

land) as president-elect. The next International Cancer Congress will be held in the Soviet Union in 1962. In his closing speech the president of the present congress, Sir S. Cade, noted with pleasure the number of young scientists who had attended, saying he thought it augured well for the future.

ARNOLD E. REIF

*Department of Surgery,
Tufts University School of Medicine,
Boston, Massachusetts*

Notes

1. Application of Doll's findings of proportionality to Hammond's data suggests that smoking four cigarettes per day (about one-fourth the average cigarette consumption) will equal in effect the atmospheric pollution experienced in an average American city. It will therefore increase eightfold the low lung-cancer rate of rural nonsmokers, while doubling the rate for urban nonsmokers.
2. Checked by correspondence following the congress with authors of papers where any possible doubt of agreement existed.

Forthcoming Events

December

29-30. National Council of Teachers of Mathematics, New York, N.Y. (M. H. Ahrendt, NCTM, 1201 16 St., NW, Washington 6.)

29-17. Bahamas Surgical Conf., 1st, Nassau, Bahamas. (B. L. Frank, 1290 Pine Ave., W., Montreal, Canada.)

January

6. Society for Applied Spectroscopy, New York, N.Y. (P. Lublin, Sylvania Research Laboratories, Bayside, N.Y.)

7-9. Northeastern Weed Control Conf., 13th annual, New York, N.Y. (E. R. Marshall, Carbide & Carbon Chemical Co., New York, N.Y.)

12-14. Reliability and Quality Control, 5th natl. symp., Philadelphia, Pa. (W. T. Sumerlin, Philco Corp., 4700 Wissahickon Ave., Philadelphia 44.)

18-31. Bahamas Serendipity Session, Nassau, Bahamas. (B. L. Frank, 1290 Pine Ave., W., Montreal, Canada.)

20-22. American Mathematical Soc., annual winter, Philadelphia, Pa. (E. G. Begle, Leet Oliver Hall, Yale Univ., New Haven, Conn.)

21-22. American Group Psychotherapy Assoc., 3rd annual institute, New York, N.Y. (C. Beukenkamp, Public Relations Chairman, 993 Park Ave., New York 28.)

22-23. Mathematical Assoc. of America, 42nd annual, Philadelphia, Pa. (H. M. Gehman, MAA, Univ. of Buffalo, Buffalo 14, N.Y.)

23-24. American Group Psychotherapy Assoc., 16th annual conf., New York, N.Y. (C. Beukenkamp, Public Relations Chairman, 993 Park Ave., New York 28.)

23-24. Reproductive Physiology and Protein Nutrition, 15th annual conf. on protein metabolism, New Brunswick, N.J. (J. H. Leatham, Rutgers Univ., New Brunswick, N.J.)

24-29. American Acad. of Orthopedic

Surgeons, Chicago, Ill. (C. L. Compere, 720 N. Michigan Ave., Chicago, Ill.)

26-29. American Meteorological Soc., New York, N.Y. (K. C. Spengler, AMS, 3 Joy St., Boston 8, Mass.)

26-29. American Soc. of Heating and Air Conditioning Engineers, 65th annual, Philadelphia, Pa. (W. M. Vidulich, ASHACE, 62 Worth St., New York 13, N.Y.)

26-29. Institute of the Aeronautical Sciences, 27th annual, New York, N.Y. (IAS, 2 E. 64 St., New York 21.)

26-30. Writing and Publication in Industry, conf. and workshops, Brooklyn 1, N.Y. (T. L. Donahue, Writing and Publication Conf., Polytechnic Inst. of Brooklyn, 333 Jay St., Brooklyn 1.)

27-30. Society of Plastics Engineers, Inc., 15th annual tech. conf., New York, N.Y. (L. A. Bernhard, SPE, 65 Prospect St., Stamford, Conn.)

