

theory in its relation to statistics and mathematics, will organize at least two symposia. The president, Professor Irving Fisher, will lead a symposium on "Money" and will present a paper. A symposium on "Demand" is also being organized.

Although no affiliated or associated societies are meeting with Section M (Engineering), the section plans two very interesting symposia; one on "Industrial Engineering" and the other on "Aerial Photography."

Every effort is being expended to make the Section N program one of the strongest in years. Several organizations are planning programs either of their own or with Section N. Among those meeting with the section are the Society for Experimental Biology and Medicine (Western New York Branch), Radio-

logical Society of America, the American Society of Bacteriologists (Central New York Branch), Onondaga County Medical Society and the Syracuse Academy of Medicine.

The northeastern section of the American Society of Agronomy is meeting for two days, one at Geneva and one at Cornell. This, in connection with the symposium on "Land Use" to be held at Syracuse will make a very attractive program for Section O (Agriculture).

Several symposia are under way for Section Q (Education). Definite announcements will be made regarding further activities of these sections in the immediate future.

CHARLES F. ROOS,
Permanent Secretary

SCIENTIFIC NOTES AND NEWS

THE sixty-eighth annual meeting of the National Academy of Sciences will be held in Washington on April 25, 26 and 27, 1932.

THE general meeting of the American Philosophical Society, Philadelphia, will be held on April 21, 22 and 23.

THE president of the fourteenth International Congress of Physiology writes that no change has taken place regarding the date fixed for the congress: August 29 to September 3, 1932, in Rome. In the near future members who have already completed and returned their registration cards will receive a second circular giving the latest information regarding the congress, membership card, reduced rate rail tickets and program.

DR. BENJAMIN KENDALL EMERSON, for forty-seven years professor of geology at Amherst College, died on April 7 at the age of eighty-eight years. Dr. Emerson became professor emeritus in 1917.

DR. WILHELM OSTWALD, long professor of physical chemistry at Leipzig, died on April 4, at the age of seventy-eight years.

AT the special convocation of the University of Durham in June next the degree of D.C.L. will be conferred on Sir Frederick Gowland Hopkins, professor of biochemistry in the University of Cambridge and president of the Royal Society.

DR. WILLIAM H. WELCH celebrated his eighty-second birthday on April 8.

DR. WALDEMAR LINDGREN, professor of geology in the Massachusetts Institute of Technology, was recently elected a foreign corresponding member of the Royal Swedish Academy of Sciences and of the Swedish Academy of Engineering Sciences, both of Stockholm.

DR. PHOEBUS A. LEVENE, of the Rockefeller Institute for Medical Research, New York, has been elected a corresponding member of the Bavarian Academy of Sciences.

DR. ALFRED F. HESS, professor of clinical pediatrics in the University and Bellevue Hospital Medical College, New York, has been elected a member of the "Deutsche Akademie der Naturforscher."

THE medal of honor for 1932 of the Institute of Radio Engineers, at its twentieth anniversary convention in Pittsburgh, was presented on April 8 to Past-president Arthur E. Kennelly, professor emeritus of electrical engineering of Harvard University and the Massachusetts Institute of Technology. The citation states that the medal is awarded to Dr. Kennelly "for his studies of radio propagation phenomena and his contributions to the theory and measurement methods in the alternating-current field which now have extensive radio applications."

THE editorial board of *The American Journal of Cancer* gave a dinner at the New York Athletic Club on April 5 in honor of Dr. Joseph Colt Bloodgood, professor of surgical pathology at the Johns Hopkins University and president of the American Association of Cancer Research, on the evening before his departure for a lecture tour in Europe.

DR. ALEXANDER OLIVER RANKINE, professor of physics in the Imperial College of Science and Technology, was elected president of the Physical Society, London, on March 19, at the annual meeting of the society. He succeeds Sir Arthur Eddington, whose name was added to the list of ex-presidential vice-presidents. Mr. T. Smith was elected a vice-president in place of Professor Rankine; the secretaries, foreign secretaries, treasurer and librarian were reelected,

and Professors J. A. Crowther, H. R. Robinson and G. F. J. Temple were new members elected to the council.

