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edited by  
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"This volume is not a reference intended for use at the introductory student level. It can be reviewed with interest, however, by any serious member of the reading public." *American Journal of Pharmaceutical Education*, July 1956.

At all book stores or write

### American Association for the Advancement of Science

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

29-4. Irrigation and Drainage, 3rd internatl. cong., San Francisco, Calif. (W. E. Blomgren, 260 Leetsdale Dr., Denver 22, Colo.)

30-1. Metal Powder Assoc., 13th annual, Chicago, Ill. (MPA, 130 W. 42 St., New York 36.)

#### May

1-2. Image Formation and Measurement with Electronic Techniques, symp., Boston, Mass. (F. Brech, 26 Farwell St., Newtonville, Mass.)

1-3. Electronic Components Conf., Chicago, Ill. (R. M. Soria, 1830 S. 54 Ave., Chicago 50.)

1-3. Society for Experimental Stress Analysis, spring, Boston, Mass. (W. M. Murray, SESA, P.O. Box 168, Cambridge 39, Mass.)

2-3. Basic Problems of Biological Aging, internatl. conf. of AIBS, Gatlinberg, Tenn. (H. T. Cox, AIBS, 2000 P St., NW, Washington 6.)

2-4. American Philosophical Assoc., annual, Chicago, Ill. (W. H. Hay, Bascom Hall, Univ. of Wisconsin, Madison 6.)

2-4. Animal Disease and Human Health Conf., New York, N.Y. (Mrs. E. T. Miner, New York Acad. of Sciences, 2 E. 63 St., New York 21.)

2-4. Illinois State Acad. of Science, annual, Normal. (R. A. Evers, Illinois Natural History Survey, Urbana.)

2-4. Kansas Acad. of Science, annual, Manhattan. (C. T. Rogerson, Dept. of Botany, Kansas State College, Manhattan.)

2-4. Midwestern Psychological Assoc., annual, Chicago, Ill. (D. W. Fiske, Dept. of Psychol., Univ. of Chicago, Chicago.)

2-5. Society for American Archaeology, annual, Madison, Wis. (D. A. Baerreis, Dept. of Sociology and Anthropology, Univ. of Wisconsin, Madison 6.)

3. Engineers and Architects Conf., 4th annual, Columbus, Ohio. (G. B. Carson, College of Engineering, Ohio State Univ., Columbus 10.)

3-4. Minnesota Acad. of Science, Rochester. (B. O. Krogstad, Univ. of Minnesota, Duluth 5B.)

3-4. North Carolina Acad. of Science, annual, Winston-Salem. (J. A. Yarbrough, Meredith College, Raleigh, N.C.)

3-4. North Dakota Acad. of Science, annual, Grand Forks. (B. G. Gustafson, Chemistry Dept., Univ. of North Dakota, Grand Forks.)

3-9. Food Additives, 3rd symposium, Como, Italy. (International Bureau of Analytical Chemistry of Human and Animal Food, 18, avenue de Villars, Paris 73, France.)

4-5. American Psychosomatic Soc., 14th annual, Atlantic City, N.J. (I. A. Mirsky, APS, 551 Madison Ave., New York 22.)

4-5. Population Assoc. of America, annual, Philadelphia, Pa. (D. O. Price, Inst. for Research in Social Science, Univ. of North Carolina, Chapel Hill.)

4-7. American Assoc. for Thoracic Surgery, Chicago, Ill. (H. T. Langston, 600 S. Kingshighway, St. Louis 10, Mo.)

5-7. American Soc. for Clinical Investigation, Atlantic City, N.J. (W. H. Wheat, Jr., Steven K. Herlitz, Inc., 280 Madison Ave., New York 16.)

5-9. American Ceramic Soc., 59th annual, Dallas, Tex. (C. S. Pearce, ACS,

4055 N. High St., Columbus 14, Ohio.)

5-10. International Cong. of Otolaryngology, 6th, Washington, D.C. (P. H. Holinger, 700 N. Michigan Ave., Chicago 11, Ill.)

6-9. American Urological Assoc., Pittsburgh, Pa. (W. P. Didusch, 1120 N. Charles St., Baltimore 1, Md.)

7. International Hydrographic Conf., 7th, Monte Carlo, Monaco. (International Hydrographic Bureau, Quai des Etats-Unis, Monte Carlo.)

