

**ELEMENTS OF APPLIED  
MICROSCOPY. A TEXT-  
BOOK FOR BEGINNERS**

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Elements of Applied Microscopy. A Text-Book for Beginners by Charles-Edward Amory Winslow

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**CHARLES-EDWARD AMORY WINSLOW**

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MICROSCOPY. A TEXT-  
BOOK FOR BEGINNERS**



ELEMENTS  
OF  
APPLIED MICROSCOPY.

*A TEXT-BOOK FOR BEGINNERS.*

BY

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*Instructor in Industrial Microscopy and Sanitary Biology in the  
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FIRST THOUSAND.

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1905.

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DEDICATED  
BY THE AUTHOR  
To His Mother.

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## INTRODUCTION.

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THIS little book is intended for the teacher, and the beginner with the microscope, not for the specialist. It contains very few original data and treats no single subject with completeness.

Almost all the branches of technical microscopy have been already made the basis for monographs with which the present volume can in no way compete. On the other hand, there are many entertaining popular books on the microscope which treat it as a mere adjunct to the study of natural history. Neither type of work was suited for the use of a class in Industrial Microscopy which is offered to second-year Chemists and Biologists at the Massachusetts Institute of Technology. The object of this course is twofold—first, to give facility in the manipulation of the microscope; and second, to furnish an acquaintance with the scope of its practical application. As a text-book there was needed a brief and elementary treatise which should take up the fundamentals of the science and art of microscopy itself and make a rapid but wide survey of the principal fields in which the microscope has been applied to practical

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affairs. No such elementary but comprehensive work exists in English among the numerous able treatises upon special branches of the subject. The present volume is therefore the outgrowth of a pedagogic need. The book is necessarily incomplete from the standpoint of the expert in any of the branches which it treats, but if it conveys to the student's mind such an idea of the possible applications of the microscope in varied fields as shall stimulate him eventually to the further exploration of some one of them, it will have served its purpose.

In the preparation of this volume, the authorities quoted in connection with the various chapters have been freely drawn upon. The author further desires to express his grateful obligation, to Dr. P. G. Stiles for the preparation of original drawings; and for advice and assistance in regard to various portions of the manuscript to Professor W. T. Sedgwick, Professor Mary A. Willcox, Professor H. M. Goodwin, Professor F. J. Moore, Professor C. H. Warren, Dr. C. C. Simmons, Mr. A. E. Leach, Mr. A. G. Woodman, Dr. E. L. Walker, and Miss A. F. Rogers.

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