THE coordination of scientific terminology has been considered by a committee which met recently at the International Institute of Intellectual Cooperation, Paris. The committee consisted of Professor Cabrera (Madrid), chairman; Professor Cotton (Paris), representing the International Union of Physics; Professor Willstatter (Munich); Professor Lowry (Cambridge), representing the International Union of Chemistry; Professor Selys-Longchamps and Dr. Ledoux (Brussels), representing the International Union of Biological Sciences, and Professor Lombardi (Rome), representing the International Union of Electrotechnics.

DR. R. W. THATCHER, president of the Massachusetts State College at Amherst, has resigned owing to ill health, his resignation to take effect next September. After he has had the opportunity for rest he will become, early in 1933, research professor in the experiment station.

DR. E. K. MARSHALL, professor of physiology in the School of Medicine of the Johns Hopkins University, has been appointed professor of pharmacology and experimental therapeutics to fill the chair made vacant by the retirement of Dr. John J. Abel.

DUE to ill health, Dr. Jacob Diner has retired as the active dean of the College of Pharmacy, Fordham University, but will remain as dean emeritus. Dr. James H. Kidder has been appointed dean.

DR. HARRY B. VAN DYKE, professor of pharmacology, University of Chicago, has been appointed professor and head of the department of pharmacology at Peiping Union Medical College, Peiping, China, effective about August 1. Dr. van Dyke has been a member of the faculty of the University of Chicago since 1924.

DR. R. S. HUTTON, director of the British Non-Ferrous Metals Research Association, has been appointed the first Goldsmiths professor of metallurgy at the University of Cambridge.

MR. A. C. CARLTON has been appointed curator of geology and the mineral industries of the Museum of Science and Industry of Chicago.

DR. HELEN C. COOMBS, of the department of physiology of the New York Homeopathic Medical College, has received a grant of \$575 from the Committee on Scientific Research of the American Medical Association for the study of blood changes in experimental epilepsy.

DR. WENDELL C. BENNETT, assistant curator of an-

thropology at the American Museum of Natural History, has arrived in La Paz to undertake a study of the prehistoric ruins at Tiahuanacu and of other Bolivian ruins. Dr. John C. Phillips is collaborating with him.

MR. S. F. MARKHAM, secretary of the British Museums Association, is traveling in East and South Africa, making a survey of museums.

DR. ALFRED STURTEVANT, of the California Institute of Technology, will lecture on genetics and experimental zoology at the University of Birmingham during the autumn term, at the University of Leeds during the second term, and at Armstrong College, University of Durham, Newcastle, during the third term. Dr. Sturtevant is one of two lecturers appointed by the Carnegie Endowment for International Peace to be visiting members of staff in residence at British newer universities for the academic year 1932-33.

DR. CURT STERN has been appointed visiting professor of biology at Western Reserve University for the coming summer session June 20 to July 29. Dr. Stern will conduct a course on "Recent Advances in Genetics" and one on "The Genetics of *Drosophila*."

COLONEL CHARLES F. CRAIG, U. S. Army, retired, professor of tropical medicine and head of the department of tropical medicine at the School of Medicine, Tulane University, New Orleans, gave a Mayo Foundation lecture at the Mayo Clinic, Rochester, Minnesota, on March 29. His subject was "The Amoebiasis Problem."

THE annual Sigma Xi lecture at the Kansas State College, Manhattan, was delivered by Dr. Robert Hegner, professor of protozoology in the School of Hygiene and Public Health, the Johns Hopkins University, on April 5. He spoke on "Host-Parasite Relations of Human Protozoa."

MR. JOHN A. MALONEY, assistant to the director of the Museum of Science and Industry, Chicago, gave an illustrated lecture at the University of Illinois College of Medicine on April 6, on "The Museum of Science and Industry."

DR. M. C. MERRILL, chief of publications, U. S. Department of Agriculture, delivered an address on "What Your Government is doing to Enrich Rural Life" before the Brooklyn Institute of Arts and Sciences on April 1.

DR. LUDWIG PICK, honorary professor of pathological anatomy at the University of Berlin, will deliver the seventh Harvey Society Lecture at the New York Academy of Medicine on April 21. His subject will be "Pathological and Clinical Problems in the Study of Osteomalacia."

THE tenth William Thompson Sedgwick Memorial Lecture was given at the Massachusetts Institute of Technology on April 8 by Dr. William G. Savage, county medical officer of health, Somerset, England, on "Some Problems of Salmonella Food Poisoning."

