of the university's Gothic buildings. Basement and first floor are devoted to thirty-eight research rooms for the department of physics, part of which will be used for the work of Professors Arthur H. Compton and Arthur J. Dempster and their graduate students. Professor Michelson will retain his laboratory in Ryerson, where he has worked for many years.

The upper floors will be used by mathematicians and astronomers, departments which for the first time will have adequate facilities. In addition to nine classrooms there are thirty-nine offices for the faculty, fellows and graduate students of those departments. Other features of Eckhart Hall are an assembly room seating 240 and a library with facilities for 88 readers and 50,000 volumes.

Three laboratory classes in plant physiology now occupy the new Botanical Laboratory.

There are no classrooms or library in the laboratory, which adjoins the group of greenhouses finished last year. It is to be devoted to research in plant physiology and plant pathology.

Features of the new buildings are its biochemical and biophysical laboratories, where studies such as those on the effect of X-rays on plants will be prosecuted. Constant temperature rooms, where cold as low as 40 degrees below zero can be maintained; inoculation quarters, in which the entire room may be given a shower or steam bath, so that plant disease germs may be transferred without contamination; animal quarters for the study of the plant germs they carry; rooms which reproduce the conditions under which fruits and vegetables are moved; X-ray and seed-germination rooms are also features of the laboratory.

SUMMER MEETING OF THE BOTANICAL SOCIETY OF AMERICA

THE Summer Meeting of the Botanical Society of America will be held in August at the Puget Sound Biological Station at Friday Harbor, Washington.

The local committee, of which Professor T. C. Frye is chairman, has arranged a tentative program in which indoor discussions and a variety of trips and excursions to points of varied interest find place. Unusually favorable tide conditions will offer an excellent opportunity to study the wonderful algal flora of these waters. Many will appreciate the chance to see a sample of the great forest growth of the northwest.

PROGRAM

August 19—Tuesday

- Afternoon-Registration at the station office.
 - 8 P. M. Address of welcome.
 - Lecture on ''The Geology of the San Juan Islands.''

August 20-Wednesday

- 8:30 A. M. Marine dredging for algae at Canoe Island.
- 8:30 A. M. Auto trip to Castle Point for wind effects, forest and prairie gradation.
- 8:30 A. M. Trip to Douglas Fir Forest.
- 1:00 P. M. Dr. E. J. Lund will demonstrate electrical polarity in the Douglas Fir.

August 21—Thursday

- 8:30 A. M. Visit in row boats to Nereocystis beds.
- 8:30 A. M. Marine dredging and marine ecology.
- 8:30 A. M. Trip to fields.
- 2:00 P. M. Discussion-Meetings of groups interested in algae, ecology and mycology.

August 22—Friday

All sections will participate in an early morning drive to False Bay, where tide recedes half a mile. Return to station for lunch.

Tents, meal accommodations, boats and other facilities of the station will be at the disposal of members of the society and guests. At this meeting the spirit of informality will prevail, as at the earlier summer meetings, and all will find much to enjoy in the friendly give-and-take of the occasion. Parking space for automobiles and tenting grounds for those traveling in this way will be available.

> RODNEY H. TRUE, Vice-president for the Committee on Arrangements

FIRST AWARDS OF THE PACK FOREST EDUCATION BOARD

MAKING its first award of fellowships ranging up to \$1,800 a year for training leaders in forestry, the Charles Lathrop Pack Forest Education Board has announced its selection of five Americans and one Canadian for the year 1930. The winning candidates were chosen from about ninety contestants. The fellowships were established to encourage men of unusual intellectual and personal qualities to obtain training that will equip them for important work, either in the general practice of forestry, in the forest industries, in the teaching of forestry, in forest research, or in the development of public forest policy. The successful candidates are:

James Lindsay Alexander, assistant professor, College of Forestry, University of Washington. To make an investigation of forest survey methods with the object of developing the needed precision with the least cost at the University of Toronto, the University of Washington and in the forests of the eastern and western United States.

Ralph Caird, graduate student, University of Chicago. To make a general study of forestry at the School of Forestry and Conservation of the University of Michigan, and to do advanced work in tree physiology and pathology. Bernard Frank, assistant forest economist, U. S. Forest Service, Washington, D. C. To make studies at the University of Wisconsin and field investigations in the Lake States of land classification methods and land utilization technique especially as applied to forest lands, together with the preparation of a program of land use for a specific region.