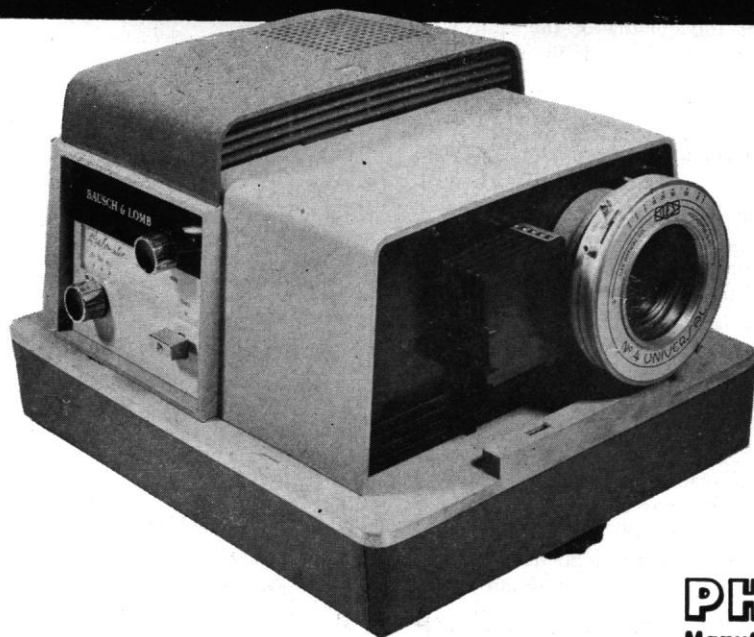
28-29. Nuclear Fuel Elements, 1st intern. symp., New York, N.Y. (H. H. Hausner, 1st intern. Symp. on Nuclear Fuel Elements, 730 Fifth Ave., New York 19.)

28-31. American Physical Soc., annual, New York, N.Y. (E. R. Fitzgerald, Dept. of Physics, Pennsylvania State Univ., University Park.)

29-31. Western Soc. for Clinical Research, 12th annual, Carmel-by-the-Sea, Calif. (W. N. Valentine, Office of the Secretary, Univ. of California Medical Center, Department of Medicine, Los Angeles 24.)

(See issue of 21 November for comprehensive list)

Tachistoscope Projector



P-527 Tachistoscope Projector used to observe the time rate and time condition for apperception, speed of recognition, or any similar situation calling for momentary exposure of visual material.

The projector will accommodate all 2" x 2" slides; 35 mm, Bantam 828 and super slides 1½" x 1½" intermixed if desired.

- 300 watt lamp
- 110 V.—60 cycles
- Illuminated control panel
- Front elevating device
- 4" f/3.5 projector lens
- Magnified slide index window
- 40-slide tray and case

Shutter speeds from 1 sec. through 1/1000. Shutter removable from projector and easily replaced.

P-528 Flashing Shutter, same as above, will fit 2¼" diameter lens focusing tube.

PHIPPS & BIRD, INC.

Manufacturers & Distributors of Scientific Equipment



6th & Byrd Streets - Richmond, Va.

Equipment

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Science does not assume responsibility for the accuracy of the information. A coupon for use in making inquiries concerning the items listed appears on page 1526.

■ **TEMPERATURE-CALIBRATING BATH** is a double unit permitting calibration at two temperatures. Temperatures are adjustable from 6° to 260°C above room temperature and are maintained $\pm 0.2^\circ\text{C}$. The inner shell is 10 in. in diameter and 15 in. deep. (American Instrument Co., Dept. 518)

■ **BAR-GRAPH OSCILLOSCOPE** displays 40 channels of telemetered data. Three types are available: a polarity-indicating, low-level d-c system, a wide-band a-c system, and a phase-sensitive a-c system. The bar graph is displayed on a 17-in. cylindrical-face cathode-ray tube. The cylindrical face facilitates use of transparent printed overlays. Parallax error is less than 2 percent for the worst case of observation from the side and is generally less than 0.5 percent. Display errors are less than 1 percent of full scale. Display rate is 10 frames per second. (International Telephone and Telegraph Corp., Dept. 519)

■ **COUNTER-TIMER** is combined with high-and-low count limit setting circuitry to provide limit monitoring of measurands that are convertible into electrical pulse rate. Time bases for pulse frequency measurement are 0.1 and 1 sec. Display time is adjustable between 0.1 and 10 sec. Frequency range as a straight frequency counter is 1 to 100,000 cy/sec. Accuracy is ± 1 count $\pm$ stability. For the standard instrument, stability is determined by power-line frequency stability. A crystal-controlled time base is available to provide stability of 10^{-6} short term and 5×10^{-6} long term. (Computer Measurements Corp., Dept. 522)

