

Horticultural Institution he produced by mutation a giant fertile hybrid of foxglove which was recognized by the Kew authorities as a new species.

He was a pure scientific investigator, an artist in all things, and whatever he undertook he carried through outstandingly well. He was so modest and unassuming that his fine qualities were appreciated only by those closely associated with him.

JAMES EWING

### RECENT DEATHS

DR. HERDMAN F. CLELAND, professor of geology at Williams College, was drowned when the steamship *Mohawk* sank on January 24. He was sixty-five years old.

DR. ALBERT MANN, since 1919 research associate in

botany at the Carnegie Institution of Washington, died on February 1 at the age of eighty-one years.

DR. GRANVILLE MACGOWAN, formerly professor of surgery at the University of California, died on January 31 at the age of seventy-seven years. He was president of the American Urological Association in 1912.

FREDERICK S. DELLENBAUGH, anthropologist and explorer, died on January 29 at the age of eighty-one years.

MISS ROSALIE B. J. LULHAM, lecturer in natural history at the Froebel Educational Institute and author of "An Introduction to Zoology through Nature Study," died on December 28.

## SCIENTIFIC EVENTS

### THE PUBLIC HEALTH OF INDIA

THE report for 1931 of Major-General J. D. Graham, Public Health Commissioner with the Government of India, has recently been made public. According to the *British Medical Journal*, General Graham insists on India's need of an organization which shall be capable of framing and conducting a public health policy for the country as a whole. Such a Ministry of Health is found in Canada, Australia and South Africa, and is none the less necessary in India because the executive control of public health has been transferred to the Provinces.

A census was taken in February, 1931, and vital statistics for the year can be more accurately estimated than in the nine previous years, the last census having been taken in 1921. The birth rate for the year in British India was 34.3 per mille, as compared with 33.4 on the estimated population for 1930, and 35.7 for the previous quinquennium (based on the 1921 census). The general death rate was 24.8 per mille, and the death rate for infants under the age of 12 months per 1,000 live births was 178.8, as compared with 180.8 in 1930 and 177.6 in the previous quinquennium. Out of every 190 deaths recorded, forty-three occurred in children below the age of 5, and forty-eight in those below the age of 10. The infantile death rate for British India was nearly 2% times that for England and Wales and South Africa; more than double that for Germany, and nearly 5½ times that for New Zealand. Countries in which the figures compare more closely with those of British India include Rumania, Hungary, Japan, Italy, Egypt and Soviet Russia. The three main causes of infantile mortality are given as congenital and developmental defects, alimentary disturbances and infective disease, the first accounting for nearly all

stillbirths and deaths in the first seven days of life, while the two latter affect the older children. Sanitary improvements have operated against the two latter causes, but not against the first, and in the production of these defects prematurity plays an important part.

Antimalarial campaigns continued during the year under review, including cinchonization schemes where funds permitted. Tuberculosis is believed to be generally on the increase, especially in some of the larger and more overcrowded cities, such as Peshawar, Delhi and Calcutta. The anti-tuberculosis campaign has not proceeded very far as yet, but the disease is now notifiable in the Punjab, the Central Provinces, Madras, Baluchistan and in municipal areas in Assam and the Upper Provinces. In Bombay Presidency, out of every 1,000 deaths recorded in 1931, 43.6 were ascribed to pulmonary tuberculosis. In 1931 there was a large fall in the incidence of cholera in British India, apart from the Presidency of Bombay, but high mortality curves were present in Bengal and Bombay. The death rate for plague was, however, twice that in 1930, although lower than that in 1929, the Upper Provinces suffering most.

Leprosy surveys, which had been continued during three and a half years, were ended in 1931. They showed that leprosy was much more prevalent in India than was formerly supposed; probably one million cases would not be an overestimate. The disease was found to be most common among semi-aboriginals or aboriginals, who left their tribal seclusion and hired themselves out to agriculturists or industrial concerns. Infection of the more advanced classes of the community was in the first place largely attributable to the employment of servants in an infectious stage. Movements of the population, which have increased