

Islands in relation to their origin, migration and alteration of the sediments which mantle their surfaces; Edwin T. Hodge, professor of geology, University of Oregon, completion of geological study of Mt. Hood region in Oregon; Frank O. Melton, associate professor of geology, University of Oklahoma, tectonics of the continental interior of North America in relation to the Appalachian orogeny; Ellen C. Semple, Clark University, preparation for publication of "Geographic Influences in the History of the Mediterranean Region."

T. Hume Bissonnette, professor of biology, Trinity College, modification and control of the sexual cycle in the European starling; George O. Burr, associate professor of botany, University of Minnesota, the rôle of fatty acids in animal metabolism; Cleveland S. Simkins, associate professor of anatomy and embryology, University of Tennessee Medical School, the human ovary from birth to sexual maturity.

Ralph E. Cleland, associate professor of biology, Goucher College, cytological and gential studies of *Oenothera*; George R. La Rue, professor of zoology, University of Michigan, distribution of the lung fluke, *Paragonimus*, in America; Charles L. Parmenter, associate professor of zoology, University of Pennsylvania,

chromosome formation in parthenogenetically produced frogs; James T. Penney, associate professor of biology, University of South Carolina, cell behavior in freshwater sponges; William Rowan, associate professor of zoology, University of Alberta, bird migration from the view-point of animal behavior; Carl G. Vinson, professor of horticulture, University of Missouri, the virus diseases of plants.

Franklin Fearing, associate professor of psychology, Northwestern University, the functions of the non-acoustic portion of the labyrinth in pigeons; Frederick S. Hulse, research assistant in anthropology, Bishop Museum, Honolulu (at present at the Peabody Museum, Harvard University), race mixture between Spanish, Indian and Negro stocks; John A. McGeoch, professor of psychology, University of Missouri, the influence of the time interval and of the point of interpolation upon degree of retroactive inhibition; Jessie W. Murray, acting director, Tioga Point Museum, investigation of aboriginal Indian sites near Athens, Pennsylvania.

VERNON KELLOGG
Permanent Secretary,
National Research Council

SCIENTIFIC NOTES AND NEWS

DR. LELAND O. HOWARD, until his retirement in 1927 chief of the Bureau of Entomology of the U. S. Department of Agriculture, Washington, D. C., has been awarded the 1931 Capper Gold Medal and the sum of \$5,000 for distinguished service to American agriculture. Last year's award was given to Professor Stephen Moulton Babcock, professor emeritus of agricultural chemistry at the University of Wisconsin.

THE University of Paris conferred on June 13 honorary degrees on Dr. Henry Fairfield Osborn, director of the American Museum of Natural History, New York, and on Dr. Walter B. Cannon, professor of physiology in the Harvard Medical School.

THE honorary doctorate of science was conferred on Dr. Howard McClenahan, secretary of the Franklin Institute, formerly professor of physics and dean of the college at Princeton University, at the recent commencement exercises of the University of Pennsylvania.

DR. KARL LANDSTEINER, a member of the Rockefeller Institute for Medical Research, New York, was recently elected a member of the Royal Danish Academy of Sciences in Copenhagen, in the class of the natural sciences and mathematics.

MME. CURIE was recently appointed an honorary member of the Sociedad Española de Física y Química in a ceremony at the University of Madrid,

where she delivered lectures on radioactivity. Mme. Curie went to Spain on the invitation of several national medical and scientific societies.

DR. HANS HORST, professor of pharmacology at the University of Vienna, has been elected a foreign member of the Royal Swedish Academy of Sciences.

SIR OLIVER LODGE celebrated his eightieth birthday on June 12.

THE American College of Radiology on June 10 awarded its gold medal to Dr. Charles C. Lauritsen, professor of physics at the California Institute of Technology, Pasadena, in recognition of his work resulting in "the first practical high voltage tube operating daily for experimental research."

M. PAUL PELSENEER was recently elected a correspondent of the Paris Academy of Sciences in the section of anatomy and zoology in the place of the late M. A. Brachet.

At the Philadelphia meeting of the American Medical Association gold medals were awarded to Dr. Jacob Furth, of the Henry Phipps Institute of the University of Pennsylvania, for experiments demonstrating that leukemia can be transmitted by a filterable virus, and to Drs. J. Parsons Schaeffer and Warren B. Davis, of Jefferson Medical College, Philadelphia, for anatomical researches on the nasal sinuses. Silver medals were awarded to Drs. Harrison S. Martland, A. V. St. George, Alexander O.

