

The Principles and Methods of **PHYSICAL DIAGNOSIS**

CORRELATION OF PHYSICAL SIGNS WITH
PHYSIOLOGIC AND PATHOLOGIC CHANGES IN DISEASE

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With a Chapter on

SOUNDS FROM THE THORAX: ACOUSTIC PRINCIPLES

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370 Illustrations with 19 Color Plates

W. B. SAUNDERS COMPANY

Philadelphia & London

Reprinted February, 1953

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TO THE MEMORY OF MY FATHER

ISAAC LEOPOLD

University of Pennsylvania, B.S., 1883, M.D., 1886

PREFACE

"The fundamental fault with most of the available textbooks of Physical Diagnosis is the fact that they devote too little attention to the underlying principles—the physics—of examination, and too much space to attenuated and emasculated descriptions of clinical disease entities, listing the abnormal findings that are present in each."

This opinion was expressed by Dr. Henry Hopkins, who has been associated with me for the past twenty years in teaching Physical Diagnosis at the University of Pennsylvania. It agrees in every respect with my own convictions.

Because it is our firm belief that the principles and methods of Physical Diagnosis should be taught by correlating physical signs with physiologic and pathologic changes in disease, I have constantly kept this objective before me in the preparation of this book.

In most medical schools the subject of Physical Diagnosis, sometimes sufficiently comprehensive to be designated "The Examination of the Patient," is taught at the beginning of the second year and is the student's introduction to the study of clinical medicine. Despite the present tendency to introduce more clinical teaching into the first two years, it is still true that at the beginning of his sophomore year the medical student knows almost nothing about the symptoms of disease and its physical manifestations. He is therefore incapable of taking a medical history, for to do so implies that he has knowledge which he cannot possibly have acquired.

Physical examination is an art which is slowly acquired, and one in which the physician becomes increasingly competent during the course of his professional career. The student, likewise, as his knowledge of medicine grows, gains more and more facility in the taking of the history. That this is true is attested to by the generally accepted opinion that many tentative diagnoses, based on the medical history alone, are substantiated by the physical examination and the laboratory studies.

Instruction in history taking must, of course, be given to the students before they act as clinical clerks in the wards and in the out-patient departments of their teaching hospitals in their junior and senior years.

By the middle of the second year, or surely toward the end of that year, the student has received instruction in those fundamental sciences, Pathology, Pharmacology and Bacteriology, which bear more directly on clinical medicine, and he may also have had a number of hours of instruction designed to correlate his knowledge of these basic subjects with disease as

observed at the bedside. *It is at this time that the student should be taught to take the history.* Chiefly for this reason, therefore, the chapter on The History has been put at the end of this book.

There is another reason for this arrangement of the text. If formal instruction is given to the class by didactic lectures, it permits the teacher to depart from the printed pages by assigning them as required reading. Thus, relieved of the necessity of following the text, the lecturer is able to bring into the clinic, patients whose physical signs illustrate the subject under consideration, and to use to full advantage various visual and auditory educational aids.

If the entire subject of "The Examination of the Patient" is taught by instructors in Medicine, Surgery, Pediatrics and in the specialties, with small groups of students assigned to each one for a designated period of time, the informality of such teaching will make assigned reading mandatory. There is no other way to hold the students responsible for those essential facts which they must know in their clinical years and throughout their professional lives.

Shortly before his death in 1937, Dr. H. R. M. Landis requested me to revise his portion of "Diseases of the Chest and the Principles of Physical Diagnosis," which he wrote in collaboration with the senior author, Dr. George W. Norris. I accepted this task as a tribute to the memory of Dr. Landis. Many of the illustrations from the book, particularly the anatomic sections which were its most characteristic feature, have been reproduced in this book with the kind permission of Dr. Norris.

I am indebted to Dr. Robert Mayock, who aided in the preparation of the chapters on Routine Data and The History, to Dr. Roy Peck for the chapter on Examination of the Musculoskeletal System, to Dr. William Copeland for the chapter on Gynecologic Examination, to Dr. Brooke Roberts for the technic of examination of the anus, rectum and rectosigmoid, and to Dr. Robert Leopold for the chapters on Neurologic Examination and Psychiatric Survey.

I am especially pleased that Dr. S. Reid Warren, Jr., has applied his rare talent to writing the chapter on Sounds from the Thorax: Acoustic Principles. This might aptly be termed the "physics" of physical examination.

SIMON S. LEOPOLD

Philadelphia
June, 1952

ACKNOWLEDGMENTS

In addition to those whose names have appeared in the Preface as collaborators, there are many other colleagues and friends to whom I wish to extend my thanks: Dr. Francis C. Wood for his kindly cooperation, Dr. Henry Hopkins for reading the first draft of the manuscript and offering much helpful advice, and Dr. O. H. Perry Pepper for reading the second draft and giving me a full measure of his wisdom.

I owe to Dr. Angelo L. Luchi of Wilkes-Barre, Pennsylvania, my deep appreciation for his interest in this endeavor and for his translation of Cardarelli's *Sulla pulsazione del tubo laringo-tracheale come segno di certi aneurismi dell' arco artico*.

The sources of many of the illustrations are acknowledged in the legends descriptive of each, but I would be remiss did I not express here my thanks to Drs. C. D. Haagensen and Hayes Martin and to the American Cancer Society for allowing me to use their excellent illustrations from their monographs on Carcinoma of the Breast and Cancer of the Head and Neck; to Dr. William G. Leaman for placing at my disposal his enormous collection of lantern slides; and to my colleagues who offered me everything which their departments afforded by way of slides, photographs and roentgenograms.

I owe a profound debt of gratitude to my secretary, Mary Smyth Rich, and to the W. B. Saunders Company for always meeting my impossible demands with a smile of acquiescence.

S. S. L.

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