7-24. World Health Assembly, 10th, Geneva, Switzerland. (World Health Organization, Palais des Nations, Geneva.)

8-9. European Federation of Chemical Engineering, 12th, Amsterdam, Netherlands. (Federation, Frankfurt/Main, 7, Germany.)

8-11. American Astronomical Soc., Cambridge, Mass. (J. A. Hynek, Smithsonian Astrophysical Observatory, 60 Garden St., Cambridge 38.)

8-11. American Helicopter Soc., 13th annual, Washington, D.C. (H. M. Lounsbury, AHS, 2 E. 64 St., New York 21.)

9. Dietary Essential Fatty Acids, Assoc. of Vitamin Chemists, Chicago, Ill. (M. Freed, Dawe's Laboratories, Inc., 4800 S. Richmond St., Chicago 32.)

9-10. Microwave Ferrites and Related Devices and Their Applications, New York, N.Y. (S. Weisbaum, Bell Telephone Laboratories, Murray Hill, N.J.)

9-10. Operations Research Soc. of America, 5th annual, Philadelphia, Pa. (M. L. Ernst, P.O. Box 2176, Potomac Sta., Alexandria, Va.)

9-11. Drugs in Psychotherapy, internatl. symp., Milan, Italy. (Secretary, Pharmacology Inst., Via Andrea del Sarto 21, Milan.)

9-11. Virginia Acad. of Science, Old Point Comfort. (F. F. Smith, Box 1420, Richmond, Va.)

9-12. American Psychoanalytic Assoc., Chicago, Ill. (J. N. McVeigh, APA, 36 W. 44 St., New York 36.)

10-11. Indiana Acad. of Science, Turkey Run State Park, Ind. (H. Crull, Dept. of Mathematics, Butler Univ., Indianapolis 7.)

10-11. Vocational Training and Rehabilitation of the Mentally and Physically Handicapped, Woods Schools Conf., Chicago, Ill. (J. M. MacDonald, Woods Schools, Langhorne, Pa.)

12-13. International Soc. of Bronchoesophagology, cong., Philadelphia, Pa. (C. L. Jackson, 1901 Walnut St., Philadelphia 3.)

12-16. Electrochemical Soc., Washington, D.C. (H. B. Linford, 216 W. 102 St., New York 25.)

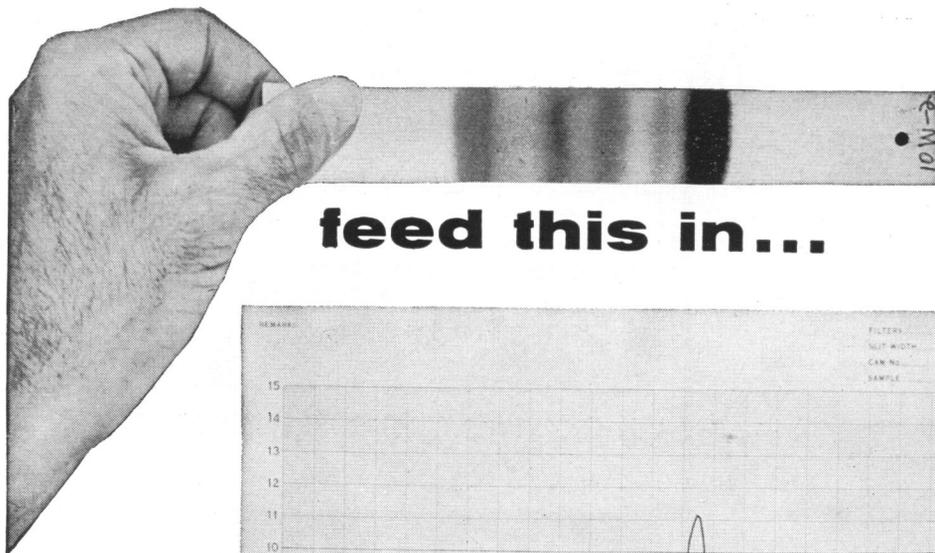
12-16. Institute of Food Technologists, annual, Pittsburgh, Pa. (C. S. Lawrence, IFT, 176 W. Adams St., Chicago 3, Ill.)

13-15. Industrial Waste Conf., 12th Lafayette, Ind. (D. E. Bloodgood, Purdue Univ., Lafayette.)

