sidered to be premature,[1] they have contributed much to impress on the thought of our age the genetic or developmental view on a large as well as on a minute scale.

law of Mendeléef were explained by utilising this hypothesis (p. 165), and in the sequel other authorities, such as Brodie and Rydberg, expressed themselves in the same sense (p. 164). These, and quite recently the electrical researches of Prof. J. J. Thomson (referred to *supra*, p. 192), support the view, originally suggested in a cruder form by Prout, that what we call elements are really compounds or aggregations or complexes, built up "from similar particles associated with the presence of electricity" ('Inorg. Evol.,' pp. 167, 190; also J. J. Thomson, 'Discharge of Electricity through Gases,' p. 198 *sqq.*)

[1] It would be unfair not to state that many works on astronomy are still written in which all genetic hypotheses are left out, the "statical" view being still the predominant one. Especially in Germany, it seems as if "inorganic evolution" is not very popular; though a large amount of the best work in spectrum analysis of the stars has been done there by H. C. Vogel, Kayser and Runge, Scheiner, and many others. Dr Scheiner, in his valuable work (translated with the title 'A Treatise on Astronomical Spectroscopy,' by Prof. Frost of Dartmouth College, U.S.A., 1894), has some important criticisms on hypotheses and solar theories (see Preface, and the discussion of the Meteoritic Hypothesis in the German edition, Part II. chap. i.) In his 'Bau des Weltalls' (Leipzig, 1901) genetic views are not discussed. The older very valuable works of R. Wolf ('Gesch. d. Astronomie,' 1877, 'Handbuch der Astronomie,' 2 vols., 1890-92) give only slight attention to "genetics," and consider even the "statics" of the universe though a possible yet a difficult problem (see the last-named work, §§ 298, 299). The latest and excellent 'History of Astronomy,' by Mr A. Berry (1898), is likewise reticent about the evolution of the universe, admitting only a general, fairly well-founded presumption in favour of a modified nebular hypothesis (p. 409). It would, therefore, be doubtful whether a history of science should, at the end of the nineteenth century, give much room to these modern genetic theories in astronomy. It is different with a history of scientific thought. However premature and venturesome it may appear to purists in science to elaborate such hypotheses, there is no doubt that the genetic arguments and lines of reasoning have got a firm hold of many great thinkers in the physics of the universe as well as in biology, and that the genetic view of nature in general has received very strong support from the several trains of reasoning and the rapidly increasing revelations of spectrum analysis of cosmical and terrestrial objects, as set forth in Sir N. Lockyer's interesting volumes. Already thirty years ago Lord Kelvin said of the spectroscope: "It is not merely the chemistry of sun and stars, as first suggested, that is subjected to analysis by the spectroscope. Their whole laws of being are now subjects of direct investigation; and already we have glimpses of their evolutional history through the stupendous power of this most subtle and delicate test.