provide a rich filling-out of his personal experience and will prove to be a difficult volume to put aside once it is opened.

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**The Genus *Nicotiana*.** Origins, relationships, and evolution of its species in the light of their distribution, morphology, and cytogenetics. Thomas Harper Goodspeed. *Chronica Botanica*, Waltham, Mass.; Stechert-Hafner, New York, 1954. xxii + 356 pp. Illus. + plates. \$12.50.

Thomas Goodspeed's studies of *Nicotiana* began soon after a research program on the genus was initiated at the University of California in 1904. His investigations during the past 30 years have been directed toward an accumulation and analysis of evidence on the origins, evolution, and relationships of the modern species of the genus. A feature of the studies has been the maintenance of a living collection of almost all the *Nicotiana* species and the production of a large number of different interspecific hybrids. Both species and hybrids have been studied comprehensively from chromosomes to trichomes.

In the first chapter of Goodspeed's book the objective and argument are presented. Then follow 11 chapters that document in detail the evidence from geographic distribution, morphology, cytology of the species, and cytology of  $F_1$  interspecific hybrids in terms of the nature and significance of chromosome-pairing relationships at meiosis.

The main theoretical concepts on *Nicotiana* evolution, past and present, are set forth in Chapters 13 and 14 under the collective heading "Phyletic." The author's views on the evolutionary background of the genus and the cytological

mechanisms involved in the formation of 12- and 24-paired modern species are plausible and convincing, respectively. Speculations on the future of the genus are conservative, ending on the optimistic note that "the genus may be expected to expand both genetically and geographically, with greatest increase in number of species on the higher polyploid level."

The final part of the book is a 170-page taxonomic monograph of the genus, which was prepared in collaboration with Helen-Mar Wheeler and Paul C. Hutchinson, senior botanists at the University of California Botanical Garden. This new and complete systematic treatment will be invaluable to those working with the genus, for in the past there has been much confusion owing to synonymy, names from insufficiently known specimens, and so forth.

Diagrammatic representations of the evolution of *Nicotiana* species in terms of three arcs culminating, at the third level, in the current 14 sections and 60 species are highly effective. By repetition there is perhaps a tendency to overemphasize the hypothesis that the genus arose from a pregeneric reservoir consisting of 6-paired pre-*Cestrum*, pre-*Nicotiana* and pre-*Petunia* elements. For a broader genetic exposition of the relationships among species, the author could have included to advantage discussion of such significant subjects as duplicate genes and genetic analysis of generations succeeding the  $F_1$  of interspecific hybrids. A more detailed treatment of the cultivated species, *N. tabacum*, would, in my opinion, have further increased the general usefulness of the book for reference.

*The Genus Nicotiana* is a much needed and welcome compilation of a wealth of world literature and a lifetime of research. It will take its place among such classics as Babcock's *The Genus Crepis* and *The Evolution of Gossypium* by Hutchinson, Silow, and Stephens. Finally, admirable publishing skill is exhibited in the numerous excellent illustrations and pleasing format of the book.

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**The Interpretation of Dreams.** Sigmund Freud. Translated by James Strachey. Basic Books, New York, 1955. xxxii + 692 pp. \$7.50.

This edition is a reprint of volumes IV and V, the first to appear (in 1953) of the Standard Edition of the Complete Psychological Works of Sigmund Freud now being published under the auspices of the British Institute of Psychoanalysis.

*The Interpretation of Dreams* was regarded by Freud as his most important