

- "Cell-size and Nuclear Size," E. G. Conklin.
- "Oviposition Induced by the Male in Pigeons," Wallace Craig.
- "The Life History of the *Scolex polymorphus* of the Woods Hole Region," W. C. Curtis.
- "The Transplantation of Ovaries in Chickens," C. B. Davenport.
- "On the Regular Seasonal Changes in the Relative Weight of the Central Nervous System of the Leopard Frog," Henry H. Donaldson.
- "Spermatogenesis in the Arenicolidae," E. R. Downing.
- "Reproductive Activities of the Squid," Gilman A. Drew.
- "Modifications in the Testes of Hybrids from the Guinea and the Common Fowl," M. F. Guyer.
- "Some Problems of Cœlenterate Ontogeny," C. W. Hargitt.
- "Minimal Size Reduction in Planarians through Successive Regenerations," S. J. Holmes.
- "Studies in Fertilization in *Nereis*." 1. "The Cortical Changes in the Egg." 2. "Partial Fertilization," F. R. Lillie.
- "The Physiology of Cell-division." 4. "The Action of Pure and Calcium-containing Salt-solutions, followed by Hypertonic Sea-water, on the Unfertilized Eggs of *Arbacia*, with a Theory of the Physics of Certain Features of Mitosis from the Standpoint of the Membrane Theory of Bio-electric Processes," Ralph S. Lillie.
- "Anatomical Illustrations before Vesalius," W. A. Loey.
- "The Growth and Retrogression of *Corpus luteum* in the Guinea-pig," Leo Loeb.
- "The Chemistry of Fertilization," A. P. Mathews.
- "The Influence of Inbreeding and Selection on the Fertility and Sex Ratio in *Drosophila*," W. J. Moenkhaus.
- "The Spermatogenesis of the *Hemipteron Euschistus*," T. H. Montgomery, Jr.
- "Further Studies of Oogenesis and Spermatogenesis in Phylloxerans and Aphids," T. H. Morgan.
- "Studies of Variation and Heredity in the Armadillo," H. H. Newman and J. T. Patterson.
- "Foot Movements of Molluscs," G. H. Parker.
- "The Evolution of the Pearl Organs of American Minnows and Suckers. A Study in the Factors of Descent," Jacob Reighard.
- "White and Yellow Yolk in Vertebrate Ova," Oscar Riddle.
- "The Structure and Periodicity of the Developing Salpa Chain," W. E. Ritter (With Miss Myrtle Johnson).
- "Physiological Animal Geography," V. E. Shelford.
- "The Olfactory Organs and the Sense of Smell in Birds," R. M. Strong.
- "The Behavior of the Chromosomes in Cross-fertilized Echinoid Eggs," D. H. Tennent.
- "Experimental Modification of the Germ-plasm," W. L. Tower.
- "The Ant-colony as an Organism," W. M. Wheeler.
- "Studies in Chromosomes." 7. "A Review of the Chromosomes of *Nezara* with some more General Considerations," E. B. Wilson.
- "*Paramœcium caudatum* and *Paramœcium aurelia*," L. L. Woodruff.
- "Experiments in the Control of Asymmetry in the Development of the Serpulid, *Hydroides dianthus*," Charles Zeleny.
- Titles of papers of the following not received: H. McE. Knower, Jacques Loeb, F. P. Mall.

SCIENTIFIC NOTES AND NEWS

THE congress has passed a bill to retire Commander Robert E. Peary, with the rank and pay of a rear-admiral and to extend to him the thanks of congress.

THE vacancy in the board of consulting scientific experts to the secretary of agriculture, caused by the death of Dr. C. A. Herter, has been filled by the appointment of Dr. Theobald Smith, of Harvard University. The appointment was made by the secretary of agriculture, with the full approval of President Taft.

THE Helmholtz medal of the Berlin Academy of Sciences was awarded to Professor van't Hoff shortly before his death.

SIR WILLIAM H. WHITE has been awarded the John Fritz medal for 1911, for "notable achievements in naval architecture," by the board representing the national societies of civil, mining, mechanical and electrical engineering. The first award was made in 1905 to Lord Kelvin, and subsequently to Alexander Graham Bell, Thomas A. Edison, George Westinghouse, Charles Porter and Alfred Noble.

THE gold medal of the British Institution

of Mining and Metallurgy has been awarded to Sir Julius Wernher, in recognition of his services to technological education and in the promotion of the interests of the mining and metallurgical professions.