George Ritchie Lane, forester in charge of reforestation, Canada Power and Paper Corporation, Grand' Mere, Province of Quebec, Canada. To make field investigations of the planting, growth and yield of pulpwood species in the Maritime Provinces of Canada, in the hope of reducing the costs of reforestation.

Raymond Frank Taylor, forest examiner, U. S. Forest Service, Juneau, Alaska. To make studies of the silvicultural management of coniferous forests at the School of Forestry, Yale University, supplemented by field work in Washington and Alaska.

John Burton Woods, forester, Long-Bell Lumber Company, Longview, Washington. To make field investigations and to gather material on forestry as practiced in private timberlands and to write a book on the application of forestry to private lands.

During the coming autumn the Forest Education Board will receive applications for the award of approximately eight additional fellowships for 1931–32.

APPOINTMENTS IN THE U. S. GEOLOGICAL SURVEY

R. C. WELLS has been appointed chief chemist in charge of the Division of Chemistry in the U. S. Geo-

THE first meeting of the National Academy of Sciences to be held west of Wisconsin will take place from September 18 to 23, opening at the University of California, moving to Stanford University on the third day, and to the California Institute of Technology in Pasadena for the following two days. Arrangements for the meeting are in the hands of a committee including Director Robert G. Aitken, of the Lick Observatory, Professor A. O. Leuschner and Professor William C. Bray, chairman, all of the University of California; Professor W. F. Durand, of Stanford University; Robert O. Schad, of the Huntington Library; Dr. F. H. Seares, of the Mount Wilson Observatory, and Professor Richard C. Tolman, of the California Institute of Technology. Addresses of welcome at the three institutions respectively will be made by President Robert Gordon Sproul, of the University of California; Acting President Robert E. Swain, of Stanford University, and Dr. Robert A. Millikan, chairman of the executive council of the California Institute of Tech-

nology. Dr. Isaiah Bowman, of the American Geographical Society, will give an address on the openlogical Survey, and George Steiger, former chief, will return to studies in chemical and spectroscopic analysis.

W. D. Johnston and F. G. Wells have been transferred from the Water Resources Branch to the Geologic Branch and assigned to field work.

Eugene Callaghan, Edwin B. Eckel, Charles L. Gazin, E. N. Goddard, Charles B. Hunt, Bernard N. Moore, Watson H. Monroe, Charles F. Park, Jr., and Aaron G. Waters have been appointed junior geologists, and Lloyd G. Henbest, J. Harlan Johnson, Maxwell M. Knechtel, Albert H. Koschmann, Robt. E. Landon, Charles B. Read, Philip J. Shenon, Ralph B. Stewart and J. Steele Williams, assistant geologists in the Geologic Branch, U. S. Geological Survey.

Richard C. Cady and Stanley W. Lohman have been appointed junior geologists in the Water Resources Branch.

Stanly Cathcart, formerly connected with the Geological Survey, was reinstated as geologist in the Conservation Branch, but has recently joined the Pennsylvania Geological Survey staff.

Ralph W. Richards has been reinstated as geologist in the Geologic Branch.

Wendell P. Woodring, for the past few years on the staff of the California Institute of Technology, resumed full time service with the U. S. Geological Survey on July 1, 1930.

SCIENTIFIC NOTES AND NEWS

ing day of the session, at 8 p. m. in Wheeler Auditorium, University of California.

BARON GERARD JAKOB DE GEER, Stockholm, and Professor Tullio Levi-Civita, Rome, have been elected foreign members of the Royal Society, London.

WE learn from Nature that at a meeting of the Royal Society of Edinburgh, held on July 7, the following were elected honorary fellows: British Honorary Fellows—Sir Arthur Stanley Eddington; Sir William Bate Hardy; Sir Arthur Keith; Professor J. E. Marr; Professor R. Robinson, Dr. D. H. Scott; Foreign Honorary Fellows—Professor V. F. K. Bjerknes, Bergen; Professor W. B. Cannon, Cambridge; Professor M. Caullery, Paris; Professor G. Fano, Rome; Professor E. H. O. Stensiö, Stockholm.

PROFESSOR CHARLES MORSE ALLEN, emeritus head of the department of chemistry at Pratt Institute and son of Dr. Charles Frederic Allen, the first president of the University of Maine, received the degree of doctor of laws at the fifty-ninth commencement of the university.

An honorary degree of doctor of science has been