

he was working on the effects of autocorrelation on experimental design and estimation. A paper on this subject, by him, will be published shortly by the Royal Statistical Society.

What advances in mathematical statistics Dr. Jones would have made, had he lived, cannot be known. What is certain is that they would have been considerable. He leaves a wife and daughter.

WE regret to announce the following deaths:

Jacques Cochon de Lapparent, *Correspondant* of the Section of Mineralogy of the Paris Academy of Sciences, on May 18, aged sixty-five.

Mr. C. A. Malcolm, C.I.E., during 1928-34 chief conservator of forests, Central Provinces, India, on June 8, aged sixty-eight.

NEWS and VIEWS

Imperial College of Science and Technology:
Sir Richard Southwell, F.R.S.

IN September 1948, Sir Richard Southwell relinquishes the rectorship of the Imperial College of Science and Technology, London, after a period of tenure of six years. This step he has decided to take in order to be free to carry through various research projects concerned with the methods of relaxation that have become so closely associated with his name. Six years is but a short time in which to leave an imprint on the policy and development of an institution of the magnitude and scope of the Imperial College; but there is no doubt that his influence has left its distinctive mark. During this period detailed plans have been produced for the reconstruction of the three constituent colleges on a formidable scale; and if, for reasons of national exigency, these plans will not mature during this quinquennium, they are at least ready to be transformed into reality as soon as the opportunity arises. Not unconnected with this has been the celebration of the centenary of the first beginnings of the College, and the opportunity it presented of establishing a fund that will make possible many ventures of a social and educational nature that would have been otherwise cramped or completely frustrated. Moreover, a commencement has been made with the extension of hostel accommodation for students by the foundation of Selkirk Hall. In this period also the representation of the staff on the governing body has been enlarged, so that members of the teaching staff are involved to a much greater extent than heretofore in the determination of College policy. In this connexion also Sir Richard Southwell has been responsible for the extension of deanships to the three constituent colleges, a move that has made for much closer co-ordination and collaboration than hitherto. On the side of educational policy, he has been mainly responsible for the distinct shift in the incidence of College studies, whereby further developments in advanced study and research are coming into prominence while some of the more elementary preparatory work is fading out. Finally, he has unquestionably built up a tradition of social life that is not usual or easy to develop in a college situated in the metropolis. Sir Richard Southwell can now withdraw from the hurly-burly of the administration of the College with the sure knowledge that during his six years he has helped to determine much of its future character.

Chemistry at Birmingham:

Sir Norman Haworth, F.R.S.

SIR NORMAN HAWORTH, who has held the Mason chair of chemistry and the directorship of the Chemistry Department in the University of Birmingham since 1925, is to retire from office at the end of the present session. He studied at the Victoria

University of Manchester and, after periods spent in Germany and at the Imperial College of Science and Technology, London, he proceeded to St. Andrews as lecturer in organic chemistry. From there he went to Armstrong College, Newcastle (University of Durham), as professor of organic chemistry (1920), and five years later he was elected to the Mason chair at Birmingham in succession to Sir Gilbert Morgan. Under Haworth's leadership the research school at Birmingham rapidly became the chief centre for structural investigation in the carbohydrate group, and the importance of his contributions in this field was recognized by the award of the Nobel Prize for Chemistry (1937). In addition to the direction of a large research school which has attracted workers from all over the world, Sir Norman Haworth has contributed greatly to developments in teaching methods and to the organisation of his department. He has held office as dean of the Faculty of Science and as vice-principal of the University of Birmingham and has served on many Government boards and committees. He is a Longstaff medallist of the Chemical Society, of which he was president during the years 1944-46. He is now a vice-president of the Royal Society, from which he has received both the Davy Medal and a Royal Medal.

In the earlier part of Sir Norman's period of office, the work of the Birmingham school was directed mainly to the determination of the structures of the simpler sugars and their derivatives. For example, the difficult problem of the ring structures in sucrose was solved, and an elegant method, involving oxidation to the aldonic acid, followed by methylation, was developed for determining the structure of reducing disaccharides. Studies were made also of acetone derivatives, sugar carbonates, anhydro sugars, partially methylated sugars and other important reference compounds; and, on the broad and firmly established basis thus laid down, the investigations were extended to the naturally occurring polysaccharides. There followed the elucidation of the general type of structure present in the macromolecules of cellulose, starch, glycogen, inulin, xylan, mannan and certain levans, and the introduction of methods for the assay of terminal groups enabled still further insight to be gained into the detailed molecular architecture of the polysaccharides. Along with these developments should be noted the determination of the structure of vitamin C and its synthesis, and the elucidation of the structures of glucosamine and chondrosamine. More recently the attention of workers in the Birmingham school has been directed towards biochemical problems, and important discoveries have been made concerning the enzymic degradation of the components of starch and their synthesis from glucose 1-phosphate. Investigations are in progress also into the structure of the highly important bacterial polysaccharides.