SPECIAL ISSUE CONTAINING THE PRELIMINARY ANNOUNCEMENT OF THE DES MOINES MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AND ASSOCIATED ORGANIZATIONS, DECEMBER 27, 1929, TO JANUARY 2, 1930. EDITED BY BURTON E. LIVINGSTON, PERMANENT SECRETARY

SCIENCE

Vol. LXX FRIDAY	Friday, November 29, 1929		No. 18	1822
The American Association for the Advancement	of &	cientific Notes and News		. 533
Science: Preliminary Announcement of the Des Moin Meeting: Professor Burton E. Livingston Announcements and Reports Important Notices; The Main Functions of t Annual Meetings	nes 1 511 511 ihe 512	University and Educational Notes Discussion: The Falling of the Dew: Dr. W. J. Humph Retreat of Cavell Glacier: Dr. E. L. Perry. crop vs. Exposure: Dr. Herbert P. Woody On New Laws for the Solar System: A. E.	REYS. Out- VARD CAS	• • •
Annual Meetings Previously Held in the West; Features of General Interest General Officers and Committees Organizations Holding Sessions at Des Moines Associated Societies Meeting Elsewhere The Press Service The American Association Prize	513 514 516 518 519 520	WELL. Continued Growth of American Ches ARTHUR P. KELLEY Special Articles: The Protozoa of Wild Monkeys: Dr. Robert NER. Velocity of Chemical Reactions: The W. EVANS and Professor William M. Deh Science Service	HEG DORI	. 537 - . 539
Transportation; Hotel Accommodation; Assoction Membership Associates and Foreign Associates; Information Service; Business Sessions; Conferences of Sectaries and Academies; The Science Exhibition Scientific Sessions	522 on 1 re- 1 523	SCIENCE: A Weekly Journal devoted to the nent of Science, edited by J. McKeen Cattell ished every Friday by THE SCIENCE PRESS New York City: Grand Central Termin	and	
Obituary: Henry Daggett Hooker, Jr.; Recent Deaths	531	Lancaster, Pa. Garris		V V
Scientific Events: Explorations in China; Cancer Research in E gland; Forest Education; The Fiftieth Anniv sary of the American Society of Mechanical Enneers	n- er- t	Annual Subscription, \$6.00 Single Copie SCIENCE is the official organ of the American ion for the Advancement of Science. Information membership in the Association may be seche office of the permanent secretary, in the Sr. prestitution Ruidling Washington D. C.	s, 15 Ass n re ired	Cts. socia- gard- from

THE AMERICAN ASSOCIATION FOR THE ADVANCE-MENT OF SCIENCE

PRELIMINARY ANNOUNCEMENT OF THE DES MOINES MEETING

Edited by Professor BURTON E. LIVINGSTON

PERMANENT SECRETARY

ANNOUNCEMENTS AND REPORTS

This preliminary announcement is planned to give such information about the arrangements for the Des Moines meeting as can be published at this time, especially such information as may be useful before the opening of the meeting. Additional notes may appear in later issues of Science. This meeting will be the eighty-sixth meeting of the American Association. It will be the meeting for the association year 1929–1930. It will be the first meeting to be held in Des Moines. While it will probably not be as large a meeting as some of the recent ones it will be satisfactorily representative of the main fields of science, and those who attend will be able to make selection from a very large number of addresses and contributions

touching all the sciences, which will fill convocation week very thoroughly. This is to be the annual week of American science and all who are interested in the advancement of science and education are cordially invited to be present throughout the whole week. The Des Moines sessions for the reading of papers will not be restricted to members of the association and the societies meeting with it, but they are to be freely open to every one.

The general program for this meeting, a book of over two hundred pages, will be available at the registration offices in the Shrine Temple, Des Moines, at nine o'clock on Friday, December 27, and thereafter. It will be supplied free to all who register and may be purchased by others. Any person who does not

The Journal of General Physiology

W. J. CROZTER

JOHN H. NORTHROP

W. J. V. OSTERHOUT

DAMON, E. B. Dissimilarity of inner and outer

GATES. FREDERICK L. A study of the bactericidal action of ultra violet light. I. The reac-

GATES, FREDERICK L. A study of the bactericidal action of ultra violet light. II. The effect

OSTERHOUT, W. J. V. The kinetics of penetration. I. Equations for the entrance of elec-

of various environmental factors and condi-

protoplasmic surfaces in Valonia. II. BLINKS, L. R. Protoplasmic potentials in Hali-

tion to monochromatic radiations.

Contents of Volume 13, No. 2, November 20, 1929:

cystis.

tions

trolytes.

ANSON, M. L., AND MIRSKY, A. E. Protein coagulation and its reversal. The preparation of the logarithmic order of death. of completely coagulated hemoglobin.

MIRSKY, A. E., AND ANSON, M. L. Protein coagulation and its reversal. The reversal of the coagulation of hemoglobin.

KRUEGER, A. P., AND TAMADA, H. T. The preparation of relatively pure bacteriophage. EMERSON, ROBERT. Measurements of the metabolism of two protozoans.

