

a number of the lecturers are paid on a level with adjunct professors in America; and that the year's expenditure was £50,298, of which sum £13,750 was granted by the government of the state. But for all that, the University of Sydney is not as accessible, not as democratic, not as national as a seat of higher education should be in the youngest of the world's great countries.

PERCIVAL R. COLE

TEACHERS COLLEGE,
COLUMBIA UNIVERSITY

T. NISHIKAWA, 1874-1909

WE regret to record the death of Dr. Tokichi Nishikawa, of Tokyo, one of the most promising of the younger generation of Japanese zoologists. He had been for a number of years an associate of Dr. Kishinouyé in the Imperial Fisheries Bureau in Tokyo, and he was later a special investigator of pearls. In his studies of the latter he traveled extensively and was at one time commissioned by the Japanese government to report upon the great pearl fisheries of the South Seas. He is distinguished as the discoverer of a process by which the pearl oyster may be caused to secrete spherical pearls. Before this only hemispherical pearls had been produced, in spite of centuries of experimentation, especially in the orient. Dr. Nishikawa devoted nearly ten years to his studies on producing pearls, and achieved success only in the days of his final illness. In his memory, and in token of the importance of his discovery, a number of his living pearl oysters were brought to the University of Tokyo on the occasion of the commencement exercises: they were opened in the presence of the emperor, and Professor Iijima demonstrated that their mantles had secreted spherical pearls.

The publications of Dr. Nishikawa include important contributions to our knowledge of Japanese fishes, structural, systematic, embryological. Especially to be recalled is his pioneer paper on the development of the remarkable frilled shark, *Chlamydoselachus anguineus*.

BASHFORD DEAN

THE AMERICAN SOCIETY OF ZOOLOGISTS

THE annual meeting of the Eastern Branch of the American Society of Zoologists will be held at Boston, Massachusetts, on December 28, 29 and 30, 1909.

Members of the society are urged to send the titles of their papers to the secretary not later than December 1, so that a preliminary program may be issued about December 10. It will be necessary to place the papers received after that date at the end of the list.

Nominations for membership, accompanied by full statements of the qualifications of the candidates, must be in the hands of the secretary before December 1, in order that the list may be submitted to the executive committee of each branch before the meeting.

LORANDE LOSS WOODRUFF,
Secretary

YALE UNIVERSITY

SCIENTIFIC NOTES AND NEWS

At the recent meeting of the Board of Trustees of the Carnegie Foundation for the Advancement of Teaching, Dr. Ira Remsen, president of Johns Hopkins University, and Dr. Charles R. Van Hise, of the University of Wisconsin, were elected trustees to fill vacancies caused by the resignations of Dr. Charles W. Eliot, of Harvard University, and Dr. E. H. Hughes, of De Pauw University. Provost Charles E. Harrison, of the University of Pennsylvania, was elected chairman of the board to fill the vacancy caused by the retirement of Dr. Eliot.

PROFESSOR FRANZ WEIDENREICH, of Strassburg, has accepted the invitation of the Association of American Anatomists to participate in the meeting during convocation of this year, and to deliver an address on the development, morphology and clinical relations of the blood. His own researches in this field have been of the highest importance, and have done more to clear up the subject and to free it from the intricate confusion created by purely clinical writers than any other work of recent years. The address will be followed by a demonstration of preparations, many of which are the results of new methods

devised by Professor Weidenreich. It is to be hoped that a precedent will be established by this event, and that hereafter there will be annually specially invited foreign guests, whose presence and communications will add much to the profitableness of our annual scientific gatherings.

KING EDWARD has conferred the order of the Indian Empire on Dr. Sven Hedin, the distinguished Swedish geographer and traveler.

A KNIGHTHOOD has been conferred on Professor W. A. Tilden, F.R.S., professor of chemistry and now dean of the Royal College of Science, London.

PROFESSOR JULIUS KUHN has retired from the directorship of the Agricultural Institute of the University of Halle, and is succeeded by Professor Wohltmann.

DR. JAMES JOHNSTON DOBBIE, F.R.S., director of the Royal Scottish Museum, Edinburgh, has been appointed principal chemist of the British Government Laboratories, in the place of Sir T. E. Thorpe, who has retired.

At the Berlin Meteorological Institute, Professor Kassner has been promoted to chief of department and Dr. Henze succeeds him as observer.

