Previous medalists include Dr. Irving Langmuir, Leo H. Baekeland, W. A. Hillebrand, W. R. Whitney, F. Gowland Hopkins, Edgar F. Smith, Robert E. Swain, E. C. Kendall, S. W. Parr, Moses Gomberg and J. Arthur Wilson.

The announcement describes Professor Conant as "one of the most brilliant of the younger organic chemists which this country has produced." He was born in Dorchester, Massachusetts, in 1893. From Harvard he received the A.B. in 1913 and the Ph.D. in 1916.

Upon his graduation he became an instructor in chemistry at Harvard University, and in the following year entered the army as a lieutenant in the Sanitary Corps, later becoming a major in the Research Division in the Chemical Warfare Service.

At the close of the war Professor Conant returned to Harvard as an assistant professor of chemistry. He became an associate professor in 1925, and a full professor in 1927. Meanwhile he had acted as a visiting lecturer at the University of California Summer School.

Professor Conant is a former chairman of the Organic Division of the American Chemical Society. He is the author of "Organic Chemistry," and joint author of "Practical Chemistry." He has written a series of papers on subjects relating to physical organic chemistry, in which field he has been extensively engaged.

His research has included work in reduction and oxidation, hemoglobin, free radicals and a quantitative study of organic reactions. He is a member of the American Academy of Arts and Sciences and of the National Academy of Sciences.

SCIENTIFIC NOTES AND NEWS

THE American Association for the Advancement of Science, with some thirty-five affiliated and associated scientific societies, has been meeting this week in New Orleans. This is the second New Orleans meeting, the first having been held there twenty-five years ago. Full information concerning the meeting was given in the preliminary announcement printed in the issue of SCIENCE for November 27, and supplementary statements have been given in other issues. A report of the meeting edited by the permanent secretary will appear in the issue of SCIENCE for February 5.

DR. WILLIAM KING GREGORY, of the American Museum of Natural History, was elected president of the New York Academy of Sciences for 1932 at the annual meeting held in New York City on December 21. The address of the retiring president, Dr. Clark Wissler, was delivered after the annual dinner. Dr. Wissler's subject was "The Primitive Background of Civilization."

MR. H. P. CHARLESWORTH, vice-president of the Bell Telephone Laboratories, New York, has been officially nominated for the presidency of the American Institute of Electrical Engineers.

IT is announced that Dr. Harvey Cushing, surgeon-in-chief of the Peter Bent Brigham Hospital and Moseley professor of surgery at the Harvard Medical School, will retire on September 1. He will reach the age of retirement of sixty-three years on April 8.

THE governors of the University of Toronto have accepted with regret the resignation of Professor J. C. McLennan, dean of the school of graduate studies, professor of physics and director of the physical laboratory. Professor McLennan has been granted leave of absence from the end of January and he and Mrs. McLennan will leave at that time to live in England. His resignation takes effect at the end of June, 1932.

PROFESSOR E. FREUNDLICH, director of the Astrophysical Observatory at Potsdam, delivered on December 2 a lecture on the results of the Potsdam Solar Eclipse Expedition to Sumatra in May, 1929, to determine the deflection of light in the sun's gravitational field and to examine its variation with distance from the sun.

DR. EDWARD TYSON REICHERT, professor of physiology at the University of Pennsylvania from 1886 until his retirement in 1920, died in Florida on December 25, aged seventy-six years.

DR. DANIEL DRAPER, who until his retirement in 1911 had been official meteorologist in New York City for forty-two years, died on December 21 at the age of ninety-one years.

THE Cullum Geographical Medal of the American Geographical Society for 1931 has been awarded to Professor Mark Jefferson, of the Michigan State Normal College. The presentation will be made at the twenty-eighth annual meeting of the Association of American Geographers.

SIR CHARLES SHERRINGTON has been awarded the first Hughlings Jackson Medal of the Royal Society of Medicine and will give the first triennial lecture before the neurological section of the society. The medal and lecture have been established with a fund of £1,110 subscribed in memory of Hughlings Jackson, the distinguished British neurologist.

THE Royal Meteorological Society has awarded the Symons Gold Medal to Professor V. F. K. Bjerknes, of the Physical Institute of the University of Oslo.

The medal will be presented at the annual meeting on January 20.

