

content of plant parts" by J. Bruinsma; "Determination of extractable substances in food packaging materials" by E. A. Garlock and O. E. Paynter; "DDD as a decomposition product of DDT" by D. E. Ott and F. A. Gunther; "Residue analytical limit of detectability" by G. L. Sutherland; and "Herbicides: A compilation of their physical, chemical, and biological properties" by G. W. Bailey and J. L. White.

The Staphylococci: Ecologic Perspectives (*Ann. N.Y. Acad. Sci.* 128, No. 1). Harold E. Whipple, Ed. New York Acad. of Sciences, New York, 1965. 458 pp. Illus. Paper, \$8. Papers presented at a conference held by the Academy in October 1964.

The Tissues of the Body. W. E. LeGros Clark. Oxford Univ. Press, New York, ed. 5, 1965. 430 pp. Illus. \$12.75.

Use of Computers in Biology and Medicine. Robert Steven Ledley. McGraw-Hill, New York, 1965. 989 pp. Illus. \$29.50.

Miscellaneous Publications

(Inquiries concerning these publications should be addressed to the publisher or agency sponsoring the publication, not to Science.)

Acanthodrilidae and Eudrilidae (Oligochaeta) from Ghana (*Bull. Brit. Museum Zool.* 12, No. 8). R. W. Sims. British Museum (Natural History), London, 1965. 29 pp. Illus. Paper, 10s.

Activities Report, 1964. International Union Against Cancer, Geneva, Switzerland, 1965. 62 pp. Paper.

Alimentation des populations africaines au Sud du Sahara (Enquetes Bibliographiques 13). M. P. C. Lefevre. Centre de Documentation Economique et Sociale Africaine, Brussels, 1965. 235 pp. Paper, F.B. 500. Annotated bibliography containing 985 alphabetically arranged (by author) entries.

Anais do XIII Congresso da Sociedade Botânica do Brasil (1962). Instituto de Micologia, Universidade do Recife, Recife, Brazil, 1964. 516 pp. Illus. Paper.

Arachnida (*Zool. Record* 100, Sec. 12, 1963). Compiled by Ernest Brown. Zoological Soc. of London, London, 1965. 111 pp. Paper, \$2.82.

Atlantide Report, No. 8. Scientific results of the Danish Expedition to the coasts of tropical West Africa, 1945-1946. Jorgen Knudsen and Torben Wolff. Danish Science Press, Copenhagen, 1965. 255 pp. Illus. Paper, \$9.

Autoimmunity—Experimental and Clinical Aspects, pt. 2 (*Ann. N.Y. Acad. Sci.* 124). Harold E. Whipple, Ed. New York Acad. of Sciences, New York, 1965. 478 pp. Illus. Paper. Forty-one papers.

The Brachyuran Decapod Crustaceans of Clipperton Island (*Proc.* 33, No. 1). John S. Garth. California Acad. of Sciences, San Francisco, 1965. 46 pp. Illus. Paper.

Bryozoa, Polyzoa (*Zool. Record* 99, Sec. 8, 1962). Compiled by Anna B. Hastings. Zoological Soc. of London, London, 1965. 16 pp. Paper, \$1.80.

The Cichlid Fishes of Lake Nabugabo, Uganda (*Bull. Brit. Museum Zool.* 12, No. 9). P. H. Greenwood. British Mu-

seum (Natural History), London, 1965. 45 pp. Illus. Paper, 15s.

Científicos de Colombia. Centro de Cooperacion Cientifica para America Latina and Organizacion de los Estados Americanos, Montevideo, ed. 2, 1965. 384 pp. Paper. Combines and brings up-to-date volumes *Colombia I* (1949) and *Colombia II* (1956).

Conference on Aircraft Operating Problems (Langley Research Center), May 1965. Natl. Aeronautics and Space Administration, Washington, D.C., 1965. 333 pp. Illus. Paper, \$3. Thirty-four papers.

Crustacea. (*Zool. Record* 99, Sec. 10, 1962). Compiled by J. P. Harding and R. W. Ingle. Zoological Soc. of London, London, 1965. 76 pp. Paper, \$2.82.

