evaporation of metals, magnetic crack detection, high-speed oscillography, electron diffraction, Geiger counter spectrographs, etc.

Dolejšek was popular with students, and collected around him a school of many young workers. Much of his work was published in *Nature*. In all, he produced more than sixty scientific papers.

The War and the closing of the universities of Czechoslovakia by the Germans meant for Dolejšek new and dangerous duties. He devoted himself to the work of an illegal group, which substantially contributed to the Allied victory. He worked on building a secret wireless station known as *L* 16. The leaders of the group fell one by one into the hands of the Gestapo, and he eventually became the leader; but he also was captured and died in the hands of the Germans at the Terezín concentration camp after much suffering, but unbeaten in spirit. He did not desert his cause, for which he fought to the end.

VLADIMIR VAND.

Mme. H. Metzger-Brühl

WE regret to record that the death in the extermination camp at Auschwitz must now be presumed of Madame Hélène Metzger-Brühl, a learned historian of science and treasurer of the Académie Internationale d'histoire des Sciences. Born in 1889 at Chatou (Seine et Oise) she graduated at the Sorbonne, specializing in crystallography and general chemistry. Her husband, Paul Metzger, professor of history at Lyons, as well as her eldest brother, fell in action in the First World War, and her younger brother, Francis, died in 1941. Thus of these gifted brethren the only survivor is M. Adrien Brühl, of the French School of Archæology at Rome.

Hélène Metzger turned early to the study of the history and philosophy of science. She was an active member of the Section d'histoire des sciences of the Centre internationale de Synthèse in Paris. When the Académie Internationale d'histoire des Sciences was founded in 1928 as the organ of the International Committee for the History of Sciences, Hélène Metzger's name was fourteenth on the list. In 1931 she succeeded Prof. Sigerist as its treasurer. In 1934, after the Nazi dismissal in Germany of Jewish members of the Academy, a large group of members led by the president of honour, Sir Frederic Kenyon, announced that in no circumstances would they attend a congress in Germany. Hélène Metzger was among those who initiated this decision and was marked for vengeance. After the German occupation of France the Gestapo tracked her from her home in Paris to a little *pension* at Lyons where she was writing hard. She was carried off to the fortress of Montuc and thence to the concentration camp at Drancy. Fellow victims who have survived testify to her courage and cheerfulness during these months. She was one of a convoy taken from Drancy to the extermination camp at Auschwitz.

Of Hélène Metzger's books, the best known are "Les Doctrines chimiques en France du début du XVIIe à la fin du XVIIIe siècle", and "Les concepts scientifiques", both of which were *couronné*—the former by the Paris Academy of Sciences while the latter won the *Prix Bordin* of the Academy of Moral and Political Sciences.

"Les concepts scientifiques" is perhaps her most striking contribution. Contemplating—to use a phrase of M. Lalande who contributes a preface to the published volume—"the natural history of scientific thought", she analyses the parts played respectively by analogy; by concepts of permanence (conservation) of matter; by concepts of evolution, parallel, divergent or convergent; and by what she terms scientific nominalism, leading to abstractions by elimination (*épuration*) or by indetermination.

Her most important evidence for building the 'natural history' is taken from the field of seventeenth and eighteenth century chemistry, which she had made peculiarly her own. While earlier thought, of course, contributes illustrations to the section on analogy, the emphasis is on those to whose writings we can turn to test the classification proposed, and this enhances the value of the study.

A stream of historical studies mostly contributed to *Isis* or to *Archeion* followed this volume. Hélène Metzger was always concerned in tracing the psychological implications of the growing body of scientific knowledge. She was no less steadfast when the question of principle arose as regards relationship with the Nazi Government. In her last hours there must have echoed in her mind those words of another such victim, "Perhaps ye who sentence me are more fearful than I".

CHARLES SINGER.

NEWS and VIEWS

Dr. R. J. W. LeFèvre

DR. R. J. W. LEFÈVRE has been appointed to the chair of chemistry in the University of Sydney, which will become vacant shortly through the retirement of Prof. C. E. Fawsitt. Dr. LeFèvre is at present head of the Chemistry Department of the Royal Aircraft Establishment, Farnborough, and hopes to take up his new post during the latter part of this year. Educated at East London (now Queen Mary) College, Dr. LeFèvre was appointed a lecturer at University College, London, in 1928, becoming later reader in chemistry of the University of London. During the whole of the War he has been with the Air Ministry and Ministry of Aircraft Production. In 1941 he went as chemical adviser to the Commander-in-Chief Far East, with headquarters in Singapore. He fortunately escaped, not without difficulty, and on arriving in Australia took up a similar appointment with the Royal Australian Air Force. He returned to England in December 1943 and later was appointed to Farnborough. In his research work at University College, Dr. LeFèvre applied physical methods to organic chemistry problems. His most important work has been in the use of dielectric constant measurements to solve numerous difficult geometrical structural problems such as the identification of *cis*- and *trans*-forms. The method was also used for following reaction velocities. His wife, Catherine LeFèvre, was associated with some of this work, and she also carried out independent studies on the related phenomenon, the Kerr effect. During the War, Dr. LeFèvre's work ranged over the whole

field of chemistry—physical, analytical, organic, etc. —and his work made a notable contribution to the war effort. His appointment to Sydney will play an important part in the continuation of the close links which have for long existed between the universities of Great Britain and Australia.

