able design for the medal and providing said medals, testimonials and awards for the first year; and thereafter there is hereby authorized an annual appropriation, for the purposes herein provided, not exceeding \$2,500.

SECTION 6. This act shall take effect immediately.

The following two bills, the first of which provides for the completion of the topographical survey of the United States and the second authorizes the coast and geodetic survey to make seismological investigations, have been passed by both branches of the congress and signed by the president:

Be it enacted by the senate and house of representatives of the United States of America in congress assembled, that the president be, and hereby is, authorized to complete, within a period of twenty years from the date of the passage of this act, a general utility topographical survey of the territory of the United States, including adequate horizontal and vertical control and the securing of such topographic and hydrographic data as may be required for this purpose, and the preparation and publication of the resulting maps and data: Provided, that in carrying out the provisions of this act the president is authorized to utilize the services and facilities or such agency or agencies of the government as now exist, or may hereafter be created and to allot to them (in addition to and not in substitution for other funds available to such agencies under other appropriations or from other sources) funds from the appropriation herein authorized or from such appropriation or appropriations as may hereafter be made for the purpose of this act.

SECTION 2. That the agencies which may be engaged in carrying out the provisions of this act are authorized to enter into cooperative agreements with and to receive funds made available by any state or civic subdivision for the purpose of expediting the completion of the mapping within its borders.

SECTION 3. The sum of \$950,000 is hereby authorized to be appropriated out of any moneys in the treasury not otherwise appropriated, to be available until the 30th day of June, 1926, for the purpose of carrying out the provisions of this act, both in the District of Columbia and elsewhere as the president may deem essential and proper.

Be it enacted by the senate and house of representatives of the United States of America in congress assembled, that the Coast and Geodetic Survey is hereby authorized to make investigations and reports in seismology, including such investigations as have been heretofore performed by the Weather Bureau.

## FOREST RESEARCH COUNCILS

MANUFACTURERS in wood-using industries, business and professional men, foresters and deans of forest schools met at Asheville, February 12 and 13, as members of the new Appalachian Forest Research Council, appointed by the Secretary of Agriculture to cooperate with the Appalachian Forest Experiment Station of the United States Forest Service. The two days' sessions were devoted to making the new councillors thoroughly acquainted with the work of the Experiment Station, and to a discussion of future activities of both bodies. W. D. Tyler, of the Clinchfield Coal Corporation, Dante, Va., acted as chairman of the meetings.

Resolutions were unanimously passed supporting state and federal action toward forest tax adjustment, state forestry, fire protection, utilization of the great quantity of timber already killed or threatened by the chestnut blight and cooperation with the Appalachian Forest Experiment Station.

With the Appalachian council the secretary of agriculture has now appointed three research councils to function in cooperation with forest service experiment stations in important timber regions of the country, the others being in the Lake States and in the Northeast. It is understood that plans are already under way for similar councils to be appointed for the southern pine region and for the Pacific Northwest. These are announced as part of a comprehensive plan to bring out the practical features of research work in forestry and to keep the foresters in close touch with the needs of the regions their experiment stations serve most intimately.

Membership of the council includes John Raine, president, Meadow River Lumber Co., Rainelle, W. Va.; Dr. G. R. Lyman, dean, West Virginia College of Agriculture; James F. Lakin, president, West Virginia State Board of Control; T. H. Clagett, Bluefield, W. Va.; A. B. Brooks, chief game protector, W. Va.; Dean T. P. Cooper, Kentucky Agricultural College; Tennessee State Forester R. S. Maddox; S. F. Horn, editor, Southern Lumberman; George L. Wood, General Manager R. E. Wood Lumber Co., Baltimore, Md.; John H. Hassinger, Abingdon, Va.; State Forester Chapin Jones, Virginia; Andrew Gennett, president, Gennett Lumber Co.; R. B. Robertson, president, Champion Fibre Co.; C. C. Smoot, III, North Wilkesboro, N. C.; John Cecil, Biltmore Estate; North Carolina State Forester J. S. Holmes; Dean B. W. Kilgore, of North Carolina Agricultural College; Col. J. H. Pratt, Asheville, N. C.; G. A. Cardwell, Atlantic Coast Line R. R. Co., and Bonnell H. Stone, president, Georgia Forestry Association.

## AWARDS FORM THE MILTON FUND AT HARVARD UNIVERSITY

ANNOUNCEMENT is made at Harvard University of twenty-one awards to professors in the university in accordance with the provisions of the Milton Fund for research. As noted in SCIENCE for October 3, 1924, this legacy, yielding an annual income of about \$50,-000, was received by Harvard University last spring. The awards include the following for scientific work: Gregory Paul Baxter, professor of chemistry; for one year, to assist in investigations upon the density of gases, important in finding atomic weights of the inert gases.