MR. C. L. WILLOUGHBY, dairyman and animal pathologist to the Georgia Experiment Station, has resigned.

DR. A. M. TOZZER, of the department of American archeology and ethnology of Harvard University, is in charge of an expedition for research in Central America and British Honduras on behalf of the Peabody Museum.

THE *Bulletin* of the American Geographical Society states that Mr. Ellsworth Huntington, of Yale University, returned home early in October, after a profitable journey of eight months. After exploring the Dead Sea he made expeditions into the wild border regions of the Syrian Desert, the Negeb or South Country, the Druze Mountains and the Leja with its volcanic flows and went as far as Palmyra and northern Syria. Throughout the journey, special attention was paid to climatic problems, and it was found that the

phenomena of Palestine agree with those of Central Asia in a remarkable degree. In early July, Mr. Huntington went up to Asia Minor by way of the Cilician Plain and the city of Adana. The months of July and August were devoted to a study of the lakes of Central Asia Minor. On the way home from Turkey a flying visit was paid to Greece. A study of the alluvial deposits which cover the Olympian plain and from the midst of which old Olympia has been excavated, yielded evidence of the manner in which the climatic history of Greece has been parallel to that of regions 2,000 or 3,000 miles farther east.

MR. H. H. TURNER, Savilian professor of astronomy at Oxford University, gave a public lecture on November 23, on "Possible Evidence on having reached the North Pole."

THE Bradshaw lecture of the Royal College of Surgeons will be delivered by Mr. F. Richardson Cross on December 10, on "The Brain Structures concerned in Vision, and the Visual Field."

THE inaugural meeting of the Illuminating Engineering Society was held at the Society of Arts, London, on November 18, when an address was delivered by Professor Sylvanus P. Thompson, the first president.

WE learn from the *Journal* of the American Medical Association that the monument raised by international subscription to Professor Jules Liégeois, was unveiled on October 24 at Damvillers, department of the Meuse, his native city. The monument consists of a bust and is on a granite pedestal in the center of the public square of the city hall. Besides an official delegation from the University of Nancy, other French and foreign scientific men were present at this tribute to the memory of the first juris-consult who studied the relation of hypnotism and suggestion to criminal law and legal medicine.

THE Rev. W. H. Dallinger, D.Sc., F.R.S., the well-known microscopist and biologist, died at Lee, England, on November 7, aged sixty-seven years.

DR. GEORG N. ZLATARSKI, professor of geology at the University of Sophia, has died at the age of fifty-six years.

THE statement in SCIENCE, page 706, that "By an arrangement with the Central Stelle, Kiel, the Lowell Observatory has been made the telegraphic distributing center for planetary news in America," has very naturally been taken to mean that *all* announcements concerning planets are to be distributed by the Lowell Observatory, instead of the Harvard College Observatory as heretofore. The published announcement of the Central Stelle in the *Vierteljahrsschrift* (44 Jahrgang, p. 236), is that the arrangement refers merely to *changes on the surfaces* of the planets. No change has been made in the plans of the Harvard College Observatory for the transmission of astronomical announcements. All announcements of astronomical discoveries and observations received, which are of value and require immediate transmission, are cabled at once to Kiel, and telegraphed at cost to all who desire to receive them. A similar distribution of these messages, and of others in which haste is not imperative, is made by mail, without charge, to those who make use of them.

Two of the special features of interest to industrial chemists at the winter meeting of the American Chemical Society will be a symposium on the chemistry and technology of paint and a special sectional meeting to discuss the chemistry of india rubber. The former will be held as a part of the program of the industrial division under the chairmanship of A. D. Little, 93 Broad St., Boston, while the Section on Rubber Chemistry will be in charge of Harold van der Linde, 111 Broadway, New York City.

