Electroghoretic pattern of patho.
logical human serum with slightly
elevated $\alpha_1$ globulin in diethyl
barbiturate buffer at pH 8.6.

- Small, compact, easy to operate.
- A highly precise analytical instrument.
- Augments chemical methods for plasma analysis.
- Separates and analyzes enzymes, hormones, viruses and similar materials.

The Perkin-Elmer Model 38 Tiselius Electrophoresis Apparatus is a compact instrument which incorporates the valuable features of the Tiselius method without excessive cost, large size or difficulty of operation. It uses a Tiselius cell of 2 cc capacity in parallel light to give electrophoresis patterns $3\frac{3}{4}'' \times 1\frac{3}{4}''$. The optical system is based on Longsworth's scanning modification of the Toepler schlieren method.

For complete information write The Perkin-Elmer Corp., Dept. 67, Glenbrook, Connecticut.

The complete instrument is preassembled in a single unit (63'' x 12'' x 12'') focussed and ready for operation.
Biology of Drosophila
Edited by M. Demerec
Contains a detailed treatment—the work of experts in the fields covered—of the anatomy, histology, and development of Drosophila melanogaster. Ready in July, approx. 572 pages, prob. price, $10.00.

Introduction to Parasitology
By A. C. Chandler
A good distribution of emphasis on all phases of parasitology—protozoology, helminthology, and medical entomology—marks this new edition of a standard work. 8th edition. Ready in Sept., approx. 572 pp., prob. $6.00.

Organic Reactions, Volume V
Editor-in-Chief, R. Adams
Another volume in the popular series which covers reactions from the preparative viewpoint. Cyanoethylation, the synthesis of acetylenes, and selenium dioxide oxidation are among the new reactions included. Ready in June, prob. price, $6.00.

Boron Trifluoride and Its Derivatives
By H. S. Booth and D. R. Martin
All the information on boron trifluoride gathered up to January 1, 1948. The book holds particular interest for research chemists concerned with condensation and polymerization reactions in which boron trifluoride is used as a catalyst. Ready in June, approx. 296 pages, prob. price, $5.00.

Heterocyclic Compounds, Volume I
By R. C. Elderfield
Suitable for use in graduate courses in the chemistry of heterocyclic compounds, this book is the only comprehensive treatise on the subject available in any language. In Press.

Outlines of Biochemistry
By the late R. A. Gortner. 3rd edition edited by R. A. Gortner, Jr. and W. A. Gortner
The fundamental organic and physiochemical reactions for both plant and animal organisms are stressed in this edition. 3rd edition, Ready in May, approx. 1074 pages, prob. price, $7.50.

Advanced Organic Chemistry
By G. W. Wheland
Designed for students who have had previous training in both elementary organic chemistry and elementary physical chemistry. Emphasis is placed upon the theoretical and empirical generalizations that have been found widely applicable. Ready in Sept., approx. 762 pp., prob. $8.00.

Introduction to Radiochemistry
By G. Friedlander and J. W. Kennedy
Written specifically for chemists and suitable for introductory courses. A knowledge of physics is assumed. Subject matter includes tracer chemistry, organic chemistry, and nuclear chemistry. Ready in June, approx. 350 pages, prob. price, $5.00.

A Laboratory Book of Elementary Organic Chemistry
By A. Lowy and W. E. Baldwin
Especially suitable for pre-medical, pre-dental, and pharmacy students, this laboratory book contains two-part experiments. The first gives the laboratory directions for preparations, properties, or tests. The second part consists of problems for the student. 3rd edition, May 1949, approx. 280 pages, prob. price, $3.00.

Electronic Interpretations of Organic Chemistry
By A. E. Remick
Two new chapters on contributions from the field of stereochemistry and the mechanism of oxidation reduction reactions are included in this new edition. 2nd edition. Ready in July, approx. 630 pp., prob. $7.00.

Quantitative Organic Analysis via Functional Groups
By S. Sigga
The only book which deals with quantitative organic analysis via the functional groups on the molecule. Numerous laboratory procedures included. Ready in May, approx. 137 pages, prob. price, $3.00.
PHYSICS

Acoustic Measurements
By L. L. Beranek
Discusses the properties of acoustic media and the more important factors relating to objective measurements in these media. Ready in September.

