His son carried on the same kind of work with great distinction for forty-five years, until he retired in 1941.

During 1903–4 Mr. Barlow spent a year in the Fayum (Egypt) excavating Cænozoic vertebrates with Dr. C. W. Andrews, and afterwards made restorations of the most important finds, such as *Arsinoitherium*. He developed Sir Arthur Smith Woodward's collection of Pliocene mammal remains from Pikermi, Greece, and many other famous specimens, including *Archæopteryx*. His last major work at the Museum was to carry out the difficult task of restoring the head of the Triassic amphibian *Cyclotosaurus* from mere cavities in the rock.

To the outside world, he was best known for his work in palæoanthropology, and particularly for his modelling of Smith Woodward's restoration of the Piltdown skull. He is one of the figures seen standing behind Sir Arthur Keith in the painting by John Cooke, R.A., illustrating the Piltdown controversy (1913), which now hangs in the rooms of the Geological Society of London. He was not placed on the pensionable staff of the Museum until 1921, and, like his father, he had worked in his spare time with the firm of R. F. Damon and Co., which he eventually took over, and developed on the anthropological side. For many years he provided scientific institutions all over the world with casts of the chief specimens of fossil men, produced with unparalleled skill and fidelity. His stock of moulds has now been taken over by the Wenner–Gren Foundation in order that his work may be continued.

Mr. Barlow will be remembered by all who knew him for his personality, his massively imposing figure, resonant voice and courteous approach. He was a man of wide culture, as his conversation revealed. He had an extensive knowledge of literature and, like his father, he was musical. His rich bass voice was for many years heard in male voice choirs, and he sang at coronations and other special occasions in Westminster Abbey. He spent his last decade in the pleasant half-timbered Old Parsonage at Merston near Chichester. W. N. EDWARDS

NEWS and VIEWS

Queen's University of Belfast

AT the Queen's University of Belfast three appointments to chairs have recently been made as follows.

Agricultural Botany : Dr. P. A. Linehan

The whole of Dr. P. A. Linehan's working career has been with the Department of Agricultural Botany in Queen's University and with the Botany Division of the Ministry of Agriculture, Northern Ireland ; he has held simultaneous appointments in these two bodies, the most recent being reader and head of the Division, respectively. Dr. Linehan was part-time chairman at the Ninth International Seed Testing Congress, held in Washington, D.C., in 1950, and is a member of various technical committees on seed-testing. He was a foundation member, has been honorary treasurer, and is at present a member of the executive committee and editorial board of the British Grassland Society.

Comparative Pathology : Dr. H. G. Lamont, O.B.E.

After being engaged for a number of years in veterinary and pathological research, Dr. H. G. Lamont was appointed in 1931 to be head of both the Veterinary Research and Dairy Bacteriological Divisions of the Ministry of Agriculture, Northern Ireland ; at the same time he was made a lecturer in both veterinary science and dairy bacteriology in Queen's University, and in 1947 was promoted to be reader in veterinary science. In 1941 he was awarded the D.Sc. degree of the University for a thesis on "Observations on Aujeszky's Diseases in Northern Ireland", a neurotrophic virus disease of domestic animals. Dr. Lamont is a member of the Agricultural Research Council committee on pig disease, tuberculosis and tuberculin, and mastitis. He was created an O.B.E. in 1950.

Pure Mathematics : Dr. S. Verblunsky

Dr. Samuel Verblunsky goes to the chair of pure mathematics in Queen's University in place of Prof. T. G. Room, who was unable to take up the appointment (see *Nature*, April 21, p. 630). Dr. Verblunsky was born in London and was educated at Magdalene College, Cambridge, where in 1927 he was a Wrangler with distinction in schedule *B*, later becoming a Rayleigh prizeman and Allen scholar of the University. He was for nine years a lecturer at the Manchester College of Technology and then was appointed to a lectureship at Queen's University, being promoted reader in 1950. He is author of a book on "An Introduction to the Theory of Functions of a Real Variable".

Pittsburgh Award of the Pittsburgh Section, American Chemical Society : Dr. W. A. Gruse

THE Pittsburgh Section of the American Chemical Society has announced that the Pittsburgh Award for outstanding service to chemistry has been made to Dr. W. A. Gruse, administrative fellow of the Petroleum Refining Fellowship at the Mellon Institute, Pittsburgh. The Award is in recognition of Dr. Gruse's activities as a technical administrator and acknowledged expert in the field of petroleum chemistry, and more particularly for the work of his Fellowship, financed by the Gulf Research and Development Co., which has resulted in fundamental improvements in the refining of petrol, lubricating oil, waxes and other petroleum products. After graduating at Johns Hopkins University and taking his Ph.D. at the University of Wisconsin, Dr. Gruse taught for some years, and then served in the Chemical Warfare Service during the First World War. He became a fellow of the Mellon Institute in 1919 and a senior fellow in 1923, and then in 1945 took up his present appointment at the Institute. During the Second World War he was awarded a Certificate of Merit from the United States Office of Scientific Research and Development, and the Distinguished Service Award of the Ordnance Department. Dr. Gruse has been very active in the American Chemical Society, having been first secretary of the Petroleum Division in 1921, and chairman of the Pittsburgh Section during 1943–44 ; he is chairman of the Committee on Automotive Engine Oils of the American Society for Testing Materials.

