read. It sketches the life of a man of lofty ideals who made a lasting impress, not only upon science, but upon scientists.

The book tells a remarkable story, starting with the lad who trudged several miles over the dusty road in summer to pry open a schoolhouse window to obtain a definition of a word, and ending with the man who was head of the department of botany in the University of Minnesota. Harris later traversed many other wearisome roads and always with a worthy purpose in mind. He was fortunate in having worked in the first quarter of the present century when biological studies in America had such a great expansion. The records of such investigations in this period of fantastic growth are extremely important and we must be forever grateful to his colleagues who have cooperated to give us this little volume.

From 1907 to 1924 Harris was resident investigator in botany at the Station for Experimental Evolution of the Carnegie Institution of Washington, Cold Spring Harbor. During these years he pursued studies in variation, adaptation and natural selection, devoting a large portion of his time to the development of methods for statistical analysis of biological data. He will ever be renowned for his assiduous devotion to the quantitative study of biological problems, as well as for several very important contributions to biometric theory and computational techniques. He was obsessed with the necessity of putting biology on a more exact basis. He advocated the importance of biometry at a time when most biologists regarded that subject with indifference, not to say hostility. That he lived to see the growing interest in the subject and its inclusion in university curricula is most fortunate. Shortly before his death he wrote the following words as a summary of his program: "For nearly thirty years I have not been particularly interested in any one specific biological problem. I have been interested in what I felt was the more important problem, *i.e.*, the problem of the method of solving biological problems." This biographical volume also contains five posthumous papers on biometry and biometrical subjects.

Harris is also well known for his extensive studies on the physico-chemical properties of plant sap in relation to taxonomic affinities, to geographic distribution and to various ecological factors. Many interesting accounts of these investigations are related in this volume. We learn from it that a great mass of his results unfortunately were never published.

The versatility of Harris is also shown by various writings here recorded. The volume contains his delightful satire on the regimentation of science entitled, "A Great Institute for the Study of the Psychology of the Mule" and "Desert Beef," a parody on Hiawatha. His poem "To Pahvant," a volcanic butte, is an expression of refined sentiment for the majesty that exists in nature.

This volume will richly repay the reading by any one who wishes to know something about one of the most engaging personalities who lived and worked in one of the important periods of the biological sciences. It will not only instruct but will inspire its readers.

H. S. REED

UNIVERSITY OF CALIFORNIA

SOCIETIES AND MEETINGS

THE WEST VIRGINIA ACADEMY OF SCIENCE

THE thirteenth annual meeting of the West Virginia Academy of Science was held on the campus of Bethany College at Bethany on May 1 and 2, 1936. About 170 members were in attendance.

A general business session was held on Friday morning, at the conclusion of which the academy was welcomed by President Cramblet of Bethany. The presidential address, "The Life History of a Bone," was then delivered by Professor G. S. Dodds, of West Virginia University.

At noon the academy lunched by sections. In the afternoon the academy met in sections to hear a total of 53 papers read. At the section meetings the following chairmen were elected for the coming year: *Biology,* Professor R. C. Patterson, Potomac State College; *Chemistry,* Professor J. B. Bartlett, Marshall College; *Geology and Mining,* Professor H. C. Martens, West Virginia University; *Mathematics and Physics,* Professor R. P. Hron, Marshall College; *Social Science,* Group I, Professor E. L. Lively, Fairmont State College; *Social Science,* Group II, Professor Roy Woods, Marshall College.

A dinner was held in the evening, after which the academy met to hear the principal address of the meeting delivered by Professor H. B. Lemon, of the University of Chicago. Professor Lemon's subject was "Some Aspects of the Mystery of Light." Following the address an informal reception and smoker was held at the home of President Cramblet.

The final business session of the meeting was held on Saturday morning, at which time the following officers were elected for the coming year: *President,* Professor Frank Cutright, Concord State College; *Vice-President,* Professor T. L. Harris, West Virginia University; *Secretary,* Professor M. L. Vest, Davis and

Elkins College; *Treasurer,* Professor C. G. Brouzas, West Virginia University; *Editor,* Professor A. M. Reese, West Virginia University.

