

## New Products

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.

■ **SPECTROPHOTOMETER ATTACHMENT** for the model DU spectrophotometer prints wavelength and transmittance information directly on printed sheets or strip charts. The chart drive of the printer is attached to the wavelength knob of the spectrophotometer, and the pen drive is attached to the potentiometer. The operator sets each knob as he normally would and presses the print bar to record a dot whose location on the chart provides both wavelength and transmittance information. The attachment does not interfere with the normal use of the instrument, according to the manufacturer. (Connecticut Instrument Corp., Dept. Sci-95, Wilton, Conn.)

■ **AUTOMATIC ATTENUATOR** for application in gas chromatography is designed to hold peaks on scale in recording results. The instrument automatically changes attenuation when the recorder pen reaches an upscale position of 95

percent or a downscale position of 35 percent. There are eleven attenuation positions which increase or decrease by a factor of two; these attenuations cover the range 1 to 1024 with an infinity position provided. A switch permits manual operation at any time; an auxiliary circuit prevents jamming or locking of the automatic mechanism when a peak requires several instantaneous changes of attenuation to remain on scale. (F. & M. Scientific Corp., Dept. Sci105, 1202 Arnold Ave., N.C.C. Airbase, New Castle, Del.)

■ **TRIAxIAL ACCELEROMETER** simultaneously measures acceleration in three mutually perpendicular planes. The unit has a sensitivity of 20 mv (peak)/grav along each axis and a frequency response of 2 cy to 5 kcy/sec; resonance frequency is 100 kcy/sec; maximum acceleration is 1000 grav; amplitude linearity is  $\pm 1$  percent. Temperature range is  $-65^{\circ}$  to  $+300^{\circ}\text{F}$  for standard units and  $-65^{\circ}$  to  $+500^{\circ}\text{F}$  for high-temperature units with less than  $\pm 10$  percent variation in sensitivity throughout the ranges. Three subminiature output connectors and low-noise cables are supplied. (Columbia Research Laboratories, Dept. Sci108, MacDade Blvd. and Bullens Lane, Woodlyne, Pa.)

■ **HUMIDITY SENSING ELEMENT** is said to respond to any gas or vapor whose molecules exhibit an electrical dipole moment. Resistance of the element is said to change in the presence of polar molecules according to their concentration and the magnitude of the dipole moment. In air at  $25^{\circ}\text{C}$  resistance ranges from 1000 megohms at 25 percent relative humidity to 1 to 2 megohms at 98 percent relative humidity. According to the manufacturer, response time is rapid, and the element is insensitive to temperature changes from  $0^{\circ}$  to  $100^{\circ}\text{C}$ . (Conrad Carson, Inc., Dept. Sci99, 3110 Goddard Way, San Diego 1, Calif.)

■ **X-RAY SPECTROMETER** incorporates both a linear rate meter coupled to a recorder and a high-speed printing decade scaler and electronic timer. Noise levels have been reduced to below 1 kv, allowing soft x-rays such as aluminum K to be resolved. System gain stability is said to be better than  $\pm 0.25$  percent per day, linearity better than 0.1 percent. The scaler-timer combination can be used to punch paper tape or cards. (Hamner Electronics Co., Dept. Sci87, P.O. Box 531, Princeton, N.J.)

JOSHUA STERN  
National Bureau of Standards,  
Washington, D.C.