THE twenty-fifth meeting of the Indiana Academy of Science will be held at Indianapolis, November 25-27, 1909, under the presidency of Dr. A. L. Foley, of Indiana University. The committee to arrange for this anniversary meeting is M. B. Thomas, Crawfordsville; W. E. Stone, Lafayette; C. L. Mees, Terre Haute; W. J. Moenkhaus, Bloomington; H. L. Bruner, Indianapolis; J. P. Naylor,

Greencastle, and Amos W. Butler, Indianapolis, chairman. It is planned to have papers and addresses specially suitable for this occasion from several of the older members who have removed from Indiana. These include John M. Coulter, University of Chicago; David Starr Jordan, Leland Stanford Junior University; Harvey W. Wiley, U. S. Chemist; W. A. Noyes, University of Illinois; C. A. Waldo, Washington University, St. Louis; who have each served as its president, and Barton W. Evermann, U. S. Fish Commission; D. T. MacDougal, Desert Laboratory, Arizona; H. A. Huston, Chicago; A. H. Purdue, University of Arkansas; Charles W. Greene, University of Missouri. The sessions will be held in the Claypool Hotel, which will be headquarters. A banquet will be given there on Friday night to the distinguished guests. Governor Thomas R. Marshall will be present and David W. Dennis, of Earlham College, one of the charter members and a former president, will be toastmaster.

ACCORDING to a report of the Forest Service, Washington, Louisiana, Mississippi, Arkansas and Wisconsin, in the order named, lead in producing the country's lumber supply whose valuation for last year exceeds \$500,000,000. Texas, Michigan, Oregon, Minnesota and Pennsylvania came after the first five states and others followed in decreasing amounts down to Utah, the lowest on the list, with Nevada and North Dakota, having little timbered area, not rated at all. Yellow pine of the south which has been far in the lead in the lumber production for more than a decade, more than maintained its supremacy last year, contributing slightly more than thirty-three per cent. of the total cut from all kinds. Douglas fir, of the northwest, ranked second, and white pine third. Practically all kinds showed a marked decreased cut, and for the first three kinds of timber there was a falling off of fifteen, twenty-two and twenty per cent., respectively. Oak and hemlock maintained their relative ranks but showed decreases of twenty-five per cent. each in amount produced, and spruce dropped eighteen per cent. Louisiana was the heaviest

producer of yellow pine lumber, supplying nearly one fifth of the total production. Texas, Mississippi, Arkansas and Alabama followed in the order named. The state of Washington, alone, supplied more than three fifths of the Douglas fir cut, while the bulk of the remainder came from Oregon. Minnesota produced about a third of the white pine, followed by Wisconsin with about fifteen per cent. and New Hampshire with ten per cent. An interesting feature of the report is that two New England states, Maine and Massachusetts, produced more white pine than Michigan, which for many years led the country in producing this valuable timber. Oak lumber manufacture now centers in Kentucky, West Virginia and Tennessee. Wisconsin comes first in the production of hemlock, taking the position held by Pennsylvania for so many years.

THE London *Times* reports that a novel method of killing moths and other insects which are harmful to grape-vines has been adopted near Rheims. Posts supporting 5-candle-power electric lamps were placed in the vineyards, from each of which a dish, containing water with a top layer of petroleum, was suspended. During the first night these traps were placed in three parallel rows at distances of about 200 feet from each other, the distance between each lamp being about 75 feet. On the first clear evening late in July the current was turned on about eight o'clock, and the lamps remained burning until an hour or so after midnight. Soon after the lamps were lighted the insects swarmed towards them and were rapidly killed, either by the fumes of the petroleum or by the petroleum itself. The same operation was resumed the next clear night, but the lamps of the two outside rows were placed about 25 feet closer to those of the center row, and this was repeated in each of five subsequent clear nights, so as finally to bring the three rows within about 50 feet of each other. During the succeeding six or seven clear nights the movement was reversed in the same manner, so as to return the lamps to their position of the first night. As to the position of the lamps, numerous experiments

were made during these trials, and it was proved that the greatest number of insects were killed when the petroleum dish was elevated only a few inches above the ground. These experiments were witnessed by representatives from a number of leading champagne makers, and this method was recommended to all wine growers who can avail themselves of the services of electricity.

