sive and intensive study of the situations, tendencies and needs of science instruction in educational systems.

- (b) That the services of a field secretary be secured, to work with existing agencies, to distribute information on research in science education, to stimulate further research, to operate as a sort of clearing-house agent and to continue the organizing of new groups of science teachers, writers for popularization of science, etc. This field secretary should work under the guidance of the Committee on the Place of Science in Education, or under the guidance of a national council of science teachers as soon as such a council is formed.
- (c) That a national council of science teachers be organized to advance science teaching, to increase public appreciation of science and to secure for science teachers increased facilities and a wider usefulness. The services of a field secretary would be very useful in the organization of such a council.

A copy of the full report will be mailed on request sent to Elliott R. Downing, School of Education, University of Chicago, Chicago, Illinois.

SCIENTIFIC NOTES AND NEWS

Dr. WILLIAM WALLACE CAMPBELL, director of the Lick Observatory and president of the University of California, received the honorary degree of doctor of science from Columbia University on June 5.

Among the honors listed on the occasion of the birthday of the King of England is a knighthood conferred on Captain George Hubert Wilkins, who with Lieutenant Carl B. Eielson recently flew from Alaska to Spitzbergen.

Dr. G. H. Hardy, professor of geometry in the University of Oxford, and Dr. F. G. Hopkins, professor of biochemistry in the University of Cambridge, have been made foreign members of the Society of Sciences of Göttingen.

The first award of the Dalby memorial prize, for the best original work in otology during the previous five years, has been made to Dr. Otto Mayer, of Vienna. The award is in the hands of the council of the Royal Society of Medicine, acting on the recommendation of the president and vice-president of the section of otology.

Professor Lionel William Lyde, professor of geography in the University of London, has been appointed a foreign member of the Hungarian Academy of Science.

Dr. Max Planck, professor of physics in the University of Berlin, celebrated his seventieth birthday on April 23. To commemorate this occasion his friends and colleagues have founded a gold medal to be awarded for distinguished work in theoretical physics.

PROFESSOR KARL VON NORDEN, professor of medicine at the University of Frankfort, and Professor Friedrich Müller, professor of medicine at the University of Munich, will celebrate their seventieth anniversaries in September.

EMILE PICARD, professor of mathematics in the University of Paris, celebrated in May the fiftieth anniversary of his scientific career.

Professor Hermann T. Vulté, who retires in June as professor of household chemistry in Teachers College, Columbia University, was tendered a farewell luncheon by his colleagues at the Columbia faculty house, on which occasion a gold-banded ebony cane, suitably inscribed, was presented to him. By action of the trustees Professor Vulté will continue to occupy his research laboratory.

Professor Evan Thomas, one of the oldest professors at the University of Vermont, retires this June under the provisions of a Carnegie pension, having completed over a quarter of a century of service at the university.

At the annual meeting of the American Society for Clinical Investigation, held in Washington, D. C., on April 30, Dr. Jonathan C. Meakins, Montreal, was elected president; Dr. James L. Gamble, Boston, vice-president; Dr. George A. Harrop, Jr., Baltimore, treasurer, and Dr. Joseph T. Wearn, Boston, reelected secretary.

At the anniversary meeting of the Linnean Society of London on May 24 the following were elected officers for 1928-29: President, Sir Sidney Harmer; vice-presidents, Dr. W. T. Calman, H. N. Dixon, H. W. Monckton and Dr. E. J. Salisbury; treasurer, H. W. Monckton; secretaries, Dr. G. P. Bidder (zoology) and J. Ramsbottom (botany).

Professor Leo Edward Melchers, head of the department of botany and plant pathology, Kansas State Agricultural College, who is on leave in Egypt, was recently made chief mycologist in charge of the section of mycology in the Ministry of Agriculture. During his stay in Egypt he is undertaking the reorganization of the mycological work for the Egyptian government. He was recently made chairman of a committee on plant quarantine and inspection work in Egypt, the plan being to improve the present service and facilities for conducting the work.

Dr. B. T. Dickson, until recently professor of plant pathology of McGill University, Canada, has been appointed chief of the division of economic botany of the Commonwealth Council for Scientific and Industrial Research of Australia, which division he is now in process of organizing. Dr. Dickson originally went to Australia to take charge of the plant patho-

logical work of the council and this is now being absorbed in the larger division.