Gettler and Ralph H. Mueller for their detailed presentation of the subject of radium poisoning and to Dr. Bedford Shel mire, of Baylor University School of Medicine, and Dr. W. E. Dove, of the U. S. Bureau of Entomology, for original work on the spread of typhus fever by rat mite.

THE honorary degree of doctor of science was awarded to Admiral Richard E. Byrd and Professor Laurence McKinley Gould, of the University of Michigan, leaders of the Byrd Antarctic Expedition, by the Polytechnic Institute of Brooklyn at the seventy-sixth annual commencement exercises on June 17. Professor Gould delivered the commencement address on "Antarctic Research and the Byrd Expedition." Scientific exploration as indicated by the Byrd expedition will be the general subject at the dinner of the Corporation of the Polytechnic Institute on the evening of June 22 at the University Club of New York, where explorers will gather in informal discussion of the value of world travel and research. On this occasion a review of earlier Arctic explorations will be presented by Major Anthony Fiala to be followed by a study of the recent Vincent Astor Expedition to the Galapagos Islands, by Dr. Charles H. Townsend, director of the New York City Aquarium. Professor Laurence McKinley Gould, of the University of Michigan, will present a paper on the scientific aspects of the Byrd expedition, while Dr. Walter Granger, curator of fossil mammals at the American Museum of Natural History and scientific head of the expedition to Mongolia of the museum, will present a review of the results of that exploration.

THE prize of \$250 offered by the Scientific Apparatus Makers of America for the best paper on instruments appearing in *The Review of Scientific Instruments* during the calendar year 1930 has been awarded to Mr. K. C. D. Hickman and Mr. C. R. Sanford, of the Eastman Kodak Research Laboratory, Rochester, for their joint paper entitled "A Study in Condensation Pumps," which appeared in the March issue of the *Review*. The committee made special mention of the paper by Mr. J. D. Hardy entitled "A Theoretical and Experimental Study of the Resonance Radiometer," which appeared in August and also of the paper by Mr. P. H. Carr entitled "A New Method of Recording Electrons," which appeared in December. The committee of award consisted of Professor J. R. Collins, Cornell University, *chairman*; Professor H. W. Webb, Columbia University, and Dr. H. W. Russell, of the Battelle Memorial Institute.

At the Massachusetts Institute of Technology, Professor Erwin H. Schell has been appointed head of the department of business and engineering adminis-

tration, and Professor Charles F. Taylor head of the department of aeronautical engineering. Dr. Louis J. Bircher, of Vanderbilt University, will be visiting professor of chemistry.

DR. PAUL KIRKPATRICK, professor of physics at the University of Hawaii, will be acting associate professor of physics at Stanford University during the academic year 1931-32. His place at the University of Hawaii will be taken by Dr. Harry Kirkpatrick, who, with Dr. J. W. M. Dumond, recently completed an investigation of the scattering of x-rays at the California Institute of Technology. Dr. Willard H. Eller will be in charge of the department of physics at the University of Hawaii while Dr. Kirkpatrick is on leave.

DR. A. E. NAISCH, lecturer in medicine at the University of Sheffield, has been promoted to the chair of medicine.

DR. AND MRS. LEWELLYS F. BARKER, of Baltimore, leave in June to spend the summer in Switzerland.

PROFESSOR AND MRS. COCKERELL, of the University of Colorado, sail on June 20 to England, and go thence to Africa, expecting to visit Benguela, Katanga, Lake Tanganyika, Rhodesia, the Cape Province, etc., returning to Colorado at the end of the year. The African expedition will include Miss Alice Mackie and Mr. and Mrs. J. Ogilvie.

DEAN F. B. MUMFORD, of the College of Agriculture of the University of Missouri, has been granted leave of absence until January 1. He plans to spend several months in Europe.

PROFESSOR J. N. LECONTE, of the department of mechanical engineering of the University of California, has been granted a year's sabbatical leave to visit hydraulic laboratories and installations in France and Germany.

THE Medical Fellowship Board of the National Research Council, of which Dr. G. Carl Huber, dean of the Graduate School of the University of Michigan, is the chairman, has made the following appointments of fellows in medicine for the year 1931-1932: Evelyn M. Anderson, Broda O. Barnes, Chandler McC. Brooks, Walter D. Claus, George Lyman Duff, Knox H. Finley, John H. Hanks, Carl M. Johnson, Peter K. Knoefel, Donald McEachern, Robert A. Moore, Harold S. Oleovich and Samuel R. M. Reynolds. The next meeting of the Medical Fellowship Board will be held on September 19, and applications to be considered at that time should be filed on or before August 15.