Frederick Albert Saunders, professor of physics; for one year, to purchase a spectrograph of large size with optical parts made of quartz for use in the Jefferson Physical Laboratory in researches dealing with the spectra of atoms and molecules.

James Bryant Conant, assistant professor of chemistry; for two years, to aid in his investigations of the chemistry of hemoglobin in the border-line field between organic, biological and electro-chemistry: part for a trained assistant, part for laboratory expenses and part for the purchase of a spectro-photometer.

Harlow Shapley, Paine professor of practical astronomy and director of the Harvard College Observatory; for one year, to enable him to continue his study of the stars: part for a slit spectroscope to be attached to the 24-inch Bruce refractor at Arequipa, Peru, for use in connection with the study of the velocities of the bright line nebulae in the Magellanic clouds and the Southern Milky Way and part for the construction of a slit spectroscope as accessory to the 60-inch reflector at the Cambridge station of the Harvard Observatory, to be used for analysis of the chemical constitution of the brighter northern stars and for the determination of their radial velocities.

Alexander George McAdie, Abbott Lawrence Rotch professor of meteorology and director of the Blue Hill Observatory; for one year, to provide necessary equipment and services of an expert mechanic to permit Professor McAdie to make at Blue Hill Observatory researches upon the general problem of the dust content of free air and the special problem of the behavior of water vapor in free air during thunderstorms, which are part of a general study of atmospheric pollution.

Carroll Cornelius Pratt, instructor in psychology; for one year, to purchase a set of Stern tone variators to be used as a source of pure tones of definitely known frequency which can be varied over a wide range in an investigation of tonal intervals to determine whether the perception of a series of tones follows the Weber-Fechner law.

Emory Leon Chaffee, associate professor of physics; for one year, for apparatus and an assistant to conduct investigations on variations in electrical potential in the retina of the eye resulting from stimulation by light.

William Duane, professor of bio-physics; for two years, to carry on researches on X-rays and radio activity: part for the completion of a 100,000-volt storage battery, part for an assistant and the purchase of equipment and materials.

Edward W. Forbes, director of William Hayes Fogg Art Museum; for one year, to study the chemistry of paints and the preservation of pictures and investigation of the possible use of X-ray work in the detection of picture forgeries.

Grinnell Jones, associate professor of chemistry; for one year, for apparatus required in research on the electrical conductivity of solutions.

Merritt Lyndon Fernald, Fisher professor of natural

history; for one year, for field work in connection with the geographic botany of Northeast America, notably in Newfoundland and Labrador.

Edward Charles Jeffrey, professor of plant morphology; for one year, for traveling and field expenses in Australia and New Zealand incident to a research on the trees of the southern hemisphere.

William McDougall, professor of psychology; for two years, to continue his research on the Lamarckian hypothesis of the transmission of "acquired characters."

## SCIENTIFIC NOTES AND NEWS

DR. ROLAND THAXTER, professor emeritus of botany at Harvard University, has been elected a foreign member of the French Academy of Sciences, section of botany.

IT is reported that the council of the British Association for the Advancement of Science has elected the Prince of Wales president for the 1926 meeting in Oxford.

DR. HIDEVO NOGUCHI, of the Rockefeller Institute for Medical Research, has been elected corresponding member of the Sociedad Medica de Caracas, Venezuela.

THE Franklin Institute recently awarded to Dr. Harvey C. Hayes, of the Naval Research Laboratory, Anacostia, D. C., its Louis Edward Levy gold medal for his paper on "Measuring ocean depths by acoustical methods," printed in the *Journal* of the Franklin Institute for March, 1924.

THE American minister to Denmark presented to Knud Rasmussen, the Danish Arctic explorer, the Daly medal of the American Geographical Society on March 10.

THE president and council of the Royal Society decided at a meeting on February 19 to recommend for election into the society the following fifteen candidates: Dr. W. R. G. Atkins, Professor C. A. Lovatt Evans, Mr. R. H. Fowler, Dr. F. A. Freeth, Dr. Walcot Gibson, Dr. Harold Jeffreys, Professor F. Wood Jones, Professor J. Kenner, Professor E. Mellanby, Mr. J. A. Murray, Professor J. Proudman, Mr. R. V. Southwell, Dr. L. J. Spencer, Dr. R. J. Tillyard, Professor R. Whiddington.

DR. KARL A. L. KOCK has been chosen to fill the place of corresponding member of the Swedish Academy left vacant by the death of Dr. Söderwall.

DR. FRIEDRICH PASCHEN, who was recently appointed president of the Physikalisch-Technische Reichsanstalt, has been elected to an honorary professorship in the faculty of the University of Berlin.

DEAN LOUIS MITCHELL, of the College of Applied