

temperature of the water in the different aquaria. The plans for the gallery have been prepared by Messrs. Belcher and Joass, and the circulation, electric plant, and the heating, lighting and ventilating systems have been designed by Sir Alexander Gibb. The scheme will cost about £50,000, and should provide London with the best-equipped and most carefully arranged aquarium in Europe.

SCIENTIFIC NOTES AND NEWS

At the forty-first annual meeting of the Society of Chemical Industry, held in Glasgow in July, Professor R. F. Ruttan, of McGill University, presided, and made an address on "Some aspects of industrial and scientific research." Professor H. E. Armstrong, of London, gave the first of the Messel Memorial lectures.

MR. CALVIN W. RICE, secretary of the American Society of Mechanical Engineers, sailed from New York on August 23, to represent the engineers of the United States at the Engineering Congress to be held in connection with the International Exposition at Rio de Janeiro. A dinner in his honor was given at the Engineers Club on the evening of August 21.

DR. HENRY S. DRINKER, formerly president of Lehigh University, has been appointed the successor of the late Joseph T. Rothrock as a commissioner of forestry in Pennsylvania.

MR. C. A. SUSSMILCH, principal of the Newcastle Technical College (N. S. W.), and formerly lecturer in charge of the department of geology and mining, Sydney Technical College, has been elected president of the Royal Society of New South Wales.

THE Royal Dutch Institute of Engineers has appointed as honorary members Sir Charles Parsons, inventor of the Parsons steam turbine, Mr. J. H. Tudsbury, secretary of the Institution of Civil Engineers, London, and Mr. Charles le Maistre, secretary of the International Electro-Technical Commission in London.

THE seventieth birthday of Dr. S. Goldflam, the Polish neurologist and alienist, has been

celebrated, a special volume of "Neurologie polonaise" being dedicated to him.

DR. REID HUNT, of the Harvard Medical School, Boston, has been elected on the editorial board of *Physiological Reviews* for 1922.

At the recent meeting of the International Union of Pure and Applied Chemistry, as has already been noted, Sir William J. Pope was elected president of the union, and it was decided that the next meeting should be held in Cambridge, England, on June 17, 1923. Dr. Wilder D. Bancroft, professor of physical chemistry at Cornell University, was elected vice-president for America, succeeding Dr. Charles L. Parsons, secretary of the American Chemical Society, whose three-year term of office has just closed.

ON May 24, a Hawaiian Section of the American Chemical Society was organized with the following officers: C. C. James, *chairman*; S. S. Peck, *vice chairman*; R. Q. Smith, *secretary*; Guy R. Stewart, *treasurer*; Frank T. Dillingham, *councilor*.

At the convention of the Western Psychological Association held at Stanford University on August 4 and 5, the following officers were elected: *President*, Edward C. Tolman, of the University of California; *vice-president*, J. Edgar Coover, of Stanford University; *secretary*, Edmund S. Conklin, of the University of Oregon.

DR. ELWOOD MEAD, professor of rural institutions, University of California, has been made an honorary member of the American Society of Agricultural Engineers. Dr. Mead recently returned from the Hawaiian Islands, where he went on the invitation of the Hawaiian Home Commission to investigate conditions on the islands.

DR. W. W. COBLENTZ, physicist of the National Bureau of Standards, spent part of the month of June at the Lowell Observatory extending his radiometric investigations of last year at Flagstaff, on the stars and the planets. The observing conditions were favorable and progress was made both in the accumulation of new observational data and in tests of new apparatus. The observations were carried out with the 40-inch reflector.

DR. WM. F. PROUTY, of the department of geology of the University of North Carolina, has accepted a part time engagement as paleontologist for the West Virginia Geological Survey, in the study and description of the fossil faunas of the Devonian, Silurian, Ordovician and older beds of that state. Dr. Prouty is spending the summer vacations in the field making collections and stratigraphic studies. For the present year his work will be in Mercer, Monroe and Summers counties in connection with Mr. David B. Reger, assistant geologist, in the latter's studies of the geology of this area. Dr. John L. Tilton's paleontologic work for the West Virginia Geological Survey will be confined principally to the study of the fossil fauna and flora of the Monongahela and Dunkard beds of the state.

M. T. JENKINS, of the U. S. Department of Agriculture, has been detailed to the Agricultural Experiment Station of Iowa State College for cereal breeding experiments on the relative value of the pure line theory of selecting new varieties of corn.

