

PERSONNEL PLACEMENT

CLASSIFIED: Positions Wanted. 25¢ per word, minimum charge \$4. Use of Box Number counts as 10 additional words. Payment in advance is required.

COPY for ads must reach SCIENCE 2 weeks before issue date (Friday of every week).

DISPLAY: Positions Open. Rates listed below—no charge for Box Number. Rates net. No agency commission allowed for ads under 4 inches. No cash discount. Minimum ad: 1 inch. Ads over 1 inch will be billed to the nearest quarter inch. Frequency rate will apply only to repeat of same ad. No copy changes. Payment in advance is required except where satisfactory credit has been established. Send copy for display advertising to SCIENCE, Room 1740, 11 West 42 St., New York 36.

Single insertion \$50.00 per inch
4 times in 1 year 48.00 per inch

For PROOFS on display ads, copy must reach SCIENCE 4 weeks before date of issue (Friday of every week).

Replies to blind ads should be addressed as follows:

Box (give number)
SCIENCE
1515 Massachusetts Ave., NW
Washington 5, D.C.

POSITIONS WANTED

Biologist, M.S., female; 4 years' experience in histology, cytology, tissue culture, and cytogenetics; publications. Desires research position. Box 227, SCIENCE. X

Instrument Engineer, extensive experience micro, optical, electro-mechanical, photo fields, seeking steady position with institution or manufacturer. Will build/develop special research instruments. Box 229, SCIENCE. X

Medical Biologist, Ph.D. tumor cell biology, virology, tissue culture. Experienced research, teaching, administration. Senior position. Box 223, SCIENCE. 11/2

Pharmacologist-Toxicologist-Administrator with international and stateside industrial and academic experience. Willing to serve overseas. Available June 1963. Seeking position which demands ingenuity and offers challenge. Box 226, SCIENCE. X

(a) **Ph.D. Biochemist** (organic, physical chemistry, physiology), strong industrial background in R&D, administration; prefers life sciences, fermentation, foods areas. (b) **Ph.D. Genetics, Physiology, Nutrition, Statistics** background; interested in teaching/research. (Please write for information regarding these and other scientists, senior and junior, in all fields; nationwide and very active service.) Science Division, The Medical Bureau, Inc., Burnice Larson, Chairman, 900 N. Michigan Avenue, Chicago 11, Illinois. X

Teacher, college or university, male; Ph.D. botany (microbiology, plant biochemistry). Strong background in chemistry; major in education; 8 years of teaching experience and 15 years of industrial experience. Box 228, SCIENCE. X

POSITIONS OPEN

Associate Director wanted for clinical laboratory. Established 7 years. Excellent volume of business. Doing routine and "advanced" diagnostic procedures. Prefer minimum of M.S. or equivalent in biological science or chemistry plus experience. Investment required. Good salary plus share of profits.

Box 222, SCIENCE

BIOLOGIST

B.S. or M.S. to participate in program of chemotherapy of neoplastic and viral diseases. Strong background in either virology, tissue cell culture, or general microbiology desirable. Excellent benefits. Salary open. Equal opportunity employer. Send complete résumé to Personnel Director, Bristol Laboratories, P.O. Box 657, Syracuse 1, New York.

POSITIONS OPEN

BIOCHEMIST-PHYSIOLOGIST

An expanding midwestern pharmaceutical company has opportunity for Ph.D. biochemist-physiologist to conduct fundamental research related to atherosclerosis and/or obesity. Post-doctoral experience preferred. An equal opportunity employer. Please send complete resume to

Technical Employment Coordinator
The Upjohn Company
Kalamazoo, Michigan

CLINICAL CHEMIST

320-bed hospital associated with well-known diagnostic clinic desires clinical chemist, preferably Ph.D. level, to supervise chemistry section of clinical laboratory, develop and introduce new procedures, and participate in teaching and research program. Salary open.

