

ceeding. Latucunga, midway between Quito and Ambato, Pujilo and Squisili, Lamerced and San Francisco and many other places in the vicinity were all badly shaken. Quito itself does not appear to have been greatly damaged. Messages from the observatory at Quito state that the earthquake was tectonic in origin and not volcanic. Faulting took place and giant fissures opened with accompanying landslides. Roads were destroyed; the Quito-Guayaquil and other railways were blocked; rivers, including the Patate, were also blocked by changes of level and by debris with consequent flooding; land levels were altered.

The area concerned, being part of the Pacific ring of instability, is liable to earthquakes, though fortunately in recent years the epicentres of great earthquakes have been away from densely peopled areas in Ecuador. The epicentres of the earthquakes of 1929 and 1933 were in the sea, though the latter affected the Santa Elena peninsula to some extent (*Nature*, November 18, 1933, p. 779). Earthquakes in the eastern Andes region of Ecuador occurred in 1919, 1924, 1927, 1928 and 1930, and earthquakes, probably of volcanic origin, occurred near Chimborazo in 1924 and 1927, and near Cotopaxi in 1934. In 1939 an earthquake cracked buildings in Vallecillos (*Nature*, February 11, 1939, p. 238). By far the largest earthquake in Ecuador was on February 4, 1797, when Quito was badly affected and some forty thousand lives were lost in the country.

University of Birmingham

PROF. HUMPHREY FRANCIS HUMPHREYS has been appointed to succeed Prof. M. L. E. Oliphant, who retires from the post on September 30, as vice-principal. Prof. Humphreys was educated at Bromsgrove School and the University of Birmingham. After graduating, he went for a time to the Dental School of Harvard University and later travelled extensively in America, Japan, Malaya, Burma and India. On his return he went into partnership as dental surgeon with his father, the late John Humphreys, the distinguished archaeologist, who played a leading part in the creation of the Dental School of the University. In the First World War Prof. Humphreys served in the East and commanded a cavalry field ambulance in the advance into Syria in 1918, gaining the M.C. In 1919 he resumed his dental practice and was appointed lecturer in dental anatomy in the University. After being assistant-surgeon at the Birmingham Dental Hospital he became an honorary surgeon in 1925. In 1934 he was appointed an honorary physician to the King, and in the following year he became professor of dental surgery and director of dental studies in the University. During 1939-46 he was colonel in command of the Fourteenth General Hospital. In 1946 he was appointed deputy lieutenant for Warwickshire. Prof. Humphreys is also a member of the Advisory Committee of the University Grants Committee, the Nuffield Provincial Hospitals Trust, the Medical Research Council and Birmingham Regional Hospital Board.

Dr. F. Morton, reader in chemical engineering, has been appointed to the second chair of chemical engineering in place of Dr. Stacey Ward, who was recently appointed to the chair of mining. Dr. Morton, who was born at Sheffield, is an M.Sc. and Ph.D. of the University of Manchester. He was chief chemist to Trinidad Leaseholds, Ltd.

Mr. John Murphy has been appointed professor of industrial metallurgy to succeed Prof. Leslie Aitchison, who has retired owing to ill-health. Mr. Murphy graduated at the University of Manchester and has been on the scientific staff of the Department of Metallurgy at the National Physical Laboratory. He is chief metallurgist of J. Stone and Co.

Prof. T. Thorvaldson

THE issue of the *Canadian Journal of Research* (Section B, Chemical Sciences) for April 1949 is dedicated to Prof. Thorbergur Thorvaldson by his friends and students on the occasion of his retirement as director of the Chemistry Department in the University of Saskatchewan. Prof. Thorvaldson was born in Iceland, but was brought up from childhood in Canada. After graduating in the University of Manitoba, he worked on thermochemistry and the determination of atomic weights under T. W. Richards and G. P. Baxter at Harvard University. He was awarded his doctorate at Harvard in 1911, and devoted the next two years to electrochemical and photochemical researches with F. G. Donnan at Liverpool and R. Luther at Dresden, respectively. In 1914 he was made assistant professor of chemistry in the University of Saskatchewan, and five years later he became head of the Chemistry Department, which he has directed with much distinction for thirty years. Well known as a teacher of analytical and physical chemistry, he is also widely known for his series of fundamental researches on the chemistry of cement and the preparation and physico-chemical properties of its constituents. In recognition of his scientific work, Prof. Thorvaldson was elected a fellow of the Royal Society of Canada in 1926, and more recently the Government of Iceland conferred on him the dignity of a knighthood of the Order of the Falcon.

The Petroleum Times (1899-1949)

THE well-known technical periodical *The Petroleum Times* has recently celebrated its golden jubilee in a manner fitting alike to a great industry—its *raison d'être*—and to itself. The jubilee number contains a review of the evolution of British oil development during the past fifty years, the story being told in serial form covering successive five-year periods. Starting with some notes on the founding of the journal and on pioneers in the oil industry, the first five years (1900-4) are considered to be the lamp-oil era; the next period (1905-9) is one of laying solid foundations, the grasp of what the word petrol is destined to mean to the world in general and to Great Britain in particular. 1910-14 brings a spurt in commercial development with the overcoming of technical and fiscal obstacles, culminating in the First World War, which, whatever else it did not do for mankind, certainly brought the industry to maturity and placed petroleum in the forefront of international commerce. The first-war period 1915-19 is a record of crises in oil supplies, desperate searches for substitutes, measures of government control and, thereafter, the extraordinary development of the oil resources of the world.