The Culicine Mosquitos of the Indomalayan Area, pt. 6, Genus *Aedes* Meigen, subgenus *Stegomyia* Theobald (Groups A, B, and D). P. F. Mattingly. British Museum (Natural History), London, 1965. 67 pp. Illus. Paper, £1 4s.

Delphacidae from Australia and New Zealand, Homoptera: Fulgoriodea (*Bull. Brit. Museum Entomol.* 17, No. 1). R. G. Fennah. British Museum (Natural History), London, 1965. 59 pp. Illus. Paper, £1 2s. 6d.

Diptera From Nepal: Bibionidae (by D. Elmo Hardy); **Agromyzidae** (by K. A. Spencer) [*Bull. Brit. Museum Entomol.* 16, No. 1] British Museum (Natural History), London, 1965. 31 pp. Illus. Paper, 15s.

Farm Pests: An Aid to Their Recognition. T. E. T. Trought. Blackwell, Oxford, England; Davis, Philadelphia, 1965. 40 pp. Illus. \$2.50.

Fossil Ginkgoales from the Ticó Flora, Santa Cruz Province, Argentina (*Bull. Brit. Museum Geol.* 10, No. 5). Sergio Archangelsky. British Museum (Natural History), London, 1965. 19 pp. Illus. Paper, 28s.

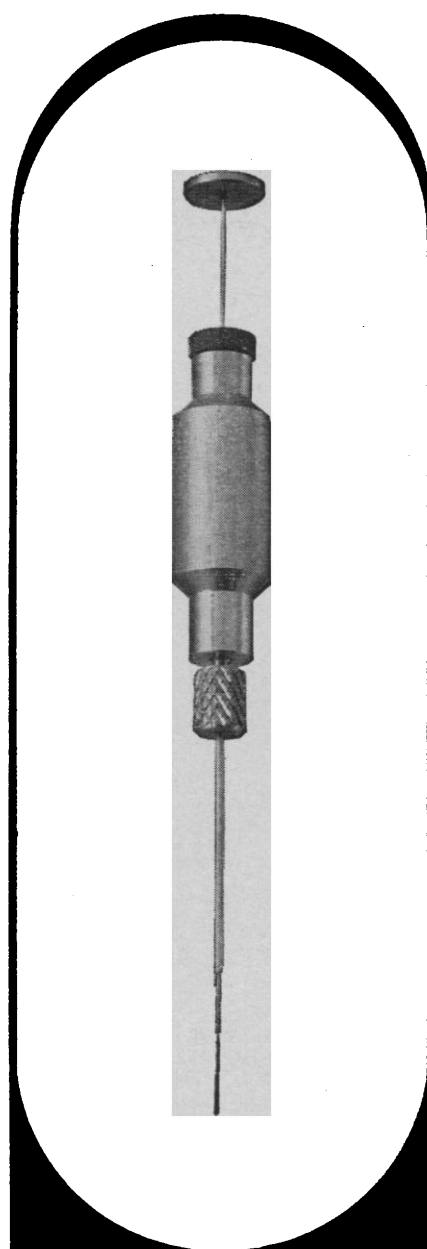
The Generic Position of *Osmundites dowkeri* Carruthers (*Bull. Brit. Museum Geol.* 10, No. 6). Marjorie E. J. Chandler. British Museum (Natural History), London, 1965. 23 pp. Plates. Paper, £2 2s.

***Geolabis wolffi*, a New Fossil Insectivore From the Late Oligocene of South Dakota** (*Los Angeles County Museum Contrib. Sci.*, No. 88). J. R. MacDonald. Los Angeles County Museum, Los Angeles, Calif., 1965. 6 pp. Illus. Paper.

Getting a Line on Mathematics. Jerome S. Meyer. Cuisenaire Company of America, Mt. Vernon, N. Y., 1965. Unpaged. Illus. Charts. Paper.

Government-wide Index to Federal Research and Development Reports. Clearinghouse for Federal Scientific and Technical Information. Superintendent of Documents, Washington, D.C., 1965. Monthly, \$10 per year; \$1.25 per issue.

