neer of the American Telephone and Telegraph Company, retired, died on December 27 at the age of seventy-one years.

DR. EDWIN CHAPIN STARKS, who recently retired as associate professor of zoology at Stanford University, died on December 30 at the age of sixty-five years.

DR. THEODOR HOLM, known for his work on Arctic botany and on plant anatomy, died in Washington, D. C., on December 26 at the age of seventy-eight years.

DR. GEORGE FETTEROLF, professor of otolaryngology at the University of Pennsylvania, died on December 29 at the age of sixty-three years.

LEON R. STREETER, chief in research, in charge of the chemical work on fungicides and insecticides of the division of chemistry, New York State Agricultural Experiment Station, died on December 26, aged thirty-eight years.

DR. WILLIAM A. LAFIELD, professor of radiology at Yale University, committed suicide on December 26. He was fifty-two years old.

DR. ERNEST HOWE, consulting mining geologist, an editor of the *American Journal of Science,* died on December 18. Dr. Howe was fifty-seven years old.

FRANK W. SKINNER, consulting engineer of New York City, died on December 26 at the age of seventy-four years.

DR. ALLAN DOUGLAS RISTEEN, director of technical research and editor of safety publications for the Travelers Insurance Company of Hartford, Connecticut, died on December 30 at the age os sixty-six years.

JOHN H. STEVENS, chemical expert for the Celluloid Corporation of Newark, New Jersey, died on December 4. He was seventy-nine years old.

W. H. FRY, of the Division of Soils of the U. S. Department of Agriculture, died suddenly at the age of forty-four years on December 28.

SIMON WILLIAM DYKSHORN, assistant at the experimental laboratories of the Carnegie Institution of Washington at Cold Spring Harbor, while hunting for scientific purposes, shot himself fatally on December 25. He was twenty-seven years old.

DR. GEORGES HARET, head of the radiology department at Lariboisière Hospital, Paris, died on December 20, as a result of x-ray burns incurred in the course of his work. He was fifty-eight years old.

MEMORIALS

THE centenary of the birth of Julius von Sachs, the German botanist who founded plant physiology as a modern experimental science, was celebrated during the Atlantic City meeting of the American Association for the Advancement of Science. The memorial program on December 28 was led by Professor D. H. Campbell, of Stanford University, representing the Botanical Society of America; Professor Rodney H. True, of the University of Pennsylvania, representing the American Society of Plant Physiologists, and Professor C. E. Allen, of the University of Wisconsin, representing the botanical section of the American Association for the Advancement of Science.

THE Johns Hopkins University Institute of the History of Medicine commemorated on December 20 the three hundredth anniversary of the birth of Antony Van Leeuwenhoek, 1632–1723. Dr. William H. Welch, formerly director of the institute, gave an illustrated lecture on Van Leeuwenhoek and his work. A film, made especially in Holland to commemorate the tercentenary, was shown. There was also an exhibit of illustrative books, documents and instruments.

To commemorate the bicentenary of the birth of Sir Richard Arkwright, inventor of the yarn spinning frame, the Newcomen Society arranged a public lecture which was delivered on December 14 by Mr. Frank Nasmith.

THE University of Manchester has received from Mrs. R. W. Williamson a portrait in oils of her father-in-law, the late Professor W. C. Williamson, who was in charge of the teaching of zoology, botany and geology in Owens College from 1851 until 1892.

SCIENTIFIC EVENTS

THE YEAR AT THE FIELD MUSEUM OF NATURAL HISTORY

DESPITE enforced economies, due to reduction of its income from endowment and other sources because of the depression, Stephen C. Simms, director of the Field Museum of Natural History, reports that the museum maintained full service to the public during 1932, and its educational benefits were extended to a greater number of persons than in any previous year of its history.

While extra-mural activities such as scientific expeditions were curtailed, the museum carried on a full program of installing new exhibits and making general improvements, presenting free courses of illustrated lectures on science and travel for the general public, maintaining manifold educational activities for school children both at the museum and by extension work in the schools of Chicago, and issuing scientific publications.

A total of more than 1,800,000 persons have visited

the museum during the year. This is the largest attendance of any year, and represents an increase of nearly 300,000 or about 20 per cent. over the 1931 total of 1,515,540 visitors. The year 1932 was the sixth in which attendance has exceeded 1,000,000; and the total for the past five years has been more than 6,840,000, or approximately 1,000,000 more than the 5,839,579 visitors received in the entire twenty-five years during which the museum has occupied its first building in Jackson Park.

