# SCIENCE

Vol. LVII FEBRUARY 16, 1923 No. 1468

The American Association for the Advance- ment of Science: On the Urgency of Research on the Great Portal to Disease in the Body: Professor	7.00
A. B. MACALLUM	189
Baird, the Man: Dr. William H. Dall	194
The Four Hundred and Fiftieth Anniversary of the Birth of Copernicus: Dr. C. G. Abbot	196
Scientific Events: Edward Jenner; The London Zoological Gardens; List of Scientific Periodicals; Cornell University Summer School of Biology; The Medals of the American	
Geographical Society	198
Scientific Notes and News	200
University and Educational Notes	204
Discussion and Correspondence:  Reaction Time and Fatigue: Professor R. H. Tucker. Physiology of Stomata of Rumex patientia: Dr. J. D. Sayre. A Botanical Spelling Match: Dr. Herbert	
C. HANSON	204
Scientific Books:  A Guide Book of the Geological Survey:  Dr. A. R. Crook	206
Suggestions for a World-code of Plant Nomenclature: T. A. Sprague, Dr. A. S. Hitchcock	207
Special Articles: A Comparison of the Mortality of Certain Lower Organisms with that of Man: Pro- FESSOR RAYMOND PEARL and DR. CARL R.	
DOEDING	209

SCIENCE: A Weekly Journal devoted to the Advancement of Science, publishing the official notices and proceedings of the American Association for the Advancement of Science, edited by J. McKeen Cattell and published every Friday by

The American Association for the Advance-

Engineering; Medical Sciences; Agricul-

ture; Education; Related Scientific Socie-

ment of Science:

#### THE SCIENCE PRESS

100 Liberty St., Utica, N. Y. Garrison, N. Y.

#### New York City: Grand Central Terminal

Annual Subscription, \$6.00. Single Copies, 15 Cts. Entered as second-class matter January 21, 1922, at the Post Office at Utica, N. Y., Under the Act of March 3, 1879.

#### ON THE URGENCY OF RESEARCH ON THE GREAT PORTAL TO DIS-EASE IN THE BODY<sup>1</sup>

In selecting as the subject of my address on this occasion the urgency of research in a line along which little progress has been made, I am led to do so by considerations which I think will appeal to many of my hearers. It is, first of all, one which is of transcendant importance as an antecedent to any great advance in scientific medicine in the near future. On looking over the road on which so much progress has been made in the last forty years. one cannot but be impressed with the idea that all the old lines of research have been developed as far as they are capable of yielding results commensurate with the expenditure of time and energy given to them and that we are now in the stage of diminishing returns. The record since 1880 is crowded with discoveries in scientific medicine which will preserve from oblivion those who have made them, but unless some new lines of attack on great problems are to be thrown open the record for the next thirty or forty years will not have to its credit similar achievements. A recognition that our present methods of research in scientific medicine are not to give solutions of some of the great problems in disease which still confront us is already beginning to prevail. The distinguished clinician, Sir James MacKenzie, who has been during the last thirty years one of the keenest students, on the scientific side, of clinical medicine, is so convinced that scientific medicine as now developed is not going to yield any further conquests of importance that he has been compelled to seek a new line of research which may give results which will initiate a new and great advance in medical science. The new line which he has taken is the study of the beginnings of disease in the individual, that is, a close and very careful observation of

1 Address of the vice-president and chairman of Section K-Physiology and Experimental Medicine, American Association for the Advancement of Science, Boston, December, 1922.

# **Cornell University** Medical College

First Avenue and Twenty-eighth St. NEW YORK CITY

The first year of the course is also offered at Ithaca, N. Y., subsequent vears at New York City only.

For Information Address

THE SECRETARY

# **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.

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

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 labo-

ratory 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 4th, and ending Saturday, July 14th, 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.

#### SCHOOL OF MEDICINE

# Western Reserve University

of Cleveland, Ohio

HIGH STANDARD OF ADMISSION\* RESTRICTED CLASSES THOROUGH INSTRUCTION LARGE CLINICAL FACILITIES HIGH STANDARD OF SCHOLARSHIP

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

For information address:

THE REGISTRAR 1353 East 9th St.. Cleveland, O.

# YALE UNIVERSITY SCHOOL OF MEDICINE

Affiliated with the New Haven Hospital and New Haven Dispensary

111TH 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 AVAIL-ABLE 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.

#### NEW YORK HOMOEOPATHIC MEDICAL COLLEGE AND FLOWER HOSPITAL

Entrance Requirements: A minimum of two years of college work, which must include certain specified courses.

Instruction: Four years' duration: broad in scope; adequate laboratory and clinical facilities. Active dispensary service.

For catalog address:

THE REGISTRAR **New York City** 1183 Avenue A,

#### TEACHERS WANTED

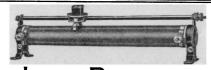
College positions with desirable salaries offered teachers for all departments of the Sciences. Special terms. The Interstate Teachers' Agency, Macheca Building, New Orleans, La.

#### The Microscope

By SIMON H. GAGE of Cornell University 13th Edition, Published December, 1920

In this edition, special emphasis is put upon the Dark-Field Microscope. POSTPAID \$3.00.

COMSTOCK PUBLISHING CO., Ithaca, N. Y.



# Jagabi Rheostats

meet a definite need in Educational, Research and Industrial Laboratories.

By means of sliding-contacts the resistance values can be varied from zero to full rating, in exceedingly small steps.

We find greatest demand for Rheostats with tubes 16" long, as illustrated above. Write for Descriptive Bulletin \$ 980.

JAMES G. BIDDLE, PHILADELPHIA 1211-13 ARCH STREET

### Marine Biological Laboratory Woods Hole, Mass.

INVESTIGATION

Facilities for research in Zoology, Physiology, and Entire Year

Entire Sor research in Zoology, and Botany. Physiology, and Botany. Physiology, and Botany. Eighty-four private laboratories \$100 each for not over 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 3 to August 14, 1923

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 Liverworts and Mosses furnished for classwork, or for the museum. Living material furnished in season as ordered. Microscopic slides in Zoologya, Bottany, 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 La-boratory, Woods Hole, Mass.

## AMERICAN SCHOOL IN FRANCE OF PREHISTORIC STUDIES

Archaeological Institute of America American Anthropological Association

Three scholarships for the year 1923-1924 are available.

Applicants should have some knowledge of prehistoric archaeology, not necessarily in the European field, and some acquaintance with French; a long course of preparation is not absolutely necessary.

The work of the School begins July first of each year, and continues for one year.

The time is divided between excavations, excursions and study in museums. This is supplemented by attendance at lectures given by French scholars and by the American Director.

Those who consider entering the school, whether or not applicants for scholarships, and whether or not intending to pass the entire year in the School, should address the chairman as soon as possible.

#### GEORGE GRANT MACCURDY, Chairman

Yale University Museum New Haven, Connecticut