THE first series of the Thomas W. Salmon Memorial Lectures, established in January, 1931, is being given by Dr. Adolf Meyer, Baltimore, on April 8, 15 and 22, at the New York Academy of Medicine on the general subject "Psychobiology." The Salmon Lectures were established in memory of Dr. Thomas W. Salmon, professor of psychiatry at Columbia University College of Physicians and Surgeons and first medical director of the National Committee for Mental Hygiene, who died on August 13, 1927. A fund of \$100,000 was subscribed to be administered by the New York Academy of Medicine.

THE Federation of American Societies for Experimental Biology will meet at the University of Pennsylvania, Philadelphia, from April 27 to 30 with headquarters at the Hotel Pennsylvania. On April 27 the members are invited to visit the laboratories of Jefferson Medical School, Hahnemann Medical College, Temple University School of Medicine and Women's Medical College of Pennsylvania. There will also be meetings of the executive committee of the federation and of the councils of the societies. On Thursday, April 28, at 10 A. M. there will be a joint session of the federation, followed by scientific and business sessions of the societies. On Friday, April 29, in addition to the scientific and business sessions of the societies there will be joint demonstrations and at 3:30 P. M. a general meeting of the American Society of Biological Chemists. At 7 P. M. the annual banquet of the federation will be held at the Hotel Pennsylvania. On Saturday, April 30, there will be scientific sessions and a joint session of the federation. Meetings of the following societies will be held, at which members of the federation who wish to attend will be welcome: The American Association of Pathologists and Bacteriologists, the American Association of Immunologists, the American Association for Cancer Research and the International Association of Medical Museums. The meetings of the American Association of Pathologists and Bacteriologists will continue through Thursday and Friday.

THE twenty-fifth annual meeting of the Illinois State Academy of Science will be held on Friday and Saturday, May 6 and 7, at the University of Chicago. The two-day sessions will comprise both general and sectional meetings as well as special inspection trips to the New Oriental Museum at the University of Chicago, the Field Museum of Natural History, the Adler Planetarium and the Shedd Aquarium. The

address of the retiring president, Dr. Fay-Cooper Cole, of the University of Chicago, on "The Coming of Man," will be delivered at 7:45 P. M. on Friday, May 6, immediately following the annual dinner of the society, which will take place at the Shoreland Hotel, near the university campus. The meeting will officially begin at 9:30 A. M. on May 6, when Dr. Robert Maynard Hutchins, president of the University of Chicago, will deliver the address of welcome, opening the general sessions at Mandel Hall, to which the public will be admitted. Dr. Cole will respond and will be followed by Dr. M. M. Leighton, chief of the State Geological Survey, who will speak on "Twenty-five Years of the Academy of Science"; other speakers on the general program will be Dr. J. Harlen Bretz, of the University of Chicago, whose address will be on "The Glacial History of the Chicago Region," and Dr. L. E. Sawyer, extension forester, of the State Natural History Survey, who will speak on "The National Forest Movement in Illinois."

THE ninth annual meeting of the West Virginia Academy of Science will be held at Concord State Teachers College, Athens, West Virginia, on April 29 and 30. A general session will be held on the morning of April 29, while the afternoon will be devoted to sectional meetings. In the evening an illustrated lecture will be given by the visiting speaker, Professor H. P. Robertson, of Princeton University. Saturday morning, following a brief business meeting, excursions will be made to points of interest in the vicinity of Athens.

THE Louisiana Academy of Sciences held its fifth annual meeting at Centenary College, Shreveport, on April 1 and 2. At the meeting of the academy last year it was voted that a gold medal be awarded for the best paper read before the academy at its annual meetings. This is the first year the medal has been awarded. Professor Hamilton Johnson, of the Louisiana State University, received the award for his paper on "A New Cycle of Operation for Internal Combustion Engines." The next meeting of the academy will be held at the Louisiana Polytechnic Institute at Ruston in the spring of 1933.

THE first and final accounting in the estate of Dr. Richard A. F. Penrose, who died last July, shows a balance for distribution of \$8,909,457. The account, filed in the Register of Wills' office, list disbursements aggregating \$1,238,057, of which inheritance taxes paid to the Commonwealth of Pennsylvania amount to \$903,509. Dr. Penrose's will, after giving \$25,000 to his secretary, \$85,000 in specific charitable bequests and making other small bequests, left the residue to be divided equally between the American Philosophical Society and the Geological Society of America. Each will receive approximately \$4,300,000.

