

deviating power for good in both scientific research and business administration. Once he was satisfied that a proposed course of action was honest and essential to the public interest, he was unflinching in oral and written expression and in action with regard to it. Loyalty, courage, patience and intensive, persistent effort were conspicuous elements in his life. One who knew him well in the later years, during which much of his most productive and important work was done, has said:

I think it was his courage for which I admired him most. . . . It was his own peculiar and personal kind—it was quiet, it was never spectacular, it was imperturbable, it was calm and unflinching in defeat, without trace of arrogance in victory. His wise, unselfish counsel has helped scores, probably hundreds, among his scientific acquaintances. His research ability and his skill as an administrator leave science and society deeply in his debt. His courage as an individual, which approached the absolute, was a moral force which his death does not extinguish.

He was actively interested in the work of a number of the national and local scientific societies, a member of Delta Upsilon and Sigma Xi fraternities and an active member of the Cosmos Club and the Columbia Country Club of Washington.

In 1923 the Kansas Agricultural College conferred upon him the degree of doctor of science in recognition of his work in plant physiology and pathology.

Dr. Kellerman is survived by his wife, Mrs. Gertrude (Hast) Kellerman, his son, Karl Frederic, Jr., his grandson John, his mother, Mrs. Stella V. Kellerman of San Diego, Calif., and two sisters, Dr. Ivy Kellerman Reed and Mrs. Walter T. Swingle.

WM. A. TAYLOR

BUREAU OF PLANT INDUSTRY

RECENT DEATHS

DR. FREDERIC SOWDEN JONES, associate member of the Rockefeller Institute for Medical Research, with headquarters at the Department of Animal and Plant Pathology at Princeton University, died on October 19. He was forty-six years old.

DR. FRANCIS METCALF ROOT, associate professor of medical entomology at the Johns Hopkins School of Hygiene and Public Health, died on October 21 at the age of forty-five years.

DR. JOHN H. BANKS, New York geologist and metallurgist, died on October 3 at the age of seventy-three years.

GRACE POTTER RICE, assistant professor of chemistry at Barnard College, died on October 18 at the age of fifty-two years.

SANTIAGO RAMÓN Y CAJAL, the distinguished neurologist and histologist of Madrid, died on October 18 at the age of eighty-three years.

SCIENTIFIC EVENTS

LOCUST CONTROL IN AFRICA AND ASIA

THE third International Locust Conference opened in London on September 11. Simultaneously with the meeting of the congress the sixth report of the Committee on Locust Control of the British Economical Advisory Council has been issued as a white paper.

According to a summary in the London *Times*, the committee, of which Sir Henry Miers is chairman, reviews the present locust outbreak in Africa and Western Asia and the investigations carried out since 1929 and ends with a note concerning further investigations. There are appendices dealing with anti-locust aircraft experiments in Northern Rhodesia and the fungus disease of locusts. Four varieties of locust are dealt with in the report, the Tropical Migratory, the Desert, the Red and the Moroccan locusts.

In its general conclusions the committee says:

The truly international character of the locust problem has never been demonstrated on so large a scale or in so convincing a manner as during the outbreak which began nine years ago and is still in progress. Thus, in the astonishingly short period of five generations, the tropical migratory locust was able to cross Africa from

west to east. In the course of the next three generations it spread over the whole of East Africa, and crossed the continent diagonally from northeast to southwest. Turning to the desert locust, we find that the breeding of this locust in the remote regions that lie to the south of the Sahara is closely connected with the invasions of the fertile coast lands of the African shores of the Mediterranean. Again, we find that invasions of Egypt, Palestine, Syria, Turkey, Iraq, Persia and, perhaps, India are dependent on the situation in Arabia and the Sudan, and that the locust problem in the territories of East Africa is intimately bound up with that in Somaliland.

The present locust outbreak, especially in Africa, developed on so great a scale that it soon became apparent that attempts at its general control would be doomed to failure. . . . Even in those territories where the extermination of invading locust swarms and of their immediate progeny was possible, though costly, the success attained was limited to the saving of the crops of a single season. No immunity for the future was secured. Fresh campaigns had to be organized in following years to meet the threat of fresh invasions.

Thus, from this point of view, the chief lesson of the last few years has been the realization that in tropical and sub-tropical Africa and Asia it is impossible to control a locust outbreak once it has been allowed to spread