Science and Life

Ritchie Calder

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE has been called "The Parliament of Science," but it has also been called "The Circus of Science," It is proud of both descriptions because, while it provides the assembly in which scientists discuss with frankness and fervor affairs which concern them and on which they give welcomed advice to the Government, it is also the "ring" in which scientists, whatever their eminence, "perform" for the edification and enlightenment of the man in the street.

When the British Association was first founded in 1831, in England's Cathedral City of York, the Royal Society, the oldest Academy of Science in the world, had already existed for 170 years. It, too, had been founded to encourage the proper understanding of science and its practical applications, but in process of time it had become a "learned society," a foregathering of scientists, who were specialists and who formed a cloistered community of intellect. Then in 1799, the Royal Institution was founded "for diffusing knowledge and facilitating the general and speedy introduction of useful mechanical inventions and improvements." It provided popular lectures (still a feature of Britain's intellectual life). Later it became famous rather as a research institution than as a center for the instruction of the ordinary people. Its greatness depends on its association with Sir Humphrey Davy, Michael Faraday, and later, Sir William Bragg.

But the need came for the scientists to get out of their laboratories and their seminars and to get down into the market place. So the British Association began its annual tour of the populous centers, sometimes going abroad to the cities of the British Commonwealth.

If you were an amateur naturalist, geologist, mathematician, anthropologist, or chemist, or interested in any special aspect of science, the British Association provided special "seances" at which you could not only hear the professional experts expound the latest advances but you could, without humility, take part.

In addition, there were introduced "popular lectures for the benefit of the working classes," and these have been one of the most successful contributions of the British Association, the membership of which is open to the mechanic in dungarees as well as the president of the Royal Society.

Every few decades there has been a soul-searching in the British Association to root out tendencies for it to become yet another learned society confined to professional scientists. The last big struggle was in the 1930s, when the economic crisis and the emergence of Fascism with its denial of the freedom of science led to the setting up by the British Association of a "Division of Social and International Relations."

While the Association itself holds one big congress a year, this Division can meet anywhere at any time and assemble eminent scientists to discuss with the public the critical issues of our times. It can organize a great international gathering like the "Science and World Order" conference held in London in 1941, at the various sessions of which the chairmen were President Benes of Czechoslovakia, the Soviet Ambassador, the American Ambassador, the Chinese Ambassador, and the late Mr. H. G. Wells. Or it may go to an industrial center like Manchester, Britain's cotton city, and confront industrialists and the trade unions with the latest developments, or imminent changes, in the science of textiles.

In all this, the British Association is an entirely free agent. It is not an instrument of Government,

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The 110th meeting of the British Association for the Advancement of Science will be held at Brighton, on the south coast of England, September 8–15.

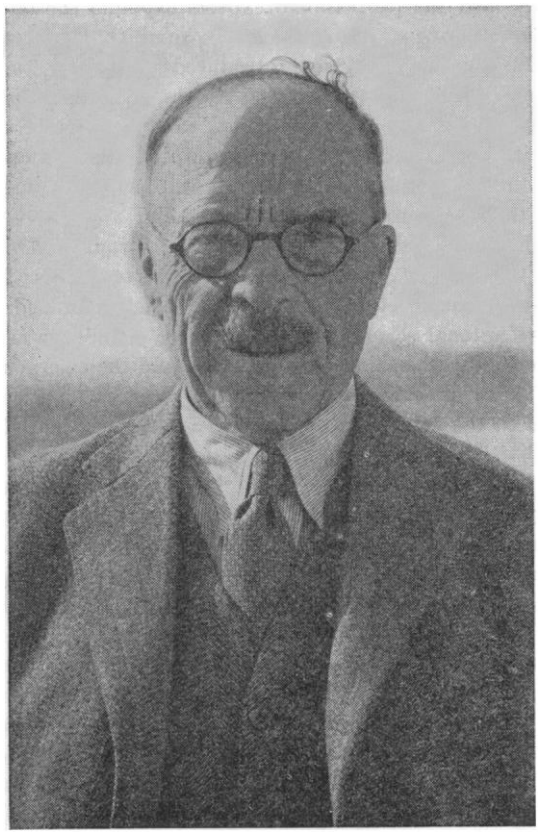
This year the Association has chosen as its president Sir Henry Tizard, an expert on aeronautical research and chief scientific adviser to the United Kingdom Government, who will deliver his presidential address on "The Passing World" at the inaugural meeting at the Dome, Brighton, on September 8.

