that others could testify to Sir Andrew's work and achievements in many parts of the Empire, but only a member of the staff of the school could speak of his self-sacrificing devotion to the interests of that great institution, and of the deep affection in which he was held by every one of them.

COMMITTEE ON CONSTRUCTION COSTS

THE Secretary of Commerce, Roy D. Chapin, has announced the appointment of a construction committee composed of fourteen nationally known engineers, architects, builders and contractors, to encourage the use of new wood construction methods. Major H. S. Bennion, director of engineering, National Electric Light Association, New York City, is the chairman of the committee which will cooperate with governmental agencies in applying these new construction systems to American conditions.

During and since the war engineers in various parts of the world have developed entirely new principles of wood construction, employing metal or wood connectors for the strengthening of joints. Through the use of these connectors the wood joints customarily used heretofore are increased in strength from three to six times. The National Committee on Wood Utilization for years has made a thorough study of the practical application of more than sixty different types of connectors and the Forest Products Laboratory of the Department of Agriculture has made hundreds of tests of the principal types of connectors as applied to American woods. Without these tests the application of these connectors to American conditions would have been difficult. The Bureau of Standards has made the necessary metallographic tests of the metal used. In this manner the governmental agencies chiefly concerned have joined hands and are cooperating with leading national organizations of engineers, architects and builders, in applying the system to American conditions. The European experience during and since the war has demonstrated their practicability.

In addition to Major Bennion, the members of the National Committee on Wood Utilization appointed on the wood construction committee are:

Wallace Ashby, Washington, D. C., representing the American Society of Agricultural Engineers.

W. H. Booth, Philadelphia, representing the American Petroleum Institute.

Ralph Budd, Chicago, representing the American Railway Association.

Clement E. Chase, Philadelphia, representing the American Society of Civil Engineers.

William F. Chew, Baltimore, representing the National Association of Builders Exchanges.

A. S. Downey, Seattle, representing the Associated General Contractors of America.

Captain Ralph H. Higgins, airport consulting engineer, East Orange, New Jersey.

R. R. Horner, Clarksburg, West Virginia, representing the American Institute of Mining and Metallurgical Engineers.

B. L. Knowles, Worcester, Massachusetts, representing the Associated General Contractors of America.

Henry G. Perring, Baltimore, representing the American Engineering Council.

Colonel D. H. Sawyer, director, Federal Employment Stabilization Board, U. S. Department of Commerce.

Searcy B. Slack, Atlanta, representing the American Association of State Highway Officials.

F. Leo Smith, Washington, D. C., representing the American Institute of Architects.

CARIBBEAN BOTANICAL SURVEY

G. PROCTOR COOPER, 3d, formerly on the staff of the Yale School of Forestry and at present associated with the New York Botanical Garden as collaborator, left New York the first week in November for the West Indies and the Caribbean Coast of South America to continue his botanical and forestry studies. The expedition has been organized jointly by Mr. and Mrs. Cooper and they will use their schooner yacht *White Cloud* as their base of operations during the entire eight months in the field.

The personnel of the party, besides Mr. and Mrs. Cooper, consists of Mr. William C. Shepard, of New Haven, a retired forester from Cornell and Yale; Mr. Charles Edward Hill, of Brookline, Massachusetts; Mr. T. Windsor Ford, of Cleveland Heights, Ohio, and Mr. Norman E. Hawes, a recent Yale Forestry School graduate, who will collect insects and spiders for museum and study purposes.

The Island of Dominica of the British Leeward group has been chosen as the first region for intensive study because of the dense virgin forest areas covering most of this small but mountainous island. The hot mineral springs at various parts of the interior will be visited and the flora in the immediate vicinity compared with that on other parts of the island to determine what effect, if any, the warm waters have on the types of vegetation. The floras of various elevations, from sea level to the mountain peaks at 4,500 feet, will be compared and, if possible, the transition zones will be noted so as to determine those species which are adapted to all elevations and those which are confined to any one particular level or site class.

The floras of the islands of Martinique and Guadeloupe will be carefully studied for comparative purposes. Various small islands in the vicinity and throughout the Leeward group will also be visited for observation. The next region for intensive operation will probably be British Guiana. The schooner will be left at Georgetown and Mr. Cooper and Mr.

