

American Microscopical Society.—Will hold executive committee luncheon on Tuesday, December 28, at 12:30 P.M., followed by business meeting, same date, at 5 P.M. President, C. A. Kofoed. Secretary, Professor T. W. Galloway, James Millikin University, Decatur, Ill.

American Mathematical Society (Chicago Section).—Meets on Thursday, Friday and Saturday, December 30 to January 1. Will hold joint meeting with Section A, A. A. A. S., on Thursday, December 30, at 2 P.M. Secretary, Chicago Section, Professor H. E. Slaught, 5548 Kenwood Avenue, Chicago, Ill.

American Federation of Teachers of the Mathematical and the Natural Sciences.—Will meet on dates to be announced. Secretary, Professor William A. Hedrick, McKinley Manual Training School, Washington, D. C.

American Nature-Study Society.—Meets on Thursday and Friday, December 30 and 31. Will hold joint session with School Garden Association of America on Thursday, December 30, at 2:30 P.M. President, L. H. Bailey. Secretary, Professor E. R. Downing, University of Chicago, Chicago, Ill.

School Garden Association of America.—Meets in joint session with American Nature-Study Society on Thursday, December 30, at 2:30 P.M. President, Van Evrie Kilpatrick, 124 West 30th St., New York, N. Y.

Society of the Sigma Xi.—Will meet on dates to be announced. President, Dr. Charles S. Howe, Case School of Applied Science, Cleveland, Ohio.

Wilson Ornithological Club.—Will meet on dates to be announced. President, T. C. Stephens, Morningside College, Sioux City, Iowa.

Gamma Alpha Graduate Scientific Fraternity.—Will meet on dates to be announced. Recorder, L. C. Johnson, 613 West Michigan Avenue, Urbana, Ill.

SCIENTIFIC NOTES AND NEWS

THE Nobel prize for physics for 1914, according to a Reuter dispatch from Stockholm, has been awarded to Professor Max von Laue, of Frankfort-on-Main, for his discovery of the diffraction of rays in crystals. The prize for chemistry for the same year has been awarded to Professor Theodore William Richards, of Harvard University, for fixing the atomic weights of chemical elements.

DR. WALLACE BUTTERICK, director of the China Medical Board, of the Rockefeller

Foundation, Dr. Simon Flexner, of the Rockefeller Institute for Medical Research, and Dr. William H. Welch, professor of pathology at Johns Hopkins University, were the guests of honor at the recent dedication of the new Sleeper-Davis Memorial Hospital, Peking, China. The new building is a five-story structure erected by the Methodist-Episcopal Church at a cost of \$180,000.

THE Romanes lecture before the University of Oxford will be delivered this year by Professor E. B. Poulton, Hope professor of zoology in the university, on December 7. The subject will be "Science and the Great War."

THE honorary degree of D.Sc. was conferred on October 26 on Mr. Guy A. K. Marshall, director of the recently established Imperial Bureau of Entomology.

DR. J. HORNE has been elected president of the Royal Society of Edinburgh. The vice-presidents of the Royal Society are: Professor F. O. Bower, Sir T. R. Fraser, Dr. B. N. Peach, Sir E. A. Schäfer, the Right Hon. Sir J. H. A. Macdonald and Professor R. A. Sampson.

THE Berlin Geographical Society has elected General von Beseler as its president.

DR. SVEN VON HEDIN has been elected a corresponding member of the Vienna Academy of Sciences.

WE learn from *Nature* that Mr. W. Marriott has retired from the post of assistant secretary of the Royal Meteorological Society held by him for the last forty years, and has been succeeded by Mr. A. H. Brown, the chief clerk of the society.

DR. HERMAN FISCHER, formerly professor of surgery in Breslau, has celebrated his eighty-fifth birthday.

DR. ALFRED WERNER has been made a member of the *Reichsanstalt*, Berlin.

DR. KARL H. VAN NORMAN, first assistant superintendent of Johns Hopkins Hospital, has resigned to accept a captaincy in a Canadian regiment.

PROFESSOR F. J. ALWAY, of the department of chemistry of soils of the University of Minnesota, has been elected president of the Min-

nesota section of the American Chemical Society.

DR. CLARK WISSLER and Dr. Robert H. Lowie, of the American Museum of Natural History, have been appointed delegates from the New York Academy of Sciences to the Nineteenth International Congress of Americanists which meets in Washington at the end of December.

It is stated in *Nature* that in addition to the awards announced in April for papers read at the meetings, the council of the Institution of Civil Engineers has made the following awards for papers published in the *Proceedings* during the session 1914-15: A Telford gold medal to Mr. James Forgie (New York); Telford premiums to Messrs. J. R. Mason (Dunedin, N. Z.), Harold Berridge (Aden), C. R. White (London), C. S. Churchill (Roanoke, Va.), and the Trevithick premium to Mr. A. Poulson (Lemvig, Denmark). The Indian premium for 1915 has been awarded to Mr. C. W. Anderson (Midnapore, India). The ninety-seventh session of the Institution was opened on November 2, when Mr. Alexander Ross, president, delivered an address and presented the awards.