DR. L. A. BAUER was made an honorary member of the Royal Cornwall Polytechnic Society of England at its recent annual general meeting.

THE Academy of Natural Sciences of Philadelphia has elected Dr. Walter Rothschild, of Tring, England, a correspondent.

PROFESSOR BIER, director of the surgical clinic at Berlin, has been elected a foreign member of the Berlin Academy of Sciences.

MR. NORMAN TAYLOR, editor of *Torreya*, and assistant curator at the New York Botanical Garden, has been appointed curator of plants in the newly established Brooklyn botanic garden.

DR. CLARENCE J. MARSHALL, professor of veterinary medicine at the University of Pennsylvania, has been appointed veterinarian of the state of Pennsylvania.

DAVID ALBERT MOLITOR, professor of topographic and geodetic engineering in the College of Civil Engineering of Cornell University, has resigned from the faculty and returned to active practise.

DR. HENRY C. TAYLOR, professor of agricultural economics at the University of Wisconsin, has been elected associate editor of *The American Economic Review*, published by the American Economic Association. Dr. Taylor will have charge of the subject of agricultural economics.

DR. ALICE HAMILTON, of the Memorial Institute for Infectious Diseases, of Chicago, who investigated the lead industries of Chicago and Illinois with reference to lead poisoning for the Illinois Commission on Occupational Diseases, is undertaking similar work for the federal government.

THE Frederick Sheldon traveling fellowship of Harvard University has been awarded to Latham Clarke, Ph.D., instructor in industrial chemistry.

PROFESSOR GIUSEPPE MERCALLI has been appointed director of the observatory on Mt. Vesuvius, to succeed Professor Matteucci.

PROFESSOR E. B. WILSON lectured on "Heredity and the Cell" before the Society of Sigma Xi of Columbia University on February 23.

DR. L. H. BAILEY, director of the New York State College of Agriculture at Cornell University, delivered a lecture under the auspices of the Pennsylvania Chapter of the Society of the Sigma Xi on February 27, on the subject of "The Country Life Situation."

Two Sigma Xi lectures, one on "Attention" and one on "Types of Mind," were given at the University of Minnesota, on February 9 and 10, by Professor E. B. Titchener, Sage research professor at Cornell University.

THE Columbia chapter of the Phi Lambda Upsilon, the honorary chemical fraternity, was addressed by Dr. H. W. Wiley, of Washington, D. C., on February 18. In his address on the "Relation of Chemistry to the Public Welfare" Dr. Wiley showed the moral influence which a chemist exerts on the community and the position which a chemist will assume in the fight against disease. An informal reception to Dr. Wiley was tendered by the society after the address to welcome him as a member.

THE annual meeting of the Illinois State Academy of Science was held at the University of Chicago on February 17 and 18. Professor J. M. Coulter, head of the department of botany of the university, delivered the presidential address on "The Problems of Plant Breeding."

ON January 21 the Oregon Academy of Sciences met in regular monthly meeting, the address being by W. N. Ferrins, president of Pacific University and one of the Rhodes scholarship committee for the northwest. His subject was "The Rhodes Scholarships and Oxford University." On February 18 Wm. T. Foster, president of the new Reed College, of Portland, spoke on "The American College," giving a brief review of the history of European colleges. At the March meeting Pro-

fessor Albert Sweetser, biologist of the University of Oregon, will deliver an address.

THE Society of College Teachers of Education held its convention during the sessions of the Department of Superintendence of the National Education Association on February 23 and 24 in Mobile, Ala. The president of the society was Charles H. Judd, professor of education in the University of Chicago.

PROFESSOR ARTHUR KEITH, conservator of the museum of the Royal College of Surgeons of England, gave in February a course of six Hunterian lectures on the fossil remains of man, and their bearing on the origin of modern British types.

AFTER the scientific program, at the session of the Philadelphia College of Physicians, on February 1, Dr. Robert Abbe, New York City, presented to the college the gold watch of Benjamin Rush, and Dr. William W. Keen, on behalf of the donors, presented to the college a portrait of Dr. William Goodell, the gynecologist.

By the instructions of the London County Council, as we learn from *Nature*, a blue tablet of encaustic ware has been affixed to No. 32 Soho Square, W., at one time the residence of Sir Joseph Banks, who was elected president of the Royal Society in 1778 and held that office for forty-one years.