Following the business session tours were made to some of the industrial plants of the region.

The West Virginia Junior Academy of Science held its meeting one week earlier at Charleston. The meeting was reported to be very successful. The 1937 meeting of the academy will be held on April 30 and May 1 at Marshall College, Huntington. The Junior Academy will hold its meeting at the same time and place.

M. L. VEST,
Secretary

THE NEW HAMPSHIRE ACADEMY OF SCIENCE

THE eighteenth annual meeting of the New Hampshire Academy of Science was held on May 29 and 30 at Shirley Hill House, Goffstown. The Friday evening session was devoted to papers by members and to a series of electrical demonstrations.

A symposium on "Conservation of New Hampshire's Natural Resources" was held on Saturday morning, under the chairmanship of Professor Karl W. Woodward. Representatives of the White Mountain National Forest, the Society for the Protection of New Hampshire Forests, Soil Conservation Service, Division of Chemistry and Sanitation of the State Board of Health, the State Water Resources Board and Fish and Game interests presented prepared papers, which were followed by vigorous discussion.

At the Saturday afternoon session, following the business meeting, the presidential address, "Popularizing Science," was given by Mr. Albert L. Clough, president of the Manchester Institute of Arts and Sciences. The remainder of the scientific papers on the program were then read.

At the business meeting it was announced that the American Association for the Advancement of Science grants had been recommended by the council to Professor Charles F. Brooks, of the Blue Hill Observatory, for analysis of certain meteorological data from the Mt. Washington Observatory, and to Mr. Richard P. Goldthwait, of Harvard University, for studies on the geology of Mt. Washington. The academy also voted Mr. Goldthwait a further grant from the academy funds to aid his work.

The following officers were elected for 1936–37: *President,* Professor George M. Robertson, Dartmouth College; *Vice-president,* Professor Karl W. Woodward, University of New Hampshire; *Secretary-Treasurer,* Professor George W. White, University of New Hampshire; *Member of the Executive Council,* Mr. Albert L. Clough, Manchester Institute of Arts and Sciences; *Councillor to the American Association for the Advancement of Science,* Professor Walter C. O'Kane, University of New Hampshire.

GEORGE W. WHITE,
Secretary

REPORTS

MICROWAVE RADIO CIRCUIT OF THE RADIO CORPORATION OF AMERICA

THE first demonstration of the Radio Corporation of America's ultra-short wave radio circuit connecting New York and Philadelphia was given on June 11. The two institutions which were first to recognize the importance of the electric telegraph of Samuel F. B. Morse a century ago celebrated this new advance in communications by exchanging greetings. In 1836 Professor Morse gave the first demonstration of his new instrument to his colleagues at New York University. He gave the next demonstration outside New York City before the membership of the Franklin Institute in Philadelphia. On June 11 Chancellor Harry Woodburn Chase, of New York University, and Vice-president W. Chattin Wetherill, of the Franklin Institute, Philadelphia, exchanged pictures and greetings by radio facsimile. Models of the first Morse apparatus were connected to the circuit and operated simultaneously with the facsimile equipment.

Chancellor Chase radioed:

It is eminently fitting that New York University, which cradled the theory and practice of electrical communications, and the Franklin Institute, the learned society which was the first outside of New York to appreciate their significance, should to-day join in recognizing this new and important centennial milestone in the translation of intelligence. I am happy to have this opportunity to send heartiest greetings to you and your organization over one of the channels of the new, ultra-high radio frequency circuit for facsimile transmission. This development is but another evidence of the great achievements which scientific effort is daily producing for the service of mankind.

Vice-president Wetherill responded:

The Franklin Institute is particularly gratified to acknowledge the greetings of New York University on this the first public demonstration of the new ultra-high frequency radio circuit. Since 1824 the Franklin Institute has devoted itself to the promotion of science and the mechanic arts. It is, therefore, especially appropriate for us to join with New York University in appreciation of this new and important development.

A century ago, the Committee on Science and the Arts of the Franklin Institute in reporting on its examination