Guide for Laboratory Animal Facilities and Care. Prepared by the Committee on the Guide for Laboratory Animal Facilities and Care, National Academy of Sciences-National Research Council. U.S. Department of Health, Education, and Welfare, Washington, D.C., ed. 2, 1965 (order from Superintendent of Documents, Washington, D.C.). 51 pp. Paper, 25¢.



a new approach to solid sampling for chromatography

You simply place the dissolved or melted sample on the tongue of the plunger, withdraw into septum penetrating needle, insert, and depress. Easy to operate and clean. SS60... \$15.00 FOB.

Write for new Hamilton catalog and price list.

HAMILTON

HAMILTON COMPANY, INC.

Hamilton Co., P. O. Box 307-K
Whittier, California



Genetics

Second Edition

By ROBERT C. KING, *Northwestern University*

The Third Edition of this noted introductory textbook takes into account the sweeping new advances in genetics, incorporating recent research on such topics as human cytogenetics, the mechanism of gene action, DNA, the Lyon hypothesis, and the genetics of mimicry. Thirty illustrations have been added; the number of study questions has been increased to 216, and all answers are included in the text.

1965. 468 pp. 159 illus. \$8.50

Inorganic Chemistry

By C. S. G. PHILLIPS and R. J. P. WILLIAMS, *both of Oxford University*

This comprehensive, up-to-date work is designed for use as a textbook in advanced courses and as a reference for research. The two volumes of the study may be used in sequence or independently; each book is separately indexed. Volume I contains Part 1, general principles, and Part 2, the chemistry of the non-metals. Volume II presents Part 3, the chemistry of the metals. Exercises and problems included.

Vol. I, 1965. 704 pp. \$8.00

Volume II, Spring 1966. approx. 650 pp. prob. \$8.00

Vertebrates

Their Structure and Life

By W. B. YAPP, *University of Birmingham*

The first seven chapters of this introductory textbook in comparative anatomy are devoted to the vertebrate classes; organ systems are analyzed and compared in the last fourteen chapters. The book includes 192 line drawings; eight color plates that are large, clear, and well labelled; a glossary; and a classification table.

1965. 544 pp.; 200 illus. \$8.50

The Mystery of Matter

Edited by THE AMERICAN FOUNDATION FOR CONTINUING EDUCATION

A valuable collection of writings by eminent scientists and authors, this book traces the development of the concepts of atomic physics and structure of living matter for students in introductory science courses. The topics take the form of such questions as "What is the Secret of Atomic Energy?" and "What is the Origin of Living Matter?" While major emphasis is reserved for modern scientific literature, the book also draws upon key works in the history of science, and in social sciences, literature, and philosophy as well.

1965. 728 pp.; 117 line drawings; 51 halftones. text ed. \$7.50

Oxford University Press

417 Fifth Avenue
New York, N.Y. 10016

The Head of *Dipterus valenciennesi*: Sedgwick & Murchison (*Bull. Brit. Museum Geol.* 11, No. 1). Errol Ivor White. British Museum (Natural History), London, 1965. 45 pp. Plates. Paper, 25s.

The Humicolous Fauna of South Africa Pselaphidae and Catopidae, Coleoptera (*N. Leleup Expedition 1960-1961*). R. Jeannel. Transvaal Museum, Pretoria, South Africa, 1964. 261 pp. Illus.

Hybridization in the Flickers (*Colaptes*) of North America (*Bull. Am. Museum Nat. Hist.* 129, No. 4). Lester L. Short, Jr. American Museum of Natural History, New York, 1965. 122 pp. Illus. Paper, \$3.

Hydrologic Data for Experimental Agricultural Watersheds in the United States, 1960-61 (*Misc. Publ.* 994). Compiled by Harold W. Hobbs and Florence B. Crammatte. U.S. Department of Agriculture, Washington, D.C., 1965 (order from Superintendent of Documents, Washington, D.C.). 496 pp. Illus. Paper, \$2.75.

