LETTERS

The editors take no responsibility for the content of the letters published in this section. Anonymous letters will not be considered. Letters intended for publication should be typewritten double-spaced and submitted in duplicate. A letter writer should indicate clearly whether or not his letter is submitted for publication. For additional information, see Science 124, *249 (1956) and* 125, *16 (4 Jan. 1957).*

Reference Citations

The citation of references in scientific papers should enable the reader to locate the specific point in the referent article quickly and efficiently. The usual method of citing a reference does not accomplish this purpose, for, ordinarily, only the first page of the article or the inclusive pages are given in the reference. Only in the case of books is the page number given. When a highly specific point is made, which may be buried in a table, footnote, or paragraph, it frequently becomes a very difficult task to locate and verify the information, especially when the paper is long or involved. We have run into this difficulty, especially in citations for enzymatic inhibitors, activators, melting points and other physical constants, and data and procedures which may be incidental to the main subject of the paper.

It is, therefore, suggested that when a highly specific point is referred to in a paper, the usual reference be given in whatever style the journal requires, followed by a more specific citation in parentheses. The following hypothetical example will illustrate this point. A. N. Jones and J. A. Smith, *J. Biol Chem.* 89, 54 (1984) (p. 56), (56), or (56, Table III), or (56, paragraph 2), and so forth.

The attention of editors of scientific journals to this matter is recommended.

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HERBERT N. SCHLEIN
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When authors of papers supply the information, Science *does just what Green and Schlein ask for, although not exactly in the form that they suggest.*

Tools for Communication

Language is our box of tools for thinking and for communication. The tools (words) ought to be kept sharp (precisely defined). The invention of new tools (words and symbols) for new uses (concepts), and for the old ones too, is to be encouraged. The sooner an inconvenient tool is replaced by a more effective one, the better.

I have a pet aversion, namely, the term *milligrams percent,* meaning milligrams of solute in 100 milliliters of solu-

tion. *Percent* and *per mille* and *parts per million* are easy and have convenient symbols: %, $^0/_{00}$, and ppm. It is true that it is inconvenient to write 0.015%, or $0.15^0/_{00}$, or concentration of 1.5×10^{-4}, or 150 ppm. To write *15 mg percent,* which is present custom in our clinical laboratories, seems to me not much of an improvement. *Fifteen milligrams percent* does run off the tongue quite smoothly. *One hundred fifty parts per million,* however, runs just as smoothly and is only 12 percent longer.

Now I have an invention. It is to use, instead, the East Indian word for 100,000, namely, *lac. Fifteen milligrams percent* then becomes *15 per lac.*

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Insect Control by Radiation

In the article "Current status of insect control by radiation" [*Science* **124**, 1011 (1956)], Charles C. Hassett gives a table of costs per ton for a 50,000-roentgen dose from various sources in which some of the data appear to be misleading. In particular, I think that the figures given for electron accelerators are a little unrepresentative and, in this connection, I would like to call attention to data given by Wolfgang Huber [*Western Canner and Packer* (Aug. 1956)]. Huber shows that, for a dose of 50,000 roentgens (approximately 0.05 Megarep) at 50-percent utilization, machines are available that can treat more than 100 tons per hour at a cost of 40¢ per ton or less.

I should also like to point out that there appears to be a discrepancy in Hassett's stated cost of the cobalt-60 irradiation unit: "$10 per ton (5¢ per pound)."

M. C. CROWLEY-MILLING
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The article by Huber, referred to by M. C. Crowley-Milling, appeared after my article had been written and submitted for clearance; hence, it could not be included in my discussion. The data cited actually reinforced my conclusions: that these machines will soon make large-scale radiation economically feasible.

With reference to Crowley-Milling's second point, the manuscript submitted to *Science* shows the correct values: "$10 per ton (0.5¢ per pound)." This typographic error unfortunately passed both *Science's* proof reading and mine.

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