

familiar with the plants in their native homes. He went to their native homes himself so far as he could in his vacations, and he made a fuller use of the garden in investigating relationships between diverse forms than probably any one before him, not only in this genus, but also in any other. His enthusiasm for the genus infected many another, and his many writings in gardening papers helped to spread the knowledge he had gained far and wide. In 1913 he published his great monograph on the genus, and it at once took its place among the best monographs upon a single genus which had appeared anywhere in the world; and in addition to this he wrote two other smaller books on the Iris family, which have gained wide appreciation. More recently, two other genera have competed in his affections with the Iris, and in the garden at Sutton Green, which he had recently acquired, he had collected very many species of tulip and of crocus, and he intended to study the tulip as he had the iris.

His last book was a translation of "La Taille Lorette," which will help to make Lorette's methods of pruning more familiar to English readers.

Dykes showed how invaluable an aid the garden may be in elucidating problems in relationship. He enriched the genus he made his own by raising many fine varieties, and he was doing the same with tulips.

The Veitch memorial medal and the Victoria medal in horticulture were both conferred upon him, largely on account of his work upon irises, the latter only a few days before his death.

We tender to his wife, whose interest and skilful pencil so greatly helped him, our deepest sympathy.

SIR ATHELSTANE BAINES.

WE regret to record the death of Sir Jervoise Athelstane Baines, C.S.I., the distinguished authority on Indian ethnography, which took place at Kidlington, Oxford, on November 26. Sir Athelstane Baines was in his seventy-ninth year, having been born on October 17, 1847. He was the son of the Rev. Edward Baines, and was educated at Rugby and Trinity College, Cambridge. He joined the Indian Civil Service in the Bombay Presidency in 1870, when the first attempt to enumerate the Indian population, which extended from 1867 to 1872, was in progress. In the one-day enumeration of 1881, Baines was deputy superintendent of the census in the Bombay Presidency. The value of his work in this capacity led to his appointment as superintendent for the whole country in the next decennial census of 1891. The task of organisation occupied him for three years. This and his general survey of the results summarising the various State and Provincial reports, which was at once widely recognised as the work of a brilliant ethnographer and statistician, laid the foundations for much of the work of his able successors, Sir Herbert Risley, Sir Edward Gait, and Mr. Marten. Indeed to his inspiration, directly or indirectly, can be traced much of the admirable ethnographical work which has been done by members of the Civil Service. As a result of his census work, Baines was appointed to prepare the Decennial Report on Moral and Material Progress to 1891, and in 1894-5 to

be secretary of Lord Brassey's Opium Commission. He was awarded the C.S.I. and retired in 1895.

On settling in England, Baines continued his ethnographical work, which included studies from various aspects of the three decennial Indian enumerations which have followed his retirement. He was a valued contributor to the proceedings of the Royal Statistical Society, of which he was president in 1909-1910. He also took part in public administration, being elected an alderman of the County of London and a member of the Oxfordshire County Council for 1917-1922. He was knighted in 1905.

DR. HAROLD W. NICHOLS.

DR. HAROLD WILLIAM NICHOLS, a radio research engineer of Bell Telephone Laboratories, died on November 14 at his home in Maplewood, New Jersey. Dr. Nichols was born in Iowa on February 23, 1886. He received his education at Armour Institute of Technology, Chicago, and at the University of Chicago. In July 1914, he joined Bell Telephone Laboratories in New York City. He rapidly achieved distinction in the radio research activities of that organisation, and during the War, he was in charge of its radio work. During recent years he has been identified prominently with the investigations of ship-to-shore radio telephone service and of short waves in radio communication. He was recognised as an authority on "fading"; his papers on this phase of radio are distinct contributions to the art. He took a leading part in the transatlantic radio telephone tests in 1923, and for a lecture on this subject received the Fahie Premium from the Institution of Electrical Engineers. He had twenty inventions pertaining to the radio art to his credit and nine applications are now pending.

Dr. Nichols was a member of the American Institute of Electrical Engineers; the American Mathematical Society; the American Physical Society; the Institute of Radio Engineers; and the Sigma Xi and Eta Kappa Nu fraternities. His associates in the Bell Telephone Laboratories regard his death as a distinct loss to the profession as well as a great personal loss to themselves. He was a man of pleasing personality; an efficient and untiring worker, noted for his judgment and insight into all phases of the art of radio.

WE regret to announce the following deaths:

Dr. Johan August Brinell, Bessemer medallist in 1907 of the Iron and Steel Institute, whose name is associated with the hardness testing of materials, on November 17, aged seventy-six years.

Prof. Joseph Brough, formerly professor of mental and moral science at the University College of Wales, Aberystwyth, and the author of "The Study of Mental Science," on December 7, aged seventy-three years.

Dr. Edmund Knecht, associate professor of technological chemistry in the University of Manchester, editor of the *Journal of Dyers and Colourists* and author of numerous works on bleaching, dyeing and other aspects of textile manufacture, on December 8, aged sixty-four years.