

**THE HUMAN EYE: ITS
OPTICAL CONSTRUCTION
POPULARLY EXPLAINED**

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The Human Eye: Its Optical Construction Popularly Explained by R. E. Dudgeon

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BY

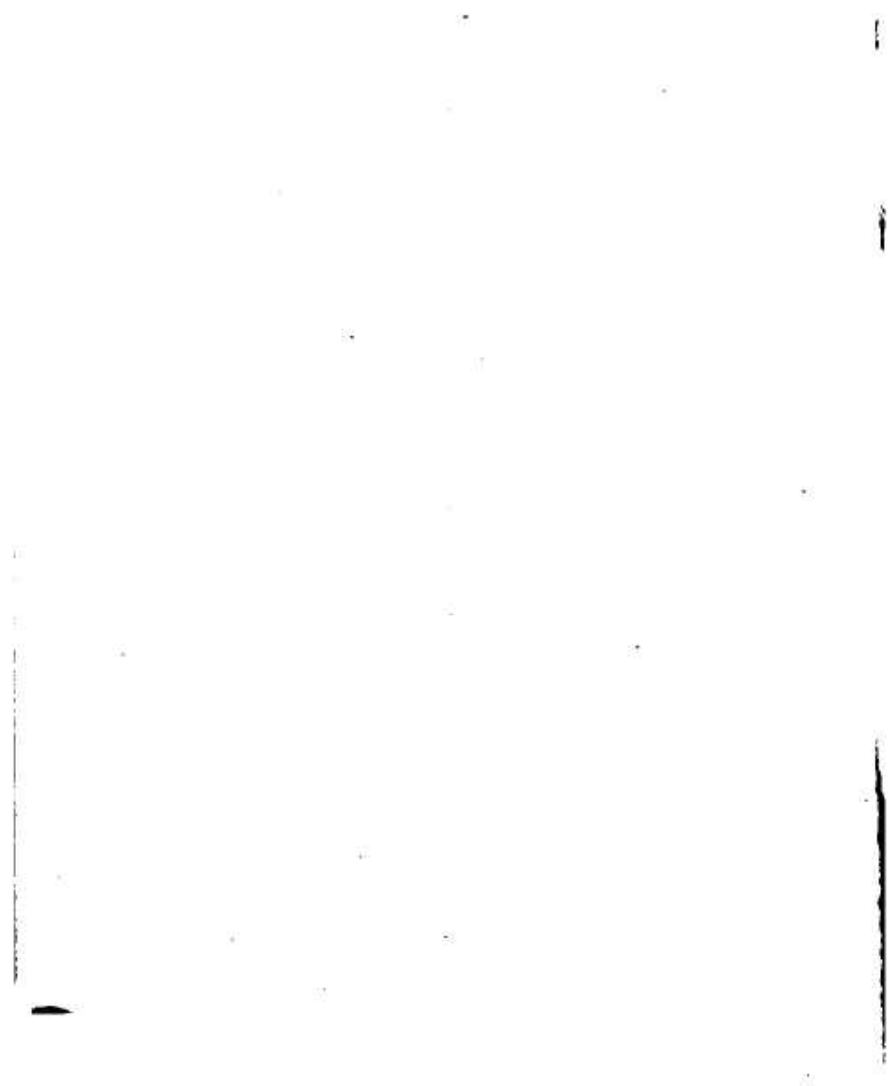
R. E. DUDGEON, M.D.



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P R E F A C E .

THE novel views in this little work respecting subaqueous vision, air lenses, and visual accommodation were first promulgated in two pamphlets, entitled, 'Notes on the Dioptrics of Vision,' and 'The Mechanism of Accommodation,' published in 1871 and 1872. They were also explained in lectures delivered in 1871 before the Sunday Lecture Society and in 1872 at the Sunday Evenings for the People. Again, in August 1872, the Author read a paper at the meeting of the International Ophthalmological Congress respecting his views on the mechanism of accommodation, which is published in the Transactions of the Congress. Since the date of these publications and lectures, further experiments and observations by the Author himself and by some continental physiologists have confirmed the correctness of the views he originally put forward respecting the

mechanism of visual accommodation, and as these views have excited some interest both in this country and in Germany, the Author has been induced to write a more complete treatise on the optics of vision in plain and untechnical language, so as to enable those not conversant with optical science to understand this important and interesting subject. The Author believes that a popular method of treatment of his subject is perfectly compatible with scientific accuracy. In the special optical part of this treatise he has confined himself to those optical facts and principles which have a direct bearing on the optics of the eye.

The Author has limited himself strictly to his subject, which is the optical construction of the normal human eye. The reader will therefore not expect to find a full account in this small volume of those large subjects the physiology, anatomy, histology, pathology, and comparative anatomy of the eye, each of which would require a large book for its proper treatment, and could hardly form the theme of a popular treatise.

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