**new england nuclear**

**L-Proline-3, 4-H<sup>3</sup>**  
50mc/mM  
\$100/mc      \$300/5mc

**DL-Proline-carboxyl-C<sup>14</sup>**  
\$40/50 $\mu$ c      \$600/mc

CATALOG ON REQUEST

**new england nuclear corp.**  
575 ALBANY STREET, BOSTON 18, MASS. Liberty 2 5964

**HELLER ELECTRONIC VARIABLE-SPEED AC CONTROLLER and Matching DC MOTOR**

2T60 ELECTRONIC CONTROLLER with matching 1/50 H.P. DC MOTOR

**\$87**  
Complete, F.O.B., Las Vegas, Nevada

**SPECIFICATIONS**

- Thyatron tube operated controller gives stepless operation
- Input: 110-120 V., 60 cy. single phase
- Output: 0-120 V., 200 ma. DC to armature
- 1/50 H.P. ball bearing, right angle, gear head, shunt wound, DC motor
- Reversible
- Armature speed 0 to 4000 R.P.M.
- Motors in gear ratios: 6, 18, 30, 36, 60, 100, 300, 540, and 1120:1 in stock.

Other models to 3/4 H.P. motors available. Request data.

**GERALD K. HELLER CO.**  
2673 South Western Street, Las Vegas, Nevada, P.O. Box 4426

# 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 date of issue (Friday of every week).

**DISPLAY:** Positions Open. Rates listed below—no charge for Box Number. Rates net. No agency commission. No cash discount. Minimum ad: 1 inch. Ads over 1 inch will be billed to the nearest quarter inch. Frequency rate will apply to only repeat of same ad. No copy changes. Payment in advance is required except where satisfactory credit has been established.

Single insertion	\$40.00 per inch
4 times in 1 year	38.00 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

(a) **Bacteriology** Ph.D. 1960; biochemistry minor; virus research and hospital experience; interested in clinical appointment or in medical or commercial research opportunities; (b) **Cytology** M.S. degree; qualified in parasitology and electron microscopy; desires teaching or research appointment. (Please write for information regarding these and other scientists in all fields; nationwide service.) S3-3 Medical Bureau, Inc., Science Division, Burnice Larson, Chairman, 900 North Michigan Avenue, Chicago. X

**Biochemist.** Academic appointment. Research and teaching. Graduate faculty. Publications. Dr. J. H. Schneider, American University, Beirut, Lebanon. 3/3, 17, 31; 4/14, 25; 5/12, 26; 6/9

**Botanists:** Ph.D., head, government research group in physiological ecology desires university position. Research facilities to be available for Ph.D. wife. Box 58, **SCIENCE**. X

**Cytologist-Electron Microscopist.** Ph.D.; experienced. Desires university or research position. Box 56, **SCIENCE**. 3/24

**D.V.M., M.S.** Teaching, research, administrative experience; knowledge bacteriology, nutrition, toxicology, biochemistry. Prefer 9 months' or part-time teaching position, fellowship, extension or administrative position, not necessarily in veterinary field. Box 57, **SCIENCE**. X

**Microbiologist-Biochemist.** B.S., M.S. Married, two children; 8 years of research experience in microbiology, pharmacology, biochemistry. Seeks position permitting study for Ph.D. Box 55, **SCIENCE**. X

**Microbiologist,** Ph.D., 14 years of university teaching-research; environmental and pathogenic (plant, animal) microbiology, immunology; publications. Desires academic teaching-research position. Box 44, **SCIENCE**. 3/17

**Virologist,** expects M.S. in June 1961; trained in tissue culture, immunology; prefers research position. Box 53, **SCIENCE**. 3/17

## POSITIONS OPEN

### BACTERIOLOGIST

Opening in chemotherapeutic research in expanding pharmaceutical firm.

Requires B.S. or M.S. degree in bacteriology. Experience in industrial laboratory desirable, but not required

Please send résumé and salary requirement to:

