

SCIENCE

VOL. 76

FRIDAY, NOVEMBER 18, 1932

No. 1977

<i>A Concept of the Ultramicroscopic Virus Diseases and a Classification:</i> PROFESSOR EARL B. MCKINLEY	449	<i>Societies and Meetings:</i>	
<i>The Establishment of Priority in Scientific Discoveries:</i> DR. C. A. BROWNE	454	<i>The International Congress of Mathematicians, Zurich:</i> PROFESSOR DAVID EUGENE SMITH	468
<i>Obituary:</i>		<i>The American Association for the Advancement of Science:</i>	
<i>Frank Pell Underhill:</i> PROFESSOR RUSSELL H. CHITTENDEN. <i>Recent Deaths</i>	457	<i>General Lectures at Atlantic City:</i> DR. CHARLES F. ROOS	471
<i>Scientific Events:</i>		<i>Scientific Apparatus and Laboratory Methods:</i>	
<i>Industrial Research in Great Britain; Scientific Work in China; The Morris Arboretum and the University of Pennsylvania; The Award of the Perkin Medal</i>	458	<i>A Least-squares Curve-fitting Machine:</i> PROFESSOR W. L. GAINES and J. R. PALFREY. <i>Paleogeographic Wall Maps:</i> DR. LEROY T. PATTON	472
<i>Scientific Notes and News</i>	460	<i>Special Articles:</i>	
<i>Discussion:</i>		<i>The Structure of Vitamin A and the Synthesis of Ionenenes:</i> PROFESSOR MARSTON TAYLOR BOGERT	475
<i>A Proposed Compendium of Culture Methods for the Lesser Invertebrate Animals:</i> PROFESSOR JAMES G. NEEDHAM. <i>Phycomycetes, Ascomycetes and Fungi imperfecti in Oklahoma Soil:</i> RAMONA L. TODD. <i>Mitochondria as Centrosomes:</i> DR. HERBERT G. COAE. <i>Fresh-water Medusae:</i> DR. STANLEY T. BROOKS	464	<i>Science News</i>	8
<i>Special Correspondence:</i>			
<i>New England Intercollegiate Geological Excursion:</i> DR. WILBUR G. FOYE	465		
<i>Scientific Books:</i>			
<i>de Sitter's Kosmos:</i> DR. HARLAN T. STETSON. <i>Hope-Jones on Electric Clocks:</i> PROFESSOR F. E. BEACH. <i>Wood's Introduction to the Literature of Vertebrate Zoology:</i> PROFESSOR ROBERT C. MILLER	466		

SCIENCE: A Weekly Journal devoted to the Advancement of Science, edited by J. MCKEEN CATTELL and published every Friday by

THE SCIENCE PRESS

New York City: Grand Central Terminal
Lancaster, Pa. Garrison, N. Y.
Annual Subscription, \$6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Association for the Advancement of Science. Information regarding membership in the Association may be secured from the office of the permanent secretary, in the Smithsonian Institution Building, Washington, D. C.

A CONCEPT OF THE ULTRAMICROSCOPIC VIRUS DISEASES AND A CLASSIFICATION¹

By Professor EARL B. MCKINLEY

THE GEORGE WASHINGTON UNIVERSITY MEDICAL SCHOOL

We² have recently attempted to define a filterable virus as a particulate agent, probably endowed with life, of a size and carrying an electric charge which permits it to pass through the pores of ordinary filter candles, as a rule ultramicroscopic (though there may be exceptions), related in many instances to the formation of intracellular inclusion bodies (intracytoplasmic, intranuclear or both). Since disease phenomena have focused our attention upon them they appear to be capable of producing in many instances specific pathologic processes in several different forms of life, including man, lower animals, fowls, fishes, insects and plants.

It is exceedingly difficult to formulate a definition

¹ Address at the annual meeting of the American Society for Experimental Pathology, Philadelphia, Pennsylvania, on April 28, 1932.