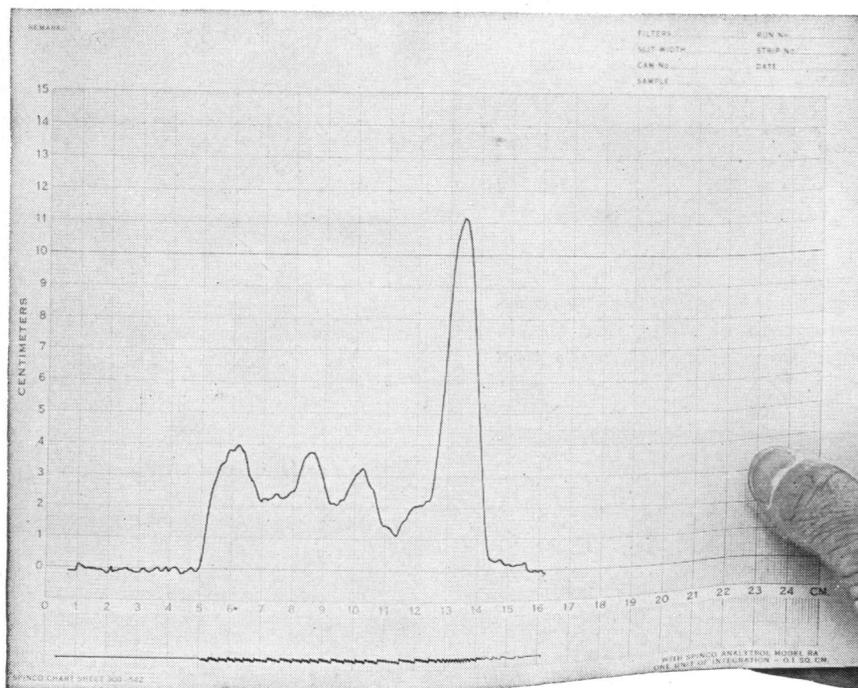
13-15. Radiation Research Soc., annual, Rochester, N.Y. (A. Adelman, Nuclear Science and Engineering Corp., P.O. Box 10901, Pittsburgh 36, Pa.)

13-15. Recent Developments in Research Methods and Instrumentation, symp., Bethesda, Md. (J. A. Shannon, National Institutes of Health, Bethesda.)

(See issue of 15 March for comprehensive list)



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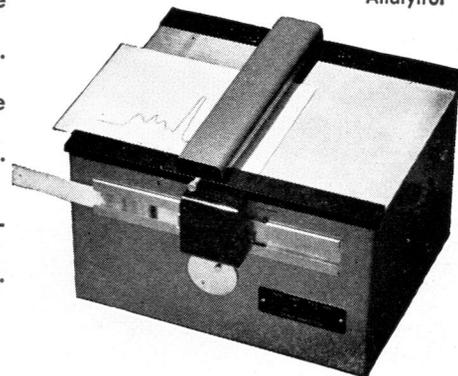
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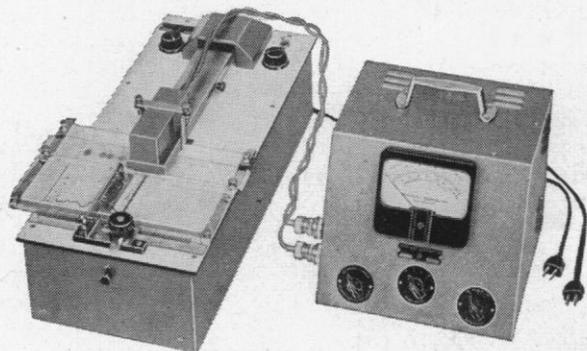
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## LETTERS

The editors take no responsibility for the content of the letters published in this section. Anonymous letters will not be considered. Letters intended for publication should be typewritten double-spaced and submitted in duplicate. A letter writer should indicate clearly whether or not his letter is submitted for publication. For additional information, see *Science* 124, 249 (1956) and 125, 16 (4 Jan. 1957).

### Hungarian National Museum

A letter just received, from Zoltán Kaszáb, director of the zoological department of the Hungarian National Museum, details damage to the museum in October and November 1956 [*Science* 125, 342 (22 Feb. 1957)].