Manager, Technical Employment  
Mead Johnson & Company  
Evansville 21, Indiana

## POSITIONS OPEN

(a) **Animal Physiologist** for research on reproduction, endocrines, and so forth, and some teaching at state agricultural college; assistant professor rank, \$7350 year up; East. (b) **Director of R&D Department** with Ph.D. or M.D. degree and pharmaceutical experience to head biological science, pharmacy, control sections, and medical department of leading ethical drug specialty firm with expansion program offering exceptional advancement opportunities to progressive administrator; open to \$25,000; Midwest. (c) **Virology Research Director** with tissue culture experience to supervise entire program for large drug firm; \$15,000-\$20,000; East. (d) **Assistant Professor of Clinical Pathology,** M.D. or Ph.D. to head blood bank division and allied sections, teach, and conduct research for large university hospital; \$10,000 up; Southeast. (e) **Clinical Research Director** to supervise clinical testing and coordinate research programs for well-established drug firm; Southwest location with traveling and liaison duties; \$15,000 up. (f) **Entomology Instructor or Assistant Professor** for state college; \$5000-\$6300 for 9 months; \$7000-\$8040 for 12 months; Southwest. (g) **Biochemist** to assume responsibility of department in progressive hospital; \$7000-\$10,000; East. (h) **Bacteriologist** to direct department of hospital recently expanded to 650 beds with modern facilities and research opportunities; \$9000-\$12,500; Southwest. (i) **Geneticist** for pre- or postdoctoral appointment in tropical medicine school; foreign. (j) **Microbiologist** with M.S. or Ph.D. degree for full-time research in sanitary microbiology with instructor or assistant professor rank at state university; \$8000 up; Northwest. (k) **Neurophysiology/Neuropharmacology Assistant Professor** for teaching and independent research at medical school; \$8000-\$10,000; South. (Please write for details; also many other positions available through our nationwide service. S3-3 Medical Bureau, Inc., Science Division, Burnice Larson, Chairman, 900 North Michigan Avenue, Chicago. THE BEST SOURCE FOR THE BEST MEDICAL-SCIENTIFIC POSITIONS. X

**BIOCHEMIST (Ph.D.) or PHYSIOLOGIST** with background in intermediary metabolism and endocrinology for group participation in research program on mode of hormone action in 750 bed hospital located on Indiana University Medical Center campus. Active participation in University teaching program and opportunity for independent research. Salary depending on background. Career Civil Service. Write Personnel Officer, Veterans Administration Hospital, 1481 West Tenth Street, Indianapolis 7, Indiana.

**Biochemist or Immunologist, Ph.D.** Studies on isolation of tissue antigens involved in homo-transplantation rejection. Send full personal information and salary requirements to

Box 54, **SCIENCE**

### MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland, Canada  
Applications are invited for the position Assistant Professor of Biology with specialization in Animal Physiology, Embryology and Histology.

Candidates with background and experience in Marine Biology will receive preference. Ph.D. or equivalent essential. Duties beginning September 1961, to include teaching and research. The starting salary will be based on qualification and experience.

Applications accompanied by complete curriculum vitae and the names of three references should be addressed to the Head, Department of Biology, Memorial University of Newfoundland.

The University of Alberta invites applications for the position of Assistant Professor of Physiology effective not later than 1 September 1961 at a minimum salary of \$6500 per annum with annual increments. Duties include undergraduate and graduate teaching and a program of research. This department is seeking a **Cellular Physiologist** and some preference will be given to candidates with experience in electron microscopy. Inquiries for further information are welcomed by the Head of the Department of Physiology. Applications should include transcripts of records, a recent photograph, curriculum vitae, and the names of three referees, and should be addressed to the Dean of Medicine, University of Alberta, Edmonton, Alberta, Canada. X

## POSITIONS OPEN

### ANATOMIST, HISTOLOGIST, CYTOLOGIST, HISTOCHEMIST

Ph.D. or equivalent. Research institute, New York. Modern, well-equipped, and staffed laboratory. Opportunity for training in electron microscopy.

Box 59, **SCIENCE**

### Medical Writer-Editor

Unusual opportunity for scientifically trained or experienced medical writer. Professional position with Ethical Pharmaceutical Division of expanding chemical corporation located in New York City suburbs. Box 19, **SCIENCE**.

