

# ORGANISATION OF CHEMICAL INDUSTRY AFTER THE WAR.

**A**MONG the problems comprehended under that somewhat elastic term "Reconstruction," none is more important to the economic future of this nation than the organisation of its chemical industry. The position in which we stood immediately after the outbreak of hostilities revealed only too plainly with what foresight and craft Germany had organised her trade and linked up her manufactures in view of the world-wide conflict upon which she deliberately and "of malice prepense" embarked after forty years of sedulous preparation. So intimate a union as was then made manifest between the governing powers and the leaders of industry, and of chemical industry in particular, in the common effort to secure the domination of the world is without a parallel in history.

The unbridled lust of conquest which moved Germany was not wholly the outcome of an arrogant and aggressive militarism. The spirit which still pervades masses of her people shows that the origin of the war had its roots much more deeply and widely spread. We are out to crush Prussianism, by which we mean the unscrupulous policy which actuates the dynasty which has become the predominant power and directing force among the Central Powers. But Prussianism would never have obtained its present influence unless it had appealed to a more deep-seated desire than territorial aggrandisement, or a more potent influence than the spectacle of increased dynastic pomp and pride. North Germans are far from being wholly beloved throughout the Empire. Still, in spite of the existence of other crowned heads and other capitals in Germany, Berlin as effectually rules the destinies of the Empire as Paris does those of France, which has only one metropolis and nowadays no dynastic embarrassments. Nor is militarism so universally popular that, even in Prussia, it could have maintained the struggle after so many disappointments and disillusionments and such widespread misery, unless aided and strengthened by other factors.

The fact is—and we cannot recognise it too clearly—the underlying and actuating force which still moves Germany, as it has moved her from the very beginning of the struggle, of which it is the real cause, is economic; it is the desire for power as the means of securing wealth. The process of peaceful penetration was too slow: she sought by force to gain, as by a stroke, what the methods of peace would assuredly have brought her if she had had only the patience to wait. The military party are not the sole aggressors; rather they have been the tools and cat's-paws of a still larger and more powerful class, of far wider influence and much richer in material power and intellectual efficiency, and united by a definite and common impulse. The military power of Germany may, and undoubtedly will, be crushed by military methods, but the power of that aggressive element in Pan-Germanism which has its roots in economic influences can be effectually combated only by

economic means—that is, by organisation and the closest co-operation.

The conditions of a lasting peace which are faintly adumbrated—we cannot say defined—by Germany's present Chancellor, and which are re-echoed, more or less vaguely, by leading spokesmen of the only one of her Allies that counts among the industrial communities of the world, clearly indicate that amongst the overwhelming wreck and ruin that the Central Powers have brought upon themselves the only salvage that is now possible is their economic life, and every effort is to be made to secure it. The rulers of Germany now realise, as General Smuts tells us, that they have lost the war: the legend of their military invincibility is a myth, and their deluded people will soon recognise that fact. Their Chancellor now, apparently, fears that the nations may enter upon an economic war, and so stamp out that phase which Germany herself imported into it. With nearly the whole of the civilised world embittered against her, he is plainly apprehensive of her future in the struggle to which her greed and selfishness have brought her. Hence all the vague talk about the "freedom of the seas," which is meaningless in the mouths of those who countenance and direct a piracy which is infinitely more abominable, as an international menace, than that waged, of old time, by Barbary corsairs or the buccaneers of the Spanish Main.

We, like the Chancellor, deprecate the world-wide economic warfare he dreads. But we would remind him that his countrymen, by means fair and foul, had already embarked upon it, even before the beginning of military hostilities, and that now, in their rage and chagrin, they threaten to continue it with a tenfold violence and persistency. We regard the Chancellor's pious platitudes as on a par with his feeble and insincere generalities about the so-called "freedom of the seas." His motive is obvious. In both cases he desires to see the strength of this country undermined, whilst reserving to Germany unrestricted power to pursue her present policy.

It behoves us, therefore, to be watchful and alert. The Minister of Reconstruction has acted wisely in appointing a committee, as announced elsewhere in this issue, to advise him on the subject of the position of the chemical trades after the war. Dr. Addison has requested the committee to conduct its deliberations with a view to the creation of some organisation which should be adequately representative of the trade as a whole, and by means of which the trade may be enabled hereafter to continue to develop its own resources and to enlist the closest co-operation of all those engaged in the chemical industry.

We welcome the appointment of the committee, although we have some doubt as to whether its composition is altogether such as will command the confidence of the chemical trades as a whole. It consists of four members connected with the Ministry of Munitions, one gentleman attached to the Ministry of Shipping, three members



of the House of Commons more or less directly interested in chemical industry, together with the ex-president of the Society of Chemical Industry, who is a leading member of the coal-gas industry.

