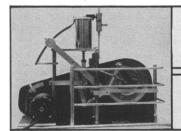
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### RESPIRATION PUMP



**PRODUCES ARTIFICIAL** BREATHING

**VARIABLE VOLUME DELIVERY** 

A special feature of this pump is that the piston is always driven to the top of its chamber-as a result no air is left in the chamber at the end of a stroke. Thus volume can be varied from zero to 500 cc per stroke while the pump is in operation. When the pump has reached its maximum on the pressure side, a mechanically operated valve disconnects the flow of air to the lungs and exhalation takes place naturally. Oxygen or gas mixtures may easily be admitted into the pump system.

No. 70-8791-Pump complete with motor and infinitely variable drive, giving speeds of 0-45 strokes per minute.

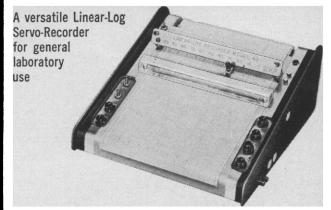
No. 70-879-Pump without motor and infinitely variable drive, but with four driving pulleys for variable speeds.

# PHIPPS & BIRD, inc.

Manufacturers & Distributors of Scientific Equipment

6th & Byrd Streets - Richmond, Va.

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- Multi-range, potential and current recorder.
- Choice of per cent transmission or absorbance indication in spectrophotometry.
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- True potentiometric input.
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Also available: Densitometers **m** Photometers **m** Fluorescence Meters **m** pH Meters

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Replies to blind ads should be addressed as follows:

Box (give number)

Science

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

#### POSITIONS WANTED

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

Biophysicist-Biomedical Engineer, Ph.D., M.S., E.E., desires academic appointment, teaching and research. Publications, books. Box 38, SCIENCE,

Botanist, Ph.D.; 11 years of university teaching; publications virology, photobotany. Desires academic teaching-research; West preferred. Box 46, SCIENCE.

### POSITIONS WANTED

(a) Biochemistry Ph.D., physics minor; highly qualified in radioisotope techniques, radiation protection, and health physics; experienced in teaching, research, and directing radioisotope and safety programs; prefers academic, research, or administrative appointment. (b) Dairy Technology Ph.D., biochemistry minor; available for food or dairy product research position. (Please write for information regarding these and other scientists in all fields; nationwide service.) S3-medical Bureau, Inc., Science Division, Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago.

Histologist—M.S. anatomy. Histochemistry, cyto-photometry, autoradiography, neuropathology, ex-perience. Seeks research position. West Coast, Colorado. Attending Anatomy, Federation Meet-ings. Box 45, SCIENCE. X

Histologist-Embryologist (Ph.D., 10 years teaching and research), experienced in electron microscopy, seeks academic (teaching with research) post. Will attend Anatomists' meeting in Chicago. Box 30, SCIENCE.

Male Plant Physiologist and Plant Geneticist, Ph.D., 50, with 10 years of teaching and 15 years of research and part-time teaching experience desires graduate school deanship or professorship or research in specialty. Has much experience with algae culturing, plant nutrition, and radioisotopes. Box 47, SCIENCE.

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.

Physiologist, docrinology, intermediate metabolism. Presently on research staff of well-known industrial organization. Desires academic or research appointment. Box 43, SCIENCE.

### POSITIONS WANTED

Science Writer-Editor with public relations perience seeks challenging work. Box SCIENCE.

## FELLOWSHIPS

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Teaching fellowships available in 1961–62 for male college graduates in small New England liberal arts college for men. Opportunity for study; \$3600.

**Box 39, SCIENCE** 

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.

#### POSITIONS OPEN

ANIMAL PHYSIOLOGIST, preferably mammalian. PLANT PATHOLOGIST, teaching and research. Assistant professors. Ph.D. required for both positions. Apply Head, Department of Biology,

Texas Technological College Lubbock, Texas

#### POSITIONS OPEN

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.

Administration Hospital, 1481 West Tenth Street, Indianapolis 7, Indiana.