## PHARMACOLOGIST

We have opening in new Medical Research laboratories for Ph.D. pharmacologist. Will carry on studies in general pharmacology.

Salary commensurate with training and experience. Send resume showing education, experience, and salary desired to:

Mr. W. H. Harrington  
Chas. Pfizer & Co., Inc.

GROTON,  
Connecticut

### WRITERS-MEDICAL EDITORS ABSTRACTERS-CODERS

Career opportunity with leading drug manufacturer in rapidly expanding Medical Communications Department.

**REQUIREMENTS:** Medical or scientific backgrounds, ability to compile, analyze, interpret and present clinical and scientific data with clarity and accuracy, retrieve information mechanically.

**LOCATION:** Desirable suburban community, 20 miles from N.Y.C.

Send complete resume to: Mr. L. H. Taylor

**LEDERLE LABORATORIES**  
AMERICAN CYANAMID COMPANY  
Pearl River, New York

## POSITIONS OPEN

### RESEARCH MICROBIOLOGIST

Excellent opportunity for Ph.D. in microbiology with a minor in chemistry to become associated with expanding chemical division. Position involves basic, product development and product research with emphasis on chemical and enzyme biosynthesis using both laboratory and pilot plant apparatus. Experience desirable, but not essential.

Position offers association with diversified research personnel in well-equipped laboratories. Good salary plus superior benefit program including profit sharing. Please send complete résumé including education, jobs held, and expected salary to:

K. L. Biro  
MILES LABORATORIES, INC.  
1127 Myrtle Street  
Elkhart, Indiana

### EDUCATIONAL PROGRAM FOR CAREER RESEARCH IN BIO-MEDICAL ENGINEERING:

Drexel Institute of Technology and the Presbyterian Hospital in Philadelphia offer co-ordinated programs in Bio-Medical Engineering requiring up to two years of study for life and physical scientists and one year for engineers to a Master of Science degree. Preliminary course work in mathematics, physics, and circuits prepares life scientists for more advanced work in engineering systems, data handling and electronics jointly with graduate engineers. Courses in anatomy, biology, biophysics and medical physics affords the engineer insight into biological systems. Team research at the Hospital provides experience in interdisciplinary collaboration. The next student intake will be July, 1961. Cost of education is covered by Heart Institute and Markle Foundation Grants. Pre- and post-doctorate stipends conform to NIH suggested ranges. More extended programs leading to a doctorate in a life science are planned in collaboration with other educational institutions. For information: James W. Dow, M.D., Head, Department of Medical Instrumentation; Drexel Institute of Technology; 15 North 32nd Street; Philadelphia 4, Pennsylvania; EVERGREEN 2-6200, Ext. 497.

### MEDICAL WRITER

We have an opening for a woman with a sound background in biological and/or medical sciences—preferably one who has worked for a pharmaceutical company & has the ability to analyze clinical data & write on technical subjects.

... Excellent working conditions  
... Suburban environment  
... Comprehensive benefits program  
Please give details about your background, education and previous experience in your letter to the Personnel Dept.

HOFFMAN-LA ROCHE, INC.  
Nutley 10, N. J.

### MEMORIAL UNIVERSITY OF NEWFOUNDLAND

St. John's, Newfoundland, Canada  
Applications are invited for the position Assistant Professor of Biology with specialization in Invertebrate Zoology.

Candidates with background and experience in Marine Biology will receive preference. Ph.D. or equivalent essential. Duties beginning September 1961, to include teaching and research.

Applications accompanied by complete curriculum vitae and the names of three references should be addressed to the Head, Department of Biology, Memorial University of Newfoundland.

### FELLOWSHIPS

**PREDOCTORAL AND POSTDOCTORAL FELLOWSHIPS IN MEDICAL PHYSICS.** Opportunities to do graduate work in the basic medical sciences and in their application to clinical problems. Emphasis is on the fields of radiation biology, radiation physics, and the clinical use of radioisotopes. Study programs leading to the M.S. and Ph.D. degrees and postdoctoral research supported by fellowships. Stipends vary with training and dependents. Write to Chairman, Department of Radiology, Medical Center, University of California, Los Angeles 24, Calif.

