

gives a running commentary, arranged mainly under schools, on the workers whose activities have increased knowledge.

The work of W. O. Atwater on nutrition will always remain a classic, and his dietary studies led to the first standard diet. His work with the respiration calorimeter, later followed up with such success by Benedict, has been prolific of results.

The study of vegetable proteins was taken up energetically by Osborne from 1891 onwards; he produced more than one hundred publications, which form the basis of the chemical knowledge of this group.

H. D. Dakin's work on the amino acids and his  $\beta$ -oxidation hypothesis, that of Walter Jones on nucleic acids, of P. A. Levene on nucleic acids and the carbohydrate group, are only a few instances of the long list of positive achievements which are detailed. They suffice to show that the organic chemist has definitely entered the field of natural products. The task of unravelling their constitution and their molecular structure by analysis is near completion, many of them have been synthesised, a hint has been gained of their function, yet how much remains to be done. The best men in the best-equipped laboratories the world over have problems enough for many years to come. How, for example, are meat and milk made from grass? Will it take another half-century to answer this question?

The book is one of the American Chemical Society Monograph Series, and is produced in clear type with the high standard that characterises the series.

E. F. A.

### Short Reviews.

*Die Beschneidung bei Mann und Weib: ihre Geschichte, Psychologie und Ethnologie.* Von Felix Bryk. (Monographien zur Ethno-Psychologie, herausgegeben von F. Bryk und C. L. Hansen, Band 1.) Pp. x + 319. (Neubrandenburg: Gustav Feller, 1931.) 15.60 gold marks.

THE need for detailed monographs on genital mutilations has long been felt, and above all a sound and scholarly treatment of circumcision was desirable. This book, however, scarcely fulfils that want. It is a very general account of a number of different operations, but is without orderly plan, and the author has clearly been unable to deal satisfactorily even with the limited number of authorities he quotes, or to appreciate the vast distribution of the practices under discussion. Instead of confining himself to the matter on hand, he wanders off to discuss male infibulation, *amphatio vaginae*, perforation of the clitoris, and many other similar practices. The result of this is that the

author becomes lost in his own maze: the very multiplicity of the customs bewilders him, and he ends by coming to few new conclusions at all. He quotes largely from Biblical sources, whilst failing to realise that the ideas of earlier civilisations were better worth his ink. Whilst rightly rejecting Reitzenstein's attempts to find evidence for circumcision in palæolithic times, he fails to understand that the ritual significance of the custom is the point on which his attention should have been focused.

According to the author, circumcision of the male arose partly at least from the desire to imitate domestic and other animals which were observed in copulation. To this was added the supposed desire on the part of early man to increase the ease of the process in himself, and the recognition of the hindrance a partial or total phimosis caused to him.

Thus this volume is merely a sketch of genital mutilations, and as such is useful for the purposes of summary. The illustrations are well chosen, the printing good, and the indexes of value. But as a guide towards solving the mystery of circumcision the book is not helpful. It is an epitome of current theories and we cannot pretend that these are convincing. Circumcision still awaits its shrewd interpreter.

E. J. DINGWALL.

*Femcifrede Logaritmer og Antilogaritmer* (Five Figure Tables of Logarithms and Anti-Logarithms). By A. K. Erlang. Udgivet ved (edited by) R. E. H. Rasmussen. Pp. 48. (København: G. E. C. Gads Forlag, 1930.) n.p.

(2) *Addition-Subtraction Logarithms to Five Decimal Places.* By L. M. Berkeley. Pp. xii + 134. (New York: White Book and Supply Co., 1930.) 3.25 dollars.

(1) THIS is a clearly printed table of logarithms and antilogarithms to five places with a four figure argument and mean differences. A seven place table of  $\left(1 + \frac{r}{100}\right)^n$  for  $n = 1$  to 9 and  $r = 0.00$  to 7.50 is appended.

(2) If  $a$  is greater than  $b$ , the addition logarithm of  $\log a$  and  $\log b$  is  $A = \log \frac{a+b}{a}$  and the subtraction logarithm is  $S = \log \frac{a}{a-b}$ , so that  $\log(a+b) = \log a + A$  and  $\log(a-b) = \log a - S$ . Evidently  $A$  and  $S$  are functions of  $a/b$  only so that  $\log a - \log b$  can be used as argument for a table of  $A$  and  $S$ . The present table is arranged in triple columns corresponding to  $\log n$ ,  $\log \frac{n+1}{n}$ ,  $\log(n+1)$  so that the central column is the addition logarithm of two logarithms which differ by  $\log n$  and the subtraction logarithm of two logarithms which differ by  $\log(n+1)$ . This central column proceeds by unity in the last figure so that  $A$  and  $S$  are found without interpolation. The table is thus in effect a critical table, but is not arranged in the form usual in such tables. The use of addition and subtraction logarithms allows long trains of calculation to be performed without reverting to natural numbers, for