Introduction to Luminescence of Solids
By H. W. Leverenz
Introductory chapters give the essential elementary information required to understand the chemistry, crystallography, and physics of phosphors. In Press.

Photoelectricity and Its Application
By V. A. Zworykin and E. G. Ramberg
New details on the multiplier phototube, the image tube, the measurement of small photocurrents, and light beam signaling and infrared detection are features of this volume. April, 1949, 494 pages, $7.50.

MATHEMATICS

Introduction to the Theory of Probability and Statistics
By N. Arley and K. R. Buch
For all students and scientists for whom probability with its applications to statistics, theory of errors, and theory of adjustment is a necessary tool for their main studies. In Press. Approx. 253 pp., prob. $4.00.

Some Theory of Sampling
By W. E. Deming
Describes up-to-date techniques in social and economic surveys and measurement of the physical characteristics of manufactured and bulk materials. Most of the subject matter deals with the applications and adaptations of theory. Ready in Sept., approx. 554 pages, prob. price, $9.00.

Contributions to Mathematical Statistics
By R. A. Fisher
A collection of mathematical papers and scientific material comprises this book. In Press. Approx. 582 pp., prob. $7.00.

Analytic Geometry and Calculus: A Unified Treatment
By F. H. Miller
Correlates the two subjects of analytic geometry and calculus. Especially valuable for engineering or science students where a unified treatment entailing early introduction of differential and integral calculus is desired. Ready in May, approx. 612 pp., prob. $11.00.

Differential Equations
By H. W. Reddick
This greatly revised second edition contains a new chapter on linear equations of second orders. Also included are methods of solving original differential equations and problems. 2nd edition. Ready in June, approx. 280 pp., prob. $3.00.

Higher Algebra for the Undergraduate
By M. J. Weiss
Introduces higher algebra by treating some of the simpler algebraic concepts. Such topics as groups, rings, fields, ideals, and matrices are treated. Ready in June, approx. 171 pages, prob. price, $3.75.

EARTH SCIENCES

Principles of Structural Geology
By C. M. Nevin
A new chapter on solution of problems that arise in the preparation of reports is included in this fourth edition. The book discusses deformations of the earth as simply as possible and is a well rounded discussion of the entire field of geology. 4th edition. Ready in April, 410 pages, prob. $6.00.

PSYCHOLOGY

Elmton's Youth: The Impact of Social Classes on Adolescents
By A. B. Hollingshead
A study of social stratification in American communities as typified by "Elmton." It reveals that an adolescent's class position influences his chances in life, the way adult's treat him, and his attitudes and beliefs. Ready in April, 480 pages, prob. $3.50.

AGRICULTURE

Fertility & Hatchability of Chicken and Turkey Eggs
L. W. Taylor, Editor
The first book of its kind in the field. Emphasis is placed on those phases of fertility and hatchability which are of primary importance in actual poultry breeding or hatchery operation. Ready in June, approx. 406 pages, prob. price, $5.00.

JOHN WILEY & SONS, Inc., 440 Fourth Ave., New York 16, N. Y.
NATIONAL SPECTROGRAPHIC LABORATORIES, INC.

Announces a New ANALYTICAL SERVICE

After several years research in the development of "quantitative" analytical methods, N.S.L. now offers workers in the agricultural and medical fields... an analytical service making quantitative analysis of plants and biological samples for their mineral elements.

Plants . . . Animal Tissues . . . Body Fluids . . . for
Sodium Magnesium Phosphorus Manganese
Potassium Copper Iron Lead
Calcium Zinc Boron Molybdenum
and others.

ADVANTAGES:
Small samples—Simultaneous multiple determinations—Highly accurate trace determinations.

WRITE . . . for detailed information concerning analysis of materials pertaining to your research or routine control problems.

NATIONAL SPECTROGRAPHIC LABORATORIES, INC.
6290 EUCLID AVENUE, CLEVELAND 3, OHIO.