■ **FUME-HOOD SASH CONTROL** frees the user's hands entirely for handling reagents and instruments. Sash opening and closing is controlled by a tread. The hood closes automatically when the user walks away. An overriding manual push-button control permits the sash to be moved to any position, and a stop button can be used to halt automatic motion. A third mode of operation permits opening or shutting in case of power failure. (Laboratory Furniture Co., Inc., Dept. 525)

■ **MULTIPLIER PHOTOTUBE** is a nine-stage tube designed especially for detection and measurement of ultraviolet radiation. The tube envelope has a fused-silica section that transmits down to below 2000 Å. Spectral sensitivity at 2000 Å is



for
RESEARCH
in

**MICROBIOLOGY
and TISSUE
CULTURE**

The following Schwarz Preparations are available to assist and extend studies in metabolic and enzymic functions:

ADENOSINE PHOSPHATES

NUCLEIC ACIDS and METALLIC NUCLEATES

NUCLEOTIDES and NUCLEOSIDES

PURINES and PYRIMIDINES

SUGARS and SUGAR PHOSPHATES

GLUTATHIONE COMPOUNDS

SULFHYDRYL REAGENTS

THYMIDINE

COZYMASE

L- and D-AMINO ACIDS, *Optically Standardized*

RADIOCHEMICALS, *Isotopically Labeled with C¹⁴, S³⁵ or P³²*

These Schwarz fine chemicals satisfy the exacting requirements of products intended for laboratory and biochemical use.

To assure the user of highest quality and purity, rigid specifications in accordance with latest literature are established for each product, each lot is carefully analyzed and checked before shipment, complete records are permanently kept, and an analysis is furnished the user if desired.

Quantity production resulting from the wide preference and demand for Schwarz high-quality biochemicals provides ample supplies at low cost. Write for informative technical bulletins, specifications, references to literature and latest complete price list.

Visit our Booth #30 At The AAAS Convention

SCHWARZ LABORATORIES, INC.

*Leading Manufacturers of Yeast Biochemicals
and Fine Chemicals*

230B WASHINGTON STREET, MOUNT VERNON, NEW YORK

SL360

VENOMS

AAAS Symposium Volume No. 44

6" x 9", 480 pp., 113 illus.,
index, cloth, Dec. 1956

Price \$9.50. AAAS Members'
cash order price \$8.25

First International Conference
on Venoms, with 95 contribu-
tors from 18 countries. Com-
prehensive coverage of all as-
pects of the problem.

This book covers poisonous fishes and marine organisms, many species of venomous snakes, the Gila monster, toads, scorpions, spiders, caterpillars, wasps and other venom-bearing insects; hyaluronidase-like substances and other spreading factors in venoms; various chemical components of venoms, coagulant and anticoagulant factors, antigenic principles; various experimental and suggested clinical uses of venoms; clinical considerations: mortality rates, treatment of many kinds of envenomation; new developments in serotherapy and types of supplementary medication; dangers of refrigeration for treatment.

Of special interest to: Physicians, pharmacologists, chemists, and zoologists.

AAAS

1515 Mass. Ave., NW, Washington 5, D.C.

STEREOSCOPIC MICROSCOPE for the budget-minded!

Designed and sturdily built for educational or industrial use, UNITRON Model MSL has the same optical and mechanical features found in higher priced instruments.

- Erect, three-dimensional image
- Coated optics and prisms
- Achromatic 2X paired objectives, paired wide field eyepieces
- Working distance 75mm.
- Vertical binocular body with interpupillary and diopter adjustments
- Total focusing excursion 70mm.
- Heavy base, removable glass stage plate, stage clips
- Choice of one magnification 10X, 20X or 30X, extra eyepieces available

Complete in fitted hardwood cabinet . . .

FREE 10 DAY TRIAL

ALSO AVAILABLE

Model MSL-A with magnifications —
5X or 10X or 15X . . . \$120.00
Extra eyepieces . . . Pair \$19.50
Model LS Stereoscopic Microscope Lamp . . . \$14.75



\$110.00
FOB Boston

UNITRON

INSTRUMENT DIVISION of UNITED SCIENTIFIC CO.
204-206 MILK STREET • BOSTON 9, MASS.

Please rush to me, UNITRON's Microscope Catalog. 4L-2.

