In searching for a cause for the syndrome, the possibility that deficient aeration played a part in it naturally suggests itself. The sequence of events is much like that described in "mountain sickness" and certain cardiac psychoses. While the respiration was regular and of approximately normal rate, the action of the intercostal muscles was feeble or absent in all cases. Slight cyanosis was often observed. Atelectasis of the lungs was observed at autopsy in three of the cases. Studies of the oxygen content of the arterial blood in three cases showed it to be reduced in all, and in one at a level at which symptoms might be expected.

Another possibility is that the syndrome is due to interruption of vasomotor pathways or of sensory tracts. The physiologic aspects of the condition are being studied further under a grant from the Committee on Scientific Research of the American Medical Association.

TRACY J. PUTNAM

"IDEST"

ONE may profit by Mr. Charles H. Briggs's warning against ambiguous use of "or" (SCIENCE, November 5) without accepting his proposal to substitute "idest" (Latin *id est*) where the terms connected are equivalent. Equivalence is unmistakably implied by the use of commas in the phrase "A, or B, . . ." Conversely, "A or B . . ." should imply that A and B are non-equivalent, and it would do so if all readers knew the rule and trusted all writers to know and apply it. But there's the rub! Mr. Briggs evidently distrusts, in this regard, the writer of the phrase "gauze or leno"—and so do I, after having found from the dictionary that leno is a kind of gauze.

A writer who wishes to make the non-equivalence of two terms connected by "or" unmistakable even to a distrustful or a careless reader, or to emphasize it for any reason, can do so at the cost of an extra word or two (*e.g.*, "either A or B"; "of A or of B"). Equivalence, on the other hand, may be emphasized by substituting dashes or parentheses for commas, or by inserting "that is" or *"i.e."* (usually read as "that is"). Mr. Briggs mentions all these devices only to reject them. He stigmatizes "that is" and *"i.e."* as "awkward and interruptive." But it seems to me that neither they nor the punctuation marks interrupt the reader; he takes them in his stride because they are familiar. "Idest," on the contrary, will slow up most readers, even though it be defined in a footnote for each article in which it appears, unless and until it becomes so broadly accepted as to be "an English word," which it is not now.

But "idest" may appeal to those who use "A and/or B" instead of the plain English, "A or B or both"!

F. C. CALKINS

U. S. GEOLOGICAL SURVEY

SCIENTIFIC BOOKS

CALCULUS

Differential and Integral Calculus. By RICHARD COURANT. Translated by E. F. MCSHANE. Blackie and Sons, Ltd., London and Glasgow. New York: Nordemann Publishing Company, Vol. I, xiii + 568 pp., 1934 ($5.00); Vol. II, x + 682 pp., 1936 ($7.00).

EXCELLENT treatises on advanced differential and integral calculus are as valuable as they are rare. Such a treatise can do much to spur the student of marked mathematical ability to go on beyond the beginnings of the calculus and can help greatly in deepening and making effective the knowledge of those who wish to use the calculus as a tool in some of its varied applications. And yet only two English works of this kind seem to me to have been available in the last two decades: I refer to the well-known books written by Osgood and by Edwin B. Wilson. The two volumes of Courant's "Differential and Integral Calculus" here under review form a third distinctive treatise of high quality. This comes as a translation and extension of his well-known German work on the same subject. As in the other cases mentioned, Professor Courant's presentation is a labor of love. Its pages are steeped with a broad and appreciative mathematical spirit which is deeply interested in purely mathematical considerations, but at the same time recognizes the importance of the numerous applications. Of their significance no one is more aware than Professor Courant, whose mathematical text-book for physicists, written in collaboration with Professor Hilbert, has proved extraordinarily useful.

The two volumes have the great advantage that they are written so clearly and at such length (some 1,250 pages) that they can be read without the fatiguing necessity of weighing each word, which too often confronts the reader of a mathematical book. Furthermore, the style is lively and the matter is treated from a modern point of view by one who is himself a distinguished mathematician, which makes the reading interesting in detail. Differential calculus and integral calculus are introduced side by side.

The ground covered in the two volumes is extensive. In fact, such a subject as uniform continuity is soon introduced in the first volume, while the last 150 pages of the second volume deal with differential equations, the calculus of variations and functions of a complex variable. The precise limitations of the