

CHAPTER XI

THE RISE OF PETROLOGY. CLOSE OF THE
CAMBRO-SILURIAN CONTROVERSY

MICROSCOPIC STRUCTURE OF ROCKS—H. C. SORBY—DAVID FORBES—
GEOLOGICAL DINNERS—DANIEL SHARPE—PRESTWICH AND EASTER
EXCURSIONS—THE END OF THE 'TRANSACTIONS'—A. G. BAIN—
MANTELL AND THE ELGIN REPTILES—OWEN AND HUXLEY—FINAL
CONTROVERSY ON CAMBRIAN AND SILURIAN—THE TERM ORDOVICIAN

A NEW departure in geological research marked the opening of the session for 1850-51, when Mr. Henry Clifton Sorby read a paper 'On the Microscopical Structure of the Calcareous Grit of the Yorkshire Coast.' Although the microscope had been applied by earlier workers to the study of minerals, it was not until after William Nicol, of Edinburgh, had devised a process of making thin slices of fossil wood, made known in 1831, that researches on the intimate structure of rocks became possible.¹ Sorby was the first to examine by transmitted light thin sections of rocks, prepared with his own hands; and he may truly be said to have initiated the modern science of petrology. With his wonted enthusiasm he pursued the subject, and at the end of 1857 he communicated to the Society his famous paper 'On Some Peculiarities in the Microscopical Structure of Crystals Applicable to the Determination of the Aqueous or Igneous Origin of Minerals and Rocks.'²

In this he described the results of experiments undertaken to determine the relation of cavities to the crystals in which they occur, and applied his results to natural

¹ 'The Founders of Geology,' by Sir A. Geikie, 2nd ed. 1905, pp. 462, &c.

² *Quart. Journ. Geol. Soc.* xiv. 1858, p. 453.