he wrote was the plain truth, and he had a great flair for making sure that it was readable as well. By now, there must be a whole generation of sub-editors at *The Times* with whom Haslett has argued about the meaning of a word or the need not to abbreviate a sentence.

Among journalists, Haslett will be remembered by his willingness to help. He was unflagging in his zeal to ease the passage of younger people into journalism, combining this with a proper sense of the competitiveness of the craft. But he was also a peacemaker when one was needed—the kind of man who could arbitrate with authority on the proper handling of an important piece of news—a task which he once performed with distinction in a remote corner of the Sahara. With all these qualities, a dry wit and a young man's zest for being surprised, he will be much missed.

He leaves his wife Hilda and three children, two of them working in Australia.

Correspondence

SI Units

SIR,—I am glad Professor Temperley (*Nature*, 222, 806; 1969) is protesting against the confusion of treating B and H as having different dimensions—but he is wrong in attributing this feature to SI. The adoption of SI implies the introduction of a "force constant", but no essential change to the characters of the traditional CGS systems of equations; it does not imply that $D = \varepsilon_r \varepsilon_0 E$ or $B = \mu_r \mu_0 H$. In my previous letter (*Nature*, 222, 500; 1969) I gave the name "Giorgi systems" to systems of equations which include these relations (I specified $B = \mu_0 H$ in vacuum, but meant it to be understood that the electric and magnetic relations went together). I also set out two "Giorgi systems" and two "non-Giorgi systems". The prefix "SI-" to the names of the two non-Giorgi systems, that is, "SI-Gaussian" and "SI-Electric", shows that these are the generalized versions of the traditional systems which are appropriate for use with SI units.

A "force constant" is required in equations for use with SI units (or, more generally, an electric and a magnetic force constant, standing in simple theoretical relation), because in SI the units of charge and of pole are logically independent of the units for mechanical quantities. The rules for use of the "force constants", introduced to reconcile these units, are very simple; the constants have no place as factors between E and D, H and B. This is the basis of the non-Giorgi systems. On the other hand, those who follow the Giorgi scheme think in terms of "permittivity and permeability of vacuum". These show their essence as factors in passing from E to D and H to B. There are no simple rules for their use. The history of these concepts is grounded in confusion. Professor Temperley is right, in the name of clarity and understanding, to reject them. But he should not reject SI because it has usually been presented in association with one of the undesirable Giorgi systems of equations. He can accept SI, and use a non-Giorgi system of equations.

To avoid further misunderstanding, perhaps I should stress the point that SI-Electric is the system of equations that should be adopted as the general norm, and as the basis for all quantitative statements—for those who reject Giorgi. This implies SI units. This system is to be preferred in general, and in particular for elementary use, because it eliminates c from the elementary formulae. But conversion between the equations of SI-Electric and those of SI-Gaussian is so easy that high-level theoreticians will no doubt find the simplicity of the latter equations worthwhile.

Yours faithfully,

H. V. STOPES-ROE

Department of Extramural Studies,
University of Birmingham.

PROFESSOR H. N. V. TEMPERLEY writes:

Dr Stopes-Roe has done a public service in calling attention to the fact that one can use SI units without filling one's blackboards with the absurd quantities ε_0 and μ_0.

Improved Limit on the Absence of Dispersion of the Velocity of Light

SIR,—The correspondence from Isaak and Synge (*Nature*, 223, 161; 1969) demonstrates the deplorable expanding gulf between the army of mathematical relativists and the relatively few experimentalists who still dare to contribute to this field. It is a brave experimentalist who would venture into the other camp with a whispered suggestion that they should occasionally look over their shoulders to see if they are discussing their problems in the language of, and within the experimentally observable context provided by, their more practical colleagues.

True, the velocity of light is invariant by definition at any particular observer, for the units of time and distance are both defined in terms of the observables of wavelength and frequency, but it would be begging scientific suicide to forgo experiment and to assume for ever that the velocity over extended space must be the same for different wavelengths after excluding the known classical dispersive processes.

The referee's comments on the use of the word "distance" are also disturbing, for he gives it the dimensions of time. In limited circumstances one may take half the time of flight of an echo and convert this to the correct dimensions by assuming the invariant c. This definition is an excellent one, but it does not necessarily cover all the conditions to which the name distance may be applied, though it does qualify the general term in a manner which is necessary to describe that particular measurement. Surely it is up to the experimentalist to quote the conditions of his experiment in the simplest terms which leave no ambiguity and it is then up to the relativist to translate these into his own language if his techniques are applicable to the context.

It is not just the duty of the experimentalist to learn the language of the relativist but also the urgent duty of the relativist to lend a much more receptive ear to the plain language but vital comments of those who make the measurements and take observations for all mankind.

Yours faithfully,

R. C. JENNISON

Electronics Laboratories,
University of Kent,
Canterbury, Kent.

Cost of Living

SIR,—Dr Reddish's comments (*Nature*, 222, 1009; 1969) seem to be based on evidence which is far from scientific and is to my mind untrue. I am Australian but lived in the US for a time before 1967, and I feel he is misusing the term "standard of living". If Americans own bigger cars, this represents an improvement in their standard of living over ours. They are quite free to buy small ones and of course many do, but usually as a second car.