Intestinal Polyposis (*Eugenics Lab. Mem.* No. 40). A. M. O. Veale. Published for Galton Laboratory, University College, London by the Cambridge Univ. Press, London, 1965. 108 pp. Illus. Paper, £ 1 15s.

Instructions for Collectors. No. 3, *Fishes*. British Museum (Natural History), London, 1965. 21 pp. Paper.

An Introduction to the Study of Beetles. Ross H. Arnett, Jr. Catholic Univ. of America Press, Washington, D.C., 1963. 40 pp. Illus. Paper, \$1.

Laboratory Animals. Pts. 4 and 5. Pt. 4, *Graduate Education in Laboratory Animal Medicine, Proceedings of a Workshop* (Washington, D.C.), March 1964 (43 pp. \$1.25); pt. 5, *Workshop in Animal Technician Training* (Washington, D.C.), October 1964 (64 pp. \$1.50). Institute of Laboratory Animal Resources, Washington, D.C. 1965. Paper.

Latin America Tomorrow. (*Ann. Am. Acad. Polit. and Social Sci.*, No. 360). James C. Charlesworth, Ed. American Acad. of Political and Social Science, Philadelphia, 1965. 250 pp. Paper, \$2.50. Eleven papers.

Manufacturers and Distributors Directory, Washington, D.C. Area. Metropolitan Washington Board of Trade, Washington, D.C., ed. 5, 1965. 70 pp. Paper, \$3.50.

The Meat Production Potential of Wild Animals in Africa: A Review of Biological Knowledge (*Tech. Communication* No. 16). Lee M. Talbot, W. J. A. Payne, H. P. Ledger, Lorna D. Verd-court, and Martha H. Talbot. Commonwealth Agricultural Bureaux, Farnham Royal, Bucks, England, 1965. 50 pp. Illus. Paper, 13s. 6d.

A New South American Toe Biter (*Hemiptera, Belostomatidae*) (*Los Angeles County Museum Contrib. Sci.*, No. 89). A. S. Menke. Los Angeles County Museum, Los Angeles, Calif., 1965. 4 pp. Illus. Paper.

A New Sparid Fish of the Genus *Diplodus* from Bermuda (*Fieldiana Zool.* 44, No. 23). David K. Caldwell. Chicago Natural History Museum, Chicago, 1965. 10 pp. Illus. Paper, 50¢.

REPEAT NOW!
 REPEAT DISPENSE
 REPEAT ACIDS &
 REPEAT SOLVENTS
 REPEATEDLY
 REPEAT WITH
 MINI-PET



NON-STICK
SYRINGE-TYPE
DISPENSER

Chloroform, toluene, xylol... a wide variety of acids... MINI-PET dispenses them all! quickly, simply, with one-handed ease. And MINI-PET'S Teflon plunger and "O" ring eliminate "freezing." Ideal for automatic pipeting, group inoculation, dispensing from remote containers: completely autoclavable, easily disassembled. Interchangeable syringe barrel to federal specification.

71-648-51-00 MINI-PET, adjustable to 10cc max. capacity (for aqueous solutions) complete with tubing, check valve, sinker... each \$21.50

71-648-51-01 MINI-PET, as above, but for use with organic solvents... each \$24.50

71-648-51-02 MINI-PET, as above, for use with wide variety of acids... each \$24.50

Available through your laboratory supply dealers

MANOSTAT Corporation
20 N. MOORE STREET
DEPT. 524, NEW YORK, N.Y. 10013

Normichthys yahganorum, a New Searsiid Fish From Antarctic Waters (Los Angeles County Museum Contrib. Sci., No. 90). Robert J. Lavenberg. Los Angeles County Museum, Los Angeles, Calif., 1965. 7 pp. Illus. Paper.

Observations on Captive and Wild Atlantic Bottlenosed Dolphins, *Tursiops truncatus*, in the Northeastern Gulf of Mexico (Los Angeles County Museum Contrib. Sci., No. 91). Melba C. Caldwell, David K. Caldwell, and J. B. Siebenaler. Los Angeles County Museum, Los Angeles, Calif., 1965. 10 pp. Illus. Paper.

