

vantage of the industry." This would appear to be a just charge. It is well known that with few exceptions large amalgamations are not looked upon with favor in this country, where moreover every effort is made to maintain secrecy in regard to working processes and operations generally. I cannot say from personal knowledge how far this applies to the steel trades, but it is very evident in other metal-producing industries. I am satisfied that nothing but benefit would result from removing the restrictions to open discussion which persist in this country. We should do well to open our works to the visits of technical men interested in the subject, as this would inevitably result in the exchange of experience and information to mutual advantage. The present attitude is certainly not dictated by the technical managers, who as a body would welcome such an interchange of knowledge, but are excluded from this benefit by the action of their employers.

W. R. Ingalls, in his admirable presidential address before the Mining & Metallurgical Society of America this year, says on this subject: "One of the cardinal principles of American engineering during the last 20 years has been the exchange of information and the promotion of publicity about everything—technical processes, business relations, corporate affairs. We have seen America forge ahead largely owing to the absorption of this idea, while Great Britain lagged behind. . . . She is wide awake now."

It is to be hoped that the awakening referred to has indeed taken place. Apparently this secrecy is not confined to our own special branch of industry. C. F. Cross, in 1916, on the occasion of the presentation to him of the medal of the Society of Chemical Industry, said: "He was particularly aware of the difficulties which they had encountered, especially that of being between the crossfires of the commercial or financial man whose watchword was secrecy and the scientific man whose disinterestedness, perfectly natural and spontaneous, led him always to wish to publish in order that he might communicate what he had found in his laboratory to his fellow scientific men. . . . They . . . were always most anxious to take counsel with their brother chemists, and give them the benefit of anything that had impressed them, just as they looked to hear of any new discovery by others at the earliest possible moment."

This condition is reflected in our own Transactions (and to a less extent in our technical journals), which contain but little information on important undertakings in this country. In analyzing the papers published in the last ten volumes of our Transactions, I find that 35.8 per cent deal with mining in foreign countries and our dominions and colonies. Foreign, etc., metallurgy supplies 17.3 per cent; assaying and analysis 15.0 per cent; general 27.7 per cent, whereas British mining in these islands is confined to a solitary paper, and British metallurgy to six papers, or 3.5 per cent of the whole. It is true that some of the general papers find application here, but the record can only be considered as unsatisfactory in that it fails to present in any adequate manner important operations which we know are being conducted. I hope these remarks may have some effect in removing the veil of secrecy which overshadows our undertakings.

Reverting to the committee's report, the Departmental Committee (iron and steel) favors combination both in production and in realization of produce, but is also of opinion that protection in some form is required to give

security to industry. Other departmental committees report on similar lines, ten such being in favor of a tariff, while three (representing the cotton, jute, and building industries) report against. The main committee is by no means unanimous on the point, but it should not be beyond the capacity of the Government to reconcile the conflicting views, and decide on the course most advantageous to the country as a whole. It would be out of place and indeed superfluous to discuss the well-worn arguments for and against tariffs, though it would probably be found that the majority of the members have very definite views on the question.

Though the committee leans toward protection it expresses the fear that such might result in stereotyping inefficient methods, but in my view there is little ground to support this, I anticipate, on the other hand, that the feeling of security engendered by a suitable degree of protection would stimulate producers to adopt modern methods involving capital expenditure which under present conditions they decline to risk.

The committee is strongly of opinion that State control will be found detrimental to peace conditions, a conclusion with which most will agree, though recent action in regard to both coal mines and railways does not encourage the hope that this opinion will find favor. It is also eminently satisfactory that they agree with the resolution adopted by the Imperial War Conference as to the formation in London of the Imperial Mineral Resources Bureau. Much of the foundation work of the bureau has been accomplished, and there is good ground for anticipating that the hopes of its promoters will be realized.

It was my intention to discuss in some detail certain aspects of the problem of reconstruction in so far as our special interests are affected, but these have been so fully and carefully analyzed by W. R. Ingalls, in his address already referred to, that little remains to be said. I am in no sense detracting from the merits of his remarks when I say that he is addressing those who are already converted, but few have the knowledge and ability to put the case so succinctly and convincingly. It is earnestly to be hoped that it may come into the hands not only of Labor leaders, but of those in control of Government departments having relations with mining and metallurgical matters. Naturally he deals mainly with American affairs, but his arguments bear with equal force on conditions existing here. He makes reference to these, but in my view his opinions on our position are somewhat too sanguine. He will pardon me for giving one or two extracts. He quotes the view of an American visitor to this country, who says:

"England is knitting together for work. The directors of capital and organized labor were never more together. . . . England is studying efficiency and is preparing for overseas competition."

Mr. Ingalls himself says:

"We have seen how Great Britain practically lost important metallurgical industries . . . and we see her now keenly studying and introducing improvements that will . . . not unlikely put her ahead of us."

It will be admitted that there is some tendency in this direction, but the union and progress foreshadowed are still far from achievement. No doubt his reference to conditions in Europe are designed primarily to stimulate the efforts of his own countrymen. The ever-growing concessions of shorter hours at higher pay must be carefully watched in their effect if we are to