

*Memoir of John Dalton, and history of the Atomic Theory up to his time*; by ROBT. ANGUS SMITH, Ph. D.F.C.S. (Published also as vol. xiii, New series, of the Memoirs of the Literary and Philosophical Society of Manchester.) 298 pp. 8vo. London, 1856, H. Baillière.—In the life of a philosopher or the history of a principle in philosophy, when either is faithfully executed, there is profound instruction. They not only teach us methods of research, but illustrate its true spirit and aim, and the secret of its strength. The young student will search the world over, unsuccessfully perhaps, for a subject for investigation. The philosopher finds a subject in the most familiar phenomena about him, and by steady scrutinizing labor, draws forth facts and principles of fundamental value. The history of Dalton and his atomic theory has for this reason as well as others a special value to the student in science. The work of Dr. Smith has a peculiar merit, from its bringing out Dalton's theory of atoms in its true relations to the speculations of former centuries. He treats briefly of the views on atoms among the ancient Greeks, and thence traces the subject through the period of Alchemy and the earliest beginning of Chemistry to the development of Dalton himself when the mathematical basis of this science and its simple system of numbers were first made clear. A fine portrait of Dalton forms a frontispiece to the volume.—“*Silliman's Journal.*”

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*Electric Illumination.*—A few weeks since, some experiments on electric illumination were made at Paris, surpassing all that had before been done. The success was due to an electric regulator invented by MM. Lacassagne and Thiers, called by them an *electro-metric* repeater. It is complicated in structure and cannot well be described here. The inventors placed four of their electric lamps on the platform of the Arc de Triomphe de l'Etoile, and projected the light one day on the Champs Elysées, towards the Place de la Concorde, and a second on the avenues of Neuilly or de l'Impératrice, the change having been made because of the numerous gas lights of the Champs Elysées. These gas lights were made to look dull and smoky, yet diminished the effect of the electric light; but in the avenues of l'Impératrice the light presented intense brilliancy.

Each lamp was sustained by means of sixty of Bunsen's pairs, and furnished with a spherical reflector of metal, or of glass silvered by a battery in the manner described beyond.