B&L Microscope
GGBET

Inclined Binocular Body Tube Vertical Monocular with draw tube included. Integral square mechanical stage. Substage complete with centering condenser mounting and decenterable iris diaphragm. Rack and pinion coarse adjustment and lever type, side fine adjustment.

For the CAREFUL Research Microscopist

Bausch & Lomb type G Research Microscopes are well known for the excellence of their optical and mechanical performance; their superior stability, balance and rigidity. Because these features simplify and expedite work in microscopy, many research workers prefer B&L Research Microscopes.

You can obtain a G Type Bausch & Lomb Microscope equipped with accessories that adapt it to your particular work.

Whatever your microscope requirements may be, you will find a Bausch & Lomb Microscope to fulfill them. Write for complete details to Bausch & Lomb Optical Co., 642 St. Paul St., Rochester, N. Y.

BAUSCH & LOMB

FOR YOUR EYES, INSIST ON BAUSCH & LOMB EYEWEAR, MADE FROM BAUSCH & LOMB GLASS TO BAUSCH & LOMB HIGH STANDARDS OF PRECISION

Entered as second-class matter July 18, 1923, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.
• ANATOMY  • Journals of The Wistar Institute of Anatomy and Biology merit your careful examination.
• ANTHROPOLOGY  • Contributed to and edited by outstanding scientists in the respective fields.
• MORPHOLOGY  • ZOOLOGY
• NEUROLOGY
• NUTRITION
• PHYSIOLOGY

Authoritative!  Informative!
Invaluable to the scientist and research worker!

For further information, address The Wistar Institute of Anatomy and Biology Woodland Avenue and Thirty-sixth Street Philadelphia, Pa.

SURVEY OF PHYSICAL SCIENCE FOR COLLEGE STUDENTS
McCorkle

Clarity and definiteness characterize this successful text. It is intended for a three-hour foundation course in physical science for freshmen.

Laboratory experiments suitable for classroom demonstration or for individual work are provided. Some outstanding features are the Star Maps, and a teachable presentation of Radioactivity; Polaroid; Television; Lighting; Modern Synthetic Chemistry; Acoustic Treatment of Lecture Halls.

"The work is well planned, and the method of interlinking historic data with the general subject matter is to be commended. It is profusely illustrated with diagrams and pictures."—From review in Journal of Franklin Institute.

273 Illus. 471 Pages. $2.75
By Paul McCorkle, Ph.D., State Teachers College, West Chester, Pa.

THE BLAKISTON COMPANY, Philadelphia

MAMMALIAN GENETICS
BY WILLIAM E. CASTLE

Professor Castle here provides an introduction to the study of heredity in that branch of the animal kingdom with which most persons are best acquainted and which includes the domestic animals and man himself. Major discoveries of basic principles of heredity have in recent times been made on that ideal animal for genetic study, the fruit fly, Drosophila; most of these discoveries are valid also for mammals and can be verified in breeding experiments with mammals. This is an ideal text for students in high schools, junior colleges, and agricultural colleges. A laboratory manual is available.

189 pages. 128 illustrations. $2.00
(Laboratory Manual, 40 cents)

HARVARD UNIVERSITY PRESS
CAMBRIDGE, MASSACHUSETTS
VITAMIN-FREE CASEIN

Uniform and consistent depletion of test animals occurs well within the required time interval, as specified by U.S.P. or other standard test methods, when General Biochemicals' Vitamin-Free Casein is used as a constituent in diets for the assay of fat-soluble or water-soluble vitamins.

Vitamin-Free Casein is prepared in General Biochemicals' Laboratories by a special extraction process which insure a completely vitamin-free product. Each package bears a control number that identifies the protocol showing rigid biological assay, control of uniformity and freedom from all complicating vitamin factors.

We invite you to try this reliable source of protein in your next biological investigation. It is offered in convenient size packages (1-5-25-100 lbs.) at reasonable cost.

Completely prepared diets for U.S.P. assays are also available. Write for current price list of crystalline vitamins and biochemicals of nutritional interest.

