Medical College of Alabama, with the hope "that it may help to make writing easier for the physicians of the Medical College." In his introduction Dr. Kracke stated: "Every doctor should know how to write for both lay and medical periodicals . . . and, above all, he should know where to obtain medical information and the technique of doing it."

In keeping with this request Miss Crowe presented in highly condensed form such topics as preparation of the paper, survey of the literature, use of library, writing the paper, preparation of the manuscript, revision, and reading of proofs. The writing of abstracts, book review and case report, the oral presentation of a paper and the discussion of papers are covered briefly.

Miss Crowe has done a good job of condensation of a large subject within a single issue of a pocket-sized bulletin. She has managed with much pruning and discernment to select the most essential information which everyone who writes a medical paper should have at his elbow. This includes the beginner as well as the experienced writer. Publication in a periodical will tend to restrict distribution of this most valuable vade mecum. It is hoped that reprints will be made available to the many who could benefit from this useful essay.

Chicago

I. DAVIDSOHN

The Transmission of Nerve Impulses at Neuroeffector Junctions and Peripheral Synapses.


In 1937 Dr. Walter B. Cannon and Dr. Rosenblueth published their monograph Autonomic Neuro-effector Systems. The present volume re-evaluates the theories presented in the earlier volume and gives an up-to-date report on most of the facts regarding synaptic transmission.

Part I deals with transmission at autonomic neuroeffector junctions. In this part the author discusses the presence of adrenalin and acetylcholine in nerve trunks and their relationship to conduction in the fibers; the relation of acetylcholine, of adrenalin and of the sympathins to transmission at the postganglionic neuroeffector junctions; the distribution of cholinergic and adrenergic nerves; the generalized effects of the adrenergic chemical mediators, i.e., the hormone-like actions of circulating sympathin; and the mode of action of the chemical mediators.

Part II is concerned with transmission at the junction of peripheral nerves with skeletal muscle and with synaptic transmission at autonomic ganglia. The author discusses synaptic fatigue; the liberation of acetylcholine and of potassium and the actions of these substances on striate muscles and ganglionic cells; the effects of anticholinesterases; the effects of curare; the decurarizing effects of acetylcholine, potassium and the anticholinesterases; and the electrical excitability and electrical responses of skeletal muscle and autonomic ganglia. The various phenomena seen after section of skeletal motor nerves, i.e., failure of conduction and of synaptic transmission and the Philipeaux-Vulpian phenomena, are also presented.

Each part of the book closes with a general summary and statement of conclusions. The author believes that the only mode of transmission at autonomic neuroeffector junctions is by a chemical mediator either acetylcholine or adrenalin. While only acetylcholine appears in the perfusate when cholinergic nerves are stimulated, sympathin appears in the perfusate when adrenergic nerves are stimulated. Sympathin is considered to be released from the autonomic effectors. The author believes that sympathin differs from adrenalin both quantitatively and qualitatively, and also that sympathin differs in composition and physiologic effect depending upon the particular effector from which it is obtained.

Dr. Rosenblueth believes that, at peripheral synapses (skeletal muscle and autonomic ganglia), the action potential does not attain the electrical threshold of the postsynaptic elements and concludes that electrical transmission would be unlikely without the simul-
taneous intervention of some other factor. He feels that acetylcholine is released in amounts sufficient to stimulate the postsynaptic elements, that acetylcholine is the essential transmitter, that the acetylcholine is released by the electrical spike potential, and that simultaneously released K ion is an important adjuvant for peripheral synaptic transmission.

The ganglionic blocking agent tetraethyl ammonium and the adrenalin excitor blocking agent Priscoline are not discussed.

The book is clearly written and well indexed, and is recommended for physicians, investigators and students interested in problems of synaptic transmission which have assumed such prominence in the field of clinical medicine in recent years.

Winston-Salem, North Carolina

HAROLD D. GREEN

Renal Diseases, Ed. 2. By E. T. Bell, M.D., Professor of Pathology in the University of Minnesota, Minneapolis. 448 pp., 123 ill., 4 pl. $8.00. Philadelphia: Lea & Febiger, 1950.

There are few books in pathology, aside from the standard textbooks on general pathology, which are constantly consulted because of their fund of accurate information and authoritative opinion. Such a book is Renal Diseases by Bell, now in its second edition, the first edition having appeared in 1946. The first three chapters deal with classification, histology and physiology, respectively. The remaining nine chapters are mainly concerned with pathology, but also give an adequate account of etiology, pathologic physiology, symptomatology and the rationale of treatment. Here the pathologist and the clinician alike will find a wealth of authentic information and excellent correlation of pathologic lesions with clinical manifestations of renal diseases. The author has been a keen student, investigator and observer of these diseases for over 25 years. One will not need to read long to realize that the descriptions reveal the touch and carry the word of the master teacher, and that the observations reflect discernment and mature judgment. It is a pleasure to turn to such a book for the constant aid it is sure to give.

S. E. G.


This color atlas represents a major contribution in the teaching of pathology. Along with its 365 plates and 1053 figures in color are illustrative case histories and pathologic descriptions in summary. Prepared under the auspices of the U. S. Naval Medical School and National Naval Medical Center, it represents the product of many workers, but chiefly the efforts of Dr. Charles F. Geschickter who, as Chief of Pathology of the Naval Medical School, initiated its creation in 1944. The atlas consists of eight sections of illustrative and descriptive material, sections being devoted to diseases of the hematopoietic system, reticulo-endothelial system, respiratory tract, cardiovascular system, alimentary tract, liver, urinary tract, and musculoskeletal system.

The atlas, being a teaching guide, may be said to accomplish its purpose. One is irresistibly led to an inspection and study of more and more figures. In general the magnifications used give an adequate portrayal of the essential lesion under consideration. In an evaluation of the quality of the plates one may say that the vast majority are excellent and but relatively few are of doubtful worth. It must be admitted, however, that the color reproduction approaches but does not quite equal the surpassing quality of many of the German and some the English books and atlases. The work is notable for its large scope and for the basic pattern which it has established. Undoubtedly this color atlas will serve as a model for others that will follow from time to time. The selling price is apparently only a fraction of the actual cost of production. The sponsors and publishers are to be congratulated on this venture.

S. E. G.