

solved. In 1914 he succeeded Mr. Ballard as inspector in south-west Lancashire, North Wales and Ireland. In 1920, on the retirement of Mr. Curphey, he was appointed chief inspector.

During his tenure of office Dr. Lewis Bailey devoted much time to the question of effluents from ammonia plants, and in this connexion he was led to consider the whole process of coal gas purification with the view of providing an ammonia liquor of a less noxious character. He also took particular interest in the subject of water scrubbing on Gay Lussac tower gases as a means of reducing the acidity of sulphuric acid plant escapes, and in the elimination of sulphur oxides from waste gases arising from the combustion of fuel. He was an original member of the Government Chemist Committee under the chairmanship of the late Sir Robert Robertson which was charged with the examination of proposals for gas washing at the Battersea Power Station.

In 1929 he retired on reaching the age of sixty-five years, and from that time had lived quietly in south-east England.

Prof. W. S. Lazarus-Barlow

PROF. LAZARUS-BARLOW, whose death occurred on January 15, was one of the earliest experimental pathologists in Great Britain to turn his attention to cancer.

After filling pathological posts at Cambridge, St. George's and Westminster Hospitals, where a post-mortem snick of the thumb led to the loss of his left arm, Lazarus-Barlow was made director of the Cancer Research Laboratories of the Middlesex Hospital. Fifty years ago, these Laboratories consisted of about eight small rooms on the ground floor, packed to capacity by men and women drawn to the twofold problem of the cause and cure of cancer. Lazarus-Barlow saw that with the growth in the use of X-rays and radium there was an urgent need for fundamental knowledge of the effects of these agents upon living structures, so he and his colleagues took up experimental studies upon these vital reactions of the cell ;

and it was found that a living cell exhibits much greater sensitiveness to radiation when it is in a state of active division than when in its growing phase. Lazarus-Barlow in particular showed the differential response of tissues according to whether the radiation dose is given in a short or a long period of time ($QT = \text{constant}$). Such a finding had an obvious bearing upon the radiation treatment of cancer. As early as 1909 he gave the Croonian Lectures of the Royal College of Physicians, choosing the subject of "Radioactivity and Carcinoma".

In view of the widespread occurrence of radium in Nature, it is not perhaps surprising to find it present in organic life. By strictly quantitative methods, Lazarus-Barlow showed the presence of radium in normal and malignant tissues, and that a pre-cancerous condition can be set up by a prolonged exposure of animal tissues to gamma-rays.

Lazarus-Barlow was a fine exponent of his subject and a writer who served the needs of many students of pathology. His two chief books were "A Manual of General Pathology" (1898) and "The Elements of Pathological Anatomy and Histology for Students" (1903).

Margaret R. Shackleton (Mrs. F. G. Mann)

THE death of Margaret Shackleton at Cambridge on January 26 will come as a shock to her many former students of University College, London, where she assisted the late Prof. L. W. Lyde in building up the Honours School of Geography from 1920, soon after the courses were begun. Shortly after her marriage she published her deservedly popular "Europe: a Regional Geography" (1934), of which she had just completed a thorough revision for the fourth edition at the time of her death. She returned to lecturing in Cambridge during the War, to students evacuated from Queen Mary College, London, and was actively engaged on research into demographic problems of the Danubian lands.

L. D. S.

NEWS and VIEWS

College of Aeronautics, Bletchley :

Mr. A. D. Young

MR. A. D. YOUNG has been appointed to the chair of aerodynamics in the College of Aeronautics, Bletchley, in succession to Prof. W. J. Duncan, recently elected Mechan professor of aerodynamics and fluid mechanics in the University of Glasgow (see *Nature*, November 26, 1949, p. 905). A graduate of the University of Cambridge, Mr. Young spent a year in postgraduate research at the University Aeronautics Laboratory and then joined the Aerodynamics Department of the Royal Aircraft Establishment. He remained there until he went to the College of Aeronautics in 1946, where he is at present deputy head of the Department of Aerodynamics and senior lecturer in aerodynamics and gas dynamics. While at the Establishment he covered a wide range of experimental research, with some emphasis on flaps and other high-lift devices and on the general problem of stalling. He carried out experiments in the high-speed tunnel, particularly on tunnel-wall interference and on roughness effects. Mr. Young was also

responsible for much full-scale research, including measurements of the drag of laminar-flow wings in flight. But his best known and most fundamental research work has been in the application of theory, first to the study of the boundary layer and the cognate problem of skin-friction at low speeds and later the extension of such theory to problems of compressible flow. In this field he is an acknowledged authority.

Standard Frequency Transmissions from Great Britain

IN 1948 the Department of Scientific and Industrial Research announced that arrangements were being considered for an experimental service of standard-frequency radio transmissions from the United Kingdom (see *Nature*, 162, 269; 1948). A committee under the chairmanship of Dr. R. L. Smith-Rose established the need for such a service, and at the request of the Department the General Post Office assumed technical responsibility for the transmissions, which are taking place from the Rugby radio station.