and other related analytic topics. Perhaps his best known work is his paper on the order of magnitude of Ramanujan's function $\tau(n)$. This function is defined by the power series expansion

$$\Delta(z) = \sum_{n=1}^{\infty} \tau(n)z^n = z\{(1-z)(1-z^2)(1-z^3)\ldots\}^{24}$$

as the nth coefficient of the "discriminant" function Δ, which plays an important part in the theories of elliptic and modular functions and their applications to representation problems in the theory of numbers. Pennington was concerned with the behaviour of the sum function

$$T(x) = \sum_{n \leq x} \tau(n)$$

for large x. The exact order of magnitude of this oscillatory function is still unknown, and it is likely that the best known estimate, $T(x) = O(x^{59/10})$, is capable of improvement. Pennington was interested in finding how large (both positively and negatively) $T(x)$ could be infinitely often and he succeeded in showing[1] that the upper and lower lines of $T(x)/x^{25/4}$ are $+\infty$ and $-\infty$, respectively. This implies the weaker result that the estimate $T(x) = O(x^{25/4})$ is false. The gap between the two indices 25/4 and 59/10 is extremely difficult to fill and any progress will require new ideas of a very powerful nature. Pennington's work on this problem is based on some earlier work of Ingham and his analysis contains several very interesting and elegant ideas.

Three of his other papers are on summability of series and involve ideas of a number-theoretic type. Although he did not publish any more work on $\tau(n)$, he continued to be fascinated by the many unsolved problems connected with this function. Those who have heard him lecture on this subject will remember the clarity of his exposition and the way in which he transmitted his enthusiasm to his audience.

He organized and took part in many musical activities, for he had a deep love for music and a fine baritone voice. He is survived by his wife and four daughters.

R. A. RANKIN

[1] Pennington, W. B., Proc. Cambridge Philos. Soc., 47, 668 (1951).

University News

The **California Institute of Technology** has received an award of $216,000 from the US National Science Foundation for an "Ultra High Resolution Nuclear Magnetic Resonance Spectrometer", a chemistry research instrument which will be used to analyse the structure, bonding and conformation of molecules. This is the first installation of its kind at an academic institution in the United States.

Dr C. W. Miller, Associated Electrical Industries, Manchester, has been appointed to succeed Professor Poynton as head of the department and professor of physics in the **City University**.

The title of professor has been conferred on **Dr D. A. Price Evans**, at present senior lecturer in the department of medicine at the **University of Liverpool**.

Dr G. S. Brindley, University of Cambridge, has been appointed to the Fitzmary chair of physiology at the **Institute of Psychiatry, London**.

The **Science Research Council** has awarded a grant of £630,000 over four and a half years to the Department of Computer Science, **University of Manchester**, for the study of computer systems design in its widest sense.

The Otto Meyerhof chair of molecular biology has been established at the **Weizmann Institute of Science** by the Volkswagen Foundation in honour of Otto Meyerhof, the German Nobel Laureate. **Professor Leo Sachs**, head of the institute's department of genetics, has been appointed first holder of the chair.

Appointments

Dr L. R. Shepherd, formerly deputy chief executive of the OECD High-Temperature Reactor Project (Dragon), has been appointed chief executive to the project in succession to **Mr C. A. Rennie**, who has relinquished his appointment to act as a consultant, primarily in the field of high temperature reactor technology.

ERRATUM. In the article "Submillisecond Radio Intensity Variations in Pulsars" by H. D. Craft, jun., J. M. Comella and F. D. Drake (Nature, 218, 1122; 1968) the last sentence of the first paragraph should read "Similar short time structure for CP 0950 at a frequency of 2,295 MHz was also reported at the conference by R. D. Ekers and A. T. Moffet. J. H. Taylor has reported observations of occasional circularly polarized pulses made on a lower frequency and with a longer time constant.". In the eighth line of the fifth paragraph the total power in the fine structure should read: the total energy in the fine structure.

ERRATUM. In the article "Stepwise Reconstruction of a Ternary Complex in Protein Synthesis" by Michael Jost, Nadja Shoemaker and Hans Noll (Nature, 218, 1217; 1968) the formula in the first paragraph was incorrect; it should be
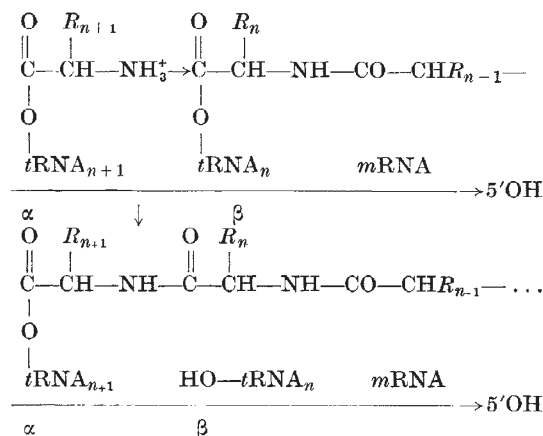
CORRESPONDENCE

New Name for the Kilogram

SIR,—If, as seems likely, a new name for the kilogram within the SI system of units is to be selected, I would like to add my support to the most attractive suggestion (in my opinion) yet proposed: the name "quilo" with symbol "q" (Fulton, M., Nature, 218, 707; 1968). C. W. Allen (Nature, 218, 209; 1968) has suitably narrowed the possibilities, but the suggestion "baram" is ugly and not easily remembered.

The arguments advanced in favour of "kilo", symbol "k", by P. J. Groenen (Nature, 218, 797; 1968) are dubious. "Milli-" and "metre" both have the symbol "m", but quite different names and functions; Groenen's suggestion introduces the same symbol with the same name for both multiple and unit. "kq" avoids the objections to "kk".

Yours faithfully,

I. G. C. DRYDEN

(Editor of Fuel).

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