

and when published reports are so phrased as to make explicit reference of observed items to their proper class, and explicit statement that such and such elements were not determined.

W. M. D.

#### JAMES CARROLL

MAJOR JAMES CARROLL, Surgeon U. S. A., died at his home in the city of Washington on September 16, after an illness of about seven months.

Major Carroll was born in England June 5, 1854. When about fifteen years of age he emigrated to this country, and on June 9, 1874, enlisted in the United States army, and served as private, corporal, sergeant and hospital steward from that date to May 21, 1898, when he was appointed an acting assistant surgeon.

While still a soldier he began the study of medicine at the University of the City of New York during the session 1886-7. After a break of a year he resumed his medical studies in Baltimore at the University of Maryland, 1889-91, and received his degree from that institution.

He was appointed first lieutenant, assistant surgeon, in the medical corps, October 27, 1902, and promoted to the grade of major-surgeon, by special act of congress March 2, 1907, on account of his services in connection with the discovery of the mode of transmission of yellow fever, and the courage shown by him in subjecting himself to experiment with a view to demonstrating the method of transmission by a mosquito.

Doctor Carroll's was the first experimental case of yellow fever. He suffered a very severe attack to which he attributed a heart trouble, which finally caused his death.

Doctor Carroll's interest in the subject of yellow fever did not cease with the discovery of the method of its transmission, but he continued to make many independent contributions to the literature on the subject.

The Havana Yellow Fever Commission, appointed upon the recommendation of Surgeon General Sternberg, U. S. A., in 1900, consisted of Major Walter Reed, Surgeon, U. S.

A.; Dr. James Carroll, Dr. Jesse W. Lazear and Dr. A. Agramonte. The death of Dr. Carroll leaves Dr. Agramonte, a Cuban physician, as the only surviving member of the commission.

The bacteriological and experimental investigations of the commission were to a large extent conducted by Dr. Carroll. During Major Reed's absence in the United States the inoculations by means of infected mosquitoes were begun.

On August 11, 1900, Dr. Lazear made the first experiment, but nine distinct inoculations on persons, including himself and Acting Assistant Surgeon A. S. Pinto, were unsuccessful. We know now that these failures were due to two facts—first, that patients after the third day of the disease can not convey the infection to the mosquito, and second, that after having bitten a yellow-fever case the mosquito can not transmit the disease until after an interval of at least twelve days. On August 27 a mosquito was applied to Dr. Carroll which happened to fulfil both of these conditions. The result was a very severe attack of yellow fever in which for a time his life hung in the balance.

G. M. S.

#### SCIENTIFIC NOTES AND NEWS

THE Silliman lectures by Professor William Bateson will be given in the Peabody Museum at Yale University on October 8 and the following days. The subject of the course is "The Problems of Genetics."

THE Herter Lectures before the Medical Department of the Johns Hopkins University will be given this session by Edward A. Schäfer, LL.D., F.R.S., professor of physiology in the University of Edinburgh, at the end of April, 1908. The Turnbull Lectures on poetry will be delivered by Professor A. V. Williams Jackson, of Columbia University, on Persian Poetry, probably in February.

PROFESSOR OTTO PFLEIDERER, of the University of Berlin, began a series of six lectures in German on "The German Philosophy of Religion," at Harvard University, on September 30.

THE HON. James Mackintosh Bell, director of the New Zealand Geological Survey, will lecture at Harvard University on October 11 on "Travel in Little Explored Parts of New Zealand."

DR. W. McM. WOODWORTH, of the Museum of Comparative Zoology of Harvard University, has undertaken to edit the proceedings of the Seventh International Zoological Congress.

THE London *Times* states that the Flückiger gold medal has been awarded to Professor Edouard Heckel, the director of the Colonial Institute at Marseilles. The medal was founded by Dr. F. A. Flückiger, of Strasburg, in 1893, and is awarded every five years, in recognition of steps taken to promote the advancement of scientific pharmacy, irrespective of nationality. Mr. E. M. Holmes, the curator of the museums of the Pharmaceutical Society of Great Britain, received the first medal, and the second was presented to Dr. C. Schmidt, of Marburg.

CAPTAIN JAMES M. PHALEN and Lieutenant Henry J. Nichols, assistant surgeons, U. S. Army, have been appointed members of the army board for the investigation of tropical diseases, replacing Captains Percy Ashburn and Charles F. Craig, assistant surgeons, who have been ordered to return home, their tour of duty on foreign service having expired.

DR. HAROLD L. LYON has resigned his position as assistant professor of botany at the University of Minnesota to accept a position as assistant director of the pathological laboratory on the experiment station maintained by the Hawaiian Sugar Planters' Association, at Honolulu.

MR. HOMER D. HOUSE has resigned the associate professorship of botany and bacteriology in Clemson College, South Carolina, and will spend the coming year at the New York Botanical Garden.

MR. EDWARD C. JOHNSON, formerly assistant in botany at the University of Minnesota, has been appointed assistant pathologist in the Department of Agriculture.

