It is expected that accommodations for all visitors can be secured at the University Club or the University Y. M. C. A., both of which are near the lake and adjoining the campus.

Following the Symposium Professor Svedberg will give a series of about thirty lectures on colloid chemistry in the summer school, which commences June 25th and closes August 4th. Research work will be continued under his direction during this period.

The final program will appear about June 1st.

For further information letters should be addressed to Professor J. H. Mathews, Chemistry Department, University of Wisconsin, Madison.

The tentative program for the symposium follows:

Alexander, J. "The Colloidal state in metals and alloys."

Bancroft, W. D. "Precipitation of sols by alcohol."

Bartell, F. E. "Some adsorption studies."
Bogue, R. H. "Conditions affecting the hydrolysis of collagen to gelatin."

Browne, F. L. "Thermochemistry of sulfur sols."

Burton, E. F. "General considerations of the forces determining the limiting size of the colloidal particle in any given solution."

Fischer, Martin. "On the theory of the lyophilic colloids."

Gortner, R. A. "The application of colloid chemistry to agricultural problems."

Holmes, H. N. "Gel formation."

Kahlenberg, L. "On the precipitation of colloidal metals by means of metals in the solid state."

Klein, D. "The colloid chemical problems in the manufacture of enzymic and animal glandular products."

Mathews, J. H., and Rowland B. W. "The thermochemistry of protein behavior."

Sheppard, S. E. "Dispersity of silver halides in relation to their photographic behavior."

Spear, E. B. "Colloidal properties of rubber and compound ingredients."

Svedberg, The. "Demonstrations of colloid chemistry technique."

Taylor, H. S. "The problem of adsorption from the standpoint of catalysis."

Weiser, H. B. "The formation of inorganic jellies."

Wilson, John A. "The swelling of protein jellies."

Wilson, Robert E. "Surface films as plastic solids."

Papers are expected from T. R. Briggs, C. W. J. Frazer, Jacques Loeb and W. A. Patrick.

## SCIENTIFIC NOTES AND NEWS

The spring meeting of the American Chemical Society opens at New Haven on April 2, under the presidency of Professor E. C. Franklin, of Stanford University.

AT the annual meeting of the National Academy of Sciences, to be held in the United States National Museum, Washington, D. C., from April 23 to 25, Dr. W. W. Campbell, president of the University of California and director of the Lick Observatory, will give on the evening of April 23 an address on "Results obtained by the Crocker Expeditions from Lick Observatory."

Announcement is made of a course of two illustrated evening lectures, to be held in the Administration Building of the Carnegie Institution of Washington, Washington, D. C., relative to investigations which are now being carried forward by research associates of the institution, as follows: April 19, Dr. R. A. Millikan, of the California Institute of Technology, on "Present problems in the field of atomic structure and their bearing upon the nature of ethereal radiations"; April 25, Dr. A. A. Michelson, of the University of Chicago, on "Application of interference methods to astronomical problems."

Professor Charles Moreu has been elected president of the Chemical Society of France.

Under the auspices of the Massachusetts Board of Health, the Boston Board of Health and the department of preventive medicine and hygiene of the Harvard Medical School, a dinner was given recently in honor of Dr. Béla Schick of Vienna at the Hotel Lenox, Boston. Dr. Francis X. Mahoney, city health commissioner of Boston, presided, and Dr. Rosenau was toastmaster. Dr. Schick was presented with a gold set of the equipment used for the Schick test by the city. It was announced that 30,000 children in Boston have been tested since May 1, 1922.

The New York branch of the American Pharmaceutical Association has awarded the

fourth impression of the Remington Honor Medal to Dean Henry Hurd Rusby of the College of Pharmacy of Columbia University, in recognition of his extensive botanical researches and especially for the discovery of a number of important drug plants in his South American explorations.

WE learn from *Nature* that on February 12 Professor Otto Pettersson, director of the Swedish Hydrographic Biological Commission, Gothenburg, celebrated the seventy-fifth anniversary of his birth. Having in early life made a European reputation as a chemist, Professor Pettersson turned his attention to the study of oceanography, and much of the work in that subject during the last thirty years has owed its success to him. His name is particularly associated with the foundation in 1902 of the International Council for the Study of the Sea, of which organization he was president for a number of years.

