

periments permitted under the Act are done for the routine purpose of public health or of medical treatment for the immediate benefit of the community or individual patients. The potency of many remedies in use to-day, notably glandular extract, vaccines sera, and some drugs, such as arsenicals (*e.g.*, salvarsan) can not be determined except by animal experiments. Without being so tested they may be uselessly weak or dangerously strong. Lives depend upon these powerful medicaments being of standard strength.

Should the expenditure of public money on such work as this be prohibited? Pituitary extract is a good example. It is a valuable drug in childbirth, often diminishing pain and danger and obviating the use of instruments, but an overdose might easily kill the patient. Before proper control was introduced, different preparations on the market varied in strength up to as high a ratio as 80 to 1 with results that can be imagined. By means of animal experiments a standard of potency, expressed in definite units, has been secured, and is, in fact, now enforced by law. This is one of the national biological standards for which the Medical Research Council is responsible. Some infectious diseases, *e.g.*, some cases of tuberculosis, can not be diagnosed with certainty except by animal tests, and animals must of necessity be used in the preparation of certain vaccines and sera. It is a public duty that such work as this should be carried out, and in some cases the law requires it to be done. The effective control of therapeutic substances can only be ensured by the state, and therefore by the expenditure of public funds. It is not always realized that the term vivisection covers such work as this, and the British Medical Association is of opinion it is in the interests of the community that Commander Kenworthy's Bill should be opposed.

### REORGANIZATION OF THE NATIONAL PARKS ASSOCIATION

At a special meeting on December 5, 1930, the Board of Trustees of the National Parks Association was reorganized by election of members appointed by twenty-two leading scientific and conservational organizations, and unanimously adopted the following statement offered by Dr. John C. Merriam and seconded by Dr. Wallace W. Atwood, president of the association:

The National Parks Association should be so organized as to speak with the authority of accurate knowledge on problems touching use and future development of National Parks. It should consist of representative individuals and representatives of organizations in a position to see the great problem of the parks from the point of view of physical, emotional, intellectual and spiritual values. It should be a body able to think park problems through, and give accurate and sound expression of judgment on these questions. Among other matters, it should devote itself to:

1. Study of the future function and use of National Parks as a guide in determining how to maintain the

proper balance between protection of primitive features in the parks and development of these areas for the purpose of making them accessible to the people.

2. Consideration of future growth of the National Park System on the basis of clear understanding of its use and function. What should be the relation of this system to city parks, state parks, state forests and national forests? What types of areas should be included, and why? What methods should be used in securing new park areas?

On December 24, the following study committees were appointed:

To study future functions and use as stated in the first of the two problems above: Dr. Frederick V. Coville, Mr. Charles W. Eliot, 2d, Dr. Vernon Kellogg, Mr. Duncan McDuffie, Mr. Frederick Law Olmsted, Dr. Victor E. Shelford, Dr. Fred E. Wright and Dr. Wallace W. Atwood, chairman.

To study growth, relationships, types and methods of creation as stated in the second problem above: Mr. Albert W. Atwood, Dr. Theodore S. Palmer, Dr. Henry Baldwin Ward, Mr. David White and Mr. William P. Wharton, chairman.

The new Board of Trustees consists of twenty-two members appointed by prominent associations interested in the attainment of the highest purposes of the National Parks System, and fifteen members at large. Representatives of organizations are:

- Otis William Caldwell representing the American Association for the Advancement of Science.
- Morse A. Cartwright representing the American Association of Adult Education.
- James McKeen Cattell representing the National Academy of Sciences.
- Allen Chamberlain representing the Appalachian Mountain Club.
- Guy N. Collins representing the American Society of Naturalists.
- Frederick V. Coville representing the Botanical Society of America.
- William B. Greely representing the Camp Fire Club of America.
- George H. Harvey, Jr., representing the Colorado Mountain Club.
- Augustus S. Houghton representing the American Game Protective Association.
- Vernon Kellogg representing the National Research Council.
- George F. Kunz representing the American Scenic and Historic Preservation Society.
- Charles Riborg Mann representing the American Council on Education.
- Duncan McDuffie representing the Sierra Club.
- Frederick Law Olmsted representing the American Society of Landscape Architects.
- Theodore S. Palmer representing the American Ornithologists Union.

