

SCIENCE

VOL. LX

JULY 4, 1924

No. 1540

CONTENTS

<i>Present Status of Investigations concerning Antiquity of Man in California:</i> DR. JOHN C. MERRIAM	1
<i>Ancient Human Remains in Los Angeles, California:</i> DR. CHESTER STOCK	2
<i>"Analyzed Sound" in Nature:</i> DR. ALEXANDER FORBES	5
Scientific Events:	
<i>Pittsburgh Training School's Lecture Course on Science and Education; Barro Colorado Island Biological Station; The Third Pan-American Scientific Congress; Geology at the Toronto Meeting of the British Association; Gifts to Harvard University</i>	8
<i>Scientific Notes and News</i>	10
<i>University and Educational Notes</i>	12
Discussion and Correspondences	
<i>On the Proper Wording of the Titles of Scientific Papers:</i> DR. E. W. GUDGER. <i>The Relation between Volatility and Toxicity of Nicotine:</i> E. R. DE ONG. <i>Science and Industry:</i> DR. JEROME ALEXANDER. <i>The Argentine Weather Service:</i> DR. H. H. CLAYTON	13
Scientific Books:	
<i>Power and Thompson's Chronologia Medica:</i> F. H. GARRISON	16
Laboratory Apparatus and Methods:	
<i>An Apparatus for the Study of Microorganisms in Culture Solutions under Constant Hydrogen Ion Concentrations:</i> DR. C. P. SIDERIS. <i>A new Method of obtaining Mosaic "Virus":</i> JAMES JOHNSON and MAURICE MULVANIA	17
Special Articles:	
<i>Chromosomal Chimeras in the Jimson Weed.</i> DR. ALBERT F. BLAKESLEE and DR. JOHN BELLING. <i>Unique Dietary Needs for Lactation:</i> DR. HERBERT M. EVANS	19
The American Chemical Society:	
<i>Division of Organic Chemistry:</i> DR. J. A. NIEUWLAND	22
<i>Science News</i>	x

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

THE SCIENCE PRESS

Lancaster, Pa. Garrison, N. Y.

New York City: Grand Central Terminal.

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.

Entered as second-class matter July 18, 1923, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.

PRESENT STATUS OF INVESTIGATIONS CONCERNING ANTIQUITY OF MAN IN CALIFORNIA¹

THE fact that archeologists and historians have been interested in the problem of the antiquity of man in California for the past 60 years is due in a considerable measure to the peculiarity of the problem in that region. The California area offers exceptional opportunity for a great variety of studies in archeology and anthropology, and especially for those dependent upon our knowledge of geological processes of the present and of the period immediately preceding. The fact that the coast region of California seems to have been in almost continuous movement throughout the later geological periods means that there has been continuous erosion accompanied by continuous deposition, giving us at the same time a record of the processes of erosion and deposition and of the life of the region in this period.

It has been realized from the beginning of our studies on the Pacific coast that satisfactory conclusions regarding the antiquity of man in California can not be reached within any narrow time limits, and that no single mode of attack may be considered sufficient in itself. At the initiation of the studies conducted at the University of California four lines of investigation were laid down: (1) Tracing man back in time through an examination of the great shell mounds of the coast region, the most critical study being given to the lowest or earliest deposits. In this work opportunity was offered for going from the known culture of the uppermost layers of the mounds back to a period in which conditions may have been quite different from those governing the life of the Indians of the last centuries. (2) The thorough investigation of all available cave deposits, whether Recent or Pleistocene, with particular reference to possible human occupation. (3) A careful study of those Pleistocene and Recent land, stream, lake and marine formations in which the occurrence of human remains or relics appears possible. This comprised a study of many Pleistocene formations and the collection in them of all obtainable fossil remains. (4) A careful review of all evidence relating to the reputed occurrence of implements or human remains in the older gold-bearing gravels or other ancient deposits of a similar nature in California.

¹ Read before the National Academy of Sciences, Washington, D. C., April 29, 1924.

School of Medicine Western Reserve University

of Cleveland, Ohio

HIGH STANDARD OF ADMISSION*

RESTRICTED CLASSES

THOROUGH INSTRUCTION

LARGE CLINICAL FACILITIES

HIGH STANDARD OF SCHOLARSHIP

The 1924-25 session will open in the new medical building.

* Admission confined to students having academic degrees and to Seniors in Absentia.

For information address:

THE REGISTRAR

1353 E. 9TH ST.

CLEVELAND, OHIO

Johns Hopkins University Medical School

The Medical School is an Integral Part of the University and is in the Closest Affiliation with the Johns Hopkins Hospital.