UNDER the direction of Professor Clifford H. Farr, of the botany department of the University of Iowa, the city officials and residents have cooperated in a campaign to rid the city of ragweed for the eradication of hay-fever.

DR. DONALD D. VAN SLYKE, of the Rockefeller Institute, is on his way to China, where he will participate in teaching, for six months, at the Medical School at Peking.

DR. LOUIS A. BAUER gave a lecture on the "Earth's magnetism and electricity" before the Royal Society of Western Australia, at Perth on June 21, as also before the Philosophical Society at Wellington, New Zealand, on July 5. During an inspection trip to the Carnegie Institution Magnetic Observatory at Watheroo, Western Australia, he completed arrangements for continuous earth-current observations. This observatory will be the only one completely equipped in the southern hemisphere for investigations relating to the earth's magnetism, atmospheric electricity, and the earth's electric currents. While in Australia he furthermore made arrangements for special magnetic and electric observations at various sta-

tions during the solar eclipse of September 21, 1922. At Wellington Dr. Bauer attended a specially-called meeting on July 4 and 5 of the Samoa Observatory Honorary Board of Advice. Arrangements were perfected for further cooperation in the maintenance of the Samoa Observatory at Apia by New Zealand, the British Admiralty and the Carnegie Institution of Washington. Dr. Bauer returned to Washington the middle of August.

As has been noted here, Professor Santiago Ramón y Cajal, having reached the age limit, has retired as incumbent of the chair of normal histology and pathology of the Madrid Medical School. The *Journal* of the American Medical Association says: "The whole country has rendered tribute to the great scientist, bestowing on him every distinction and honor, the greatest, perhaps, being the award of the Echegaray medal. This was presented to him in the Royal Academy of Sciences by the king, who delivered a speech overflowing with respect and love for the illustrious Spaniard, who has brought so much prestige to his country. A number of cities have designated Ramón y Cajal as their adopted son; many others have named streets after him, and prizes have been established in his name. The government performed an act of greater importance in introducing a bill for the construction of a building for the Cajal Institute, which was organized February 20, 1920. The bill carries an appropriation of a million pesetas (\$155,400), divided into four sums which will be spent annually from 1922 to 1925 on the building designated as Cajal's Biologic Institute. An appropriation of 50,000 pesetas (\$7,770) a year is made for maintenance, including the 10,000 pesetas (\$1,540) now provided for Cajal's laboratory. The work of the institute will be directed by a board of trustees presided over by Cajal."

PROFESSOR H. J. HAMBURGER, the distinguished physiologist of the University of Groningen, Holland, will give the first series of Charles E. Dohme Memorial lectures at the Johns Hopkins Medical School on October 10, 11 and 12. This lectureship has recently been established by Mrs. Charles E. Dohme as a memorial to her husband, the late Charles E.

Dohme, a well-known manufacturer of pharmaceutical products. It is the purpose of the donor to have presented in these lectures discoveries which intimately concern the fields of chemistry, pharmacy and medicine. Professor Hamburger has chosen for the title of his lectures, "The increasing significance of permeability problems in physiology and pathology."

PROFESSOR ALBERT PERRY BRIGHAM, of Colgate University, gave a course of lectures on "The American Domain and the American People" before the Oxford University School of Geography from August 10 to 16.

ROLLIN D. SALISBURY, since 1892 professor of geographical geology and since 1897 dean of the Ogden School of Science at the University of Chicago, died on August 15, aged sixty-four years.

EDWARD M. EIDHEER, formerly expert in the department of agriculture, bureau of chemistry, Austria, member of the Academy of Science of Vienna, died on July 24, aged sixty years.

STEPHENSON PERCY SMITH, known for his work on Polynesian ethnology, has died at New Plymouth, New Zealand, at the age of seventy-two years.

ACCORDING to the regulations of the "Van't Hoff Fund" founded in 1913, the foundation in Amsterdam under the supervision of the Royal Academy of Sciences appropriates annually allotments to investigators in the field of pure and applied chemistry. The amount available for 1923 is about twelve hundred Dutch florins. The committee in charge consists of A. F. Holleman, *president*; S. Hoogewerff, A. Smits and J. P. Wibaut, *secretary*.