Paul C. Standley, formerly of the U. S. National Museum, has been appointed associate curator of the herbarium in the Field Museum of Natural History, Chicago. He began work in his new position on June 1.

CLIFFORD S. LEONARD, assistant professor in the department of pharmacology and toxicology at Yale University, has joined the staff of the chemical research laboratories of Burroughs Wellcome and Company, Inc., in New York.

James Girvin Peters has been appointed chief of the branch of public relations in the United States Forest Service. Mr. Peters succeeds Major R. Y. Stuart, who on May 1 took over his duties as chief forester.

THE U. S. Coast and Geodetic Survey announced on June 1 the appointment of Leo O. Colbert as director of coast surveys of the Philippine Islands, to succeed R. B. Derickson, who will be assigned to other duty.

Dr. S. Herbert Anderson, associate professor of physics at the University of Washington, has been granted a year's leave of absence to engage in research work for the Guggenheim Foundation of New York. His studies will concern the field of sound as related to aeronautics to develop instruments for landing in fog and other safety devices. He will report at Wright Field, Dayton, the army engineering headquarters, on July 1.

AUGUST F. FOERSTE, of Dayton, who was granted an award from the Marsh fund by the National Academy of Science, sailed on June 8 to spend the summer visiting collections and field localities in northern Europe.

Francis J. Pettijohn, on leave for study from the department of geology, Oberlin College, will spend the summer studying the ancient crystallines near Sioux Lookout, Ontario. He will be accompanied by Mr. Walter Chappel, a recent Oberlin graduate in geology. The work will consist of a reconnaissance survey, followed by an intensive study of the critical areas.

HUGO WINKENWERDER, dean of the college of forestry at the University of Washington, left on May 26 for Europe, where during the summer he will make a study of botanical gardens and ancient forests.

The department of vertebrate paleontology of the American Museum of Natural History is sending out three men, Peter Kaisen, Ernest Kaisen and Glen Streeter, to cooperate with the Colorado Museum of

Natural History in completing the Folsom, New Mexico, bison excavations, noted because of the association of human artifacts with an extinct species of bison.

Dr. Albert Ernest Jenks, professor of anthropology in the University of Minnesota, will head an expedition which was to leave about June 10 by motor and railroad to dig for six weeks in the Mimbres Valley, New Mexico, where they expect to find traces of prehistoric culture.

PLANS for an expedition this summer to study marine sedimentation and its influence on ocean life at the West Indies, with Dr. William Beebe, of the New York Zoological Society, and Dr. Charles Fish, director of the Buffalo Society of Natural Sciences, among its members, have been announced by Professor Richard M. Field, of the department of geology at Princeton University.

Dr. Henry J. Cox, of the United States Weather Bureau, has been appointed a delegate of the Geographic Society of Chicago to the International Geographical Congress, which meets in London and Cambridge, England, from July 13 to 26. He has also been named as a delegate to the same congress by the National Academy of Sciences and National Research Council in Washington.

Professor Charles P. Berkey, professor of geology in Columbia University, has been invited to take part in an arranged discussion on the geology of Central Asia at the meetings of the British Association for the Advancement of Science, which will be held in Glasgow next September. Professor Berkey will attend the convention as an official delegate of the American Museum of Natural History and of Columbia University.

Dr. G. Struve, director of the Berlin University Observatory at Neu-Babelsberg, Germany, arrived in the United States on June 4. Dr. Struve came at the invitation of the University of Chicago and of Yerkes Observatory, of which he was recently nominated honorary research associate professor. He will also visit the Lick Observatory.

Dr. Hans Wildbolz, professor of surgical and diagnostic urology in the University of Berne, gave a Mayo foundation lecture on June 7, at the Mayo Clinic, Rochester.

Professor G. W. Ritchey, of the Solar Observatory, Pasadena, delivered an address on May 11 before the Royal Astronomical Society, in which he explained the method of the construction of "cellular" mirrors carried on at the Paris Observatory. On May 16, Professor Ritchey spoke on "The Modern Reflecting Telescope," before the Optical Society in the Imperial College, South Kensington.

