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Polarisation of Light

Before his untimely death from typhoid, William Spottiswoode (1825–83) had served as president of the London Mathematical Society, the British Association, and the Royal Society. In addition to publishing widely in mathematics and the experimental physical sciences, he restored the fortunes of his family printing firm, Eyre and Spottiswoode, the Queen's Printers. An enthusiast for the popularisation of science, he lectured to large audiences at the Royal Institution, the South Kensington College of Science, and at British Association meetings. He also gave scientific talks at the school set up for the employees of his family firm. This illustrated 1874 work is based on these talks, and provides an introduction to 'this beautiful branch of optics'. Spottiswoode covers methods of polarisation, and the contemporary theory accounting for these effects. He describes various experiments, and explains how polarisation causes patterns and colours to appear in light.

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Polarisation of Light

WILLIAM SPOTTISWOODE



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NATURE SERIES

POLARISATION OF LIGHT

BY

WILLIAM SPOTTISWOODE

M.A. LL.D. F.R.S. &c.

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PREFACE.

THE FOLLOWING PAGES contain the substance of lectures delivered at various times to my workpeople, and constitute a talk rather than a treatise on Polarised Light. If a perusal of them should induce some to read, and others to write, more fully on the subject, this provisional sketch will have served its purpose. For such utility as it may possess I have to thank Professors Tyndall, G. G. Stokes, and Maskelyne, Sir C. Wheatstone, and others whose suggestions I have more or less consciously adopted; and last, but not least, those of my audience who, by patient attention to the lectures, have encouraged me to pursue the study of this beautiful branch of Optics.

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DESCRIPTION OF THE PLATE (*at end*).

FIGS.

- 1 and 2. Iceland Spar.
- 3 „ 4. Aragonite.
- 5 „ 6. Titanite or Sphene.
- 7 „ 8. Cyanide of Platinum and Barytes.
- 9 „ 10. Quartz perpendicular to the Axis.
- 11 „ 12. Airy's Spirals—right and left-handed Quartz superposed.