

different point of view. England has during the early part of the century, in all but the purely mathematical sciences, a greater array of scientific names of the first order than Germany, and nearly as great an array as France. Black, Herschel, Priestley, Cavendish, Davy, Young, Dalton, Faraday, Rowan Hamilton, Brewster, Lyell, Charles Bell, are all identified with one or more novel ideas or definite branches of research.<sup>1</sup> Great Britain had thus no lack

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English science in the early part of the century.

there is, however, a proportionate amount of pleasure in witnessing the triumphant manner in which the small band of philosophers extricated their institution from seri-

ous difficulties, unassisted by Royal bounty and labouring alone on account of their love for science" (vol. i. p. 474).

<sup>1</sup> The following are the principal dates referring to the great discoveries made in this country during the half-century ending 1825 :—

- 1774. Priestley (1733-1804) discovers oxygen and a variety of other gases.
- 1775. Black (1728-99), Memoirs on latent heat.
- 1775. Maskelyne (1732-1811) measures the Attraction of Mount Shehallien.
- 1775. Landen (1719-90) expresses the arc of an hyperbola in terms of two elliptic arcs.
- 1778. Benjamin Thompson (Count Rumford, 1753-1814) first experiments on heat by friction.
- 1781, 13th March, Sir William Herschel (1738-1822) discovers Uranus.
- 1784. Cavendish (1731-1810) discovers the composition of water.
- 1786-97. Caroline Herschel (1750-1848) discovers her eight comets.
- 1798. Cavendish determines the density of the earth.
- 1799. Davy (1768-1829), essay on heat, light, &c.
- 1800. Nicholson and Carlisle decompose water with the voltaic pile.
- 1801. Dalton (1766-1844), theory of evaporation.
- 1801. Young (1773-1829), first essay on the theory of light and colour.
- 1802. Dalton, law of expansion of gaseous fluids.
- 1802. Playfair (1748-1819), 'Illustrations of the Huttonian Theory.'
- 1802. Wollaston (1766-1829), on Iceland spar, and undulatory theory.
- 1802-3. William Herschel, observations on nebulae and double stars.
- 1802-3. Young expounds the principle of "Interference."
- 1803-4. Dalton proposes the atomic theory.
- 1804. Leslie (1766-1832), experiments on heat.
- 1804. Wollaston discovers palladium and other kindred metals.
- 1806. Davy isolates the alkaline metals.
- 1807. Young introduces the word Energy (lect. i. p. 75).
- 1809. Ivory (1765-1842), on the attraction of ellipsoids.
- 1810. Young (in 'Quarterly Review') explains the different refractions in crystals.
- 1810. Davy discovers chlorine to be a simple body.