THE NERVOUS SYSTEM
AND
ITS DISEASES.

A PRACTICAL TREATISE ON NEUROLOGY FOR THE USE OF PHYSICIANS AND STUDENTS.

BY

CHARLES K. MILLS, M.D.,

PROFESSOR OF MENTAL DISEASES AND OF MEDICAL JURISPRUDENCE IN THE UNIVERSITY OF PENNSYLVANIA; CLINICAL PROFESSOR OF NEUROLOGY IN THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA; PROFESSOR OF DISEASES OF THE NERVOUS SYSTEM IN THE PHILADELPHIA POLYTECHNIC; NEUROLOGIST TO THE PHILADELPHIA HOSPITAL; HONORARY FELLOW OF THE PITTSBURG ACADEMY OF MEDICINE, ETC.

DISEASES OF THE BRAIN AND CRANIAL NERVES, WITH A GENERAL INTRODUCTION ON THE STUDY AND TREATMENT OF NERVOUS DISEASES.

WITH FOUR HUNDRED AND FIFTY-NINE ILLUSTRATIONS.

PHILADELPHIA:
J. B. LIPPINCOTT COMPANY.
LONDON: 6 Henrietta Street, Covent Garden.

1898.
TO

S. WEIR MITCHELL, M.D., LL.D.,

IN RECOGNITION OF HIS GREAT SERVICES TO NEUROLOGY
AND TO MEDICAL AND GENERAL LITERATURE,

AND

AS A MARK OF HIGH PERSONAL ESTEEM,
THIS BOOK IS DEDICATED

BY

THE AUTHOR.
PREFACE.

The great work of Gowers is the only extensive treatise on nervous diseases in the English language, although excellent manuals of moderate size have been written; and the author has hence been led to believe that a large text-book, including a comparatively full presentation of the many recent additions to the anatomy and pathology of the nervous system, would be in accord with the needs of the profession.

It has been deemed best to make the present volume complete in itself, with bibliographic and general indexes. In addition to an introduction on the study and treatment of nervous diseases in general, diseases of the brain and of the cranial nerves are discussed in full. Should circumstances permit, this volume will be followed by another, which shall include the remaining diseases of the nervous system, insanity, and the medical jurisprudence of both nervous and mental diseases.

The introductory portion of the work comprises a summary of the embryology, anatomy, physiology, and chemistry of the nervous system, and a consideration of the general pathology, etiology, and symptomatology of nervous diseases, with the methods of investigating them and the best measures applicable in their treatment. The introductory chapters have been made full because of what are believed to be the necessities of American students and practitioners.

While the methods of investigation described and the data found in the clinical and pathological portions of the book are based mainly upon experience in private and hospital practice, it has been the aim to make the volume also representative of the best American and foreign work in neurology.

Close attention has been given to the subject of localization with regard to all portions of the encephalon,—the ganglia and other structures at the base of the brain, the cerebellum, the pons, and the oblongata, as well as the cerebrum. Under cerebral localization are given the results of the latest researches and observations, including the discoveries springing from the newer histological methods.

Diseases of the membranes, sinuses, and veins of the brain are considered separately from arterial diseases, which are chiefly focal, as the latter are more conveniently discussed with other focal lesions, such as tumor and abscess. Special attention has been paid to the
subject of encephalitis. As many of the encephalic affections commonly met with are chronic, and the results of residual lesions or secondary degenerations, it has been thought best to consider these by themselves. The usual order in which the cranial nerves are enumerated is not followed in their discussion, affections of the special senses being considered together. The chapter on these affections includes separate sections on the cochlear and vestibular nerves and their diseases. Affections of taste are discussed at length, because they have as a rule been slighted in other neurological treatises.

The nomenclature and terminology advocated by Professor Burt G. Wilder, of Cornell University, have in the main been used more largely than in any previous practical work on neurology. The reforms advocated by this distinguished anatomist, especially the introduction of mononyms, are deserving of general adoption.

The method of reference in the bibliographic index is novel, and it is hoped will commend itself to the student and the general reader. This index makes it unnecessary to speak here separately of the author's obligations to his confrères in this country and abroad. The plan of using captions for each paragraph has been adopted in the hope that it will be of service in the more exact presentation of facts.

The author is greatly indebted to Professor Wilder for direct help and suggestions connected with neural terminology. To Dr. A. C. Peale he has been under continuous obligations during the progress of the work for assistance rendered, including the searching for references and their verification, the reading and criticism of proof, and the modification and supervision of illustrations. Dr. William G. Spiller, by furnishing notes on recent literature, by special criticisms, and by valuable aid in the pathological sections, has placed him under great obligations to his colleague. Acknowledgments are also due to Dr. J. W. McConnell for assistance in proofreading and in the bibliographic work; to Dr. Henry Leffmann for the revision of the section on the chemistry of the nervous system; and to Dr. F. X. Dercum, Dr. James Hendrie Lloyd, and Dr. Charles W. Burr, of the Philadelphia Hospital staff, for opportunities of studying and using cases in addition to those under his own care.

Many of the illustrations are new, and others obtained from different sources have been more or less modified for the particular purposes of the book. Grateful acknowledgments are due to those authors and publishers, both American and foreign, who have accorded the privilege of using their illustrations, either in the original or in modified forms.

1909 CHESTNUT STREET, PHILADELPHIA, JANUARY, 1898.