

will give a greater choice of Harvey Society lecturers than ever before.

I rejoice to sit near my life-long friend and dear colleague, Dr. Hartwell, to share an honorable place with the president and the ex-presidents of the Har-

vey Society, who have done so much to promote medical science in New York City, and to feel that Dr. Welch and Dr. Cushing have generously given their distinguished presence at this birthday party of the Harvey Society.

## SCIENTIFIC EVENTS

### NATIONAL MONUMENTS IN ARIZONA

PRESIDENT HOOVER has signed the act of Congress authorizing the exchange of privately owned lands in the Petrified Forest National Monument for government-owned lands outside the reservation in Navajo and Apache Counties, Arizona.

The Petrified Forest National Monument contains a total acreage of 25,908.4 acres. Of this 12,792.74 acres are in private ownership, representing original railroad land grants and occupying alternate sections throughout the monument. Such a situation precluded effective administration and also made impossible the construction of an adequate road and trail system to make available to the visiting public the principal features of the monument, since the roads and trails would unavoidably have to pass fifty per cent. over private lands and expenditure of government funds could not be authorized under these conditions. It is to obviate these difficulties that the exchange of lands as outlined above was authorized.

The New Mexico and Arizona Land Company, present owner of the alternate sections, has signified its willingness to make the desired exchange which is solely in the interest of government administration of the monument.

The trees of the fossil forest are not standing, but lie scattered over the ground in great profusion. They did not grow where they lie, but were carried from a long distance to this region by flood waters, became waterlogged and finally sank to the bottom of the great inland sea which once covered the region. Here they lay for countless ages, slowly being covered with silt and sand, and gradually becoming fossilized. Thousands, perhaps millions, of years later the submerged logs, now stone, were through some upheaval brought to the surface again and uncovered. It is estimated that the trees were green and growing about 20,000,000 years ago.

The petrified trees of this area are more highly colored than in any similar area, and there are more of them.

Last year more than 69,000 people visited the Petrified Forest National Monument.

The new Sunset Crater National Monument is located within the Coconino National Forest in Arizona, and will be administered by the Forest Service. The area set aside for the monument totals 3,040 acres,

and includes Sunset Mountain with its extinct crater and the ice caves at the foot. These have been points of interest visited by many people each season for the last 20 years.

### THE DUDLEY HERBARIUM

THE Dudley Herbarium has begun a botanical survey of Lower California. This work is under the direct charge of Dr. Ira L. Wiggins, and has been made possible through the generosity of Mr. H. C. Dudley, of Duluth, Minnesota, and Mr. E. G. Dudley, of Exeter, California.

Professor Wiggins has made two collecting trips into Lower California during the past nine months. The first extended from September 1 to 20, 1929, the itinerary leading through the northernmost part of the peninsula. The route followed the coast from Tia Juana to Ensenada, circled eastward through the Valle San Rafael, crossed the southern end of the Mesa del Pinal and reentered the United States at Mexicali. A more extended expedition occupied the latter part of February and the month of March of this year. During this time field observations and collections were made from the border southward to the desert region in the vicinity of Chapala, about 350 miles from Tia Juana. The winter had been very dry so collecting was rather poor, but a fair amount of interesting material was obtained. Extensive field notes on the distribution and habitat of several interesting species endemic to the central part of the Lower California peninsula were taken and numerous photographs made. An account of this phase of the work will be published later.

A program to cover a period of several years calls for further extensive field work and collecting throughout the entire peninsula and will ultimately lead to the publication of a comprehensive floristic study of the area. Such trips are to be made at various seasons of the year and to little known or unexplored areas in order to fill gaps in the collections of earlier workers.