HELLIGE GLASS ELECTRODE

The Hellige pH-Meter embodies RELIABILITY, VERSATILITY and SIMPLICITY. Under rigorous conditions, after rough transportation, or in the hands of untrained personnel, the instrument is always ready for accurate determinations equaling those of delicate "laboratory-only" apparatus. It is also applicable for measuring Oxidation-Reduction Potentials and all other EMF up to 1.2 volts. The Standard Model permits measurements with a precision to 0.05 pH unit and 0.005 volt, the Range Control Model to 0.01 pH and 0.001 volt. The self-contained instrument can be used anywhere.

WRITE FOR BULLETIN No. 7040-A

HELLIGE INCORPORATED
3718 NORTHERN BLVD. LONG ISLAND CITY 1, N.Y.

Books published under the auspices of the Committee on Physical Sciences of the University of Chicago

THE FACE OF THE MOON
By RALPH B. BALDWIN. An examination of the processes which have been suggested to account for the strange surface of the moon—the lunar craters, rays, mountain ranges, and lava flows. Illustrated, Indexed, $5.00

THE ATMOSPHERES OF THE EARTH AND PLANETS

At all bookstores

THE UNIVERSITY OF CHICAGO PRESS
5750 Ellis Ave., Chicago 37, Illinois
INTRODUCTION TO COLLEGE GEOLOGY
By Chauncey D. Holmes
Associate Professor of Geology, University of Missouri
This new book for one-semester courses in elementary geology introduces the student to the whole field. It stresses the general educational values of the science, as well as providing an adequate foundation for more advanced courses. Completely up to date, amply illustrated, it contains all the technical information usually required of the elementary student. To be published in May. $4.25 (probable)

GENERAL CHEMISTRY, Fifth Edition
By Harry N. Holmes
Professor Emeritus of Chemistry, Oberlin College
Famous for its wealth of descriptive material, the new fifth edition of this best selling chemistry text keeps pace with the rapid change in theory, and application to industry which has taken place since the previous edition. To be published in April. $5.00 (probable)

A LABORATORY MANUAL OF GENERAL CHEMISTRY, 5th edition will also be available this spring.

FUNDAMENTALS OF COMPARATIVE EMBRYOLOGY OF THE VERTEBRATES,
Revised Edition
By Alfred F. Huettner
Professor and Chairman of the Department of Biology, Queens College
Maintaining the same general plan of organization and morphological point of view, the revised edition of this popular text has been brought completely up to date. Two completely new chapters have been added; one on the histories and theories of development, and the other on the embryology of the mammal. The original drawings by the author are unsurpassed in biological textbooks. To be published in April. $5.50 (probable)

COLLEGE BOTANY
By Hylander and Stanley
This new text is designed for a full-year course in general botany. Part I discusses the individual plant and its life problems, using a woody green plant to introduce the student to the basic facts of plant morphology, histology, and cell structure and function; Part II deals with plants as groups in our large vegetation complex. To be published in May. $6.00 (probable)

C. J. HYLANDER is the former Chairman of the Botany Department, Colgate University; ORAN B. STANLEY is Associate Professor of Botany, Colgate University.

THE MACMILLAN COMPANY 60 Fifth Avenue New York 11
TAYLOR COMPARATORS

Offer 6 Major Advantages

- ECONOMY—One base can be used for many determinations—all slides are low in cost.
- SPEED—Only a minute is needed for many tests.
- CONVENIENCE—From authoritative colorimetric comparisons—all color standards for any one determination enclosed in one plastic slide.
- ACCURACY—Taylor Liquid Color Standards carry an unlimited guarantee against fading.
- SIMPLICITY—eliminates nuisance of handling delicate, single color standards.
- DURABILITY—sets are molded of strong plastic—lightweight—portable.

TAYLOR SETS ALSO AVAILABLE FOR BLOOD AND URINE TESTING

VALUABLE BOOKS FREE

Write for "pH and Chlorine Control"—96 pages of valuable information for anyone concerned with testing process liquids, boiler water, etc... or ask for Taylor Medical Set booklet. Both describe latest methods and available Taylor sets.

The Fundamentals of College Chemistry

G. Brooks King, Professor of Chemistry
The State College of Washington
William E. Caldwell, Professor of Chemistry and Chemical Engineering, Oregon State College

This clear, concise treatment of the fundamentals of general chemistry fills the very real need for a text that can be covered readily in the nine-months’ college year.

