

## News and Views

### Science at the Empire Exhibition, Glasgow

THE Empire Exhibition, which opens next month at Glasgow, will be the largest and most representative exhibition, with the exception of Wembley, that has been held in the history of the British Commonwealth. The Exhibition will present an impressive representation of the industrial and manufacturing capacity of the Empire and will show the progress of civilization within the Empire in many of its different aspects. Both in the industrial exhibits and in those for which the Government is directly responsible, research will occupy a prominent position. The theme of research will be symbolized in the huge sculptured feature, more than 40 ft. in height, which occupies the lofty entrance court of the United Kingdom Pavilion. Above the 'original elements', earth, water and air, represented by a golden sphere about which water continuously plays, a figure typifying man's questing spirit is seen to ride on a great silver wave. This figure bears the symbols of energy which science has placed within the grasp of man. The first of the four exhibition halls, each covering an area of 5,000 square feet, which form the United Kingdom Pavilion, is being devoted to a 'Fitter Britain' exhibit organized by the Ministry of Health in co-operation with the Board of Education, the Scottish Department of Health and the National Fitness Council. This exhibit will illustrate in a striking and interesting manner how the application of scientific knowledge is leading to a healthier nation.

EXHIBITS in the other three halls in the Pavilion have been organized by the Department of Scientific and Industrial Research. The aim of these halls is to demonstrate the part played by scientific knowledge and research in the industrial life of the nation. The three great national industries, coal, iron and steel, and shipbuilding, have been selected to illustrate this theme, and one hall is devoted to each of these subjects. In planning the exhibits the Department has had the fullest co-operation from industry. Important industrial organizations, such as the Mining Association of Great Britain, the Gas Federation, the Iron and Steel Federation and the Shipbuilding Conference, besides scores of leading firms, have freely given their assistance. Elsewhere in the Exhibition, the Ministry of Agriculture and Fisheries and the Forestry Commission, in co-operation with the Scottish Department of Agriculture and the Scottish Fishery Board, are showing exhibits illustrating some of the benefits which modern research has brought to agriculture, fishing and forestry. In the agricultural section, dairying, animal nutrition, fruit growing, land crop improvement and animal diseases are dealt with. One interesting section will deal with the gas storage of fruit developed by the Food Investigation Board, and another shows the application of chemistry to the problem of keeping

soil fertile. In the forestry section the Forest Products Research Laboratory is co-operating with the Forestry Commission in staging an exhibit illustrating the work of the Laboratory as applied to home-grown timber. Another application of industrial research will be shown in an exhibit in the Palace of Engineering arranged by the Home Office, which will demonstrate modern methods of promoting the safety, health and welfare of industrial workers.

### Press and the Public

THE broadsheet on "The Press and the Public" which has recently been issued by P E P (Political and Economic Planning) is of special interest in view of the recent attacks made upon the freedom of the Press in Great Britain by certain foreign powers, and of the Prime Minister's spirited championship of the Press in his speech at the annual dinner of the Parliamentary Press Gallery. The present broadsheet is concerned with the social influences of the Press, and its admirable exposition of the intricacy of the relationship with the public, and of the functions, amounting essentially to the provision of a daily magazine, which a newspaper is expected by many of its readers to fulfil, shows clearly how unfair is much of the criticism of the Press for sensationalism and inaccuracy. In its presentation and selection of material the Press is largely limited by the educational standards of its readers, and the broadsheet suggests that for one important class of readers all four of the popular dailies represent an improvement in taste and information. Equally it is emphasized that large numbers of readers would apparently support a newspaper considerably more sensational, more scandalous and more irresponsible than anything which the scruples of journalists, advertisers and proprietors and the restraints of the law will allow to appear.

THE basic function of the Press is to provide its readers with trustworthy news on which they can, if necessary, form sound opinions on current events, and in referring to the question of the standard of accuracy outside of the political field, the broadsheet points out that criticisms of accuracy in regard to scientific matters are criticisms not only of the Press but also of organized science itself. In scientific matters the giving of extra time to working up the statement properly would often prevent false or misleading impressions being conveyed. Though many scientific workers will have experience of inaccuracies even when a very careful statement was supplied to the Press, it should not be forgotten that organized science has as yet evolved no adequate means in Great Britain of telling the Press in advance what scientific workers have to say when the time comes for announcements of progress to be made. The broadsheet suggests that the influence of the Press may best be estimated by considering it as the



principal agenda-making body for the everyday conversation of the ordinary man or woman, and therefore for that elusive element called public opinion. From that point of view alone, the broadsheet deserves the attention of those scientific workers who are interested in the shaping of public opinion and the encouragement of a scientific outlook or approach to the many social problems in which scientific and technical factors are involved.

