DISCUSSION.

Chairman: Lieutenant Olechnovitch has given us a most useful paper, and I trust that those present will make it of even more value by adding anything that may bring out further points.

Written contribution by S/M. J. Atkins: I should like to thank Lieutenant Olechnovitch for his paper containing an extremely interesting study of the Modern Workman, and on the care and maintenance of tools, which is of a definite practical value.

Dealing with the first part of the paper — Apart from the unsettled atmosphere created by the War, which I think would work itself out in a few years, under normal circumstances, and the advent of the restless type of fellow, who mixes politics and industry, to the detriment of the latter, I attribute the change in the Modern Workman, to the methods which the industrial management has had to adopt, under the existing economic conditions, together with cheap production and intense competition—whereby a man's proclivities are limited and levelled—good and indifferent workmen alike—by a preconceived plan of operations, formed by the management.

I contend as a result, a workman is not in a position to increase his commercial value to any extent, and does not withhold his individual personality from the industry, but rather, the industry, by force of circumstances, cannot allow these desirable qualities to develop.

It must be extremely interesting and valuable to have a record, such as

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suggested for compiling tool data, and personally, I think the plan of obtaining tool replacements, through the medium of the Charge Hand, and not the storeman, is very sound, as I consider it tends to make a workman more careful in the use of his tools, and enables a check to be made on the man who uses his tools until they are in a state far from efficient.

I had some enlightening experience of this over a period of eight months, the first four of which tools were drawn direct from the storeman.

Owing to the condition in which some tools were returned, instructions were issued to return all tools for exchange to the Charge Hand. Unfortunately, a very careful record was not kept, but the result certainly justified the change.

One item in particular was the saving effected of small drills, ranging in size from $\frac{1}{16}$ in. to $\frac{2}{16}$ in. During the later period, approximately 30 per cent. less drills were written off charge than in the preceding four months, and this experience was repeated to a lesser extent with other tools.

Concluding, may I thank Lieutenant Olechnovitch, for a valuable practical guide, dealing with a subject which must be given primary and urgent consideration, under present day conditions.

Lieutenant Olechnovitch: In reply to this letter I should like to say that a man may develop himself by doing twenty men's work and working in many different places.

Mr. Howard-Flanders: In my experience of the use of cards I found that more men were required on the clerical staff to tabulate them, and it seems to me that this should be done by the foreman.

Mr. W. E. Gray: I should like to know whether producers pass any research information on to other works. I very much doubt if it can be got out of the people who have it.

Mr. Howard Flanders: What you want is quite a small society, who would collect all their data, issue some sort of monthly magazine, and be ready to give any information asked for. They would have to issue an index, and all leading societies would belong to it. This would only require a staff of eight or ten.

Mr. Gray: Only firms would belong to it.

Mr. Ringwood: I do not think that firms would give all their private data away. You could hardly expect them to make it common property; I do not really think it fair to expect it. With regard to obtaining tools from the foreman, with small tools like files it seems quite all right, but I do not quite see how they are going to get things like lathe tools from the foreman; he certainly could not keep them in his pocket. It seems he would have to get them at the time, otherwise he would be surrounded with tools.

Lieutenant Olechnovitch: We tried this method, and it was quite successful. The foreman had a box under his desk, and in this box were put tools that were often wanted, such as small drills—drills get broken in dozens—and when the men came up and said: "Sorry, I have broken a drill," he handed them a new one, put the broken one in a second box he had for the old tools, and in this way he remembered which men had broken their tools. Mr. Ringwood: I quite agree regarding small tools, but not with milling tools, for instance, otherwise the foreman would have to keep a store of his own.

Lieutenant Olechnovitch: These are not required very often. Milling machines have special tools, and it is a long time before they are changed. In any case, a milling tool is obtained from a milling foreman, and a cutting tool from a cutting foreman, and so on, so it is quite easy.

Mr. Ringwood: You were speaking of young men getting experience. I think aeronautical mechanics get more experience than ordinary mechanics on motor-cars.

Lieutenant Olechnovitch: It is difficult to draw a line of comparison between different branches of the trade. Aeronautical mechanics have to bear more responsibility.

Mr. Ringwood: Regarding the use of paraffin. Surely this would be too heating on aluminium?

Lieutenant Olechnovitch: Aluminium seldom gets hot, as it is a very good conductor of heat. With cast aluminium (especially when it contains, zinc) paraffin is not so often required. The quality of cast aluminium is sometimes very similar to brass, and "scraping" out may be employed.

Mr. Ringwood: What is the best way to clean files that have been used for aluminium? They get clogged long before they are worn out.

Lieutenant Olechnovitch: It is all right if you do not use too long a tool. Many clean them by dipping them in alkali, perhaps a strong solution of caustic soda.

Mr. Gray: I have found that aluminium files used broadside on, that is, end on, do not clog.

Lieutenant Olechnovitch: You will also find that chalk put on the file before filing will prevent clogging.

Chairman: One point that I would like to mention is the interest that was taken in apprentices in years gone by, and this made the trade mark "Made in England" what it is. It was in Queen Elizabeth's time that all the craft guilds for these apprentices were formed, and Queen Elizabeth took a persistent interest in this, with the idea that British trade should be properly supported and known all over the world, and in this she succeeded. It is unfortunate that the present day Trade Unions do not put aside political affairs and interest themselves more in the apprentice. I think it would be better if the Trade Unions were to take more interest in classifying their members and apprentices generally so that they might join craft guilds. I think that in that way, even with mass production, we should get the words "Made in England" to mean what they meant in the days gone by.

Lieutenant Olechnovitch: It is very interesting to note that not long ago bricklayers demanded one apprentice to every ten craftsmen, whereas before it was one to every three. I think this new demand is entirely selfish and unfair to the community on the whole.

A very hearty vote of thanks to Lieutenant Olechnovitch for his exceedingly interesting paper was passed with acclamation, and the meeting closed.