PROFESSOR WILLIAM E. RITTER, of the University of California, left Berkeley for London on May 23,

where on invitation from the president and executive committee of the Second International Congress of the History of Science and Technology he will participate in the London meeting of the congress from June 29 to July 3. Dr. Ritter will discuss the bearings of the Aristotelian teachings on the historical and contemporary inter-relationship of the physical and biological sciences.

DR. JOHN R. MURLIN, professor of physiology and director of the department of vital economics of the University of Rochester, gave the annual address before the Alpha chapter of Sigma Xi at Cornell University on May 15. His subject was "Modern Aspects of Vitalism."

At the recent Philadelphia meeting of the American Medical Association, the Billings lecture, named for Dr. Frank Billings, was delivered before the section on medicine by Dr. Henry A. Christian, of the Harvard University Medical School, on the classification of different types of Bright's disease.

DR. HARVEY CUSHING, Moseley professor of surgery at Harvard University, delivered on June 11 the annual discourse at the one hundred and fiftieth anniversary convention of the Massachusetts Medical Society.

PROFESSOR HEBER D. CURTIS, director of the University of Michigan Observatory, gave the address at the dedication on June 3 of the new astronomical observatory at Wittenberg College, Ohio.

THE Ontario Radium Commission is visiting the large cities of the United States, making a study of the methods used in the treatment of cancer. Members of the commission include the Honorable John M. Robb, Minister of Health for Ontario; the Reverend H. J. Cody, chairman of the commission and chairman of the Board of Governors of the University of Ontario; Dr. Herbert L. Lombard, director of the division of adult hygiene, Massachusetts Department of Public Health; Dr. W. T. Connell, professor of medicine at Queen's University, and Dr. J. W. S. McCullough, chief inspector of health for Ontario. On June 26 members of the commission will leave for Europe. They will study facilities for treating cancer in London and other medical centers. Following a tour of Europe they will return to Ontario and will submit a report to the Ontario Legislature.

THE thirteenth annual meeting of the American Society of Mammalogists was held at the Academy of Natural Sciences of Philadelphia from May 12 to 15. Thirty papers on various phases of mammalogy were presented. The annual election of officers resulted as follows: *President*, Marcus W. Lyon, Jr.; *Vice-presidents*, T. S. Palmer, H. E. Anthony; *Re-*

cording Secretary, H. H. Lane; *Corresponding Secretary*, Francis Harper; *Treasurer*, Mrs. Viola S. Snyder; *Directors*, class of 1931-1933, Joseph Grinnell, Remington Kellogg, A. Brazier Howell, W. E. Saunders, Wharton Huber; *Director*, to fill vacancy in class of 1930-1932, Lee R. Dice. Edward A. Preble continues as chairman of the editorial board in charge of the *Journal of Mammalogy*. The total membership of the society is now 1,017. The next annual meeting will be held at the U. S. National Museum in Washington.

A CONFERENCE of Connecticut and Rhode Island investigators in the chemistry and physiology of plants was held on June 5 and 6 in the laboratories of Yale University and of the Connecticut Agricultural Experiment Station. The first session was held at the Experiment Station, where the address of welcome was delivered by Director William L. Slate. The members inspected the experimental work of the various departments of the station, as well as the New Haven Branch of the United States Office of Forest Pathology, and the Marsh Botanical Gardens and Osborn Botanical Laboratory of Yale University. A dinner was given at the Yale Faculty Club and at 8:00 o'clock the conference reconvened in Sage Hall. Professor Andrew Keogh, Yale University librarian, welcomed the members to Yale. Director-Emeritus Russell H. Chittenden spoke on "Plant Sciences in Sheffield Scientific School." Plant science research in the Yale School of Forestry was described by Professor James W. Toumey. Dr. Treat B. Johnson, Sterling professor of chemistry, spoke on "The Need for Cooperation in Biochemical Research." Saturday morning was given to the presentation of some twenty-six research papers at the Osborn Botanical Laboratory.

THE eastern section of the Botanical Society of America will hold its biannual summer meeting at the Pennsylvania State College from June 16 to 19. The program for the four days includes a number of field trips.