SIR JOHN MURRAY will give his memorial address on "The Life and Scientific Works of Alexander Agassiz," at Sanders Theater, Harvard University, on Wednesday evening, March 22, at eight o'clock. On account of Sir John Murray's illness this lecture was postponed from February 14.

DR. WALTER REMSEN BRINCKERHOFF, assistant professor of pathology in the Harvard Medical School, the author of important researches on small-pox and leprosy, died in Boston, on the second of March, in the thirty-seventh year of his age.

THE death is announced from Berlin of Professor J. H. van't Hoff, eminent for his contributions to physical chemistry.

DR. ALOYSIUS OLIVER JOSEPH KELLY, assist-

ant professor of medicine in the University of Pennsylvania and professor of pathology in the Woman's Medical College of Pennsylvania, died on February 23, at the age of forty-one years.

THE second Central American Expedition of the School of American Archeology reached Guatemala on January 14 and steps were immediately taken to continue the work inaugurated the preceding year. After a preliminary survey of the southern Maya field year (January, 1910), it was decided that the School of American Archeology would undertake the excavation and repair of the ruins of Quirigua in the Department of Izabal, some fifty miles from the Atlantic coast. During the first expedition the ruins were surveyed, and a park laid out surrounding them. The Great Plaza was cleared of underbrush and the monuments were cleaned, photographed and measured. A first hand study of the art and inscriptions was undertaken and in both cases the inadequacy of photographs and casts for definitive conclusions was demonstrated. The second expedition will continue the work from this point. The luxuriant tropical vegetation in which the ruins lie buried will be felled and means taken to prevent the annual reappearance of this destructive agent. The laying bare of this site, the clearing of the various pyramids, courts and temples will doubtless be the main work of the present season, though excavations will also be made and the study of the art and inscriptions continued.

THE Lake Laboratory of the Ohio State University has announced its courses for the summer session of 1911, and covers practically the same ground as in previous seasons. The staff includes representatives from a number of Ohio Colleges, including Professors Brookner, of Buchtel; Coghill, of Denison; Fuller, of Baldwin; Osborn and Landacre, of Ohio State University, and Jennings, of the Carnegie Museum in Pittsburgh, with one position, in ornithology, yet to be filled. The subjects covered are general zoology, aquatic biology, invertebrate zoology, entomology,

ornithology, experimental zoology, embryology, general botany and ecology, each in charge of a specialist in the subject. The opportunities of work in these lines are very favorable, the laboratory being located on Cedar Point with access to Lake Erie, on the one side, and Sandusky Bay, with its marshes and open water, on the other side. It is also quite near the islands and to all points of zoological interest. The session opens on June 19, and further information concerning the work or copies of the announcement may be obtained by application to the director, Professor Herbert Osborn, Ohio State University, Columbus, Ohio.

A BIOLOGICAL club has been organized at the Oregon Agricultural College by the faculty and graduate students to make studies of the biology of the state. Professor H. S. Jackson, of the department of botany, was made chairman for the coming year with George F. Sykes, of the department of zoology, as secretary. The club voted to make one of its first problems a thorough biological survey of Mary's Peak, a work which will occupy at least two years. Through the meetings, field trips and collection of material, it is hoped to add materially to the present knowledge of the biology of the state, while at the same time interest will be stimulated in the study of biology.

THE sixty-third meeting of the American Society of Mechanical Engineers will be held in Pittsburgh, Pa., from May 30 to June 2, inclusive. The society has not met in this city since 1884. The headquarters of the society are in New York City, and Col. E. D. Meier, of St. Louis, is president this year. The society has in the Pittsburgh district alone a membership of about one hundred and sixty. Last year the society held a joint meeting in England with the British Society, the Institution of Mechanical Engineers. An executive committee consisting of E. M. Herr, chairman; George Mesta, J. M. Tate, Jr., Chester B. Albree, D. F. Crawford, Morris Knowles and Elmer K. Hiles, secretary, will have charge of the Pittsburgh meetings. There will be professional sessions when papers will be read and discussed. There will

also be inspection trips through the leading local industrial establishments.

