NEWS AND VIEWS

Dr. C. H. Desch, F.R.S.

PERHAPS the outstanding characteristic of Dr. C. H. Desch, who retired from the post of superintendent of the Metallurgical Department of the National Physical Laboratory at the end of last year, was the astonishing—possibly unique—breadth and depth of his scientific knowledge and interests. Educated at the Finsbury Technical College, the University of Würzburg and University College, London, as a chemist, he entered the Metallurgical Department of the last institution in 1902. From 1909 until 1920 he was at the University and Royal Technical College, Glasgow. In 1920 he was elected to the chair of metallurgy in the University of Sheffield, a post which he held until 1931. Thus from 1902 until 1931 he was almost continuously engaged in metallurgical teaching and research.

Although primarily a metallographer, Dr. Desch's knowledge of the more practical aspects of metallurgy is wide, and his contributions to discussions are invariably welcomed by those engaged in industry. Alongside his metallurgical work, however, Dr. Desch has retained his interests in every branch of chemical advance; but the chemistry of cements and concrete, the intermetallic compounds, and the crystalline state in general have claimed his chief attention. The respect in which his scientific abilities have been held may be gauged by the variety of offices which he has filled. From 1926 until 1928 he was president of the Faraday Society; during the winter of 1931–32 George Fisher Baker lecturer in the University of Cornell, while at present he is president of the Institute of Metals and vice-president of the Iron and Steel Institute. Dr. Desch is now scientific adviser to the Iron and Steel Research Council.

Dr. C. Sykes

As chemistry was the avenue which led Dr. Desch into the field of metallurgy, so, in the case of Dr. C. Sykes, his successor as superintendent of the Metallurgical Department of the National Physical Laboratory, has physics functioned. After graduating in science in the University of Sheffield in 1925, Dr. Sykes spent one year carrying out research in physics under Prof. R. S. Milner. After obtaining the degree of M.Sc. in 1926, he entered the Metallurgical Department under Prof. Desch as a Metropolitan-Vickers research scholar. Two papers on the alloys of zirconium published in the *Journal of the Institute of Metals* in 1928 and 1929 appear to represent the first fruits of his work as a metallographer.

Since 1928, Dr. Sykes has been connected with the research organization of Messrs. Metropolitan-Vickers Electrical Co., Ltd., being engaged at first on work on high vacua, thermionic valves and X-ray tubes. About 1934, under the influence of Prof. W. L. Bragg, he began to publish in the *Proceedings of the Royal Society* and the *Journal of the Iron and Steel Institute*, and later in the *Proceedings of the Physical Society* and the *Journal of the Institute of Metals*, a remarkable series of papers on the super-lattice, the order-disorder change in β-brass and other alloys, on the supposed low-temperature critical points in iron and steel and on age-hardening. Some sixteen papers, all of real importance, represent the contribution which Dr. Sykes has made in little more than five years to that field of knowledge which is concerned with the physics of the metallic state.

Baron Richerand (1779–1840)

BARON BALTHASAR ANTHELME RICHERAND, a famous French surgeon, was born at Belley in the Ain Departement on February 4, 1779. He studied medicine in Paris, where he qualified in 1799 with a thesis on fractures of the neck of the femur, and two years later published his "Nouveaux Élémens de Physiologie", which met with a remarkable success and went through thirteen editions and was translated into seventeen foreign languages. In 1802 he was appointed assistant surgeon to the Hôpital Saint-Louis, where he later became surgeon-in-chief. In 1805 appeared his "Nosographie et Thérapeutique chirurgicales" in three volumes, of which the sixth edition was published in 1821. In 1807 he was made professor of surgical pathology in the Paris medical faculty, where he continued to lecture for more than thirty years.

In acknowledgment of the care which he had bestowed on the Russian and German wounded in 1814 in the Hôpital Saint-Louis, which had become converted into a huge ambulance, Richerand was made Commander of St. Anne and Knight of St. Wladimir by the Emperor of Russia and received the Military Order of Frederick from the Grand Duke of Baden and a gold medal from the King of Prussia. In 1824 he was appointed surgeon to Louis XVIII and in 1829 hereditary baron for his services to science and humanity. His minor works included "Des erreurs populaires relatives à la médecine" (1810) and "Histoire des progrès récents de la chirurgie" (1825). He also wrote notices of Bordeu, Cabanis, Brillat-Savarin, Ambroise Paré, etc., and a large number of articles in the "Dictionnaire des sciences médicales", *Mémoires de la société d'émulation, Bulletin de la Société philomathique, etc.* He died on January 23, 1840. A posthumous honour was paid to him in 1851 when the Avenue Saint-Louis was renamed after him.