EMERSON, ROBERT. Some properties of the pigment of Blepharisma.
EMERSON, ROBERT. On the behavior of nickel

carbonate in relation to photosynthesis.

ABRAMSON, HAROLD A. Electrokinetic phenomena. I. The adsorption of serum proteins by quartz and paraffin oil.

THE JOURNAL OF GENERAL PHYSIOLOGY, founded in 1918 by Dr. Jacques Loeb, contains practically all the investigations of Dr. Loeb after that time.

There are, in addition, contributions by many leading physiologists, both in this country and abroad. It has now been decided to offer a complete set of the back volumes at half price to new subscribers. The first twelve volumes complete may therefore be obtained for \$30.00 by new subscribers until December 31, 1929.

SUBSCRIPTION PRICE PER YEAR (ONE VOLUME), \$5.00. PUBLISHED BIMONTHLY BY

The Rockefeller Institute for Medical Research YORK AVENUE AND 66TH STREET NEW YORK, N. Y.

John Dewey says:

"It is an event of the first intellectual order"

PROCESS and REALITY

By A. N. WHITEHEAD

Author of Science and the Modern World and Religion in the Making

"It is not too much to say that Mr. Whitehead's last book . . . is more than a forerunner of the revival of systematic philosophies. It belongs in scope and intent with the great classic systematization of history." John Dewey in the N. Y. Sun.

"It will be considered one of the greatest intellectual achievements of this age."-Henry N. Wieman.

At bookstores \$4.50

THE MACMILLAN COMPANY

NEW YORK

A New Book

The Fundamentals of **RADIO**

R. R. RAMSEY, Professor of Physics, Indiana University, Member Inst. Rad. Eng., Fellow Am. Phys. Soc., Author of Experimental Radio.

(372 pages, 6" x 9", 402 figures.)

A text-book for students of radio giving the fundamental theories and their applications to modern practice. It explains many theoretical and practical points which have not found their way into other books.

A new 1929 edition of

EXPERIMENTAL RADIO.

A laboratory manual of radio experiments. (255 pages, 128 experiments.)

"Ramsey manages to supply that missing fact which seems to be hidden in other books." Price postpaid

Fundamentals of Radio \$3.50 Experimental Radio

University Book Store, Bloomington, Indiana.

The Wistar Institute Bibliographical Service

is of invaluable assistance to

Librarians-Investigators-Teachers

It brings to them, in AUTHORS' ABSTRACT form, a brief review of all original papers on Biological Subjects which appear in the following journals:

Journal of Morphology and Physiology
The Journal of Comparative Neurology
The American Journal of Anatomy
The Anatomical Record
The Journal of Experimental Zoology
American Journal of Physical Anthropology
The American Anatomical Memoirs
Folia Anatomical Japonica (Tekio, Japan)
Stain Technology (Geneva, N. Y.)
Physiological Zoology (Chicago, Ill.)

Advance Abstract Sheets

issued semi-monthly, bearing Authors' Abstracts without bibliographic references, offer a practical means of making research immediately available in abstract form and of purchasing articles of special interest in reprint form without the necessity of subscribing to all the journals. Subscription, \$3.00 per year.

Bibliographic Service Cards

with complete bibliographic references, printed on Standard Library-catalogue cards, are of value and assistance to Librarians and Investigators. Subscription, \$5.00 per year.

Abstracts in Book Form

referred to above, are brought together periodically, with Authors' and Analytical Subject Indices. Price \$5.00 per volume.

Subscriptions to the Bibliographic Service and orders for reprints should be sent to

The Wistar Institute of Anatomy and Biology
Thirty-sixth St. and Woodland Ave. Philadelphia, Pa.

ISIS

INTERNATIONAL REVIEW DEVOTED to the HISTORY of SCIENCE and CIVILIZATION

Quarterly Organ of the History of Science Society Edited by GEORGE SARTON, D.Sc.

> Harvard Library 185, Cambridge, Massachusetts, U.S.A.

"ISIS" is the most important journal of its kind published anywhere in the world. It contains original papers, chiefly in English, subsidiarily in French, German, Italian, Latin; shorter articles; and an abundant bibliography. Much attention is paid to Oriental science and civilization.

A new feature is the inclusion of addenda and errata to Sarton's "Introduction to the History of Science," Vol. I. From Homer to Omar Khayyám (1927). Thus the readers of "ISIS" can easily keep their knowledge on the subject up-to-date.

The price of each volume is \$6.

Members of the History of Science Society receive free of charge every number published within the year, at least one volume. Last year (1927) they received two volumes (1110 pages, 28 plates), including 27 papers, 73 shorter items, and 2828 bibliographical notes.

Annual dues, \$5 SECRETARY: F. E. BRASCH Library of Congress, Washington, D. C.

Specimen numbers may be obtained, as long as the supply lasts, from the Secretary

Research Vacancies

The National Research Council of Canada will shortly appoint to its technical staff two junior researchers whose aptitude and experience are along lines of research in (1) Heat, (2) Aeronautics.