Box 224, SCIENCE

CLINICAL BIOCHEMIST

wanted in a 500-bed general voluntary hospital with well-equipped and staffed laboratories performing most tests. Good income and opportunity for research if desired. Write giving full details about yourself to—

Director of Pathology, The Toledo Hospital
2142 North Cove Blvd., Toledo 6, Ohio

CLOUD PHYSICS RESEARCH

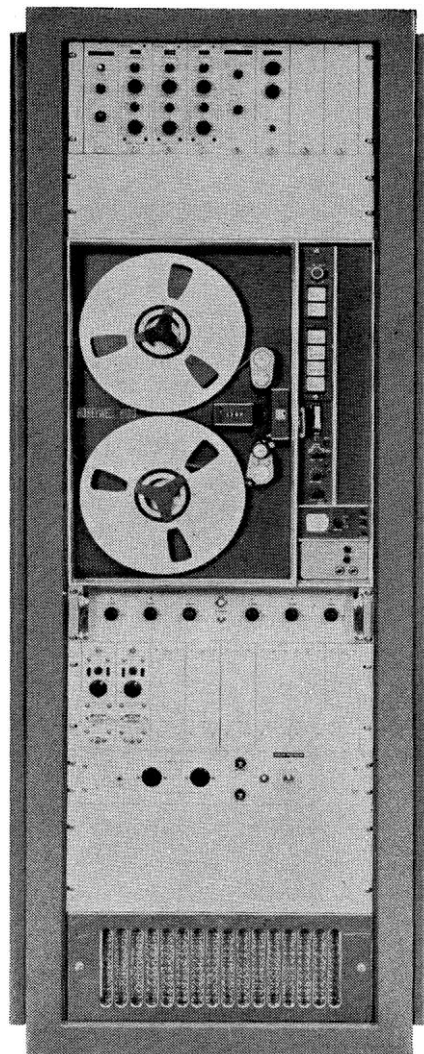
The Division of Radiophysics, Commonwealth Scientific and Industrial Research Organization, Sydney, Australia, seeks well-qualified physicist to participate in cloud-seeding program. This division, led by Dr. E. G. Bowen, has an international reputation as a leader in cloud physics research.

Applicants should have an advanced science degree and postgraduate research experience preferably in some field related to cloud physics. The work includes laboratory research and flying in many parts of Australia. Flying experience is not essential, but applicants should be physically fit.

Apply by 16 November 1962 to Australian Scientific Attaché, 1907 K Street, NW, Washington, D.C., from whom further particulars can be obtained. X

INVESTIGATOR FOR CHEMOTHERAPEUTIC RESEARCH with parasitological, immuno-pathological, or pharmacological background. Send résumé to Head, Department of Experimentel Therapeutics, Instituto Venezolano Investigaciones Científicas, Apartado 1827, Caracas, Venezuela.

(a) **Pharmacologist**; Ph.D. to dir screening, pharm eval new chemical entities; report to rsrch dir, prog, medium-sized pharm mfr; min \$15,000, substan fringe benefits; E. (b) **Biochemist**; Ph.D., M.D. biochem backgrd; reqs able clinician, expd hsp lab supv; dir lge staff techs, privately owned corp doing referral work on nationwide basis; vicin \$14,000; ideal SW loca. (c) **Bacteriologist**; M.S. to hd dept, very lge. renowned MW hsp; vicin \$7500; lge mfg, indus city. (d) **Microbiologist**; pref M.S., Ph.D., exten rsrch, dev exper, prod, test control in veterinary, human biol prod co; to \$10,000; also (e) **Production Bacteriologist**; pref M.S., Ph.D., expd prod anaerobic products for human, animal use; excel poten for advancement; to \$8500; MW pharm. co. (f) **Biochemist**; Ph.D. pref to hd dept, 350-bd vol gen hsp; \$12,000; lovely agr area, SE coastal locale. (g) **Physiologist**; Ph.D. expd cardiovascular or renal physiol or endocrinol; outstanding rsrch inst; coastal loca. (h) **Pharmacologist**; reqs sev yrs exp exptl pharm, also some trng indus pharm; screen new chem for pharm activities, compar evaluation, related resp; outstanding pharm co; substan income; E. Science Division, Woodward Medical Personnel Bureau, Ann Woodward, Director, 185 North Wabash Avenue, Chicago 1, Illinois. X



NEW HONEYWELL RECORDER MATCHES YOUR PRESENT INSTRUMENTATION

Our ads on the preceding two pages describe the use of the new Honeywell 8100 for medical data acquisition. We show you the instrument in its rack mount simply to emphasize that, in addition to its portability and handsome appearance in its metal case, the 8100 is just the right size (and weight) to fit conveniently into any standard instrumentation rack (size, 18" x 23" x 10"; weight, 75 lbs.).

Write for brochure to Honeywell, Electronic Medical Systems, Denver 10, Colo.