THE condition of the Rockefeller Foundation's offer of \$6,000,000 for the construction of a model faculty of medicine in Paris was that a similar sum should be raised in France. It is said that there was every prospect until a few months ago that the necessary contribution would be forthcoming from the French Gov-

ernment in the form of a credit allocated under the national equipment plan voted by Parliament. No such provision was made, however, for the reason that agreement had not been reached on the question of where the proposed laboratory and other new buildings should be constructed.

DISCUSSION

THE FIFTH FLORIDA WHALE SHARK—1932

SINCE the capture of the fourth whale shark at Marathon, Florida, in June, 1923, reports have been coming in of others seen in the Keys and in the Gulf Stream between Miami and the Bahamas. However, all efforts to get definite information about these have been in vain. Recently an 18-foot specimen was taken off Miami and the facts have been gathered to make a new faunal record, the fifth for Florida waters and the seventh for that general locality—the Straits of Florida.

The first news of this fish that reached the American Museum was a telegram which simply read: "Huge shark captured here. Do you want it?" From my personal knowledge of Florida sharks, I judged this shark to be first a great hammerhead (*Sphyrna zygaena*), secondly a huge tiger (*Galeocerdo tigrinus*) and lastly and most improbably a whale shark. Hence I was not very much excited, and when the identity of the shark was ascertained twenty-four hours had passed and it was too late to do anything. However, as will be seen the skin has been preserved and will be mounted.¹

On January 18, 1932, Captain Thomas Gifford took a party of anglers in his boat out in the Gulf Stream off Miami for a day's fishing. About 2 P. M., while about 30 miles south of the entrance to Miami Harbor, the mate, James O'Neil, saw a large fish, and the vessel's course was set to intersect that of the shark. When the huge fish crossed the vessel's bow it was thought from its color to be a huge leopard or tiger shark (*Galeocerdo tigrinus*). But when Captain Gifford went out to the harpooning "pulpit" on the bowsprit he saw that it was a whale shark (*Rhineodon typus*) with which he and other Florida sailors are somewhat acquainted by reason of various captures of late years in the Florida Keys.

In the excitement over its great size (great in comparison with that of other Florida sharks) and the unusual coloring (vertical yellowish bars separating

vertical rows of large yellowish spots), the first throw went wild. The second, however, struck the whale shark in its most vulnerable part—the gill region. The harpoon—one used for striking sailfish—though bent, held, and the fish towed the boat a considerable distance out into the Gulf Stream. Presently, however, it began to weaken from loss of blood and to work toward shore. As it grew weaker, it was drawn up to the boat, lashed fast, and with much resistance was towed into the yacht basin at Miami. Later by means of block and tackle it was swung up clear of the water and photographs were made of it hanging clear.

The fish was harpooned in water about 25 feet deep in the edge of the Gulf Stream, but the capture was made near Beacon O, between Cape Florida and Sand Key, in water between five and ten feet deep. Like other Florida specimens this fish put up no fight other than to tow the boat around in trying to escape. Being of relatively smaller size (18 feet over all) and because of loss of blood by reason of being harpooned in the gills, it offered less resistance than larger specimens harpooned in the back, and was lashed to the boat for towing after about three hours' effort to escape. Three hours more were required to tow it into the yacht basin at Miami, some 25 miles distant.

Mr. Pflueger made a plaster cast of the fish while it was fresh and secured the skin. As noted there were excellent photographs made of the fish swung up by the tail. With the help of these things Mr. Pflueger plans to mount the skin in fashion as near to nature as possible.

The length is variously given as 17 feet, 8 inches, to 18 feet, 6 inches. Various estimates have been made of the weight of the fish, the liver and the heart; but, as they are all merely estimates, they will be disregarded. Mr. Pflueger opened the stomach but found therein nothing but seaweed and a great quantity of partly digested and hence unrecognizable food material.

This is the fifth Florida whale shark and the seventh for this general region—the Straits of Florida. The first specimen (18 feet long) came ashore on Ormond Beach on January 25, 1902. The second (32 feet long) was taken near Knight's Key in May, 1912.

¹ For the information and for photographs of the fish on which this note is based I am indebted to my friends, Commodore R. M. Munroe of Cocconut Grove and Mr. John Mills of Miami, and to Mr. Albert Pflueger taxidermist and naturalist of Miami.