

who assisted us in obtaining the necessary experimental material and certain data required for this investigation. The work was carried out on behalf of the Director of Scientific Research, Ministry of Home Security, and is published with the approval of the Department of Scientific and Industrial Research and the Ministry of Home Security.

¹ Crosby, Fiske, Forster, "Handbook of Fire Protection", 253, 9th edit. (1941). (National Fire Protection Association, Boston, Mass.)

² Phillips, E. W. J., unpublished information (1943).

³ Phillips, E. W. J., *et al.*, unpublished information (1944).

⁴ Waksman, S. A., *J. Bact.*, 7, 605 (1922).

OBITUARIES

Lord Dawson of Penn, P.C., G.C.V.O., K.C.B.,
K.C.M.G.

THE death on March 7 of Lord Dawson at the age of seventy-nine has removed from the ranks of the medical profession one of its most eminent members. Lord Dawson symbolized in his own person the many different services the profession can render to the community. He had been physician to several members of the Royal Family. He was the perfect consultant combining hospital appointments with private practice, always at the service of his patients at whatever inconvenience to himself. To the House of Lords, to which he was elevated in 1920, he brought fine qualities of statesmanship and oratory, and he did invaluable work there in presenting to the public the medical point of view. His scientific eminence was reflected in the many honours conferred on him by universities and medical societies all over the world.

Lord Dawson was a prolific writer and lecturer on a wide variety of medical subjects. He took a prominent part in the organization of the medical services and the famous Dawson Report, produced under his

chairmanship by the Consultative Council on Medical and Allied Services appointed at the time of the creation of the Ministry of Health in 1919, is a milestone in the history of medical services. If the Government had acted upon the advice offered in that Report we might have been saved many of the problems the profession is facing to-day. Lord Dawson's wisdom in guiding the domestic affairs of his profession was recognized by his election to the presidency of the Royal College of Physicians during 1931-38 and to the presidency of the British Medical Association in its centenary year in 1932. He was recalled to the presidency of the British Medical Association in 1943 to lead the profession in the present critical stage of the development of the medical services of Great Britain.

To all his work Lord Dawson brought a rare vigour and wisdom and sympathy. He saw the practice of medicine as a means of making people healthy and happy. His charm and courtesy endeared him to all with whom he came in contact, both professionally and socially, and his pervasive influence will be sorely missed by the medical profession and the scientific world.

WE regret to announce the following deaths:

Sir Charles Bell, K.C.I.E., C.M.G., an authority on Tibet, aged seventy-four.

Sir George Humphreys, K.B.E., formerly chief engineer to the London County Council, president in 1930 of the Institution of Civil Engineers, on March 9, aged eighty-one.

Sir Hanns Vischer, C.M.G., C.B.E., honorary secretary-general of the International Institute of African Languages, on February 19, aged sixty-eight.

Prof. H. H. Whetzel, professor of plant pathology in Cornell University, on November 30, aged sixty-seven.

NEWS and VIEWS

Helium for the Royal Society Mond Laboratory

THE National Research Council of Canada has recently made a gift of 2,000 cubic feet of helium gas to the Royal Society Mond Laboratory at Cambridge. This amount of gas will enable the Laboratory to recommence research on very low temperature problems and on a scale which will allow the full resources of the Laboratory to be employed. In the whole field of physics, the temperature region close to the absolute zero remains one of the most fruitful for investigation. The low-temperature problems which received most attention before the War were those of superconductivity, magnetic cooling and the properties of liquid helium itself. These are, however, only the more prominent aspects of a wider field of investigation. Many mechanical, electrical, magnetic and optical phenomena, which are either partially or completely obscured by thermal agitation at room temperature, stand out clearly and undisturbed in the quiet region from 5° absolute down to 0.01° absolute which is attainable with liquid helium.

Grants for Scientific Investigations and Publication

THE Royal Society has now been informed that the Treasury has made provision in the estimates for the fiscal year 1945-46 for the following grants which are

administered by the Royal Society: for scientific investigations, £14,000; for scientific publication, £7,000; for scientific congresses, £1,600. In view of the greater amounts to be available if these estimates are accepted by Parliament, and of present changing conditions, the Royal Society has decided that more frequent allocation is desirable. The last dates, therefore, in 1945, for receiving applications for grants from the Parliamentary Grant-in-Aid for Scientific Investigations will be March 31, July 31 and November 30, and the last dates for receiving applications for grants from the Parliamentary Grant-in-Aid for Scientific Publication will be June 15 and November 15.