The outstanding new exhibit completed during the year is a reproduction of an African water-hole, a group with twenty-three mounted mammals, including giraffes, rhinoceroses, elands, gazelles, zebras and an oryx. This is the largest exhibit in the museum, and is one of the largest animal groups in any museum, possibly exceeding all others in size. Other groups of animals with reproductions of their natural habitats which were completed during 1932 include Alaskan caribou, Asiatic water buffalo, and the mountain lion of states west of the Rockies. In addition to such groups, many other new zoological exhibits were installed, while each of the other departments—anthropology, botany and geology—made notable additions and improvements among their exhibits, especially in the divisions of Chinese archeology, paleontology or historical geology, and in the Hall of Plant Life.

More than 265,000 persons attended the lecture courses and lecture tours provided by the museum for adults, and the series of motion picture programs, extension lectures, and other activities for school children given by the James Nelson and Anna Louise Raymond Foundation for Public School and Children's Lectures (the foundation is a unit of the museum organization with special endowment). Likewise, the more than 1,300 traveling exhibits of the N. W. Harris Public School Extension Department, another specially endowed unit, were circulated continually throughout the school year among public and private schools of Chicago with a total enrolment of about 500,000 children. A large public was served also by the library of the museum and the study collections of specimens maintained in each department.

ADVANCED STUDIES IN ENGINEERING AND BUSINESS FOR DISENGAGED ENGINEERS

LEADERS in industry, engineering and education are sponsoring "Advanced Studies in Engineering and Business for Disengaged Engineers" to be given during the winter and spring under the auspices of the Engineering Foundation, according to an announcement made by H. Hobart Porter, chairman of the foundation. The courses will be conducted by unemployed or volunteer teachers under the supervision of members of the faculties of Columbia University, New York University, Stevens Institute of Technology and the Polytechnic Institute of Brooklyn. The business courses will be directed by members of the faculty of the School of Commerce of New York University.

The curriculum embraces six courses. Sessions are to be held in the forenoon beginning on January 9 and will continue for twenty weeks to the end of May. The opportunity is open to unemployed engineers who have the requisite education for pursuing the work.

These are free and deal with business finance, sales engineering, power plant engineering, structures and mechanical equipment of buildings, industrial applications of electricity and industrial management. Rooms for class use will be made available in the Engineering Societies Building and the Engineering Societies Library will place text and reference books at the disposal of class members. Requests for application blanks should be addressed to P. H. Littlefield, manager, in care of the Engineering Foundation, 29 West 39th Street, New York City. The movement is sponsored by the following:

Robert P. Lamont, president, American Iron and Steel Institute; A. G. Pratt, president, Babcock and Wilcox Company; Robert Ridgway, consulting engineer, Board of Transportation of New York City; Alfred P. Sloan, president, General Motors Corporation; Morse A. Cartwright, director, Association for Adult Education; Dean J. W. Barker, Engineering School, Columbia University; Dean Collins P. Bliss, Engineering School, New York University; Dean John T. Madden, School of Commerce, New York University; Dr. Harvey N. Davis, president of Stevens Institute of Technology, Hoboken, New Jersey; Dean E. J. Streubel, Polytechnic Institute of Brooklyn; H. A. Kidder, president, United Engineering Trustees, Inc.; H. Hobart Porter, chairman, Engineering Foundation; Admiral F. R. Harris, general chairman, Professional Engineers' Committee on Unemployment; George T. Seabury, secretary, American Society of Civil Engineers; A. B. Parsons, secretary, American Institute of Mining and Metallurgical Engineers; Calvin W. Rice, secretary, American Society of Mechanical Engineers, and H. H. Henline, acting national secretary, American Institute of Electrical Engineers.

AWARD OF THE PERKIN MEDAL TO MR. OENSLAGER

GEORGE OENSLAGER, of Akron, Ohio, whose researches are said to have revolutionized the rubber industry, will be presented with the 1933 Perkin Medal of the Society of Chemical Industry at a national gathering of the chemical societies on the evening of January 6 at the Electrical Institute Auditorium, Grand Central Palace, New York City.

The award goes to Mr. Oenslager as "the American scientist who has most distinguished himself by his