The Roscoe B. Jackson Memorial Laboratory for Cancer Research burning early on the morning of October 24 as a bystander watches helplessly (see Science, October 31).

Fourth International Cancer Research Congress

E. V. Cowdry
**Welch 20 MICROAMP METERS**

**NEW D. C. PANEL METERS**

**DESIGNED**
especially for
the atomic
bomb
laboratories.

**USED**
in the war's
most startling
electronic
developments

**ADOPTED**
by research
and
production
as one of the
most sturdy,
sensitive
and
dependable
meters.

**SENSITIVE — RUGGED**

Standard Equipment for many Radiation Devices, these Rugged, High Sensitivity Precision Instruments are the product of many years' experience in building Electrical Measuring Instruments.

**OTHER MODELS AND RANGES ARE AVAILABLE.**

**WRITE FOR OUR METER CATALOG.**

**W. M. WELCH SCIENTIFIC COMPANY**

*Established 1880*

1515 Sedgwick St., Dept. E  Chicago 10, Ill., U.S.A.

Manufacturers of Scientific Instruments and Laboratory Apparatus
New (2nd) Edition—Written for the one-semester elementary course, Dr. Weatherwax’ finely-balanced text gives the student an exceptionally clear insight into life processes. This edition is up-to-date and beautifully illustrated. An entirely new discussion of auxins is given. There is new material on viruses, penicillin and streptomycin. New data on mineral absorption and fertilizers is found in the chapter on roots. The discussion of heredity now includes a review of plant breeding.

By Paul Weatherwax, Professor of Botany, Indiana University. 451 pages, with 380 illustrations on 190 figures. $4.25

New!—Active student interest in plant life will be stimulated when this manual is used in connection with any standard botany textbook. It is designed for courses with 30 to 36 laboratory periods of approximately two hours each. The plant materials required for the experiments were chosen for their availability and familiarity to the student. Instructors will find this manual unusual in its complete directions, in the thoroughness of its question and answer approach to each problem, and in the usefulness of its illustrations.

By Edward M. Palmquist, Ph.D., Professor of Botany, University of Missouri; and Loren C. Petry, Ph.D., Professor of Botany, Cornell University. 190 pages, illustrated. $2.25
CONTENTS

Fourth International Cancer Research Congress: St. Louis, September 2-7, 1947: E. V. Cowdry .......................... 479

Obituary
S. F. Light: T. H. Bullock ............... 483

News and Notes .......................... 485

Comments by Readers .................. 490

Technical Papers

The Influence of Heredity on the Carotene Content of Corn: L. W. Aurand, R. C. Miller, and L. L. Huber ...... 493

Enhancement of Penicillin Blood Levels Following Oral Administration of Caronamide:
Leo Loewe, Harold B. Eiber, and Erna Alturé-Werber 494

Experimental Determination of the Gyrofrequency:
• S. L. Seaton ................................ 496

In the Laboratory
Conversion of Isotopically Enriched CO₂ to CO: Richard B. Bernstein and T. I. Taylor .................. 498

A Kinesimeter for Studying the Spontaneous Activity of Small Animals: F. A. Waterman .................... 499

Book Reviews
Low-pressure laminating of plastics: J. S. Hicks.
Reviewed by J. M. Grim .................. 502

Concise anatomy: Linden F. Edwards.
Reviewed by Jean Piatt .................. 502

Advanced mathematics for engineers. (2nd ed.):
H. W. Reddick and F. H. Miller.
Reviewed by D. J. Struik .................. 502

(Cover photo by Press Association, Inc.)
Tracerlab FILM BADGE Service  
for  
RADIATION MONITORING  

Radiation Dosage Measurements now commercially available to Industry, Research, Medicine.

- Attractive plastic badges containing special type film and metal filters provides weekly measurements of radiation quantity and quality. Controls maintained by X-Ray and Gamma Ray calibrations.
- Accurate Radiation measurements.
- Low Cost.
- Weekly Radiation Reports.
- Complete Records Maintained.

WRITE FOR LITERATURE  
MONTHLY PUBLICATION TRACERLOG  
SENT FREE UPON REQUEST  

TRACERLAB, INC.  
55 OLIVER STREET, BOSTON 10, MASS.  

COMMERCIAL RADIOACTIVITY CENTER  
INSTRUMENTS • ISOPORE PROCESSING • TRACER ANALYSES • INDUSTRIAL APPLICATIONS • RESEARCH
"seeing is believing"

FREE DEMONSTRATION of the VU-GRAPH

BESELER'S amazing new overhead projector

We believe that the best way to convince you of the superior qualities of the Beseler VU-GRAPH is to let you see them for yourself—in action. That is why we are offering you a Free Demonstration—at no cost or obligation—of this unique overhead projector that enables you to project material—and face your students at the same time!

The VU-GRAPH will project any transparency. It will project opaque material in silhouette. It is the ONLY projector that uses a patented film—extremely inexpensive—that enables you to make your own stencil with pencil or typewriter. You can point, underscore and write on this film without turning away from your students. The transparency is clearly visible on the screen behind you—even in a normally lighted room.