A balanced treatment of theory and technique

A Textbook of Qualitative Analysis
(Using the Semimicro Method)

William Buell Meldrum, Professor of Chemistry, Haverford College
Albert Frederick Daggett, Professor of Chemistry, University of New Hampshire
INTRODUCTION TO STATISTICAL MECHANICS


This is an advanced text for graduate students of physics and chemistry. Against a background of atomic physics, the book presents a study of the behavior of large groups of particles, and shows how the behavior of matter in bulk follows directly from the properties of the individual atoms. The author has devised ingenious methods whereby the student is enabled to grasp the basic principles and the nature of partition functions. Each step in the argument is clearly explained, and a large number of diagrams included.

NATURAL HISTORY OF MARINE ANIMALS

By G. E. MacGinitie, California Institute of Technology, and Nettie MacGinitie. 462 pages, $6.00

A practical, simple, yet thoroughly scientific treatise on the ocean as an environment, and of the natural history phenomena of the animals which live there. Topics include the food available to ocean animals, sense organs, luminescence or phosphorescence, specific habitats, rates of growth, age limits, burrowing and its advantages, variations of individuals and species, etc. The authors then take up the animal kingdom by groups, systematically presenting information under such headings as food and methods of feeding, locomotion, respiration, reproduction, enemies, etc. The excellent illustrations are a feature of the book.

FIELD MANUAL OF PLANT ECOLOGY


Gives directions for exercises and experiments which will enable the student to amass data that can be used to describe various types of vegetation, and also enable him to study individual plants in relation to their environment. The use of "quadrats" and other recent sampling methods is described, and a chapter is devoted to the organization of papers based on field research. Basic directions for suggested exercises are given with unusual simplicity and exactness.

TEXTBOOK OF HISTOLOGY

By José F. Nonidez, late Professor of Anatomy, Cornell University and University of Georgia, and William F. Windle, Professor of Anatomy, University of Pennsylvania. Ready in spring

This is a text for students who are studying histology for the first time. It achieves complete coverage of the field of histology, concentrating on practical fundamentals rather than little-used details. An excellent collection of original drawings and diagrams and specially prepared photomicrographs is an outstanding feature of the book and will afford the student an invaluable aid in his study of the fundamental tissues and organs. The material is clearly and interestingly presented in a straightforward style that makes the book highly readable and easy to understand.

Send for copies on approval
Exposure Determination in Photomicrography

by direct light measurement in plane of image

PHOTOVOLT Electronic Photometer MOD. 512
Also suitable for spectrophotometry, densitometry of spectrographs and X-ray diffraction negatives, measurement of luminescence and fluorescence, ultraviolet radiation and absorption.

Now available with interchangeable search units, for infra-red, visible, ultraviolet as far as 200 millimicrons.

Write for literature
PHOTOVOLT CORP.
95 Madison Ave. New York 16, N.Y.

GLASS ABSORPTION CELLS made by KLETT

Makers of Complete Electrophoresis Apparatus
SCIENTIFIC APPARATUS

Klett Manufacturing Co.
179 East 87 Street, New York, New York
When you work with live animals, you can eliminate one big variable by feeding uniform Purina Laboratory Chow. Here's a ration made with a formula as standard as lab equipment, as constant as the best lab techniques, bag after bag, everywhere across the nation. That's why more and more research workers are standardizing on Purina Laboratory Chow. They can depend on it from year to year on their own projects, and they can rely on comparisons with other research scientists who use it on similar problems throughout the country. Try Purina Laboratory Chow...a standard you can count on.

RALESTON PURINA COMPANY
St, Louis 2, Mo.

NYSSCO-GLO
BIOLOGICAL MODELS
A New Attractive Feature Added to Our Everlasting Rubber Models

After extensive research and experimentation, we have succeeded in attaining spectacular results with models colored with specially prepared luminescent paints. When such models are exposed to near-violet light (black light), detailed parts become amazingly clear, glowing vividly and brilliantly, and becoming visible in all parts of the room, even in diffused light. A model so demonstrated holds the observer's attention as no other visual aid of its kind has ever done before, marking another great advance since we pioneered with the manufacture of rubber biological models just prior to the last war.

These models really must be seen to be fully appreciated.

