of matter as the most convenient method of expressing the formulæ of chemical compounds. Ever since that time the atomic view has served as a kind of symbolism by which different chemical elements could be characterised, their compounds described, and the actual weights practically calculated. And here we must note the reserve with which some of the greatest representatives of chemical science expressed themselves up to the middle of the century regarding the actual physical existence of those elementary particles with which they operated so freely in their formulæ, and which they even represented by balls and coloured discs in their demonstrations.

23. A convenient symbolism.

Wollaston, one of the first who accepted Dalton's[1] views

[1] Dalton does not seem to have been troubled by any philosophical doubts or by the anticipation of the mathematical difficulties which would stand in the way of a consistent development of the atomic view. He was led to formulate and employ his atomic theory by pondering over the most convenient manner in which certain chemical facts —the facts of definite and multiple proportions—and certain physical discoveries—the separate existence of aqueous vapour from the other constituents of the air—could be represented, and he adopted the view suggested by Newton in his 'Queries,' "that matter was formed in solid, massy, hard, impenetrable, movable particles" (see Sir H. Roscoe, 'John Dalton,' Century Series, p. 128, &c.) Wollaston and Davy were much more cautious: the former foresaw the complicated and far-reaching mathematical problems which were involved in the atomic view, the latter thought the generalisation premature. His labours had been largely in the direction of showing that bodies which had been looked upon as elementary were compound, and he "doubts whether we have yet obtained elements" (ibid., p. 155). Even as late as 1826, in his award to Dalton of the Royal Medal, he speaks of his "Development of the Chemical Theory of Definite Proportions, *usually called the Atomic Theory*," he emphasises its practical usefulness, "making the statics of chemistry depend upon simple questions in subtraction or multiplication, and enabling the student to deduce an immense number of facts from a few well authenticated, accurate, experimental results." He refers to Wollaston's table of equivalents, which "separates the practical part of the doctrine from the atomical or hypothetical part." It has, in fact, been maintained that the hesitancy which Wollaston displayed on this subject deprived him of his well-deserved share of the glory which the introduction of the atomic view of matter has shed upon Dalton and Berzelius. (See Peacock, 'Life of Dr Young,' p. 469.)