Dr. George C. Shattuck, assistant professor of tropical medicine at the Harvard Medical School, gave a lecture in London, on May 21, on his recent expedition to Liberia and the Congo, before the Royal Geographic Society.

PROFESSOR W. F. G. SWANN, of the Bartol Research Foundation, addressed the colloquium at the Bell Telephone Laboratories, New York City, May 28, on "Possible Modifications in Electrodynamics and Their Consequences."

ARTHUR E. MORGAN, president of Antioch College, formerly chief engineer of the Miami Conservancy District, addressed a meeting of the geology section of the Ohio Academy of Science, June 2, on the subject of the problems connected with flood prevention in the Dayton area.

THE surgical papers of Dr. William Stewart Halsted, who died in 1922 and who was for thirty-two years surgeon-in-chief of the Johns Hopkins Hospital, have been published in two volumes as a tribute to his memory.

A MEMORIAL volume, containing more than 200 pages with photographs, prepared by employees of the Panama Canal to commemorate the life and works of the late Major-General George W. Goethals, has been sent to his widow.

THE one hundred and twenty-fifth anniversary of the birth of the chemist Justus Liebig, who was born at Darmstadt, is to be celebrated by rebuilding with the original material the house in which he was born, and the addition to it of a museum.

Dr. Howard A. Lothrop, professor of surgery at the Harvard Medical School, died on June 4, at the age of sixty-four years.

WILLIAM EDWARD PLUMMER, director of the Liverpool Observatory, died on May 22, aged seventy-nine years.

Dr. F. M. Perkin, of England, one of the founders of the Faraday Society, died on May 24.

The deaths have been announced of the following German scientific men: Dr. Otto Staude, professor of mathematics at the University of Rostock; Dr. Gustav Schultz, professor of chemical technology and metallurgy in the University of Munich; Dr. Johannes Gadamer, professor of pharmaceutical chemistry in the University of Marburg, and Dr. Julius Hirschwald, professor of mineralogy and geology in the University of Berlin.

PROFESSOR OTTO NORDENSKJOELD, well-known Swedish Arctic and Antarctic explorer and professor at the University of Gothenberg, died on June 2, at the age of fifty-nine years.

THE Pacific section of the American Association for the Advancement of Science is meeting at Pomona College from June 13 to 16. Various affiliated societies are holding their meetings in conjunction with it. including the Astronomical Society of the Pacific, the American Meteorological Society, the American Physical Society, the Pacific sections of the American Chemical Society, the American Association of Economic Entomologists, the Botanical Society of America, the Western Society of Naturalists, the Society for Experimental Biology and Medicine and others. The meeting is presided over by the president of the section, Dr. Charles A. Kofoid, professor of zoology at the University of California. On Wednesday evening, June 13, he delivered an address on "The Luminescence of the Sea." Other general lectures are to be given by Dr. F. H. Seares, assistant director of the Mt. Wilson Observatory, on "Counting the Stars," and by Dr. Charles K. Edmunds, president of Pomona College, on "Some Physical Features of China."

PROBLEMS confronting federal, state and local health authorities, including prevalence of leprosy in the United States, the present status of trachoma and its treatment, the relation of iodine to goiter, and other public health matters of mutual concern, were considered by the joint sessions of the annual Conference of State and Provincial Health Authorities of North America, meeting in Minneapolis, June 8 and 9, under the auspices of the United States Public Health Service.

The fourth Pacific Science Congress will be held at Batavia, Buitenzorg and Bandoeng, Java, during May and June, 1929, under the auspices of the Pacific Science Association. The general president of the congress and chairman of the Netherlands Indies Pacific Research Committee is Dr. A. A. L. Rutgers.

AT a general meeting of members of the British Institute of Metals on May 8, an invitation was presented on behalf of the American Institute of Mining and Metallurgical Engineers for the Institute of Metals to visit America and meet with the American body in 1932. According to the *Electrical Review* the president of the institute, Dr. W. Rosenhain, F.R.S., suitably acknowledged the receipt of the invitation, and indicated that it would be gladly accepted by the institute.

