adequately described and accepted on both old and new hosts. The first challenge now before us is, however, whether there is any justification for a person to describe and name a virus disease on any host without adequately and thoroughly subjecting the virus concerned to a sufficient number of the differential tests available to ascertain whether or not the virus or the disease in question should be given a new name.

In America this problem of the promiscuous application of new names to virus diseases on the basis of symptom expression only has become so serious that it is generally felt that some concerted action should be taken for the protection of the virus workers themselves, as well as of those of the teachers and students of the future who may be obliged to cope with the subject. A strong feeling existed, therefore, at the last meeting of the American Phytopathological Society that it would be well to have a group of pathologists assigned to consider ways and means of reducing the difficulties before us. The initiative in this direction, to be most effective, should come rather from an international body of pathologists. A closely related phase of the subject of virus differentiation is the standardization of the requisite technique. Manifestly, a uniform procedure should be adopted in the determination of the properties of virus extracts. We are also obliged to recognize that the source of the inoculum itself with respect to the host species or variety as well as to other conditions may have a bearing on the results obtained. Finally, it must be recognized that the host plants to which the inoculum is applied may respond differently according to their age and vigor and to the surrounding environmental conditions. The subject of standardization of technique is one in which a good beginning could be made by the selection of some international group to help lead the way.

We are perhaps not yet sufficiently far advanced to go far into the field of strict classification of the plant viruses. Those of us who have attempted to comprehend the viruses as a group, however, are impressed by the fact that we appear to have several closely related classes or forms which may be compared to species of a single genus, while other groups of viruses are as distinct, certainly, as the most widely separated groups of bacteria. The development of a system of classification for the viruses seems to be almost inevitable in the near future, while this is at the same time a matter in which we can afford to move slowly.

The adoption of a uniform system of nomenclature for the viruses would prove to be highly desirable to the students of the subject. There appears to be no serious obstacle in the way of some satisfactory international agreement on this subject. Several proposals have already been made in the literature, but we wish to point out here that the effort should be fundamentally in the direction of naming the virus rather than the disease which it causes. In practice we may never overcome the synonymy and confusion of the common names of plant diseases, but there is no good reason why a single technical name should not be made to represent a specific disease-producing entity.

We have purposely taken this unusual opportunity to make such an appeal, rather than to present actual details of results and conclusions in this field of investigation. If the challenge of virus differentiation problems is to be met, we are convinced that nothing more helpful could come about than for some international body to come to some agreement on a system for plant virus differentiation, classification and nomenclature, and to use its best influence to secure the universal adoption of such a system or standard as will eventually place the subject of plant viruses in a position commensurate with their importance in the sciences.

SCIENTIFIC EVENTS

VIVISECTION IN ENGLAND

A BILL has been introduced in the House of Commons by Lieutenant-Commander Kenworthy to prevent the application of public moneys to vivisection experiments. The measure is a subsidiary bill promoted by the British Union for Abolition of Vivisection, and was previously before Parliament in 1922 and 1924, according to the London *Times*.

The British Medical Association is opposed to the bill and has addressed a letter to members of Parliament in which it is pointed out that the Act of 1876 lays down that no one but the holder of a license from the Secretary of State is permitted to use animals for experiments; that such work shall only be carried out at registered places; and that the experiments must be performed with a view to the advancement of physiological knowledge or of knowledge which will be useful for saving or prolonging life or alleviating suffering.

The letter of the association continues:

> This work is loosely termed vivisection, but no severe cutting operation is permitted under the Act without the use of an anesthetic of sufficient power to prevent the animal feeling pain. Very many of the so-called ex-

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 Coucil 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.