edge alive, of preventing it from becoming inert, which is the central problem of all education."

STEPHEN RUSHMORE

BOSTON, MASSACHUSETTS

## SCIENTIFIC EVENTS

### RESOLUTIONS ON THE DEATH OF DEAN CONANT WORCESTER

MR. DEAN CONANT WORCESTER, first secretary of the interior of the Philippine Islands and the man responsible for the founding of the Bureau of Science, the Philippine General Hospital and the College of Medicine, Manila, died in Manila on May 2, 1924. Before going to the Philippines Mr. Worcester was assistant professor of zoology and curator of the museum at the University of Michigan. In view of his contributions to science, representatives of the Philippine General Hospital, the College of Medicine and the Bureau of Science met and passed the following resolutions:

WHEREAS, It has pleased Almighty God in His wise and inscrutable Providence to remove from among us Dean Conant Worcester;

WHEREAS, At best we can do little at this time to indicate our real appreciation of him as a man and as a worker for the best medical and other scientific interests of the Philippine Islands; and

WHEREAS, It was largely through his efforts, as Secretary of the Interior of the Government of the Philippine Islands, that the Philippine General Hospital, the Bureau of Science and the College of Medicine were established, Therefore be it

*Resolved,* That we, members of the Philippine General Hospital, Bureau of Science and College of Medicine, of Manila, Philippine Islands, do hereby express our deepest sorrow for the death of Dean Conant Worcester; and, be it further

*Resolved,* That he holds a place of highest respect, admiration, and appreciation in the hearts of all of us because of the great good that he did as Secretary of the Interior in organizing the Philippine General Hospital, the Bureau of Science and the College of Medicine; and, be it further

*Resolved,* That we extend our sincerest sympathy and condolence to his widow, son, daughter and other relatives; and, be it further

*Resolved,* That these resolutions be engrossed and sent to his widow, and that copies be filed in the archives of the Philippine General Hospital, the Bureau of Science and the College of Medicine, published in the newspapers of Manila, in the *Philippine Journal of Science,* in the *Journal* of the Philippine Islands Medical Association, and in SCIENCE, the official organ of the American Association for the Advancement of Science, of which he was a member.

For the staff of the Philippine General Hospital: Fernando Calderon, Jose Albert, J. I. Abuel, F. E. Jayme.

For the staff of the Bureau of Science: Wm. H. Brown, Leon Ma. Guerrero, R. C. McGregor, G. M. De Ubago.

For the staff of the College of Medicine: Fernando Calderon, Liborio Gomez, Arturo Garcia, D. de la Paz, Jose Albert.

At Manila, Philippine Islands, this fifth day of May in the Year of our Lord One Thousand Nine Hundred Twenty-four.

### FOREST SERVICE RESEARCH CONFERENCE

A CONFERENCE of great importance and promise to the cause of better forestry in the United States was recently concluded at Madison, Wisconsin. There the federal research workers in forestry gathered from all the Forest Service Districts and Experiment Stations throughout the country and discussed their problems, methods, results and proposed projects for a period of two weeks. Meeting with the research men were also several of the administrative men from the National Forest Districts. In this way the scientific findings of the research men were discussed in the light of practical experience by those whose chief function is to make application of research results.

Three general subjects were considered in all their detailed ramifications, namely:

(1) Research results in the study of forest fires, their control, prevention and prediction;

(2) The technique of measuring and estimating the growth and yield of timber of various types under the widely varying forest conditions in the different sections of the country;

(3) The standards of forest practice for the various regions which are necessary to keep forest lands productive. This subject was considered from two standpoints, representing different levels of attainment.

(a) The minimum requirements in forest practice which are necessary to prevent forest devastation. By their very nature these requirements represent the least that should be expected of all timberland owners.

(b) Desirable forestry practice, a standard now prevailing on the National Forests because of their being under the control of the Forest Service. This is a standard which should eventually prevail on private forest lands as well.

To the workers in other branches of science who may consider forest fires as accidental disasters of spasmodic occurrence whose prediction is beyond the wisdom of man, it will be decidedly illuminating and interesting to look into the laboratories of the Forest Experiment Stations and note the methods used in studying fire phenomena. Even in the case of forest fires caused by lightning (and there were 2,323 such in 1922 on the National Forests alone—practically one third of the number of fires started on the National Forests in that year) the Forest Service research workers are ruthlessly prying into the secrets mother Nature has heretofore hidden away in her pri-

vate boudoir. They hold that Benjamin Franklin established a worthy precedent for this intrusion.