DR. CHARLES VAILLART, the X-ray experimenter, who lost both arms through his work, at an official reception at the Hotel de Ville, Paris, was presented with the *cravate* of the Commander of the Legion of Honor, the gold medal of the City of Paris, and an inscribed plaque awarded by the Carnegie Trust. Those present included M. Strauss, minister of hygiene; the American Ambassador, Mr. Herrick, and Madame Curie.

According to press reports, Professor Albert Einstein, of the University of Berlin, has resigned as a member of the League of Nations commission on intellectual cooperation, on the ground that "the league has neither the strength nor the good will necessary to accomplish its task."

DR. CHRISTOPHER K. INGOLD was awarded the Meldola medal of the Institute of Chemistry at the annual meeting of the institute held on March 1.

Professor Robert E. Coker, of the University of North Carolina, will during the coming summer again serve as director of the biological laboratory of the Bureau of Fisheries at Wood's Hole, Massachusetts.

Mr. M. R. Campbell, geologist in charge of the coal section of the Geological Survey for the past sixteen years, has been relieved of this duty at his own request that he may devote himself to the physiographic work of the Survey. Mr. W. Taylor Thom, Jr., has been assigned to succeed Mr. Campbell in the coal work.

Mr. C. A. Briggs, associate physicist, division of weights and measures, Bureau of Standards, has been transferred to the United States Department of Agriculture to the post of live stock weight supervisor in the packers and stockyards administration.

Dr. Frank App has resigned from the staff of the Agricultural College and Experiment Station of Rutgers College to become vice-president of the Minch Brothers Company at Bridgeton, N. J.

Dr. J. C. KARCHER of the sound laboratory, Bureau of Standards, has resigned to accept a position as technical adviser to the production manager of the Western Electric Company, Chicago, Illinois.

A COMMITTEE of dye chemists has been appointed by the secretary of agriculture upon recommendation of W. G. Campbell, acting chief of the Bureau of Chemistry, to formulate plans of work for the color laboratory. The committee consists of R. Norris Shreve, secretary of the Dye Division of the American Chemical Society; Willard H. Watkins of the National Aniline and Chemical Co., Buffalo; Louis A. Olney of Massachusetts, president of the American Association of Textile Chemists and Colorists; Dr. William J. Hale, of Michigan, chairman of the Dye Division of the American Chemical Society, and Dr. Clarence G. Derick of Buffalo.

Mr. N. GIST GEE, for twenty years professor of biology at Soochow University, China, has been appointed adviser on premedical education to the China Medical Board of the Rockefeller Foundation. He will make a study of the teaching of chemistry, physics and biology at colleges in China.

PROFESSOR F. L. WASHBURN, of the University of Minnesota, has returned from the South Pacific with a collection of several thousand specimens of insects for that institution from the Marquesas and Society Islands. Almost all orders are represented, and sufficient material

in the various families was secured to afford opportunity for exchange with other institutions. Most of this material was secured at from 100 to 300 feet above sea level, but many specimens were also taken at elevations of 1,500, 2,500 and 2,800 feet.

Professor William H. Haas, associate professor of geology in Northwestern University, has returned from a 9,000-mile journey through South American countries, covering a period of nine months. Accompanied part of the time by Professor Cox, of the department of history, Professor Haas made an extensive investigation of the various mineral deposits of Peru, Bolivia, Chile, Argentina, Uruguay and Brazil.

During the summer vacation, Willard N. Clute, editor of *The American Botanist*, will conduct a party on a botanical exploring trip to the painted desert, Navajo Mountain and the Rainbow Bridge. The region is one practically untouched by botanists. A previous trip brought to light several new species and this year it is hoped to complete a survey of the flora.

A LEAVE of absence for two weeks has been granted by the University of Iowa to Dr. Bird T. Baldwin, director of the Child Welfare Research Station, in order that he may make a trip to Leland Stanford, Jr., University to cooperate with Dr. Lewis L. Terman in a scientific investigation of 1,000 superior children. Dr. Terman has been selecting the most gifted children in California during the past year by means of mental and educational tests. Dr. Baldwin will organize and direct the physical measurements. He will continue his research in the general problem of the relation of physical growth to mental development with this particular group of selected children. Miss Beth Wellman, research assistant in the Child Welfare Research Station, will spend three months in California making detailed physical measurements of each child. The investigation has been financed by the Commonwealth Fund of New York City.

