

# NON-MECHANICAL and FULLY PORTABLE Refrigerator for storage at $-320^{\circ}\text{F}$ .

LINDE's fully portable LNR-25B Liquid Nitrogen Refrigerator is the most reliable cold storage unit in existence. This rugged stainless steel container has no mechanical operating parts and thus is essentially maintenance-free—eliminates damaged samples caused by power failures.

It weighs only 60 lbs. empty, yet holds 28.5 liters of liquid nitrogen and 392 cu. inches of stored samples. A special LINDE insulation holds evaporation loss to only 3% a day. On a single charge of nitrogen, it will keep samples at  $-320^{\circ}\text{F}$ . for 34 days, directly immersed in the liquid, or for 23 days in sealed tubular baskets suspended in the liquid. The large-diameter neck tube permits quick and easy access to the interior.

Linde Company manufactures a full line of containers (including the  $16\frac{1}{2}$  cu. ft. storage capacity LNR-640 Refrigerator), accessories and other cryogenics equipment for the storage and handling of liquefied atmospheric gases. For information on the LNR-25B Refrigerator or other equipment, mail the coupon.

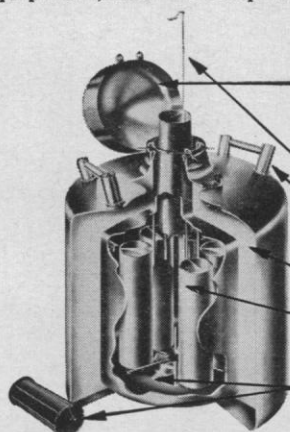


## Typical uses:

- preservation of enzymes, hormones, proteins
- pharmaceutical and chemical research
- storage of bacteria cultures without laborious transplanting
- preservation of cancer cells for research
- shrink fitting small metal production parts
- cold storage of aluminum rivets and metallurgical samples
- immediate freezing of animal glands

## CONSTRUCTION

Cutaway shows interior arrangement of storage baskets in the LINDE LNR-25B and its construction. Baskets are easily and quickly withdrawn through wide-entrance tube. All-stainless welded construction and superior insulation make it both portable and durable.



- Hinged Cap
- Basket Support Rod
- Lifting Handle
- Special LINDE Insulation
- Product Storage Basket
- Removable Neck Tube
- Basket Spacer

Linde Company, Division of Union Carbide Corporation Dept. SC-112  
270 Park Ave., New York 17, N. Y.

Please send me complete information on

- ☐ the LNR-25B refrigerator  
☐ other equipment for liquefied atmospheric gases  
(please specify) \_\_\_\_\_

Name \_\_\_\_\_

Firm Name \_\_\_\_\_

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The 1960 officers and officers-elect of the American Speech and Hearing Association are as follows: President, Stanley Ainsworth, professor of speech correction and chairman of the program on exceptional children at the University of Georgia; president-elect, Paul Moore, director of the Gould Research Laboratories, William and Harriet Gould Foundation of Chicago, and professor of speech pathology at Northwestern University; executive vice-president, Jack Matthews, chairman of the speech department and director of the speech clinic at the University of Pittsburgh; chairman of the publications board, Wendell Johnson, professor of speech pathology and psychology at the University of Iowa; vice-president, Jack Bangs, director of the Houston Speech and Hearing Center; vice-president-elect, Duane Spriesterbach, professor of speech pathology and audiology at the University of Iowa; and executive secretary, Kenneth O. Johnson, national office of the American Speech and Hearing Association in Washington, D.C. The newly elected AAAS Council representative is Mildred C. Templin, professor, Institute of Child Development and Welfare, University of Minnesota.

KENNETH O. JOHNSON  
Washington, D.C.

## Forthcoming Events

### January

24-27. Society of Plastics Engineers, 17th annual conf., Washington, D.C. (T. A. Bissell, SPE, 65 Prospect St., Stamford, Conn.)

25-27. Mathematical Assoc. of America, annual, Washington, D.C. (H. L. Alder, Dept. of Mathematics, Univ. of California, Davis)

26-27. Western Spectroscopy Conf., 8th annual, Pacific Grove, Calif. (R. C. Hawes, Applied Physics Corp., 2724 S. Peck Rd., Monrovia, Calif.)

27-28. Royal College of Physicians and Surgeons, annual, Ottawa, Ontario, Canada. (T. J. Giles, 150 Metcalfe St., Ottawa)

28-30. Control of the Mind, symp., San Francisco, Calif. (Dept. of Continuing Education in Medicine, Univ. of California Medical Center, San Francisco 22)

28-31. Infertility, sectional meeting, Intern. Fertility Assoc., Acapulco, Mexico. (M. L. Brodny, 4646 Marine Dr., Chicago 40, Ill.)

29-3. American Inst. of Electrical Engineers, winter meeting, New York, N.Y. (E. C. Day, AIEE, Technical Operations Dept., 33 W. 39 St., New York 18)

30-3. Clinical Cong. of Abdominal Surgeons, Miami Beach, Fla. (B. F. Alfano, 663 Main St., Melrose 76, Mass.)

30-4. American Library Assoc., mid-winter meeting. (Mrs. F. L. Spain, New York Public Library, 20 W. 53 St., New York, N.Y.)