On the Identification of Schizopyga Californiana Conrad, a California Pliocene Gastropod (Proc. 33, No. 2). W. O. Addicott. California Acad. of Sciences, San Francisco, 1965. 12 pp. Illus. Paper.

The Osteology of Camelops (Bull. Los Angeles County Museum Sci., No. 1). S. David Webb. Los Angeles County Museum, Los Angeles, Calif., 1965. vi + 54 pp. Illus. Paper.

Primitive Cryptostigmayid Mites from Rhododendron Forests in the Nepal Himalaya (Bull. Brit. Museum Zool. 13, No. 1). J. G. Sheals. British Museum (Natural History), London, 1965. 35 pp. Illus. Paper, 18s.

Proceedings, 1964 AFCRL Scientific Balloon Symposium (Boston), September 1963 (Air Force Surveys in Geophysics, No. 167). Arthur O. Korn, Jr., Ed. Office of Aerospace Research, U.S. Air Force Cambridge Research Laboratories, Bedford, Mass., 1965. 556 pp. Illus. Paper (available from Clearinghouse for Federal Scientific and Technical Information, Springfield, Va.).

Procurement and Inventory Theory. vol. 3, The Multi-Item, Multi-Source Concept. W. J. Fabrycky and Jerry Banks. Office of Engineering Research, Oklahoma State Univ., Stillwater, 1965. 75 pp. Illus. Paper, \$3.50.

Races of Man. Sonia Cole. British Museum (Natural History), London, ed. 2, 1965. 131 pp. Illus. Paper, 11s. 6d.

A Reclassification of the Tribe Microgasterini, Hymenoptera: Braconidae (Bull. Brit. Museum Entomol. Suppl. 2). G. E. J. Nixon. British Museum (Natural History), London, 1965. 284 pp. Paper, £6.

Review of Marine Bio-Acoustics: State of the Art: 1964 (Tech. Rep. NAVTRADEVCE 1212-1). William N. Tavorga. U.S. Naval Training Device Center, Port Washington, N.Y., 1965. 106 pp. Illus. Paper.

A Review of the Elopoid and Clupeoid Fishes of the Red Sea and Adjacent Regions (Bull. Brit. Museum Zool. 12, No. 7). P. J. P. Whitehead. British Museum (Natural History), London, 1965. 57 pp. Illus. Paper, 19s.

A Review of the Genus Cicadulina (Hemiptera, Cicadellidae) (Michigan State Univ. Museum Publ. Biol. Series 2, No. 8). Robert F. Ruppel. Michigan State Univ., East Lansing, 1965. 44 pp. Illus. Paper.

A Revision of the Ethiopian Drepanidae (Lepidoptera) (Bull. Brit. Museum Entomol. Suppl. 3). A. Watson. British Museum (Natural History), London, 1965. 214 pp. Illus. Plates. Paper, £4 4s.

8 OCTOBER 1965

RECOVER COMPONENTS ELECTROPHORETICALLY!

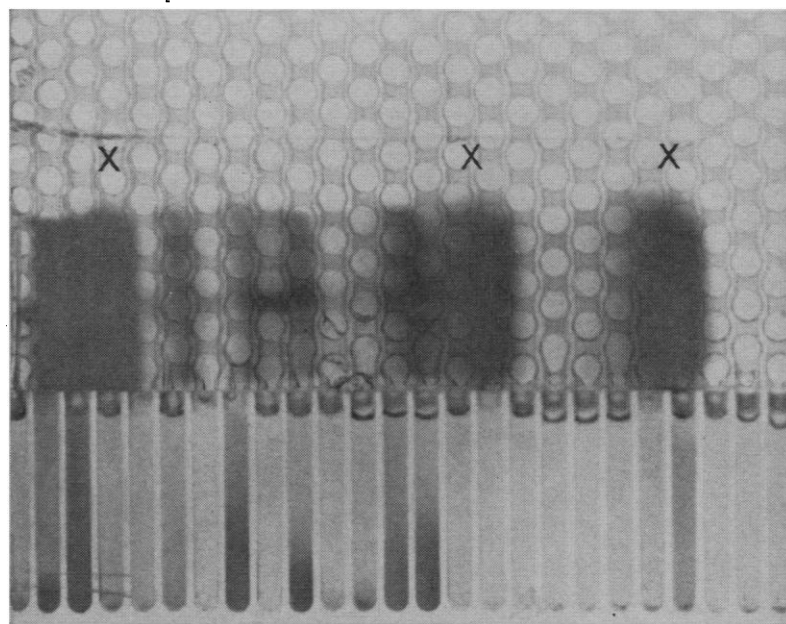
You can now recover as many as 30 undiluted fractions in one hour working time. Technique requires no organic solvents, no extreme pH, no salt precipitation, no dialysis, and no reconcentration of protein.

