

It would thus be quite easy to introduce systems of weights, measures and coinage based on the factor 60. As applied, for example, to coinage, the smallest coin commonly used in France would be denoted by 3 units instead of 5 centimes, and it would thus be easy to purchase one-third of a franc's worth of goods, which is now impossible. In England one penny might be divided into five instead of four farthings, 60 pence would make a crown, and one pound would be one-third of the next higher unit. In weights and measures, we could obtain units of the dimensions of half an ounce, a kilogram, a hundredweight and three tons; again, half an inch, a yard and two miles might be the rough equivalents of the units of length. It would certainly be easier to change to a sexagesimal system of weights and measures from a decimal system, or from our own system, and we might well set the fashion with our coinage.

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UNIVERSITY OBSERVATORY,
OXFORD, July 6, 1919.

DEAR SIR,—I was on the point of writing to you to express joy when Professor Bryan published his Bordered Antilogarithm Table in December 1915; his extended tables in the *Gazette* for May afford an even better opportunity. The tables are all good; if I am specially glad to see the table of exact squares it is no disparagement to the others. My selfish reason will be found in *Monthly Notices R.A.S.* lxxv. p. 530 (1915, May). Perhaps I may repeat here the device for using a table of *exact* squares to three figures to get squares of six figures. The theorem is

$$\begin{aligned}(x + 10^{-3}y)^2 &= x^2 + 10^{-3} \cdot x^2 \\ &\quad + 10^{-3} \cdot y^2 + 30^{-6} \cdot y^2 \\ &\quad - 10^{-3}(x-y)^2.\end{aligned}$$

Thus the square of 123456 is written down as follows by the help of Professor Bryan's brief table:

$$\begin{array}{r}123^2 = 15129 \\ 10^{-3} \times 123^2 = 15\ 129 \\ 10^{-3} \times 456^2 = 207\ 936 \\ 10^{-6} \times 456^2 = 207\ 936 \\ \hline -10^{-3} \times 333^2 = - 110\ 889 \\ \hline 123456^2 = 15241\ 383\ 936\end{array}$$

—Yours truly,

H. H. TURNER.

P. E. B. JOURDAIN, M.A.

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Act. 38