31-4. American Assoc. of Physic Teachers, New York, N.Y. (F. Verbrugge, 135

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Main Engineering, Univ. of Minnesota, Minneapolis)

31-4. American Physical Soc., annual, New York, N.Y. (K. Darrow, APS, Columbia Univ., 116th St. and Broadway, New York)

### February

1-3. Solid Propellant Rocket Conf., American Rocket Soc., Salt Lake City, Utah. (R. D. Geckler, Aerojet-General Corp., P.O. Box 1947, Sacramento, Calif.)

1-3. Winter Military Electronics Conv., 2nd, Inst. of Radio Engineers, Los Angeles, Calif. (A. N. Curtiss, IRE Business Office, 1435 S. La Cienega Blvd., Los Angeles 35)

1-4. American Physical Soc., annual, New York, N.Y. (K. K. Darrow, APS, 538 W. 120 St., New York 27)

2-4. Congress on Administration, 4th annual, Chicago, Ill. (R. E. Brown, American College of Hospital Administrators, 840 N. Lake Shore Dr., Chicago 11)

6-8. American Acad. of Allergy, 17th annual, Washington, D.C. (J. O. Kelly, 756 N. Milwaukee St., Milwaukee 2, Wis.)

6-8. Geodesy in the Space Age, symp., Ohio State Univ., Columbus. (W. A. Heiskanen, Ohio State Univ., 1314 Kinross Road, Columbus 12)

6-10. British Medical Assoc., annual, Auckland, New Zealand (E. Grey-Turner, B.M.A., Tavistock Sq., London, W.C.1)

9-15. Second Allergy Conf., Nassau, Bahamas. (I. M. Wechsler, P.O. Box 1454, Nassau)

13-16. American Soc. of Heating, Refrigerating and Air-Conditioning Engineers, Chicago, Ill. (R. C. Cross, 234 Fifth Ave., New York 1)

14-15. Conference on Microdosimetry, 2nd, Rochester, N.Y. (N. Kreidl, Bausch & Lomb Optical Co., Inc., Rochester 2)

15-17. International Solid-State Circuits Conf., Philadelphia, Pa. (J. J. Suran, Bldg. 3, Room 115, General Electric Co., Electronics Park, Syracuse, N.Y.)

16-18. Biophysical Soc., annual, St. Louis, Mo. (W. Sleator, Dept. of Physiology, Washington Univ., St. Louis 10)

22-25. American Educational Research Assoc., annual, Chicago, Ill. (G. T. Buswell, 1201 16th St., NW, Washington 6)

23-25. American Orthopsychiatric Assoc., annual, New York, N.Y. (Miss M. F. Langer, 1790 Broadway, New York 19)

23-25. Fifteenth Annual Symp. on Fundamental Cancer Research, Houston, Tex. (Publications Dept., Univ. of Texas M.D. Anderson Hospital and Tumor Inst., Texas Medical Center, Houston 25)

23-25. Symposium on Molecular Basis of Neoplasia, Houston, Tex. (Publications Dept., Texas Medical Center, Houston 25)

26-1. American Inst. of Chemical Engineers, natl., New Orleans, La. (F. J. Van Antwerpen, AIChE, 25 W. 45 St., New York 36)

26-2. American Inst. of Mining, Metallurgical, and Petroleum Engineers, annual, St. Louis, Mo. (AIME, 29 W. 39 St., New York 18)

27-3. Conference on Analytical Chemistry and Applied Spectroscopy, 12th, Pittsburgh, Pa. (L. P. Melnich, U.S. Steel Corp., Monroeville, Pa.)

(See 16 December issue for comprehensive list)

New RONALD Books . . .

## HUMAN FACTORS in JET and SPACE TRAVEL

Edited by S. B. SELLS, Ph.D.,  
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and CHARLES A. BERRY,  
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Aerospace Medical Division,  
Office of the Surgeon General, USAF

This medical-psychological analysis provides a complete guide to the human factors involved in space travel and high-speed, high-altitude jet flights. Thirteen leading researchers describe worked-out solutions to known problems and indicate possible ways of dealing with future problems. Psychological, physiological, medical, and engineering aspects are approached with the view of establishing standards, techniques, and objectives for dealing with them. 14 major sections on the selection and training of crews, abnormal strains of space travel, accidents and flight safety, etc. 1961. 394 pp.; 39 ills., tables. \$12.00

## ISOTOPE EFFECTS on REACTION RATES

Lars Melander,  
Nobel Institute of Chemistry,  
Stockholm

This synthesis serves as an introduction to and theoretical survey of the field of kinetic isotope effects, with emphasis on principles. The problems encountered in the evaluation of isotope effects from experimental data are discussed; the most important relationships are diagrammed. Simple reactions are used to illustrate the general degree of agreement that may be expected between predicted and empirical isotope effects. In several instances, prediction methods other than those used by the original authors are tried and the results are compared and discussed. A volume in a series of monographs—MODERN CONCEPTS IN CHEMISTRY. 1960. 181 pp., 15 ills. \$6.00

## PHOTOGRAMMETRY and PHOTO- INTERPRETATION

Stephen H. Spurr,  
The University of Michigan

The Second Edition of "Aerial Photographs in Forestry" covers all significant developments in the techniques of aerial photography, photogrammetry, and photo-interpretation. Book fully discusses basic principles and methods; brings together specialized material on the use of aerial photographs in vegetation mapping, forest inventory, and forest management. Abundant illustrations include helpful line drawings and recent photographs. Includes a complete section on applications to Forestry. "Exceptionally interesting and instructive." —Soil Science. 2nd Ed., 1960. 472 pp.; 170 ills., tables. \$12.00

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