Discover the preparative electrophoresis system which is as easy as these three steps:

1. Pour single gel solution into EC 480 PREPARATIVE GEL ELECTROPHORESIS CELL, apply samples directly, run for one hour, and remove gel slab.
2. Using the EC 479 ELECTROPHORETIC DESTAINER, stain and destain "guide strip" only.
3. Place gel slab on its side in separating grid (shown below) of EC 730 ELUTION CONVECTION CELL. Protein components are recovered simultaneously by elution convection electrophoresis in *original undiluted concentration*.

Entire experiment requires less than two hours working time. Total elapsed time will vary between three and six hours.

Circle Reader Service Card for Details and Bibliography.



NEW PREPARATIVE ELECTROPHORESIS TECHNIQUE—Acrylamide gel pattern prepared in the EC 480 PREPARATIVE GEL ELECTROPHORESIS CELL being eluted into collecting tubules of the EC 730 ELUTION CONVECTION CELL. Note dye bands (x) not concentrated in the collecting tubules.

EC

APPARATUS CORPORATION
ELECTROPHORESIS / COUNTERCURRENT

220 So. 40th St., Philadelphia, Pa. 19104
PHONE: Area Code 215-382-2204

A Revision of the Genus *Micropentila aurivillius* (Lepidoptera: Lycaenidae) (Bull. Brit. Museum Entomol. 15, No. 11). H. Stempffer and N. H. Bennett. British Museum (Natural History). London, 1965. 38 pp. Illus. Plates. Paper, 25s.

A Revision of the Nodini and a Key to the Genera of Eumolpidae of Africa, Coleoptera: Eumolpidae (Bull. Brit. Museum Entomol. 16, No. 3). B. J. Selman. British Museum (Natural History). London, 1965. 34 pp. Illus. Paper, 14s.

Scientific Research in British Universities and Colleges, 1964-65. vols. 1 and 2. vol. 1, *Physical Sciences* (388 pp. £1 17s. 6d.) vol. 2, *Life Sciences* (422 pp. £2). Sponsored by the Department of Education and Science and the British Council. Her Majesty's Stationery Office, London, 1965. Paper. Contains brief notes on scientific research in progress in British universities and associated institutions, colleges of advanced technology, national colleges, regional technical colleges in England and Wales, and in equivalent colleges in Scotland and Northern Ireland.

Studies on the Atlantic American Pipefishes with Descriptions of New Species (Proc. 32, No. 12). Earl S. Herald. California Acad. of Sciences, San Francisco, 1965. 13 pp. Paper.

A Study of the Diurnal Squirrels, Sciurinae, of the Indian and Indochinese Subregions (Fieldiana Zool., 48). Joseph Curtis Moore and George H. H. Tate. Chicago Natural History Museum, Chicago, 1965. 351 pp. Illus. Paper, \$10.

Surface Active Agents: Their Extraction, Characterisation and Determination. Maurice Bell. Glovers, Leeds, England, 1965. 24 pp. Illus. Paper, 5s.

A Systematic Revision of the Ameninae, Diptera: Calliphoridae (Bull. Brit. Museum Entomol. 16, No. 2). R. W. Crosskey. British Museum (Natural History). London, 1965. 118 pp. Illus. Paper, £1 15s.

