

NEWS and VIEWS

Gardiner Chair of Chemistry at Glasgow

AFTER a connexion of almost forty years with the chemical department of the University of Glasgow, Prof. T. S. Patterson retires from the Gardiner chair of chemistry at the end of the present session, thus bringing to a close a period of teaching activity which has coincided with a period of great expansion in the University Chemical Department. As a research worker Prof. Patterson's chief interest lay in the subject of optical activity, and more especially in the physico-chemical aspect of the subject. His investigations on the effect of solvent, temperature and wave-length of light on the rotatory power of the derivatives of tartaric acid have produced data which will be of great value to future workers, while his modification of the "characteristic diagram" of Armstrong and Walker has simplified the co-ordination of rotatory dispersion phenomena. But in recent years Prof. Patterson has become more absorbed in the historical aspect of chemistry, and in this field he has found fuller scope for his literary ability than was possible in the mere recording of the results of personal experiment. The results of his researches on the lives and work of the earlier chemists have been embodied in excellent articles contributed to the *Annals of Science* and to *Isis*. He has always taken an interest in student activities and was a constant attendant at meetings of the "Alchemists", a student chemical society the well-being of which he had much at heart.

DR. J. MONTEATH ROBERTSON has been appointed to the Gardiner chair of chemistry in the University of Glasgow as from October 1, 1942, in succession to Prof. T. S. Patterson, whose resignation takes effect then. Dr. Robertson, who is forty-one years of age, was educated at Perth Academy and the University of Glasgow, where he graduated B.Sc. with special distinction in chemistry in 1923 and M.A. in 1925. His post-graduate research work also began there, and he has since received the degrees of Ph.D. and D.Sc. from the University. During the tenure of a Carnegie research fellowship Dr. Robertson worked at the Royal Institution in London under Sir William Bragg. During 1928-30 he was in the United States as a Commonwealth Fund fellow and worked in the University of Michigan and the Gates Chemical Laboratory, Pasadena. On his return he joined the staff of the Davy Faraday Laboratory of the Royal Institution and remained there until his appointment in 1938 as senior lecturer in physical chemistry in the University of Sheffield. He has published many papers dealing with the chemistry of natural products, X-ray diffraction methods, molecular dimensions and structure, etc.

Dr. Robertson is best known for his beautifully finished determinations of the structures of conjugated organic compounds by the X-ray study of minute single crystals. In 1932 he mapped the electron density distribution in anthracene crystals by means of two-dimensional Fourier analyses along three principal directions, and showed that the chemist's structural formula represents with considerable nicety the arrangement of atoms in the plane molecule. By designing an apparatus which would enable an absolute comparison to be made photographically between the intensities of the incident and reflected X-ray beams, and by devising various mechanical methods of speeding up the

formidable amount of computational work involved, he was able to make similar studies of many other compounds, including those of the dibenzyl and the phthalocyanine series (partly in collaboration with Miss I. Woodward). He proved that the interatomic distances in these compounds are dependent upon the bond characters, and provided a mass of reliable experimental data for testing theoretical calculations based upon energy relationships. His direct determination of the structures of nickel and platinum phthalocyanines not only gave valuable information concerning the stereochemistry of those metals but also showed that the usual 'trial and error' method of determining phase constants can be dispensed with in special cases. His latest work (in collaboration with Dr. A. R. Ubbelohde) has concerned the lengths of hydrogen and hydroxyl bonds and their changes with crystalline dimorphism, temperature and deuterium substitution. Few present-day scientific men have succeeded in obtaining so much accurate numerical data of fundamental importance to organic chemistry.

Suppression of Culture in Norway

WE are informed that a petition, signed by fifty-two members of the Royal Society of Science and Letters of Göteborg, has been presented to the Swedish Minister for Foreign Affairs asking him to intervene on behalf of three Norwegian members of the Society who have been imprisoned and subjected to severe treatment in Norway. A translation of the petition reads: "Three foreign members of the Royal Society of Science and Letters of Göteborg have already for a considerable time been deprived of their liberty. They are known to us as eminent scientists and scholars and are citizens beyond reproach. As far as we know, none of them has been convicted of any crime against the laws of their country by a legal court of justice or even accused of any criminal offence. To all of us their fate has given great pain. The fact that Prof. Seip (of the University of Oslo), for reasons unknown to us, has been subjected to cruel treatment has further increased our anxiety on their behalf. We members of the Royal Society resident in Göteborg herewith apply to your Excellency to do everything in your power in order to set our fellow-members at liberty and enable them to resume their studies and research." *It is to be feared that this petition will be of little avail, though it reflects the views of the men of science of neutral countries, and is much to their credit.*

Scientific Research in Sweden

EXTENSIVE research activity is going on in Sweden, in order to find substitutes for products which can no longer be imported owing to the War. One of the most important centres for this research is the Physical-Chemical Institute, Uppsala, headed by Prof. The Svedberg. The Institute has now lost all the foreign research workers who used to study there, with the exception of one Swiss; nevertheless the staff has been doubled. Extensions have in particular been made to departments dealing with the many present supply problems, of which the chemical aspects fall within Prof. Svedberg's own department, namely, the giant molecules. The work with different kinds of synthetic rosins and cellulose-derivatives is now progressing on a large scale. Among other objects of research may be mentioned bread. Experiments are being made to find a means of replacing