(a) Biophysics or Physiology Senior Scientist with Ph.D., M.D., or E.E. degree for analogue and digital activities of medical electronics research firm; \$15,000 up; Midwest. (b) Veterinary Pathologist for research and teaching at associate professor of professor level at state college; must have knowledge of nature and behavior of spontaneous animal diseases; \$8000-\$11,000; Southwest. (c) Senior Pharmacologist/Physiologist for research in neuropharmacology using electronic equipment for psychopharmacologic studies in expanding research unit of pharmaceutical firm; high salary; Midwest. (d) Embryology Assistant Professor to teach science and medical students and develop research program at leading university; foreign. (e) Research Director with M.D. or Ph.D. in pharmaceutical chemistry or allied field able to organize program with liaison duties for pharmaceutical firm; \$15,000-\$18,000; Midwest. (f) Immunochemist Ph.D. for medical entomology unit of research institute to study allergic response to insect stings, and so forth, and supervise section; California. (g) Bacteriologist for new fishery research station; Southwest. (h) Pharmacology-Physiology Instructor or Assistant Professor for teaching with ample research opportunity at medical school; around \$8000; South. (i) Clinical Scientist qualified in hematology-immunology for university hospital; Southwest. (j) Chemistry Section Leader to head group for chemical analysis of pharmaceutical products of active drug firm; \$10,000-\$13,500; Midwest. (j) Biochemist for new metabolic research unit of university hospital; Midwest. (l) Biochemist experienced in research and isotope work to supervise division of large clinic and hospital with ample time for independent research at affiliated medical school; \$10,000-\$13,500; Midwest. (m) Health Education Officer to develop program, give training courses, consultant advice, and travel throughout region; attractive compensation and benefits; foreign west. (m) Health Education Officer to develop program, give training courses, consultant advice, and travel throughout region; attractive compensation and benefits; foreign tropical area. (Please write for details; also many other positions available throughout nationwide service.) S3-1 Medical Bureau, Inc., Science Division, Burneice Larson, Chairman, 900 North Michigan Avenue, Chicago. THE BEST SOURCE FOR THE BEST MEDICAL-SCIENTIFIC POSITIONS.

#### CLINICAL RESEARCH

An ethical pharmaceutical company located in the Midwest has an unusual opportunity for a scientist trained in medicine, pharmacology, physiology or medicine, pharmacology, physiology or biostatistics. Position requires ability in the use of scientific methods in controlled clinical evaluation of potential therapeutic agents. Salary range \$10,000 to \$22,000 depending on education and experience. Liberal benefit program including profit sharing. Replies held in strict confidence, should include complete résumé of education, experience, and previous appointments.

**Box 42, SCIENCE** 

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

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 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.

#### POSITIONS OPEN

Applications are invited for the position of DIRECTOR of the Queensland Institute of Medical Research, Brisbane, Australia. The duties are (1) to direct research work and control research staff of institute, (2) to continue to develop the institute on a comprehensive research basis, and (3) to plan the permanent housing of the institute. To date, research has been almost entirely in the field of communicable disease. The salary is £4583 per annum. Tenure is for 7 years, with eligibility for re-appointment. Technical and lay staff, other than term appointees, such as the Director, are subject to the Public Service Acts, and administration generally follows Public Service practice. Appointee will be required to commence duty as early as possible after 1 August 1961.

Applications close on 31 March 1961, with First Secretary, Australian Legation to United States of America, Washington, D.C., from whom intending applicants should obtain application forms and further information. 3/3, 10

#### **Experimental Pathologist**

To collaborate in broadly organized research program on experimental tuberculosis. M.D., D.V.M., or Ph.D with training in pathology required. Send résumé to Director, The Christ Hospital Institute of Medical Research, 2139 Auburn Avenue, Cincinnati 19, Ohio.

#### 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, ASSISTANT OR ASSOCIATE PROFESSOR. Canadian veterinary college requires Ph.D. to assist in graduate and undergraduate teaching programs. Exceland undergraduate teaching programs. Excer-lent opportunities for research. A curriculum vitae and references should be addressed to Dr. H. G. Downie, Professor and Head, De-partment of Physiological Sciences, Ontario Veterinary College, Guelph, Ontario, Canada.

#### PHYSICAL SCIENTISTS

Look for openings at **MELPAR** 

See our advertisement on page 610

#### **Tissue Culture Course**

Tissue Culture Course

The annual course in Principles and Techniques of Tissue Culture sponsored by the Tissue Culture Association will be given at the University of Wisconsin, Madison, Wisconsin, 19 June to 14 July 1961. A limited number of participants (post-doctoral research workers and teachers) can be admitted. The course will be directed by DR. John Paul of Glasgow University and DR. WILLIAM G. Cooper of the University of Colorado School of Medicine. For further information and application forms, address Dr. Mary S. Parshley, College of Physicians and Surgeons, 630 West 168th Street, New York 32, New York. Tuition \$100. Deadline for application, 15 April 1961.

# **VIROLOGISTS BACTERIOLOGISTS**

Pharmaceutical firm in Philadelphia area has positions for Ph.D.'s with experience to work in Biological Production and Development. Please send résumé to Mr. G. Earl Vogels, Employment Supervisor.

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Div. of Merck & Co., Inc. WEST POINT, PENNA.