ADMISSION

Candidates for admission must be graduates of approved colleges or scientific schools with at least two years' instruction, including laboratory work in chemistry, and one year each in physics and biology, together with evidence of a reading knowledge of French and German.

Each class is limited to 75 students, men and women being admitted on the same terms. Except in unusual circumstances, applications for admission will not be considered after July 1st.

If vacancies occur, students from other institutions desiring advanced standing may be admitted to the second or third year provided they fulfill our requirements and present exceptional qualifications.

INSTRUCTION

The academic year begins the Tuesday nearest October 1, and closes the second Tuesday in June. The course of instruction occupies four years and especial emphasis is laid upon practical work in the laboratories, in the wards of the Hospital and in the dispensary.

TUITION

The charge for tuition is \$300 per annum, payable in three installments. There are no extra fees except for rental of microscope, certain expensive supplies, and laboratory breakage.

The annual announcement and application blanks may be obtained by addressing the

Dean of the Johns Hopkins Medical School,
Washington and Monument Sts., Baltimore, Md.

Summer Work for Graduates in Medicine
Beginning Monday, June 2d, and ending Saturday, July 12th, a course in medical diagnosis, including laboratory exercises in clinical pathology and demonstrations in pathological anatomy, will be offered. The course will be limited to thirty students, fee \$100. Applications should be made to the Dean's Office.

N.U. Northwestern University MEDICAL SCHOOL

Situated in Chicago in close proximity to important Hospitals with an abundance of clinical material.

ADMISSION REQUIREMENTS—Two years of College credit including a satisfactory course in Physics, Chemistry, Biology or Zoology, and French or German.

COURSE OF STUDY—leading to the degree of Doctor of Medicine—Four years in the Medical School and a fifth year either as Interne in an approved hospital or devoted to research in some branch of Medical Science.

GRADUATE INSTRUCTION—in courses leading to the degree of Master of Arts or Doctor of Philosophy.

RESEARCH FOUNDATION—The James A. Patten Endowment for Research affords unusual opportunities for advanced students of Medical Science to pursue special investigations.

RESEARCH FELLOWSHIPS—Four fellowships of the value of \$500 each are awarded annually to promote scholarly research.

TUITION FEES—The tuition fee for undergraduate students is \$180.00 a year.

Next session begins September 26, 1924.

For information address

C. W. PATTERSON, Registrar

2421 South Dearborn St. Chicago, Illinois

YALE UNIVERSITY School of Medicine

Affiliated with the New Haven Hospital
and New Haven Dispensary

112TH SESSION

Reorganized on a full-time basis

Entrance Requirements: A minimum of three years (or its equivalent) of college including general biology, physics, general and organic chemistry, qualitative analysis, physical chemistry or laboratory physics, and either French or German.

ALL THE GENERAL FACILITIES OF THE UNIVERSITY ARE AVAILABLE TO MEDICAL STUDENTS

As the number admitted to each class is limited, applications must be made before July 1.

Dean, Yale University School
of Medicine

NEW HAVEN, CONN.

BOSTON UNIVERSITY SCHOOL OF MEDICINE



ORGANIZED IN 1873

ANNOUNCEMENT

may be obtained by application to

WESLEY T. LEE, M.D., Registrar

80 East Concord Street,

Boston, Massachusetts.

Marine Biological Laboratory

Woods Hole, Mass.

INVESTIGATION

Entire Year

Facilities for research in Zoology, Embryology, Physiology, and Botany. Eighty-four private laboratories \$100 each for not over three months. Thirty tables are available for beginners in research who desire to work under the direction of members of the staff. The fee for such a table is \$50.00.

INSTRUCTION

July 2 to August
12, 1924

Courses of laboratory instruction with lectures are offered in Invertebrate Zoology, Protozoology, Embryology, Physiology and Morphology and Taxonomy of the Algae. Each course requires the full time of the student. Fee, \$75.00.

SUPPLY DEPARTMENT

Open the Entire
Year

Animals and plants, preserved, living, and in embryonic stages. Preserved material of all types of animals and of Algae, Fungi, Liverworts and Mosses furnished for classwork, or for the museum. Living material furnished in season as ordered. Microscopic slides in Zoology, Botany, Histology, Bacteriology. Catalogues of Zoological and Botanical material and Microscopic Slides sent on application. State which is desired. For catalogues and all information regarding material, address:

GEO. M. GRAY,

Curator, Woods Hole, Mass.

The annual announcement will be sent on application to The Director, Marine Biological Laboratory, Woods Hole, Mass.



Research Prize of \$1,000

THE ELLEN RICHARDS RESEARCH PRIZE

is offered for award in the year 1925. Theses by women based on independent laboratory research are eligible for competition and must reach the Committee before January 15, 1925.