The building of the National Museum in Museum Circle burned 24 Oct., with complete destruction of the mineralogical and paleontological collections and library and the zoological exhibits, including the African dioramas. On 5 Nov. the zoological department building, on Baross-strasse, was partly destroyed, with complete loss of collections and libraries of reptiles, amphibians, fish, birds, lower invertebrates, and mollusks. In the insects the Orthopteroidea, Neuropteroidae, and Diptera collections and library were lost. The collections not destroyed were damaged in firefighting. The collection of G. Horvath was thoroughly soaked and about 30-percent destroyed or damaged. The Coleoptera collection survived, but several hundred boxes were soaked, and unworked Hungarian material suffered.

There were no casualties among the zoological staff, and the members have been engaged in transferring and safeguarding the surviving collections and libraries, which have been moved to another building.

Kaszáb asks for help in rebuilding the destroyed collections and libraries.

FLOYD G. WERNER

Department of Entomology,  
University of Arizona, Tucson

### Medicine and Society

Do sufficient numbers of the medical profession feel an adequate measure of social responsibility? A. Szent-Györgyi's deeply penetrating article on "Science, ethics, and politics" [*Science* 125, 225 (8 Feb. 1957)] has stirred such questions in my mind and disturbed my thoughts.

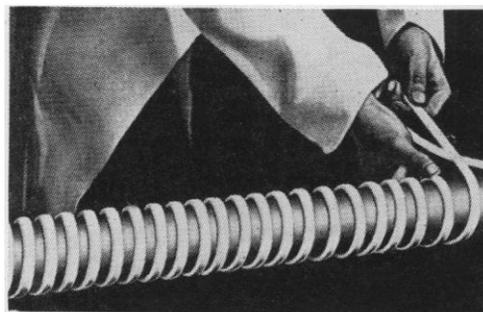
The values and benefits of medical science are easily taken for granted. If, however, as medical men we take our social role too much for granted, we may all the more easily be utilized by those whose designs reach further. It is certainly risky to have blind spots in our view; but it could be fatal to be blind to the possibility of such blind spots.

We know that human beings can hardly be understood apart from their environment; as a physician in general practice, at any rate, I believe this to be so. But the mere recognition of socio-economic origins for much of the conflict which disturbs patients is far from a responsible attempt at preventive medicine.

We frighten people about cancer and heart disease. Is it comparable morality to make no protest when dangerous automobile designing, inhuman economic pressures, and morbidly competitive social standards all bring grief to our

patients? Insurance companies have enough money at stake in these matters today; surely there is adequate medical and social understanding to justify a cautious but realistic approach and study. Instead of hopeful, fundamental methods we are employing stop-gap solutions and introducing them with a fanfare—for example, tranquilizers, larger mental hospitals, more facilities for more geriatric patients.

The "ethics" of politics and government can be so variable as to be indistinguishable from the dictates of expediency; they are comparable to the assidu-



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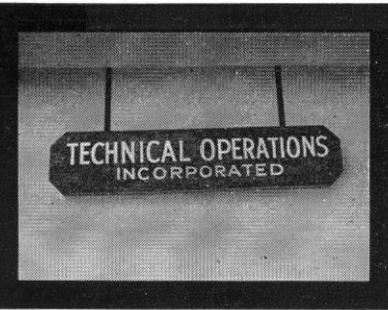
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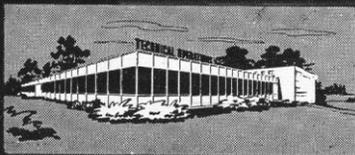
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ous treatment of a disease by symptomatic measures alone. In an unenlightened age this was the best that good men could do. Medical ethics today, however, demand serious consideration of all the underlying pathological processes at work, and the best possible treatment directed thereto.

It is my expectation that, if we do not learn to look around us and see what we do in the context of the whole, then we, as physicians or as any other self-defined group, will be taken at our own valuation and used by others as technicians.

I would be interested to know what others think.