### NATIONAL RESEARCH FELLOWSHIPS IN THE BIOLOGICAL SCIENCES

THE second and final meeting of the Board of National Research Fellowships in the Biological Sciences for the award of 1930-31 appointments was held in Washington on May 1 and 2. In addition to the ten

reappointments and twenty-four new appointments voted at the February meeting, ten further reappointments and twenty-two first appointments were made at the meeting in May, as follows:

#### REAPPOINTMENTS

##### *For domestic study*

Norval Burk—biochemistry  
C. R. Burnham—agriculture  
F. M. Carpenter—zoology  
Leonard B. Clark—zoology  
Myron Gordon—zoology  
Harry Grundfest—zoology  
David A. Kribs—botany  
Norman R. F. Maier—psychology

##### *For study abroad*

Lester G. Barth—zoology  
Philip R. White—botany

#### NEW APPOINTMENTS

##### *For domestic study*

W. M. Banfield—agriculture  
Ralph L. Beals—anthropology  
P. J. Daughenbaugh—biochemistry  
Robert K. Enders—zoology  
Dwight L. Espe—agriculture  
Paul E. Fields—psychology  
J. W. Gillespie—botany  
J. P. Greenstein—biochemistry  
E. Harold Hinman—zoology  
A. W. Kozelka—zoology  
Chester E. Leese—zoology  
Roger B. Loucks—psychology  
Helen Mar Miller—zoology  
Harold P. Morris—agriculture  
Elsa R. Orent—biochemistry  
Hortense Powdermaker—anthropology  
K. C. Pratt—psychology  
Alexander F. Skutch—botany  
Otis C. Trimble—psychology  
C. W. Watson—agriculture  
G. R. Wendt—psychology  
Samuel Yochelson—psychology

##### *For study abroad*

L. M. Bertholf—agriculture  
David B. Hand—biochemistry  
J. I. Hardy—agriculture  
Ancel B. Keys—zoology  
George Kreezer—psychology  
Floyd L. Ruch—psychology

In accordance with the plan of rotation in membership of the board the terms of the following members expire on June 30 of this year: T. H. Morgan, zoology; W. J. V. Osterhout, botany, and C. E. Seashore, psychology. To complete the membership in these three fields, the National Research Council has ap-

pointed H. S. Jennings, of the Johns Hopkins University, for zoology; Dr. Harry M. Johnson, of the Mellon Institute for Industrial Research, Pittsburgh, for psychology, and Dr. W. J. Robbins, of the University of Missouri, for botany. Also, in order that anthropology may have two representatives on the board, Dr. Fay-Cooper Cole, of the University of Chicago, has been asked to serve for the fiscal year, 1930-31.

Meetings for 1931-32 awards will be held approximately early in February and either in April or May of next year. More definite announcement concerning these will be made in *SCIENCE* in the fall. Information and application forms may be obtained at any time from the secretary, Board of National Research Fellowships in the Biological Sciences, National Research Council, Washington, D. C.

FRANK R. LILLIE, *Chairman*

BOARD OF NATIONAL RESEARCH FELLOWSHIPS  
IN THE BIOLOGICAL SCIENCES

#### THE ANNUAL MEETING OF THE ROYAL SOCIETY OF CANADA

ON May 20, 21 and 22 the Canadian Royal Society met at McGill University. The presidential address was given by Professor A. S. Eve, on the evening of the twentieth, his subject being "The Universe as a Whole." (*SCIENCE*, May 23, 1930.) At the same session he presented the three gold medals of the society. The Flavelle Medal was awarded to Dr. A. B. Macallum, F.R.S., emeritus professor of biochemistry at McGill University, for his pioneer researches in micro-biochemistry; the Lorne Pierce Medal for outstanding contributions to literature, to Sir Andrew Macphail, professor of the history of medicine at McGill University, and the Tyrrell Medal for research in Canadian history to Dr. Adam Shortt, of Ottawa. At the final session the Honorable Vincent Massey, Canadian minister to the United States, gave the popular lecture on "Art and Nationality in Canada." In Sections I and II (respectively, French and English Literature and History) thirty-six papers were read. In Section III (Mathematics, Physics and Chemistry) ninety-nine papers were communicated, in Section IV (Geological Sciences) 13 papers, and in Section V (Biological and Medical Sciences) 59 papers.

A very interesting event was the delivering of an address by radio by Sir Ernest Rutherford, president of the Royal Society of London, speaking from his English home to the fellows gathered in the Moyse Hall of McGill University. The whole of the address, with the exception of the few opening sentences, was clearly heard by a large audience, as was also the