In This Issue

Thermodynamics of an Ice Age: The Cause and Sequence of Glaciation
Gilbert N. Lewis

West Point and the AAAS
Sidney Forman

S. 1850 in the House
Howard A. Meyerhoff

Technical Papers
Science Legislation
Letters to the Editor

News and Notes
Association Affairs
In the Laboratory

Table of Contents, Page 2

Published by the
American Association for the Advancement of Science

113th AAAS Meeting—Boston, 26-31 December 1946
THE APPROVED LABORATORY HEATING APPLIANCES

FOR Gas or Electricity

FOR Gas—THE WORLD FAMOUS

FISHER BURNER

The Fisher Burner produces an intensely hot flame for all types of laboratory heating operations including many ignitions and incinerations which otherwise would require the use of compressed air. Instead of the cold cone and hot tip characteristic of the Bunsen flame, the Fisher flame is short and wide and is uniformly hot throughout.

The Fisher Burner is constructed entirely of nonrusting materials. The base is a one-piece white metal casting. The needle-valve for regulating the gas has a packing gland which prevents leaks. This burner operates efficiently with either natural or artificial gas.

No. 3-902 Fisher Burner, with 42 mm. grid ——— $2.50

FISHER'S AUTEMP HEATER

This is a sturdy heating device of adequate size and capacity for a large number of laboratory heating operations. The 6-inch cast aluminum heating surface, the one-piece aluminum body, the heavy heating element, the efficient thermostat and the integral clamping arm were designed and built for utility, convenience, and enduring service. The temperature of a liquid in a beaker on this heater can be maintained automatically at any point from 95° to 256° C. by adjusting the thermostat.

(State whether for use with 110 volt or 220 volt A.C.)

Fisher Autemp Heater ——— $10.00

Manufacturers—Distributors

FISHER SCIENTIFIC CO. EIMER AND AMPHD

717 Forbes St., Pittsburgh (19), Pa. Greenwich and Morton Streets
2109 Locust St., St. Louis (3), Mo. New York (14), New York

In Canada: Fisher Scientific Co., Ltd., 904 St. James Street, Montreal, Quebec
MILLARD & SHOWERS’ LABORATORY MANUAL OF ANATOMY & PHYSIOLOGY

In order that the student may more fully understand these basic sciences, the authors have prepared this brand new manual to give actual contact with real objects of nature. The experiments are presented in 30 two-hour lessons and can easily be coordinated with any standard textbook. These exercises include the study of living animals, dissection of fresh and preserved specimens, microscopic examination of living and prepared tissues and investigation of physiological phenomena. Punched to fit an 8½” x 11” ring binder, the pages are perforated for removal or reinsertion.

By NELLIE D. MILLARD, R.N., B.S., M.A., Instructor in Anatomy and Physiology, Michael Reese Hospital School of Nursing, Chicago; and MARY JANE C. SHOWERS, R.N., B.S., Instructor in Anatomy and Physiology, The Christ Hospital School of Nursing, Cincinnati. 119 pages, 8½” x 10¾”, illustrated. $1.00

BRECKENRIDGE & VINCENT’S CHILD DEVELOPMENT

Reflects current findings and viewpoints of the rapidly advancing child development field. Although emphasizing from age five through adolescence, the authors show the whole sweep of development—baby to adult, various units and influences and how they fit into the integrated growing individual.

Fourteen chapters are provided for a semester’s work. The introduction surveys some general principles of development and interrelation of growth—mental, physical, social and emotional. Factors of physical growth and their importance in psychological developments are given more thoroughly than in any other text. (Saunders publishes a Workbook in Child Development designed especially for use with this text. It is by George E. Schlesser, Ph.D., Colgate University and is priced at $1.00.)

By MARIAN E. BRECKENRIDGE, M.S., Nutritionist, and E. LEE VINCENT, PH.D., Psychologist, Merrill-Palmer School, Detroit, Michigan. 502 pages, 5¼” x 6¼”, illustrated. $3.25

AMERICAN POCKET MEDICAL DICTIONARY

From first page to last, this dictionary has been fully revised in order to include the many significant new terms and facts that have arisen as a result of the tremendous advances made in medical and related sciences during the past few years. There are literally hundreds of new words and definitions in the New (18th) Edition—many of which cannot be found in any other pocket medical dictionary published.