Name _____
Company _____
Street _____
City _____ State _____

nearly 80 percent of maximum response. Maximum response occurs at approximately 3300 Å, and total range is approximately 1800 to 6000 Å. For operation at 1000 v, current amplification is 10^6 , luminous sensitivity is 40 a/lu, and ultraviolet equivalent noise input is 6.6×10^{-16} w. (Radio Corporation of America, Dept. 529)

■ **BURETTE** permits measurement and delivery of small quantities of liquids heated to temperatures up to 350°F. Heating is done by means of a transparent conductive coating on the outer surface of the graduated tube. Thermal and electrical insulation are provided by a cylindrical glass enclosure. Heating is controlled by a variable transformer. The burette terminates in a 1/4-in. glass-pipe tube fitted with a standard 1/4-in. pipe flange. The two sizes available have capacities of 340 and 820 ml. A fluorescent light extending the full length of the burette provides illumination. (Pressure Products Industries, Inc., Dept. 531)

■ **PLASMA JET** creates and sustains temperatures greater than 22,000°F. The jet is up to 1/2-in. in diameter and 6-in. long. Systems are available in various power levels ranging from 12.5 to 160 kw. (Giannini Research Laboratories, Dept. 533)

■ **SWEEP-FREQUENCY AUDIOMETER** operates by fixing the intensity of the test sound and continually varying the signal frequency throughout the test. The level of the acoustic signal in the range 200 to 8000 cy/sec is equivalent to the threshold sensitivity ranges of the average healthy ear. Result of tests are recorded on circular charts. A controlled masking signal generated by a relaxation oscillator is included in the instrument. A bone-conduction receiver is available as an accessory. (Peekel Laboratory of Electronics, Dept. 530)

■ **REACTION FLASK** for small-scale organic reactions is designed for ease of emptying and cleaning and for interchangeability. Top and bottom sections are separable at a flat flange of 2-in. inside diameter. Standard heating mantles will accommodate all flask sizes. (Kontes Glass Company, Dept. 542)

■ **TWO-FLUID PRESSURE TESTER** utilizes pure water as the hydraulic fluid entering the unit under test while permitting the use of oil or glycerine in the piston-cylinder chamber. Pressure of 10,000 lb/in.² is generated with force of 17 lb. Capacities range from 200 to 10,000 lb/in.², and accuracy is ± 0.1 percent. (Amthor Testing Instrument Co., Dept. 532)

JOSHUA STERN

National Bureau of Standards

PERSONNEL PLACEMENT

CLASSIFIED: 25¢ per word, minimum charge \$4.25. Use of Box Number counts as 10 additional words. Payment in advance is required.

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

DISPLAY: Rates listed below—no charge for Box number. Monthly invoices will be sent on a charge account basis—provided that satisfactory credit is established.

Single insertion	\$26.00 per inch
13 times in 1 year	24.00 per inch
26 times in 1 year	23.00 per inch
52 times in 1 year	22.00 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

Young Scientist; B.A., D.Sc., available 1 July for teaching post in general biology, zoology, parasitology, with or without research. Medical Bureau, Burnice Larson, Director, 900 North Michigan, Chicago. X

POSITIONS OPEN

BACTERIOLOGIST

We have a challenging research position open for a bacteriologist with a B.S. or M.S. degree and some experience in antibiotics. This is an opportunity to use your initiative and creative ability on interesting research projects.

This position offers personal and professional growth as well as liberal benefit program including tuition assistance for graduate study.

Please send résumé to:

E. P. Bloch

**ARMOUR RESEARCH FOUNDATION
of Illinois Institute of Technology**

10 West 35th Street
Chicago 16, Illinois

POSITIONS WANTED

Endocrine Laboratory operated by M.D. endocrinologist with clinical and research experience desires relocation as unit with medical school, large clinic, or pharmaceutical company. Box 250, SCIENCE. X

Ph.D. Microbiologist, "Big Ten" graduate, now in administrative-research-development with well-known eastern pharmaceutical company, teaching experience, publications. Desires change to greater responsibility and growth in industry as department head or scientific coordination. Will relocate. Box 249, SCIENCE. X

APPLICATION FOR HOTEL RESERVATIONS

125th AAAS MEETING

Washington, D.C., December 26-31, 1958

The list of hotels and their rates and the reservation coupon below are for your convenience in making your hotel room reservation in Washington. Please send your application, *not* to any hotel directly, but to the AAAS Housing Bureau in Washington and thereby avoid delay and confusion. The experienced Housing Bureau will make assignments promptly; a confirmation will be sent you in two weeks or less.

