

- XIV. *On the Calculus of Functions.* By W. H. L. RUSSELL, *Esq., A.B.* Communicated by ARTHUR CAYLEY, *Esq., F.R.S.* page 265
- XV. *On the Difference in the Magnetic Properties of Hot-Rolled and Cold-Rolled Malleable Iron, as regards the power of receiving and retaining Induced Magnetism of Subpermanent Character.* By GEORGE BIDDLE AIRY, *Astronomer Royal* 273
- XVI. *On the Relations of the Vomer, Ethmoid, and Intermaxillary Bones.* By JOHN CLELAND, *M.D., Demonstrator of Anatomy in the University of Edinburgh.* Communicated by Professor HUXLEY, *F.R.S.* 289
- XVII. *On the Properties of Electro-deposited Antimony* (concluded). By G. GORE, *Esq.* Communicated by Professor STOKES, *Sec. R.S.* 323
- XVIII. THE BAKERIAN LECTURE.—*On the Total Solar Eclipse of July 18th, 1860, observed at Rivabellosa, near Miranda de Ebro, in Spain.* By WARREN DE LA RUE, *Esq., Ph.D., F.R.S., Hon. Sec. Royal Astron. Soc., Treas. Chem. Soc. &c.* 333
- XIX. *On a New Method of Approximation applicable to Elliptic and Ultra-elliptic Functions.*—Second Memoir. By CHARLES W. MERRIFIELD. Communicated by W. SPOTTISWOODE, *Esq., F.R.S.* 417
- XX. *On Simultaneous Differential Equations of the First Order in which the Number of the Variables exceeds by more than one the Number of the Equations.* By GEORGE BOOLE, *F.R.S., Professor of Mathematics in Queen's College, Cork* . . . 437
- XXI. (I.) *On the Dicotylid Reptilia, with a Description of some Fossil Remains brought by H.R.H. PRINCE ALFRED from South Africa, November 1860.* (II.) *On the Pelvis of the DICYNODON.* (III.) *Notice of a Skull and parts of the Skeleton of RHYNCHOSAURUS ARTICEPS.* By Professor OWEN, *F.R.S. &c.* 455
- XXII. *On the Differential Coefficients and Determinants of Lines, and their Application to Analytical Mechanics.* By A. COHEN, *Esq.* Communicated by Professor STOKES, *Sec. R.S.* 469
- XXIII. *A Supplement to Two Papers published in the Transactions of the Royal Society, "On the Science connected with Human Mortality;" the one published in 1820, and the other in 1825.* By BENJAMIN GOMPERTZ, *F.R.S., F.R.A.S. &c.* . . . 511
- XXIV. *On TSCHIRNHAUSEN'S Transformation.* By ARTHUR CAYLEY, *Esq., F.R.S.* 561

ERRATA.

Page 163, lines 2, 9, 13 (art. XLVII.), erase the word "non-polar."
 — — line 7, *for* because *read* when.

