

CONTENTS.

	PAGE
Notes on Hydrodynamics. III. On the Dynamical Equations	1
On the constitution of the Luminiferous Ether	8
On the Theory of certain Bands seen in the Spectrum	14
SECTION I. Explanation of the Formation of the Bands on the imper- fect Theory of Interferences. Mode of Calculating the Number of Bands seen in a given part of the Spectrum	15
SECTION II. Investigation of the Intensity of the Light on the com- plete Theory of Undulations, including the Explanation of the apparent Polarity of the Bands	24
Notes on Hydrodynamics. IV. Demonstration of a Fundamental Theorem	36
On a difficulty in the Theory of Sound	51
Passages from the original not included in the reprint of 1883	55A
On the Formation of the Central Spot of Newton's Rings beyond the Critical Angle	56
On some points in the Received Theory of Sound	82
Passages from the original not included in the reprint of 1883	88A
On the perfect Blackness of the Central Spot in Newton's Rings, and on the Verification of Fresnel's Formulæ for the intensities of Reflected and Refracted Rays	89
On Attractions, and on Clairaut's Theorem	104
On the Variation of Gravity at the Surface of the Earth	131
On a Mode of Measuring the Astigmatism of a Defective Eye	172
On the Determination of the Wave Length corresponding with any Point of the Spectrum	176
Discussion of a Differential Equation relating to the Breaking of Railway Bridges	178
Notes on Hydrodynamics. VI. On Waves	221
On the Dynamical Theory of Diffraction	243
PART I. Theoretical Investigation.	
SECTION I. Preliminary Analysis	250
SECTION II. Propagation of an Arbitrary Disturbance in an Elastic Medium	257
SECTION III. Determination of the Law of the Disturbance in a Secondary Wave of Light	280

	PAGE
PART II. Experiments on the Rotation of the Plane of Polarization of Diffracted Light.	
SECTION I. Description of the Experiments	290
SECTION II. Discussion of the Numerical Results of the Ex- periments, with reference to Theory	307
On the Numerical Calculation of a class of Definite Integrals and Infinite Series	329
On the Mode of Disappearance of Newton's Rings in passing the Angle of Total Internal Reflection	358
On Metallic Reflection	360
On a Fictitious Displacement of Fringes of Interference	361
On Haidinger's Brushes	362
Index	365

ERRATUM.

P. 221, in the Number of the Note. *For IV. read VI.*