SCIENCE

Vol. 76	FRIDAY, OCTO	DBER 1, 1932	No. 1971
The American Association for the Advance Science: The Sixteenth Annual Meeting of the Pac sion: Dr. J. Murray Luck	rific Divi-	Scientific Books: van Vleck's Theory of Electric and Me Susceptibilities: Dr. Philip M. Morse	326 3:
Obituary: Ernest Julius Wilczynski: Professor G. A Barton Warren Evermann: Dr. G. Dalla	A. Bliss. s Hanna 316	Schmitt and Dr. Francis O. Schmitt Special Articles: Experiments upon the Cause of Whooping Ors. Arnold R. Rich, Perrin H. Long, J.	Cough:
Scientific Events: The Painted Desert and the Petrified For tional Monument; The Mellon Institute chemical Lectures; A Course in Animal at Harvard University; The Century of Exposition and the American Ceramic S	Techno- Sociology Progress	ARD BROWN, ELEANOR A. BLISS and L. E HOLT, JR. An Encephalomyelitis in the Cl DR. E. ELIZABETH JONES Science News	мметт hicken : 330
Scientific Notes and News	320	SCIENCE: A Weekly Journal devoted to the ment of Science, edited by J. McKeen Catter lished every Friday by	ne Advance- L L and pub -
Discussion: The Shovelnosed Sturgeon in the Arkans DR. E. W. Gudger. Determination of the Volumes of Two Combining Streams fr Temperatures: Ronald L. IVes. Derma duced by Encelia californica Nutt: D Webber Quotations: Professor Arthur H. Compton's Studies of Rays	Relative om Their titis Pro- R. H. J. 323		rison, N. Y. pies, 15 Cts. can Associa- tion regard- ecured from

THE AMERICAN ASSOCIATION FOR THE ADVANCE-MENT OF SCIENCE

THE SIXTEENTH ANNUAL MEETING OF THE PACIFIC DIVISION

By Dr. J. MURRAY LUCK, Secretary

The sixteenth annual meeting of the Pacific Division of the American Association for the Advancement of Science and Associated Societies was held from June 15 to 18, in Pullman, Washington, where the division was entertained by the State College of Washington. Though far from the larger centers of population in the West, the meeting was exceptionally well attended and of high quality throughout. Of the total registration of 510, 200 were from outside of Washington and Idaho.

The State College of Washington is situated but ten or twelve miles distant from its sister institution in Moscow—the University of Idaho—which warmly cooperated in various matters pertaining to the meeting. Both institutions serve the rich agricultural section commonly known as the "Inland Empire," an

area of great fertility interrupted by regions of marked geological and scenic interest.

The sessions commenced on the afternoon of June 15 with reviews of the scientific contributions of the past year. The purpose of these surveys, now adopted as a recognized part of the divisional program, is to describe the scientific researches in progress in the universities of the West, in the light of their relationship to the engrossing problems of current interest within the sciences at large.

The preparation of such reviews and their presentation within the restricted time available is admittedly a difficult task, requiring a speaker to confine his attention to but two or three of the problems of major interest, or to enumerate without critical evaluation most of the investigations proceeding in the different

New books and new editions

in the physical and biological sciences—

medical economics-

THE CRISIS IN HOSPITAL FINANCE

By Michael M. Davis and C. Rufus Rorem

Today's problems of hospital finance and experimentation leading to their solution are discussed here from the points of view of the physician, the public, and the hospital administrator. \$2.50

neurology-

THE THINKING MACHINE

Revised edition, 1932

By C. Judson Herrick

A popular account of how the brain works. Dr. Herrick finds the evidence clear that the brain works by as natural a biologic process as muscles contract. In his revision he takes cognizance of the latest neurological research.

mathematics-

PROJECTIVE DIFFERENTIAL **GEOMETRY OF CURVES** AND SURFACES

By Ernest P. Lane

An exposition of research coordinating the American and Italian schools. Contains new results hitherto unpublished.

geology-

A DESCRIPTIVE PETROGRAPHY OF THE **IGNEOUS ROCKS**

By Albert Johannsen

Volume II just published. The most comprehensive textbook on petrography in English. Volume II defines the rock families and traces the history of the terms. Both megascopic and microscopic characteristics are given. Volume I, \$4.50 Volume II, \$5.50

botany-

METHODS IN PLANT HISTOLOGY

Revised edition, 1932

By Charles J. Chamberlain

In the fifth edition of this popular text direc-tions for collecting material have been amplified, and directions for fixing, hydrating, and staining have been improved. Various new methods for sectioning are treated in detail.

The University of Chicago

Macmillan Announces

A timely volume by distinguished scientists on a subject of vital importance

ALCOHOL AND MAN

The Effects of Alcohol on Man In Health and Disease

EDITOR

HAVEN EMERSON, M.D.

De Lamar Institute of Public Health, Columbia University

Associate Editors

HENRY A. CHRISTIAN, M.D. Harvard University

REID HUNT, M.D.

Harvard University

ARTHUR HUNTER, LL.D., F.A.S.

N. Y. Life Insurance Company

CHARLES C. LIEB, M.D. Columbia University

WALTER R. MILES, Ph.D. Yale University

ERNEST G. STILLMAN, M.D.

