

During 1915-25, Nolan was engaged as research chemist to Messrs. Nobel's Explosives Co., Ltd., during which period he carried out many valuable researches. In 1925 he returned to Dublin to become assistant State chemist and afterwards State chemist, a post which he held until his appointment in 1932 as professor of chemistry in University College, Dublin.

Much of the research which Nolan carried out during the past thirteen years was directed towards the investigation of the chemical constituents of lichens found in Ireland. In this very difficult field he was the first to isolate a chlorinated depsidone, gangaleoidin, and had gone far towards establishing the constitution of this and other organic substances containing chlorine, which are found in lichens. More recently, he had isolated two nitrogenous constituents in the lichen *Lecanora epanora*.

Among his many activities Nolan served on the council of the Chemical Society, London, during 1926-29. He was chairman of the Board of the

Industrial Alcohol Factories established by the Irish Government, member of the Irish Industrial Research Council and during the emergency created by the War his advice was frequently sought and highly valued both by the State and industrialists.

Nolan was an inspiring teacher, a loyal and understanding colleague, a staunch friend and a chemist of the highest calibre. His death at the height of his powers is a grievous loss to chemistry and to his University.

JOSEPH ALGAR.

WE regret to announce the following deaths :

Prof. A. Fersman, the distinguished Russian geologist and mineralogist, aged sixty-one.

Sir Martin Forster, F.R.S., during 1922-23 director of the Indian Institute of Science, Bangalore, on May 24, aged seventy-two.

Mr. G. C. Robson, formerly of the British Museum (Natural History), where he was in charge of the collection of Mollusca, on May 17.

NEWS and VIEWS

Geology at the University of Sheffield :

Prof. W. G. Fearnside, F.R.S.

Not a few of the younger generation of geologists will learn with surprise of the retirement of Prof. W. G. Fearnside from the Sorby chair of geology at the University of Sheffield. They will have ample ground for wonder whether anyone so patently young can have reached the age at which university professors retire, though the surprise may be lessened by the discovery that he has held the chair since its foundation thirty-two years ago, and consolation will follow the thought that geology still has the promise of his enthusiasm and energy for many years to come. Under McKenney Hughes, as a colleague of Alfred Harker, J. E. Marr, Henry Woods and Gertrude Elles, he commenced his geological career in some of the brightest days of the Cambridge school. It is not surprising that some of his earliest claims to distinction were notable contributions in the Cambridge tradition of Lower Palaeozoic geology, while his characteristic versatility was foreshadowed by his concern at the same time with the teaching of petrology and the collection of quaternary bones. During this period he was a fellow of Sidney Sussex College.

Shortly after his acceptance of the Sorby chair, Prof. Fearnside remarked on one occasion that the time had come to apply the lessons learned in the minute study of the lower Palaeozoic to the problems of the Coal Measures. His publication shortly thereafter of a structural map of the Yorkshire Coalfield laid the foundation of much work by himself and others, which has given greatly increased precision to knowledge of Carboniferous and post-Carboniferous earth-movements and their consequences. Among industrialists and engineers, Fearnside has performed a notable service in demonstrating the value of geology in those spheres, whether concerned with fuels, metals, refractories, bricks or roads. For him there is no 'pure' or 'applied' science. He is equally at home in the councils of the Institutions of Mining Engineers, or of Mining and Metallurgy, or in the presi-

dential chair of the Geological Society or of Section C (Geology) in the British Association. In the Royal Society his work for geology has been outstanding, and all will wish that in this and other spheres it may long continue.

Major F. W. Shotton, R.E.

PROF. FEARNSIDES is being succeeded by Major F. W. Shotton, R.E. After a brilliant undergraduate career at Cambridge, Mr. Shotton was appointed to a lectureship at the University of Birmingham, where he worked under Prof. W. S. Boulton and Prof. L. J. Wills. During this time he carried out important work on the rocks of the Coventry district; he also studied the conditions of deposition of the Trias Sandstones with the aid of students from the University of Birmingham, whom he organized into teams for field-work. In 1936 he returned to Cambridge as lecturer under Prof. O. T. Jones and carried out detailed research in the Cross Fell district of the Pennine Chain.

In 1940 Shotton was asked to take an appointment as geologist with the Armies in France; but the need for the appointment disappeared with the return of the B.E.F. to Great Britain. Shotton was eventually commissioned in the Royal Engineers in the autumn of 1940 and proceeded to the Middle East as geologist on H.Q. staff. Here he carried out excellent work mainly concerned with water-supply problems. In 1943 he was appointed as geologist to the Chief Engineer, Twenty-first Army Group, in succession to Prof. W. B. R. King. During the time before D-day, Shotton was busy studying many problems connected with the Normandy landings, particularly in connexion with the behaviour of various types of beach under different loads, and reaction to shelling, condition of river banks and bottoms, water supply and suitability of sites for the construction of landing strips for fighter aircraft. Shortly after D-day, he was in Normandy putting the results of this study into practice, and has been with the armies throughout their advance into Germany. During this time he

has justified to the full the appointment of a geologist to the staff of the Chief Engineer. His election to the chair of geology at Sheffield, while enabling him to return to the pursuit and teaching of pure science as a basic study, will enable him to continue to maintain and emphasize the value of geology to all civil engineering practice, as he has done to military engineering in its widest sense.