THE Norwegian government has placed the steamship *Michael Sars* at the disposal of Sir John Murray and Dr. Hjort, the Norwegian Fishery director, for deep-sea exploration in the Atlantic Ocean from the Canary Islands to the Faroës. According to the London *Times* the purpose of the cruise is to try in the great ocean the new methods and instruments which have been developed within the past few years, especially during the International Fishery Explorations. It is believed that the great fishery nets and trawls which are now used for economic purposes in shallower waters can be used with success in great depths, down even to three and a half miles. On one occasion the *Challenger*, from a depth of nearly two miles, with a ten-foot trawl, brought up 27 fish belonging to seven species, but recently the *Michael Sars*, by means of a trawl with fifty-foot headrope, brought up from a depth of over half a mile 225 fish, 100 of which belonged to new species. If these larger catching appliances can be used with success in the greatest depths of the Atlantic, some important and interesting zoological results may be obtained. Special interest will be attached to observations with Ekman's new current-meter. This has been used with success by the *Michael Sars* down to depths of 200 fathoms. An attempt will be made by means of this current-meter to measure the rate of currents over oceanic shoals, Buchanan having shown that tidal and other currents are well marked over the Dacia bank in mid-ocean, off the coast of Africa. It may even be possible to have records by this instrument in very deep water, where our knowledge of currents is at present almost *nil*. Attempts will be made to force long tubes into the oceanic deposits, with the view of getting sec-

tions of considerable depth and ascertaining if there be layers differing in composition. At the present time we know nothing about the depth of marine deposits beyond eighteen inches. The *Michael Sars* will leave Plymouth about April 6. A series of sections will be made from the coasts of Europe over the continental slope into deep water as far south as Gibraltar, and even off the coast of Africa as far south as Mogador. Observing stations will then be made as far as Madeira and the Azores. Should good weather be encountered, she may then proceed to Newfoundland, Iceland, the Faröes and Scotland. Should, however, the weather not permit this extended cruise, the ship will return again along the coasts of Europe to the Faröe Islands. Sir John Murray, Dr. Johan Hjort, Professor Gran, Dr. Helland-Hansen and Mr. Koefoed will take part in the expedition. Captain Tversen has been in command of the ship for the past seven years, and the crew are experienced in deep-sea work.

UNIVERSITY AND EDUCATIONAL NEWS

THE Board of Trustees of the Reed Institute will establish at Portland, Ore., a College of Arts and Sciences, with the bequest of \$2,000,000 left by the late Mrs. Amanda W. Reed.

SENATOR GUGGENHEIM, of Colorado, has undertaken to give buildings to the State Agricultural College and to the State Normal School. It will be remembered that Senator Guggenheim has recently given valuable buildings to the University of Colorado and the State School of Mines.

ANNOUNCEMENT is made that the Yale corporation has decided to place the new Sloane Physical Laboratory on the Hillhouse property, two blocks north of the new Sheffield campus. Mr. Charles C. Haight, who has been the architect for the Vanderbilt dormitories, the university library and Phelps Hall, has been chosen as architect.

FORTY-SEVEN Chinese students have come to this country to enter different colleges at the expense of the Chinese government. They

will be followed next year by 153 students, and the 200 students will be educated in this country with the indemnity growing out of the Boxer troubles and returned by our government to China. The whole sum will be devoted to educational work. Students will be sent from China after earning appointments by competitive examinations. Each student is to study five years in American schools. The students are in charge of Tong Kwoh On, of the Chinese Foreign Office, a graduate of Yale University.

DR. G. C. DUNCAN, recently a Fellow in the Lick Observatory, University of California, has been appointed instructor in astronomy in Harvard University.

MR. CHARLES E. TEMPLE, A.B. (Nebraska, 1906), A.M. (1909), has been appointed instructor in botany at the University of Michigan.

DR. JULES BRADY has been appointed assistant professor of diseases of children in the St. Louis University School of Medicine.

DR. JOHN WYLLIE NICOL has been appointed the McCall Anderson Memorial lecturer in dermatology in the University of Glasgow.

DISCUSSION AND CORRESPONDENCE

THE ENDOWMENT OF MEN AND WOMEN, A CHECK TO THE INSTITUTIONAL "EXPLOITATION" OF GENIUS

WHEN rumors of the intention of Mr. Andrew Carnegie to devote a goodly portion of his vast wealth to the encouragement of science first reached the academic world, it was hinted in certain quarters that his benefaction might possibly take the form of endowing men and women rather than institutions. What a few men of science openly, and many more privately, advocated, seemed on the eve of realization. The servitude of the individual investigator to the whims of governing bodies, the gross and petty tyrannies of presidents, and the time-destroying and soul-sickening vanities of faculties, appeared about to end. But the development of the Carnegie Institution, as it now exists, has pushed aside once more the fulfilment of such dreams. Later,