Honeywell



Electronic Medical Systems

POSITIONS OPEN

UNIVERSITY OF MELBOURNE Senior Demonstrator in Botany

Applications are invited for the position of Senior Demonstrator in Botany (plant physiology). It is desirable that the successful candidate should take up duties as early as possible in 1963.

The successful applicant will be expected to assist in the planning of and in demonstrating courses in plant physiology given in second- and third-year courses.

The present salary range is £A1400 to £A1600 per annum. Initial salary will be determined by the appointee's research and teaching qualifications.

Conditions of appointment and further information may be obtained from F. H. Johnston, Registrar, University of Melbourne, Parkville, N.2, Victoria, Australia, and applications should reach him as soon as possible but not later than 30 December 1962.

Protein chemist, Ph.D. for research position in Department of Medicine at Mid-western university, with opportunity for independent work. Rank and salary depend on qualifications. **Box 230, Science.**

PROTEIN CHEMIST (Ph.D.): To collaborate in research on plasma proteins in chronic diseases. About \$9000.

NEUROCHEMIST (M.S. or equiv.):—For research on brain tissue in sphingolipidoses. About \$7000. Modern university—Affiliated research institute in New York City area. Send résumé to **Box 219, SCIENCE.**

MELPAR'S

expanding Research Division has immediate need for Key Personnel to conduct research in the following areas:

- PHARMACOLOGY
- VIROLOGY
- TISSUE CULTURE
- MICROBIOLOGY

Current programs cover the challenging problems of the future. These problems are in the fields of Space Biology, Electrobiol-ogy, and Culture Biology.

Applicants with experience desired, but new graduates will be considered.

Write in strictest confidence to:

John Haverfield

Manager—Professional Placement



MELPAR, INC.

A Subsidiary of
Westinghouse Air Brake Company

**3357 Arlington Blvd.
Falls Church, Virginia**

(a suburb of Washington, D. C.)
An equal opportunity employer

POSITIONS OPEN

(a) **Ph.D. Pharmacologist**, CNS experience; medical research; East. (b) **Bacteriologist**, M.S. plus, charge of hospital section; Midwest; \$7500 up. (c) **Ph.D. Biochemist**, clinical, eastern hospital. **1963 Faculty Appointments:** (d) **Bacterial Physiology**, eastern university; February reporting. (e) **Biochemistry**, recent Ph.D., metabolism training; western medical school. (f) **Ph.D. Zoologist/Physiologist**, background in areas of embryology, cytology, or histology, northeastern university. (g) **Ph.D. Pharmacologist**, southern medical school. Please write Science Division, **The Medical Bureau, Inc., Burneice Larson, Chairman**, 900 North Michigan Avenue, Chicago 11, Illinois. X

PUBLISHING OPPORTUNITY

Do you like to travel and make new friends? Are you tired of being chained to a desk? Do you have a college background in the biological sciences? We have an outstanding position with an excellent future for this kind of man in our expanding textbook department. Write or call **Leonard A. Batterson, The C. V. Mosby Company**, 3207 Washington Blvd., St. Louis 3, Mo.

Specialists in Physics, Mathematics, Electronics, and Engineering Sciences needed for analysis and documentation of current research development. Requires interest in and comprehension of latest research developments and trends. Opportunity for experience in new fields of scientific documentation and information exchange. Salaries open. Send résumés to the Director, **Science Information Exchange, Smithsonian Institution**, 1825 Connecticut Avenue, Washington 9, D.C. X

VIROLOGIST

Challenging opportunity for B.S.-level researcher with several years' experience in virology particularly as related to the respiratory system. Should be familiar with tissue culture studies.

Please apply in writing C. K. Fetzer

SCHERING CORP

Mfr. of Fine Pharmaceuticals
60 Orange St.—Bloomfield, N.J.
an equal opportunity employer

ZOOLOGISTS, Ph.D.

Experience preferred. Background in general zoology, anatomy, cytology, genetics and cytogenetics. Some graduate teaching; research. Roman Catholic university. New science building. Write and include résumé to Chairman, Department of Biology,

Villanova University
Villanova, Pa.

FELLOWSHIPS

NATIONAL RESEARCH COUNCIL OF CANADA POSTDOCTORATE FELLOWSHIPS, 1963-64

Approximately 120 fellowships will be awarded for 1963-64 by the National Research Council. Of these, 40 will be tenable in National Research Council laboratories in Ottawa, Saskatoon and Halifax; 15 in laboratories in the Department of Agriculture, located at various centers; 15 in laboratories of the Department of Mines and Technical Surveys in Ottawa and Victoria; 5 in the laboratories of the Department of National Health and Welfare in Ottawa; 8 in the laboratories of Atomic Energy of Canada Limited; and 40 in laboratories of Canadian universities.

