

Working for victory: Welsh industry and the First World War – *Jennifer Protheroe Jones*
(November 2018)

In a talk that was very appropriate for the month in which the centenary of the 1918 armistice was commemorated Jennifer Protheroe Jones described the demands that the war placed on Welsh industry and the ways in which it responded to that challenge.

On the eve of the war many components of Welsh industry were expanding. The output of the south Wales coalfield peaked in 1913 and it had become the most productive coalfield in Britain. The tinsplate industry had recovered from the effects of the McKinley tariff and was now the largest in the world. On the other hand the nonferrous smelting industry was in decline; copper in particular now concentrated on refining semi-smelted imported regulus. The iron and steel industry, too, was heavily dependent on ores imported from overseas which made it highly vulnerable in a time of war. Britain and Germany were each other's largest trading partner.

In the early years of the war there was little attempt at coordinating industrial activity to meet the demands of a wartime economy. Existing suppliers continued to accept their normal orders in addition to the heavy demands made by the military. In fact in some cases civilian demands increased: neutral countries such as Denmark and the Netherlands placed increased orders for tinsplate since the better organised German industry was restricted to supplying their home demand. On the railways troop trains and trains carrying military supplies had to be fitted into the existing timetables unlike Germany where the demands of the military were given complete priority.

Voluntary enlistment of men and later conscription led to labour shortages. In Llanelli, for example, 50 percent of the tinsplate labour force had enlisted within the first year of the war. Coal production fell and in 1916 the government had to take control of the south Wales coalfield. Unprecedentedly the collieries started to see visits by royalty and leading political figures in an attempt to boost morale. Its high calorific value and smokeless properties made the dry steam coal of south Wales particularly important to the war effort and not least for the Royal Navy which was kept supplied by a constant string of trains from south Wales to the north of Scotland to supply the fleet's main base at Scapa Flow on the Orkneys. 30 million tons of coal were moved in this way over the course of the war with as many as 110 'Jellicoe Specials' running each week.

Steel was another essential commodity. Shells consumed 2.5m tons per annum and this of course was lost material that could not be recovered. To meet the demand superannuated works, such as Cyfarthfa, were recommissioned and new plants built including the Margam works in 1917. To avoid dependence on imported ores the iron ore fields of Oxfordshire and Northamptonshire were exploited to a far greater extent than before the war. Another steel product that was in demand was corrugated strip, essential for trench revetting, but now no longer galvanised – no point as it only had to last a few years, and in any case all available zinc was required to make brass cartridge cases. Tinsplate too was in great demand for food and petrol containers.

Other industries were equally affected. The chemical industry (for its contribution to the manufacture of explosives) had to expand rapidly to replace the pre-war dependence on imports from the more advanced German chemical industry. In rural Wales increased demands were

placed on the woollen industry. Welsh wool was particularly used for socks and blankets but it was regarded as too coarse for uniforms.

As noted previously, the departure of so many men to serve in the forces led to a shortage of labour at home and women took over many of the jobs that had previously been carried out by men, at first on a voluntary basis but later as conscripts. Women of all ages were involved, and not only in relatively light work such as tram and bus conductresses. They also worked in the docks and on the railways and formed an essential part of labour force at the armaments manufacturing plants.

The production of military matériel remained critical until 1916 when David Lloyd George assumed the role of Minister of Munitions and an adequate supply became more assured. New factories were built, often in remote places such as Pembrey, but this resulted in the need to organise transport to these places, often from a considerable distance. Since much of the labour force in these factories was female, questions of child-minding arose and crèches had to be set up for those women who could not draw on family support. The processes in these factories were simplified so that unskilled labour could carry out the necessary tasks with the minimum of instruction, but this could lead to defective products and dedicated 'rectification units' had to be set up to correct these faults.

After the war the men returned and resumed their normal duties and women reverted to their traditional role. There was a short-lived economic boom in 1919/20 but then a slump set in; it affected shipping and coal mining particularly severely but most other industries never fully recovered. Overseas markets that had been lost to the Americans during the war were not regained and both land and sea transport became less dependent on coal as oil took its place. Some attempts were made to create jobs for ex-servicemen, such as the woollen factory at Llanwrtyd Wells, but much unemployment remained which reached its depth after the financial crash of 1929.