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4	times in 1 year	38.00 per inch
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#### 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.

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WANTED

Arch. Biochem., any copies; J. Biochem., from start to 1945 inclusive; Biochem. J., vols. 1–64; J. Gen. Physiol., any copies; Am. J. Phys., any copies; Biochim et Biophys. Acta, any copies; Chem. Abstr., 1940, 1941, 1942; Nature; J. Org. Chem.; Phys. Org. Chem.; Can. J. Biochem. and Physiol.; Can. J. Chem.; J. A.M.A.; Genetics.

**Box 48, SCIENCE** 

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Write for Price Schedule
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Foods, Drugs, Cosmetics, Chemicats, Feeds, Packaging—Toxicological, Mycological and Bacteriological Investigations



United States Testing Co., Inc. 1415 Park Ave., Hoboken, N. J.

#### SUPPLIES AND EQUIPMENT

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Shipped to all points via Air Express For further information write

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

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# **Laboratory Animals**

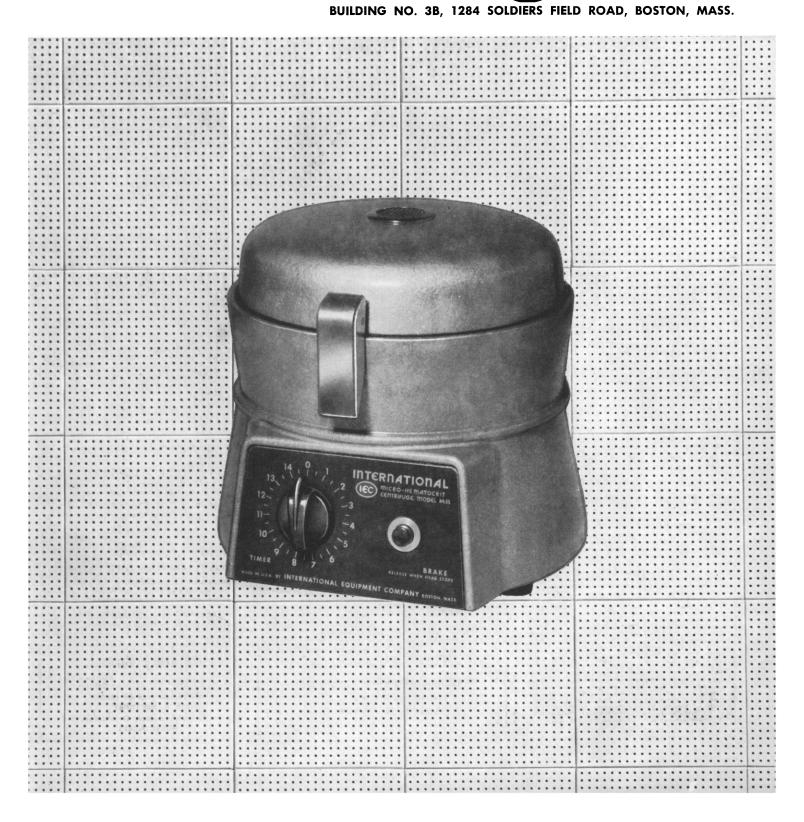
Guinea Pigs

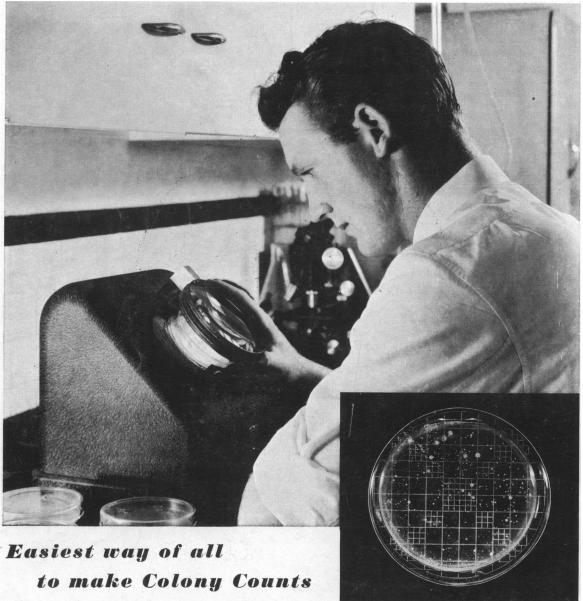
Information sent on request H. S. HURLBURT

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A unique illumination system floods the *entire* culture plate with soft, uniform light. The dark, contrasting background throws the colonies into bold relief... makes even pinpoint colonies easy to distinguish and count. And the sharp, controllable magnification reveals colony morphology for quick differential counts.

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