

SAMUEL TAYLOR DARLING

1872-1925

SAMUEL TAYLOR DARLING, who met with a fatal automobile accident while traveling as a member of the League of Nations Malaria Commission near Beirut, Syria, on May 20, 1925, was for twenty years one of the foremost American students of tropical medicine, especially in the field of medical zoology.

Dr. Darling was of English parentage and came from a long line of clergymen. Early in life he exhibited that independence of thought and action which contributed so largely to his later success. After trying out several fields he decided upon medicine as a career and attended the College of Physicians and Surgeons at Baltimore, where he received his degree in 1903 with the honor medal for highest rank in a class of over seventy. The following two years he spent as resident pathologist in the Baltimore City Hospital. Dr. Darling considered himself primarily a pathologist, although he designated his field as tropical medicine in "American Men of Science." However, he will be known to the scientists of the future as a medical zoologist since almost all his published work is on this subject. The stimulus for these investigations in medical zoology was received at Panama. Already in 1903 he showed promise of being an investigator by publishing a paper on typhoid orchitis. He was appointed intern and physician in the Ancon Hospital in the Panama Canal Zone in 1903. Here he exhibited the qualities that led to his being made chief of the laboratories of the Isthmian Canal Commission in 1906; a position he held until 1915.

During the ten years Dr. Darling was in Panama, he became interested in various parasitic organisms that cause disease in man and animals. He observed three cases of histoplasmosis (1906) the causative organism of which he thought to be a protozoon, but which was later found to be a fungus. He then became interested in sarcosporidia and described various species, one of which, from the opossum, was named by Brumpt in his honor, *Sarcocystis darlingi* in 1913. Two of the very few authentic cases of sarcosporidia in man were reported by Darling (1909 and 1919) and the "blind alley" theory which he proposed to account for their presence is now generally accepted. It will be impossible in the space available to comment critically on all of the important work done by Darling in Panama. Soon after reaching the Canal Zone he began studying malaria and published a number of papers dealing with both the malarial organism and its mosquito vectors. Among the other subjects dealt with in his publications of this period are relapsing fever (1909), trypanosomiasis in horses

(1910, 1911, 1912), leishmaniasis (1910, 1911), intestinal helminths (1911), Haemoproteus and haemogregarines (1912), *Linguatula serrata* (1912), anaphylactic serum disease (1912), Endamoebae (1912, 1913), anthrax (1912), piroplasmosis (1913), beriberi and scurvy (1914), Endotrypanum (1914) and arteritis syphilitica obliterans (1915).

In 1913-1914 Dr. Darling was selected to accompany General Gorgas on a sanitary mission to the Rand Mines and Rhodesia, South Africa, where his expert opinion was desired in connection with the high mortality of workers in the diamond mines. In 1915 Darling joined the staff of the International Health Board of the Rockefeller Foundation and continued with this organization until his death. His first project while a member of this board was to head a medical commission which from 1915 to 1917 studied the causes of anemia among the people of Malaya, Java and Fiji. Part of the results of the work of this commission are contained in a book of 191 pages published in 1920 in collaboration with M. A. Barber and H. P. Hacker on "Hookworm and Malaria Research in Malaya, Java and the Fiji Islands." Several other investigations on hookworm disease were carried on by Darling especially on mass treatment (1920, 1922) and on the geographical and ethnological distribution of hookworms (1920). On his return from the Far East, Darling was sent to Sao Paulo, Brazil, where he served as professor of hygiene and director of the Laboratories of Hygiene in the Medical School. Here he established an excellently equipped laboratory for teaching and investigation and carried on work principally with hookworm disease and malaria. He was forced by illness in 1920 to return to the United States, where he became fellow by courtesy in the department of medical zoology of the School of Hygiene and Public Health of the Johns Hopkins University.

In 1922 Darling established for the International Health Board a field laboratory for the investigation of malaria at Leesburg, Georgia. Here for the following three years he did some of the best work of his life both as an investigator and as a teacher, since many young men were sent to his laboratory to obtain training in field work before proceeding to various parts of the world as field directors of malaria control campaigns.