Ask for a copy of our new Cat. No. 7J—
"Nyssco-Latex Biological Models and Biology Charts"

Est. 1919
NEW YORK SCIENTIFIC SUPPLY CO.
28 W. 30th St. New York 1, N. Y.
Personnel Placement

CHARGES and REQUIREMENTS for "PERSONNEL PLACEMENT" Ads

1. Rate: 15¢ per word, minimum charge $3.00 for each insertion. If desired, a "Box Number" will be supplied, so that replies can be directed to SCIENCE for immediate forwarding. Such service counts as 8 words (e.g., a 25-word ad, plus a "Box Number", equals 33 words). All ads will be set in regular, uniform style, without display; the first word only, in bold face type.

For display ads, using type larger or of a different style than the uniform settings, entirely enclosed with separate border rules, the rate is $15.00 per inch; no extra charge for "Box Numbers".

2. Advance Payment: All Personnel Placement ads, classified or display, must be accompanied by correct remittance, made payable to SCIENCE. Insertion can not be made until payment is received.

3. Closing Date: Advertisements must be received by SCIENCE, 1515 Mass. Ave., N.W., Washington 5, D.C., together with advance remittance, positively not later than 14 days preceding date of publication (Friday of each week).

POSITIONS WANTED

Bacteriologist: Geneticist: veterinary degree; six years experience in bacteriological production and research desires teaching or research position in East. Box 56, SCIENCE.

Biochemist: Ph.D., summer 1949; organic minor. Young man. Desires academic position with opportunity for research, teaching and industrial experience. Principal interests in nutrition and proteins. Box 111, SCIENCE.

Biochemist: Ph.D., M.D., 43, medical school teaching, biochemical research experience, twenty publications. Desires research or academic position in East. Box 112, SCIENCE.

Biologist: M.A., Columbia; Ph.D. course requirements essentially completed. Experience anatomical subjects, physiology, cytology, embryology. Desire teaching allowing research toward doctorate. Box 121, SCIENCE.

College Teacher: Ph.D., experienced in meeting large classes in Genetics, Botanical subjects and Cytology; will consider temporary appointment. Available September. Box 116, SCIENCE.

Electrical Engineer: three years' experience in medical electronics, desires position in medical or industrial research. Box 45, SCIENCE.

Physician: Ph.D., wishes teaching position in physics with opportunity and facilities for research in anthropology. Box 124, SCIENCE.

Psychologist: Man, 31, Ph.D., desires position in academic, scientific, or personnel administration. Box 119, SCIENCE.

Science editor: B.A., M.S., Ph.D. (Parasitology); although engaged full-time for ten years as professor of zoology, has devoted considerable time to editing scientific material; for further information, please write Burneice Larson, Medical Bureau, Palomlve Building, Chicago.

POSITIONS OPEN

Anatomists: Attractive positions open in a progressive state university school of dentistry, excellent salaries and opportunities for advancement and research, rank and salary open. Young men with Ph.D. degrees preferred, give full details. Can interview at the Philadelphia meetings. Box 123, SCIENCE.

Assistant Research Director: A newly established, well endowed and equipped laboratory for work for animal and clinical research needs a man with training in biochemistry or physiology to assume supervision of research program. Present program electrolyte and metabolism. Opportunity for investigation in research for man with initiative. Small city, eastern state, adequate salary. Box 120, SCIENCE.

Personnel Placement

POSITIONS OPEN

Biochemist: A.B. or B.S., major in chemistry, plus four years' experience in organic or inorganic chemistry in laboratories of academic, clinical, or commercial institution. Simultaneous work toward Ph.D. degree is possible. Duties include organic chemistry. Beginning salary $3450. Apply Associate Director, Division of Laboratories and Research, State Department of Health, Albany, N.Y., New York.

Botany: Graduate Assistantships for September 1949. $400 or $500 per semester, tuition waived on 8 units. Write for application blanks and information to Dept. of Botany, University of Southern California, Los Angeles.