² E. B. McKinley, *The Sci. Monthly*, 32: 398, 1931.

for this large group of agents, which we now, perhaps unfortunately, speak of as the filterable viruses. One may appear foolhardy in attempting such a definition until the exact nature of these agents is known. However, certain developments in the fields of pathology and bacteriology make it of paramount importance at the present time that even with our limited knowledge of the nature of viruses, we attempt to define our problems in order that in the future there may be less confusion than exists at the present moment concerning this group of disease-producing agents. For this reason we have attempted a tentative definition of the filterable viruses and will later present a classification which we suggest as a working basis in thinking of this group of agents.

The history of the virus group is well known and needs no repetition here. Suffice it to say that most

**Publications of
The New York Botanical Garden
Flora of the Prairies and Plains of
Central North America**

by Per Axel Rydberg, Ph.D.

A cloth-bound volume containing 969 pages, with 601 text-figures. It includes descriptions of 177 families, 1086 genera, and 3,988 species, keys to all groups, with glossary, etc. It aims to describe all the native and naturalized species of ferns, fern-allies, and seed-plants of Kansas, Nebraska, Iowa, Minnesota, South Dakota, and of parts of Illinois, Wisconsin, Missouri, Oklahoma, Colorado, Wyoming, Montana, Manitoba, and Saskatchewan. Published April, 1932. Price \$5.50, postpaid.

Serials

Journal of the New York Botanical Garden. Monthly; \$1.00 a year.

Mycologia, bi-monthly, devoted to fungi; \$5.00 a year. **Addisonia**, quarterly, including colored plates and popular descriptions of flowering plants; \$10.00 a year.

North American Flora. Descriptions of the wild plants of North America; 71 parts now issued; \$1.50 per part for subscriptions to complete sets; certain parts separately at \$2.00 each.

Memoirs of The New York Botanical Garden. Technical papers; \$3.00 a volume (vol. VII, \$5.00).

Brittonia. A series of botanical papers; \$5.00 a volume.

Address **The New York Botanical Garden**
Bronx Park (Fordham Station)
New York, N. Y.

**Cook
HIGH-PRESSURE
GAS COMPRESSORS**

for pressures up to 300 atm., capacities of 60 to 80 cu. ft. per hour, at 300 atm.

Simple, Small, Efficient.

Specially developed for compressing oxygen, hydrogen, rare, noxious, or poisonous gases.

*Write for details, stating
your individual needs*

HERMAN A. HOLZ

Complete Line of High-Pressure Research Equipment for Gases and Liquids.

167 East 33rd Str.

New York

**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 time.

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 ANATOMICAL RECORD
THE JOURNAL OF EXPERIMENTAL ZOOLOGY
AMERICAN ANATOMICAL MEMOIRS
AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY
JOURNAL OF CELLULAR AND COMPARATIVE PHYSIOLOGY
FOLIA ANATOMICA JAPONICA (Tokyo, Japan)
PHYSIOLOGICAL ZOOLOGY (Chicago, Illinois)
STAIN TECHNOLOGY (Geneva, New York)
ECOLOGICAL MONOGRAPHS (Durham, North Carolina)

The Wistar Institute of Anatomy and Biology

Philadelphia, Pa., U. S. A.

**Second Edition: Revised and Enlarged
THE RAT: DATA AND REFERENCE TABLES**

Memoir No. 6: 458 pages. Bibliography: 2206 titles

HENRY H. DONALDSON

Published by THE WISTAR INSTITUTE
Philadelphia, Pa., U. S. A. Price, \$5.00

The Rat: A bibliography, 1924-1929.

L. E. DRAKE and W. T. HERON

1353 titles—with subject index.

Price—50 cents

Orders may be sent to

**The Wistar Institute, 36th Street & Woodland Ave.,
Philadelphia, Penna.**

**CHEMICAL, MEDICAL AND
SCIENTIFIC PERIODICALS, For sale**

Complete sets, volumes and back issue copies.

Books no longer obtainable at the publishers.

Exchanges with Libraries solicited.

B. LOGIN & SON, INC. Est. 1887
29 East 21 St., New York

A Hoke-Jewel Blowpipe

is a necessity in working Pyrex and quartz; brazing; soldering; etc. Will melt platinum. Ask for folder S-5.

Hoke Incorporated

22 Albany St., New York City.