Applicants should not be more than 35 years of age and should possess a Ph.D. degree from a recognized university, or expect to obtain such a degree before taking up an award. (Candidates having equivalent research experience may be considered.) There are no restrictions regarding nationality of applicants, but successful candidates must meet all Canadian immigration requirements.

The annual stipend, which is free of income tax, is \$4000 for single fellows and \$5000 for male fellows who are married. An allowance toward the cost of travel is also paid.

The fields in which fellowships are available, in the laboratories of the National Research Council, the Department of Agriculture, and the Department of Mines and Technical Surveys, are described in greater detail in booklets that may be obtained on request, together with application forms. Applicants who are interested in fellowships in the universities may write directly to these institutions, or to the National Research Council for information. The fields of interest should be stated in the initial inquiry in order that appropriate information may be supplied. The closing date for the competition is 15 January 1963.

Inquiries should be addressed to **Awards Officer, National Research Council, Ottawa 2.**

The Market Place

BOOKS AND MAGAZINES

SCIENTIFIC JOURNALS WANTED

Sets, Runs and Volumes bought at top prices. Your wants supplied from our Back Files of over 3,000,000 periodicals. **Abrahams Magazine Service N. Y. 3, N. Y.**

Your Book Published

If we think your manuscript has unusual possibilities, we will publish it on a straight royalty or partial subsidy basis. Send manuscript for free editorial report or write for Brochure sx. **Pageant Press, Inc. 101 Fifth Avenue, New York 3, N.Y.**

Your sets and files of scientific journals

are needed by our library and institutional customers. Please send us lists and description of periodical files you are willing to sell at high market prices. Write Dept. A3S, **CANNER'S, Inc.** Boston 20, Massachusetts

PROFESSIONAL SERVICES

Consultation and Research since 1922

E Food and **D** Drug **R** Research **L** Laboratories
Maurice Avenue at 58th Street New York City TWINING 4-0800
TOXICOLOGY
PHARMACOLOGY
BIOCHEMISTRY
BACTERIOLOGY
NUTRITION
BERNARD L. OSER, Ph.D. Director

WHERE EXPERIENCE COUNTS

LABORATORY SERVICES

Applied Research and Development, Testing and Consultation • Food, Feed, Drug and Chemical Analyses, Animal Studies, Pesticide Screening, Pesticide and Additive Residue Analyses

For price schedule and specific work proposals, write

WARF

P. O. Box 2217 • Madison 5, Wisconsin

SUPPLIES AND EQUIPMENT

Now taking orders for:

INBRED

**C3H+ C3H— AKR A C57BL C58
BALB/c DBA/2**

FI Hybrid of any of the above strains bred on request

RANDOM BRED

**TIMCO SWISS MICE
and YALE SWISS MICE**

Contact us for information about producing your nucleus of inbred and random bred strains.

TEXAS INBRED MICE CO.

305 Alameda-Genoa Rd.; R.F.D. 7, Box 1232-C
Houston 36, Texas

YOU NEED THIS FREE CATALOG FOR YOUR FILES

Serums, antiserums and bloods of all kinds for technicians and tissue culture laboratories. No salesman will call.

COLORADO SERUM CO.

4950 York St. • MA in 3-5373 • Denver 16, Colo.

SPRAGUE-DAWLEY, INC.

Pioneers in the development of the
STANDARD LABORATORY RAT.

P.O. Box 2071

Madison, Wisconsin

CE 3-5318

Recent AAAS Symposium Volumes

#72. Spermatozoan Motility.

1962. 322 pages. 113 illustrations.
 Edited by: David W. Bishop.
 For the first time the details of sperm motility are here presented in monograph form. A wealth of previously unpublished data. A valuable source of reference for the student and investigator, as well as for the practitioner of applied reproductive biology.

Retail Price: \$7.50. AAAS Member's Cash Price: \$6.50.

#71. Great Lakes Basin.

1962. 320 pages. 92 illustrations.
 Edited by: Howard J. Pincus.
 The reader will find here material on pure and applied science, accounts of new research and reviews of material published elsewhere, historical and social studies, and pleas for action and planning.