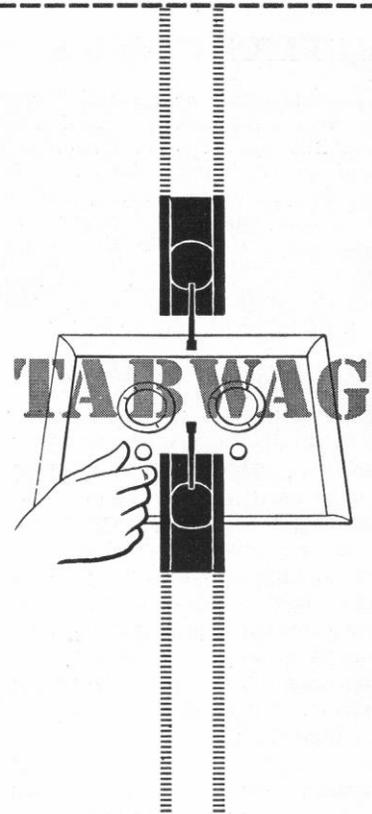
BRUCE H. BUCHANAN  
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### Research in Science Teaching

A recent editorial, "The fetish of experiment" [*Science* 125, 177 (1 Feb. 1957)] appears to call for the return of science to the Middle Ages. To state, "There are other educational changes that lend themselves to experimental study, but many of the current efforts to improve the teaching of science and mathematics do not," is admitting a dogma and an unscientific attitude as well as an unwillingness to bring in highly qualified research people in the teaching of science. I agree that many of the problems of teaching do not lend themselves to experimental procedures as employed by the physical scientist. However, there are many excellent instruments and methods of evaluation that could determine how effective a given program or approach to teaching science and mathematics can be. Sound techniques in evaluation are adequate for many kinds of teaching problems and may be as effective as experimental procedures which frequently do lend themselves to "fetish of experiment."

Very few scientific organizations and scientists are aware of the existence of the National Association for Research in Science Teaching, which publishes detailed abstracts of doctoral studies in the teaching of science in its official journal, *Science Education*. Not many scientists who are much concerned with the improvement of teaching science have taken the time to examine related studies that have appeared in this journal. The National Science Foundation supports science teachers in summer institutes when they continue their studies in the sciences. No provisions are made at the same time for these teachers of science to be brought up to date in the research work pertaining to the improvement of science instruction. An effective science teacher should be kept up to date, both in the current research in science and in the research of the teaching of science.

NATHAN S. WASHTON  
Queens College, Flushing, New York



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## EQUIPMENT NEWS

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. All inquiries concerning items listed should be addressed to Science, Room 740, 11 W. 42 St., New York 36, N.Y. Include the name(s) of the manufacturer(s) and the department number(s).

■ **NITROGEN CRYOSTATS** permit cooling of infrared detectors to approximately  $-196^{\circ}\text{C}$ . Model 147 cryostat consists of a miniature cooling head and a compressor-regulator assembly. The Joule-Thompson effect and regenerative cooling are used. Compressed nitrogen is passed through a miniature heat exchanger where it is cooled by nitrogen returning from an expansion nozzle. The cryostat is available with a variety of cooling heads. Heat-pumping capacities range from 1.5 to 5 watts. (Perkin-Elmer Corp., Dept. S228).

■ **DISPOSABLE TRAYS** of white or clear plastic are intended to eliminate the washing of test tubes, the need for rubber stoppers, and the problem of disposing of contaminated equipment. Each of 96 cups in the tray holds 2 ml. (Linbro Chemical Co., Inc., Dept. S239).

■ **DISPLACEMENT FOLLOWER** requires no contact with the object that is to be followed. An intense spot of light from a cathode-ray tube is focused onto the edge of the moving object. Reflected light from the illuminated spot is picked up by a photocell, and used to keep the cathode-ray beam positioned on the edge of the object. Thus the spot of light on the cathode-ray-tube screen traces the motion of the object. A number of models of the instrument are available, with full-scale ranges from 0.1 in. to 4 in., resolutions of 1 part per thousand, and signal output of 40 v full scale. Band width is 0 to 5000 cy/sec. Output impedance is approximately 1000 ohms. Working distances range from  $\frac{1}{2}$  to 9 in. (Optron Corp., Dept. S240).

■ **NUCLEAR-POWERED BATTERY** converts beta emission to light and the light to electricity. The light source consists of a mixture of finely divided phosphor and an oxide of promethium-147. Beta particles excite the phosphor to emit red and infrared radiation. Silicon photo-cells convert the light into electric current. The prototype battery uses about 4.5 c of the isotope of half-life 2.6 years. Nominal power output of a new unit is 20  $\mu\text{w}$ . The battery, which is shielded to eliminate bremsstrahlung, measures 0.2 in. thick and 0.6 in. in diameter. (Walter Kidde Nuclear Laboratories, Inc., Dept. S221).

■ **BIOLOGICAL STAINS AND INDICATORS** are listed with prices in 66-page catalog. Accompanying the catalog is a reprint entitled, "Some aspects of biological staining." (Allied Chemical and Dye Corp., Dept. S236).