Technical and Economic Status of Magnesium-Lithium Alloys. A report to industrial and defense management (NASA Sp-5028). Paul D. Frost. Natl. Aeronautics and Space Administration, Washington, D.C., 1965 (order from Superintendent of Documents, Washington, D.C.). 51 pp. Illus. Paper, 25¢.

Tooth Terminology and Variation in Sharks, With Special Reference to the San Shark, *Carcharias taurus* Rafinesque (Los Angeles County Museum Contrib. Sci., No. 86). Sheldon P. Applegate. Los Angeles County Museum, Los Angeles, Calif., 1965. 18 pp. Illus. Paper.

Upper Cambrian Trilobite Faunas of Northeastern Tennessee (Smithsonian Misc. Collections 148, No. 3). Franco Rasetti. Smithsonian Institution, Washington, D.C., 1965. 150 pp. Plates. Paper, \$3.

Variation and Systematics of the Scincoid Lizard, *Eumeces egregius* (Baird) (Bull. Fla. State Museum Biol. Sci. 9, No. 5). Robert H. Mount. Florida State Museum, Gainesville, 1965. 31 pp. Illus. Paper, 55¢.

World Guide to Science Information and Documentation Services. UNESCO, Paris, 1965. 211 pp. Paper.

SENSATIONAL ... ONLY \$250

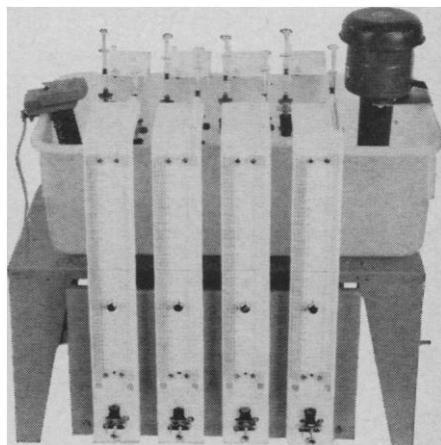
MACALASTER'S LOW-PRICED WARBURG for respiration studies.

Think of it! At only \$250, Macalaster's Warburg teaches the identical principles as advanced \$2,600 instruments. Now undergraduate and graduate students can really **work** with and understand the Warburg techniques of respiration studies.

It is durable. Dependable. Solidly-built. Offers 0.1 μ l precision and sensitivity. Deliberate "Open Construction" design dynamically illustrates what is happening.

The unit, completely assembled, includes shaker, bath, eight manometer assemblies, plus two sets of replacement glassware, and manometer stand.

56980 Warburg Apparatus, complete \$250



Write for complete data.



MACALASTER SCIENTIFIC CORPORATION
60 Arsenal Street • Watertown, Massachusetts 02172

SPORES—FERNS MICROSCOPIC ILLUSIONS ANALYZED

• • •

Book now available

580 pages, approx. 1150
illustrations including
color plates

Basic 3-D structure—
tetrad spore types,
their paths of development
Focal levels organized
for easy reference

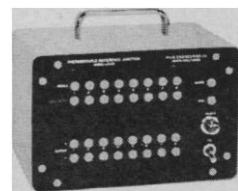
Exhibit: Background material
for book—models, silhouette
shadows, photomicrographs

Booth No. 72 AAAS Convention

• • •

MISTAIRE LABORATORIES
152 Glen Avenue
Millburn, N.J. 07041

PACE



MODEL
LRJ43

New LABORATORY THERMOCOUPLE REFERENCE JUNCTION No Ice—No Cooling

- Ice Point Reference Temperature. No refrigeration or ice bath maintenance.
- Portable, self-contained.
- May be operated at ambient temperatures below 32°F.
- Provides a precise, stable temperature reference in applications involving up to eight thermocouple temperature measurement channels.
- Weighs only 7 pounds.
- DC and Rack mount models also available.

Write for complete PACE catalog.

PACE
engineering company
13035 Satcoy St. North Hollywood, California
TRiangle 7-0727 TWX 213-765-5299