

## Obituary Notices

Prof. Arthur Hutchinson, O.B.E., F.R.S.

**I**N the death of Arthur Hutchinson, emeritus professor of mineralogy in the University of Cambridge, and lately master of Pembroke, the science of mineralogy has lost an able exponent and investigator. His distinguished services to his Department, first as demonstrator and lecturer and finally as professor, extended over a period of thirty-six years. His loss is a heavy blow to his profession, his University, and his friends.

That which Hutchinson accomplished during his scientific life divides naturally into two parts, the results of his investigations and his work as a teacher of mineralogy. His first piece of crystallographic research was carried out while he was still a scholar at Christ's College. Afterwards he studied under Emil Fischer at Würzburg. His accomplishments in the field of analytical chemistry are seen in his early work on the mineral stokesite, which he discovered and described. His analysis of this unique and only known tin silicate and the derivation of its formula was performed upon a minute fragment of the only single crystal that has yet been found.

Hutchinson established the chemical formula of the mineral lengenbachite and with A. M. Macgregor he gave a complete account of the composition and optical constants of another new mineral—cornetite. Hutchinsonite, a rare thallium mineral from the Binnenthal, was named in his honour.

Much time and thought was given by Hutchinson to the graphical treatment of problems in crystallography and crystal optics, and we owe to him the stereographic protractor and a crystallographic slide rule, instruments by means of which laborious calculations may be checked or avoided and the problems accurately solved by graphical methods. Later he showed how his stereographic protractor could be adapted to the rapid indexing of the spots of a Laue crystal photograph. In the field of crystal optics Hutchinson's memoirs on the diathermancy of antimonite are pioneer investigations. Introducing a new method of attack on crystallographic problems, he made an accurate determination of the refractive indices and dispersion of this opaque rhombic mineral for wave-lengths at the extreme red end of the visible spectrum. In these investigations Hutchinson's skill and resource as an experimenter are seen at their height.

Hutchinson excelled as a teacher and he gave unremitting thought and attention to improving the material equipment for his lectures. He constructed with great skill and ingenuity many large crystal models and other apparatus for use in elementary instruction. During the latter part of his career, he devoted much time and energy in the vacations to the care of the large mineral collection, which now became of increasing service in teaching and research.

His genial personality and great capacity for friendship endeared Hutchinson to his colleagues and old

students alike, and the expression of their devotion was signally evoked in the large and representative gathering which assembled to honour him by the presentation of his portrait on the occasion of his retirement from the chair in 1931. He was elected a fellow of the Royal Society in 1922; he also served as president of the Mineralogical Society (1921–24), of which at the time of his death he was foreign secretary.

The period of Hutchinson's professorship (1926–31) coincided with a time of intense activity in research in X-ray crystallography, and he devoted much of his energies towards the organization of his Department to meet the needs both in teaching and research of this rapidly developing branch of his subject. To this time of his tenure belongs the creation of a special lectureship at Cambridge in structural crystallography, and the establishment of a laboratory of crystal physics. These developments foreshadowed the ultimate reorganization of the subject of mineralogy in the Natural Sciences Tripos. The well-equipped new building for mineralogy erected in 1933, and the crystallographic research laboratory, stand as memorials of his life and work.

WE regret to record the death at Warsaw of Dr. Pawal Łada, a young Polish geneticist, who was working in the School of Agronomy of the University of Crakow, in July last, aged forty years. He had made intensive studies of rye and was seeking to produce a variety having six rows of seeds instead of the usual four. He had also studied a disease known as 'brittleness' in rye and showed that it is really a genetic character unaffected by environmental conditions; in his breeding experiments it behaved as a simple Mendelian recessive. He discovered no character of the seed correlated with brittleness, so was unable to find a way of discarding seeds subject to this trouble. As part of his technique he carried out his experiments in special nurseries located in an area of woodland remote from cultivation, so that his plants could be shielded from cross-fertilization from outside sources. Łada was a native of the Ukraine, but he settled in Poland as a refugee, and in his researches he was assisted by his wife, who had been also a fellow student. There was a freshness of outlook and ingenuity in his methods of experiment that promised well for his future had he lived.

WE regret to announce the following deaths:

Dr. N. Gustaf Dalén, inventor of automatic regulators for use in conjunction with gas accumulators for lighting lighthouses and light buoys, for which he received the Nobel Prize in Physics in 1912, on December 10, aged sixty-eight years.

Prof. G. H. F. Nuttall, F.R.S., emeritus professor of biology in the University of Cambridge, on December 10, aged seventy-four years.