

### Discussion.

The President: The way in which members have received Mr. Sinclair's paper I think is abundant proof of the approval of the action I took in holding Mr. Sinclair to his promise to present his lecture to this Association irrespective of the fact that he had already delivered it in other places; especially is this the case when we realise how much new material Mr. Sinclair has added for our benefit to-night.

He has put before us a rather bewildering set of facts, and, at the same time, put forward many suggestions to this Association with the object of rendering our sphere of usefulness greater at the present time of stress.

Mr. Sinclair's exposition of the tremendous effort which is being made in Great Britain in the manufacture of munitions makes one feel that information of this kind would be of the very greatest benefit to the community as a whole, for it would surely remind anybody that, relatively speaking, we here in Australia are not doing nearly as much as we might to assist the Empire industrially. One can quite understand how it was that the Federal authorities seized upon Mr. Sinclair's information as a very potential source of help towards recruiting, and it is surely remarkable that, as Mr. Sinclair says, so far no attempt outside his own has been made to bring the information before the general public.

I can assure Mr. Sinclair that the suggestions he has thrown out to us with regard to taking up the apprentice question will not be wasted, for I think I can say that the Council of the Association will take up this most important matter at a very early date, for we all must realise that the proper training of our apprentices is of vital importance, and, as he has pointed out, the conditions are likely to be so considerably changed as to call for full consideration how

the question is to be dealt with before the war ceases, so that we may be in a proper position to deal with the matter when normal conditions return.

In referring to the remarkable preparations for war that were made by our enemies, it may interest members to tell them of an actual experience that came to my notice some years ago. A firm here in Australia sent an employee to the Continent in order to obtain information about a certain class of plant. In travelling through Germany he noticed, in regard to ordinary industrial factories, not engineering establishments, that the workshops attached to these places were far bigger than could possibly be required for ordinary purposes. Upon questioning proprietors as to the necessity for such extensive repair shops he was told that they were installed to enable them to take work from neighbouring factories should the occasion arise. But all the factories in the neighbourhood seemed to be in the same position, and I think it will be obvious to everyone now what was the real purpose of these establishments.

Dealing with the manufacture of shells, Mr. Sinclair has clearly explained why we failed locally. I think it must be acknowledged that in most respects, but certainly not all, the failure was excusable, and we must remember that while we did not succeed in our main object, the shops in Australia learned many valuable lessons, and I am convinced that the experience will be fruitful.

The figures given for the cost of shells in Great Britain and Canada are most striking, and I am sure it will be of interest to members if the lecturer will tell us, if he can, what the cost of shells was in the earlier days of their manufacture.

Mr. Cutler: I have much pleasure in moving a vote of thanks to Mr. Sinclair. In my opinion the remarks of the lecturer are of infinite value. I think we are now at a crisis as regards manufacturing, and if we are to hold our

own with the manufacturers of Great Britain and America our methods will have to be changed, and complete organisation of labor must be adopted.

I certainly think that Mr. Sinclair's remarks as regards the valuable information that could be put together by those who take an interest in this Association could be made great use of in the future. If we are to hold our own in the future our old ideas must be put aside, and we shall have to start upon a new foundation.

We have done our best in trying to produce articles in Australia which had not before been manufactured here. That is all right in a way, but it is a very small matter. The fact is that we have to organise so as to produce an article which meets our requirements, and to produce it cheaply, and without organisation this is impossible.

You have seen that women have been capable of doing a great deal of work, but one cannot help feeling that before these women were asked to do that work there was a great want of organised labor. That is a proof of the conditions which obtain in England to-day. Here we hardly know that we are at war, but the efforts which are being put forward in Great Britain show that we are up against a difficult proposition. There is, however, something to be thankful for; Great Britain has been inclined to say that what has been good enough for the old man is good enough for him, and Australia is inclined to follow in the same direction. I am satisfied that one result of the war will be the cheapening of manufactured articles all round.

As regards Mr. Sinclair's idea that the Government might help by sending a qualified engineer abroad to obtain and supply us with the information necessary to aid in carrying out local manufactures successfully, I think it is an excellent one, and now is the time we should take action: we should not wait for the termination of the war. We shall have to work hard to gain a position as a manufacturing nation.