GENERAL BIOCHEMICALS, INC.
Division of S.M.A. Corporation
418-J REPUBLIC BUILDING, CLEVELAND, OHIO
★ S. Chapman and T. G. Cowling

THE MATHEMATICAL THEORY
OF NON-UNIFORM GASES

A complete account of the mathematical theory of gaseous viscosity, thermal conduction and diffusion. Eucken's methods are used, but with a simpler exposition of the theory. Later chapters describe recent work on dense gases, on the quantum theory of collision and on the theory of conduction and diffusion in ionized gases in the preservation of electric and magnetic fields. "A most excellent book."—Science News Letter $7.50

★ R. H. Fowler and E. A. Guggenheim

STATISTICAL THERMODYNAMICS

This book is a version of R. H. Fowler's STATISTICAL MECHANICS, adapted for students of Physics and Chemistry. The theory is developed as nearly as may be parallel to Thermodynamics so as to be a complementary presentation of that subject. No exposition making full use of a priori evaluations of thermodynamic functions has hitherto been attempted. "A remarkable achievement."—Nature $9.50

★ Bernard Lewis and Gunther von Elbe

COMBUSTION, FLAMES AND EXPLOSIONS OF GASES

A comprehensive treatment of the chemistry and kinetics of the combustion flame movement, and the state of the burnt gas. "The great virtue of this book is that the analyses of the problems involved are exact and specific. The book can be recommended to all who require a modern treatment of gaseous combustion processes."—Journal of Chemical Education $5.50
MR TOMPKINS IN WONDERLAND

Stories of c, G and h

By G. GAMOW $2.00

This is one of the most amusing books ever published about a serious subject, but it is more than amusing; it helps to a real comprehension of the basic theories of modern Physics.

“This charming volume is dedicated to Lewis Carroll and Niels Bohr. The mixed dedication serves to describe the spirit of the book to a paradoxical nicety. The problem the author had set himself was to mix classical nonsense with unclassical physics in order to produce a common sense account of such simple matters as relativity and quantum theory. The wonder of it all is that the reader somehow gets more sense out of the nonsense and more physics out of the fantastic than one would expect.”

New York Times Book Review

“If you want to get a real picture of what a scientist means when he talks about our expanding universe, or the redshift, or the strange behaviour of the atom, the book for you is MR. TOMPKINS IN WONDERLAND.”

Book of the Month Club News

“Mr. Tompkins’s fantastic adventures are not only entertaining but they help the reader build up in his mind a clearer concept of those problems under consideration.”

The Springfield Republican

“If like this reviewer, you had difficulty studying physics in the long ago, this book is the answer to your three-dimensional dreams.”

The Philadelphia Record

Ask to see MR TOMPKINS at your bookstore
ALL OVER THE WORLD
EASTERN

For PRECISION EQUIPMENT

LABORATORY STIRRERS
- 7 Variable Speed Models for Laboratory Use.
- All sizes for Industrial Service.
- Monel Metal Propellers.
- Precision Built Throughout.

WRITE FOR CATALOG

EASTERN ENGINEERING COMPANY
39 FOX STREET
NEW HAVEN, CONN.

TO MEET THE LATEST STANDARDS OF MILK ANALYSIS

Uniformity of temperature throughout the incubator is a vital factor in milk examination.

The A. P. H. A. recommends 37°C at all levels in the incubator, with a tolerance of + or - 1°C. That is more liberal than the tolerance of Castle Precision Incubators which have always operated with constancy of + or - 1/2°C and uniformity of + or - 1/8°C, under full load conditions.

They are easily maintained because of the efficient heat distribution and large reservoir of heat which features the castle incubator.

22 Gallons of warm water, accurately controlled, provide thousands of calories of reserve heat to quickly restore heat loss occasioned by opening of door. Heat is transmitted by interior radiation, rather than by convection, hence less variation throughout the loaded chamber. One thermometer is sufficient for accurate temperature measurements. Temperature inside incubator is unaffected by changes in room temperature, if below operating range.

Illustrated is Castle Incubator, Model 554 recommended for milk analysis by the agar plate method. Other models for various bacteriological applications and in various capacities are available. Write—

WILMOT CASTLE COMPANY
1212 UNIVERSITY AVENUE ROCHESTER, N. Y.
Efficiency at Low Cost

Ideal for routine testing, for replacement or as an auxiliary instrument, the improved Model "Cl" Centrifuge is of intermediate size, suitable for general laboratory work. High speeds may be obtained by using a conical head.

INTERNATIONAL

Improved Model "Cl" Centrifuge

The speed control is attached to the centrifuge and a portable stand may be added to make a mobile unit ready to plug into any wall receptacle. The base forms the frame of the motor which operates on either AC or DC and maintains allowable speeds varying between 1,800 and 3,300 r.p.m., depending upon the type of equipment used.

NEW Indicating Tachometer

The International Tachometer shows at a glance the speed at which your centrifuge is running for any setting of the rheostat and with it uniform and duplicate results can be secured. The speed range is from 0 to 6,000 in steps of 100 r.p.m. It is shown above mounted on a Model "Cl," the easy handling of which is in no wise impeded. For $18.00 this desirable instrument can be furnished with a new Model "Cl" Centrifuge or attached to any now in use.