As in any city, single-bedded rooms at minimum rates may become scarce; double rooms for single occupancy cost more; for a lower rate, share a twin-bedded room with a colleague. Most hotels will place comfortable rollaway beds in rooms or suites at \$2.00 to \$2.50 per night. Mail your application *now* to secure your first choice of desired accommodations. All requests for reservations must give a definite date and estimated hour of arrival, and also probable date of departure.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Rates for Rooms with Bath

Hotels with an asterisk have sessions in their public rooms. For a list of headquarters of each participating society and section, see page 151, *Science*, July 18.

Hotel	Single	Double Bed	Twin Bed	Suite
*Dupont Plaza	\$10.00-11.00	\$13.00-14.00	\$13.00-14.00	\$21.00-27.00
*Sheraton-Park	8.00-12.00	12.00-14.50	11.00-16.00	20.00-60.00
*Shoreham	all 9.00	all 12.00	all 12.00	20.00-50.00
*Statler	all 10.00	all 14.00	all 14.00	24.00-30.00
*Washington	7.00- 8.00	11.00-12.50	11.00-12.50	24.50-45.00
*Willard	10.00-12.50	13.00-17.00	14.00-18.00	25.00-35.00
Roosevelt	7.00- 9.00		10.00-12.00	18.00-24.00
Sheraton-Carlton	12.00-17.00		17.00-21.00	
Windsor Park	all 9.00	all 14.00	all 14.00	13.00-18.00

----- THIS IS YOUR HOUSING RESERVATION COUPON -----

AAAS Housing Bureau
1616 K Street, N.W.
Washington 6, D.C.

Date of Application

Please reserve the following accommodations for the 125th Meeting of the AAAS in Washington, D.C., Dec. 26-31, 1958:

TYPE OF ACCOMMODATION DESIRED

Single Room Desired Rate Maximum Rate
 Double-Bedded Room Desired Rate Maximum Rate Number in party
 Twin-Bedded Room Desired Rate Maximum Rate
 Suite Desired Rate Maximum Rate Sharing this room will be:
 (Attach list if this space is insufficient. The name and address of each person, including yourself, must be listed.)

.....

First Choice Hotel Second Choice Hotel Third Choice Hotel

DATE OF ARRIVAL DEPARTURE DATE
 (These must be indicated—add approximate hour, a.m. or p.m.)

NAME
 (Individual requesting reservation) (Please print or type)

ADDRESS
 (Street) (City and Zone) (State)

Mail this now to the Housing Bureau. Rooms will be assigned and confirmed in order of receipt of reservation.

NOW ACTIVELY AIDING ACADEMIC TRAINING IN NUCLEONICS



Student Reactor Training Laboratory. Instructor inserts neutron-sensitive scintillation detector into automatic traversing mechanism while students utilize specialized instrumentation for neutron flux measurements, and gamma, beta, and alpha sample analysis.

● first nuclear-chicago reactor training laboratories now delivered to colleges and universities

- Deliveries have been completed to these institutions:

California Institute of Technology

University of Connecticut

State University of Iowa

University of Nevada

Occidental College

University of Rochester

Texas Technological College

Utah State University

Nuclear-Chicago's Sub-critical Reactor Laboratory, first announced in January 1958, has been installed at eight leading U.S. Colleges and Universities. Designed for student training, the complete laboratory consists of the new Model 9000 Student Sub-critical Reactor, a carefully selected group of radiation detection and recording instruments, and a manual of experiments specially prepared for the Student Reactor and related nuclear counting systems. Instrumentation and experiments are designed to familiarize students with basic nuclear detecting and measuring devices and analytical methods, and to provide valuable reactor training in determinations of neutron flux, Fermi Age in water, relaxation lengths, multiplication factors, neutron activation, and other reactor properties. If you have not yet considered this unique package training program for your institution ask us to send our representative to explain it in detail.

Fine Instruments - Research Quality Radiochemicals



nuclear-chicago

C O R P O R A T I O N

237 WEST ERIE STREET • CHICAGO 10, ILLINOIS