

# JOURNAL of THE SOCIETY OF CHEMICAL INDUSTRY

# CHEMISTRY & INDUSTRY

Official Organ of the Institution of Chemical Engineers, of the Coke Oven Managers' Association, and of the Federal Council of Pure and Applied Chemistry

which consists of Representatives from

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VOL. 47 NEW  
SERIES

LONDON, SEPTEMBER 21, 1928

No. 38

## EDITORIAL

### The American Visit

THOSE of us who have been to Canada and the United States have had an excellent time, and most of us have now returned, in better health and better spirits, our memories crowded with delightful incidents of many kinds; we have a feeling that we were welcome over there, and that we are glad to meet our friends and to make new ones. The party was so large that it was more than a mere pleasure trip, it was an important embassy laying the foundation of a better understanding between the chemists and engineers of this small island and that great continent. A former ambassador at Washington said that nations cannot help disliking what they do not understand, and as we all understand each other much better since this visit, we think we have broken down some of the small prejudices that may have lurked unsuspected and given our hosts an opportunity of liking us better than they did; certainly we like them better than we did, but there may be something of selfishness in this, a base or even ignoble sense of gratitude for great hospitality and kindness: on their side, there is no alloy of this sort, and any better understanding or liking is merely out of the kindness of our great-hearted hosts. We feel that the two important organisations of engineers and chemists should rejoice at the success of the visit, specially from the point of view of the closer bonds of friendship that now unite us in a common endeavour to apply the discoveries of science and engineering to the further civilisation of mankind. We cannot compare Ottawa and Washington or Quebec and New York, but we have enjoyed being in all these and many other places. The Chemists' Club was to many of us hitherto merely a name; it is now more than that, it recalls to us Dr. Redman and an excellent reception he provided for our edification and delight; we found some of the papers read at the meetings very good and important, we refer specially to Denny's paper on the rest period of plants and Marshall's paper on glass, but if we had

been sufficiently industrious and had required no rest and no relaxation, we might have referred specially to many more. There is a sort of exhilaration about the climate there which makes the middle-aged seem young and makes the young even boisterous. We are not clear in which category Sir Alexander Gibb comes, but he certainly did unhand a little at odd times, and we could, if we chose, and if we did not think that frivolity is always unseemly. The stories told by Dr. Bogert were amusing and numerous; his infinite variety enlivened many an evening which would otherwise have bordered on the severe. Sometime we must tell in detail our visit to Longwood, Wilmington, where the Du Pont hospitality stands out as a bright star among many others, and our excursion to West Point, the wonderful scenery of the Hudson Valley, the military display, and so on. The two Presidents, like the two Kings of Brentford, shared sometimes the same, sometimes adjacent thrones, they too have enjoyed the visit; they cannot have learned many new facts, for before they started they were replete with useful information, but they have made many friends. The whole visit, from every point of view, was an outstanding success. How much the trip through Canada to Washington was enjoyed may be judged from the unanimous acclamation of Dr. H. C. Parmelee when, at the close of the tour at Washington, Mr. F. H. Carr, on behalf of the guests of the American Institute, presented him with a kinematograph camera to mark their appreciation of his forethought for their well-being and enjoyment.

### River Pollution

To many it is a fascinating study to follow the rise of modern industrialism, and the writer with a flair for cynicism has ample scope to indulge his fancy when he surveys the slag heaps and colliery dumps of Durham, Staffordshire and South Yorkshire, the dreary wastes in the chemical manufacturing districts of Cheshire, or the gloomy aspect of the textile districts of Lancashire

and Yorkshire, much of whose former beauty has long since been marred by ugly factories and miles of mean streets. The pall of overhanging smoke, the tainted atmosphere and the polluted streams and rivers, so often inseparable from such districts, are but the fit and appropriate associations of greed and materialism, our cynic will assure us. We can scarce refute the charge, though we assert that it represents but one aspect of the story; like the picture which is all dark shadows unrelieved by any high contrasting lights, it is seldom a true one. Happily, to-day there is a restiveness which refuses to admit that gloom and squalor, ugly buildings and poisonous streams are the fit environment for the town dweller any more than they are the inevitable toll which must be paid to industry. To its lasting credit, the present generation declines to accept with calm resignation these legacies of nineteenth century progress. Public opinion has of late become very clamant on the question of unsightly building and haphazard town planning; much assertiveness has been manifested towards the problem of the smoke nuisance; more recently we find the allied problem of the pollution of our streams and rivers is receiving its meed of attention.