■ **MAGNETIC STIRRER** is combined with a hot plate to extend the advantages of magnetic stirring to heating liquids. Hot plate and stirrer can operate independently or simultaneously. Heater power is 700 watts. Temperature is regulated by a bimetallic thermostat. (Fisher Scientific Co., Dept. S244).

■ **THERMISTOR RADIOMETER** consists of a temperature-detecting head, an amplifier, and a reference back-body for ambient-temperature compensation. The head aperture is approximately  $\frac{3}{8}$  in. in diameter and has a  $20^{\circ}$  field of view. Measurement of surface-temperature differences as small as  $0.1^{\circ}\text{C}$  is said to be possible. Metering circuits provide full-scale readings of  $10^{\circ}$ ,  $30^{\circ}$ , and  $100^{\circ}\text{C}$  above or below ambient temperature. (Williamson Development Co., Inc., Dept. S247).

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**Biochemists.** Assistant or associate professors (2); September 1957. To teach biochemistry in an eastern medical school; ample time and facilities for research. Ph.D. degree in biochemistry or M.D. required with several years of experience or postdoctorate work. One must be experienced in radioisotope work preferably with degree from Oak Ridge Institute of Nuclear Studies. The other should have a strong minor in physiology or pharmacology. Salary range \$6500-\$8500. Box 86, SCIENCE. 3/22, 29; 4/5

**Biochemist.** To head chemistry department of a 600-bed general hospital, located in fine residential district, within walking distance of University of Cincinnati. Interesting clinical material; modern air-conditioned laboratory now under construction in new facilities wing. Salary dependent upon degrees, experience, and qualifications. Write Personnel Director, Good Samaritan Hospital, Cincinnati 20, Ohio. 3/29

**Fishery Biologist, M.S., Ph.D.,** or equivalent training for full-time field research on hatchery mortality. Knowledge of bacteriology, water analysis, and parasitology necessary. Salary \$4000-\$5000, depending on qualifications. Send résumé of training to Department of Wildlife Management, Texas A. & M. College, College Station, Texas. 4/5

**OPENINGS IN SEPTEMBER.** Associate professor of animal genetics; also assistant professor of plant physiology; teaching, research. Direct graduate students apply immediately. Director, Department of Biology, St. Louis University, 1402 South Grand, St. Louis, Mo. 3/15, 22 29

## PHYSIOLOGISTS PHARMACOLOGISTS

Ph.D.'s in physiology, pharmacology, or biochemistry with orientation in C.N.S. functions and clinical application of neuropharmacologic agents, to assist in evaluating new chemotherapeutic compounds for use in the treatment of mental illness.

## ORGANIC CHEMISTS— NATURAL PRODUCTS

M.S. degree or equivalent in organic chemistry with some botanical training and experience to evaluate scientific data in natural products research program.

## ORGANIC CHEMISTS— GENERAL

M.S. or equivalent in organic chemistry with strong background in biological science to collaborate in analyzing and evaluating experimental data in research program.

Applicants who desire to become associated with well-established, progressive eastern pharmaceutical laboratory with liberal benefit program should submit résumé with full information to

Box 116, SCIENCE

## POSITIONS OPEN

**Bacteriologist;** 400-bed hospital, Chicago; \$5000-\$6000; M.A. desirable. Hospital experience essential. Box 85, SCIENCE. 4/5, 12

(a) **Pharmaceutical Chemist** to take charge of control laboratory and new product division, organization specializing in biologicals and pharmaceutical products; established 1905; Midwest. (b) **Biochemist, Ph.D.,** experienced in hospital laboratory work; 600-bed teaching hospital; well-staffed, well-equipped department; \$9000 to \$10,000; East. (c) **Clinical Chemist** experienced in research; 350-bed general hospital; California; \$6000. (d) **Medical Biostatistician;** physician preferred; faculty appointment, medical school; rank dependent on qualifications. (e) **Endocrinologist;** new laboratory, famed research institution; medical school city; Midwest. (f) **Physical Chemist or Biochemist** experienced in one of following: metal plating, chemistry of surfaces, gas chemistry; key position, organization specializing in industrial research. S3-5 Medical Bureau, Burnice Larson, Director, 900 North Michigan Avenue, Chicago. X