Takes copy up to 7" x 7". Equipped with a precise anastigmat lens that delivers a sharp image over entire area.

Illumination — 500 watts. Rack and pinion focusing mount. AC-DC motor-driven fan, equipped with rheostat for increasing and decreasing speed.

Send Coupon Today for Free Demonstration of Beseler VU-GRAPH

Charles Beseler Company
243 EAST 23rd STREET • NEW YORK 10, N.Y.

The World's Largest Manufacturer of Opaque Projection Equipment
The water temperature will be just right for smooth, even spreading: never too hot or too cold. No melting paraffin to distort tissues; no folds or wrinkles. No bubbles due to frequent water change . . . temperature stays constant day in, day out. Bulletin 6320 gives particulars: send for it.

TECHNICON COMPANY, 215 E. 149th St., New York 51, N. Y.
THESE irons are excellent for light, medium and heavy soldering, for high-speed production line soldering and intermittent bench soldering. Every laboratory worker who buys one or more will be delighted with the speed, high efficiency, uniform performance and long-life that the G-E iron will give him in routine and research soldering operations.

1. Stainless steel (18-8) is used in the shell and other parts to reduce heat loss and to provide high corrosion resistance.

2. Low heat loss is assured by a dead-air space which serves as insulation between heat conductor and shell.

3. The heating unit is of the Calrod cartridge type, well insulated with magnesium oxide. It is located close to the working area of the tip to assure rapid and continuous heat transfer.

4. The carefully machined conical seat on the screw tips assures excellent conductivity from the tip holder.

5. The copper tips and heating surfaces are calorized to prevent oxidation and corrosion. The treatment retards corrosion which lengthens the life of the tip and prevents freezing of the tip threads.

Made in diameters of ½, ⅜, and ⅝ inches and wattages of 75, 100, 200, and 300. Write for descriptive information and prices.
“KAMATIK” LABORATORY HOT PLATE
Thermostatically Controlled
Immediate Delivery!

This thermostatically controlled heater, designed specifically for laboratory use, is most efficient and economical in operation. Maximum of 700 F. is reached from room temperature in 12 minutes and 200 ml. of water can be brought from room to boiling temperature in 5 minutes, evaporating completely in 20 minutes more. Maximum current consumption 500 watts.

The heating element is nickel-chromium alloy wire with moisture-proof covering and the positive bimetallic thermoregulator has heavy duty contact points. Indicating dial and knob provide seven settings from 100 to 700 F.

The 6” diameter top is non-warping cast aluminum. The hot plate has insulated legs and is so well ventilated that very little heat is reflected onto the table top. A clamp is also provided for attaching the heater to a support rod.

For operation on 110–120 volt A.C. only.

20002 “KAMATIK” HOT PLATE with clamp, 6 foot cord and plug $10.00

(A cordial invitation is extended to visit our exhibit in Booths 667 and 668 at the Chem Show in New York City, Dec. 1st to 6th inclusive.)

Complete descriptive literature available on request.

WILL CORPORATION

ROCHESTER 3, N. Y. NEW YORK 12, N. Y.
BUFFALO APPARATUS CORP., BUFFALO 5, N. Y.
SOUTHERN SCIENTIFIC COMPANY, INC., ATLANTA 3, GA.
Bausch & Lomb Gives You the New, Exclusive Variable Focus Condenser

Available only on New Bausch & Lomb Laboratory Microscopes AT NO EXTRA COST!

Upper and lower lenses of the B&L Variable Focus Condenser racked close together to focus illumination for the 4 mm objective. Note concentrated light cone.

Upper and lower lenses of the B&L Variable Focus Condenser separated to focus illumination for the 16 mm objective. Note the broadened cone of light.

Upper and lower lenses of the B&L Variable Focus Condenser focused for the 28 mm objective. Light rays are nearly parallel and field greatly enlarged.

YOU can adjust the focus of microscope illumination for all objectives from oil immersion to 48 mm with only one condenser on new Bausch & Lomb Laboratory Microscopes... as easily and quickly as you set your watch!

In the Bausch & Lomb Variable Focus Condenser, the upper element, of a two lens condenser of 1.25 N.A., is mounted stationary within the aperture of the microscope stage. The lower lens, with iris diaphragm, is centered in the rack and pinion substage. To change from a higher to a lower power objective you merely select the desired objective by revolving the nosepiece, and rack down the lower condenser element by turning the adjusting knob. Racking down increases the area of illuminated field, and decreases the numerical aperture of the illuminating beam. The three actual photographs below, showing the light rays focused in uranium glass, and the diagrams of the light path through the condenser lenses tell the story.

Write for complete details, available in Folder D-1003. Bausch & Lomb Optical Company, 642-K St. Paul Street, Rochester 2, N. Y.

BAUSCH & LOMB
OPTICAL COMPANY ROCHESTER, N.Y.

