

Exhibition of Technical and Scientific Chemical Apparatus at Cologne

THE Seventh Achema (Exhibition of Technical and Scientific Chemical Apparatus) was duly held at Cologne in the spacious and centrally situated permanent exhibition buildings on May 18-27. It is a testimony both to the importance of the exhibition itself and to the newer national development of the chemical industry in all countries that it was very largely visited by foreigners. More than 2,000 were expected, including a considerable and influential party of British chemical and chemical-plant manufacturers, who spent several days in studying it and who are reported individually to have found the time well spent.

With past traditions to encourage her, Germany is striving to retain the lead which she formerly gained in this field, and although there was nothing particularly outstanding or novel on display, there was much among the exhibits of the three hundred firms to interest the serious. The method of display of the exhibits on small open stands of uniform character has much to commend it, and was thought by many to be preferable to the closed stands adopted at the British Industries Fair. Needless to say, the representatives at the stands were well versed in the technicalities of their wares and able usually to deal with technical points raised by the visitor, who frequently also found a willingness to discuss the special problems he brought forward at further private meetings or at the exhibitors' own works. The problems of the industry are so variable that standard apparatus has frequently to be modified to meet the particular requirements, and the Germans are known to be particularly adaptable in this respect.

The exhibits covered a wide field and were perhaps the more valuable in consequence, whereas the last exhibition of British chemical plant held in London, at the time of the jubilee of the Society of Chemical Industry, was restricted almost entirely to plant. Such collective displays as those made by the publishers of the many technical and scientific books were a feature that should be copied, as also the

exhibit covering safety regulations and precautions in the industry. It is proper that chemists should be as meticulous in the treatment of the health and safety of their work people as they are of their reactions, and indeed it is well known that the industry is one of the safest in spite of the potentialities for danger in it.

The tendency, if there were one, was towards the exhibit of apparatus for copying large-scale working in the laboratory. The development of chemical processes at high pressures and elevated temperatures had its influence on the apparatus exhibited, whilst the ceramic section, which was a particularly good one, illustrated the progress which has been made in using substances which corrode metals or require high temperatures to react.

As compared with the last exhibition, there was less display of large-scale processes requiring a good deal of space and plant for the exhibit, more attention being paid to details. The urge to break away from tradition was sometimes in evidence as, for example, in the vest-pocket microscopes.

The spacious gangways made it physically possible to spend some hours at a time at the somewhat arduous task of examination, and the important social side was facilitated by a club room for overseas visitors and other concomitants associated with the Rhine.

Dr. Bretschneider, the organiser of the exhibition, was in evidence on all occasions as a willing and charming helper to all visitors, and all felt how much they owed to his indefatigable energy in organising such a treasure house of chemical weapons. The British visitors found the Rhineland and the Moselle as simple, clean and convivial as ever, whilst travelling was in no way fettered by restrictions of currency or otherwise—they received a real welcome from all. It is well to record that at no time did they see any evidence which would lead them to believe that other than a peaceful reconstruction of Germany is taking place.

Annual Conference of the Association of Teachers in Technical Institutions

AT the recent (twenty-fifth) annual Conference of the Association of Teachers in Technical Institutions, held at Middlesbrough, Mr. H. J. Cull, of the Central Technical College, Birmingham, took over the presidency of the Association from Mr. F. H. Reid, of the Technical Institute, Paddington.

Mr. Cull opened his presidential address with a survey of the results of the application of science to industrial processes, and stressed specially the growth of 'technological unemployment'. "These are the days," he said, "of the second industrial revolution—the coming into full use of electricity and the internal combustion engine. The difficulties are greater than those which marked the passage into full use of steam power, mainly on account of the speed of the development." He instanced the following as illustrations of his point: the rise in production of several nations between 1925 and 1929 was 38 per cent in Poland, 54 per cent in Canada, 30 per cent in France, 22 per cent in Germany, 14 per cent in the United States and 13 per cent in Great Britain. More important,

perhaps, was the physical output per worker: in Great Britain in 1924-29 there was an increase of 11 per cent. The figure for the United States rose by 50 per cent in a quarter of a century. In 35 typical American factories the output per man-hour between 1919 and 1927 rose 74 per cent. "It is futile," said Mr. Cull, "to think of retarding these scientific applications, and of 'scientific holidays', and so the consequences remain to be faced . . . it is now apparent that this machine age will demand that, if employment is to be continuous, skill will be judged by adaptability. It is for future consideration to show the precise form of the demands of this changing industrial condition on the technical teacher." Mr. Cull then linked with his general picture of these industrial changes their implications of the work of junior technical schools, juvenile instruction centres, continuation classes, regional co-ordination of technical education, etc., and the need for educational research. He also directed special attention to the course for laboratory assistants promoted by the