Dr. R. K. Nabours, of the Kansas State Agricultural College, gave the presidential address before the recent meeting of the Kansas Academy of Science on "Eugenics, the limitations and the promise." Dr. John Howland, professor of pediatrics in the Johns Hopkins University, will deliver the ninth Harvey Society lecture at the New York Academy of Medicine on Saturday evening, March 31. His subject will be "Rickets."

DR. WILLIAM DILLER MATTHEW, curator of vertebrate animals in the American Museum of Natural History, gave a public lecture on March 5, at the University of Michigan, on "Evolution and the dispersion of the dinosaurs." He also gave two other lectures of a more technical nature on the general topic, "The evolution and dispersion of Tertiary animals."

The Beaumont lectures for 1923 were delivered before the Wayne County Medical Society at Detroit, January 29-30. Dr. J. R. Macleod, professor of physiology at the University of Toronto, Canada, delivered the first two lectures on "The physiology and pathology of the pancreas and the demonstration of new discoveries of pancreatic hormones." The third lecture was delivered by Dr. F. G. Banting, of the University of Toronto, on "Clinical work on insulin."

LIEUTENANT COLONEL F. H. GARRISON, U. S. Army Medical Department Research Board, recently gave a series of six lectures on the history of medicine before the faculty and student body of the College of Medicine and Surgery of the University of the Philippines, Manila.

LEASON H. ADAMS, of the Geophysical Laboratory of the Carnegie Institution, spoke before the Chemical Society of Washington, on March 8, on "Reactions and properties of substances at high pressures."

Professor Meyerhof, the physiologist of Kiel, has been invited to deliver a series of lectures at New York, Boston and Baltimore, and has accepted. He spoke in Cambridge last year on his research on cell respiration and muscular energetics.

On February 13 Professor Cassius J. Keyser, of Columbia University, delivered an address on "Humanity and education" at a joint meeting of the High School Men's Club and the High School Women's Club of Jersey City; on February 27 he spoke on the same subject at a joint meeting of the faculty and

senior class of the Packer Collegiate Institute. At a meeting, March 10, of the Association of Chairmen of the Departments of Mathematics of the High Schools of New York City, Professor Keyser gave an address on "Mathematics and man."

Dr. Cecil H. Desch, professor and dean of the faculty of metallurgy in the University of Sheffield, delivered recently the "Second Sorby Lecture" on "The services of Henry Clifton Sorby to metallurgy." The Sorby lectureship has been instituted by Sheffield engineering associations to commemorate the work of Dr. Sorby, who rendered signal service to metallurgy and to microscopy.

The committee in the Netherlands has collected and presented to Professors Borrel and Weiss at Strasbourg the sum of 10,000 francs toward the monument to Louis Pasteur in the city in which he began his scientific career. The Pasteur Institute of Paris and the descendants of Pasteur will present to the council of the League of Nations a bust of Pasteur, in gratitude for the appointment of a member of the council and a delegation from the health committee of the League of Nations to attend the centenary of Louis Pasteur at Strasbourg.

The bicentenary of the death of Sir Christopher Wren was observed in London, February 25-March 3. The ceremonies were organized by the Sir Christopher Wren Bicentenary Grand Committee, consisting of representatives of thirty-eight scientific and municipal bodies. Sir Christopher Wren was president of the Royal Society from 1680 to 1682. A memorial volume of essays on various aspects of his life and work has been published, the profits being devoted to the preservation fund of St. Paul's Cathedral, of which Sir Christopher was the builder.

DR. GEORGE BRUNE SHATTUCK, the distinguished Boston physician, for more than thirty years editor of the Boston Medical and Surgical Journal, has died at the age of seventy-nine years.

THE death is announced of Clarence Erskine Kelley, instructor in astronomy at Harvard University.

GUSTAVUS DETLEF HINRICHS, formerly professor of physical science at the State University of Iowa, and of chemistry at the St. Louis College of Pharmacy, has died at the age of seventy-seven years.

Professor W. N. Parker, emeritus professor of zoology at the University College of South Wales and Monmouthshire, Cardiff, died on February 22, aged sixty-five years.