BAUSCH & LOMB
OPTICAL COMPANY ROCHESTER, N.Y.
from October 4 to December 27, 1946, and also includes reference to the German patents in chemistry, electronics, scientific instruments, photographic equipment and processes, and transportation equipment which were listed in the Bibliography during this period. The Index is elaborately cross-referenced, and each entry lists the file number of the report and the page number of the Bibliography where an abstract of the report may be found. The three volumes of the Index (35¢ each for Vols. 2 and 3, and 50¢ for Vol. 1), and the Bibliography, which is $10 a year, may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Orders should be accompanied by check or money order, payable to the Treasurer of the United States.

The 10th six-week course in the Laboratory Diagnosis of Parasitic Diseases will be given January 12–February 20, 1948, by the Laboratory Division of the Communicable Disease Center, U. S. Public Health Service, 291 Peachtree Street, Atlanta, Georgia. The course is given primarily for the Division's laboratory personnel and that of state and local public health departments, but applicants from hospitals and private laboratories will be gladly considered if there are vacancies. There is no tuition fee, but living and travel expenses must be assumed by the individual. Two other similar courses will also be given July 12–August 20, and October 11–November 19, 1948. Applications for all courses should be made as far in advance as possible. Notification of acceptance will be made about two months before each course begins so that states may have time to arrange budgetary allotments. Laboratory directors and senior staff members wishing to attend any of these courses may do so. However, it is proposed to schedule one or two short courses in the same subject for these individuals. Define dates for these two-week courses have not been set. Those interested should notify the Laboratory Division which of the following dates would be most suitable for them, giving first and second choice: March 8–19; May 10–21; and December 6–17, 1948.

The Building Research Station, Department of Scientific and Industrial Research, Great Britain, is making a thorough study of homes to discover the maximum comfort that can be achieved with a minimum amount of fuel, a project of great importance in Great Britain's present fuel crisis. Two large-scale experiments are being carried out. The first, which is concerned with thermal insulation of houses, is being undertaken on 8 specially built similar houses with identical heating systems but different types of insulation. Families have been living in the houses for more than a year while the experiments continue. The reverse conditions are present in the second experiment of 20 houses with similar insulation but different heating systems. In the initial part of each experiment, the houses are occupied only by a theoretical family consisting of four people. The amount of all in-coming and out-going heat is recorded, and 92 different electrical appliances are tested. In the second part of the experiment, real tenants continue recording the necessary data, but do not, of course, have to follow the pattern of the theoretical family. As the result of these experiments, it will be possible to deduce what appliances and methods of construction are best. It is already possible to give such advice on the basis of the initial laboratory experiments, but these must first be tested under actual living conditions before the results will be freely available to the building industry and the public.

The U. S. Atomic Energy Commission has appointed a Board of Consultants to help speed the development of atomic power plants and industrial opportunities in the atomic energy field. Chairman of the Board is James W. Parker, president and general manager, Detroit Edison Company. Other members include: O. E. Buckley, president Bell Telephone Laboratories, New York; Donald Carpenter, vice-president, Remington Arms Company, Bridgeport, Connecticut; Gustav Egloff, director of research, Universal Oil Company, Chicago; Paul Foote, executive vice-president, Gulf Research and Development Company, Pittsburgh; Robert G. Wilson, chairman of the Board, Standard Oil Company of Indiana, Chicago; and Walker Cisler, chief engineer of power plant, Detroit Edison Company, and consultant to the AEC, who will serve as executive secretary of the Board.

The Veterans Administration has established a Laundry and Textile Laboratory at Bedford, Massachusetts, Veterans Administration Hospital, which, by testing and evaluating supplies, preparing specifications and technical bulletins, developing proper and improved cleaning practices, conservation of textiles and determining their suitability to resist cleaning operations, and distributing a laundry test bundle for operation control purposes, will exercise technical control over the 100 hospital laundries and 20 hospital dry-cleaning plants now operated by the Veterans Administration throughout the country. Hubert C. Normile, formerly head, Chemical and Plastics Section, Research and Development Division, Philadelphia Army Quartermaster Depot, is technologist in charge of the new laboratory, which will later be located at the new Franklin Delano Roosevelt Hospital, now under construction at Peekskill, New York.

The National Registry of Rare Chemicals, 35 West 33rd Street, Chicago 16, Illinois, list the following wanted chemicals: benzyl hyponitrite; galactoflavan; di-o-pyridylamine; 3,4,5-trihydroxyxyanthen; coniferin; α-truxillic acid; β-truxillic acid; cis cinnamic acid; 3,5-dibromosalicylaldehyde; 2-methyl-3-hydroxy-4-pyrene, p,p'-dibutyldiphenyl sulfide; chlorogenine; digitogenine; methyl chloramine; ethyl chloramine; 2-pyridoline; 2-pyridilaldehyde; barium hypobromide; pyroartaric acid; brazan; mescaline; and eicosyl alcohol.

Make Plans for—

American Mathematical Society, November 28–29, Washington University, St. Louis, Missouri.

American Society of Mechanical Engineers, December 1–5, Challfante-Haddon Hall, Atlantic City, New Jersey.

National Council of Geography Teachers, December 27–29, Charlottes ville, Virginia.

American Society for Professional Geographers, December 27–30, Char lottesville, Virginia.


American Association for the Advancement of Science, 114th Meeting, December 26–31, Chicago, Illinois.