## POSITIONS OPEN

### The Market Place

BOOKS • SERVICES • SUPPLIES • EQUIPMENT

**DISPLAY:** Insertions must be at least 1 inch in depth. Weekly invoices will be sent on a charge account basis—provided that satisfactory credit is established.

Single insertion	\$40.00 per inch
4 times in 1 year	38.00 per inch
7 times in 1 year	36.00 per inch
13 times in 1 year	34.00 per inch
26 times in 1 year	34.00 per inch
52 times in 1 year	32.00 per inch

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

### BOOKS AND MAGAZINES

#### 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

### MAMMARY TUMORS IN MICE

AAAS Publication No. 22. By the staff of the National Cancer Institute, National Institutes of Health. F. R. Moulton, Ed.

7 1/4" x 11 1/2", cloth, 20 tables, 52 illus. Published 1945—Now offered at reduced price: \$3.00 prepaid orders by AAAS members, \$3.50 retail.

AAAS  
1515 Massachusetts Avenue, NW,  
Washington 5, D.C.

### SUPPLIES AND EQUIPMENT

#### • HYPOPHYSECTOMIZED RATS

Shipped to all points via Air Express  
For further information write

HORMONE ASSAY LABORATORIES, Inc.  
8169 South Spaulding Ave., Chicago 29, Ill.

### YOU NEED THIS FREE CATALOG FOR YOUR FILES

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

COLORADO SERUM CO.  
4950 York St. • MAin 3-5373 • Denver 16, Colo.

### Laboratory Animals

Mice Hamsters Guinea Pigs  
Rats Rabbits

Information sent on request

H. S. HURLBURT

Animal Research Center, Bainbridge, N.Y.  
WO 7-5415

### LOW-LEVEL IRRADIATION

Editor: Austin M. Brues

A symposium organized by the AAAS Section on Zoological Sciences, cosponsored by the U.S. Atomic Energy Commission and the Division of Biological and Medical Research of the Argonne National Laboratory.

Public debate on global fallout has been acrimonious because scientific facts about radiation and human implications regarding nuclear warfare have become confused. Scientists have consequently been thought guilty of ignorance or of partisanship. The Symposium on Low-Level Irradiation deals in a considered way with the many points of view that have brought this about and indicates possible solutions.

Scientific Background: Introduction—National and Artificial Radiation Background of Man—Meteorological Factors and Fallout Distribution—Genetic Effects—Somatic Effects

Implications: Introduction—Radiation as a Public Health Problem—Responsibilities of the Press—Legal and Political Implications—Science and Morality

Summary and Conclusions—Index

December 1959, 158 pages, \$3.75

AAAS Members' Cash Orders \$3.25

English Agents: Bailey Bros. & Swinfen, Ltd.  
Hyde House, West Central  
Street  
London W.C.1, England

### AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

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

# A report to the members of AAAS

## AAAS SYMPOSIUM VOLUMES

published during 1959 and 1960

No.		Retail Members*		No.		Retail Members*	
65	<b>Aging . . . Some Social and Biological Aspects</b>			57	<b>Systems of Units—National and International Aspects</b>		
Nov. 1960	Nathan V. Shock, Ed. 436 pp., 65 illus., index	\$ 8.50	\$ 7.50	Dec. 1959	C. F. Kayan, Ed. 308 pp., index	6.75	5.75
64	<b>Calcification in Biological Systems</b>			56	<b>Symposium on Basic Research</b>		
July 1960	R. F. Sognnaes, Ed. 526 pp., 283 illus., 1 color page, index	9.75	8.50	Oct. 1959	Dael Wolfe, Ed., 328 pp., summary	3.00	2.50
63	<b>Congenital Heart Disease</b>			55	<b>Photoperiodism and Related Phenomena in Plants and Animals</b>		
June 1960	A. D. Bass and G. K. Moe, Eds. 372 pp., 147 figures, index	7.50	6.50	Oct. 1959	Robert B. Withrow, Ed., 921 pp., 256 illus., genera and species index, subject index	14.75	12.50
62	<b>Water and Agriculture</b>			54	<b>The Human Integument—Normal and Abnormal</b>		
June 1960	Roy D. Hockensmith, Ed. 206 pp., 21 illus., index	5.00	4.50	July 1959	Stephen Rothman, Ed., 270 pp., 59 illus., index	6.75	5.75
61	<b>Biological and Chemical Control of Plant and Animal Pests</b>			53	<b>Grasslands</b>		
Apr. 1960	L. P. Reitz, Ed. 286 pp., 11 illus., index	5.75	5.00	June 1959	Howard B. Sprague, Ed., 424 pp., 37 illus., index	9.00	8.00
60	<b>Epidemiology of Mental Disorder</b>			52	<b>Evolution of Nervous Control from Primitive Organisms to Man</b>		
Dec. 1959	B. Pasamanick, Ed. 336 pp., 6 illus., index	6.50	5.75	June 1959	A. D. Bass, Ed., 240 pp., 61 illus., index	5.75	5.00
59	<b>Low-Level Irradiation</b>			51	<b>Zoogeography</b>		
Dec. 1959	Austin M. Brues, Ed. 158 pp., 18 illus., index	3.75	3.25	Jan. 1959	C. L. Hubbs, Ed., 520 pp., 115 illus., author index, index of scientific names	12.00	10.50
58	<b>Rehabilitation of the Mentally Ill</b>						
Dec. 1959	M. Greenblatt and B. Simon, Eds. 260 pp., 3 illus., index	5.00	4.50				

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

\* Members' prices are for orders submitted together with payment by AAAS members.