Dr. Darling was an honorary fellow of the Royal Society of Tropical Medicine and Hygiene, London; the only other American so honored was General Gorgas. He was to have delivered the annual address to this society in June. He took an active part in various societies. He was president of the Canal Zone Medical Association in 1908, fellow of the Amer-

ican Medical Association, president of the American Society of Tropical Medicine, 1924-1925, vice-president of the American Society of Parasitologists, 1925, a member of the National Malaria Committee and a corresponding member of various foreign societies. In 1923 he was given the honorary degree of doctor of science by the University of Maryland Medical School and the medal of merit was bestowed upon him posthumously by the Lebanon Government of Syria.

A review of Darling's published work does not adequately represent his activities since he worked on a number of problems about which he did not publish. To accomplish what he did in twenty years of scientific work required perseverance and industry such as is exhibited by very few scientists. Those who were so fortunate as to have worked with Dr. Darling learned to know him as an independent leader, a most charming and interesting companion and an investigator of the highest ideals. Mrs. Darling has very kindly presented Dr. Darling's library, which contains large numbers of books and reprints on medical zoology and allied subjects, to the department of medical zoology, of the School of Hygiene and Public Health of the Johns Hopkins University, where it will be known as the Samuel Taylor Darling Library and will constitute a fitting memorial for one who did so much to further the progress of scientific work in medical zoology.

R. W. HEGNER

THE JOHNS HOPKINS UNIVERSITY

SCIENTIFIC EVENTS

THE CENTENARY OF THE INVENTION OF PHOTOGRAPHY

ACCORDING to a cable to the *Christian Science Monitor* by Sisley Huddleston, the International Congress of Photography celebrated on June 29 and throughout the week the one hundredth anniversary of the French discovery of the photographic methods by Joseph Nicéphore Niepce. On June 30 a commemorative plaque to Louis Daguerre was unveiled and a reception held at the Hotel de Ville. On July 2 there was a meeting at the Sorbonne, with President Doumergue present, under the chairmanship of von Delbos, secretary of technical instruction. Among other functions was the opening of a retrospective exhibition of photography by Paul Leon, director of fine arts. By order of the government, the centenary was observed in the schools, where lessons were given on the subject of Niepce. Great interest was taken in the occasion and the newspapers emphasized the part taken by France in modern progress.

Nicéphore Niepce, the French savant, was born at

Chalon-sur-Saone in 1765. He devoted himself with his brother Claude to natural scientific study. It was the development of the lithographic process of printing in 1811 which interested him in the reproduction of designs.

His first experiments with a sheet of tin covered with a composition sensitive to the action of light, on which he placed designs, were simple. He employed a dark room, but his main preoccupation was the search for suitable chemicals. He utilized a box with a hole admitting light, this being the precursor of the camera. M. Daguerre, working in association with him, perfected the appliances. It was not, however, until 1841 that the Daguerreotype was drastically improved, and a few years later photographs on glass were made and albumen employed.

There were many workers in the same field from the second quarter of the nineteenth century onward, but it is agreed that the greatest innovators were Niepce and Daguerre. Both were poor and remained poor, though they have since made the fortunes of many others.

Now that photography has become an art and has brought about the cinema, with possibilities hitherto unsuspected, France is doing honor to a neglected pioneer.

THE ANNUAL MEETING OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

THE annual meeting of the American Institute of Electrical Engineers was held at Saratoga Springs, N. Y., from June 23 to 26, with an attendance of more than 900. A well-diversified program was carried out, and several new and interesting developments were recorded. The meeting was notable for the manner in which the technical committee reports were presented and discussed and for the discussions of papers presented at the technical sessions. Outstanding topics that were reviewed concerned the best distribution system to use, the status of cables, developments in oil breakers and new features of transformers. New tools described and discussed included the quadrant electrometer or electrostatic wattmeter, an oscillograph for measuring transients and the klydonograph for measuring line disturbances.

Inspection trips filled the afternoons, an especially noteworthy excursion being made to the General Electric Company's works at Schenectady. Excursions by motor and train to Lake George and other scenic points were also well attended.

At a "feature" meeting on Thursday evening Director W. E. Wickenden, of the Society for the Promotion of Engineering Education, gave an address covering his impressions of European educational