OBITUARY

GEORGE PETER DREYER

GEORGE P. DREYER was born in Baltimore, September 22, 1866, and until 1900 his life was spent in that city. He was educated in Baltimore City College and in the Johns Hopkins University. Following his A.B. degree from Hopkins in 1887, he was fellow in physiology during '88 and '89 under the distinguished physiologist, Newell Martin, and received his Ph.D. degree in 1890.

Dr. Dreyer's early intention was to study medicine, but his contacts at Hopkins with Martin, and later with Howell, definitely brought him to decide on physiology as a career; a decision which he never regretted. He valued highly the acquaintances made in those earlier days. Such men as Henry Sewall, E. G. Conklin, T. H. Morgan, A. C. Abbott, C. W. Greene, Percy Dawson, Joseph Erlanger and David Lingle left pleasant and lasting memories.

From 1890 until 1900 he was associate professor at his Alma Mater, and during this time he became the master of physiological technique and manipulation for which he was justly famous. No one ever saw Professor Dreyer operate without admiring his skill. As a teacher he was as successful as he was technically skillful. His demonstrations were uniformly successful, and accomplished with a facility which often hid the actual difficulties. His first humiliation occurred when he had to use spectacles to catheterize Wharton's duct. While he accepted this premonition of approaching age philosophically, he frequently spoke of it.

In 1900 Dr. Dreyer came to Chicago as professor of physiology and physiological chemistry in the College of Physicians and Surgeons, which had formed an affiliation with the University of Illinois. The conditions were far from ideal and far from what he had anticipated. The affiliation proved to be loose and was soon broken, and for a time, the College of Physicians resumed its proprietary status. During the interim Dr. Dreyer remained, hoping for a reunion which would bring university standards, conditions and ideals. Satisfactory conditions, however, were not established until about 1915, and to make these conditions operative Dr. Dreyer assumed the office of dean. In this office he developed university working conditions and ideals for others, but at the cost of his health and with the sacrifice of research for many years. While acting as dean, he suffered an attack of pneumonia, followed by empyema, which left him physically incapacitated for more than a year. While he was afterwards mentally alert and able to resume professional duties, he had not the physical stamina demanded for research. Until the time of his death on February 27, he was compelled to avoid unnecessary exertion and to adopt measures to retain and to promote health.

As a health-promoting measure, as well as from actual pleasure, he spent much of his leisure time in gardening, and the flower garden of his suburban home was the rendezvous of amateurs and friends.

Dr. Dreyer was a pioneer physiologist in Chicago; when he came many men on the Atlantic seaboard could visualize only vulgarity and incivility west of the Alleghenies. So far as physiology was concerned this was "pragmatically" true. Only Jacques Loeb, at Chicago, and Winfield Scott Hall, at Northwestern, had preceded him. A. P. Mathews, David J. Lingle, George Neil Stewart, C. C. Guthrie and Alexis Carrel soon followed. All these men bore the burden and worked in the heat of the day, but none of them were exposed to the disruptive ultra-violet rays as was Dreyer. An ancient prophet said that old men dream dreams, and the young men see visions. Dreyer was young and had vision, and Chicago to-day is physiologically what he hoped it would be. His only regret was that he was unable to contribute more to his chosen profession. His best known research was the discovery of secretory nerves to the adrenal glands, and his work on blood proteins and differential respiration. In 1899, by using large quantities of the adrenal venous blood, he was able to give the first convincing proof that the blood pressure raising principle is actually secreted into the blood flowing from the gland. His findings were afterwards fully confirmed by other workers. More important than his discoveries were his generous aid to others, and the preparation of the field for others to reap where he sowed.

Within the past two years, he devoted much time to planning a new laboratory in which he hoped to again resume research work. He lived to see this laboratory almost ready for occupancy, but after thirty years in the wilderness of promise he was allowed to see but not to enter, the promised land.

During his thirty years' service to the University of Illinois, Professor Dreyer came in contact with thousands of students and graduates. He was known to them as a great teacher, a profound student, a gentleman and a friend.

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RECENT DEATHS

DR. L. H. PAMMEL, professor of botany since 1889 at the Iowa State College, died on March 23, while returning from a winter in California. Dr. Pammel was in his sixty-ninth year.

DR. JOHN EDGAR TEEPLE, consulting chemist, known for his work in the development of the potash industry in the United States, died on March 23, at the age of fifty-seven years.

