

NEWS and VIEWS

British Association

Conference on Science and the Citizen

THE British Association, through its Division for the Social and International Relations of Science, is arranging a conference on Science and the Citizen: the Public Understanding of Science, to be held on Saturday and Sunday, March 20 and 21, at the Royal Institution, Albemarle Street, London, W.1, by kind permission of the Managers. The Conference will be opened by Sir Richard Gregory, president of the Association, and there will be four sessions, the subjects of which will be the exposition of science, radio and cinema, science as a humanity, and science and the Press. The chair will be taken, at the successive sessions, by Sir Henry Dale, president of the Royal Society and director of the Royal Institution, Sir Allan Powell, chairman of the governors of the B.B.C., Prof. J. L. Myres, and Sir Richard Gregory. It is hoped that an exhibition of films of scientific interest will follow the session on radio and cinema. A list of speakers and other particulars will be issued in due course, and these and tickets of admission will be obtainable from the British Association, Burlington House, London, W.1. The Association, in arranging this conference, is continuing its policy of dealing, by this and other methods, with subjects of especial importance in relation to post-war reconstruction, which were touched upon in the course of the conference on "Science and World Order" held in September, 1941.

Dr. Godfrey Rotter, C.B., C.B.E.

DR. GODFREY ROTTER has recently retired from the post of director of explosives research, Woolwich, after about forty years in Government service. Having graduated from the University College of North Wales, Bangor, he entered the then Experimental Establishment of the War Office in 1903; for the last twenty-one years he has been the head of the Directorate of Explosives Research. Before the War of 1914-18 he had proved his capacity for design, and he received an award for his part in the design of the 106 Fuze, of which nearly a hundred million were made. As a chemist, he showed his skill in devising apparatus for the study of the properties of explosives, of which that for the determination of their sensitiveness is the standard instrument to-day. During 1914-18 he took his full part in the invention and development of new high explosives and propellants, so that when Sir Robert Robertson left in 1921 he succeeded him as director. Of his achievements during the last twenty years it is impossible at this time to speak, but it may be said that he has been associated with notable advances. Of an engaging disposition, and giving an example of an extraordinary capacity for hard work, in an endeavour to keep abreast of ever-increasing activities, he retained the affection and respect of all his staff. He is succeeded by Prof. S. Sugden, of University College, London, who was a member of the Department during the War of 1914-18.

Prof. S. Sugden, F.R.S.

PROF. SAMUEL SUGDEN, who has been appointed superintendent of explosives research, Royal Arsenal, Woolwich, for the duration of the War, has been

since 1937 university professor of chemistry, University College, London. Prof. Sugden's massive achievements in research cover a wide field. His native inspiration led to the discovery of a property related to the molecular volume and known as Sugden's parachor. This inspired chemical investigations all over the world, and supplied much valuable information regarding the constitution of chemical compounds and the nature of valency linkages. In his book "The Parachor and Valency", published in 1929, he gave a masterly account of the subject. He has made notable contributions to magnetochemistry. For example, when Pauling concluded from wave mechanics that bivalent nickel, palladium and platinum, unlike the non-transitional elements, can form 4-covalent compounds of plane type which can further be distinguished by their smaller paramagnetic moments, Sugden supplied the first experimental evidence to support this view. It is significant of his keen interest in this field of investigation that he has selected magnetochemistry as the subject for the ninth Liversidge Lecture which the Chemical Society has invited him to deliver. Further evidence of the great fertility of Sugden's researches is found in his investigations on dipole moments, induced radioactivity and the rare earths. He was elected a fellow of the Royal Society in 1934. His powers as a thinker and investigator allied with a flair for exposition have earned him distinction as a scientific writer and teacher.

Institution of Electrical Engineers Awards

THE council of the Institution of Electrical Engineers has elected the Right Hon. Lord Hankey to be an honorary member of the Institution. This distinction has been conferred upon Lord Hankey in appreciation of the valuable services rendered by him as chairman of the Scientific and Engineering Advisory Committees of the War Cabinet, and more recently as chairman of the Technical Personnel Committee. In the latter capacity he has dealt with many problems which have arisen in meeting the demand for engineering personnel for the Forces, the supply establishments and for industry, and has been instrumental in establishing special schemes, notably the intensive training scheme, State bursaries and the engineering cadet scheme, for the training of engineers to meet the needs for future personnel.

The Faraday Medal of the Institution has been awarded to Sir Archibald Page, honorary member and past president of the Institution, in recognition of the outstanding services rendered by him in the sphere of electricity supply, and especially for the prominent part he has taken in the planning, construction and operation of the national grid system in Great Britain, the establishment of which has proved of such inestimable value in the prosecution of the war effort. The Faraday Medal is awarded by the Council of the Institution not more frequently than once a year, either for notable scientific or industrial achievement in electrical engineering or for conspicuous service rendered to the advancement of electrical science, without restriction as regards nationality, country of residence, or membership of the Institution.

Chemists in Great Britain

A MEMORANDUM to which are attached the signatures of many of the leading chemists, pure and applied, of Great Britain, has recently been circulated.