Positions Open:
(a) Biochemist: advantageous if particularly well trained in analytical chemistry; understanding of pharmacological research desirable; faculty appointment, university, department of pharmacology; Middle West. (b) Fellow in zoology research on histology, embryology and physiology of developing larv; able microtechnician trained in histology or cytology required; $4000, 11-month year. (c) Organic chemist or technician superintendent with considerable experience in manufacture of sulfanilamide; biological manufacturing company; satisfactory salary, possibility of interest in firm. (d) Bacteriologist: research laboratories of dairy organization; problems not limited to this field, however; preferably some one qualified to become group leader. (e) Biochemist trained in physiological sciences; research involving aspects of brain metabolism utilizing radioactive material; university department of psychiatry. 5-1 Burneice Larson, Medical Bureau, Palomlve Building, Chicago.

Research Opportunity: A well trained research worker is required to conduct experiments in the biological aspects of 25 mev X-rays and electrons. A Betatron at the University of Saskatchewan is available. Applicant should be capable of independent research and, therefore, must have had previous experience in radio-biological research. The appointment is for a minimum of two years. Salary by arrangement. Further information may be obtained from: Dr. T. A. Watson, Director, Cancer Clinic, City Hospital, Saskatoon, Saskatchewan, Canada.

Spectroscopist—Excellent opening for an experienced band spectroscopist with good theoretical background to carry out direct fundamental spectroscopic studies relating to combustion processes. Publications encouraged. Salary open. Write: Personnel Administrator, Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, California, giving details of training, experience, publications, and professional references.

Young Woman: Ph.D., Biochemistry and Human Nutrition. Publications. Professorship, University. - Time divided teaching, research, Head Division. Box 122, SCIENCE.

The Market Place

LANGUAGES

LINGUAPHONE MAKES LANGUAGES EASY

At home learn to speak Spanish, Portuguese, Italian, French, German, Russian, by quick easy Linguaphone Conversational Method. Save time, work, money. Linguaconverse Correspondence Course is available to Veterans under GI BILL OF RIGHTS. Send for free book. State if GI. LINGUAPHONE INSTITUTE, 84 Rca Bldg., New York 20, N. Y.

BOOKS

WANTED—Copies of 7th Edition—of AMERICAN MEN of SCIENCE

and 1942 Edition of

DIRECTORY OF AMERICAN SCHOLARS

Please state the condition of book.

THE SCIENCE PRESS

Lancaster, Pa.

Your lists and descriptions 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 manner and company, 905 Boylston Street, Boston 15, Massachusetts.
**The Market Place**

**CHARGES and REQUIREMENTS**

for "MARKET PLACE" Ads

1. **Rate:** 20¢ per word for classified ads, minimum charge $5.00 for each insertion. Such ads are set in uniform style, without display; the first word, only, in bold face type.

For display ads, using type larger or of a different style than the uniform classified settings, and entirely enclosed with separate rules, rates are as follows:

- Single insertion $16.00 per inch
- 7 times in 1 year $14.50 per inch
- 13 times in 1 year $13.00 per inch
- 26 times in 1 year $11.50 per inch
- 52 times in 1 year $10.00 per inch

2. **Payment:** For all classified ads, payment in advance is required, before insertion can be made. Such advance remittances should be made payable to SCIENCE, and forwarded to:

   H. M. CHEMICAL COMPANY, LTD.
   144 North Hayworth Avenue
   Los Angeles 36, California

3. **Closing Date:** Classified advertisements must be received by SCIENCE, 1515 Massachusetts Avenue, N.W., Washington 5, D.C., together with advance remittance, positively not later than 14 days preceding date of publication (Friday of every week).

For proof service on display ads complete "copy" instructions must reach the publication offices of SCIENCE, 1515 Massachusetts Avenue, N.W., Washington 5, D.C., not later than 4 weeks preceding date of publication.

**BOOKS**

**OUT-OF-PRINT** and HARD-TO-FIND books supplied. All subjects, all languages. Also incomplete sets, collected, genealogies and town histories, all magazine back numbers, etc. Send us your list of book-wants—no obligation. We report quickly. Lowest prices.

(We also supply all current books at bookstore prices postpaid)

**AMERICAN LIBRARY SERVICE**

117 West 48th St., Dept. 222, New York 19, N. Y.

P.S. We also buy books and magazines. Send us your list.

**WANTED TO PURCHASE:**

**SCIENTIFIC PERIODICALS**

Sets and runs, foreign and domestic

**SCIENTIFIC BOOKS**

Entire libraries and smaller collections

WALTER J. JOHNSON

125 East 23rd Street, New York 10, N. Y.

Send us your Lists of

SCIENTIFIC BOOKS AND PERIODICALS

which you have for sale.