Part-time Work in Chemical Engineering

THE would-be chemical engineer is in the unfortunate position of having to acquire a knowledge of the fundamental principles of both chemistry and engineering before he can embark on the application

of these principles to the design of plant and the development of processes. This preliminary work cannot be greatly curtailed, and consequently the training of a chemical engineer is bound to take longer than that of a pure chemist or an engineer. The Institution of Chemical Engineers published some years ago a scheme for a full-time degree course in chemical engineering extending over four years; but, in view of the great shortage of chemical engineers, it has been felt for some time that degree courses alone are not sufficient and that a valuable method of increasing the supply of chemical engineers would be the establishment of part-time courses. The difficulty has been to devise such courses without making them of inordinate length. The Institution has now put forward a method of instruction in the form of a pamphlet entitled "Scheme for a Part-time Course in Chemical Engineering" (pp. 23; London: the Institution, 1951; 2*s*.). This is described, perhaps optimistically, as a three year course with an "endorsement year" for entrants already holding Ordinary National Certificates in chemistry or mechanical engineering. It is quite clear, however, that the course is really one of four years, as, without the endorsement year, it would be very incomplete; with the endorsement year, the course is admirable and, on paper at least, equivalent to the degree course. Detailed syllabuses and the approximate times spent on each subject are given, which, though only suggestions, will undoubtedly prove of great value to those who are considering the possibilities of such a course. It should be noted that the times given include laboratory work. In addition to the purely formal matter, the pamphlet abounds in brief remarks on the underlying principles of the teaching and the emphasis to be placed on different subjects; it is worth reading for these alone.

Weather Artistry

THREE recent articles by L. C. W. Bonacina in the Royal Meteorological Society's monthly periodical *Weather* deal with the picturesque effects of weather, especially cloudscapes. The first, "The Scenery of Devonshire in Relation to Weather and Climate" (May 1951), is a rapid tour through the coastlands, valleys and moors in sunshine, shower, frost, fog and snow. In "London's Picturesque Cloud Scenery" (November 1951) we read how, in the built-up areas of south-east England, man may play havoc with the beauties of hill and woodland, but the sky is fortunately beyond his reach. Even the pearly London smoke haze may add to the beauty of "faltering glints of silvery or golden sunlight seen to perfection as they steal across the Thames". London fogs are rather tactfully passed over. The remaining article, "Turner as a Weather Painter, a Centenary Appreciation" (July 1951), which is illustrated by reproductions of "The Wreck" and "Snowstorm", is a skilful analysis of the weather symbolism in Turner's renderings of cloud and sea, and the effects of sunshine and haze on vistas of mountains. In fact, as Mr. Bonacina points out, instantaneous detail of actual weather in paint is almost impossible for an artist to realize; he can only reproduce the spirit of the rapidly changing scene. Turner's cloudscapes may not be perfect meteorology, but they are magnificent art.

Processing Colonial Raw Materials

IN a Colonial Office publication, "The Processing of Colonial Raw Materials", by Charlotte Leubuscher (pp. 186; London: H.M.S.O., 1951; 10*s*. net), it is pointed out that the root causes why processing industries have not developed in many tropical countries are general economic backwardness and low standards of living. Prospects for the establishment of processing industries are brightest for materials such as oilseeds and cane sugar, which have a local market or where such a market might easily be established. There is less likelihood that processing factories can be successfully established for materials such as cocoa or sisal for which the markets are almost entirely outside the producing countries. Often a producing territory provides too small a basis for the development of an efficient industry. The market in this event would have to be regional, but it does not follow that the most advantageous situation for a processing industry will necessarily be in the country producing the bulk of the raw material. In other words, it is likely that the tendency for industries to be attracted by the markets where their output is sold will assert itself also in the tropics. This is exemplified by the comparatively advanced industrial development of Trinidad within the West Indian region and the industrial importance of Singapore where raw materials from the Malayan hinterland and Indonesia are processed on a large scale.

Soil Survey of Great Britain: Report for 1950

THE Soil Survey Research Board of the Agricultural Research Council has recently published report No. 3 of the Soil Survey of Great Britain (pp. 36+3 plates; London: H.M.S.O., 1951; 3*s*. net). This report summarizes the progress made during 1950 and gives brief descriptions of new series found. It also includes an obituary of Prof. G. W. Robinson, chairman of the Board, who died during the year. The broad classification of previous reports has been retained; this follows current international practice, with subdivisions to take into account differences in drainage and in the rocks from which the soils are formed. The classification is shown by tables, and this should assist in the recognition of soils developed on the same rocks in those parts of Britain which have not yet been mapped. During the year a further 327,000 acres have been surveyed, and work has continued in Lancashire, Yorkshire, Banffshire, Kincardineshire and Angus, Roxburghshire and Ayrshire. The survey of a sheet around Cambridge has been started with the view of obtaining information about the Fenland soils. The sheets covering Anglesey and the Glastonbury (Somerset) sheet have been completed and are being prepared for publication, and the Wem (Shropshire) sheet is in an advanced state of preparation for publication. Soil maps and reports of the north of Banffshire and the north-east of Aberdeenshire are almost ready for printing.

Science Abstracting: Final Report of the Paris International Conference

THE final report of the International Conference on Science Abstracting, convened in Paris by the United Nations Educational, Scientific and Cultural Organization during June 20–25, 1949, has now been issued (pp. 192+10 plates. Paris: Unesco; London: H.M.S.O., 1951; 12*s*. 3*d*. net) and gives a clear idea of studies and discussions out of which the recommendations of the Final Act of the Conference (see *Nature*, 164, 998; 1949) emerged; the Final Act is given in the appendixes to the report. These appendixes also include, among other documents, the