If the prize is not awarded a grant is available under certain conditions.

For circulars of information and application blank, apply to

President ADA L. COMSTOCK
Radcliffe College, Cambridge, Mass.

For further information apply to the Secretary, Mrs. Samuel F. Clarke, Williamstown, Mass.

Improved MacMichael Viscosimeter

Suitable for factory control,—Also for laboratory research.

Write for Bulletin 320

EIMER & AMEND

Third Avenue, 18th to 19th Street New York, N. Y.

WASHINGTON, D. C.

PITTSBURGH, PA.

DISPLAY ROOM, Evening Star Bldg. Agent, 4048 Franklin Road, N-S

COMPLETE EQUIPMENT SERVICE

Explorers—Engineers—Travelers—
Scientists

The only place in the U. S. where every unit of the correct outfit may be obtained.

Fiala Patent Sleeping Bag

The only light weight, scientific bag made—keeps in the heat, allows body moisture to escape. \$20 up.

Single and double barreled Rifles for Alaskan and African big game.

GURLEY'S celebrated Transits, Levels
Alidades, Water Meters and Registers.

Write for descriptive circulars

FIALA OUTFITS INC.

ANTHONY FIALA, 25 Warren Street, New York



Naturalists' Supplies

We carry in stock for prompt delivery

- I. Collecting Utensils.
- II. Breeding Apparatus and Cages for Living Animals.
- III. Preparing and Preserving Utensils.
- IV. Cabinets and Insect Cases.
- V. Magnifiers, Microscopes and Accessories.
- VI. Botanists' Supplies.
- VII. Explorers' and Collectors' Camp Outfits.
- VIII. Miscellaneous Naturalists' Supplies.
- IX. Oologists' Supplies.
- X. Aquaria.
- XI. Books and Publications.
- XII. Chemicals.
- K-S Museum Cabinets of Glass and Metal

New Illustrated Biological Catalogue will be sent free of charge upon application.

The Kny-Scheerer Corporation

Dept. of Natural Science, 56 West 23rd St.
G. Lagai, Ph.D. New York City

FOR THE Biological Sciences

Prompt Service - - - Guaranteed Quality

Naturalists' Supplies
Microscope Slide Preparations
Preserved Material
Display Material
Lantern Slides
Charts, Botanical and Zoological
Microscopes, Microtomes and
Accessories
Dissecting Instruments
Laboratory Glassware
Chemicals
Bacteriological Reagents

Our new pamphlet on Naturalists' Supplies is now ready for distribution and will be forwarded upon request.



New York Biological Supply Co.

271 West 125th Street New York, N. Y.

NATURAL HISTORY Specimens and Models

We have been getting together specimens for over fifty years, so are in an exceptional position to supply material for the following sciences:

Mineralogy, Geology, Paleontology,
Conchology, Ornithology, Zoology
and Entomology

Some of our recent circulars are

- S-220 Mineral and Rock Collections
- S-243 Wooden Crystal Models
- S-223 Relief Maps
- S-242 Interesting Fossils
- S-241 Microscope Slides of Parasites
- S-235 Special Dissections of Animals
- S-223 Biological Material for Dissection
- S-229 Life Histories of Insects of Economic Importance
- SC-37 Human Anatomical Models
- SC-38 Comparative Zoology Models
- SC-33 Entomological Supplies
- SC-31 Taxidermy catalogue

Ward's Natural Science Establishment

84-102 College Ave. Rochester, N. Y.

BIOLOGICAL ILLUSTRATING

High grade drawings in line and half tone for botanical and zoological publications and papers. Microscopic drawings, charts, and graphs prepared. Write for samples of work.

H. C. CREUTZBURG, Biological Artist,
WISTAR INSTITUTE OF ANATOMY AND BIOLOGY
Philadelphia, Pa.

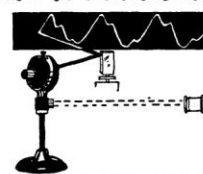
SCIENTIFIC PERIODICALS

Chemical, Medical and allied subjects. Complete files, volumes and copies, bought and sold. Kindly send us a list of your wants.

B. LOGIN & SON

29 East 21st Street New York, N. Y.

PHONESCOPE
TEACHES THROUGH THE
The Movies for all
SOUND **WAVE MOTION**
ELECTRICITY
HERBERT GROVE DORSEY MASSACHUSETTS



MIRRORS FROM 5 TO 40 CM. FOR CASSE-
GRAIN & NEWTONIAN TELESCOPES

MADE TO ORDER

Achromatic Objectives, 5 to 25 cm. Prisms.
Spherometers of Precision.

N. CARREAU, OPTICIAN,
226 Butts Bldg., Wichita, Kansas.