**POSITIONS REQUIRING DEGREES IN MEDICINE OR SCIENCE:** (a) **Biochemist** and (b) **Physiologist;** Ph.D.'s for research laboratory now being developed; present project cardiovascular research, others to be initiated; 300-bed general hospital; to \$12,000; midwestern university center. (c) **Bacteriologist;** experienced clinical bacteriology, supervise section, very large, expanding hospital; to \$6000; university city, Midwest. (d) **Chemist;** B.S. or M.S. experienced toxicology, clinical chemistry, physical methods, cognizant latest chemical procedures; county health laboratory; to \$6300; eastern resort area. (e) **Pharmacologist;** M.D. as assistant medical director; prefer industrial experience; organize, administer clinical research, professional service duties; to \$16,000; important eastern pharmaceutical house. Woodward Medical Bureau, 185 N. Wabash, Chicago. X

## FELLOWSHIPS

**Graduate Assistantships in Teaching and Research** available for September 1957. Load 12 or 6 hours per week. Remainder of time available for graduate work leading to master's degree. Stipends range from \$550 to \$2000. **Teaching Fellowships for Advanced Graduate Students.** Load 12 hours. Stipend, \$1800. Chemistry Department, Howard University, Washington 1, D.C. 3/29

**Oceanography-Meteorology.** Fellowships and research assistantships for graduates in chemistry, geology, physics, mathematics, engineering and biology; \$1800 to \$3000. Write Department of Oceanography and Meteorology, Texas A. & M. College, College Station, Texas. 4/5, 12

## POSITIONS WANTED

**Biochemist, Ph.D.;** seeks position in clinical chemistry in hospital or medical school. A recognized leader in the field, certified by the American Board of Clinical Chemists; presently employed. Box 96, SCIENCE. 3/15, 22, 29

**Biologist, Ph.D.,** 35; broad training and interests. Specialty, invertebrates and microbiology; 6 years' teaching invertebrate and vertebrate zoology. Available September 1957. Box 111, SCIENCE. X

**Botanist, Ph.D.,** male, 38; 8 years' experience. Desires teaching, research post. Physiology background, publications. Administrative experience. Box 114, SCIENCE. X

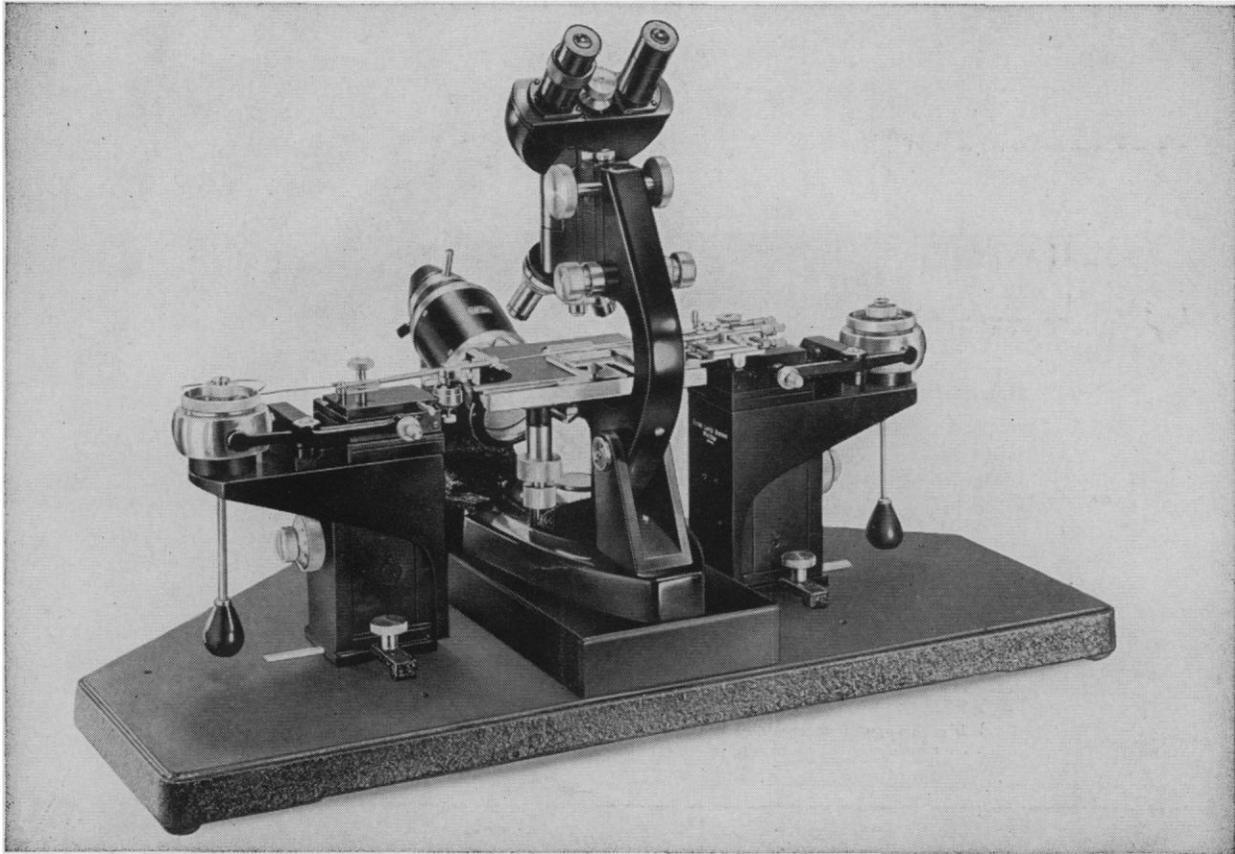
**Chemist** (major, general chemistry; minor, biochemistry) 6 years, associate professor, biochemistry, one of leading universities; 8 years, director of research, pharmaceutical company. Medical Bureau, Burnice Larson, Director, 900 North Michigan Avenue, Chicago. X