MR. FRANK C. BAKER, until recently acting director of the Chicago Academy of Sciences, now zoological investigator for the New York State College of Forestry at Syracuse University, gave a popular illustrated lecture in the lecture course of the Syracuse Chapter of Sigma Xi on November 8 on "Hunting Birds with a Camera."

ROBERT ALLYN BUDINGTON, professor of zoology in Oberlin College, lectured recently on "Some of the Results of Biological Study," at Goucher College, where the department of biology has recently moved into new and enlarged laboratories.

THE general meeting of the Röntgen Society, London, was held on October 4, at the Institution of Electrical Engineers, when the president, Mr. J. H. Gardiner, delivered an address and new apparatus was exhibited.

DR. CHARLES F. CHANDLER, professor emeritus of Columbia University, has given for the

department of arts and sciences of the University three lectures on "The Art of Photography."

THE twenty-third summer meeting of the American Mathematical Society will be held at Harvard University early in September, 1916. At the eighth colloquium of the society, held in connection with this meeting, courses of lectures will be delivered as follows: By Professor G. C. Evans: "Topics from the Theory and Applications of Functionals, including Integral Equations." By Professor Oswald Veblen: "Analysis Situs."

EDWARD LEE GREENE, associate in botany at the Smithsonian Institution since 1904, recently elected head of the botanical department of Notre Dame University at South Bend, Ind., died in Washington on November 10, aged seventy-two years. From 1885 to 1895 Dr. Greene was professor of botany in the University of California, and from 1895 to 1904 in the Catholic University of America.

SIR ANDREW NOBLE, F.R.S., distinguished for his scientific work on artillery and explosives, died on October 22, at eighty-four years of age.

PROFESSOR VIVIAN B. LEWIS, until last year professor of chemistry in the Royal Naval College, died on October 23, aged sixty-three years.

DR. R. ASSHETON, F.R.S., university lecturer in animal embryology at the University of Cambridge, died on October 23, aged fifty-one years.

DR. ERNST WERNER MARIA VON OLFERS, known for his work in sanitation, has died at Königsberg in his seventy-fifth year.

THE sequence of events so often observed in the history of gold-mining camps has been repeated in the Willow Creek district, Alaska. The earliest prospectors, in 1897, were primarily interested in the search for placer gold and having found it were too busily engaged in mining to trace the stream gold to the veins from which it originally came. It was nearly ten years later that the first of the valuable quartz veins that now yield most of the gold mined in the district was discovered. Since,

1906, however, quartz mining has progressed steadily and has rested upon a substantial basis. In 1913 the production of the district for the first time exceeded \$100,000, but in 1914 it was almost treble that amount. Three mills are in operation, and more will soon be installed. With the increase in the depth of mining the veins show no diminution in the amount or tenor of the gold. A study of the geologic conditions in this general area leads to the conclusion that veins similar to those now worked may be found beyond the borders of the present mining district, and prospects already being developed confirm this conclusion. The district lies near the route of the government railroad from Seward to Fairbanks, and the cheaper transportation should greatly stimulate its development. There is thus every indication that the Willow Creek district will steadily increase in importance as a gold-mining camp and that it will have a long period of productiveness. Since the district's establishment as a gold quartz mining camp the gold placers which originally were regarded as the only valuable gold deposits, have decreased in importance until their annual output is now small, yet under the more favorable conditions of transportation soon to be realized it is possible that placer mining may again be profitably carried on. A report on the Willow Creek district by S. R. Capps, published as Bulletin 607 of the United States Geological Survey, includes in addition to a description of the mines and prospects, a discussion of the history, geography and geology of the district. The report is illustrated by a topographic and a geologic map on a scale of about 1 inch to the mile, and by numerous photographs and text-figures.

A PHASE of the study of the underground waters of southern Louisiana is their utilization in the cultivation of rice by irrigation. In 1888 lowlands near the bayous suitable for growing sugar cane, corn and cotton could be purchased for \$3.50 an acre, and the prairie lands back from the bayous could be bought for \$1 an acre. With almost the first crop under irrigation, however, the values showed a marked rise and have continued to increase. In the first five years the value of the best rice

