

about this ambiguity. The same could hold for k as a multiple prefix and k as a weight unit, notwithstanding their identical pronunciation in kk.

This proposal bears an easier relation to current use of weight units than Allen's. An additional merit in the chemical and related fields, both of Allen's and my proposals, would be the elimination of the existing impractical imbalance between weight units and (allowed) volumetric litre-units. Instead of assigning to one  $\mu$ l. of water a weight of an mg, one should now call it a  $\mu$ k, ml. would correspond to mk, l. to k:

|                      |    |     |          |         |
|----------------------|----|-----|----------|---------|
| Weight (now)         | kg | g   | mg       | $\mu$ g |
| Volume               | l. | ml. | $\mu$ l. | nl.     |
| Weight (my proposal) | k  | mk  | $\mu$ k  | nk      |

I fully realize that the SI system has been accepted internationally since 1960, but Britain's change to the metric system could offer the opportunity to reconsider it.

Yours faithfully,

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### The Symbol $\mu$

SRK.—In 1857 an astute young botanist of Holland, Willem F. R. Suringar (1832–98), solved a problem of microscopy. By inventing the symbol  $\mu$  he established the metric unit for microscopical measurement. In his *Dissertatio botanica inauguralis continens Observationes phycologicas in Floram Batavam* (1857), he wrote "mensuras designavi partibus decimalibus millemetri eujum partem millesimam littera  $\mu$  notavi" and " $\mu$  millemetri pars millesima". Later, in his *Algae Japonicae* (1870), he re-stated his unit of microscopic measure as the micron (1 m.m.m.) or  $1\mu$ . Very simple as this seems now, it was a brilliant innovation. This Greek letter, as I learn from Dr W. T. Stearn, to whom I am indebted for the historical verification, had not been used before with scientific connotation, though the large Greek M had a numerical value of 40 assigned to it in classical times. Previously microscopic measurements had been in fractions or decimals of a line (twelfth of an inch), which varied slightly from country to country. Sand-grains, human blood-corpules, hairs of varying calibre, and so on, had been used for comparison. The innovation standardized measurement with such elegance that it was gratefully and universally received. It has been taught in all schools of biology and geology to the present time and it has been employed in all books and periodicals dealing with such measure.

It comes as a surprise, therefore, to learn that this common, international acceptance of unquestioned priority is omitted in leaflets recently issued in advocacy of the *Système International d'Unités*. Instead, the symbol  $\mu$  is used in a different sense as an adjectival abbreviation for "micro" meaning a millionth, and the thousandth of a millimetre is symbolized as  $\mu$ m. Enquiries elicit no explanation but reveal a disturbing ignorance. Physicists and engineers, it is said, have used  $\mu$  in the sense of "micro" for some twenty-five or thirty years, having modified apparently the traditional use. Biologists have generally little idea whence this came. International biological unions seem not to have been consulted.

It is even more disturbing to read that editors are advised to enforce the use of the ugly and superfluous  $\mu$ m. It is a weakness, and suspicion arises that it is not to assist the minds of men but to mechanize their thoughts for the convenience of machines. Presumably those of us who have taught and used  $\mu$  in the traditional sense all our lives are expected to break with a vast heritage of currently used literature, apologize for our precocity, and teach that the micron is unmetric: yet we may well

outnumber the advocates of the micrometre. There is not much convention that international science agrees upon other than priority, and the truth will out. By itself  $\mu$  is the metric micron. We are continually asked to shorten our scripts. This was and is an approved way.

Yours faithfully,

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### Announcements

The following have been elected officers of the American Geophysics Union: President, **Professor H. E. Landsberg**, research professor at the University of Maryland's Institute for Fluid Dynamics and Applied Mathematics; Vice-President, **H. E. Newell**, associate administrator of NASA; General Secretary, **C. A. Whitten**, chief research group of the Coast and Geodetic Survey, ESSA, Rockville, Maryland.

**Dr L. J. Morris** of the Unilever Research Laboratory, Colworth House, Sharnbrook, Bedford, has been awarded the **Colworth Medal** for 1967 in recognition of his work on the development of new techniques in the identification of fatty acids.

The **International Union against Cancer**, with the funds provided by the American Cancer Society, is to award fellowships for research on cancer. The awards will be given to experienced investigators who have shown their ability for independent research and who wish to broaden their experience by a period of study at a single institution in another country. Further information can be obtained from the International Union against Cancer, PO Box 400, CH-1211, Geneva 2, Switzerland.

**CORRIGENDUM.** In the communication "Psycho-active Drugs, Exploratory Activity and Fear" by R. Kumar (*Nature*, 218, 587; 1968), the sentence beginning on the third line of the second column of page 587 should read: "Among the drugged animals, only the dexamphetamine group was significantly less active than its unshocked control ( $P < 0.01$ )".

**CORRIGENDUM.** In the article "Upper Miocene Primates from Kenya" by L. S. B. Leakey (*Nature*, 218, 527; 1968) reference 7 should read: "Hopwood, A. T., *J. Linn. Soc. (Zool.)*, 38, 437 (1933)".

**ERRATUM.** In the communication "Inducing a Preference for Morphine in Rats without Premedication" by R. Kumar, H. Steinberg and I. P. Stolerman (*Nature*, 218, 564; 1968), the sentences beginning on the fifth line of the second column of page 565 should read: "Daily choice trials were continued for several weeks and both groups regularly drank significantly more than 50 per cent of their liquid intake in the form of morphine solution (for example, for trials 19–28,  $t = 3.77$ ,  $P < 0.01$ ). The average dose of morphine drunk on choice days amounted to approximately 30 mg/kg".

**ERRATUM.** In the communication "Dark Reactivation of Damage induced by Ultraviolet Light in Mammalian Cells *in vitro*" by Masakatsu Horikawa, Osamu Nikaido and Tsutomu Sugahara (*Nature*, 218, 489; 1968) the footnote to Table 1 should read "Ten minute counts; background was about 2.5 c.p.m." (not 25 c.p.m.).

**ERRATUM.** In the communication "Uranium in Fallout Particles" by T. Matsunami and T. Mamuro (*Nature*, 218, 555; 1968), the sentence beginning on the twelfth line of the second paragraph should read: "Fig. 1 shows an  $\alpha$ -ray spectrum of 230 hot particles from the ground from the fifth Chinese explosion (December 28, 1966). The background, taken to be the  $\alpha$ -ray spectrum of a blank specimen prepared by the same procedures, has been subtracted".