Edited by W. A. NEWMAN DORLAND, A.M., M.D., Member of the Committee on Nomenclature and Classification of Diseases, American Medical Association. 1061 pages, 4” x 6¼”. Flexible binding. Plain, $2.00; Thumb-indexed, $2.50

W. B. SAUNDERS COMPANY, West Washington Sq., Phila. 5
Contents

Thermodynamics of an Ice Age: The Cause and Sequence of Glaciation: Gilbert N. Lewis .............................. 43

ASSOCIATION AFFAIRS
West Point and the AAAS: Sidney Forman .................. 47

SCIENCE LEGISLATION
S. 1850 in the House: Howard A. Meyerhoff ............... 48

TECHNICAL PAPERS
Spinal Cord Circulation in Poliomyelitis:
Norman Nelson ................................................ 49

The Effect of Thiouracil and Thyroactive Substances on Mouse Susceptibility to Poliomyelitis Virus: D. Frank Holtman ..................... 50

The Failure of Poliomyelitis Virus to Grow in Certain Protozoa of Sewage:
C. A. Evans and K. L. Osterud ......................... 51

Influence of Anesthesia on Experimental Western Equine Encephalomyelitis:
S. Edward Sulkin, Andres Goth, and
Christine Zarafonetis ..................................... 53

NEWS AND NOTES ........................................ 55

IN THE LABORATORY
Built-in Jacks for Plaster Casts: John Stanley .......... 59
An Improved Method for Quantitative Impregnation of Textiles With Germicidal Emulsifiable Oils:
The Research Staff, U. S. N.
Medical Research Unit No. 1 ................................ 60

A Multiple Light Source Microscope:
George I. Lavin ........................................... 61

LETTERS TO THE EDITOR
On the Need for Social Engineering:
Ralph W. Burhoe ........................................... 62
Abbreviations of Generic Names: C. E. Skinner ........... 62
"The Little Researcher": A. C. Warrington ............... 62
Redwood Notes: Douglas Houghton Campbell ............. 63
Survival Time of Hypertensive Rats Receiving Fish-oil Extracts: Francis Reichman ..................... 64
Logic and the Science Curricula:
Clarence Archer Tryon, Jr. ......................... 64

BOOK REVIEWS
A bibliography of infantile paralysis, 1789–1944:
with selected abstracts and annotations:
Morris Fishbein. (Ed.)
Reviewed by Morris C. Leikind ...................... 65
Inside the vacuum tube: John F. Rider.
Reviewed by Harner Selvidge ..................... 65
Craniotherapy of Ambrym Island:
Wilfrid D. Hambly.
Reviewed by W. W. Howells ..................... 66
Colloid chemistry: theoretical and applied. Vol. VI:
General principles and specific industries;
synthetic polymers and plastics:
Jerome Alexander. (Ed.)
Reviewed by Karl Sollner ..................... 66

Communications relative to advertising should be addressed
to Theo. J. Christensen, Massachusetts and Nebraska Avenues, Washington 25, D. C.
Communications relative to membership in the Association and to all matters of business of the Association should be addressed to the Permanent Secretary, A.A.A.S., Smithsonian Institution Building, Washington 25, D. C.
Annual subscription, $6.00  Single copies, 15 cents
Do you know about these Convenient Laboratory Products?

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Product/Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin-Test Casein</td>
<td>4</td>
</tr>
<tr>
<td>Vitamin-Free Casein Hydrolysate</td>
<td>5</td>
</tr>
<tr>
<td>Salt Mixture No. 2—U. S. P. XII</td>
<td>6</td>
</tr>
<tr>
<td>Vitamin A Test Diet—U. S. P. XII</td>
<td>7</td>
</tr>
<tr>
<td>Rachitogenic Diet No. 2—U. S. P. XII</td>
<td>7</td>
</tr>
<tr>
<td>Vitamin B Complex Test Diet</td>
<td>8</td>
</tr>
<tr>
<td>Biotin</td>
<td>9</td>
</tr>
<tr>
<td>Yeast Supplement Solution</td>
<td>9</td>
</tr>
<tr>
<td>Choline Chloride</td>
<td>10</td>
</tr>
<tr>
<td>Basal Medium Stock Solution</td>
<td>10</td>
</tr>
<tr>
<td>Crystalline Vitamins</td>
<td>11</td>
</tr>
<tr>
<td>Amino Acids</td>
<td>12</td>
</tr>
<tr>
<td>Misc. Research Biochemicals</td>
<td>12</td>
</tr>
</tbody>
</table>

WRITE FOR GBI Booklet #677 which lists a wide range of ready-to-use products for nutritional investigators.

**SAVE TIME, TROUBLE AND EXPENSE**

It is often costly and inconvenient to prepare in small quantities the materials required for laboratory research. GBI products, suitably packaged and economically priced, are offered as a special service to private investigators, as well as for use in large scale biological procedures.

Try them in your laboratory.

**GENERAL BIOCHEMICALS, INC.**

Laboratory Park  Chagrin Falls, Ohio
LARGE CAPACITY

Single Stage Duo-Seal Pump

Especially suited for backing diffusion pumps and for distillation

• VACUUM to 5 Microns (.005 mm Hg)
• CAPACITY-100 Liters Per Minute

This Pump is a single stage rotary type with large free air capacity, which makes it ideal as a fore pump for diffusion and molecular drag pumps. Also well adapted for distillation work.

Pump is equipped with visible oil level and oil drain. Oil required, 1400 ml. When oil level is kept at recommended height, pump is guaranteed not to back up into exhaust lines.

Write for brochure on Welch Pumps.

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