set in, to chemistry—especially by Bergmann.[1] Haüy established the science of minerals on an independent foundation by studying and systematising the forms of their crystallisation; and he brought the science of mineralogy from Sweden and Germany into France, and gave it an independent position. Thus it came to form a connecting-link between the mathematical—*i.e.*, the measuring and calculating—and the purely descriptive sciences. "Mineralogy, though it is that part of natural science which deals with the least complicated objects, is nevertheless also that which lends itself least to a rational classification. The first observers named the minerals vaguely according to their external appearances and their use. It was not until the middle of the eighteenth century that it was attempted to subject them to those methods which had done service to geology and botany: the hope existed of establishing among them genera and

[1] See an account of the work of the chemical school, to which Cronsted (the inventor of the blow-pipe), Bergmann, Kirwan, and Klaproth belonged, in Cuvier's 'Rapport' (p. 163). Also his "Éloge de Haüy" ('Éloges histor.,' vol. iii. p. 143, &c.) The beginnings of geometrical crystallography seem to go back to Linnæus; but his view was discouraged in France by Buffon, who disliked Linnæus's writings. Whewell, who was himself an authority on crystallography, thinks Romé de l'Isle, who was not an Academician, had only scant justice done to him by Haüy and his friends ('Hist. of the Induct. Sciences,' 3rd ed., vol. iii. p. 176). More recent writers, such as Kobell ('Geschichte der Mineralogie,' München, 1864, p. 73, &c.) and Nicol (article "Crystallography," 'Ency. Brit.'), have done him justice. The 'Grande Encyclopédie' thus summarises the work of Romé de l'Isle: "Il mesura mécaniquement [*viz.*, with Carangeot's goniometer] les angles et établit que ces angles ont toujours une valeur constante dans une même espèce minéralogique." That of Haüy is summarised in the two laws: "1°, Tous les éléments semblables d'un cristal sont toujours semblablement et simultanément modifiés (loi de symétrie); 2°, toute facette modifiante intercepte sur les arêtes de la figure primitive des longueurs proportionelles à des multiples simples de la longueur de ces arêtes (loi de dérivation)" (Berthelot in 'Grande Encyclop.,' vol. xiii. p. 397).