EDWARD DWIGHT PRIEST, designing engineer in the railway department of the General Electric Company, with which he was connected for thirty-four years before his retirement in 1926, died on March 26.

SCIENTIFIC EVENTS

AUSTRALIAN VITAL STATISTICS

THE Sydney correspondent of the *Journal* of the American Medical Association reports that at the end of 1929 the population of Australia reached the total of 6,414,372. The rate of growth during 1929 was 1.22 per cent. and for the ten years 1.92 per cent., which is probably the highest rate of increase in the world. Excess of births over deaths contributed 70.5 per cent. of the total increase, and net immigration 29.5 per cent. The density of population of Australia is only 2.16 persons per square mile, and varies from one person per hundred square miles in the Northern Territory to 20.22 persons per square mile in Victoria.

The birth rate for 1929, 20.31 per thousand of population, was the lowest ever recorded. Compared with many other countries the Australian rate is low, but it is fortunately accompanied by a low death rate, giving a rate of natural increase that is equaled in few countries. Extranuptial births numbered 4.70 per cent. of all births registered. The proportion of multiple births is one case of twins in every 98 confinements and one of triplets in 14,242 confinements. The average number of children per mother was 2.96, against 2.99 in 1928.

During the year, 60,857 deaths were registered, corresponding to a rate of 9.55 per thousand of the population. This rate was slightly above the average of the previous five years, but nevertheless compares most favorably with other countries. The principal causes of death were: heart diseases, 15.3 per cent.; cancer, 10.3 per cent.; violence, 6.0 per cent.; cerebral hemorrhage, 5.8 per cent.; tuberculosis, 5.7 per cent.; nephritis, 5.6 per cent.; pneumonia, 4.9 per cent. The number of deaths in childbirth was 5.1 per thousand children born. The infant mortality rate for Australia (deaths of children under the age of 12 months) per thousand children born was 51. This rate is the lowest ever recorded in Australia and is, with the exception of New Zealand, the lowest in the world. The rate for New Zealand is 34.

THE PACARAIMA-VENEZUELA EXPEDITION

MEMBERS of the American Museum of Natural History, the American Geographical Society and the New York Botanical Garden are organizing an expedition to the unexplored uplands of southern Venezuela. The plans for this undertaking, which is scheduled to begin the middle of August, provide for a comprehensive scientific survey of the region. In order to facilitate the administrative and executive details of organization a membership corporation has been formed under the title "The Pacaraima-Venezuela Expedition Inc." At the first meeting of the board of directors Mr. H. E. Anthony, curator of the department of mammalogy of the American Museum of Natural History, was elected president of the corporation; Dr. H. A. Gleason, curator of the New York Botanical Garden, vice-president; R. R. Platt, head of the department of Hispanic-American research of the American Geographical Society, secretary, and Fred H. Smith, bursar of the museum, treasurer. The expedition will be led by staff members from the three institutions above mentioned. Those taking part are: Leader, Mr. H. E. Anthony; assistant leader, Mr. G. H. H. Tate, geologist, who has been on seven expeditions to South America for the American Museum; C. C. Graves, formerly of the Field Museum of Natural History expedition to Alaska and the Arctic, geologist; W. B. Miller, Jr., who has traveled in southwest United States, west and southwest Venezuela and northern Rhodesia, topographer and geologist; C. B. Hitchcock, who has already been to Venezuela, botanist; A. C. Smith, acquainted with Peru and Brazil, chief pilot and topographer; G. A. Thorn, aerial photographer and pilot; A. C. McKinley, an assistant aeroplane mechanic, and C. Broten, the three last mentioned having been members of the Byrd Expedition.

The region of exploration consists of about 40,000 square miles at the headwaters of the Orinoco River between Mt. Roraima, a sandstone table-mountain at the junction of Venezuela, British Guiana and Brazil, and Cerro Diuda, a mountain similar to Mt. Roraima, about 400 miles south, on the upper Orinoco. The expedition plans to map this region by means of aerial photography; to outline its physiography and geology; to make collections of its animal and plant life and to study the Indian tribes.

The plan of the expedition has been presented to General Gomez, President of Venezuela, who is in complete sympathy and has assured the leaders of his full cooperation.

SHENANDOAH PARK HIGHWAY

ONE of the most scenic highways of the country, that may ultimately extend for 150 miles, is to be built