PLANS for the twenty-third International Congress of Americanists, to be held in New York the week of September 17, have been announced. The congress,

which holds biennial sessions, is devoted to the study of the peoples of pre-Columbian America, both ethnically and from the point of view of environmental factors. Sessions of the congress will be held at the Natural History Museum, at the Museum of the American Indian, at Columbia University, and at the Brooklyn Museum. The program includes general and sectional meetings and various entertainments. Henry Fairfield Osborn is chairman of the honorary committee and Franz Boas of the organizing committee. Other members of the latter committee include George G. Heve, Stewart Culin, A. V. Kidder and P. E. Goddard. Two previous meetings of the congress have been held in this country: the thirteenth in New York in 1902 and the nineteenth in Washington in 1915.

Following the action taken by the executive board of the National Research Council on April 24, that the National Research Council adhere through its division of geology and geography to the International Geographical Union, the following seven delegates have been named to the International Geographical Congress to be held in London and Cambridge from July 14 to 25: Dr. Wallace W. Atwood, president and professor of physical geography, Clark University; Colonel C. H. Birdseve, chief topographic engineer, U. S. Geological Survey; Dr. Isaiah Bowman, director of the American Geographical Society, New York City: Dr. Albert P. Brigham, professor of geology in Colgate University; Dr. Henry J. Cox, senior meteorologist, U. S. Weather Bureau, Chicago, Ill.; Dr. Douglas Johnson, professor of physiography, Columbia University, and Colonel E. Lester Jones, director of the U.S. Coast and Geodetic Survey.

The United States Civil Service Commission announces an open competitive examination for senior physicist, applications for which must be on file with the commission at Washington not later than July 5. The examination is to fill a vacancy at the Signal Corps Laboratory, Monmouth, N. J., and vacancies occurring throughout the United States in positions requiring similar qualifications. The entrance salary for this position in the departmental service in Washington, D. C., and of the present vacancy in the Signal Corps Laboratory at Monmouth, N. J., is \$5,200 a year. Competitors will not be required to report for examination at any place, but will be rated on their education and experience, and writings to be filed with the application.

According to the annual report of the Rockefeller Foundation, the following medical schools were assisted during 1927: State University of Iowa, University of Montreal, National School of Medicine and

Pharmacy, Haiti; Faculty of Medicine, São Paulo, Brazil; University College, London; London Hospital Medical School, University of Cambridge, University of Edinburgh, University of Lyon, Free University of Brussels, University of Strasbourg, twenty departments in twelve French and Italian medical schools, Institute of Psychiatric Research, Munich; University of Zagreb, American University in Beirut, Chulalongkorn University, Bangkok; Shantung Christian University, Tsinan; Shanghai Union Medical School, Hsiangya Medical College, Changsha; Keio University, Tokyo.

Two prizes are offered by the Eugenics Research Association for the best essays written by an American author and two prizes for essays written by European authors on the topic: "A comparison of both the crude birth-rate, the birth-rate per 1,000 females 15 to 45 years of age, and the 'vital index' (or 100 births/deaths ratio) of the Nordic peoples and non-Nordic peoples in the Americas." Data are to be considered in different periods from 1850 to the present time, or that of the last available census or registration. Nordic peoples in the Americas are considered to be those whose ancestors came mainly from Nordic countries. For the purposes of this investigation Nordic countries are defined as including the Scandinavian countries south of about 63° N. lat., the Netherlands, England, Scotland, North Ireland and the German States of Schleswig-Holstein, Mecklenburg, Hannover and Westphalia. Any other section of Europe, any part of Asia and Africa north of the Zambezi, may be regarded, for the purposes of this study, as "non-Nordic." The prizes offered in each of the two groups are: \$1,000 for the best essay and \$200 for the second best. The essay is to be typewritten and mailed in time to reach Cold Spring Harbor by February 1, 1929. Further details may be obtained by addressing the Eugenics Research Association, Cold Spring Harbor, Long Island, New York.

The sea life along the Great Barrier Reef will be studied by a British expedition that sailed for Australia on May 26. Naturalists of the expedition staff will investigate the composition and formation of the enormous coral reef and feeding habits of the sea animals. They also hope to study the commercial possibilities of the region, including oyster, pearl, turtle and trochus shell resources. The expedition, which will be in the field for one or two years, is headed by Dr. C. M. Yonge, naturalist, who has been on the staff of the Marine Biological Association. The project of studying the coral reef was promoted by the British Association for the Advancement of Science, and a number of scientific organizations have subscribed to it.