Institute of Fuel: Appointment of New Secretary

MR. P. C. POPE, who has been secretary of the Institute of Fuel from its earliest days, resigned on March 1 and will in future act as adviser to the Institute. In token of the energy and enthusiasm which Mr. Pope has always devoted to the Institute of Fuel, and to fuel technology in general, the Council of the Institute has unanimously recommended him for election as an honorary member.

Mr. R. W. Reynolds-Davies succeeds Mr. Pope as secretary of the Institute. Receiving his technical education at University College, Cardiff, and the South Wales School of Mines, Mr. Reynolds-Davies has had wide experience as a chemical engineer and fuel technologist. His first industrial experience was obtained on the coke-oven plant of the Cambrian Combine, now merged with the Powell Duffryn Associated Collieries, Ltd. He was later engaged as assistant with the late Dr. W. R. Ormandy on power alcohol and petroleum products. This work was followed by nine years as one of the chemical plant managers with British Industrial Solvents, Ltd. For the three years previous to his joining the Institute of Fuel last autumn as deputy secretary, he was manager of the Development Department of the Royal Ordnance Factory at Bridgend.

A Radiochemical Laboratory at the University of Durham

SINCE the early days of radioactivity, successful research in this field was frequently based on collaboration between physicists and chemists. In Great Britain, however, in the years between the two World Wars, the fundamental work done on the physical side of radioactivity, mainly by Rutherford and his school, was not adequately supported by chemical research on a similar scale; nothing was attempted comparable to the continuous efforts in Paris (Laboratoire Curie) or Berlin (Kaiser Wilhelm Institute, under Otto Hahn) which, among other important results, led to the observation of the fission of uranium. As in the new phase of radioactivity inaugurated by this discovery the need for scientific workers trained in the chemistry of the radio-elements is even more obvious, the Council of the Durham Colleges, aided by the University Grants Committee, has recently decided to create the necessary facilities by founding a Radiochemical Laboratory.

The purpose of this Laboratory will be twofold. By incorporating a special course in radiochemistry into the curriculum of the Durham students of chemistry, it is intended to make them sufficiently well acquainted with up-to-date knowledge and apparatus to enable them to act at least as chemical helpers in the various radioactive research centres and plants now about to spring up in Britain. Further, by undertaking chemical research connected with radioactivity, it is hoped to contribute also to the progress of radiochemistry in the broadest sense of the term; micro gas-analytical methods, the development and use of which have formed a feature of Durham chemical researches during recent years, will naturally be linked up with this programme. The Durham Radiochemical Laboratory will, at the beginning, consist of two small buildings, separate from each other and from the main Science Laboratories, for the treatment of feebly, and of strongly, radioactive substances, respectively. Their erection is under way and will be completed before the autumn, when it is hoped to open them not only for Durham students, but also for a small number of advanced workers. They will form part of the Chemistry Department of the University, under the directorship of Prof. F. A. Paneth.

Fisheries Laboratory, Lowestoft

ALTHOUGH three members of the staff of the Fisheries Laboratory, Lowestoft, who were acting as coastal fishery officers, succeeded in making scientific observations which have given valuable information on the war-time recovery of fish stocks, all co-ordinated scientific work at the Laboratory was suspended during the War. The Laboratory reopened in September 1945, when ichthyometric work on the chief food fishes and age-composition observations on the North Sea plaice and herring were resumed at the appropriate ports of landing. Plans for work in the waters around the British Isles and in the Arctic fishing grounds are in active preparation. These include the construction of a new laboratory, the building of a large research ship of the type used by the Hull trawler owners for the prolific Arctic fishery, and the conversion for research work in the North Sea of the Admiralty trawler *Sir Lancelot*, built during the War on the model of a successful commercial type—the *Star of Orkney*. In the meantime, a 90-ft. motor fishing vessel of a class built by the Admiralty with a view to subsequent use as fishing boats has been borrowed and converted to carry a trawl on the starboard side. This vessel is to be known as the *Platessa*. While her main task will be to mark large numbers of plaice in the southern North Sea so as to obtain vital information on the yield of the stock at the present rate of fishing, it is also hoped to gain information on the suitability and efficiency of this type of craft as a commercial trawler.

Technical Education in Great Britain

IN his reply to a lively debate on technical education in the House of Commons on March 22, the Parliamentary Secretary to the Ministry of Education, Mr. Hardman, stated that the national council for technology which is to be established to co-ordinate the work of the regions and ensure that a comprehensive national view is taken, as soon as the regional councils have been set up, will be expected to determine the question whether the technical colleges should award a diploma or a degree, which was left undecided by the Percy Committee. The Ministry has also in preparation a circular proposing to local education authorities the establishment for the major technical colleges of strong governing bodies representative of industry and of the authorities, and which should possess considerable executive freedom. Discussions are also proceeding with the various industries for the establishment of national colleges; but Mr. Hardman's announcement that one has recently been established for watch- and clock-making will scarcely be reassuring to a body of opinion—which found admirable expression in the debate—holding that the real function of technical education is the creation of adaptable interest and intelligence