Rockefeller Institute for Medical Research

TABLE OF CONTENTS

Part I

The Effects of Alcohol on Human Functions

Part II

The Effects of Alcohol on the Cell and in Heredity

Part III

Alcohol as a Poison and as a Medicine

Part IV

Alcohol and Body Resistance and Pathology

Part V

The Effect of Alcohol on Man's Conduct and Mentality

Part VI

Alcohol and Longevity, Mortality and Morbidity

Excerpt from the preface

"The editorial group responsible for this volume in collaboration with colleagues in the medical and associated sciences found themselves in hearty agreement to the effect that education in the basic facts about alcohol was essential to the best interest of modern man and his social organization, whether or not legislation was to be a permanent factor in determining the extent to which commerce in beverage alcohol was to be permitted."

The scientific facts speak for themselves.

Write for full information to

THE MACMILLAN COMPANY

60 Fifth Avenue

New York

PUBLICATIONS

of the

ARNOLD ARBORETUM of HARVARD UNIVERSITY

Journal of the Arnold Arboretum of Harvard University.

An illustrated journal dealing with taxonomy, cytology and plant pathology chiefly in reference to ligneous plants.

Subscription \$3.00 per year; beginning with vol. XIV (1933) \$4.00 per year. Single copies

Contributions from the Arnold Arboretum of Harvard University.

A series of longer papers with the subject matter similar to that in the Journal, issued at irregular intervals; each paper priced separately.

- No. 1. THE HYPODERMATACEAE OF CONIFERS. By G. D. Darker. 131 pp. 27 pl. \$3.00.
- No. 2. TAXONOMY AND GEOGRAPHICAL DISTRIBUTION OF THE GENUS MILESIA. By J. H. Faull. (In press.)
- No. 3. STUDIES IN THE BORAGINACEAE, IX. By I. M. Johnston. (In preparation.)

Address

THE ARNOLD ARBORETUM, Jamaica Plain, Mass.

S. A. Mitchell's **ECLIPSES**

OF THE SUN

is now published in a third, completely revised edition including an account of all scientific data discovered prior to the August 31st eclipse Profusely illustrated Price, \$5.00 Astronomers all know of it. "It's the only modern work on the subject for the layman"-The New Republic Available in Braille Columbia University Press, 2960 Broadway,

New York, N. Y.



THE WISTAR INSTITUTE BIBLIOGRAPHIC **SERVICE**

ISSUES

AUTHORS' ABSTRACTS

of all papers appearing in the journals listed below prior to publication of the articles in full. By this advance information biologists may familiarize themselves with contemporary research in a minimum of

Advance Abstract Sheets are issued twice a month, each sheet containing ten or more authors' abstracts.

Subscription rate is \$3.00 per year.

Bibliographic Service Cards, following the Advance Abstract Sheets, also are issued twice a month. In addition to the authors' abstracts, the cards provide subject headings and complete bibliographic reference. The cards are convenient for filing and library records. Price, \$5.00 per year.

At regular intervals the authors' abstracts are assembled and published in book form with complete authors' and analytical subject indices. Price, \$5.00 per volume. Liberal discount to subscribers to the Bibliographic Service Cards.

JOURNAL OF MORPHOLOGY
THE JOURNAL OF COMPARATIVE NEUROLOGY
THE AMERICAN JOURNAL OF ANATOMY
THE AMERICAN JOURNAL OF ANATOMY
THE ANATOMICAL RECORD
THE JOURNAL OF EXPERIMENTAL ZOÖLOGY
AMERICAN ANATOMICAL MEMOIRS
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY
JOURNAL OF CELLULAR AND COMPARATIVE PHYSIOLOGY
FOLIA ANATOMICA JAPONICA (TOKYO, JAPAN)
PHYSIOLOGICAL ZOÖLOGY (Chicago, Illinois)
STAIN TECHNOLOGY (Geneva, New York)
ECOLOGICAL MONOGRAPHS (DURHAM, NORTH CAROlina)

The Wistar Institute of Anatomy and Biology Philadelphia, Pa., U. S. A.

NEW (15th) EDITION OF

THE MICROSCOPE

By SIMON HENRY GAGE

Revised throughout, and a wholly new chapter on the Ultra-Violet Microscope. Price, \$4.00.

THE COMSTOCK PUBLISHING CO., Ithaca, N. Y.

Microscopes and Accessories

Photomicrographic and Projection Apparatus Leica Camera- Prismatic Field Glasses

E. LEITZ, Inc.,

Dept. 173, 60 East 10th Street

New York, N. Y.

Stylograph is a wax sensitized paper for graphic recordings. It marks with any sharp point and does not rub off like smoked paper.

THE STYLOGRAPH CORPORATION

Scottsville Road

Rochester, New York

Field Equipment for Engineers, Explorers, Hunters, Travelers

Scientific Instruments, Packing Equipment, Skis, Firearms, Clothing, Fiala Pat. Sleeping Bags, Optical Instruments, Astronomic Telescopes, Bange Finders, Binoculars.

Paulin Altimeters. Write for Catalog "A" FIALA OUTFITS

47 Warren St., New York