lands rose to \$10 an acre, and soon after that it rose to \$30 and even \$50 an acre. The first people to plant rice in southern Louisiana, according to the United States Geological Survey, were the Acadians, who, after their expulsion from Nova Scotia by the English in 1755, settled in considerable numbers in Louisiana. Their cultivation of rice, almost absolutely primitive in its methods, was confined to the lowlands along the bayous, the prairies affording pasturage for the Acadians' herds of cattle. Few of the lowland areas admitted of satisfactory drainage, and they were too small for profitable cultivation. The crops frequently failed in years of deficient rainfall. Attempts were made to create additional water supplies by building levees across low sags or coulees at points higher than the cultivated areas, but generally either the rainfall proved deficient or the reservoirs were too small. Little advance was made over the Acadian methods until very recently. Experiments in unusually wet years had shown that the soils of the prairies were adapted to the growth of rice if sufficient water was at hand. This led to the trial of pumps as a means of raising water from the bayous to the rice fields. So successful was the test that pumps were at once installed at many points, and in a few years tens of thousands of acres of previously almost useless land, lying 10 to 70 feet above the bayous, were put under cultivation. The first large pump was installed in 1894 on the Bayou Plaquemine, in Acadia Parish, near Crowley. Although its failure at a critical time involved the partial loss of the crop, it showed that rice could be cultivated by pumping, which has been gradually adopted on larger and larger scales until now in the larger plants batteries of pumps operated by compound Corliss engines are in common use.

THE archeological work carried on in Manitoba for the Geological Survey, Canada, by Mr. W. B. Nickerson, has been completed for the season. An artificial mound was found on the most conspicuous headland overlooking the Assiniboine River about six miles north of Alexander. This Mr. Nickerson explored and found to be a burial mound. Among the finds were one hundred and sixty-two marine shells

and six cylindrical objects—beads or pendants—made of the columella of the conch. They indicate trade or expedition as far as the sea. Two groups, each of more than one hundred gravel mounds, on terraces in the Assiniboine Valley, were found to be of natural origin, although resembling artificial burial mounds in appearance. No mounds were found in the valley of the Little Saskatchewan, and slight evidence of habitation. Near Arden, Mr. Nickerson explored a long mound, consisting of two dome-shaped ends with a connecting grade, and a broad, dome-shaped mound, in which were found parts of three human skeletons, a perforated disc made of shell, and two objects made of bone, probably used as bracelets. A third mound, within the village of Arden, had been previously disturbed. Several camp sites were found at the foot of the Assiniboine Hills at springs forming small streams, also in the vicinity of Arden, along the White Mud River. Mr. Nickerson took seventy-five photographic films in connection with this work and secured a number of gifts for the Dominion collections.

UNIVERSITY AND EDUCATIONAL NEWS

As was noted in *SCIENCE* last week, Columbia University received by the will of Amos F. Eno the residuary estate. It also receives a revisionary interest in certain bequests. In addition, the General Society of Mechanics and Tradesmen receives \$1,800,000, and bequests of \$250,000 each are made to New York University, The American Museum of Natural History, the Metropolitan Museum of Art and the New York Association for Improving the Condition of the Poor.

MR. AND MRS. NORMAN W. HARRIS, of Chicago, have increased their gift of \$25,000 to Mount Holyoke College made at the time of the seventy-fifth anniversary, to \$50,000, for the endowment of the chair of zoology. Mrs. Harris is a graduate of the college of the class of 1870.

THE date for the dedication of the new buildings of the Massachusetts Institute of Technology has been fixed by the executive

committee of the corporation for June 14, 1916. Practically all the stonework of the buildings has been completed and nearly all the carving, which in addition to the decorative features of capital, cornice and portico, will include the names of the founders of science incised about the towers. In the interior the floors are in process of finishing, this being done by means of electric polishers, which are carrying on the work at the rate of 2,500 square feet a day. The rough plumbing is practically all in place and the installation of fixtures is under way. In ten of the buildings the steam heating system is ready and later this month, when the boiler house is completed, the buildings will be dried out by steam heat.

At the University of Minnesota efforts are being made to bring faculty and regents into closer personal relations. At a general assembly of the whole teaching staff held September 27 ten of the twelve regents of the university were present and made brief addresses. The president of the board, Mr. Fred B. Snyder, emphasized the fact that the regents regarded the faculty members not as employees but as colleagues responsible for the really important work of the university. He made an appeal for the hearty cooperation of all concerned for the welfare of the institution. On the evening of November 3 the new members of the faculty were invited to meet the regents at the house of the president of the university. For December 14 a dinner is being arranged by a faculty committee. On this occasion there will be an informal discussion in which it is expected that both faculty and regents will express their views about university ideals and policies.

PROFESSOR T. W. GALLOWAY, Ph.D., who has occupied the chair of biology at James Millikin University at Decatur, Ill., since the establishment of that institution in 1903, has been appointed professor of zoology at Beloit College, Beloit, Wisconsin. A. A. Tyler, Ph.D. (Columbia, '97), for some years professor of biology in Bellevue College, Omaha, Nebraska, has been appointed to the chair of biology at