### The Conception of Curved Space

In a paper read at a meeting of the Victoria Institute, London, on April 4, entitled "Fallacies underlying the Einstein-Eddington Conception of Curved Space", Mr. Albert Eagle declared that "the whole conception does such violence to the nature of our minds that we can only call it a lie. . . ." He admitted that a disk might change its dimensions in a gravitational field, and so be distorted, but this should be regarded as a distortion of matter, not of space. The relativity formula for the distance between two points in a gravitational field might be correct if applied to the measurements taken with a material measuring rod, but such measurements should not be taken as the space of external reality. Mr. Eagle regarded the idea of curved space as self-contradictory, chiefly on psychological grounds. Moreover, he deprecated the attempt to abstract from reality everything that is tangible, and the attempt to reduce the physical universe to a purely geometrical universe. He complained that "practically no editor will publish an article making an attack on the theory". Quite apart from the difficulty under which most editors labour of finding space for the many contributions submitted, it may be suggested that a partial explanation may be, in Mr. Eagle's own words, that "Some people may think that I have more moral indignation, perhaps amounting even to animosity, against the theory of curved space than can be justified against any mere theory, no matter how erroneous or misleading it is."

### Discovery

WITH the April issue our contemporary, *Discovery*, enters upon a new phase of its existence. It appears in new format, an octavo size, approximately that of a popular magazine, instead of a quarto; and it is now published by the Cambridge University Press. *Discovery*, since its foundation soon after the Great War, with Sir J. J. Thom on, Sir Frederic Kenyon and the late Prof. R. S. Conway as its trustees, has consistently maintained a high standard of accuracy and a uniform distinction in style in bringing before an educated, but non-technical, public, information relating to the latest advances in knowledge and scientific discovery. Originally published by the house of John Murray, it was transferred to Messrs. Benn Bros. in 1924, by whom it has been published since that date until March of the current year, when responsibility for its future production was accepted by the Syndics of the Cambridge University Press. Dr. C. P. Snow, of Christ's College, Cambridge, will act as editor. Although the form of publication is

changed, there will be no break in policy, which under the general supervision of the Committee representing the Trustees will be to continue to place before its readers, so far as possible, an accurate and universal view of advance, not only in physics, astronomy, biochemistry and medicine, but also in archæology, travel, architecture and the like in terms and phrasing of general appeal. The first issue in the new form holds out every hope of the fullest attainment of this aim. Among the contributors are Sir James Jeans, who writes on "The Origin of the Planets", and Dr. L. Infeld, a pupil of and collaborator with Prof. Einstein, on "Holes in Empty Space", while Mr. R. Philmore and Dr. J. Judkin contribute an amusing inquest on the scientific aspects of methods of murder in detective fiction. An article on new developments in colour photography is illustrated by a colour plate taken on the New Agfacolour film. We wish the new editor and publishers every success in their endeavour to enlarge popular interest in the progress of science.

### Social Background of the Rise of Science

THE sixth lecture of the series "Science in the Social World" organized by the Left Book Club Scientists' Group was delivered on March 28 by Prof. P. M. S. Blackett, his subject being "The Social Background of the Rise of Science in the Seventeenth Century". Prof. Blackett contrasted the view that the rather sudden rise of modern science in the seventeenth century was largely a matter of chance, with the view that this rise was closely related to the technical needs of the time. In particular, the progress of navigation and mining in the fifteenth and sixteenth centuries had led to a very urgent demand for the solution of certain scientific problems. The importance attached to these problems is shown by the efforts made to solve them. For example, at the end of the fifteenth century, eighty-three astronomers were employed in Lisbon on problems connected mainly with navigation, and by the end of the sixteenth century large financial rewards in the shape of prizes were offered for the solution of the problem of longitude. Again, Agricola in his book "De Re Metallica", published in 1556, listed sixteen different ways of pumping mines clear of water, a clear sign that no one of them was really satisfactory. It is interesting to note that the use of a clock at sea as a way of finding longitude was suggested so early as 1530, but that it was not until 1764 that this method was successfully used. Many of the scientific problems solved by Newton and his contemporaries had been raised into prominence between one and two hundred years before by the demand of practical techniques. The technical progress in the Middle Ages was not only an important contributory cause of the rise of modern science, but also led to a political struggle between the monarchy and feudal aristocracy against the rising merchant and business class. In England the struggle had been won by the latter by the time of the founding of the Royal Society, and this fact undoubtedly contributed to the rapidity with which science and technique developed in England.