enrolments, in staff and in accommodation and equipment. A start has already been made; for the session 1953-54, 670 students were following full-time university courses in the Faculty of Technology. It was then planned to double this number by 1962 and a most encouraging start was made last October, when the number of new enrolments increased by 45 per cent; there is a further increase in the present session.

New chairs in municipal engineering, applied physics, industrial administration, textile chemistry and chemical engineering have been created, and more are envisaged.

Building extensions approved in 1928 are now coming into use; these extensions were, however, planned to relieve congestion existing thirty years ago, and further space is now essential. Preliminary steps have already been taken to provide a campus for the College and to meet future needs.

From small beginnings more than a hundred and thirty years ago the College has developed to its present stature, and it is confidently expected that, with the additional prestige bestowed by the Charter, its progress in the future will be no less remarkable.

OBITUARIES

Dr. R. C. L. Perkins, F.R.S.

DR. R. C. L. PERKINS, the distinguished entomologist, best known for his work on the fauna of the Hawaiian Islands, died on September 29 at Bovey Tracy, Devon, at the age of eighty-eight.

Robert Cyril Layton Perkins was born on November 15, 1866, at Badminton, Gloucestershire, the second son of the Rev. Charles Mathew Perkins. He was educated at the Merchant Taylors School in London. In 1885 he won an open classical scholarship to Jesus College, Oxford; but after two years at Oxford he changed to science.

In 1891 Dr. Perkins was chosen by a committee appointed by the Royal Society and the British Association to undertake an investigation of the land fauna of the Hawaiian Islands. For nearly ten years he worked strenuously for this committee, collecting material in all parts of the Islands. In 1899 his comprehensive volumes on the insect groups and birds began to appear in the "Fauna Hawaiiensis", and continued until 1913, when he completed the general introduction to the whole series. By this time he had already received the Linnean Society's Gold Medal for 1912.

During 1902-4 he worked for the Agricultural Department of the Territory in various capacities. But in 1904 the Hawaiian Sugar Planters' Association put him in charge of the new insect department of its experimental station. His work here with O. H. Swezey and F. Muir was mainly concerned with studying and controlling the pests of sugar cane, by introducing their natural parasites from their countries of origin.

Dr. Perkins was forced to retire in 1912 through ill-health acquired in the strenuous field-work under the exacting climatic conditions of Hawaii. He settled at Newton Abbot in Devon, but continued to work on his accumulated Hawaiian collections and to write about them for more than twenty years. He also continued his studies of British insects and made outstanding contributions to our knowledge of Strophoptera, bees, crabronid wasps and sawflies. He

was elected a Fellow of the Royal Society in 1920 and in 1951 an honorary Fellow of the Royal Entomological Society of London, of which he had been an ordinary Fellow for more than fifty years.

In 1901 he married Zoe, daughter of A. T. Atkinson, superintendent of public instruction, Honolulu, Hawaiian Islands; she died in 1940, and there are three surviving sons of this marriage. In 1942 he married Mrs. Clara Senior, of Highweek, Newton Abbot, and she died in 1949. His last days were sad ones, with blindness and failing strength. His loss will be regretted by the many who felt the inspiration of his genius and who experienced the encouragement he showed to those younger and less talented than he was.

ROBERT B. BENSON

Mr. H. L. Kirke, C.B.E.

MR. HAROLD LISTER KIRKE, formerly head of the Research Department and assistant chief engineer of the British Broadcasting Corporation, died in London on August 25 at the age of sixty. He served in the First World War as an officer in the Royal Fusiliers, the Signals Branch of the Royal Engineers and the Royal Corps of Signals. Later he joined the Marconi Company and was concerned with the early development of radio telephone transmitters. He was one of the small band of enthusiastic engineers who established the Writtle experimental broadcasting station in 1922, and two years later he joined the staff of the B.B.C. In 1925 he became head of the development section, which later became the Research Department of the Corporation; and in this capacity he was responsible for many of the technical advances made by the B.B.C. over the ensuing twenty-five years.

Important contributions were made by Kirke to the development of high-quality sound broadcasting at various stages from the studio through the transmitters and aerial systems to the technique of reception. Latterly, his study of the problems associated with sound broadcasting at very high frequencies was particularly valuable, and the decision of the B.B.C. to adopt the V.H.F. frequency-modulation system was based to a great extent on his research work.

Kirke was an active member of the Institution of Electrical Engineers; he was chairman of the Radio Section during 1944-45, and a member of Council from 1947 until 1950. He was also a Fellow of the Institute of Radio Engineers of New York, and was vice-president in 1952. He played a leading part in forming the Acoustics Group of the Physical Society, and was chairman of the Group in 1947. He was appointed C.B.E. in 1947.

Many of those engaged in radio research over the past quarter of a century will remember Kirke as an enthusiastic and pleasant companion at technical visits and demonstrations, and as a wise counsellor at meetings of boards and committees. It was with great sorrow that all his colleagues and associates learnt of his retirement through illness in 1952, two years after his appointment as assistant chief engineer of the B.B.C.

R. L. SMITH-ROSE

Lieut.-Colonel W. French, C.B.E.