Complete libraries; sets and runs; and single titles are wanted. Also please send us your want lists.

**STECHERT-HAFNER, INC., 31 East 10th Street, New York 3.**

**PROFESSIONAL SERVICES**

**FOOD RESEARCH LABORATORIES, INC.**

Founded 1922

Philip B. Hawk, Ph.D., President

Bernard L. Oser, Ph.D., Director

RESEARCH—ANALYSES—CONSULTATION

Biological, Nutritional, Toxicological Studies for the Food, Drug and Allied Industries

48-14 33rd Street, Long Island City 1, N. Y.

Write for descriptive brochure

**AMINO ACID and PROTEIN ANALYSIS**

by microbiologi methods. Research problems on contract basis.

SHANKMAN Laboratories, 2023 South Santa Fe Ave., Los Angeles 21, California.

**The Market Place**

**SUPPLIES AND EQUIPMENT**

**TRANSPARENT PLASTIC BOXES**

For keeping specimens in orderly arrangement. These unique boxes provide maximum visibility, protection and convenience.

Write for leaflet TPB-S

R. P. CARGILLE, 118 Liberty St., New York 6, N. Y.

**GLYCOCYAMINE—Hydroxyproline, L-Methionine**

- **AMINO ACIDS**
- **BIOCHEMICALS**
- **PRE-MIXED MICROBIOLOGICAL ASSAY MEDIA**

H. M. CHEMICAL COMPANY, LTD.

144 North Hayworth Avenue

Los Angeles 36, California

**ROGER® CAMERA®**

for time-lapse cinematography as used in many well-known institutions, here and abroad, for the study of slow processes. MICRO-CINEMA. EQUIPMENT. TIMER

ROLAB Photo-Science Laboratories, Sandy Hook, Conn.

*Formerly with Dr. Alexie Carrel.*

**META-MAGNET**

New a.c. electromagnet attracts aluminum, copper, lead, gold, etc. Half dollar jumps appreciable distance to reach this device. Has selective action—attract or repel coins etc. Also attracts iron. Patent 

**#2400869.** For 115 volts 60 cycles. Price $41.50 prepaid in U. S. Send orders or request for folder to META-MAGNET ASSOCIATES, P. O. BOX 3664, ORLANDO, FLORIDA.

**ALBINO RATS—15,000; SWISS MICE—10,000; HAMSTERS—Shipped anywhere, anytime and guaranteed. Department "S"**

THE ALBINO FARMS, P. O. Box 331, Red Bank, New Jersey.

**All Amino Acids** (natural, synthetic, unnatural), Rare Sugars, Biochemical Products, Reagents, New Pharmaceutical substances and other chemicals in stock. Write for complete price list.

**BIOS LABORATORIES, INC.**

607 West 43rd Street, New York 18, N. Y.

Write for Copy of NEW Catalog No. 7. on High-Quality Filter Papers

SCHLEICHER & SCHELL CO.

118 West 14th St.

New York 11, N. Y.

**Crystalab's ULTRA-SONORATOR**

a Practical, Easy to operate, High Intensity Ultrasonic Generator for Studies and Research in the Fields of Chemistry, Bio-Chemistry, Plant and Animal Physiology, Medicine, Genetics, etc.

Specialists in Ultrasonic and Supersonic Crystals

Science Electronic Instruments

CRYSTAL RESEARCH LABORATORIES, INC.

29 Allyn Street

Hartford, Conn.

**S PRING BOOK ISSUE**

APRIL 22nd—Don't miss it!

The Spring Book Issue will contain a considerable number of reviews of some of the most significant recent books, prepared by distinguished leaders in their respective fields, with detailed listings of all recent titles which have been received by SCIENCE for review. This annual feature number is always one of the most popular and most frequently referred to issues of the entire year, so don't miss it—send your advertising copy now!
THE MATHEMATICAL ANALYSIS OF LOGIC

By G. BOOLE

Published a century ago, and now extremely scarce, George Boole’s monograph on the Mathematical Analysis of Logic has never hitherto been reprinted. Yet by general agreement it was this short work which first set on a scientific basis the mathematization of logic (‘symbolic logic’), and thus prepared the way for the formal study of the foundations of pure mathematics itself. Before the discoveries of this self-taught genius, ideas in these fields had been toyed with only by the rarest intellects: since he wrote, they have rapidly become a leading interest of the most advanced schools of mathematicians and philosophers.

