

*Molecular Physics and the Electrical Theory of Matter.* By Prof. J. A. Crowther. (Text-Books of Chemical Research and Engineering.) Fourth edition. Pp. viii + 202. (London: J. and A. Churchill, 1927.) 7s. 6d.

PROF. CROWTHER has performed a great service to elementary students in producing this new edition. It has been necessary to displace part of the account of earlier atomic theories to make room for sections on the important advances of the last few years, but the greater part of the classical groundwork has been left intact. The chapter on quanta is particularly valuable, and one cannot but admire the apt metaphors with which Prof. Crowther has enlivened his subject, even if at times his statements on controversial points are unduly dogmatic. One might have expected that more space would have been devoted to the artificial disintegration of atomic nuclei by  $\alpha$ -particles, and that more illustrations of the cloud trails of ionising particles would have been inserted; we believe also that it remains to be proved that one of the disintegration products of the nitrogen atom is helium. Prof. Crowther's task, however, has been far from easy, and altogether the result of his labours is an adequate introduction to more advanced treatises of the type of Prof. Sommerfeld's "Atombau," and to current physical literature.

*Algebraic Arithmetic.* By Prof. Eric T. Bell. (American Mathematical Society Colloquium Publications, Vol. 7.) Pp. iv + 180. (New York: American Mathematical Society, 1927.) n.p.

THE practice of holding summer Colloquia, at which courses of lectures on specialised branches of science are given, is worthy of consideration by some learned societies in Great Britain. Seven such summer gatherings have been held by the American Mathematical Society, and the lectures given by Prof. E. T. Bell at a recent one form the basis of the volume before us. The subject matter is intermediate between the modern analytical theory of numbers and the classical arithmetic developed by Gauss and his school. It is mainly concerned with the somewhat abstract arithmetical theories in which a few American mathematicians have found a rich field for investigation during recent years. What is given in the book is but a narrow cross-section of an extensive tract of only partially explored territory. Prof. Bell outlines a few promising directions in which progress may be made towards extending the known results of algebraic arithmetic. Many readers would be illuminated by seeing a few concrete illustrations of the theories to which these investigations lead.

W. E. H. B.

*Socrates among his Peers: Three Dialogues.* By Owen Grazebrook. Pp. x + 172. (London: Kegan Paul and Co., Ltd., 1927.) 6s. net.

THIS book is of special interest to the general reader in its presentation of the background of Greek social life with reference to the intellectual

contemporaries of Socrates and Plato. The author carries us back to those more leisurely times in Athens when men were able to discuss at length such problems as those of immortality, justice, and the City of God.

There are three dialogues, the first taking place after a supper-party at which Socrates is ultimately induced to give his views on death. In the hereafter, time and space lose their importance and reality, nor can they fetter the soul as they had once appeared to limit or control the body. The second conversation takes place on the evening of the verdict against Socrates, and a stranger from Eos suggests that the evidence produced by the prosecution was insufficient. The last dialogue takes place at the Academy, the supper-party consisting of four visitors, and Plato's intended departure for Sicily introduces the discussion which centres round the City of God. The treatment of the themes and the local colouring are well executed.

H. D. A.

*Food and Health: an Introduction to the Study of Diet.* By Mrs. A. Barbara Callow. (The World's Manuals.) Pp. 96 + 4 plates. (London: Oxford University Press, 1928.) 2s. 6d. net.

IN these days, when importunate writers in the newspaper world urge us to eat this and avoid that, and conjure up needless uncertainties, this little book, comprising 96 pages of compact trustworthy information and advice, is calculated to preserve a steady view and balance in matters of food and health, and what may be reasonably expected to follow should prudent counsel prevail. "May not a reasonable man think that a cup of tea is not food?" asked the judge. "Not a medical man, my lord," said the witness. "I said a reasonable man," the judge replied (*Times*, Law Reports, April 1, 1927). It is, of course, arguable that if the beverage contains milk and sugar, here is a food, yet scarcely nourishment in the true sense. Mrs. Callow supplies an informing well-written chapter on the discovery of vitamins; another on their restraining influence in that widely prevalent disease, rickets, is a feature. The task outlined in the introduction, "to show how a complex problem can be simplified by the application of scientific knowledge," is certainly sustained.

*The Land of To-morrow: a Mule-back Trek through the Swamps and Forests of Eastern Bolivia.* By Henry M. Grey. Pp. 224 + 6 plates. (London: H. F. and G. Witherby, 1927.) 12s. 6d. net.

MR. GREY does not give the date of his journey through Bolivia, but apparently it took place some two or three years before the War. He went out to inspect a rubber estate owned by an English company. The local manager and agents did not welcome Mr. Grey; in fact, he found their attitude so menacing that he thought himself fortunate to leave the country unharmed. He was travelling the whole of the time, and the book contains little more than descriptions of the difficulties and discomforts of a journey through the Bolivian forest.