Cosmic Ray Studies in the Pamirs

A GROUP of scientific workers from the Lebedev Institute of Physics, Moscow, has left for the Pamirs to study the composition of cosmic rays at high altitudes. The expedition is under the direction of Prof. Skobeltsyn, of the U.S.S.R. Academy of Sciences, and will continue studies that have been carried on for several years on Mt. Elbrus by workers from the Atomic Nucleus Laboratory. The main object of the expedition is to determine the part played by heavy particles and secondary mesons first discovered in the study of cosmic radiations in 1937. Cosmic

radiations have two sharply defined components—a hard component consisting of mesons possessing great energy and a soft component including positrons and electrons. It is known that the soft component, at any rate at sea-level, is genetically connected with the hard component, being apparently generated by the latter. At great altitudes the presence of an unbalanced component has been discovered, namely, radiation that is not directly connected with the hard component. The study of cosmic radiations at great heights is therefore of great importance for the understanding of cosmic radiations as a whole. The question of secondary mesotrons and other strongly ionized agents causing ionization impulses is of great interest. The problem of the generation of secondary mesotrons has gained in significance in recent times.

In order to study mesons, the expedition will make use of an improved form of 'proportional telescope'. In studying cosmic rays at great heights, they will take into consideration 'atmospheric rain', a phenomenon of cosmic rays discovered by a French physicist, P. Auget. Skobeltsyn has studied all the available experimental data, especially those obtained in the Elbrus Laboratory, and has come to the conclusion that a considerable proportion of the impulses are due to processes other than 'Auget's rain'. The expedition will try to prove this by the method of coincidences. An important part of the work of the expedition will be the study of the transition effects of the soft component, that is, the processes which occur when rapid protons and electrons leave matter with one atomic weight and enter the orbit of substances with a different atomic weight. The cycle of studies devoted to these particular effects, which was begun before the War, will be continued, employing greatly improved methods which the Atomic Nucleus Laboratory has recently evolved.

Educational Needs in Liberated Countries

THE sixteenth meeting of the Conference of Allied Ministers of Education was held on March 7 under the chairmanship of the Right Hon. R. A. Butler. The Belgian Minister of Education, M. Buisseret, made a special visit to London in order to attend. Mr. Butler stated that considerable progress has been made towards the establishment of a United Nations organization for educational and cultural reconstruction, and it was announced that it would be possible, after the San Francisco meetings, to make proposals for the final constitution of the new organization. M. Buisseret presented a statement to the Conference stressing the difficult position which has resulted from the Nazis' forceful educational propaganda among teachers and in schools, especially in the small, mainly German-speaking areas of Belgium, which in the course of the occupation had been annexed to Germany. It was pointed out that similar problems might arise in other countries which had suffered occupation. The Conference was informed that a new Commission has been formed "to collect information from liberated countries and elsewhere about the educational needs of, and the work being done for, children and young people requiring special educational treatment; to make the necessary contacts with other bodies engaged on similar activities and to make recommendations to the Conference as to how the information can best be made available and assistance given if desired to the Allied Governments". Mr. J. A. Lauwerys has been appointed to direct the inquiry, and will have his headquarters at 3-5 Salisbury Square, London, E.C.4. The Con-

ference adopted the following resolution, and decided that it should be communicated to the Allied Governments through their delegations: "The Conference of Allied Ministers of Education, having considered reports from liberated territory, record their unanimous view that the need for the supply of raw material for educational purposes, and in particular for school books, is of paramount importance. Unless such supplies are made available the Conference believes that the resumption of educational activities will be greatly delayed and additional hardship for the children, students and parents in liberated territories will result."

Restoration of Libraries

UNDER the auspices of the Conference of Allied Ministers of Education, a committee has been set up to administer the organization and premises known as the Inter-Allied Book Centre, 3-5 Salisbury Square, London, E.C.4, where books can be received and systematically arranged for ultimate allocation to libraries in Great Britain and abroad which have been damaged or destroyed during the War. Already more than a million books, ranging over the whole field of knowledge, have been set aside, by action of the Government, from collections made primarily for salvage purposes. The collection includes books of every kind; but the proportion of modern technical, scientific, commercial and legal works is low. Many libraries will urgently need sets of the more important periodicals, particularly the back numbers of journals and transactions. Those unable to give books or periodicals can support the general scheme by money contributions, which will be used entirely for the purchase of books and periodicals; but so many books have been destroyed, or are in short supply, that the need is for books rather than money. It is generally thought that the committee of allocation should have a free hand to decide the ultimate destination of all books received; but if a donor urgently desires to give to a particular country, or even a particular library, he is asked to communicate with the director of the Book Centre. Bodies which are already collecting books for specific countries or institutions are asked to supply the director with lists of books and periodicals which they propose to distribute, so that they can be taken into account by the Centre in making its own distribution. Donors are asked to send to the director of the Centre, Mr. B. M. Headicar, lists of the books available; carriage will be refunded, if desired, on all books presented.

Royal Institute of Chemistry

AT the sixty-seventh annual general meeting of the Royal Institute of Chemistry held on March 12, at the Institute, 30 Russell Square, W.C.1, Prof. Alexander Findlay, the president, in moving the adoption of the annual report, emphasized the growing opportunities for men of science to bring about a better balance between science and politics and between knowledge and power. The tasks of Government and the formation of a national and international policy which will secure the fullest and most complete development and expression of human nature, when beauty and goodness merge and blend together with truth, depend in part on values other than the scientific, and involve problems which cannot be solved merely by the application of the laws of natural science. But in securing the material well-being of the people and in advancing industrial pro-