

**LECTURES ON THE ERRORS
OF REFRACTION AND
THEIR CORRECTION WITH
GLASSES**

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Lectures on the errors of refraction and their correction with glasses by Francis Valk

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FRANCIS VALK

**LECTURES ON THE ERRORS
OF REFRACTION AND
THEIR CORRECTION WITH
GLASSES**

LECTURES
ON THE
ERRORS OF REFRACTION

AND THEIR
CORRECTION WITH GLASSES

DELIVERED AT THE
NEW YORK POST-GRADUATE MEDICAL SCHOOL

WITH
ILLUSTRATIVE CASES FROM PRACTICE, BOTH PRIVATE AND CLINICAL

BY
FRANCIS VALK, M.D.

LECTURER ON THE DISEASES OF THE EYE, NEW YORK POST-GRADUATE MEDICAL SCHOOL; OPHTHALMOLOGIST TO THE NEW YORK DISPENSARY; FORMERLY ASSISTANT SURGEON, MANHATTAN EYE AND EAR HOSPITAL; VISITING OPHTHALMOLOGIST TO THE RANDALI'S ISLAND HOSPITALS; ASSISTANT TO THE CHAIR OF OPHTHALMOLOGY AND OTOL-
OGY, AND ASSISTANT DEMONSTRATOR OF ANATOMY, AT
THE UNIVERSITY OF THE CITY OF NEW YORK

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1889

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NEW YORK

Biomed
WW
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1889

TO

D. B. ST. JOHN ROOSA, M.D., LL.D.

PROFESSOR OF DISEASES OF THE EYE AND EAR IN THE NEW YORK POST-GRADUATE
MEDICAL SCHOOL AND HOSPITAL, AND PRESIDENT OF THE FACULTY,
MY TEACHER AT THE UNIVERSITY OF THE CITY OF NEW
YORK, AND CONSTANT ADVISER SINCE THEN