Retail Price: \$7.50. AAAS Member's Cash Price: \$6.50.

#70. Fundamentals of Keratinization.

1962. 202 pages. 136 illustrations.
 Edited by: Earl O. Butcher and Reidar F. Sognaes.
 The fields of anatomy, dentistry, dermatology, medicine, pathology, and zoology are represented in this volume.

Retail Price: \$6.50. AAAS Member's Cash Price: \$5.75.

#69. Biophysics of Physiological and Pharmacological Actions.

1961. 612 pages. 212 illustrations.
 Edited by: Abraham M. Shanes.
 A bird's-eye view of a number of principles now considered important. Useful for teaching, as well as for research purposes.

Retail Price: \$13.50. AAAS Member's Cash Price: \$11.75.

#68. Sciences in Communist China.

1961. 884 pages. 23 illustrations.
 Edited by: Sidney H. Gould.
 "... strongly recommended to all who are in search of facts and source material on the sciences in China."—*Science*, 22 September 1961

Retail Price: \$14.00. AAAS Member's Cash Price: \$12.00.

#67. Oceanography.

1961. 2nd printing, 1962. 665 pages. 146 illustrations.
 Edited by: Mary Sears.
 "I know of no other volume that so well defines oceanography, its purpose, opportunities and requirements."—*Science*, 9 June 1961

Retail Price: \$14.75. AAAS Member's Cash Price: \$12.50.

#66. Germ Plasm Resources.

1961. 394 pages. 59 illustrations.
 Edited by: Ralph E. Hodgson.
 "This book will be of interest to nonplant and animal breeders, for the rather general treatment of various topics . . . allows for rapid perusal."—*Bulletin of the Entomological Society of America*, September 1961

Retail Price: \$9.75. AAAS Member's Cash Price: \$8.50.

#65. Aging . . . Some Social and Biological Aspects.

1960. 436 pages. 65 illustrations.
 Edited by: Nathan W. Shock.
 "The 26 contributors include many of the most respected names in American gerontology, and the chapters cover a wealth of material."—*Journal of Gerontology*

Retail Price: \$8.50. AAAS Member's Cash Price: \$7.50.

#64. Calcification in Biological Systems.

1960. 526 pages. 283 illustrations.
 Edited by: R. F. Sognaes.
 "Those interested in current concepts of mineralization of calcified tissues will find in this text the sources of current knowledge on the subject."—*American Journal of Orthodontics*, May 1961

Retail Price: \$9.75. AAAS Member's Cash Price: \$8.50.

#63. Congenital Heart Disease.

1960. 372 pages. 147 illustrations.
 Edited by: Allan D. Bass and Gordon K. Moe.
 "Should serve as a valuable and concise summation of the more important aspects of congenital heart disease."—*American Journal of Cardiology*, August 1961

Retail Price: \$7.50. AAAS Member's Cash Price: \$6.50.

British Agents: Bailey Bros. & Swinfen, Ltd., Hyde House, West Central St., London, W.C.1

Clip out this form. Fill in and Mail Today

Circle Volumes
 You Wish To
 Order . . .

72 71 70
 69 68 67
 66 65 64
 63
 \$

Payment
 Enclosed

American Association for the Advancement of Science
 1515 Massachusetts Avenue, NW
 Washington 5, D.C.

Please send the symposium volumes circled on this form, to:

Name:

Address:

City: Zone: State:

Please check:

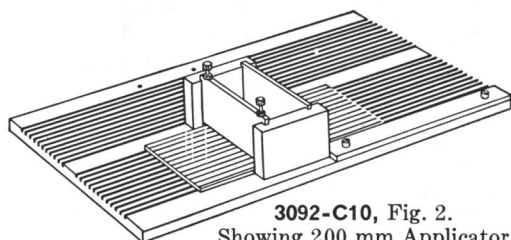
() I am a member of AAAS, and enclose payment for the volumes indicated at member prices. () \$ enclosed.

() I am not a member of AAAS. () Please bill me.

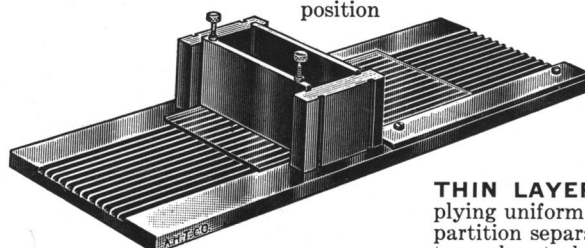
() Please send Membership Application Form.