Chair of Geology at Leeds: Prof. W. Q. Kennedy

DR. W. Q. KENNEDY, who has been appointed to the chair of geology in the University of Leeds, is a senior geologist on the staff of the Geological Survey in Scotland. Before joining the Geological Survey in 1928, Kennedy studied under J. W. Gregory in Glasgow and under Niggli in Zurich. As a result of his Continental training, he became one of the first geologists in Britain to apply Fedorow and Sander 'universal stage' technique to the microscopic study of rocks, and early in his career published a translation of Chudoba's text-book on the determination of plagioclase feldspars by 'universal stage' methods. Kennedy has made notable contributions to geological research. In petrology he has dealt with pyrometamorphic ore-deposits, composite lava-flows, the parent magma of the British Tertiary Province and, in conjunction with Dr. E. M. Anderson, the origins of basaltic magma. His conception of volcanic and plutonic associations has been acclaimed as a fundamental contribution to petrogenetic theory. Perhaps his most notable work in Scotland is his study of the Great Glen Fault, which led him to infer a lateral shift of some 65 miles along this fracture and to discuss its tectonic and metamorphic implications. His official Survey work with Dr. J. E. Richey on the Moine and sub-Moine rocks of the Morar district has also produced notable results in Highland stratigraphy and tectonics.

Prior to the opening of the new Geological Museum in London in 1935, Kennedy spent a year or two in London preparing the ground-floor exhibits illustrating volcanicity and glaciology. During the War, he has been concerned with economic investigations on Scottish feldspar mica, iron-ore, oil-shale, mineral oil, natural gas and dolomite. His pre-war discovery of a valuable muscovite deposit in the Scottish Highlands has proved to be of national importance.

University Development at Birmingham

THE University of Birmingham has launched an appeal for £1,500,000 for purposes of development, and promises of £638,636 have already been received. Outstanding items in the proposed scheme are £100,000 each for four additional halls of residence (three for men and one for women), £200,000 for a new library, £170,000 for new laboratories for mechanical and electrical engineering, £150,000 for buildings at Edgbaston to house the Faculties of Arts, Commerce and Law, and central administration, and £40,000 each for the endowment of chairs of geography and electronics. In the words of the Vice-Chancellor, Dr. Raymond Priestley, "Men and women who must guide and control a great industrial people, and the experts who are to be the spear-point of scientific industry, are best educated within sight and sound of the factory and the market-place. We are moving forward into a world in which technical development will take place at an accelerating rate.

To equip ourselves for the competition we shall have to face in order to maintain our standard of living—if not our very existence—in the post-war world involves mobilization of the skill and talent of the whole people, together with development of character, to put the programme through. We need to combine the best features of the older universities with the specialities of the new that are in closer touch with the industrial world. Given the will and the apparatus, there is nowhere that this could be done better than here in Birmingham."

Industrial Ophthalmology

THE Institute of Ophthalmology, Royal Eye Hospital, St. George's Circus, London, S.E.1, proposes to devote a considerable proportion of its funds to industrial ophthalmology. In view of the absence of any co-ordinated work in this field, it is felt that a national survey of workers, and of work already accomplished, is a necessary preliminary to the undertaking of research on any specific aspect of this very extensive subject. The Institute therefore invites those who have routine experience in any branch of industrial ophthalmology, or who have undertaken original work bearing upon it, to communicate with the Institute stating briefly their experience and defining the aspect of the work with which they are most familiar—medical supervision, safety, lighting, industrial psychology, etc. It is the Institute's policy to promote the investigation of industrial ophthalmic problems in the districts in which they arise. It is hoped that those replying to this request will be willing to co-operate in their own areas and in their special fields of interest and experience as the national scheme develops. This invitation is extended not only to individual workers, but also to research and other organizations concerned. The funds will be distributed on the recommendation of the Scientific Executive Committee in the form of grants for approved work. The Committee proposes, initially, to support, co-ordinate and publish work undertaken throughout Great Britain.

Industrial Data in Britain

ACCORDING to an article in the *Board of Trade Journal* of May 26, 1945, the Board of Trade is to undertake, through the regional research sub-committees formed as adjuncts to the Distribution of Industry Committees, the collection and assembly, on a continuing basis, of a wide range of factual data required for distribution of industry purposes covering every locality in Britain. In making such surveys the Board of Trade will make the fullest use of information on industry already accumulated by the supply Ministries and by the Ministries of Labour and Town and Country Planning. It is also intended to take the fullest advantage of local knowledge by consultation with non-official bodies, whether universities, local authorities or industrial groups. By these means the Board of Trade should be made conversant with the industrial problems of all parts of the country and equipped to provide the industrial world with an information service to help individual firms in making decisions on the location of new factories.

Astronomical Observatory of Madrid

THE *Anuario* for 1945 of the Madrid Observatory has been prepared on a plan similar to that of the preceding issues, with some slight modifications intro-