

**CLINICAL EXAMINATION OF  
THE BLOOD AND ITS  
TECHNIQUE. A MANUAL FOR  
STUDENTS AND PRACTITIONERS**

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Clinical Examination of the Blood and Its Technique. A Manual for Students and Practitioners  
by A. Pappenheim & R. Donaldson

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*H. Morrison*

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OF THE BLOOD  
AND ITS TECHNIQUE.

A MANUAL FOR STUDENTS AND  
PRACTITIONERS.

BY

PROFESSOR A. PAPPENHEIM,  
*Berlin.*

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## TRANSLATOR'S PREFACE.

THE clinical examination of the blood should be carried out as a routine much more frequently than is generally the case in practice. Indeed, while every other system is carefully gone over time and again, the blood is often thought of only as a last resort by the practitioner. Even then the technique employed is not all that might be desired, and the significance of what is found is not always properly understood.

In order to aid the practitioner, therefore, Professor Pappenheim has written this small book, which he expressly wishes to be regarded merely as a *guide* to the clinical examination of the blood.

A simple technique is described, and the main facts that every one ought to be familiar with are brought together in a condensed form, while everything of a controversial nature is omitted. The English edition has been enriched by the insertion of a few illustrations showing Professor Pappenheim's apparatus and the chief cell forms likely to be met with.

The cell types have been taken from his "Atlas der menschlichen Blutzellen," a book which contains a wealth of illustration and material. Since the German edition made its appearance, Professor Pappenheim has altered his technique, and the description given of this has been based on reprints which Professor Pappenheim kindly sent me, so that the book might be completely up to date.

ROBERT DONALDSON.

READING,

*May, 1914.*



## PREFACE TO THE GERMAN EDITION.

THIS small book first appeared as a chapter in Carl Neuberg's "Handbuch der Ausscheidungen und Körperflüssigkeiten," published by Julius Springer in 1911. It was written with the idea of furnishing a very elementary guide to the most important and essential methods of blood examination regarded from the standpoint of the chemist and of the pharmacist. Soon after its appearance, however, I received numerous requests to publish the chapter in book form. As a matter of fact no small text-book of this kind had hitherto been published. Moreover, a chapter, dealing almost entirely with microscopy and cytology, seemed to a certain extent out of place in what was otherwise essentially a treatise on Chemical Physiology. The subject-matter of this chapter, in fact, belongs to quite a different category from the rest of the contents. For these reasons the publisher resolved to comply with the requests for a separate issue.

This little book differs from all others that treat of the blood in so far as it deals only with what is absolutely essential and of first import-

ance in clinical methods of blood examination. All less important, and all merely chemical or physical methods of examination have been purposely omitted; such, for example, as alkalinity, specific gravity, volumetry, dried residue, coagulation time, viscosity, etc.

Further, of the three cardinal lines of blood-investigation (*viz.*, staining, counting of cells, and hæmoglobin-estimation), only those methods have been described which have been definitely proved of value. All padding with less useful methods has been purposely omitted.

Coupled with the description of methods, the respective features of normal blood have been briefly discussed.

In addition, the most important facts in the semiology, necessary for a proper understanding of pathological conditions, have been dealt with.

In order to appreciate correctly the cytomorphological appearances, a series of good illustrations should be consulted.

A. PAPPENHEIM.

WANGEROOGE,  
*August, 1911.*

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