

the same rock, hence great accuracy of method is not practical and does not justify the time necessary. At the same time, however, Prof. Jakob considers that analyses should be more accurate than many quoted in the literature.

Directions are given for the preparation of the sample, fineness of grinding, etc., depending on the presence or absence of certain minerals and also on the determination to be carried out. The main part of the book deals with the determination of the various oxides, a useful feature of this section being the incorporation of all explanations of processes in the form of footnotes, leaving the text free from interruptions. All analyses must be carried out only after microscopic examination, which serves as a qualitative examination: this is most important, as the method used for the estimation of the sesquioxides,  $TiO_2$  and  $MnO$ , depends on the quantity of the oxide present. The concluding section deals with rock analyses in general, in which the author discusses the characters of good and bad analyses; finally, he includes a description of the calculation of an analysis into Niggli values.

*Vestiges of Pre-Metric Weights and Measures persisting in Metric-System Europe, 1926-1927.* By Prof. Arthur E. Kennelly. Pp. xiii + 189. (New York: The Macmillan Co., 1928.) 2.50 dollars.

As the metric system of weights and measures has now been exclusively adopted by nearly every European country, it is of some interest in connexion with proposals for its adoption by other countries to ascertain, if possible, to what extent its imposition upon the various peoples has hitherto proved effective. The most obvious means of obtaining information on this matter would appear to be the study of the periodical reports and other publications of the respective Weights and Measures Departments. Disdaining, no doubt, such arm-chair methods, Prof. Kennelly set himself the task of collecting evidence as to the persistence of pre-metric vestiges by personal observation and inquiry in all the principal countries concerned. This he accomplished under the auspices of the Bureau of International Research, during a sabbatical leave of absence granted him by Harvard University from July 1926 until September 1927.

That the arduous but well-ordered programme of the author was carried out with scientific zeal and discrimination is abundantly apparent; that official statements are often susceptible to enlightening amplification from other sources is demonstrated by a comparison of some of the letters received from officials and laymen, respectively, in the same locality. But the net result arrived at, namely, that where pre-metric terms persist they have practically always been 'metricised' or 'sub-metricised' in actual use, does not differ remarkably from the probable conclusions of any person whose pursuits entail frequent contact with administrative publications on weights and measures. Nevertheless, this is a valuable work of reference with regard to the old units, their names, equivalents, and distribution.

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*Autolycus: or the Future for Miscreant Youth.* By Dr. R. G. Gordon. (To-day and To-morrow Series.) Pp. 94. (London: Kegan Paul and Co., Ltd.; New York: E. P. Dutton and Co., 1928.) 2s. 6d. net.

ANYONE who has acquainted himself with Dr. R. G. Gordon's larger works on "Personality" and "The Neurotic Personality" will acknowledge the *a priori* likelihood of his writing a useful and authoritative pamphlet on juvenile delinquency, including the way in which society itself does much to produce its quota of pickers-up of unconsidered trifles. He quotes Samuel Butler to the effect that in "Erewhon" a man who catches a disorder is punished, whereas a thief or a rick-burner is sent to a hospital; and the burden of his argument is that Butler's paradox is not so violent as it seems at first sight. We punish the child who marks the wall-paper, instead of giving him materials for the proper exercise of his artistic prowess; we punish the boy who plays football in the street, instead of providing him with a playing-field; and we assume that a girl who has been rescued from a life of infamy is best dealt with by being pitch-forked into domestic service or into a public laundry. Dr. Gordon gives a simple and eminently readable account of the social, educational, psychological, and medical factors involved in the treatment of miscreant youth, and he makes a case for the calmly scientific instead of the emotional and half-revengeful methods which at present hold the field.

*The Frog: an Introduction to Anatomy, Histology, and Embryology.* By the late Prof. A. Milnes Marshall. Edited by H. G. Newth. (Macmillan's Manuals for Students.) Twelfth edition. Pp. x + 182. (London: Macmillan and Co., Ltd., 1928.) 6s.

MR. NEWTH has left this work, which had not been revised since 1912, in its well-known form, but has made a number of useful alterations. He has introduced into the section on technique notes on the use of methylene blue, eosin, and formalin, and has improved the instructions on section-cutting. The suggestion that the female frog should be dissected in saline solution to prevent the great swelling of the contents of the oviducts, the instructions for making and staining a blood-smear, and for the preparation of the frog's bladder to show unstriped muscle, are helpful, and the dorsal dissection of the abdominal region of the frog, for which brief directions are given, affords the student a view of the relations of certain blood-vessels and organs from another aspect, and is useful as a revision exercise. The description of the section of the retina, of the fertilisation and early development of the frog's egg, and of mitosis and meiosis, have been amended, but here and there the editor has carried over from the old edition words not consistent with his present description; for example, the use of the term 'egg' on p. 116. The terms epiblast, etc., might now be replaced by ectoderm, etc. On p. 55 the brief note on the second row of tarsal bones has been omitted.