

so brilliantly studied by Dr. Schmidt, of Denmark. Bottom deposits will be obtained by sounding-leads, especially in connection with the problems set down for investigation by Sir John Murray.

THE OFFICIAL MAP OF THE UNITED STATES

COMMISSIONER CHARLES C. MOORE, of the General Land Office, has announced the publication of the sixty-fifth official map of the United States. This map, for which Congress appropriated \$15,000, contains the latest information concerning elements required to constitute a complete map. It is detailed to the degree of indicating the position of every surveyed township in the United States. It contains the latest information as to the location of national forests, Indian reservations, national parks, military and all other reservations that are controlled by the Federal Government. It shows the latest changes in railroad routes and, indicated by the type in which their names are printed, the population classification of towns.

The map is used by government departments, government offices throughout the nation and the embassies and consulates of the world. Mounted on cloth and attached to a roller, it is sold by the Superintendent of Documents. The map, which is built on a scale of 37 miles to the inch and is seven feet wide, shows not only continental United States but all its possessions. It is appropriate for use in schools and is so colored as to show the historical development of the United States.

The master plates, engraved some 75 years ago, are still in the General Land Office. For many years a new map was made each year, but of late the practice has been to make one each two years. No sooner is one edition made than work is begun on the subsequent edition. Clarence E. Ruebsam, map engraver, works constantly on the plates, erasing old lines and engraving new developments. In the days when skilled engravers were rare in this country, the government sent to Germany for Adolph M. Maedel, who spent his life on the work. He trained a son, August, to be a map engraver, and he devoted a large part of his life to the Federal Government. Mr. Ruebsam, a descendant, is the fourth generation of the Maedel family that is devoting itself to maintaining the reliability of the map.

REELFOOT LAKE BIOLOGICAL STATION

The executive committee of the Reelfoot Lake Biological Station, under management and control of the Tennessee Academy of Science, announces the following consulting staff for the period 1932-33:

Archeology: Dr. P. E. Cox, state archeologist, Nashville; J. D. Taylor, Bristol.

Bacteriology and Protozoology: Dr. W. S. Leathers,

Vanderbilt University, Nashville; Dr. E. L. Bishop, state commissioner of health, Nashville; Dr. E. W. Goodpasture, Vanderbilt University, Nashville; Dr. L. M. Graves, superintendent, Department of Health, Memphis; Dr. John L. Jelks, Memphis; Dr. L. E. LePrince, U. S. Public Health Service, Memphis; Dr. I. D. Michelson, University of Tennessee, Memphis; Dr. P. W. Allen, University of Tennessee, Knoxville.

Botany: Dr. L. R. Hesler and Dr. H. M. Jennison, University of Tennessee, Knoxville; Dr. A. John Schwarz, University of Tennessee, Memphis; Dr. C. E. Moore, West Tennessee Teachers College, Memphis; Dr. J. B. Lackey, Southwestern University, Memphis; Dr. C. W. Davis, Union University, Jackson; Dr. R. G. Turner, University of Tennessee Junior College, Martin.

Chemistry: Dr. H. W. Robinson, Dr. L. J. Bircher and Dr. John T. McGill, Vanderbilt University, Nashville; Dr. C. O. Hill and Dr. J. H. Robertson, University of Tennessee, Knoxville; Dr. W. A. Webb, George Peabody College, Nashville; Dr. G. H. Hayden, West Tennessee Teachers College, Memphis.

Entomology: Dr. G. M. Bentley and Dr. S. Marcovitch, University of Tennessee, Knoxville.

Forestry: Dr. J. O. Hazard, state forester, Nashville.

Geology: Dr. W. F. Pond, state geologist, Nashville; Dr. L. C. Glenn and Dr. W. B. Jewell, Vanderbilt University, Nashville; Dr. C. H. Gordon and Dr. G. M. Hall, University of Tennessee, Knoxville.

Histology and Embryology: Dr. C. S. Simkins, Dr. D. S. Pankratz and Dr. T. S. Eliot, University of Tennessee, Memphis.

Pharmacology: Dr. P. D. Lamson, Dr. H. A. Wells and Dr. H. S. Wesson, Vanderbilt University, Nashville; Dr. A. Richard Bliss, Jr., University of Tennessee, Memphis.

Physiology: Dr. W. E. Garrey, Dr. R. A. Ashman and Dr. C. E. King, Vanderbilt University, Nashville.

Ornithology: B. B. Coffey, Memphis; A. F. Ganier, Nashville; Dr. C. R. Mayfield, Vanderbilt University, Nashville.

Zoology: Dr. E. E. Reinke, Vanderbilt University, Nashville; Dr. J. M. Shaver, George Peabody College, Nashville; Dr. E. B. Powers and Dr. G. A. Canning, University of Tennessee, Knoxville; Dr. J. B. Lackey, Southwestern University, Memphis.

A. R. BLISS, JR.

Chairman, Executive Committee

SIGMA XI LECTURES AT THE UNIVERSITY OF CALIFORNIA AT LOS ANGELES

FOLLOWING is the complete program of public lectures delivered in the academic year 1931-32 under the auspices of the Sigma Xi Club of the University of California at Los Angeles. The officers of the club for the year were: *President*, Dr. Samuel J. Barnett, chairman of the department of physics, and *Secretary*, Dr. Frederick C. Leonard, chairman of the department of astronomy.

September 30: Dr. Seth B. Nicholson, astronomer, Mt. Wilson Observatory of the Carnegie Institution of Washington, "Sunspots and the Weather" (illustrated).

October 14: Dr. F. L. Ransome, professor of economic