DR. CARROLL W. DODGE, of Harvard University, has been appointed to a professorship in the Henry Shaw School of Botany of Washington University, St. Louis.

DR. JOHN E. BUCHER, formerly head of the department of chemistry at Brown University, consulting chemist of New York City, has become a member of the staff of Antioch College Research Institute, at Yellow Springs, Ohio.

DR. C. B. WILLIAMS, lecturer in agricultural and forest entomology at the University of Edinburgh, has been appointed head of the department of entomology at Rothamsted Experimental Station.

DR. H. C. DARBY has been appointed lecturer in geography at the University of Cambridge.

THE title of emeritus professor has been conferred by the University of Birmingham upon Frederick William Burstall, from 1896 to 1931 professor of mechanical engineering, and on Arthur Robert Ling, from 1920 to 1931 Adrian Brown professor of brewing and head of the department of malting and brewing and the biochemistry of fermentation.

DR. KITASHIMA, formerly vice-director of the Kitasato Institute, Tokyo, has been unanimously elected director to succeed the late Baron D. Kitasato, founder and director of the institute. Dr. S. Hata has been elected vice-director.

THE sum of $2,500 which the Rosenwald Fund has placed at the disposal of the American National Committee of the International Union for the Scientific Investigation of Population Problems has been applied to two fellowships. A fellowship of $1,800 for one year has been awarded to Dr. E. E. Lewis, of Howard University, who is carrying on an investigation on "The Economic Aspects of the Shifts in Negro Population," and one of $800 for one year to Miss Betty Freeman, of the Johns Hopkins University, who is investigating "The Relation between Fertility in Women and Longevity." A grant of $500 has also been made to Miss Mary Dublin out of the general fund of the committee, to meet expenses in the conduct of her investigation at the London School of Economics into "The Influence of the Declining Birth Rate on the Mortality from Puerperal Causes."

IT was announced at the anniversary meeting of the Royal Society, as reported in *Nature*, that this year the following grants have been made: From the Messel Fund: £800 a year for five years to Dr. Honor B. Fell, of the Strangeways Research Laboratory, for the support of her valuable work on tissue culture; also £150 for the current year, and, after the termination of his 1851 Exhibition Scholarship, £600 a year for two years, to Dr. M. L. Oliphant, of the Cavendish Laboratory. From the Caird Fund: £2,200 to Professor O. W. Richardson for the purchase of optical apparatus of high resolving power. From the Donation Fund: £400 to Dr. L. S. B. Leakey towards the cost of his West African Archeological Expedition. From the Darwin Fund: £500 a year for four years to Mr. C. S. Elton for research on wild vole populations, together with an additional grant of £250 for capital outlay and field equipment. Dr. S. Adler's researches on kala-azar continue to receive support from the Anonymous Bequest Fund.

A CORRESPONDENT writes: "Professor P. Langevin, of the Collège de France, Paris, who has been in China for some time on an International Educational Mission on behalf of the League of Nations, has accepted the joint invitation of the National Academy of Peiping, the National University and the National Tsing-Hwa University, China, to give a series of colloquium lectures to the physicists and advanced students in physics there. The lectures are expected to continue for one month. The subject chosen by Professor Langevin is: "Les nouvelles dynamiques de relativité et des quanta et leur applications à quelques problèmes de la théorie du magnétisme." It is hoped that the presence of Professor Langevin and his lectures will serve as a stimulus to the building up of an atmosphere and a nucleus for research in physical science in that region—an atmosphere that has been gradually taking shape. In Peiping there are six universities with physics as a department, besides one institution purely for research on that subject. Steps are also under way towards the formation of a physical society with aims and organization along the line of those existing in other countries."

SENATOR HAWES of Missouri and Senator Walcott of Connecticut have introduced a bill which would coordinate the various federal agencies dealing with the conservation of wild life, both plant and animal, including forests, fish and game.

THE British Museum has acquired for its department of manuscripts nine volumes of nineteenth and twentieth-century autographed letters, presented by Dr. C. Davies Sherborn. Almost half the letters are from eminent scientific men, though art and literature, music and drama, and politics and the professions fill five volumes. The names include those of Huxley, Darwin, Geikie, Lyell and Livingstone.