T. Gilbert Pearson representing the National Association of Audubon Societies.

Arthur Stanley Riggs representing the Archeological Institute of America.

Victor E. Shelford representing the Ecological Society of America.

Mrs. Katharine B. Tippetts representing the General Federation of Women's Clubs.

Henry Baldwin Ward representing the Izaak Walton League of America.

William P. Wharton representing the American Forestry Association.

David White representing the Geological Society of America.

Besides the representatives of other organizations, the reorganized board contains these fifteen trustees at large: Truman Abbe, Albert W. Atwood, Henry W. de Forest, Charles W. Eliot, 2d, Joshua Evans, Jr., Francis M. Goodwin, Caspar W. Hodgson, Walter Bruce Howe, John C. Merriam, John Barton Payne, George E. Scott, Mrs. John Dickinson Sherman, Fred E. Wright and Robert Sterling Yard. Former trustees will be found scattered among both groups, most of them in the latter.

The wholesome relationship of public lands of all uses, of which the National Parks System is one, is the concern of this association, and the preservation of the rare remaining primitive in its safest form of administration is a prime objective.

ROBERT STERLING YARD,  
*Executive Secretary*

### THE BOWDOIN INSTITUTE OF NATURAL SCIENCE

BOWDOIN COLLEGE at Brunswick is planning to open on April 7 an institute of natural sciences. The institute will be the fifth in a series begun in 1923, when the subject chosen was "Modern History," and continued at intervals of two years with "Modern Literature," "Art" and "The Social Sciences." The institutes have sought to bring to the student body, the community and the friends of the college an opportunity to hear something of the problems which claim the attention of the leaders in the several fields of activity represented.

Plans for the coming season have been in the hands of a faculty committee under the leadership of Professor Manton Copeland, of the department of biology. Nine speakers will come to the college for the institute, which will occupy about two weeks and will be opened on April 7. Specific fields of science to be represented are astronomy, biology, chemistry, geography, geology, medicine, physics and psychology.

Professor Julian Huxley, English writer and scientist, was the first speaker in the institute group. He spoke at Bowdoin on "Development, Heredity and Evolution."

Dr. Harlow Shapley, director of the Harvard College Observatory, will talk at the April sessions on "The Cosmic Panorama." Professor Kirtley F. Mather, of Harvard, will speak on "Sons of the Earth: The Geologist's View of History."

Professor Dayton C. Miller, of the Case School of Applied Science at Cleveland, will present "Demonstrations on Visible Sound." Professor George H. Parker, Harvard University, will lecture on "The Cost of a Thought." Professor Edwin G. Boring, also of Harvard University, will discuss "The Rise of Scientific Psychology."

Professor Charles H. Herty, of New York, former president of the American Chemical Society, will speak on "Chemistry's Service in the Promotion of Industrial Research in America." Dr. Isaiah Bowman, director of the American Geographical Society, will speak on "The Invitation of the Earth."

Dr. Florence R. Sabin, of the Rockefeller Institute for Medical Research, will have as her topic "Recent Studies of the Chemistry of Bacteria as Applied to Disease." Professor Edwin G. Conklin, of Princeton University, will be the second speaker in the field of biology.

### OFFICERS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

A FULL report of the Cleveland meeting of the American Association for the Advancement of Science and the associated scientific societies will be printed in *SCIENCE* as soon as the permanent secretary is able to arrange the material. Dr. Franz Boas, professor of anthropology at Columbia University, was elected president, succeeding Dr. Thomas Hunt Morgan, of the California Institute of Technology. Dr. C. F. Roos, assistant professor of mathematics at Cornell University and secretary of Section K, was elected permanent secretary to succeed Dr. Burton E. Livingston, professor of plant physiology at the Johns Hopkins University, who becomes general secretary. Professor Charles A. Shull, University of Chicago, was elected secretary of the council to succeed Professor Sam F. Trelease, of Columbia University. Vice-presidents and chairmen of the sections were elected as follows:

Section A (Mathematics), Dr. Earle R. Hedrick, professor of mathematics, University of California at Los Angeles.

Section B (Physics), Dr. Bergen Davis, professor of physics, Columbia University.

Section C (Chemistry), Dr. C. A. Browne, chief of the Bureau of Chemistry, U. S. Department of Agriculture.

Section D (Astronomy), Dr. J. H. Moore, astronomer, Lick Observatory.