There is an International for any job

INTERNATIONAL EQUIPMENT CO.
352 Western Avenue  Boston, Mass.
Makers of Fine Centrifuges

DUROLATEX MODELS

★ American made Durolatex Models are molded from specially treated, raw latex... are unbreakable... will not chip... are unaffected by moisture and temperature changes... are carefully designed to assure proper inclusion of detail, size and relative position of organs... are hand painted from originals with finest grade, washable ceramic enamels... 15 anatomical models are now available as well as models of the frog, crayfish, and perch.

Illustrated: DUROLATEX MODEL OF THE HUMAN TRUNK, HEAD AND SPINAL NERVOUS SYSTEM. This unusually complete model is exposed both front and rear and by means of its removable and dissectible organs 145 features of the cranial, naso-pharyngeal, thoracic, abdominal and pelvic cavities are reproduced and identified.

No. 91471—Durolatex Model of the Human Trunk, Head and Spinal Nervous System.

EACH $143.00

Write for free booklet,
“DUROLATEX MODELS OF HUMAN ANATOMY”

Chicago Apparatus Company
Science Laboratory Equipment
1735 North Ashland Avenue  •  Chicago, U. S. A.
For the Physiological Laboratory

Electrodes with Assembly for Adjustment

Flexible Electrode Holder with adjustments—one-fourth the actual size.

Electrodes. Detachable silver or platinum tips, quickly interchangeable. Handle and cord strongly and durably coupled.

Electrode Holder. A lead flexing arm supports the electrodes in a removable screw-clip. A binding screw fixes the arm within a tubular mounting-rod by slide adjustment. Thus the flexible lead wire can be promptly and inexpensively renewed.

Adjusting Clamp. Slow motion governed by a knurled head—swivel action by a set-screw.

Stand with Adjusting Screw. Rotation of post through 45° by an adjustment head operating on the semicircular base.

Each of these devices may be obtained separately.

The HARVARD APPARATUS COMPANY, Incorporated

Dover, Massachusetts
Recent Advances in Chemotherapy: Dr. M. L. Crossley

Lo, the Poor Whale!: Dr. Robert Cushman Murphy

Obituary:
Friedrich Emich, 1860–1940: Professor Joseph B. Niederl. Recent Deaths and Memorials

Scientific Events:
Publication of a New Physiological Journal in Scandinavia; Award of Guggenheim Fellowships; The Finney-Howell Research Foundation, Inc.; The Industrial Research Institute; The Bicentennial Week Celebration of the University of Pennsylvania

Scientific Notes and News

Discussion:

Scientific Books:

Reports:
The Engineering Foundation

Special Articles:

Scientific Apparatus and Laboratory Methods:
The Preparation of Purified House-dust Extracts: Professor Charlotte H. Boerner, Dr. B. G. Efron and Dr. R. I. Dorfman. A Labor-saving Technique for Leaf Samples in Histological Work: William E. Gordon

Science News

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. McKeen Cattell and published every Friday by THE SCIENCE PRESS

Lancaster, Pa.

New York City: Grand Central Terminal

Garrison, N. Y.

Annual Subscription, $6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary in the Smithsonian Institution Building, Washington, D. C.

RECENT ADVANCES IN CHEMOTHERAPY

By Dr. M. L. Crossley

DIRECTOR OF RESEARCH, CALCO CHEMICAL DIVISION, AMERICAN CYANAMID COMPANY

Two paintings, "The Alchemical Making of a Medicine in the 16th Century," by Michael Diemer, and the "Elixer of Life" by John A. Lomax, tell an inspiring story of man's belief that from chemical investigations would result new and potent drugs capable of combating diseases and alleviating human suffering. The discoveries of the past few decades in chemistry are encouraging evidences that the alchemist's dream is being realized. Chemical compounds having no counterparts in nature have been produced and shown to be effective therapeutic agents. A beginning has been made; new and important discoveries will follow. Man may confidently look forward to a time when he will have available the means of destroying the parasitic hosts that find access to his body and conspire to destroy him.

These agents of destruction are many. They are all about man. He is always on the defensive. His life depends upon the state of his preparedness for constant chemical warfare against both plant and animal invaders. He is attacked by worms; roundworms, hookworms, pinworms, other kinds of worms; protozoa, bacteria and viruses. They would convert him into a regular British Museum of infirmities, as Mark Twain once said. They invade his intestines, his muscles and his vital organs, producing diseases which reduce his efficiency and often deprive him of life. These disease-producing organisms are the "reds" of