THE progress of the graduate electrical engineering work at the Massachusetts Institute of Technology is indicated by the number of students who are candidates for higher degrees, which number is now greater than last year. The number of students in the undergraduate course in electrical engineering is also steadily increasing so that additional teaching staff is being added to the corps of laboratory instruction. Various lines of research are being carried on in the department mostly under the direction of Professor Pender and Professor Wickenden. Some of these relate to the effects of heat treatment on the magnetic qualities of silicon iron, certain transient phenomena that may occur in long electric circuits, the effect of high frequencies on the permeability of iron, the effective resistance and reactance of steel rails when conveying alternating currents, the selective action of spark gap lightning arresters with respect to frequency, the reflection of light from walls and ceilings, the disruptive strength of rubber insulated coatings, on wires, etc. Certain of these are continuations of work started last year, and researches in each will be carried on as may be convenient and needful to get knowledge of the phenomena under investigation. The results of the thesis research of Dr. Harold Osborne on whom the degree of doctor of engineering (the first conferred by the institute) was conferred last June, were embodied in a paper presented before the American Institute of Electrical Engineers at its October meeting. The subject of illumination and photometry has been added to the subjects taught in the electrical engineering department. This is treated from the standpoint of what is generally called illuminating engineering and is made an optional study.

It is reported that the Italian government will establish a Vulcanological Institute, for which the chief governments will be invited to contribute £60,000. Mr. Immanuel Friedlaender, who resides in Naples and is the author of a work on the volcanoes of Japan, has promised, it is said, £4,000 towards this fund.

THE second Shaler Memorial Research, supported by the Shaler Memorial Fund of Harvard University, will consist of a study of shoreline changes along the Atlantic coast by Professor D. W. Johnson and two or three assistants. Special attention will be given to changes in the form of beaches within recent geological time, and to supposed evidences of recent coastal subsidence. Since the problem of coastal subsidence is affected by the relative heights of high tides on the outer and inner sides of barrier beaches, lines of levels will be run between the ocean and lagoons, upon which tidal observations will be based. The most important localities from the Bay of Fundy to southern Florida will be examined during the spring and early summer. During the latter part of the summer Professor Johnson will visit localities on the coasts of England, Holland and Sweden, for the purpose of making comparisons with similar localities on the Atlantic coast of North America.

UNIVERSITY AND EDUCATIONAL NEWS

M. AUGUSTE LOUTREFIL has bequeathed \$700,000 to the Paris Academy of Sciences, \$500,000 to the University of Paris and \$20,000 to the Pasteur Institute.

THE University of Michigan has received a gift of \$10,000 from William J. Cook, now of New York, and formerly of Hillsdale, Mich., to be used toward the erection of a residential hall for women.

By the will of Miss Susan G. Lansing, of Albany, N. Y., Rutgers College receives the sum of \$5,000, together with one third of the residuary estate, which, it is estimated, will bring about \$10,000 additional.

THE residue under Sir Francis Galton's will is bequeathed to the University of London for the encouragement of the study of eugenics.

THE technique of printing and publishing is a new course of study at the University of Wisconsin in connection with the course in journalism. It is designed for students of agriculture, engineering and commerce, who are preparing to enter technical and trade

journalism. A class in technical and trade journalism has been organized to give further training in this field.

THE University of Illinois special train to rural schools started out for a two weeks' trip over the Illinois Traction system on February 27. The special consists of two cars fitted up with illustrative material for the use of the speakers who accompany the train. About one thousand children are visiting this special every day. The county superintendent of schools of each county that the special visits accompanies the party and acts as guide and director.

PROFESSOR V. H. BLACKMAN, of Leeds, has been appointed to the professorship of plant physiology and pathology at the Imperial College of Science and Technology, London.

DISCUSSION AND CORRESPONDENCE

THE USE OF NUMERALS FOR SPECIFIC NAMES IN SYSTEMATIC ZOOLOGY

IN a recent number of SCIENCE, Dr. Needham has suggested the use of a numerical system of naming species, in addition to the present binomial system devised by Linnæus.

To this suggestion there are several objections, which to the practical worker in taxonomy seem wholly insuperable. In the first place, the name of an animal is not the main element concerned. The specific name covers our conception of the species, a conception likely to be greatly modified by thorough study. The generic name indicates our conception of where it belongs. This conception, of necessity, changes with the progress of knowledge. The changes in name mark such progress. To the taxonomist, certain changes of name are as real and as important as any other forward step in science. It is of course unfortunate that some species have had many different names. So have many genera also. This is due primarily to the inherent difficulties of the subject, as few branches of knowledge are more intricate than the study of the genetic derivation of forms, and their exact geographical distribution. These two branches of science, taxonomy and zoogeography, must