

A TREATISE ON OPTICS

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A Treatise on optics by William N. Griffin

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WILLIAM N. GRIFFIN

**A TREATISE
ON OPTICS**

A
TREATISE
ON
O P T I C S.

BY
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59, 60, 80, 81, 93, 102, 107, 108, 110, 111, 113, 115, 121, 125—131, 186—190, 193, 208, 210, 224—226, 231, 232, 235, 249.

O P T I C S.

SECTION I.

GENERAL PROPERTIES OF LIGHT, AND DIRECT REFLECTION AND REFRACTION.

1. WHEN a material object is presented before us, we become by vision sensible of its existence and figure. In such a case light is said to be propagated from the object to our eyes, and the science of Optics has for its design the examination of the circumstances of such propagation.

The science is divided into Geometrical and Physical Optics. In Geometrical Optics the circumstances of the transmission and modification of light are computed on certain laws established by experiment; in Physical Optics these laws are accounted for on hypotheses of the structure of bodies, and of the matter filling the space in which they are placed. In a similar manner in Geometrical Astronomy the phenomena of heavenly bodies are calculated on observed laws which their apparent motions are found to obey; in Physical Astronomy these apparent laws are shewn to result from the hypothesis of Gravitation.

The former branch of the science is the subject of the present treatise, wherein from certain laws established by experiment under simple circumstances, the course of light under more complex circumstances is computed, and the results applied to the construction of Optical Instruments. These investigations will be conducted in independence of