My own idea is that if Germany had not thought fit to come to war just when she did, in a few years she would have been able to conquer us completely. Without commercial organisation our efforts cannot be successful.

I have much pleasure in proposing a hearty vote of thanks to Mr. Sinclair, who is practically giving up the whole of his time to help Australia to assist in every way possible the successful termination of the war.

Mr. Saunders: Mr. Sinclair is deserving of thanks for having placed before us the subject matter of his lecture in such an interesting manner. It is doubtful if it would be possible to give a better description of what is possible to be done with proper organisation. Many years ago the average man would have laughed at the idea of women doing the work which they are doing to-day.

Mr. Sinclair has voiced the opinion that, after the war, some 75 per cent. of the women employed in munition making will return to other avocations, leaving 25 per cent. who will stay because there will be a shortage of men. It had been shown that under careful supervision women operatives had doubled the output of work which had been done by male employees.

I think that the employer of Great Britain is now so fully seized with the success of woman as an operative that he will make it sufficiently tempting for her to remain in her present employment.

Mr. Sinclair's excellent lecture has furnished us with much food for thought.

I have very much pleasure in seconding Mr. Cutler's vote of thanks to Mr. Sinclair for the wonderfully valuable paper that he has given us this evening.

Mr. Harricks: I think it would be advisable to devote another evening to considering Mr. Sinclair's suggestions.

Mr. Vicars: When in Germany some years ago, on going through several of the works which are now engaged in turning out munitions—they were not then used for this purpose—I saw that the spacing of the machines was much greater than was required.

My guide told me that the reason for the wide spacing was to allow the placing of extra machines which would be required for war preparations about 1915.

In between the lines of lathes tram tracks were laid, and behind each of the lathes there was a cupboard where special tools and gauges were stored. All of these preparatory arrangements of unusual work serve to confirm all that Mr. Sinclair has just told us.

Nothing throughout the whole of these works struck me so much as this organisation of special work, evidently munitions, and certainly not for such ordinary work as structural and bridge work. I just throw out these observations as supplementary to what has been stated, and I agree with what you, Mr. President, have said as to the advisableness of our taking advantage of the suggestions made by Mr. Sinclair; I feel that we should do some good if our efforts were based on organisation as suggested by Mr. Sinclair.

Mr. Howarth: I would like to ask Mr. Sinclair a question as to the construction of the chassis in the leading German cars. Does he know whether these were designed for conversion to suit war conditions? I have been much interested in Mr. Sinclair's lecture, and I concur in what Mr. Cutler has said.

The President then put the vote of thanks to Mr. Sinclair to the meeting, and it was carried with acclamation.

Mr. Sinclair: I have to thank you for the very hearty vote of thanks you have carried for me. It is only a pleasure to give you the benefit of what I had picked up in the

Old Country. I regret that it is not possible for you all to go home and see what is being done there at the present time.

In answer to one or two questions that have been put. The President asked about the cost of producing shells now and previous to the outbreak of war. The cost before the war was 25/- as against 3/- now. I made a remark in my paper that the British Government consider that they save 33 per cent. on the cost of private manufacture, and the whole cost of new shell factories, some £20,000,000, has been saved by economy in producing shells on improved systems. The condition of things in England was brought about by a distinct promise given by Mr. Lloyd George that pre-war conditions would be re-established, but the Labor leaders and men have learned a lot since then, and it is hoped that conditions with regard to labor will, as a consequence, be on a much broader basis, and that instead of the employers using the cheapest labor, the employers and labor leaders will work hand in hand, and wonderful developments will come after the war.

I thank you once more for your hearty vote of thanks.

Mr. Sinclair then showed the collection of data that he had made during his trip; whenever he saw anything of special interest in a paper in England he cut it out, and he would be glad to give this collection to the Association.

Mr. Harricks: Before closing the proceedings I wish to say, on behalf of the Association, that it has given us great pleasure to see so many visitors and members of kindred Associations present this evening.