The committee's terms of reference are purposely somewhat vague and general, and it remains to be seen how they will be interpreted. In effect, however, they would seem to be limited to the creation, or suggested creation, of an organisation to be adequately representative of chemical industry; but, of course, much turns upon the functions with which this organisation should be endowed and the powers with which it should be entrusted, and it is in defining these functions and powers that the committee will either make or mar the whole scheme.

The matter is confessedly one of great difficulty and complexity, and involves far-reaching considerations. If the committee's deliberations result in the creation of what is practically a parliament of the industry in which all sections are adequately represented by persons of influence in industrial and commercial circles, and who, by virtue of their knowledge, experience, and position, are able to secure the confidence and co-operation of the Legislature and of Government departments, Dr. Addison's action will undoubtedly result in great benefit.

We trust, therefore, that the committee, which, it must be admitted, is somewhat bureaucratic in complexion, will take a broad and statesmanlike view of the question which has been submitted to it, and will not be hide-bound by purely party and departmental considerations, or by points of fiscal policy or the shibboleths of economic doctrinaires. The present times are somewhat out of joint: the future is full of changed conditions and demands a wide and bold outlook.

In an address delivered to teachers at the Regent Street Polytechnic on October 6, Prof. W. J. Pope, of Cambridge, showed how the huge chemical industry of Germany, primarily based on the coal-tar industry, and mainly built up by the genius and skill of her men of science and technologists, some of whom had spent their *wanderjahr* in this country, had been subordinated to the national effort to secure an economic supremacy in the world. He pointed out how the true meaning of that object-lesson had still to be learned by those who direct our national policy; he might have added, also by that much larger and not less influential class which, in the long run, manages and controls our commercial and industrial development, namely, the purely moneyed class, which, for the most part, owing to its partial and limited education, is practically ignorant of the real value and potentiality of science in a civilised community.

That such is the case is evident from the past history of the synthetic colour industry in this country, where it originated. So long as this industry was under the management and direction of business men of science, like Sir W. H. Perkin and Edward Chambers Nicholson, it flourished and might have been extended. When it was

fastened upon by capitalists who subordinated the chemist to the counting-house, it gradually languished and ultimately almost died out. Those who have succeeded in keeping it alive in this country have been largely of German or Austrian extraction, for the most part themselves trained as chemists, or who have had practical knowledge of the methods and policy of the great organisations in Germany to which Prof. Pope referred. There is an uneasy feeling abroad that the Department of Scientific and Industrial Research, in its well-meant efforts to administer the million pounds with which it has been entrusted, has, in regard to the resuscitation of the synthetic colour industry in England, failed to perceive the true principles by which alone the problem can be properly solved. This aspect of the matter may well receive the attention of Dr. Addison's committee.

#### THE STELLENBOSCH MEETING OF THE SOUTH AFRICAN ASSOCIATION.

THE South African Association for the Advancement of Science met in annual session for the fifteenth time in what will soon be the "university town" of Stellenbosch during the first week in July, under the presidency of Prof. John Orr, of the South African School of Mines and Technology, Johannesburg. The sectional meetings were held in the buildings of the institution at present known as Victoria College, but which will become the University of Stellenbosch from April 2, 1918. On the afternoon of Monday, July 2, the visitors were officially welcomed to Stellenbosch by the Mayor, and on the evening of that day, in the Conservatorium Hall, the president took the chair and delivered his address, an abridgment of which appeared in NATURE of September 27 (p. 76).

The association met from day to day in five sections, and ninety-seven papers were submitted, including the addresses of the five sectional presidents. Outlines of some of these are sketched below.

Prof. W. N. Roseveare, of Natal University College, Maritzburg, was president of Section A, and entitled his address "Mathematical Analysis in Science." He sketched the development of the Newtonian philosophy as the basis of all the mechanics of modern civilisation, from Galileo and Newton to Clerk Maxwell's electro-magnetic theory of light and the electron theory. The old theory had left some facts unexplained, but the principle of relativity developed during recent years by Einstein and Minkowski had been put forward to explain changes in the orbit of Mercury, and had reduced gravitation from a force to a quasi-geometrical property of space-time.

Prof. M. M. Rindl, professor of chemistry at Grey University College, Bloemfontein, chose as the subject of his presidential address to Section B "Phytochemical Research." In the course of the address Prof. Rindl emphasised the fact that every year many thousands of cattle die within the Union of South Africa, and many aboriginals