Dr. Terano, director of the Aeronautical Research Institute in connection with the University of Tokyo, died on January 8, aged fifty-four years.

As has already been reported in Science in 1920, a committee was formed to commemorate Sir Victor Horsley's services to science. It may be remembered that he died while on service with the army in Mesopotamia, in 1916. The Journal of the American Medical Association reports that subscriptions amounting to \$5,000 were received from all over the world. The committee, over which Sir Charles Ballance presides, and of which Sir Frederick Mott is treasurer, resolved that the money should be invested in the name of a board of trustees, who should triennially appoint some one to deliver a lecture in London under the title of the Victor Horsley Memorial Lecture. No limitation is placed as to the country or profession from which the lecturer shall be appointed, or as to the subject of the lecture. Sir Edward Sharpey Schafer, professor of physiology in the University of Edinburgh, has accepted the invitation of the trustees to deliver the first lecture, which will probably be given in the autumn.

The late A. Crum Brown, professor emeritus of chemistry in the University of Edinburgh, bequeathed to the Royal Society of Edinburgh his portrait, painted by Mr. E. A. Walton, presented to him by friends and former pupils. He made provision also for handing over his collection of portraits of scientific men to the department of chemistry of the University of Edinburgh.

The Baird Ornithological Club of Washington, D. C., held its annual meeting at the Cosmos Club on March 14, 1923. The incumbent officers were re-elected and are as follows: *President*, Dr. A. K. Fisher; vice president, Mr. Ned Hollister; secretary, Mr. B. H. Swales. A council was formed to consist of the officers

and two additional members to which Drs. C. W. Richmond and T. S. Palmer were elected. During the year the club held its regular monthly meetings generally at the home of some one of the members. The meeting of February 20, 1923, was a memorial to celebrate the one-hundredth anniversary of the birth of Professor Spencer Fullerton Baird with special reference to his career as an ornithologist. Drs. W. H. Dall, C. Hart Merriam and Leonhard Stejneger gave reminiscences of their relations with Professor Baird and the latter's standing as a naturalist and administrator.

THE American Geophysical Union will hold its annual meeting at the Carnegie Institution of Washington from April 17 to 19, 1923. The first day will be devoted to general addresses respecting the organization and aims of the International Research Council, the United States National Research Council and the American Geophysical Union, followed by special addresses outlining the status and scope of the problems receiving the attention of the several sections of the union. The second day and the morning of the third day will be devoted chiefly to meetings of the respective sections, at which reports of investigational committees and scientific papers will be presented. The union will close its annual meeting with a business session on Thursday afternoon, April 19. (For the present organization of the union, see Science, March 24, 1922, pp. 311-312).

THE director of the United States Coast and Geodetic Survey announces that Congress, at its recent session, made an appropriation of \$2,000 to the State Department for the support of the International Latitude Observatory at Ukiah, California, during the fiscal year 1924, or until some other provision is made for that station. In the estimates for the Coast and Geodetic Survey for the fiscal year 1924 there was included an item which, if it had been approved by Congress, would have authorized that bureau to carry on the variation of latitude observations at Ukiah as a part of its regular geodetic work. It is hoped that this authority will be granted during the next session of Congress in order that there may be no possibility of a break in the observations for variation of latitude which have been made continuously at Ukiah for the last twenty-three years.

The Senate committee on Reforestation, headed by Senator McNary, of Oregon, left Washington March 18 for the purpose of making investigations in the south. It will conduct hearings and investigations in Florida, Mississippi and Louisiana, going as far as New Orleans. It will return to Washington about April 1 and resume investigations and hold sessions this summer throughout the West and Northwest and in New England.

PRESIDENT HARDING, by proclamation, has designated the week of April 22 to 28 as "Savethe-Forests Week." Urging governors of the states to do likewise, the President calls attention to the importance of forest preservation to the industrial and commercial life of the nation and to individual welfare, and points out that fires, which are the result of carelessness or thoughtlessness, do great damage, threatening the timber supply and endangering the cover of watersheds of streams that are used for navigation and irrigation.

The annual congress of the Royal Institute of Public Health will be held in Scarborough, England, from May 16 to 21, under the presidency of Lord Riddell.