The American scene dominates the general picture until 1924; the Russian influence of oil marketed in Great Britain at undercut prices is clear in the ensuing period until 1929; and then comes the flood-tide of American oil production during 1930-34 and its large-scale consequences on the industry

all over the world. Succeeding this period is the approach to sanity, orderliness and healthy competition, with explorations, new discoveries, technical developments on an unprecedented scale, leading up to the 1939 calamity. The period 1939-45 is rightly described as when "The Industry Gives its All", with petroleum 'in action' as never before. The last phase, 1946-49, "The Threshold of Freedom", reveals that struggle is still going on in the oil world as in other spheres of human activity. This jubilee number is beautifully produced and illustrated, and, as a permanent record of fifty years of British achievement in the petroleum industry and in the making of this periodical, it should find a place in every oilman's library.

New Plant Diseases

THE life-history of *Ramularia onobrychidis* is described by S. J. Hughes in a recent paper (*Trans. Brit. Mycol. Soc.*, 32, Pt. 1, 34; 1949). This fungus causes a leaf spot of sainfoin: it produces chains of conidia from spring to early autumn, and also makes sclerotia in winter. The latter remain viable for a considerable period, and produce conidia from the neck cells. Pathogenicity of the fungus has been proved by inoculation with conidia; but no perithecial stage has yet been found. Another leaf spot of sainfoin, caused by *Septoria orobina*, has also been described by the same author (*ibid.*, pp. 60-62). W. C. Moore mentions three new fungal plant diseases (*ibid.*, pp. 95-99). *Zythia fragarice*, which is responsible for a leaf blotch on strawberry, can also produce similar damage on *Geum*. A downy mildew on *Alyssum saxatile* was found due to *Peronospora galligena*. Downy mildew of the vine, *Plasmopara viticola*, has probably been confused with powdery mildew on the same host; but several authenticated records in England are now given. A fourth malady, black heart of potato, is non-parasitic; it may be due to unsatisfactory clamping conditions, though it is possible that the symptoms were induced by high soil temperature while the tubers were still attached to the parent plant.

New Insecticides

A CONCISE report on many of the newer insecticides has been prepared by a committee of the Mushroom Growers' Association, Yaxley, Peterborough (12 pp., 2s. 6d. net (April 1949). D.D.T., 'Gammexane', azobenzene, hexaethyltetraphosphate and tetraethylpyrophosphate are described in some detail, and parathion (*E* 605), velsicol 1068, Dynone II and piperine are also mentioned. Methods of application are discussed. The report is in the nature of a grower's guide, and more experimental work must be done before any overall recommendation can be made.

Earthquakes During May

ELEVEN strong earthquakes and many minor ones occurred during May. All the major ones had their epicentres in well-known seismic zones, and fortunately most were either in the sea or in uninhabited places on land. No really deep-focus earthquakes were among them, though at least three had deeper foci than is normal, namely, those on May 3 in the Kurile Islands, and on May 8 and 30 off the coast of northern Chile. These were also three of the four strongest shocks of the month, the fourth being the

earthquake on May 9, with a normal depth of focus, and epicentre near the coast of north-west Sumatra. Three local shocks are also worthy of note. The first, on May 1, was felt at Horta in the Azores; the second was in southern California and was felt at Santa Monica, Los Angeles, Blythe and Elsinore with scale 4 (Modified Mercalli scale); the third was in France in the Departments of Nièvre and Saône et Loire, being felt in the former at Château-Chinon and in the latter at Anost with scale 3-4 (Modified Mercalli scale). Readings of instrumental records have been received from the central stations of the United States Coast and Geodetic Survey and Strasbourg, and from individual observatories at Cleveland (Ohio), De Bilt (Netherlands), Durham, Edinburgh, Kew, Stuttgart and Toledo.

Diploma in Animal Genetics at Edinburgh

THE University of Edinburgh has recently instituted a diploma in animal genetics. The course lasts one year, during which students spend about half their time attending lectures and practical work, and during the remainder undertake directed research or attend other suitable courses in the University. Candidates should be honours graduates in a biological subject or in mathematics, or must otherwise satisfy the University of their fitness to enter the diploma course. It is expected that, during the coming year, Prof. Sewall Wright of Chicago will be in Edinburgh as a Fulbright visiting professor and will take part in the course.

International Union of Nutritional Sciences

IN connexion with meetings of the Committee of the International Union of Nutritional Sciences, to be held in Copenhagen during September 12-14, it has been arranged to hold some scientific sessions and visits to institutes of nutritional interest in the neighbourhood of Copenhagen between Monday and Friday, September 12 and 16, inclusively. It is thought that this may be of interest to a wider circle of nutritional workers, and those interested are invited to communicate with Prof. H. Dam (Biology Department, Polytechnic Institute, Østervoldgade 10 L 11, Copenhagen, Denmark), or Dr. Torben K. With (Rigshospitalet, Copenhagen, Denmark), who are taking charge of the local arrangements.

Announcements

THE following have been elected to Beit Fellowships for Scientific Research of the value of £500 per annum each, tenable at the Imperial College of Science and Technology: A. R. Boothroyd, for research in electrical engineering under the direction of Prof. Willis Jackson; G. E. Gadd, for research in aeronautics under the direction of Prof. A. A. Hall; J. T. Law, for research in physical chemistry under the direction of Prof. H. V. A. Briscoe.

DR. J. R. M. INNES, formerly of the Institute of Animal Pathology, University of Cambridge (1926-40), and head of the Subdivision of Pathology, Biological Laboratories, Imperial Chemical Industries, Manchester (1940-47), has been awarded a special research fellowship by the United States Public Health Services, Division of Mental Science. Dr. Innes will work at the Microbiological Institute, National Institutes of Health, Bethesda, Maryland, on demyelination encephalopathy in lambs and dogs.