THE first permanent exhibition in New York of exact scale models illustrating minutely the development of marine, highway and railroad transportation was opened to the public on May 25 at the Museum of Science and Industry, 220 East Forty-second Street, by Mr. Frederic B. Pratt, president. The exhibits include an arrangement of marine, railroad and automobile engines, and in the highway division there is a series of mechanical sets which may be put in motion to reveal the workings of brakes, axles, springs, gears and spark plugs. The exhibition, a part of a projected series which will ultimately portray the significant steps in the major fields of man's

material evolution, was arranged under the direction of Dr. Charles R. Richards, authority on industrial museums, assisted by Carlos de Zafra, of the engineering faculty of New York University; Charles E. Duryea, co-inventor of the Duryea automobile, and Henry O. Havemeyer, Jr.

THE Rush Rhees Library of the University of Rochester has been given a complete collection of the first editions of all the works of Charles Darwin, including a copy of the first printing of the first edition of the "Origin of Species." It is said that there is no similar collection in the United States.

THE Rockefeller Foundation has granted \$30,000 to Iowa State College, to be used for research in biological sciences and related branches of physics and chemistry. The fund is to be paid during the next five years.

ARRANGEMENTS for cooperation between the Hebrew University of Jerusalem and the Field Museum, Chicago, were completed during a visit to the museum by Dr. Julius Magnes, president of the university, on May 8. Dr. Magnes consulted with members of the scientific staff, and formulated plans for exchange of specimens and publications between the two institutions.

LECTURES are announced at the New York Botanical Garden at 4 o'clock in the afternoons as follows: June 6, "John Bartram, American Quaker and Botanist to the King," Dr. John Hendley Barnhart, bibliographer. June 13, "Rice, the Greatest Food Plant in the World," Dr. H. A. Gleason, curator. June 20, "Vegetation of the Philippines," Dr. Elmer D. Merrill, director-in-chief. June 27, "Roses," Mr. Kenneth R. Boynton, head gardener. July 11, "Day-lilies," Dr. A. B. Stout, director of laboratories. July 18, "Diatoms, Microscopic Beauties," Dr. Marshall A. Howe, assistant director. July 25, "Edible and Poisonous Mushrooms," Dr. Fred J. Seaver, curator. August 1, "Coal, Its Origin and Development," Dr. Arthur Hollick, paleobotanist. August 8, "New Gladiolus Varieties," Dr. Forman T. McLean, supervisor of public education.

RECOGNIZING the need for developing a body of research minded and research trained individuals specializing in textile and allied fields who might be eventually attracted into the textile industries, the directors of the Textile Foundation have authorized establishment of a fund of \$100,000 during the next two years to provide for fellowships in textile research.

WARD'S NATURAL SCIENCE ESTABLISHMENT, which was damaged by fire last September, will be restored

and maintained by the University of Rochester. The university is reported to have acted in response to requests from scientific men from all parts of the country. The new museum will be housed in a four-story building containing 40,000 square feet of floor space and will be directed by Dr. Dean L. Gamble.

THE Tennessee House of Representatives on June 11 gave approval to the statute prohibiting the teaching of the theory of evolution in schools wholly or partly supported by state funds by rejecting a bill to repeal the law. There were only fourteen votes against the motion to reject the measure and fifty-eight votes in behalf of the rejection.

It is reported in the *New York Times* that Greenwich Observatory is to be modernized by the addition of a large new telescope of reflecting pattern, with a mirror thirty-six inches in diameter and with a spectroscope also attached. The cost will be defrayed by William Johnston Yapp, of London, a director of the Cariboo Mining Syndicate, Carreras, Ltd., and Consolidated Gold Alluvials of British Columbia. This telescope will require the addition of a new dome to the observatory, and an order for the telescope and the dome will shortly be placed with the British firm of Howard, Grubb and Parsons Company. A new transit-circle apparatus also is to be constructed to replace that built by Sir George Airy in 1851 which proved, in a judgment expressed twenty-five years ago by the late Simon Newcombe, to be "the most serviceable meridian instrument ever constructed." More than 500,000 observations have been made with this instrument in its eighty years, and it is expected the new one will be built by Cooke, Troughton and Simm, Ltd., of London.

FELLOWSHIPS for advanced training in forestry have been awarded by the Charles Lathrop Pack Forest Education Board, of Washington, D. C., to seven foresters, six American and one Canadian, including college seniors as well as older men of long experience. The fellowships range in value up to \$1,500, and the men were selected from about 80 applicants. The fellowships were created to encourage men of unusual intellectual and personal qualities to obtain advanced training that would better qualify them for leadership in some phase of forestry. This is the second award of fellowships by the Charles Lathrop Pack Forest Education Board. The fellowships are available to Americans and Canadians for further training 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. Applications for the third award will be taken next autumn. Further information can be ob-

tained from the Secretary of the Charles Lathrop Pack Forest Education Board, 1214 Sixteenth Street, N.W., Washington, D. C.