Shepard will proceed inland, probably under the direction of the British forestry officers. An attempt will be made to reach the hills in the interior. The next stop on the itinerary is the Lake Maracaibo region, where a complete collection of the woods and plants will be made. These are of particular interest to Professor Samuel J. Record, of the Yale School of Forestry, who will compare the complete wood collection from the region with those from other coastal lands. It is highly probable that many unusual specimens will be found.

After finishing the survey in Venezuela the party will sail to the region near Anachucuna Bay on the Colombia-Panama border and will attempt to reach the Caledonian Pass leading to the Pacific Ocean. The ship will proceed up the Caribbean to the Canal Zone to await the party. The homeward journey will include brief stops at many points along the Central American coast and the ship will reach New York after next July.

The botanical collection made will be shipped from time to time to the New York Botanical Garden for identification, and the garden undertakes to distribute the duplicate sets to various museums, and botanical and educational institutions as a part of its cooperative work with Mr. Cooper. Mr. Cooper has previously prosecuted successful exploring expeditions in both tropical America and tropical Africa.

THE RESEARCH LABORATORY OF THE GENERAL ELECTRIC COMPANY AND DR. WHITNEY

DR. WILLIS RODNEY WHITNEY, organizer and for thirty-two years director of the research laboratory of the General Electric Company, retired owing to poor health on November 1. He was succeeded, by appointment of Gerard Swope, president of the company, by Dr. William David Coolidge, senior associate director of the laboratory. Dr. Whitney continues as vice-president in general charge of research.

Dr. Whitney's retirement was unexpected to most of his colleagues in the laboratory, although several times recently he has been granted leaves of absence to enable him to recuperate his strength. He has been exceptionally busy with his laboratory duties since its enlargement in 1925 by the erection of a six-story building to accommodate the expanding activities of the institution.

The research laboratory was established in 1900 through the executive foresight and courage of Edwin W. Rice, Jr., then technical director of the General Electric Company. Dr. Whitney was obtained to take charge of the work in that year, coming from Massachusetts Institute of Technology, where he was an instructor. The first work of the laboratory was done in an old barn which was then used by the late Dr. Charles P. Steinmetz as a private laboratory. A few months later the laboratory was given a small building at the General Electric works. One of the first laboratory achievements was a new type of incandescent electric lamp, developed by Dr. Whitney himself.

The growth of the laboratory began with this work, and from 1903 it was constantly expanding. In 1906 Dr. Whitney persuaded Dr. Coolidge to go to the laboratory from the Massachusetts Institute of Technology, and in 1909 Dr. Irving Langmuir went from the Stevens Institute of Technology. Through the work of these two investigators such developments as drawn, or ductile, tungsten, the gas-filled incandescent lamp, the modern high-power electronic, or vacuum tube, improved x-ray tubes and atomic hydrogen welding were brought to successful culmination.

By 1920 the laboratory staff had grown to more than three hundred persons, about half of whom were trained scientific men. The value of the laboratory had become firmly recognized long before, and its maintenance represented an expenditure of millions of dollars annually. Its fame had spread to foreign lands. To the American public it is now renowned as the "House of Magic," a name bestowed upon it by Floyd Gibbons in his radio talks.

Dr. Coolidge, the new director, is a native of Hudson, Massachusetts. He was trained at the Massachusetts Institute of Technology and the University of Leipzig. He was appointed assistant director of the laboratory in 1908, and associate director in 1928, a title also held by Dr. Langmuir.

SCIENTIFIC NOTES AND NEWS

AT the meeting of the National Academy of Sciences, to be held at the University of Michigan, Ann Arbor, on November 14, 15 and 16, the evening address on the opening day will be given by Professor Arthur H. Compton, of the University of Chicago. His subject will be "A Geographic Study of Cosmic Rays."

THE Grasselli Medal for 1932 was awarded to Dr. George L. Clark, of the University of Illinois, at a combined meeting of the New York Section of the Society of Chemical Industry, the American Chemical Society, the Electrochemical Society and the Société de Chimie industrielle, which was held on November 4. The program was as follows: "Accomplishments of the Medalist," Roscoe H. Gerke; presentation of the medal, A. E. Marshall, and "A Decade of Applied X-Ray Research," George L. Clark.

THE Penrose Medal of the Geological Society of