# HOW TO USE THE OPHTHALMOSCOPE: BEING ELEMENTARY INSTRUCTIONS IN OPHTHALMOSCOPY; ARRANGED FOR THE STUDENTS

Published @ 2017 Trieste Publishing Pty Ltd

#### ISBN 9780649029822

How to Use the Ophthalmoscope: Being Elementary Instructions in Ophthalmoscopy; Arranged for the Students by Edgar A. Browne

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

### **EDGAR A. BROWNE**

# HOW TO USE THE OPHTHALMOSCOPE: BEING ELEMENTARY INSTRUCTIONS IN OPHTHALMOSCOPY; ARRANGED FOR THE STUDENTS



## HOW TO USE

THE

## OPHTHALMOSCOPE.

BRING

ELEMENTARY INSTRUCTIONS IN OPHTHALMOSCOPY.

#### ARRANGED FOR THE USE OF STUDENTS.

WITH THIRTY-FIVE ILLUSTRATIONS.

BY

EDGAR A. BROWNE,

SURGEON TO THE LIVERPOOL EYE AND HAR INFIRMARY AND TO THE
DISPERSARY FOR SHIE DISEASE;

PORNEELY DEMONSTRATED OF ARADOM IN THE LIVERPOOL
ROYAL INFIRMARY SCHOOL OF MEDICIES.



PHILADELPHIA: HENRY C. LEA. 1877. 3

PHILADELPHIA: COLLINS, PRINTRE.

LANE LIBRARY

#### PREFACE.

I have endeavored in the following pages to give a simple account of the mode in which the student should approach the physical diagnosis of eye-disease by means of the ophthalmoscope.

The existing accounts of the instrument are either adapted to the wants of the advanced student, or are imbedded in complete ophthalmic treatises, which, in the present state of science, are far from portable. I have therefore thrown together those elementary facts which are necessary to be known in a sufficiently compact form to serve as a constant companion (or veritable vade mecum) to the student in the days of his early difficulties.

The arrangement has been dictated by what appear from personal experience to be the wants of the average student. He is generally anxious to learn, but distracted by a multitude of facts and theories, for the most part dimly and phantasmagorically seen. Harassed by the desire of acquiring a full complement of practical knowledge in the brief periods between the dreaded crises of his examinations, he (not unnaturally) loves short cuts, and is especially addicted to studying full-blown examples of disease rather than acquiring the art of observing the separate facts upon which the power of accurate diagnosis is dependent. For one who will patiently study the healthy structures of the eye, twenty will be found eager to flash the light unsteadily in front of a case of glaucoma, or other disease with a definite name, which may seem likely to be required of them.

I have endeavored to reverse the process, and to inculcate a sounder, and, in the end, a shorter method of work. My scheme is therefore strictly limited to counselling the student how to acquire the art of seeing and the power of recognizing and localizing the commonest deviation from the normal standard in the individual structures. Furnished with this information, the student will proceed to the study of the separate diseases

with the aid of one of the excellent systematic works at present available. To any of these my little book may be considered as bearing the same relationship that a dissecting-room manual does to the treatise on anatomy.

I may appear to have treated the subject in too elementary a manner, but I have deliberately done so, as experience in viva voce teaching has shown me that a considerable proportion of students who commence the study of ophthalmoscopy are not prepared to receive more than the most rudimentary information. To this, if sound, details can always be added.

The same reason has determined the rough nature of the illustrations, which may be regarded as reproductions of extempore diagrams. A pictorial representation, however perfect, only conveys information in the same manner as the natural object it represents, and a learner has equal difficulty in seizing the essential points of either; but a diagram of a few hasty lines, by emphasizing one dominant fact, and suppressing the less material, will often convey an idea more clearly than the most elaborate work of art.



### CONTENTS.

#### SECTION I.

#### OPTICAL PRINCIPLES.

									PAGE	
Light-General	Bt	atemer	ats	0.00		20 <b>4</b> 0.0	•0	0.00	228	13
Reflection .									33	16
By Curved	Su	rfaces			3		20	3.5	100	18
Focus-Real, V	irt	ual, P	rinci	ipal, (	onic	igate			776	19
Refraction .	•	H.	•0.	90			***		10.00	21
By Prisms	ŝ		- 83	- 2	3		- 33	- 2	33	24
By Lenses			- 53	- 8	1		- 55	1	12	26
Focus of Lenses							40	720	50	27
Images .		0.00	90	160			7.0		0.5	30
Formation 1	hw			- 8	8		33	- 8	30	31
		Mirro		- 8			8	18	1	88
		Lense			1.4		•	240		84
					€.		2.0	363	3.5	10200
Eye as an Optical Instrument									33	37
									5.5	42
									8	45
The Ophthalmoscope—Erect Image									10	47
11		I	ıver	ted	)(*	(*)	ð.	39	83	49
		s	EC'	TION	п.					
Ophthalmoscope—Description of					3. <b>•</b>		*	336	358	51
		Mode	of U	sing		2.1				53
Oblique Illumin	ati	on	20		100	- 33	323	53	1	65