PROFESSOR HENRY S. MUNROE, head of the department of mining of Columbia University, has returned, after a five-months' trip in South America. He spent most of his time in Bolivia.

PROFESSOR CHARLES HARRINGTON, of the Harvard Medical School, attended the Congress of Hygiene and Demography, which met at Berlin at the close of September.

DR. JAMES G. HARDY, professor of mathematics at Williams College, and Dr. H. F. Clelland, professor of geology, have been given leave of absence for the second half of the present academic year.

THE autumn lectures at the New York Botanical Garden will be delivered in the lecture hall of the museum building of the garden, Bronx Park, on Saturday afternoons, at 4 o'clock, as follows:

October 5—"The Salton Sea and its Effect on Vegetation," by Dr. D. T. MacDougal.

October 12—"Collecting Fungi in the Wilds of Maine," by Dr. W. A. Murrill.

October 19—"The Forms and Functions of Leaves," by Dr. C. Stuart Gager.

October 26—"The True Grasses and their Uses," by Mr. George V. Nash.

November 2—"The Giant Trees of California: their Past History and Present Condition," by Dr. Arthur Hollick.

November 9—"The Progress of the Development of the New York Botanical Garden," by Dr. N. L. Britton.

November 16—"Edible Roots of the United States," by Dr. H. H. Rusby.

PROFESSOR LEVESON FRANCIS VERNON HARCOURT, emeritus professor of civil engineering at University College, London, died on September 14, at the age of sixty-eight years.

THE U. S. Civil Service Commission announces an examination on October 16-17, to fill vacancies as they may occur in the position of scientific assistant in the Department of Agriculture, at salaries ranging from \$840 to \$2,000 per annum, depending upon the experience and qualifications of appointees. As a result of this examination certification will be made to fill two vacancies in the position of scientific assistant in rural engineering (road

making), Department of Agriculture, at \$840 per annum. The department also desires to secure one or two scientific assistants in animal husbandry who are qualified in the special branch of horse industry.

THE British government has made an additional grant of \$2,500 a year to the Liverpool School of Tropical Medicine, making \$5,000 a year for five years.

A PASTEUR INSTITUTE was opened at the University of Minnesota in August, and has been under the charge of Dr. Orinna McDaniel. Seventeen persons have received treatment for threatened rabies.

IN a note on additions to the Zoological Garden, the London *Times* states that in point of importance, from a scientific point of view, three young Chinese alligators (*Alligator sinensis*) undoubtedly head the list. Up to 1879 it was generally believed that alligators were confined to the New World, though in 1870 Swinhoe established the existence of a saurian in the Yang-tsze-kiang, which he described as "a young crocodile about 4 feet long." Nine years later, however, M. Fauvel, a French official of the Chinese Customs, published an account of the animal, which proved to be an alligator, closely allied to the well-known species of the Southeastern United States, known as the Mississippi alligator, from which, however, it differs considerably in its much smaller size. The coloration of the upper parts is greenish black, with yellowish vermiculations, and greyish below. According to M. Fauvel this reptile was the origin of the mythical dragon of the Chinese. In 1880 stuffed specimens reached this country; two living examples were received at the Zoological Gardens in 1890, of which one is still alive, and two were exhibited at Frankfort-on-the-Main in the same year. From that time, however, no living examples appear to have been imported till now. The gayal herd in the cattlesheds has been increased by the birth of a calf, which is of good augury, for before the arrival of the small herd in April last these animals had not been represented in the collection for some time. A young clouded

leopard (*Felis nebulosa*) has been received and placed in the small mammals' house. Although usually reckoned among the larger cats, the name "tiger," formerly applied to this animal, conveys an erroneous impression, for its size does not exceed that of a small leopard. There is a good deal of variation in the ground-color of the fur, which ranges in different individuals from greyish to yellowish brown, fading into white on the under-surface. The new arrival belongs to the dark form, and is said to have come from Sumatra. Two rare monkeys have been received and placed in the insect house. One is the red-faced ouakari (*Brachyurus rubicundus*), an entirely arboreal species from the region of the Amazon; it is of small size, with a short tail. The fur is reddish-brown in hue, and the face a deep red, as is suggested in the popular name. A red-eared guenon (*Cercopithecus erythrotus*) may be readily distinguished by the color of the inside of the ears, and perhaps more readily by the red nose-spot.

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#### UNIVERSITY AND EDUCATIONAL NEWS

THE state legislature has appropriated for the Michigan College of Mines, at Houghton, \$75,000 for a library and museum building and \$43,000 for a new central heating and power plant.

FOLWELL HALL, erected for the University of Minnesota at a cost of \$415,000 for the work of the College of Science, Literature and Arts, was opened at the beginning of the present academic year. The new building for the agricultural department, erected at a cost of \$250,000, was opened during the summer.

MRS. W. G. FARLOW has given \$1,000 to Radcliffe College, Harvard University, the interest of which is to be used for the purchase of scientific and mathematical books for the library.

THE Lowell Institute, in cooperation with Harvard University, will offer during the current academic year two free courses of lectures corresponding closely in subject matter, methods of instruction, examinations and