THE Department of Medicine of the New York Post-Graduate Medical School and Hospital of Columbia University announces the opening of a clinic devoted to the study of the capillaries in a variety of diseased conditions. Representatives of the following specialties will study the capillary changes in

the diseases in which they are interested: Diseases of metabolism; diseases of the cardio-respiratory system; diseases of the endocrine glands; migraine, arthritis, tuberculosis and allergic conditions; diseases of the nervous system, and surgical conditions of the extremities. Cases or groups of cases of sufficient interest will be studied in greater detail in the capillary laboratory already established at this institution.

THE annual general meeting of the Association for the Promotion of Cooperation between Scientific and Technical Societies and Institutions within the British Empire was held, according to *Nature,* at Burlington House, London, on December 1. The report, which was adopted, referred to the appeal for a central building in London issued in February of this year to the members of the constituent societies and institutions, in which it was stated that options had been secured for a limited period on a site near Westminster Abbey, and that an estimated sum of £350,000 would be required to defray the cost of the complete building, including the purchase of leases, etc. It was further mentioned that to complete the purchase of the leases it would be necessary to secure £100,000 in cash by June 24, 1931, when the options on the site would expire. A considerable response to the appeal was received, but the sum available by June 24, however, fell considerably short of the amount required in cash, and the Council of Management decided to allow the options on the leases to lapse. The acute financial and industrial conditions prevailing during this year, culminating in the recent crisis, have rendered it necessary for the council to postpone a public appeal until national conditions have improved. Though regretting the consequent delay in proceeding with the central building scheme, the council will not relax its efforts to bring the scheme to fruition at the earliest possible moment.

IN their report to the University of Cambridge on forestry in the university curriculum the General Board states that it has been much concerned about the future of the Department of Forestry. There is practically no future for graduates trained in forestry except in Government Forest Services. Only twenty to twenty-five of these posts are available each year, and there are no fewer than five university schools, including the one at Cambridge, engaged in training candidates for these posts. As a result of investigations the committee of the General Board came to the conclusion that the university would not be justified in maintaining a forestry organization as a recruiting ground for government services, partly because the demand was so small, but even more because they considered that university policy in forestry teaching can not be reconciled with the present official view. They accordingly recommend that the Department of Forestry be suppressed, examinations in forestry for the ordinary B.A. degree be discontinued after 1934, and examinations for the diploma in forestry cease in October, 1935. The titles of faculties and examinations concerned would be amended where necessary by the deletion of the word "forestry."

THE Acadia National Park, in Maine, which includes a considerable part of the famous Mount Desert Island and about half of Schoodic Peninsula, to the east across Frenchman Bay, is shown on a new map just issued by the United States Geological Survey, Department of the Interior, on a scale of 1 mile to the inch, with the surface forms indicated by contour lines drawn at vertical intervals of 20 feet. Mount Desert is far from a desert: the name given by Champlain, "l'isle des monts deserts," was applied with the original French signification of the word "deserts"—that is, wild and solitary, not devoid of vegetation. The island vegetation is exceptionally vigorous and combines with the rugged beauty of this part of the Maine coast to make a landscape of superb attractions. The national park, the only one on the seashore, includes much of the wildest part of the island. The map shows clearly the remarkable variety of land forms and coastal waters, and on the back of the map is a simply written account of the geology of Mount Desert, from the time when the granitic rock that now forms most of its surface was a plastic molten mass to the events that have modified the surface since the glacial invasion.

A GOLD medal for anthropological research is in future to be awarded annually by the Royal Anthropological Institute for the best research essay written on the application of anthropological methods to the problems of native peoples, particularly those arising from intercourse between native peoples, or between primitive natives and civilized races. The medal, which is to be known as the Wellcome Gold Medal for Anthropological Research, has been provided by Dr. Henry S. Wellcome, and will be bestowed at the annual meetings of the Royal Anthropological Institute, at the recommendation of a special medal committee. The president of the Royal Anthropological Institute will be the chairman of this committee, while of the other members one will be the conservator of the Wellcome Historical Medical Museum, the three remaining persons being nominated, respectively, for a period of three years, by the presidents of the Royal Anthropological Institute, the Royal Empire Society and the African Society. Candidates for the medal may be of any nationality, but the essays must be submitted in English. If unpublished, they are to be submitted, at the discretion of the medal committee, for publication by the Royal Anthropological Institute.

