The work may be thoroughly recommended to professional analysts as well as to students, the authors having a wide personal experience of the methods they describe, their views on the best methods of analysing difficult alloys being particularly valuable.

La Radiotéléphonie. Par Carlo Toché. Pp. vi+98. (Paris : Gauthier-Villars et Cie, 1922.) 10 francs.

THE book under notice gives an interesting general description of the best and most modern methods of radiotelephony. It presupposes on the part of the reader an elementary knowledge of the subject and a general knowledge of science. It begins by describing the physiology of the voice, giving photographic records of voice vibrations obtained by Marage. It is interesting to note that oscillograms obtained of microphonic currents produced by speech are not so simple as those shown. The arc, alternator and valve methods of radiotelephony are next described, more stress being laid on the theory than on the history of the art. Due credit is assigned to the work done by the American Western Electric Co. A good discussion is given of the possibility of simultaneous communications in radiotelephony. The essential frequencies required for speech vary between 200 and 2000 per second, and the frequency of the carrier waves between 15,000 and three million per second. The author concludes that the maximum possible number of simultaneous communications is 1492. It has to be remembered that many of these waves have short wave-lengths and are therefore not suitable for long-distance transmission. For international and intercontinental systems the possible number would be much smaller. The number of possible radio-telegraphic systems with carrier waves is very much larger than the number of possible telephonic systems.

The Grammar of the Lamba Language. By C. M. Doke. (Published under the Joint Auspices of the University of the Witwatersrand, and the Council of Education, Witwatersrand.) Pp. ix+157. (London: Kegan Paul and Co., Ltd., 1922.) 6s. net.

It is a pleasure to extend a welcome to this scholarly study of the Lamba language, not least on the ground that it is published under the auspices of the Witwatersrand University and Council of Education, and bears witness to the official interest now taken in native studies.

The Lamba language is spoken throughout the Ndola district of North-Western Rhodesia and in the south of the Katanga, this area lying in the centre of Bantu Africa. It is claimed to be the most primitive dialect of Bantu now extant, a view to which the author inclines on the ground of its strict adherence to rule and the great simplicity of its phonetics. Numeration is based upon the quinary system. The use of onomatopœia is very prevalent, and not only can all verbs be reduced to a monosyllable root, but they also appear to have evolved from onomatopœic sounds, adjectives and nouns representing a further stage in evolution. Lamba contains a number of loan words from Portuguese (the earliest), Swahili, English, and Dutch, as well as from other Bantu dialects. The days of the week, it is interesting to note, are taken from Chinyanja.

A Manual of Practical Anatomy: A Guide to the Dissection of the Human Body. By Prof. Thomas Walmsley. In 3 parts. Part 3: The Head and Neck. Pp. viii+272. (London: Longmans, Green and Co., 1922.) 105. 6d. net.

THE third part of Professor Walmsley's "Manual of Practical Anatomy" is devoted to the dissection of the head and neck, for which a period of about ten weeks is suggested. The usual order of dissection is adopted, the various regions and organs being treated separately, but without that strict confinement to region which is so confusing to the student when dealing with a structure which appears in different portions of the dissection. The instructions for the guidance of the dissector are clearly given ; the anatomical descriptions are complete and well illustrated by diagrams which the student is encouraged to label from his own specimen. The only defect in the book is that the index is not very complete. We are glad to observe that the nomenclature is in the British (Old) terminology. The book can be thoroughly recommended as a guide to the student in the dissecting-room.

Inorganic Chemistry: A Text-book for Schools. By E. J. Holmyard. Pp. x+560. (London : Edward Arnold and Co., 1922.) 6s. 6d.

MR. HOLMYARD has written what is really an excellent text-book for schools. The style is clear and the arrangement on the whole good, although the very late appearance of the halogen elements is perhaps not quite fair to their great activity and their participation in the lives of the other simple bodies. The historical notices, as might have been expected, are excellent, and they and a number of portraits of famous chemists add considerably to the interest of the book. We wish this book the full success it deserves.

The Handbook of Palestine. Edited by Harry Charles Luke and Edward Keith-Roach. (Issued under the authority of the Government of Palestine.) Pp. xii + 295. (London : Macmillan and Co., Ltd., 1922.) 125. net.

THIS is mainly a handbook of general information, but there are short chapters on the geology and natural history and a note on the flora. Forestry receives more attention. Meteorology is scarcely noticed. The sections on races and on archæology are fairly full. A folding sketch-map shows roads, railways and archæological features, but no relief. The handbook should prove of value to every visitor to Palestine, but it might be given a wider and more permanent value if the historical and scientific sections were extended.

The Radio Year Book, 1923 (First Year). Pp. viii + 148. (London: Sir Isaac Pitman and Sons, Ltd., 1923.) 18. 6d. net.

It is intended to make this the Year Book of the new industry which is rapidly growing, owing to the great popular interest which is being taken in broadcasting. Section I. gives general information of use to radio amateurs. Section II. gives short and trustworthy articles on subjects of general interest in the working of radio apparatus, and Section III. gives information which will be useful to manufacturers and suppliers of the apparatus. The articles are by well-known experts, and the book should prove useful.

460