The lines of attack for the forest fire prediction studies are advancing along five different routes to the same objective. These are, (1) relative humidity, (2) moisture content of the inflammable material, (3) evaporation studies, (4) vapor pressure, and (5) statistical data. In all cases the work is correlated with meteorological records and forecasts and is done in close cooperation with the Weather Bureau. These studies have an immediately practical value in the warnings issued and measures taken to increase the vigilance of both public and private forces against forest fires during those periods shown by the research workers to be of greater fire hazard than usual. The ultimate object sought, of course, is greater control of all forest fires in the country which are each year sweeping over an area about one fourth that of the entire State of New York.

Both popular and scientific interest is concerned with the ratio between the diminishing supply of our timber and the growth of new wood to replace it. This relationship has been emphasized many times. Usually it is thought of in terms of the welfare of future generations. In recent years, however, the fact has been forced to our attention that even now the people of the United States are in the midst of a serious timber famine when lumber prices and availability of material are considered.

To secure definite and accurate data on this question of timber supply, the Forest Service through both its research and administrative divisions is earnestly engaged. Detailed studies have been undertaken and are being conducted as comprehensively as is possible with the present field force to ascertain the rate of growth of the various species of forest trees under the conditions prevailing in the widely different sections and to measure the annual production and total available yield on the forested areas.

Closely connected with the taking of this inventory, so to speak, is the big subject of proper forest management by which the utilization of our present timber resources and the constant replenishment of the same will go hand in hand. This involves putting into effect as rapidly as possible on both public and private forests those practices that will accomplish this two-fold purpose. These practices will be based upon the findings of the investigational work in forestry that has been carried on for nearly two decades.

This research conference of the Forest Service might well be considered an important milestone of progress along the highway leading to a full understanding of forestry problems and methods of solution.

M. C. MERRILL

WASHINGTON, D. C.

## THE SECTION OF ZOOLOGY OF THE BRITISH ASSOCIATION

OVERSEA members of the British Association for the Advancement of Science coming to the Toronto meeting, beginning August 6, include the following:

*Vice-president of Section D.*—J. H. Ashworth, D.Sc., F.R.S., professor of zoology, University of Edinburgh.

*Recorder*—F. Balfour Brown, M.A., F.R.S., F.Z.S., Cambridge.

*Secretary*—W. J. Dakin, D.Sc., F.L.S., F.Z.S., professor of zoology, University of Liverpool, will speak on "Respiration in fishes" and "Putterism."

Miss Kathleen E. Carpenter will speak on effect on river fisheries of pollution caused by lead mining and on the biological factors involved in the distribution of river fisheries by pollution consequent on lead poisoning.

F. A. E. Crew, D.Sc., department of animal breeding research, University of Edinburgh.

J. T. Cunningham, M.A., F.Z.S., lecturer in zoology, University of London, will speak on the Lamarckian theory of the evolution of the secondary sexual characters.

D. Ward Cutler, cytologist from the Rothamsted experimental station, will lecture on soil population.

F. A. Dixey, M.A., M.D., F.R.S., bursar and lecturer of Wadham College, Oxford, will speak on scent distributary apparatus in lepidoptera.

R. R. Gates, Ph.D., F.L.S., professor of botany, University of London, formerly acting associate professor of zoology, University of California, 1915–16.

E. S. Goodrich, M.A., F.L.S., F.R.S., Linacre professor of zoology and comparative anatomy, University Museum, Oxford, discusses "The origin of vertebrates."

Mrs. Pixell Goodrich, D.Sc., will deliver a paper on "Parasitic diseases of Gammarus."

J. W. H. Harrison, zoology department, Armstrong College, Newcastle, will speak on "Inheritance of hybrids between British and Canadian lepidoptera."

Sir William A. Herdman, C.B.E., D.Sc., LL.D., F.L.S., F.R.S., late professor of oceanography, University of Liverpool.

L. Hogben, D.Sc., will speak on "Hormones of the pituitary body."

Julian Huxley, senior demonstrator in zoology, Oxford, four years assistant professor in Rice Institute, Houston, Texas, will speak on "Ductless glands in relation to amphibian metamorphosis" and on "Chromosomes and species."

C. H. Osterfeld, head of the plankton section of the bureau of the Conseil Internationale pour l'Explorations de la Mer, Copenhagen.

A. D. Peacock, lecturer in zoology, Armstrong College, Newcastle-on-Tyne, will discuss "Sex change experiments in saw flies."

F. A. Potts, M.A., zoologist, Trinity College, Cambridge, will speak on "Intracellular digestion in invertebrates."

W. M. Tattersall, D.Sc., professor of zoology in the University College of South Wales, Cardiff.