Alexandra parrakeet, discovered during the Stuart Expedition into central Australia in 1862; the paradise parrakeet, classed with the golden-shouldered parrakeet as the most lovely of all the Australian parrakeets; and the splendid parrakeet the wonderful colours of which, as well as those of the species last mentioned, are displayed on two of the plates.

It has been the aim of the author to make the present book a complete monograph of the imported species of parrakeets. New species may be expected to arrive from time to time. For instance, when the first part of the work was issued no living specimen of the varied lorikeet (*Ptilosclera versicolor*) had ever been known in this country, but a few months later a few pairs reached London, and this species has accordingly been included (with a coloured plate) in the appendix, in which additional information respecting several other parrakeets is to be found.   O. V. A.

MULTIPLICATION TABLE.

Table of Multiplication, Division and Proportion for the Ready Calculation of Quantities and Costs, Estimates, Invoice Prices, Interests and Discounts, Weights and Strengths, Wages and Wage Premiums. By Robert H. Smith, M.I.M.E., &c. (Westminster: Archibald Constable and Co., Ltd., 1903.) Price 6s. net.

THIS consists simply of a gigantic multiplication table for every figure up to 100 times 160, there being 100 horizontal lines of products arranged in 160 vertical columns on a sheet 5 feet long and $11\frac{1}{2}$ inches wide. The sheet is mounted like a map upon canvas, so as to open at any part of the length and exhibit two pages, each page containing 10 vertical columns indexed right and left with every 10th number up to 100. To guide the eye wider spacing is provided at every fifth line and column, and still wider at every tenth, as in logarithm tables. The index numbers are equivalent to a repetition of the first column on every page, so that any line up to the 100th can at once be found. As in any other multiplication table, the figure found at any place is the product of the first figure on the line and the top figure of the column on which it is found.

On the back of the sheet are a corresponding series of pages on which Prof. Smith has explained how the table may be used for all the purposes described in the title.

If two numbers have to be multiplied together the product can, of course, be read directly if they do not exceed 100 and 160, but if that was all the table was for, even though it is well arranged, it would hardly be worth getting out of its place. If only one of the figures exceeds these by not more than two digits, it may be broken up into two parts, *e.g.* 3781 into 3700 and 81, and the two partial products read, preferably in a single column when that is possible, and mentally added. If both factors exceed these amounts then four partial products have to be found, and two columns must be employed, which may be on different pages.

This necessitates writing down the four partial products of probably four digits each, and taking care that the units place is properly placed in each. Then on adding, the product is found exact, of course to the last figure. It is not worth while in this notice to refer to rules or practice as to placing the decimal point if the factors contain decimal figures.

Division, of course, is performed by finding the quotient in the body of the table on the line or column of which the first figure is the deviser. Then the quotient will be the first figure of the column or line. This is only possible when the dividend is an exact product of two numbers not exceeding 100 and 160. Of course, in practice it never is, and then interpolation is necessary. Prof. Smith gives two methods. Where, however, both the diviser and quotient exceed 100 and 160 the double interpolation necessary seems to the writer to involve so much trouble, and to provide such opportunity for mistakes, that he would prefer to perform the operation with a pencil and paper in the usual way of the school if slide rules, logarithm tables, or calculating machines were not sufficient or available.

Simple proportion can, of course, be performed where the four quantities are all actually existing in the table by direct inspection, but again, in practice they never would be, and interpolation, either single or double, would be necessary.

The other processes described in the title which involve one or other of these operations are explained in the text on the back. It might very well be that for certain classes of calculation or of office work where the computer or clerk had the same kind of thing to do indefinitely, the table would afford the readiest means of finding an exact result, but for general use by people who could not for want of practice be quite adept, it is a question whether the constantly recurring interpolation complication would not give more trouble than direct arithmetic, besides leading to endless mistakes.   C. V. B.

THE ZOOLOGICAL RECORD FOR 1902.

The Zoological Record, vol. xxxix., relating chiefly to the Year 1902. Edited by D. Sharp. (London: Zoological Society, 1903.)

ALTHOUGH on the title-page this volume, which slightly exceeds its predecessor in bulk, bears the date 1903, as a matter of fact it was not in the hands of the public until the beginning of the present year. This slight delay, as the editor informs us, is more than accounted for by certain unexpected changes in the staff of recorders, notably the loss of the services of Prof. J. A. Thomson, who has felt himself compelled to relinquish the compilation of that very important section of the undertaking entitled "General Subjects." His place, apparently at short notice, has been taken by the editor, who, in addition, is responsible for the insects, as well as for the general supervision of the whole text, and must therefore have had very hard work to complete his task so nearly within the appointed time-limit. The other contributors the