Veneris," or some "Aqua Limacum," or "the ashes of a toad burned alive in a new pot."

The notices of Wollaston and Dalton are equally interesting. Dr. Wilson tells not only of what these illustrious men did, but of what they were; it is, however, impossible within our narrow limits to give a fair idea of his treatment of their character and life. Wollaston's scientific memoirs were numerous and most varied in subject; nearly all of them are of permanent value. His camera-lucida and reflecting goniometer, and more especially his process for rendering platinum malleable, were vast boons to science and the world, even should platinum be worked henceforth by fusion, according to the method lately perfected by Deville. The historical development of the laws of definite proportion, and of the atomic hypothesis, is carefully delineated by Dr. Wilson, in his notice of the life and labours of Dalton—a notice which in all respects is very ably written.

The four remaining essays, from which, indeed, our author's book is named, are chiefly occupied with discussing the relations of natural science (of chemistry, more especially) to theology. The various subjects—"Chemistry and Natural Theology," "Chemical Final Causes," "The Chemistry of the Stars," and "Thoughts on the Resurrection"—are handled with skill and candour. The reasoning is too condensed to admit of further reduction; we can only say here that the author does not shirk difficult and painful problems; that his arguments, if not very profound or original, are frequently illustrated by fresh and striking examples (such, for instance, as some of those which he cites to show the happily-contrived relation and interdependence of the inorganic and organic kingdoms, and the eminent fitness of certain elements for the functions they have to perform); and lastly, that he seldom, if ever, sacrifices the truths of science in order to make out his case, thus avoiding the serious error into which many writers have fallen. We refer particularly to the common mode of discussing (or rather of omitting to discuss) the great problem of the existence of physical suffering. We commend to the attention of our readers the arguments given on pp. 41 to 50 of this interesting and pleasant work.

ART. III.—*Phosphorescence, or the Emission of Light by Minerals, Plants, and Animals.* By T. L. PHIPSON, Ph.D.—London, 1862.

MR. PHIPSON's account of cases of phosphorescence is, without doubt, of considerable interest. He introduces the subject, the extent of which is by no means rigidly defined, by narratives of the discovery of Bologna phosphorus (sulphide of barium), of Canton's phosphorus (sulphide of calcium), and of phosphorus *par excellence*. In the various chapters on "Phosphorescence after Insolation," "Phosphorescence by Heat," "Phosphorescence by Cleavage, Friction, Percussion, Crystallization, and other Changes," "Meteorological Phosphorescence," and the "Phosphorescence of Vegetables," many noteworthy facts and observations are recorded with care; it is, however, in the third part of the volume, on the

"Phosphorescence of Animals," that its chief interest centres. The phosphoric light emitted by dead animal matter, the phosphorescence of the sea, of the earth-worm, of various species of scolopendra and of certain insects, are the chief phenomena here detailed; but it is the account given of problematical cases of phosphorescence in higher animals, and phosphoric phenomena observed in man, which specially arrests attention. On page 159, a case of phosphorescence witnessed by Dr. Kane in his last voyage to the Polar regions, is narrated at length. Dr. Kane and Petersen were in a perfectly dark hut at Anootok, the temperature being $-34^{\circ}5$ Centigrade, when a faint tremulous light occurred on their hands accidentally meeting. This light was sufficient to enable Dr. Kane to find the necessary materials for relighting his lamp, which had gone out, and thus averted, in all probability, a terrible catastrophe. Mr. Phipson reasonably refers this phenomenon to the electrical condition of the atmosphere.

Several cases of the phosphorescence of the living human subject, generally in cases of extensive disease, are then noted (pp. 163-167). Here, as elsewhere, our author's attempts at explanation are vague, and promise more than they fulfil. His theories are not applied to the special cases under review, and seem little more than an imperfect *résumé* of the well-known principle of the correlation of forces. As a record of observations, the book is valuable, and it is got up with great care, but it fails to advance our knowledge of the causes of the phenomena in question. It is no explanation of the nature of the Will-o'-the-Wisp to say that it is "connected with . . . curious cases of luminous mists . . . in which electricity doubtless plays an important part."

ART. IV.—*Crania Britannica: Delineations and Descriptions of the Skulls of the Aboriginal and Early Inhabitants of the British Islands; together with Notices of their other Remains.* By JOSEPH B. DAVIS, M.D., F.S.A.; and JOHN THURNHAM, M.D., F.R.C.P. Lond., F.S.A., &c. Decade V.—London, 1862. Published by Subscription.

It is a matter of just pride with the medical profession to point to the very large contributions made by its members to the progress of most of the sciences, and particularly of the natural history sciences. The valuable and extensive work the title of which we have above given in full, is calculated to bring honour alike to the profession and to the country producing it. It is now nearly complete, one more part or decade alone remaining to be published; and we are glad to observe, in the list of subscribers, the names of so many medical men, and also those of so considerable a number of men eminent in literature and science.

The work has a twofold character—being, on the one hand, natural-historical, descriptive of crania of various races, and their peculiarities and relations in an ethnological point of view; and on the other, antiquarian, setting forth a history of the arts and civilization of the