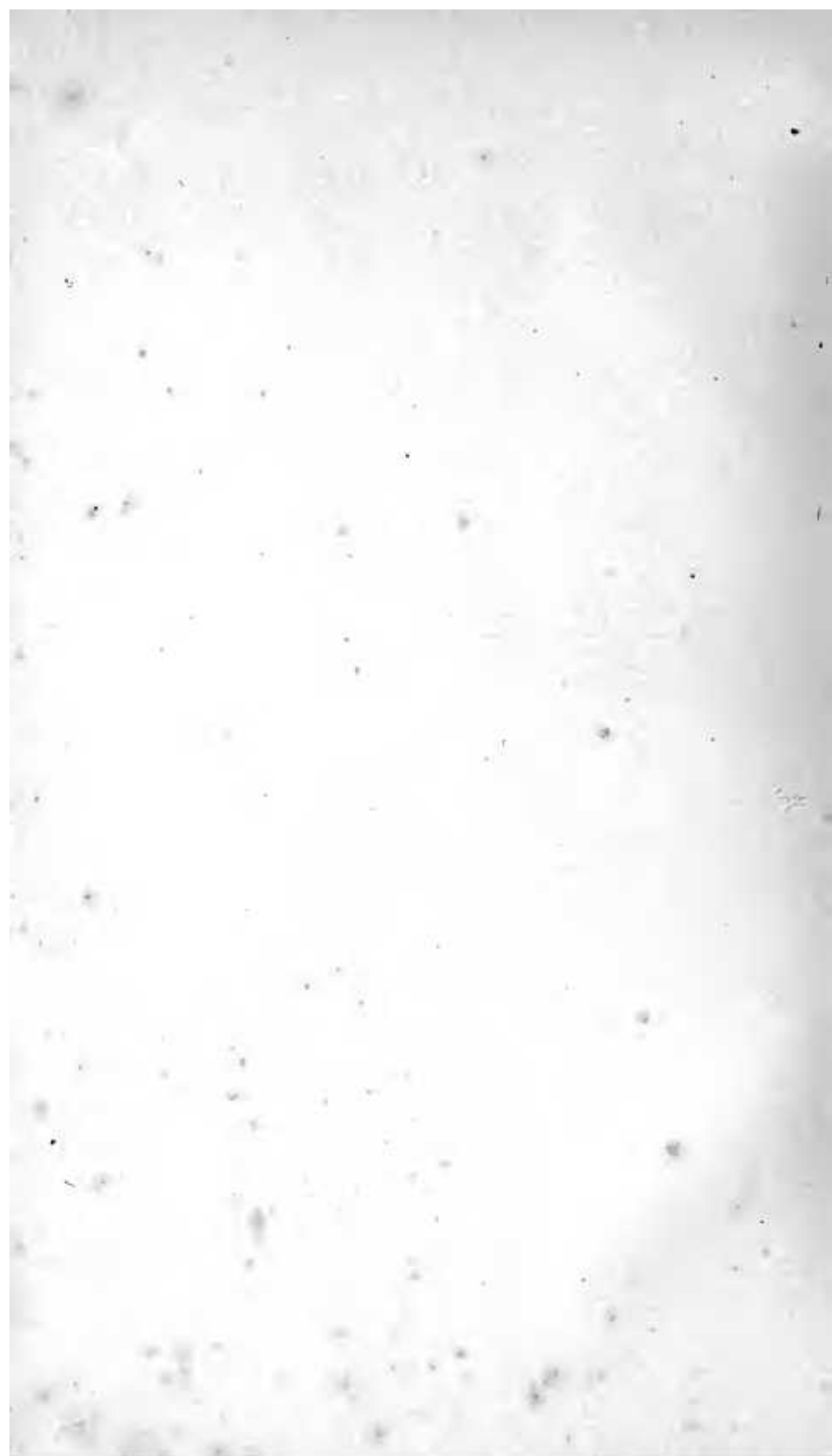
AND TO

WILLIAM H. FOX, M.D.

WASHINGTON, D. C.
MY BELOVED FRIEND AND ASSISTANT

THIS WORK IS DEDICATED

IN RESPECTFUL ADMIRATION OF THEIR WORK AS
PHYSICIANS AND SURGEONS



PREFACE.

THESE lectures to the physicians who attended the section on Diseases of the Eye, at the New York Post-Graduate School, having been received by them with many words of approval, and also with the request that I would publish them, are my reasons for now offering this work upon the "Errors of Refraction" to the profession. I know that many text-books treat this subject in perhaps a more scientific manner than it is here presented, but I have endeavored to make this work as simple and practical as possible.

The methods of testing for and prescribing glasses, as herein described, are so simple that they can be readily understood even by one who is not familiar with the science of ophthalmology; and are so written that they will be of service in the hands of the general practitioner, who has too little time to devote to the study of the larger works on Refraction.

I believe that there are some subjects which I have discussed that will also be of value to the specialist, in the work of correcting the errors of refraction; as in the lectures on retinoscopy and astigmatism, and in the diagnosis of refraction with the ophthalmoscope.

I am indebted to my friend and teacher, Prof. D. B. St. John Roosa, for many of the practical points in these lectures, and likewise for almost all my early teachings on this subject. I am also indebted to my kind friend, Dr. W. H. Fox (now of Washington, D. C.), who was with me during the years of 1886 and 1887 at the Post-Graduate

School, and from whom I received many valuable suggestions in regard to the refraction of the rays of light, as they pass to and from the retina of the human eye. It is with great pleasure that I thank these gentlemen for their ever ready assistance to me in the past, and for their kind advice and counsel in the preparation of this work.

I also acknowledge the assistance I have received from the books of Prof. E. Landolt, of Paris, and also to Gustavus Hartridge, F.R.C.S., England, whose works on Refraction I have studied with benefit to myself, and from which I have quoted in these lectures.

The illustrations and diagrams are many of them reproductions of the blackboard drawings that I have been accustomed to use in illustrating my lectures to the classes, and I am sure will be, in this connection, of service to the reader, in understanding the direction of the rays of light as they pass through, and are refracted by, the various media.

Repetition of many points and cases has been necessary in this work to make it clearly understood, and to impress the methods of examination on the reader; and while to the specialist they may seem very unnecessary, yet to the physician who is beginning the study of the errors of refraction I am sure they will be of service.

As a simple and at the same time complete method for the diagnosis and correction of all the errors of refraction, I offer this monograph to the general profession.

New York, 1888.

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