THE seventh summer meeting of the Mathematical Association of America will be held at the University of Rochester, Rochester, New York, on Wednesday and Thursday morning, September 6 and 7. The American Mathematical Society will meet in Rochester on Thursday afternoon and Friday, September 7 and 8. A joint dinner will be held on Thursday evening at the Oak Hill Country Club, the future site of the university. Professor R. C. Archibald, the president of the associa-

tion, has been invited to give a report at this time on European conditions, based on his six months' traveling in Europe. The sessions of the association on Wednesday will be held in the Eastman Building, at 10 A.M. and 2 P.M. The session on Thursday morning will be held at 9:30 A.M. at the Research Laboratory of the Eastman Kodak Company. A short chamber concert will be given for the members of the association and the society in Kilbourn Hall, of the New Eastman School of Music, at 4:30 P.M. on Wednesday. An automobile ride on Thursday afternoon will precede the joint dinner.

THE autumn meeting of the British Iron and Steel Institute will be held at York on September 5 to 8, when it is expected that ten papers will be submitted for discussion. In addition to an excursion to Rievaulx Abbey and Castle Howard, visits have been arranged, with special trains, to the works of the Staveley Coal and Iron Company, near Chesterfield, and of the Parkgate Iron and Steel Company at Rotherham.

IN connection with the National Colonial Exhibition to be held in September at Marseilles, a "Semaine Internationale" has been organized for the purpose of bringing together geographers, explorers, ethnologists and naturalists, whether French or of other nations, who are in sympathy with French colonial achievements. The program will include visits under suitable guidance to the exhibition galleries, public lectures and technical meetings, social functions and geographical excursions, and the congress, which is presided over by Prince Bonaparte, will last from the twenty-second to the twenty-eighth of September. The charge for tickets of membership is 25 francs, and those attending will be able to travel for half-fares on the system of the Paris-Lyon-Mediterranean Railway.

THE Imperial Department of Agriculture for the West Indies has been amalgamated with the West Indian Agricultural College, and the head office of the department has been transferred from Barbados to Trinidad.

THE London Chemical Society has agreed to supply copies of the *Annual Reports on the*

Progress of Chemistry, Vol. XIX, to members of the American Chemical Society at a reduced rate. Any member can obtain a copy of the 1922 *Annual Reports* by sending his order, accompanied by a remittance of seven shillings, to S. E. Carr, assistant secretary, Chemical Society, Burlington House, Piccadilly, London, W. 1, England. All orders must be in by January 1, 1923, as it is necessary for the society to know the number of copies desired in advance of publication. Each applicant should make known the fact that he is a member of the American Chemical Society.

WE learn from the *Experiment Station Record* that a scientific commission has been appointed by the French government to study the agricultural possibilities of French Nigeria, especially that portion lying between Bamoko and Timbuctoo. The construction of a huge dam in this vicinity is contemplated for the irrigation of the Upper Niger Valley. A general agricultural reconnaissance will be made by the commission, with special emphasis on cotton, covering a period of from twelve to eighteen months. Dr. R. H. Forbes, formerly of the Arizona University and Station and who has just concluded his engagement with the Société Sultanienne d'Agriculture of Egypt, has accepted an appointment as agronomist on this commission.

AN additional appropriation of \$15,000, with legislation to guarantee its effective expenditure, will be asked of the next legislature by the Minnesota State Board of Health, for the supervision of the state tourist camps. The importance of extreme care in sanitation matters among tourists is shown in a report covering the period from 1913 to 1921, showing that 365 cases of typhoid fever in Minnesota were contracted outside the state while the victims were on vacation trips.

THE valuable collection of books on forestry, photographs, slides and papers gathered by the late Dr. Joseph T. Rothrock, the "Father of Pennsylvania Forestry," has been given to the State Department of Forestry, in accordance with a wish expressed by the former commissioner. The collection was turned over to Dr. Joseph S. Illick, chief of the research division, who worked under Dr. Rothrock, and he

is arranging them to be placed in the departmental library. Among the books is a copy of Gray's Botany, which Dr. Rothrock carried with him during his service in the Civil War. Some of the photographs in the collection were among the first taken by Dr. Rothrock when he was arousing public interest in conservation and bringing about the organization of the Department of Forestry.

THE state legislature of South Carolina has appropriated \$50,000 for experimental work, about half to be expended at the college and the remainder at the substations and for co-operative experimental work on different soil types in the state.