Utilization of Scientific Research during War

IN the House of Lords on January 18, Lord Strabolgi asked the Government questions on the methods being adopted to examine 'war inventions',

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to secure co-ordination between the scientific departments of the fighting Services and the Ministry of Supply, and the extent of the co-operation between the British and French Governments in these matters. Lord Strabolgi said he did not wish his remarks to be interpreted as hostile to the Government, and he paid tribute to the strength of the recently appointed Advisory Council of Scientific Research and Technical Development. The reply elicited from Lord Chatfield, Minister for the Co-ordination of Defence, was informative and important as indicating the extent to which the knowledge and services of men of science are being utilized.

Lord Chatfield paid a tribute to the value of scientific research to the Services. The existing establishments were in the main created after the War of 1914–18 or during its later years. They now include many of the leading men of science in the country, either in a working or advisory capacity. He referred to eight research laboratories under the Department of Scientific and Industrial Research, and said: "Generally it is perfectly correct to say that the scientific talent of this country is fully mobilized to its fullest advantage and runs into a very large number of scientists, to be numbered rather in thousands than in hundreds." There is no central organization for dealing with inventions, which actually constitute only a small part of the scientific work in progress. Each Service department and the Air Raids Department of the Ministry of Home Security has its own organization for dealing with inventions, and there is constant consultation between these bodies.

Dealing with the exchange of scientific knowledge between the British and French Governments, Lord Chatfield said that co-operation had begun before the outbreak of war, and that there is now "complete exchange of scientific information". Members of the scientific organizations of the two countries are working in each other's establishments. Further efforts are being made, however, to extend the present liaison. Steps are under consideration to safeguard the interest of inventors, and it is likely that machinery similar to that used during the War of 1914–18, namely, a Commission of Awards to Inventors, would be adopted.

Science and War

PROTECTION of civilian population from attack by deadly weapons that science has created is set forth as one of the paramount duties of science in the present emergency, in the annual report by Dr. Vannevar Bush, president of the Carnegie Institution of Washington, recently issued. The same science which saves life and renders it rich and full, also destroys it and renders it horrible. Is it then possible to remain in a detached atmosphere to cultivate the slowly growing body of pure scientific knowledge, and to labour apart from the intense struggle in which the direct application of science now implies so much for good or ill? As science has produced a weapon, so also can it produce in time a defence against it. Science is dedicated to the advance of knowledge for the benefit of man. Here is a sphere where the benefit might perhaps indeed be immediate, real and satisfying. Can a scientific worker, skilled in a field such that his efforts might readily be directed to the attainment of applications which would afford protection to his fellow-men against such an overwhelming peril, now justify expending his effort for any other and more remote cause?

Although immediate participation of the men of science in the safeguarding of civilization is urged by Dr. Bush, he gives the warning that we should not become stampeded. "There is still a duty to keep the torch of pure science lit, and this duty is only the greater under stress. All the long struggle of a harsh evolution, the pitting of species against the environment, has produced a being whose primary distinction is conscious cerebration, and whose crowning attribute is his intellectual curiosity concerning his complex environment and a thirst for knowledge transcending the mere struggle for existence. If there is no abiding value in a Beethoven symphony, or a theory of the cosmos, or the tracing of an ancient culture, then the Carnegie Institution of Washington has scant reason for existence. If it is really good that man should look at the stars and should contemplate his great destiny, then it is imperative that in those regions which enjoy the blessings of peace the search for the eternal verities should continue."

Recent Earthquakes

AFTERSHOCKS of the earthquake of December 26 in Turkey continue to be felt in widely separated areas. The epicentres are by no means confined to the Erzinjan-Erbaa area, thus lending support to the original estimate from Istanbul of a depth of focus of the original earthquake of the order of sixteen miles. On January 17 eight rather violent tremors were felt in the original area and other violent tremors were experienced at Istanbul, Smyrna, Castamouni, and Izmid. A *Times* report states that at the last-named place an entire hill slid downwards, blocking the road to Kandira. No further casualties are reported from these areas. On January 16 an earthquake occurred at the village of Balcikoy near Nigde, causing two hundred houses to collapse, killing five people and injuring sixteen. The death roll was small because a light foreshock preceded the principal shock, causing people to run out of doors. On January 17 at night, two more violent earthquakes were felt at Nigde, which is in southern Anatolia. These caused four hundred houses to collapse, killing fifty people and injuring a hundred and sixty others. A. Hée of the central seismological bureau, now at Clermont-Ferrand (France), has taken the readings of fifteen observatories and determined the epicentre of the original shock to have been near latitude 39·5° N., longitude 38·2° E.; initial time 26d. 23h. 57m. 23s. G.M.T.

An earthquake of intensity VII, and approaching intensity VIII on the modified Mercalli scale of 1931, was felt in Palermo at 2.18 p.m. (local time) on January 15. Much damage is reported to have been