

that everything old and out-of-date may be scrupulously retained. It is not too much to say that whole fields of government in the real sense, which is not the conventional sense of party politics, now fall wholly within the ascertained realm of science. A remark of Mr. H. G. Wells from his "Outline of History" concerning ethnologists, geographers, and sociologists may be generalised. All the monstrous turmoil and waste, the wonderful attitudes, deeds, and schemes of the "great men" deemed famous by the unscientific historian, might very well be avoided if Europe had the sense to instruct a small body of ordinarily honest scientific men to take over the work.

Whether the British Association can be of any real help in enforcing proper respect for the public position of science or not, it is clear enough to the man in the street that figs are not gathered from thorns. When he wants his appendix removed he does not brief an advocate to get up the subject for his particular case to persuade him that he has not got an appendix or, if he has, that it would kill him to have it removed. Neither are the national appendices rendered less painful by the men who talk of them as the essential parts of the British Constitution, which, with their felicitous assumption of office, has at length reached its final and perfect expression. The public, if not scientific men, know that scientific government is inconceivable without scientific men at the head of affairs.

It is amazing that, as in the example of the director of research to the Glass Research Association, science should be served by men with less respect for science and understanding of its powers apparently than the ordinary common-sense citizen. The peculiar thing is that one may attend learned societies and British Association meetings regularly without taking any part in the important work of selecting the officials, who apparently descend upon them in some mysterious fashion from heaven.

Unless the British Association becomes democratic and acts as a real bond of union between scientific men and the thinking public, rather than as a periodic platform for personages, it does not seem to fulfil any function worth continuing. The public application of science is a totally different thing from applied science. This scientific synthesis and the direction of the unique mental attitude, induced only by the actual discovery of new knowledge, to the conduct of public affairs are the real and peculiar functions of the Association if it is to regain its national position. Curved space, isotopes, and the economics of life on the floor of the ocean are topics of great interest to hundreds of the public. The standards of truth which science has set up, and the elevation of its pursuit above sophistry, chicanery, and the monotonous motives of self-interest, inspire the imagination of hundreds of thousands. The British Association seems to be attacked by senile paralysis just as a belief in science and in the power of its methods is arising in the world phoenix-like from the ashes of its old self.

FREDERICK SODDY.

THE interesting criticism by Dr. R. V. Stanford in NATURE of September 2 tempted me to write. Your leading article of September 16 makes me yield to the temptation. There are two lines on which comment may run: broad and narrow gauge. Taking the broad or general view first, we have to appreciate the fact that the changed attitude of the public to the Association is part of a widespread change in social life. Science is more taught in our schools, elementary

scholars and others are introduced to it in our museums, and yet the number of keen naturalists in our local societies is decreasing, and the help of amateurs is a diminishing quantity. The opportunity of the war period and the subsequent economic pressure have driven all but a few to earn their living. Those really interested in science become professional workers therein; the others pass into their own special professions. Consequently, a body like the British Association has to rely more on professed workers in science and less on the amateurs and "camp followers," whose attendance the *Times* actually deprecates. But of the scientific workers many have had their fill at the end of a year's work, not to mention the society and committee meetings that accompany it. All they want is a holiday, and one as remote as possible from their daily avocation and surroundings.

Here we switch on to the narrow gauge. If you hold a meeting in August when one man is on the moors, another sea-bathing off the Land's End, and a third climbing the Alps, can you expect them to go to Cardiff? An attempt to facilitate the attendance of junior students was on the right lines and in harmony with the general trend; we may hope for a better response at a more convenient season. The local naturalists played up all right, but the other inhabitants were more interested in the tram strike and the coal strike than in hearing about aeroplanes or a grain of wheat, and so Sir Richard Glazebrook and Sir Daniel Hall delivered their popular lectures to benches two-thirds empty. Possibly Cardiff is more concerned with shipping than with aviation and agriculture. Again, the mid-week meeting, now tried for two years, seems less convenient than the old system.

Now for the sections. It is difficult to suggest practicable reforms. If you restrict the papers to popular expositions you may have the president and his faithful recorder confined to listen to what they know already, while the other constituents of the section flit dispersedly round other rooms. You ought to give the local workers a chance, anyhow; and there will always be a few people who wish to test some novelty on an audience of experts. How would it do to have one day for the more technical papers, one day for inter-sectional meetings, one day for broader expositions, and one day for the president's address, reports of committees, and what may be called scientific politics? These days should differ for the different sections, and certainly all the sectional presidents should not be addressing at the same hour. The Oxford Parliament of Recorders, held this year, effected some admirable arrangements on these lines, though the printing of the Journal beforehand set an ideal before sectional officers which they could not always live up to—and hence confusion to the public. Yet another suggestion comes from a camp-follower. Why not have "Section X, Popular Science," in continuous session, with a jolly president, a lantern that will work, and as many "star" performers as you can get? I think there's something in that. Of course, it must be properly advertised, and with figures more attractive than the aged dodderer who symbolises science for the Cardiff School of Art.

F. A. BATHER.

I WAS very glad to see the leading article in NATURE of September 16. You have directed attention with great force and point to the need for altering the methods of the British Association if its meetings are to retain the interest and attention of the public.

I doubt if at any time there existed a larger number