THE University of California announces that its students have won two of the four prizes offered by the Glass Containers' Association in a national competition for the most valuable paper on canning or any feature relating to canning or preserving. The first prize was won by Lal Singh, a Hindu student who graduated from the College of Agriculture with the class of 1921. His paper on "Factors concerned in manufacturing fruit products" is said to be a distinct contribution to the knowledge of jams and jellies. The paper is to be published as a series of articles in the trade magazine, *Canning Age*. J. R. Herman, a graduate student in the College of Agriculture, won the third prize in the national competition with a paper on "The utilization of grape products." The second and fourth prizes went to students in eastern universities.

WE learn from *Nature* that the Ramsay Memorial Fellowship trustees have made the following awards: Ramsay Fellowship of the value of £300 tenable for one year, but renewable for a second year, to Dr. R. W. Lunt, of the University of Liverpool, and of University College, London, for the continuation of his work at University College, London, on chemical effects of electromagnetic waves over the frequency range, 10^5 - 10^8 cycles; Glasgow Ramsay Fellowship of £300 to Mr. J. A. Mair, of the University of Glasgow, who will continue his research on the chemistry of the terpenes; a special fellowship of £300 for one year to Mr. W. Davies, who has already held a Ramsay Fellowship for two sessions and

whose work, especially that on the preparation of synthetic reagents from the toluic acids, shows special promise; Danish Ramsay Fellowship to Mr. Kristian Høejendahl, of the University of Copenhagen, who will pursue his research in the University of Liverpool; two Swedish Ramsay Fellowships, to Dr. J. O. G. Lublin and Mr. A. W. Bernton; and two Norwegian Ramsay Fellowships to Mr. Dag Nickelson, who will work at the Imperial College of Science and Technology, and Miss Milda Prytz, who will work at University College, London. A special Ramsay Fellowship of the value of £350, which was placed at the disposal of the National Research Council of the United States of America, has been awarded to Dr. C. S. Piggot, of Baltimore, who will begin work at University College, London, in October.

UNIVERSITY AND EDUCATIONAL NOTES

At the University of Missouri plans have been practically completed for the new agricultural building for which \$200,000 was appropriated by the last legislature. The building will constitute the center of the agricultural group, including the present agricultural and horticultural buildings, and will serve as the administration headquarters of the college of agriculture.

PROFESSOR M. JULES TISSOT, of the Paris Museum of Natural History, and Mme. Tissot have given 844,483 francs to the museum to endow the chair of physiology.

DR. CHARLES C. BASS has been elected dean of the school of medicine of Tulane University.

DR. H. H. LANE, for fourteen years professor of zoology at Oklahoma University, has been appointed head of the department of zoology at the University of Kansas. He succeeded Dr. B. M. Allen, who has gone to the Southern Branch of the University of California.

DR. WALDO SHUMWAY, assistant professor of biology at Dartmouth College, has been appointed associate professor of zoology at the University of Illinois.

DR. M. KHARASCH, who has held a National Research fellowship at the University of Chicago for the past three years, has been appointed associate professor of organic chemistry at the University of Maryland.

W. T. CHAMBERS, graduate student in the department of geography of the University of Chicago, has been appointed to a newly established instructorship in geography at the University of Tennessee.

MISS MARION BELL has been appointed biochemist in pediatrics and child welfare research at the University of Iowa.

PROFESSOR D. THODAY, of the University of Cape Town, has been appointed to the chair of botany, in succession to Professor R. W. Phillips, who retires after thirty-eight years' service.

J. A. S. WATSON has been promoted to the chair of agriculture and rural economy at Edinborough, in succession to Professor Robert Wallace, retired. Professor Watson was demonstrator in botany under Sir Isaac Bayley Balfour, afterwards continuing his studies in Germany, America, and Canada.

DISCUSSION AND CORRESPONDENCE

THE FOOD HABITS OF SWORDFISH

THE recent note of Mr. C. H. Townsend ("Swordfish Taken on Trawl Lines," *SCIENCE*, Vol. 56, p. 18) brings up the question of whether these fishes descend to considerable depths for food. On this point I have some evidence which may be worthy of record.

The late Captain John Toothaker of South Harpswell, Maine, was always very helpful to the Harpswell Laboratory, and would bring in from his trips any of the peculiar animals he found while sword fishing. Some years ago he turned over to me a couple of deep sea fishes which he had taken in a swordfish stomach. I have forgotten the genus and species, but both belonged to the Scopelidæ, and as I recall looking the matter up, the species had never been taken in less than 800 fathoms. The specimens were quite fresh and the digestive juices had hardly affected the integument, and the phos-