

During the last twenty-five years the various German governments came to recognize that direct aid to their universities was a powerful factor in furthering the industrial efficiency of the nation, and, in consequence, they made provision for the expansion of these institutions on the scientific side, with results which made Germany not, indeed, as wealthy as Great Britain or France, but, it has been claimed, more than five times as wealthy as she was in 1875.

Great Britain also increased her wealth during the last forty years, but not at all in proportion to her opportunities. Her industries did not avail themselves of the highest skill and expert knowledge, nor did they, except in rare cases, employ a staff of investigators to indicate the way in which advances could be made. They were, on the whole, content to go on the old lines and to ignore what science was doing. Nor did the Government view matters differently. For many years it gave an annual grant of £4,000 to the Royal Society for research in pure science and for ten or more years £7,000 annually to the National Physical Laboratory. It gave grants to various universities, colleges, and technical schools, but in no case was it obligatory that any of these should be spent on research, and, indeed, they were largely expended for ordinary academic and technological courses of instruction. Research, when not opposed, was expressly ignored. It was, indeed, often sneered at, and the two great universities of Oxford and Cambridge were brought with difficulty to recognize that science and the advance of it by research are objects worthy of the attention of institutions supposed to teach the best that is known or thought in the world. Cambridge in the last twenty years has by the support she has given to scientific research done loyal service to science, but it was not easy to efface the impression given to thousands of alumni of both Oxford and Cambridge who imbibed reactionary views regarding the claims of science, and who from their numbers in Parliament or in the learned professions, and even in mercantile and industrial establishments, controlled the trend of opinion on the subject.

For the last thirty years British scientific men have been uttering warnings against apathy regarding, and hostility towards, science. Again and many times again it was pointed out that the control of the basic national industries was passing into German hands. The warning was unheeded, or when it was heard it was met with the plea that it was quite natural, and that, if the Germans could manufacture in these lines so much better than the British, it was to the advantage of the latter, for the balance of trade was and would remain in their favour, as they were the greatest trad. g