The essays are intended to be of moderate length, and must be delivered in triplicate copies at the office of the Royal Anthropological Institute by the first of January in the year when they are to be considered by the committee. The first award of the medal will be made next year.

THE *Journal* of the American Medical Association reports that the Prince Leopold Institute of Tropical Medicine, recently established at Antwerp, has for its purpose the creation and maintenance of a school of hygiene and of tropical medicine, for the training of colonial physicians and sanitary agents; for the study of all problems pertaining to the etiology and the therapeutics of tropical diseases, and to establish laboratories and clinics as annexes of the school. The courses given in the new institution will be organized in such a manner as to meet the requirements of the curriculum established by the minister of the colonies for physicians in the government service.

THE London *Times* reports that a new development in the scientific investigation of those problems of marine biology the solution of which is of importance to the fishery industry was marked by the formal opening at the University College of Hull of new fishery research laboratories for the department of zoology and oceanography. When the Hull University College was founded a few years ago one main object of the promoters was the establishment of a department of marine biology by which it was hoped to render scientific services to the fishing industries, and the college authorities appointed as head of this department Professor D. C. Hardy, who, after spending some years in the laboratories of the Ministry of Agriculture and Fisheries at Lowestoft, had joined the scientific staff of the *Discovery* and had then recently finished his work with that expedition. At Hull Professor Hardy has extended his earlier work in fishery research, and that it is appreciated by the fishing industry was shown by the presence of Sir John Marsden, president of the British Trawlers' Federation, who opened the new laboratories, and of Mr. H. G. Maurice, Fisheries Secretary of the Ministry of Agriculture and Fisheries. Professor Hardy is now hoping that both the herring and the trawling sides of the British fishery industry will join in forming a small committee to keep in touch with the fishery research work of the college. The basic problems affecting the fishing industry center in plankton, its different varieties, the different kinds of organisms it contains, the study of the different localities in the ocean where these different kinds most exist, the motions to which areas of particular species are subjected by the ocean currents, the kinds of fish that are attracted to or repelled by the different waters, and the ascertainment of the facts which determine the movements of these varying feeding grounds of the different species of fish. The whole study is now pursued on international lines by the scientific men of many countries, who are united in the International Council for the Exploration of the Sea. It is hoped that the work at Hull will fit into and form part of this plan of oceanographic research.

THE regular correspondent of the *Journal* of the American Medical Association reports that a record low death rate and a low infant mortality rate are the two main features of the annual demography bulletin for 1930, which deals with the population and vital statistics of Australia. The infant mortality rate was 47 per thousand; with the exception of the New Zealond rate, this is the lowest in the world. The rate for New Zealand in 34.5. The death rate was 8.59 per thousand of the population. This rate was the lowest ever recorded in Australia and compares most favorably with that of other countries. The principal causes of death were heart disease, 15.6 per cent.; cancer, 11.1 per cent.; tuberculosis, 5.9 per cent.; acute and chronic nephritis, 5.7 per cent., and pneumonia, 3.5 per cent. The maternal mortality rate was 5.29 per thousand children born. At the end of 1930 the population of Australia reached the total of 6,476,032, which represents a growth of 1,064,735 during the last ten years. To this total gain, natural increase contributed 73 per cent. and net migration 27 per cent. The rate of growth during 1930 was 1.81 per cent., and is among the highest rates of increase in the world. The birth rate was 19.93 per thousand of population, the lowest ever recorded. Compared with that of many other countries, the Australian rate is low, but fortunately it is accompanied by a low death rate giving a rate of natural increase which is equaled in few countries. Exnuptial births were 4.62 per cent. of all births registered. The average family per mother in 1930 was 2.92 as against 2.96 in 1929. The density of population, that is, the number of persons to the square mile, in Australia is only 2.18 and varies from 1 person in 100 square miles in the Northern Territory to 20.38 to the square mile in Victoria.

DISCUSSION

TWISTING IN LOWER FORMS OF PLANTS

WITHIN recent months a number of notes have been published in SCIENCE regarding twisting in the bark and wood of trees. Various factors have been invoked to account for the twisting, such as sunlight and wind, thus explaining the more frequent occurrence