

16. A RUSSIAN TABLE OF PRODUCTS.—To meet the needs of the great army of workers on Collective Farms, in Industry, and in Factory Kitchens, and Cooperative Stores, in its second five-year period, the Russian Government published in 1936 an edition of 10 000 copies of the following bound volume: I. P. ZOLOTAREV, *Universalnie Raschetnie Tabliŭsy. Prakticheskoe Posobie dlia Bukhgalterov i schetnykh rabotnikov*. [Universal Calculating Tables. Practical Help for Bookkeepers and Computing Workers] Moscow and Leningrad, 565 p. +1 p. errata. 11×14.5 cm. Scattered through the volume are 15 other errata slips with one or two corrections on each. By means of this table one may read off at once the products of two numbers N_1 and N_2 , if $N_1 = 0.01(0.01)0.07, 0.10(0.05)1(1)250$; and $N_2 = 1(1)250, 255-(10)525$. Examples of practical problems solved by the use of such a table are given on p. 3–9.

QUERIES

7. BRIGGS' ARITHMETICA LOGARITHMICA.—Compare N8. Since the publication of J. W. L. Glaisher, *Report of the Committee on Mathematical Tables*, London, 1873, of J. Henderson, *Bibliotheca Tabularum Mathematicarum*, part 1, *Logarithmic Tables*, Cambridge, 1926, and of A. Fletcher's letter in *Nature*, v. 148, 1941, p. 728 (to which my attention was drawn by L. J. Comrie), it has been generally known that there were some copies of Henry Briggs, *Arithmetica Logarithmica*, 1624, 388 p., with an extra 12 pages containing the logarithms of numbers 100,001(1)101,000, to 14D, and the square roots of integers 1(1)200, to 11D, with first differences in each case. There are copies of such enlarged editions in the library of Trinity College, Cambridge, and in the Savile collection of the Bodleian Library, Oxford. Glaisher tells us that in 1873 C. W. Merrifield¹ owned such a copy. Mr. Fletcher reported that the Harold Cohen Library of the University of Liverpool had a copy of just the 12 supplementary pages of the work of Briggs. Where are other copies of the *Arithmetica Logarithmica*, with the extra pages described above?

R. C. A.

¹ The writer has many of Merrifield's letters to Glaisher, 1873–81, mostly dealing with questions about tables.

QUERIES—REPLIES

7. AN ENGEL TABLE (Q6).—"I am the owner of a copy of this table of natural trigonometric functions, containing 95 pages (19.7×29.9 cm.). The volume was an outcome of a meeting of German, Austrian, and Hungarian geodesists at Berlin in Nov. 1917, when the decimal division of the non-agesimal degree was agreed upon as desirable for tables. The Preussische Landesaufnahme undertook the preparation of the three volumes of logarithmic trigonometric tables necessary for this purpose, and published 10-place (1919), 7-place (1921), 6-place (1921) tables, each for sine, tangent, cotangent, cosine, for every thousandth of a degree. These volumes¹ were all by the remarkable J. T. PETERS. As a contribution from Austria to machine calculation ENGEL initiated the computation of the tables published in 1920, under the title given in the Query. It is a 10-place table for

sine, cosine and tangent, for every hundredth of a degree, with first differences. But additional tabular material makes possible the ready determination of the values of the sine and cosine for each thousandth of a degree in the quadrant, and of the tangent for each thousandth of a degree 0° to 45° . Errors may occur in the values of sine and cosine up to 0.3 of a unit in the tenth decimal and up to 2.5 units for the tangent. For more exact computations, a table of the interpolation coefficients for the second differences, progressing by 0.01, is added."—This information was received by the EDITORS in a letter, dated 5 November, 1943, from L. W. POLLAK (66 Hollybrook Road, Clontarf, Dublin, Ireland), formerly professor of geophysics and director of the Meteorological Observatory at the German University in Prague.

¹ To meet the needs of an optical establishment Peters had earlier prepared a 7-place table of these trigonometric functions for every thousandth of a degree; this was published in 1918 (see RMT 79). For a number of years thereafter, however, this volume was not readily accessible to the public. Then later (1935) came E. Buckingham's 8-place table for every hundredth of a degree (see MTE 12).—EDITORS.

CORRIGENDA

- P. 4, 8 (2), 52, 56, for TALLQUIST, read TALLQVIST. P. 22, l. 4 from bottom, for 20, read 16.5. P. 36, l. 14 for For, read "For. P. 39, l. 8, for decimal, read decimals. P. 46, l. 13 from bottom, read Sakamoto. P. 52, l. 6 from bottom, read $f\left(\frac{p+q}{2} + \frac{q-p}{2}u\right)$. P. 53, l. 3, supply the factor $|f^{(2n)}(\xi)|$ to the third member of (3). P. 56, l. 10, read J. C. Adams. P. 69, l. 12, for any Tables, read any other Tables. P. 70, no. 13, l. 2, for 8D", read eight places [should be 6D]"; l. 5, for bei x , read bei' x ; for are the 41, not "35 items", read include the 36, not "35 entries". P. 71, 1916, 23, l. 2, substitute n for each x . P. 72, 31, l. 3, for 5D or 6D, read 5S or 6S; 38, l. 2, for A. N. Lowan, read R. v. MISES. P. 78, l. 1, for 101 [J, L], read 101 [J, K, L]; for percentage of, read percentage points of. P. 78, l. 30, read for Biological, Agricultural and. P. 85, l. 5, read C. W. Merrifield; l. 13 from bottom, read J. de MENDIZÁBAL TAMBORREL. P. 86, in MTE 9, delete the "erratum" on p. 8, l. 10, reported by GERTRUDE M. COX. P. 89, first table, for 21, read 25. P. 96, footnote 2, for Parfait, read Parfaits. P. 97, N 8, l. 5, for 1560-61, read 1560/61. P. 108, 3A, for 1941, read 1940. P. 113, l. 15, for 15D, read 16D. P. 121, l. 15, for $17^\circ 39' 50''$, read $17^\circ 39' 40''$.