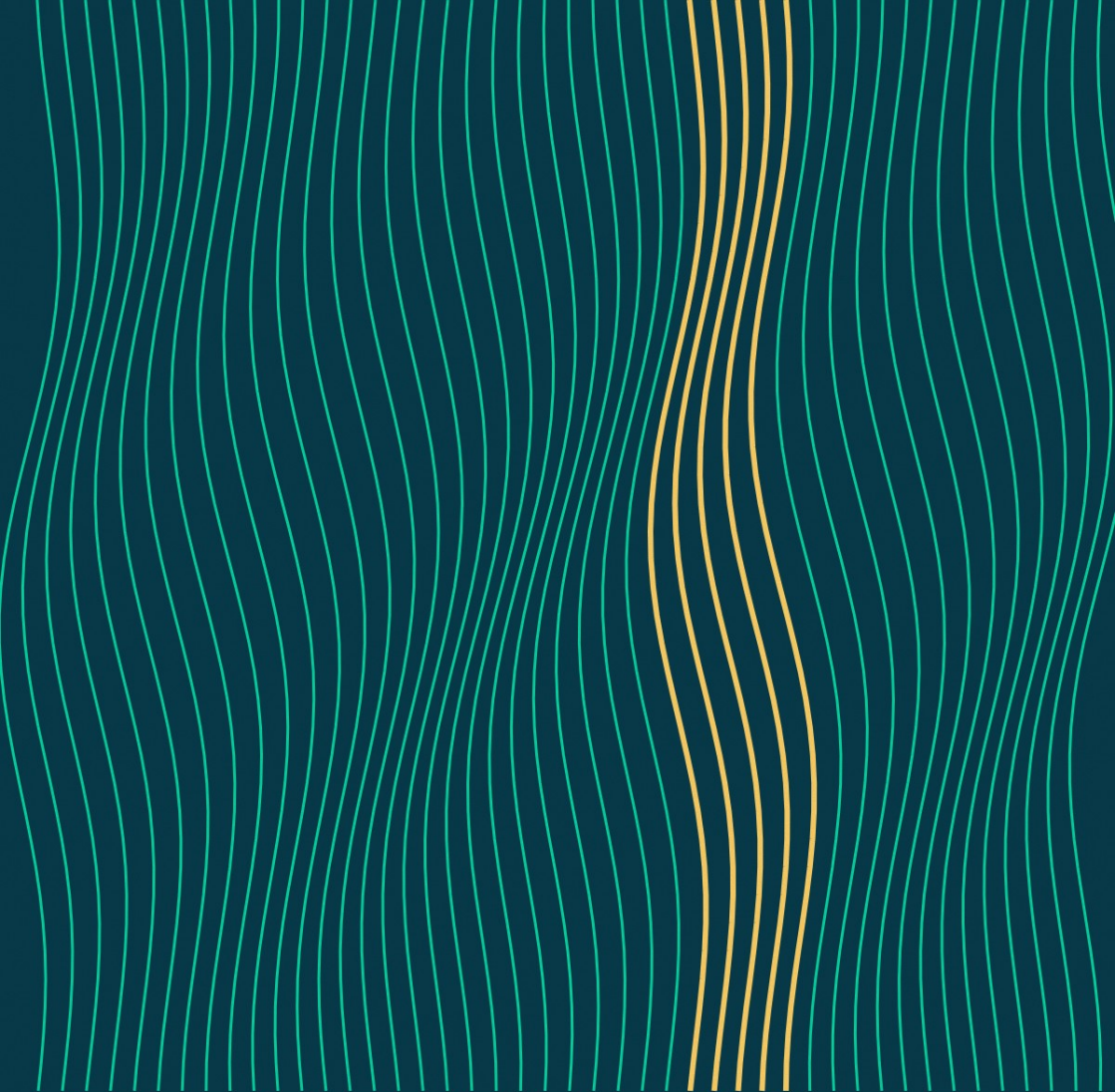




Six Lectures on Light

JOHN TYNDALL

JVA EDITORA

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SIX LECTURES ON LIGHT

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BY

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PREFACE TO THE FOURTH EDITION.

In these Lectures I have sought to render clear a difficult but profoundly interesting subject. My aim has been not only to describe and illustrate in a familiar manner the principal laws and phenomena of light, but to point out the origin, and show the application, of the theoretic conceptions which underlie and unite the whole, and without which no real interpretation is possible.

The Lectures, as stated on the title-page, were delivered in the United States in 1872-3. I still retain a vivid and grateful remembrance of the cordiality with which they were received.

My scope and object are briefly indicated in the 'Summary and Conclusion,' which, as recommended in a former edition, might be, not unfitly, read as an introduction to the volume.

J.T.

ALP LUSGEN: *October 1885.*

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ON LIGHT

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NEWTON'S EXPERIMENTS ON THE COMPOSITION OF SOLAR LIGHT
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YELLOW AND BLUE LIGHTS PRODUCE WHITE BY THEIR MIXTURE
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ABSORPTION
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§ 1. *Introduction.*

Some twelve years ago I published, in England, a little book entitled the 'Glaciers of the Alps,' and, a couple of years subsequently, a second book, entitled 'Heat a Mode of Motion.' These volumes were followed by others, written with equal plainness, and with a similar aim, that aim being to develop and deepen sympathy between science and the world outside of science. I agreed with thoughtful men^[1] who deemed it good for neither world to be isolated from the other, or unsympathetic towards the other, and, to lessen this isolation, at least in one department of science, I swerved, for a time, from those original researches which have been the real pursuit and pleasure of my life.

The works here referred to were, for the most part, republished by the Messrs. Appleton of New York,^[2] under the auspices of a man who is untiring in his efforts to diffuse sound scientific knowledge among the people of the United States; whose energy, ability, and single-mindedness, in the prosecution of an arduous task, have won for him the sympathy and support of many of us in 'the old country.' I allude to Professor Youmans. Quite as