**To: AAAS,**

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

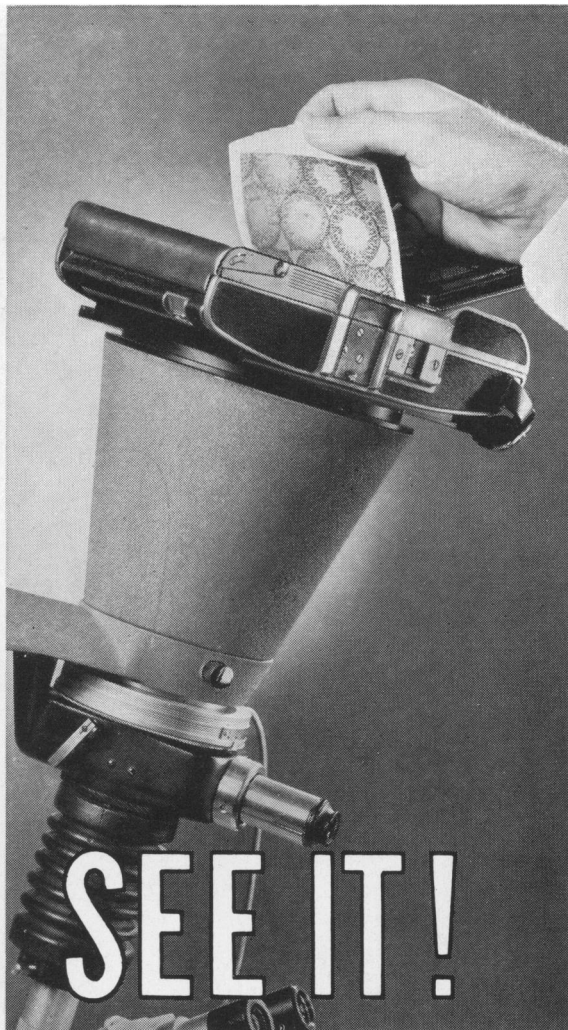
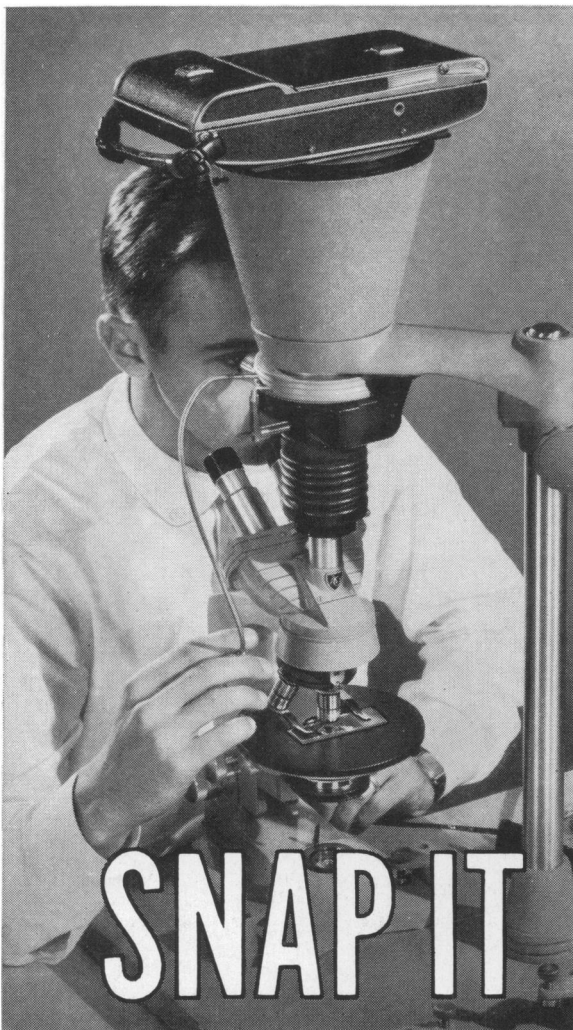
Please send me the volumes circled:                      65 64 63 62 61 60 59 58 57 56 55 54 53 52 51

☐ Payment of \$..... is enclosed.      ☐ Please invoice at retail prices.

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CITY ..... ZONE ..... STATE .....



## AO Spencer Picture-in-a-minute Photomicrography

When you use the AO Spencer Photomicrographic Camera equipped with the Polaroid® Land Camera back, permanent photographs are ready for your files in just 60 seconds. A coupled visual and photographic system lets you shoot what you see . . . quickly and effortlessly. And with the Polaroid back possible errors in exposure, illumination or focus can be corrected immediately.

In addition to the Polaroid Land camera back, you have a choice of 4 other *readily interchangeable* camera backs; 4" x 5" fixed back; 4" x 5" Grafluk back; 35mm back and Bantam back (roll film). You choose the camera back and film best suited to your specific requirements.

Here, the No. 682G Camera is being used with the AO Spencer Series 4 Microstar . . . an ideal combination. The built-in base illuminator provides convenient Koehler-type illumination. You select specimen area and do all preliminary focusing through binocular portion of trinocular body . . . focus critically with the telescopic eyepiece.

The sturdy vertical pillar, the easily adjustable camera support, the camera back and the Microstar all combine to provide a compact unit. Perfect alignment and rigidity is assured . . . successful photomicrography becomes a "snap".

Try it and see for yourself. Your AO Representative will be happy to arrange a demonstration for you.



American Optical  
Company

INSTRUMENT DIVISION, BUFFALO 15, NEW YORK

Dept. Q-2

- ☐ Please send me Brochure SB682 describing the entire line of AO Spencer Photomicrographic Cameras.  
☐ Please send me Brochure SB124 describing the new Microstars.

Name \_\_\_\_\_

Address \_\_\_\_\_

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