It is addressed, by members of bodies concerned with the interests of chemists and chemistry, to fellow-chemists, and it asks for increased collaboration between the respective bodies in the form of a federal body "to administer and guide, in accordance with the clearly-expressed will of its members, all the main activities that concern chemists as professional men and working scientists". Whatever the body created for such a purpose, its chief functions would be related to: (1) publications for the exchange and dissemination of chemical knowledge; (2) scientific meetings for the discussion of problems under investigation and for the survey of specific fields of knowledge; (3) libraries, both central and regional; (4) qualification, directed to the maintenance of a high standard of professional competence and of such methods of registration as the profession may decide, whether this registration have *de jure* or only *de facto* recognition by Government; (5) publicity, to ensure that the general public be accurately informed of what chemists and chemistry are doing and could do for the benefit of the community; (6) social security, whereby the economic position and the legal interests of all chemists may be safeguarded; (7) social functions.

A common secretariat, a central house, and close co-operation in all centres between bodies representing chemists are believed to be necessary for the discharge of such functions. As a first step in this direction, the councils of the Chemical Society, the Society of Chemical Industry and the Institute of Chemistry are asked to consider and report immediately on how to expedite the action advocated and to obtain advice as to whether the agreement constituting the Chemical Council can be amended so as to enable the Council to function as a central organization such as that envisaged. Should it be found that the Chemical Council cannot undertake the new functions suggested, it is asked that a new federal body be set up at once, to enable chemists to take their proper part in planning and building the post-war world.

The First Man-Carrying Aeroplane

THE Smithsonian Institution, Washington, has recently issued a pamphlet which settles a controversy that has existed for many years. It is universally acknowledged that the Wright brothers were the first to make sustained flights in a heavier-than-air machine at Kitty Hawk, North Carolina, on December 17, 1903. Earlier in the same year a machine built by Samuel Pierpont Langley was reported to have flown, and this was exhibited in the Smithsonian Museum with the label that this "Was the first man-carrying aeroplane in the history of the world capable of sustained free flight". These reported flights had never been officially observed, and in the light of later aerodynamic knowledge it was debatable whether the machine could have accomplished sustained flight under its own power. In order to settle this matter, the Institution re-conditioned the machine in 1914, when it was flown successfully, but the fairness of the test was challenged on the grounds that vital alterations were introduced during this rebuilding, which improved its aerodynamic and structural characteristics sufficiently to allow it to be capable of flight. It was claimed that without these changes, based on knowledge that was not available in 1903, the machine could not have flown. These claims have since been upheld by experts, and the Smithsonian Institution

has now issued a statement on the results to Dr. Orville Wright and changed the wording of the label on the Langley machine accordingly. Although the detailed explanation has only just been issued, the description on the exhibit was altered in 1928. As a result of this misrepresentation, the Wrights lent their original machine to the Science Museum at South Kensington, where it has been exhibited for many years. The Smithsonian Institution has expressed a hope that Dr. Wright will now consider bringing it back to the United States, where it will be given "the highest place of honour in the United States National Museum".

Meteors Seen in the United States

J. HUGH PRUETT has written an account of a detonating meteor (Ast. Soc. Pacific, Leaf. No. 165, Nov. 1942) under the title, "The Portland Meteor and Resulting Meteorite". The meteor was seen soon after 8 a.m. on July 2, 1939, and was not only a conspicuous fireball, but was also responsible for a panic among many people in Portland, Oregon, owing to the jarring of the houses while it passed over the town. From data supplied by a number of observers, it was found that the fireball became visible near the northern Oregon coast-line, and passing over northern Portland, disappeared beyond Bonneville at a height of 10 miles. It was moving in a direction opposite to that of the earth in its orbit and for this reason had a fairly high velocity—probably 40 miles a second. Next day a portion of the fireball was picked up on a farm near Washougal, fifteen miles east of Portland, and it was found that it belonged to the type of stony meteorites known as Howardites. Although search parties were organized, no other pieces were found; but it is fairly certain that the Washougal portion, weighing 225 gm., is not the only fragment which reached the earth. Howardites are described as friable and easily destroyed because the material composing them is cemented together rather loosely.

Another meteor is described by Oscar E. Monning in *Sky and Telescope* (November 1942). It appeared on August 7, 1942, at 9.30 c.w.t., when it was still twilight in the more western regions of its flight, and its magnitude was estimated to be -4. When first seen it was some miles north of Shreveport, and its height then was about 80 miles. In 30 sec. it had moved to a point less than 20 miles north and east of Guymon. Its length of flight may have been 600 miles and its motion was nearly horizontal, as its total drop was about 65 miles during this long flight. It had a long tail and left an evanescent train which was 30° in length as seen from some places, but it persisted for only 5-10 sec. No fragments of the meteor have been found and there were no detonations, so far as present evidence is available, but it is possible that additional information will be obtained which may assist in elucidating further important facts about this bright meteor.

New Projector for Navigational Stars

JAMES R. BENFORD has given a description of a Bausch and Lomb artificial star projector recently installed at the United States Air Station, Pensacola, Fla., which overcomes many of the difficulties of star charts (*Sky and Telescope*, November 1942). The instrument is located in the centre of a hemispherical dome upon which it projects images corresponding to 145 navigational stars. The instructor and the students sit inside the dome at a level a little below