This month has seen the publication of the first report of the Joint Advisory Committee on River Pollution, addressed to the Ministers of Health and of Agriculture and Fisheries, and the views expressed in the report deserve our careful and earnest reflection. Considering the many and varied interests represented on the committee, it is as surprising as it is pleasing to find that unanimity was reached when it came to making recommendations. Witnesses who were examined spoke on behalf of important public bodies and public interests no less than for private ones, and the committee's task in seeking to reconcile and harmonise the conflicting views was no light one. There is, fortunately, no lack of administrative authority for dealing with the avoidable cases of pollution. Existing statutes which bear on the question are the Rivers Pollution Prevention Acts, 1876, 1893, and these are directed towards the abatement of pollution in general; the Salmon and Freshwater Fisheries Act, 1923, has much the same object in view in the interests of the fisheries. The committee finds that to a large extent at the present time the law is not being administered, and the correction of this laxity would appear to be one of the first and perhaps one of the easiest steps to take in the direction of effective remedy. Some pollution is unavoidable when it is realised that in certain areas large volumes of water have to serve domestic as well as commercial purposes before they pass into the rivers and ultimately find their way to the sea—that great reservoir into which all water is destined ultimately to empty itself. In some districts, too, it is realised that the cost would be too great to deal with the problem so effectively as to restore the rivers to their pristine clearness. But if we cannot restore many stretches of our inland waterways so that they become once more the haunts of minnow, grayling and trout, we can at any rate prevent the spread of pollution to reaches at present uncontaminated as well as prevent stretches of water admittedly foul from becoming worse. It is to these latter aspects that the committee has largely

addressed itself, and it is in such directed efforts that co-operation should easily be secured between all who have a share or responsibility in this problem. The committee has sought to harmonise the contending claims of riverside beauty and amenities, water supply and fisheries, no less than those of commerce and industry.

The committee cites the very effective work which has been achieved in recent years by the activities of the West Riding of Yorkshire Rivers Board, and the Joint Committee of the Mersey and Irwell and of the Ribble. The Upper Thames and the Lee have in the past been the subjects of special legislation, and here again their Conservancy Boards, which have very wide powers of controlling pollution within the whole of their areas, have performed very excellent services. After due consideration of all the evidence in all its bearings the committee is of the opinion that the prevention of pollution will be best served by an *ad hoc* authority charged with the task over the whole or the greater part of a river basin. Whilst there is no suggestion for interfering with the work of existing bodies, whether local authorities or rivers boards, it is recommended that the new boards should represent a sufficiently large area so as to render the task of raising the necessary finance as little burdensome as possible, and to make available funds ample for the payment of skilled scientific and other officers without whose services much of the efforts must prove abortive.

The increasing public demands for new and larger sources of water supply for both domestic and industrial uses have forced waterworks authorities to go further afield, and with the increasing extent to which rivers are being drawn upon and will so continue to be, the problem of the polluted stream has loomed upon us from a hitherto unexpected quarter, and a quarter, moreover, which cannot brook the delay which might have continued to face the other interests which have the problem no less at heart. There will naturally be some reluctance to impose arduous tasks on industries which have to bear a special share of the responsibility for the existence of this problem. But the long view is the best in such cases, and if the newer industries are faced with the task of dealing with their own pollution and effluent difficulties at an early stage in their inception they will make the necessary response, and there is no occasion to be too tender towards them. The memory of recent controversy in its relation to the sugar beet industry is too fresh in our minds to need recapitulation, nor need we forget that at one time the woolcombers of the West Riding were allowed to pass their wool grease into the rivers, and the glycerin liquors of the soap works at one time all found their way into the sewers, ultimately reaching the rivers. A recital of the valuable nature of chemical works effluents which have in the past gone the same way would make a long narrative. Industry is full of these instances, but we should not forget that the chemical industries are not the only villains of the piece: nor has it ever been otherwise. The inquiry work of the committee has long been overdue: it is hoped that official sloth and delay will not cause the recommendations to be overlooked, or that there will be any failure to put them into active operation wherever and whenever necessary.