THE annual congress of the Royal Institute of Public Health opened on May 19 in the Aula of the Frankfurt University. Some 200 members and delegates of the institute were present, and among the English visitors were Lord Leverhulme, treasurer, and Professor Sir Thomas Oliver, chairman of the Council of the Institute, and Sir William Smith, a former president. Lord Reading, the president, was unable to attend, and his address was read by the British Consul-General. In the course of the address Lord Reading said that the congress had its own international significance and was engaged in war against a common enemy to defeat and destroy disease and to make for better conditions of life, physical, mental and moral, throughout mankind. In its respective spheres it was traveling, even though it may be subconsciously, in the direction all fervently desired to attain—that of peace and good will among men. At a reception held on Wednesday the Chief Burgomaster of Frankfurt, Dr. Landmann, handed Sir Thomas Oliver, for delivery to the Royal Institute of Public Health, the city's highest decoration—the golden plaque—in memory of the fact that Frankfurt was the first German city to be visited by the institute since the war. Sir Thomas Oliver in return bestowed upon the Chief Burgomaster the honorary membership of the institute for his conspicuous services to the institute.

THE ninth meeting of the International Institute of African Languages and Cultures was recently held in Paris. The congress dealt with important linguistic and anthropological problems of the Africa of to-day. Professor Antoine Meillet, president of the Institut d'Ethnologie, acted as president of the congress, and Professor Henri Labouret as vice-president. The members of the council were received by Dr. Charcot, the president of the Geophysical Society of France, and M. Grandidier, secretary-general of the society. At the beginning of the meeting,

which lasted for three days, the chairman announced that the Rockefeller Foundation of New York had decided to give to the institute a yearly contribution of £5,000 for five years, plus a further contribution calculated at the rate of £1 for every £2 obtained by the institute from other sources to enable it to carry out further study and research in Africa.

Nature writes that the Royal Dublin Society will celebrate its bicentenary during June, as it was founded on June 25, 1731, at a meeting held in the rooms of the Philosophical Society in Trinity College, Dublin. The society at its foundation was known as "The Dublin Society for improving Husbandry, Manufactures, and other useful Arts and Sciences," and during the two centuries of its existence its activities have ranged over all the subjects included in the original title, and have been extended to include pure science, the fine arts and music. They include such diverse functions as the Dublin Horse Show, recitals of classical music and the provision of radon for therapeutic purposes throughout Ireland. The bicentenary celebrations will be held at the society's headquarters at Ball's Bridge, where ample accommodation is available for the large gatherings that a membership roll of nine thousand is likely to entail, during the period June 23–27. The functions will include an opening conversazione, special scientific and general meetings (the latter on the bicentenary date, Thursday, June 25), a garden party and a period ball. In addition to these functions at Ball's Bridge, their Excellencies the Governor-General of the Irish Free State and Mrs. McNeill have kindly promised to invite the special guests of the society to a garden party which will be held in the grounds of the Viceregal Lodge on Wednesday, June 24. An exhibition will be staged in some of the halls and grounds illustrating the advances made in agriculture, industry, science and art in Ireland during the past two centuries. An interesting feature of the bicentenary week will be the presentation to Sir John Purser Griffith of the Society's Boyle Medal, which has recently been conferred on him in recognition of his work in engineering science.

DISCUSSION

NEW OSTRACODERMS FROM OESEL

LAST summer Dartmouth College generously financed my third expedition to the Island of Oesel in the Baltic Sea, where I hoped to find new material for work begun some forty years ago on the "Origin of Vertebrates." This island is famous for the abundance and beautiful preservation of some of the oldest forms of animal life. Among its fossils of the upper Silurian age are many sea scorpions, or eurypterids, which for untold ages had been the

highest animals in existence. Mingled with them are several kinds of ostracoderms, a great class of primitive and highly diversified fish-like animals, which at about this geologic period were making their first appearance on the historic screen. We have for many years regarded the ostracoderms as the remote Cambrian, or pre-Cambrian, descendants of the sea scorpions, and the ancestors of the long line of true fishes, reptiles and mammals which hundreds of million years later culminated in man. For in spite of