The fame of the monograph has grown steadily, but has been perhaps unfairly overshadowed by that of Boole’s own Laws of Thought—larger, later and more readily available. Boole himself, however, preferred the earlier work, and recent critics have increasingly come to share his opinion. Only lately, the Analysis has been made a set book for study at Oxford University.

It contains, more or less fully fledged, all the leading ideas of the Calculus of Classes, together with a clear recognition of the all-important truth that the symbolism of the calculus can be freely interpreted in a wide variety of ways, being in fact a purely abstract and formal method of deriving consequences without regard to interpretation. Boole himself interprets it also as applying to the truth-values of propositions (Calculus of Propositions), besides indicating its possibilities as a two-valued algebra and in the algebraising of probability theory. For the first time in the history of philosophy he clearly grasped such fundamental and now familiar concepts as the null-class, truth-function and normal form. $3.75

At Your Bookstore, or Order Direct:

PHILOSOPHICAL LIBRARY, Publishers
15 East 40th Street, Dept. Z, New York 16, N. Y.
(Expedite Shipment by Enclosing Remittance)

Application Notes on Use of INTERFERENCE FILTERS

Apparatus: optical bench, light source, lens, screen, set of 3 Baird Associates Interference Filters.

Note: this filter set comprises a red, a yellow, and a blue filter. The narrow transmission bands of these filters in the red, yellow and blue regions permit precise focusing for accurate chromatic aberration demonstration. Measurements can be made with sufficient precision to interest the advanced student. Also allows use of incandescent lamp in place of mercury arc. This filter set is extremely useful in demonstration lectures on elementary physics, and in college optics courses.

These filter sets, manufactured for Baird Associates, Inc. by Evaporated Metal Films Corp., Ithaca, N. Y., are available for delivery from stock at a net price of $48.00 per set.

Send orders directly to

Baird Associates, Inc.
INDUSTRIAL PHYSICISTS
33 University Road Cambridge 38, Mass.
CONTROL CONTAMINATION!

The improved SU-3 Laboratory Monitor is a requirement for contamination control in the properly operated radioactivity laboratory. It is a counting rate meter with three scales of 200, 2,000, and 20,000 counts per minute, and has a loudspeaker to give audible indication of detected radiation. The use of a thin mica window Geiger tube permits detection of even the lowest energy beta emitters.

Checking laboratory glassware used in tracer experiments for an adequate decontamination.

Surveying bench tops and laboratory hoods even for low energy emitters such as C-14 and S-35.

Monitoring laboratory coats and workers' hands to check on external radiation and to prevent the possibility of ingesting radioactive materials.

Continuous monitoring of background counting rate to detect unexpected fluctuations which might affect precise radioassays or cause health hazards.

Laboratory Monitor with TGC-1 Geiger Tube (3-4 mg/cm² mica window) ........ $285.00
With TGC-2 Geiger Tube (less than 2 mg/cm² mica window) .............. $310.00
Write for Bulletin 15-S.
TRY the new No. 78 Spencer Scholar’s Microscope just once. You’ll be amazed that a precision scientific instrument can be so simple to operate. Excellent images are obtained with the high quality Spencer optics supplied on this microscope. Crisp, clear images necessitate proper illumination. This is supplied by an efficient built-in light source eliminating substage adjustments and providing constant, uniform illumination. A single adjustment for both rapid and critical focusing saves time and effort. Low overall height and reversed position of microscope arm permit better posture, clearer view of stage, and easier, more convenient operation. Locked-on optics and stage clips reduce breakage and loss of parts.

The No. 78 is the ideal instrument for many routine laboratory and teaching applications. Standard model with 10X eyepiece and two objectives, 10X and 43X, costs only $99.50. For literature or the name of your nearest AO distributor, write American Optical Company, Scientific Instrument Division, Buffalo 15, New York, Dept. RI.

Makers of Microscopes for over 100 Years