

Caroline Haslett. 'Women in War-time Engineering',

Address as President of the Women's Engineering Society, 27th September 1941,

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This second year of my [Presidency of the Women's Engineering Society] has witnessed more outstanding developments on women's part in engineering than have ever occurred before...the demands that are being made on them from every department...will make this period of greatest interest in the history of women...

There would be much repetition in this address if I first detailed the work of women in engineering in 1914-1918 and then 1939 -41 (the present day). I shall therefore enumerate some outstanding differences in the two periods and then outline development during the latter as being more readily available and more pertinent. The main differences are:

First - women bring to the war effort the same attitude, the same enthusiasm to undertake war work as before but there is now an assurance of ability which had to be found or proved in 1915.

Second – whereas in 1915 men, for the most part were incredulous, in 1939 they were, some of them, antagonistic to the entry of women into their special field. Possibly, the majority of works managers retained the attitude of their 1915 predecessors, but the workmen themselves, with bitter memory of the 1920s slump, were unwilling to aid their competitors.

Third – the war circumstances were different, Kitchener's Army recruited all and sundry, and more and more men were urged to come forward, both volunteers and conscripts, leaving key vacant positions in all war industries. Since the fall of France there has not been so urgent a drain of manpower into the armed forces, and the reservation of employment has provided employers with the means of deferring the recruitment of women.

Fourth – there remained over from the last war, a nucleus of women, trained in engineering whose numbers increased year by year, by young women anxious to train as engineers.

Fifth – the introduction of so much machinery, the development of mass production, and the growth of the newer form of engineering production, electrical, automobile and radio. These invited the employment of women for repetition work. Advantage was taken of their ability to do fine work, their patience with monotonous employment and their cheapness. Thus there were already in the industry many thousands of women acquainted with factory life and capable, most of them, of being trained in skilled employment.

Women's War work

It will be difficult to exhaust the list of work performed by women, some of the tasks actually performed should convince the most sceptical of the usefulness of women in wartime industry. It ranges from labouring to special skill work and indicates the results on exception.

One of them has a fair-sized maintenance repair shop and those now employed there (with one exception) were in the waste paper Mill 4 months ago and had no engineering experience. Two women, one on each shift, are working on the 20 " stroke sharpening machine, they set up, sharpen the tools and except for any heavy lifting, carry out the job without assistance

Women are generally employed on such work as capstans, milling, drilling and tapping machines. They are engaged on all the processes in the manufacture of shells and fuses, and on inspection and

light assembly work of all kinds. In electrical engineering they work on coil winding, lamp manufacture, radio etc.

There are too, miscellaneous jobs where women are proving that they should be used to an even greater degree, as for instance in welding, both by electricity and oxy-acetylene flame, and in silver soldering. They also do fine wire drawing, intricate wire rope splicing, hardness testing, plating, jobbing, making small components for instrument makers lathes to testing fuel pumps, oil pump assembly, assembly of light railway wagons, electric crane driving and so on.

In the field of aircraft women are performing the work of fitter, turner, inspector, ground engineer, pilot...one recalls with pride the record of the Women's Section of the Air Transport Auxiliary under its commandant Miss Pauline Gower. In the Royal Aircraft Establishments women are engaged in many forms of research, as scientific officers, technical officers and technical assistants. One interesting job is that of preparing notes on each type of plane in the service for use of the respective pilots.

A woman in the AOW woodworking shop is engaged in wing tip assembly, a job hitherto done by highly skilled men. A woman is carrying out complete assembly of Tiger Moth ailerons without assistance

After storming the gates of the Post Office engineering department for many years women have now gained admission, though as yet they are not doing highly skilled work. They are engaged on the fitting or removal of some types of telephone, on day to day maintenance, on simple engineering duties in exchanges etc.

The BBC are training women to undertake work in their engineering and programme divisions. Some of this work requires only limited technical knowledge, but for recording operators more skill is demanded. The training includes acquiring a knowledge of the lay-out of the engineering division, the war-time system of wireless transmission, the use of studio equipment and outside broadcasting gear. It includes studio control room work and recording work.

There is a developing demand for women in electrical engineering and more recently in the electricity undertaking where they already perform, or will do shortly, the duties of the maintenance engineer, the meter tester, the fitter's mate, plumbers and joiners mate. In war-time nothing is static, and the moment of writing is one when changes are pending in almost every field. It is for instance difficult to speak with finality about wages, and about the registration of women.

Whilst recognising that the immediate need to win the war is of paramount importance, it cannot be regarded as lack of patriotism to consider how a war-time occupation may influence a post-war career. [In my] opinion...the engineering industry offers an exceptional opportunity to those who enter.

There are many opinions as to the future of engineering in peace-time, but it seems safe to assume that rebuilding and reconstruction will produce a boon in the industry for many years to come. Domestic and other electrical equipment, motor cars, radio, television will be in demand; the anticipated impetus of the war to travel and particularly air travel will increase the need of transport of every kind. In the new homes of the future women will apply to domestic problems the altered conception of planning acquired in the engineering industry. The pessimists anticipate a slump but only time will tell... in the meantime there much to encourage the optimist.

Assuming then, that engineering booms, but many men in the forces return to their former job, what will happen to the women?

An engineering background will prove invaluable to many another career. The engineers secretary, the technical clerk, the progress engineer will be all the more efficient if they have had practical experience of the workshop. It is hoped however that some women will remain in the industry and will remain as engineers. The practical experience of these war years is an excellent preliminary to further study.

It is not much to ask that some recognition should be given to the part women are playing and will play until victory is assured. No-one wishes to take advantage of the times, but women would appreciate an acknowledgement of their part in attaining victory and what better acknowledgement than the permission to share in the joys and sorrows of an honourable career and help to use their real ability in the building of the new world.