It is announced that at a meeting in London on February 15, the National Sea Fisheries Protection Association was formally wound up and a new association, called the Association of British Fisheries, was constituted. This, it is understood, will be recognized by the government as representing every branch of the fishing industry.

A BILL now before the Connecticut legislature, entitled "An act for the establishment of a psychiatric hospital," calls for an expenditure of \$250,000 for the establishment of the hospital, and an annual appropriation for maintenance on the part of the state. Yale University will provide the site for the hospital, funds for the support of the medical staff and for investigations into the cause, nature and prevention of mental disease. The bill was the result of an investigation by the state psychopathic commission, which reported the need of such an institution and recommended its location in New Haven in conjunction with the school of medicine.

The cornerstone of the Gorgas Institute of

Tropical Medicine at Panama was laid on February 1 by President Porras, assisted by members of the American College of Surgeons touring in South America. The institute will be governed by a board of directors of which Rear Admiral W. C. Braisted, retired, is president and Dr. Richard P. Strong, director of the Harvard University School of Tropical Medicine, is the scientific director.

## UNIVERSITY AND EDUCATIONAL NOTES

Mr. John Hays Hammond has endowed a scholarship in engineering for a Mexican student at Yale University. The scholarship is for a four years' course and covers expenses of tuition, dormitory, meals, books, fees, etc., and transportation from and to the Mexican border.

Dr. George E. Potter has endowed a fellowship in pathology in the Detroit College of Medicine and Surgery.

The new chemistry section of the Technical High School of Stockholm has been opened. The building, which cost 3,300,000 kroner, is said to be one of the largest chemical laboratories of the world. It has four large laboratories for inorganic, organic, technical and electro-chemistry, and a smaller for the study of fermentation. The director is Professor W. Palmaer.

MISS ADA LOUISE COMSTOCK, dean of Smith College, has been appointed president of Radcliffe College, in succession to Dr. Le Baron R. Briggs, who for twenty years has been head of Radcliffe and dean of the faculty of arts and sciences at Harvard University.

Dr. Ira N. Hollis, for ten years president of Worcester Polytechnic Institute, and previously professor of engineering at Harvard University, has offered his resignation to the board of trustees.

DR. ARTHUR HOLLY COMPTON, head of the Department of Physics in Washington University, has been appointed professor of physics at the University of Chicago.

PROFESSOR STRAUB of Freiburg has been called to Munich to occupy the chair of pharmacology as successor to Professor von Tappeiner, who is to retire on account of his advanced age.

## DISCUSSION AND CORRESPOND-ENCE

## AN UNUSUAL OCCURRENCE OF ROCK BORING MOLLUSKS IN CONCRETE ON THE PACIFIC COAST

It has often been supposed that concrete in sea water might be subject to attack by rock boring mollusks, especially of the family Pholadidæ, various species of which perforate rocks of a number of different kinds and often of a considerable degree of hardness. But specific instances of the occurrence of these organisms in concrete marine structures have been lacking. Hence the data here reported are of considerable interest from both the biological and engineering points of view.

In the work of widening the channel in Los Angeles harbor, about November 13, 1922, it became necessary to remove some old wooden piling which had been protected from marine borer attack by jacketing with concrete. was discovered by Mr. D. E. Hughes, engineer in charge of dredging operations, that, of 18 such jackets examined at this location, 16 had been more or less attacked by pholad borers. About five were considered to be badly attacked, containing six or more borers per square foot of exposed surface; the others contained fewer, and some only an occasional The two jackets not attacked stood in shallower water than the others. The jackets had been in place fourteen years, but had not been exposed to rock borer attack during the entire period, as the form lumber had been left about the jackets when they were constructed, and this gave protection from the rock borers until the wood was destroyed by wood boring organisms. In some cases, indeed, a thin shell of the old form lumber still remained adhering to the concrete.

Attention of the writers was called to this finding, and, with the cooperation of the Los Angeles Harbor Engineering Department and the San Francisco Bay Marine Piling Committee, collaborating with the National Research Council committee on marine piling investigations, a further investigation was made. It was found that, of concrete jacketed piles at four different locations in Los Angeles harbor, in fact, at every point in the inner barbor where such piles exist, about 50 per cent. had been more or less attacked, of which rather