WHY <u>LIQUID NITROGEN</u> PROVIDES THE MOST SATISFACTORY SYSTEM FOR PRESERVING BIOLOGICAL MATERIALS

To preserve biological materials indefinitely, very low temperatures are required. Only at temperatures below -130° C. (202°F.) is all chemical and physical activity reduced to a negligible level.

Only with liquid nitrogen $(-196^{\circ}C., -320^{\circ}F.)$ can you obtain safe, economical *long-term* storage . . . for months, years, even centuries.

Liquid nitrogen does not react with the materials with which it comes in contact. It has no effect on the pH of solutions.

HOW *Linde* provides users of liquid Nitrogen with a more complete Service than any other source

Only LINDE provides *Total Liquid Nitrogen Service* – freezing equipment, refrigerating storage equipment, and nationwide availability of liquid nitrogen.



THE BF-1 FREEZER — a new liquid nitrogen freezer especially designed for laboratory use. Accurate and automatic control of optimum cooling rates. Provides a low-cost freezing system suitable for use with most types of biological specimens.

LNR-25-B REFRIGERATOR – nonmechanical, keeps 348 cubic inches of product between –185°C. (–300°F.) and –196°C. (–320°F.). Low evaporation loss; all-welded stainless steel construction (larger sizes available).

SERVICE AT YOUR DOOR—thanks to LINDE's unique distribution network, no point in the U. S. is more than a few hours from a ready supply of LINDE liquid nitrogen.

FIND OUT—write today for our new pamphlet, "The Preservation of Biological Materials with Liquid Nitrogen." Address: Linde Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y. In Canada, Union Carbide Canada Limited, Linde Gases Division, Toronto 12. Or call your nearest LINDE office.



"Linde" and "Union Carbide" are registered trade marks of Union Carbide Corporation. 950 these three BSCS approaches this year, and I know secondary school teachers in other areas as well as in science who work toward these same goals in their regular teaching programs.

That we do not achieve nearly so much as we would like can be explained by the fact that time is necessary for continuous planning, evaluation, and reorganization of any teaching program as it relates to the individual student and his progress. At the elementary and secondary levels this time is available each day only after a continuous sequence of periods of meeting students in either academic or extracurricular pursuits (periods that often include the noon hour), broken only by the 3minute interval for changing classes.

Even so, secondary (and elementary) school teachers are concerned and do work toward helping the student develop his ability to think, reason, appreciate, and discriminate. We need, somehow, to provide time for regular professional interchange of ideas in the school day, both within a school system and between school systems, so that all teachers will be stimulated to work more directly to accomplish these aims in spite of many seemingly insurmountable difficulties.

MARON E. STEWART Ionia High School, Ionia, Michigan

Books and Advertising

W. H. Oldendorf [Science 133, 198 (1961)] should be advised that one very good reason for not contaminating books with advertising as he suggests is the very costly increase in postage that results.

RAYMOND B. FREEMAN 4131 Linden Avenue, Western Springs, Illinois

Radiation Exposure

The article by Newell and Naugle on radiation in space [Science 132, 1465 (1960)] is an interesting and timely treatment of the subject. However, it contains several references to ionizing radiation exposure standards for human beings which I feel may be misleading.

A figure of 0.3 r per quarter is referred to as an exposure standard for radiation workers. To my knowledge, this has not been proposed by any group. It probably represents a simple decimal-point slip from the 3.0 rem (close enough to the roentgen for this discussion) per quarter recommended by the National Committee on Radiation Protection and Measurements (NCRP), the International Commission on Radiological Protection (ICRP), and