LIEUT.-COLONEL WILLIAM FRENCH, a member of the Council of the City and Guilds of London Institute, who was superintendent of the Institute's Department of Technology during 1934-49, died on September 18. Colonel French had had a varied career in the law, in the army during the First

World War, in the civil administration in Iraq, and in the iron and steel industry, before going to technical education. He joined the "City and Guilds" in 1929 at a time when the Institute was slowly recovering from the First World War. The subsequent remarkable expansion of its work until 1939 and the resumption of expansion from 1942 were largely due to his wise guidance. His major contribution was the building up of the Institute's system of advisory committees, where representatives of industry and education together plan and keep up to date the schemes of syllabuses and examinations upon which technical education, particularly at craft level, is based both in Britain and overseas. This advisory committee system transformed a rather rigid external examining body into an instrument sufficiently flexible to meet the developing needs of industry, yet sufficiently stable to maintain the high standards for which the "City and Guilds" has always stood.

Colonel French was especially successful in his personal relationships with the officers of the Board of Education and local education authorities, technical college staffs and those in industry (then fewer in number) who saw the need for better technical education. With his love of craftsmanship, his passionate concern for the well-being of young people, his transparent honesty and his pungent humour, he unobtrusively did much between the Wars in the technical education field to dispel misunderstanding and to promote that co-operation among technical examining bodies, teachers' organizations and professional and industrial bodies which nowadays is taken for granted. During the Second World War, though hampered by ill-health, he played a useful part in discussions preceding the drafting of the 1944 Education Act and, after the War, in the negotiations that ultimately led to the formation of the Associated Examining Board.

CYRIL LLOYD

NEWS and VIEWS

Atoms for Peace Awards

DR. JAMES R. KILLIAN, jun., president of the Massachusetts Institute of Technology, is to be chairman of the Organization and Planning Committee of Atoms for Peace Awards. In addition to Dr. Killian, the Committee will include Dr. Detlev W. Bronk, president of the Rockefeller Institute for Medical Research and president of the National Academy of Sciences; Dr. Ralph J. Bunche, Under-Secretary General of the United Nations; Dr. Arthur H. Compton, formerly chancellor of Washington University; Mrs. Douglas Horton, formerly president of Wellesley College; Dr. Mervin J. Kelly, president of the Bell Telephone Laboratories; and Dr. Alan Waterman, director of the National Science Foundation. The Atoms for Peace Awards, it will be recalled, were established last summer as a memorial to Henry Ford and Edsel B. Ford by a Ford Motor Company Fund appropriation of 1,000,000 dollars. It will provide 100,000 dollars annually for ten years to be spent in helping to provide incentives for the world's scientists, inventors and engineers—without regard for nationality or political belief—towards finding new ways in which atomic energy can be used for the welfare of mankind. It is now announced that the Executive Committee of the Massachusetts Institute of Technology has agreed that the headquarters of the new institution be located at the Institute. In inviting Dr. Killian and the Committee to undertake the planning and organization of the Awards, Mr. Henry Ford II expressed the hope that the Committee "would set up the organization of the Awards so that the organization would be an independent corporate entity, entirely separate and divorced from Ford Motor Company".

In informing Mr. Lewis Strauss, chairman of the Atomic Energy Commission, of the establishment of the new institution on July 25, Mr. Ford described it as a response to the hope expressed by President Eisenhower at the July meeting of the "Big-Four" in Geneva that "private business and professional men throughout the world will . . . provide an incentive in finding new ways that this science can be used . . . for the benefit of mankind and not for destruction". Mr. Ford said at that time, "We would

propose that when the organization of this new memorial fund is completed, the Board of Trustees of Atoms for Peace Awards appoint each year a competent International Jury of Awards for the purpose of selecting from among the world's scientists, inventors and engineers—without regard for nationality or political belief—the individual or group of individuals who, in the Jury's judgment, has made the greatest contribution during the year to peaceful uses of atomic energy; that the individual or group so selected be granted with appropriate ceremony the Atoms for Peace Award for that year; that the annual Award carry, in addition to a suitable medal to be designed and cast for the purpose, an honorarium of 75,000 dollars; that, if during any year the International Jury of Awards or the Board of Trustees finds no candidates pre-eminently meriting the Atoms for Peace Award, the sum at the disposal of the memorial fund be used that year for scholarships and fellowships most likely to contribute to the advancement of the new science of peaceful application of atomic energy".

Massachusetts Institute of Technology:

Prof. F. O. Schmitt

PROF. FRANCIS O. SCHMITT, at present head of the Department of Biology of the Massachusetts Institute of Technology, is relinquishing his post to take up the special appointment of Institute professor, and will be succeeded in the Department by Prof. Irwin W. Sizer, at present associate professor of biochemistry. The post of Institute professor is a special one designed to recognize outstanding achievement and to give its holder freedom to concentrate on research and advanced teaching; the only other person at the Massachusetts Institute of Technology who holds this rank at present is Prof. John C. Slater, the distinguished solid-state physicist. Prof. Schmitt's special field of study is in the use of the electron microscope for biological research, a field in which he became interested through his early work in X-ray diffraction and polarization optics for the study of the molecular organization of biological cells. After graduating from Washington University, St. Louis, in 1924, he did research work