Thomas announces two models of...

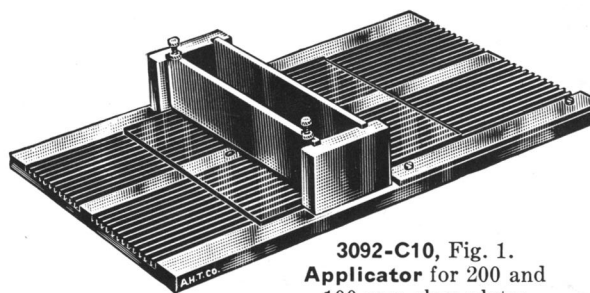
CAMAG Apparatus for THIN LAYER CHROMATOGRAPHY



3092-C10, Fig. 2.
Showing 200 mm Applicator
with 100 mm gates in
position

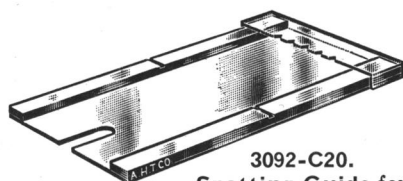


3092-C.
Applicator for 100 mm
glass plates



3092-C10, Fig. 1.
Applicator for 200 and
100 mm glass plates

- Extends adsorption chromatography to ultramicro samples
- Speed of separation, 30 to 60 minutes
- Developing, drying, and activating can be done with standard tanks, jars and ovens



3092-C20.
Spotting Guide for
100 mm glass plates

THIN LAYER CHROMATOGRAPHY APPARATUS, Camag. For applying uniform coatings of inorganic materials to glass plates for adsorption or partition separation of 0.5 to 500 microgram samples following paper chromatography techniques. Consists of Applicator, Spotting Guide, and Plate Rack. Standard glass plates are 100 × 200 mm and 200 × 200 mm. See E. G. Wollish, M. Schmall, and M. Hawrylyshyn, *Analytical Chemistry*, Vol. 33, p. 1138 (1961).

Technique. Plates are coated, placed in rack and dried, and stored in a desiccator. Adsorption coatings are heated for activation. Samples are applied by pipet, using the spotting guide, and ascending chromatograms are developed.

Applicators. Of aluminum. Guide rail aligns side of plate with slurry trough opening. Free sliding gates form back and front of trough. Adjustment screws in exit gate control the coating thickness. Now offered in two models:

Model A—Takes plates 100 × 200 mm, or plates 90 mm wide by reversing the slotted endpieces of the trough. Overall 15¼ × 6 × 3 inches high.

Model B—Adjustable to take plates either 200 mm or 100 mm wide—see Fig. 1 and Fig. 2 above. Overall 15¼ × 9¼ × 3 inches high.

Spotting Guides. Of transparent plastic. Take plates 100 mm or 200 mm wide, respectively. Notches permit pipet to be applied at points 15 mm apart, 25 mm from end of plate.

Plate Rack. For convenient handling and storage of coated plates in ten perforated aluminum trays, each taking one 200 mm or two 100 mm plates.

3092-C. Applicator, Camag Model A, 100 mm, with one pair each of 90 and 100 mm gates and 0.3 mm coating gauge but without glass plates or coating materials. 90.50

3092-C10. Ditto, Camag Model B, for 200 or 100 mm plates; with one pair each 100 and 200 mm gates. 106.50

3092-C20. Spotting Guide, 100 mm, with five notches for applying samples to 100 mm coated plates. 15.25

3092-C25. Ditto, 200 mm, with eleven notches for applying samples to two 100 mm or one 200 mm coated plate. 20.50

3092-C30. Plate Rack, consisting of ten trays each taking one 200 or two 100 mm plates, with detachable wire handles. In metal box with close fitting cover. 32.15

3092-C50. Glass Plate, 100 × 200 mm × 2¼ mm thick; with ground edges.25
10% discount in lots of 12; 20% discount in lots of 72

3092-C60. Ditto, but 200 × 200 × 2¼ mm thick.40
10% discount in lots of 12; 20% discount in lots of 72

Copy of Bulletin 3092-C, giving more detailed information—including Adsorption Reagents for TLC—sent upon request



ARTHUR H. THOMAS COMPANY

Scientific Apparatus and Reagents

VINE STREET AT 3RD • P. O. BOX 779 • PHILADELPHIA 5, PA., U. S. A.