The meetings, which will be attended by hundreds of laymen and amateurs as well as by famous scientists from all over the world, will deal with a very wide range of subjects; the program includes addresses, lectures, and discussions on topics such as: Achievements of X-Ray Analysis; Newer Metals and Alloys in Industry; Geology Today and Tomorrow; Biology in Schools; Colonial Development; Movements of Population in the Commonwealth; The Metric System; Building Materials; Human Blood Groups; Color Vision; Changing Aspects of Nutrition; Selection of University Students; Problems of Old Age; Aspects of World Education; Administrator and Teacher; Maintenance of World Food Supply; and Forestry and the Community.

In this article the science editor of the *News Chronicle* (London), himself an executive member of the Association's Division of Social and International Relations, writes of the history and purpose of this world-famous organization.

although every Government in the last century has accepted its intervention. It was the British Association, for instance, which led to the setting up of the largest research institution in Britain—the National Physical Laboratory.

This influence is derived from the fact that the British Association has popular support; through it the scientists have the ear of the public, and when it speaks, statesmen and politicians treat it with due respect.



Sir Henry Tizard

Today, as a result of the Dundee Meeting, fresh issues of deep concern to the British Association have been raised. How far can scientists afford to become involved in statecraft? How can science retain its freedom when it is increasingly dependent on Government finance, and what is the duty of a scientist when his country is in crisis?

Among British scientists there are some who argue that science is the pursuit of knowledge, unconcerned with the ends to which such knowledge may be put; they deny that scientists have any responsibility for the discoveries they make or any duties as functional citizens. But, since the British Association is itself the avowal of the scientists' concern about the abuses of science and of their sense of responsibility to their fellow men, this school of thought is little in evidence in its deliberations.

Moreover, academic science in Britain has never been threatened by Government interference or "bureaucratic direction." British universities are vigorously independent institutions, despite the fact that three-quarters of the finances are derived from the Government. That money is given as grants to be administered entirely at the discretion of the University Senates. In addition, the Government will give direct grants for equipment to university scientists.

The United Kingdom Government is now spending upwards of £75,000,000 ($300,000,000) a year on applied research, through its own research institutions and through "research associations," which are scientific cooperatives formed by industry and the Government. Even in these fields the British Association has staunchly opposed secrecy, either official or trade, and, in everything except military research, the Government has agreed to free publication by the scientists of their results.

Scientists, through a committee answerable only to the Cabinet, administer and direct the finances and projects. The threat of Government domination is not, therefore, a serious cause of concern to the British Association. It is the role of the scientists themselves which is causing anxiety. As Sir Henry Dale, last year's president, said at Dundee, in reviewing the incredible achievements of wartime research, much of the success was due to intensive and expensive teamwork and concentration on the attainment of immediate objects. Moreover, brilliant scientific minds were diverted from their own specialties to such fields as military strategy and tactics. Now, added Sir Henry, they are needed in their laboratories and in the classrooms, to promote new discoveries and to teach the new generation of science students whose numbers will be doubled in the next 10 years.

But the very men about whom he was anxious, men whose contributions to victory are now legendary are those who argued at the British Association that the methods which they applied so effectively to the complex problems of war are directly applicable to the problems of reconstruction. They want the scientists to be mobilized again to deal with Britain's crisis.

Whether the scientists should return to the laboratories and the long-term researches which can help to maintain Britain's pre-eminence in original discovery or whether they should commit themselves to the work which can be of immediate and short-term assistance to the country is a dilemma of the scientific conscience.