

Obituary Notices

Miss M. F. Rich

BY the death on April 20 at Ruislip, Middlesex, of Mary Florence Rich, botanical science has lost an active and enthusiastic contributor to our knowledge of freshwater algæ. Born at Weston-super-Mare in 1865 and educated at Aske's School, Hatcham, Miss Rich studied at Somerville College, Oxford, where she held a Clothworkers' scholarship. Taking up the teaching profession she held for some years a post at Roedean and then established a girls' school (Granville School) at Leicester, which acquired a considerable reputation and which she continued to direct until 1923.

Although not primarily trained as a botanist, Miss Rich had already so far back as 1903 taken up the study of freshwater algæ, to which she devoted a considerable amount of her leisure time while she was at Leicester. During this period she published with me a series of papers on the periodicity of these forms and also compiled a valuable list of the algæ of Leicestershire. After her retirement from scholastic work, she devoted the remaining years of her life to algal work, settling in the Department of Botany, Queen Mary College (then East London College), in which she afterwards held the position of honorary research assistant. As witness to her activity during these last fifteen years of her life, we have a long series of taxonomic papers, largely dealing with the freshwater algæ of Africa, including the phytoplankton of the Rift Valley lakes in Kenya and that collected by the Cambridge Expedition to the East African lakes. Many of the research workers in the Department owed much to her kindly help and her keen interest in any work that was in progress. In recognition of her services she was made a fellow of Queen Mary College in December last. She was elected a fellow of the Linnean Society in 1926.

F. E. FRITSCH.

Prof. I. M. Gubkin

SOVIET science has sustained a great loss in the death on April 21 of Prof. I. M. Gubkin, the oil geologist, known not only in the U.S.S.R. but also to geologists throughout the world.

Born in 1871 of poor peasant parentage and acquiring an education with difficulty, Gubkin, though early interested in geology, was compelled to spend some years in teaching before he managed, at the age of thirty-two years, to enter the Mining Institute, where even as a student he attained distinction for original work.

He had made a study of the oil deposits of Maikop, Kuban and the Taman Peninsula, adjoining the Caucasus, and later of the Apsheron Peninsula, where he determined the stratigraphy and tectonics of the oil layers. In 1917, he was sent on a commission to the United States to study oil

deposits of various ages and methods of their prospecting.

After the revolution, Gubkin organized the Soviet slate industry, became chairman of the council of the oil industry, and later, in the region of the Kursk magnetic anomaly, directed the boring operations which led to the discovery of big deposits of iron ore at a depth of 200-300 metres from the surface.

Gubkin was the first professor of the geology of oil deposits at the Moscow Mining Institute, of which he afterwards became the rector. He founded the Institute of Research in Petroleum, of which he was the head for a long time. He gave courses of lectures on the geology of world and Soviet oil deposits, creating a school of numerous pupils now engaged in studying and prospecting for oil on the territory of the U.S.S.R.

In 1929, Gubkin was elected a member of the Academy of Sciences of the U.S.S.R. In the Academy he founded the Institute of Combustible Minerals, of which he became the head. He was elected vice-president of the Academy in 1936. In 1933, he headed the Soviet delegation to the Geological Congress at Washington, and in 1937 he presided at the International Geological Congress in Moscow, where he read a paper on the oil reserves of the Soviet Union which, largely as the result of his own work in the discovery of new deposits, had been increased by several times during the period of the Soviet regime.

As head of the Geological Department, Prof. Gubkin directed work in the study of geological formations in the Soviet Union and the compilation of geological maps of the country. He was the author of a hundred and fifty scientific works. One completed not long before his death is entitled "Estimated Oil Reserves of the Soviet Union".

PROF. JOSEPH KLOBOUČEK, a distinguished Czech mathematician, died in Prague on April 18 at the age of sixty-four after a long illness which had necessitated his retirement early last year. He studied at the Universities of Turin and Milan but graduated at Prague, and before obtaining a professorship in 1919 had taught mathematics and science in secondary schools. He was a member of many Continental scientific societies and had contributed a number of papers, mainly on analytical geometry, to Czech and other periodicals.

WE regret to announce the death of Prof. Edward A. Burt, professor of botany in the Henry Shaw School of Botany in the University of Washington during 1913-25. He was an authority on the morphology and physiology of the Basidiomycetes.