These researchers will be required to give immediate attention to problems dealing with (1) Conduction and Insulation of Heat; (2) Aerodynamics, Hydrodynamics and Aircraft Engines.

Interested applicants should communicate immediately, stating age, education, research experience, references and salary required to S. P. Eagleson, Secretary, National Research Council of Canada, Ottawa, Canada.

Journal of the Optical Society of America and Review of Scientific Instruments

Published monthly by the Optical Society of America in co-operation with the Association of Scientific Apparatus Makers of America

CONTENTS FOR OCTOBER, 1929

The Prism with an Index of Refraction Less than Unity.

Uranium as an Activator II.

INSTRUMENTS

The Value of the Scientific Instrument Industry to the Life of the Country.

The Mercury Meniscus.

The Measurement of Magnetic Quantities.

A Vacuum Tube Voltage Regulator for Large Power Units.

Computing Attachment for Comparators.

Subscription \$5.00 per year

Address orders to

F. K. RICHTMYER, Manager

Rockefeller Hall Ithaca, N. Y.



LOMARA Pocket MICROSCOPE

one-half size



Price \$6.75

Extra lens set (30x to 200x) \$4.00. Extra stand \$4.00

A finely made pocket microscope for field and laboratory

Achromatic lenses, fine screw and even adjustment.

Descriptive circular from your dealer or:

ALSO IN DEMOUNT-ABLE KIT FORM

like draughtsman's instrument kit. Several additional useful attachments, pencil, stand and extra lens set. In leather covered case, 4%"x 10" x 14". Excellent for field or lab-\$30.00

oratory use.

317 E. 34th St

C. P. GOERZ AMERICAN OPTICAL CO.-Importers



PHOTOELECTRIC CELLS Television—Talking Pictures—Research

G.-M. VISITRON cells of the alkali metal hydride type are of highest sensitivity, low dark current, long life, and respond to the smallest changes of light intensity and color. Their high quality and uniform sensitivity make them the choice of leading engineers. Get technical Bulletin P-14 Free.

G.-M. Laboratories, Inc., 1808 Grace St., Chicago, Ill.



Write for liters-

fu Po

CORNING GLASS WORKS, Dept. 75 Industrial and Laboratory Div., Corning, N. Y.

PHONELESCOPE

Teaches Through the Eve

SOUND. ELECTRICITY

CAPITAL APPARATUS WORKS

Box 885

Washington, D. C.



► Hy-Speed MIXERS <

Clamp to any tank, operate from light circuit, mix all kinds of liquids. Also used for even temperature baths. Thousands in use.

Write for circular ALSOP ENGINEERING CO. 47 W. 63rd St.

OR

Use Hoke reducing valves with your hydrogen, oxygen and other gases. Ask for folder 8-3.





LIVING BULLFROGS Safe delivery guaranteed

Teach Biology with live specimens where practicable

We have the only complete live materials establishment in America. Live plants and animals representing all types are kept on hand

under semi-natural conditions at all seasons. Also headquarters for preserved specimens of all types, microscopic slides, life histories, demonstrations, osteological preparations, in-sect collections. We specialize in many impor-

tant southern species not obtainable elsewhere. All material guaranteed without reservations.

SOUTHERN BIOLOGICAL SUPPLY CO., INC., Natural History Building, New Orleans, La.

SPLIT SECOND TIMERS
No. 1. "PASTOR." Time piece & Stop-watch, fifth
second. Robust. Guaranteed. Price \$9.95 net.
No. 3. Fifth second, 30 minute registered. Jeweled lever movement and chromium case

Price \$12.85 net. Write for Circular

The Sterling Stop Watch Co., Inc. 15 East 26th Street, New York City.

THE MICROSCOPE

By SIMON H. GAGE, of Cornell University Revised, Dark-field Edition (1927) now Available. The Old and the New in Microscopy, with a special chapter on Dark-Field Methods and their Application, Postneid, \$8.50

COMSTOCK PUBLISHING CO., ITHACA, N. Y.



"Becbro" Laboratory RHEOSTATS

Becbro Laboratory Rheostats made of both iron enameled and solid wall porcelain tubes.

The above illustration shows one of the numerous types of "BECBRO" tubular, slide contact, rheostats manufac-tured and carried in stock by

The various types are made in several lengths of 8", 16", and 20", respectively, with resistance values of from 0.25 ohm and 25 amperes, to 30,000 ohms and current capacity

ohm and 20 amperes, to ov, our value of 0.1 ampere.

"BECBRO" Stone Rheostats are made in the following types: Single, Double, Universal, and Crossed Sections. These rheostats, with the porcelain tubular types, find their many uses in high frequency and radio work.

Our Outslopue 8-20 Sent You Upon Request

BECK BROTHERS, Makers

421 Sedgley Avenue Philadelphia, Pa.

The Science Press Printing Company

PRINTERS OF SCIENTIFIC AND EDUCATIONAL JOURNALS, MONOGRAPHS AND BOOKS

Correspondence Solicited

Lime and Green Sts.,

Lancaster, Penna