**Italian Research Chemist,** age 27, graduated 105/110 in 1953; 3 years practice. Previously assistant Faculty Pharmaceutical Chemistry; presently researcher at important pharmaceutical industry. Patents, publications. Good knowledge of English, German, and French. Desires employment in the United States as research investigator, pharmaceutical field. Box 115, SCIENCE. X



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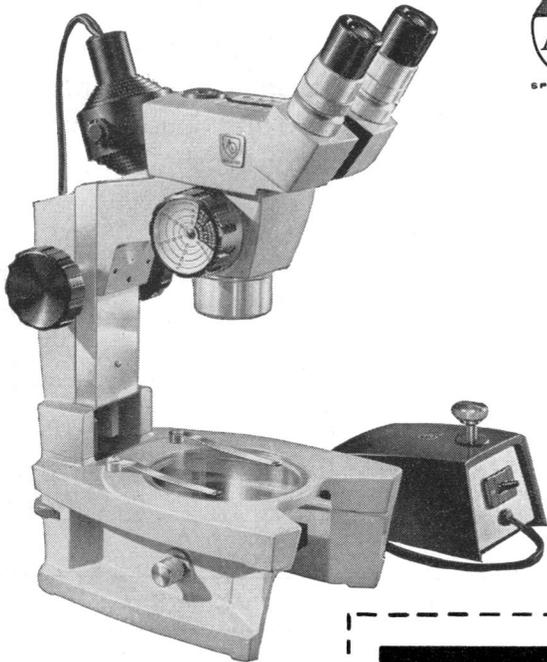
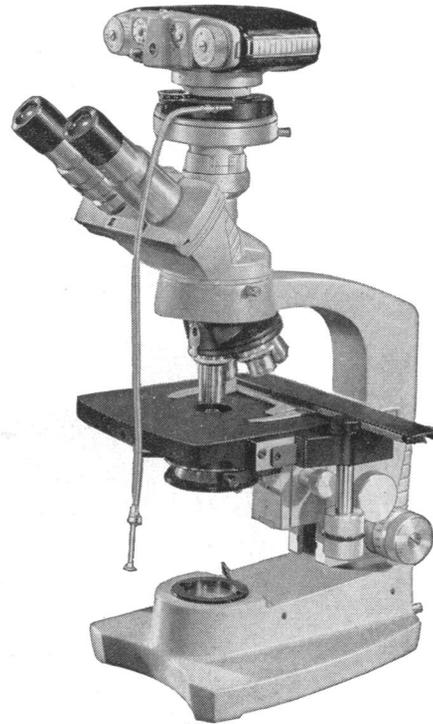
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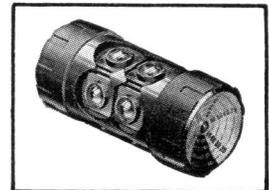
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