Ann Leonard





Annie was born in Morley in late 1891. She was the eldest daughter of Leeds-born William and Emma Leonard (née Dowd). The couple married in 1890 and, including Annie, they had 10 children. One child died in infancy but Annie's other siblings included Edward (1894), Alice (1896), Walter (1897), Agnes (1900), Doris (1902), Ethel (1904), Elsie (1906) and Nellie (1908). All but Annie and Edward were baptised at St Mary's RC Church, Batley.

In the 1891 census William and Emma lived at Springfield Lane, Morley. William was a coal miner. In 1901 the couple had five children and were still living at Morley, but their address had changed to New Park Street. William was now a coal miner deputy. This was the official employed in a supervisory capacity at the pit with responsibility for setting props and general safety matters.

By 1906 the family had moved to Batley and the 1911 census gives their address as North Bank Road, Cross Bank. This remained the family address when Annie

died. At the time of this census William still worked as a coal miner deputy below ground. 19-year-old Annie, in common with many other local women, had employment in a woollen mill working as a cloth weaver.

War changed all this. Within weeks of its outbreak Annie's eldest brother Edward, a former Batley Grammar School pupil with a talent for art, enlisted with the Leeds Rifles. He went to France in April 1915.

Around the time Edward went overseas the "*shell scandal*" debate raged at home, with the shortage of high explosives being cited as the reason for failure in battles and loss of soldiers' lives. The war was lasting longer than anticipated; the number of men in military service was adversely affecting industrial and manufacturing output, including munitions manufacture; and the quantity of shells required was outstripping that of any other previous conflict. For example, in the first 35 minutes of the March 1915 attack at Neuve Chappelle more shells were consumed than in the entire 2nd Boer War. There was a countrywide cry for "*shells, and still more shells*".

The Government response was the 1915 Munitions of War Act with far-reaching Government powers in production. National Shell and National Projectile Factories were established, and National Filling Factories set up to fill these shell casings with explosives and attach fuses.

Interestingly, shortly after his arrival in France, Edward wrote a letter home to one of his sisters, possibly Annie. It is particularly noteworthy for his description of German shelling.

"*Taking things all round, we have had a very quiet week as far as shells, etc, go. We had about the busiest day yesterday when the enemy started sending us shells and trench mortars over…. You can hear them whistle over, but cannot tell to a few hundred yards where they are going to burst. They "don't half" make a row when they burst.*

But the trench mortars are the worst. You can see them coming in the daytime. They look like bottles coming at about the speed a man throws a cricket ball. When they drop, they are about 10 seconds before they burst; but when they do, they shake everything for a good distance away. Personally, I think they are the most terrible things they send".

Leeds had taken an initiative early in the war in setting up a shell production factory at the Leeds Forge Company, Armley. In August 1915 they took it a step

further and oversaw the construction of the First National Shell Filling Factory at Barnbow, between Crossgates and Garforth.

Covering 313 acres at first, but eventually extending to 400, by December 1915 filling operations commenced with the employment initially of around 50 women. Operations were expanded with the Ministry of Munitions' decision to install an Amatol filling factory at Barnbow in spring of 1916. Amatol was highly explosive, formed by mixing tri-nitro-tolene (TNT) and ammonium nitrate.

Barnbow was now responsible for filling and assembling QF artillery ammunition (13pdr, 18pdr and 4.5 inch), shrapnel and high explosive (HE). Output soon reached 6,000 shells a day.



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Once the war ended and secrecy restrictions no longer applied, newspapers published the following statistics for Barnbow shell production:

- 12,000 tons of TNT were mixed with 26,350 tons of ammonium nitrate producing 38,350 tons of amatol;
- In the cartridge factory more than 61,000 tons of propellant (NCT and cordite) were made up into breech-loading cartridges, the highest record for one week being 938 tons. This material had to be carefully weighed on scales into ounces and drachms, giving an indication of labour intensively and precision.

- Over 36 million breach loading cartridges were charged;
- Nearly 25 million shells were filled;
- Over 19 million shells were completed with fuses and packed into boxes;
- Over 19 million shells were completed with fuses and packed into boxes;
- 566,000 tons of finished ammunition was dispatched overseas;
- If laid end to end the 18-pounder shells alone measured a distance of 3,200 miles, equivalent to the distance from London to New York

By October 1916 the workforce totalled around 16,000, although numbers subsequently declined to around 9,000. 93 per cent of employees were women and girls, with a woman/man ratio of roughly 16:1. About one third of the employees came from Leeds. Others were from Castleford, Normanton, Pontefract, Wakefield, Harrogate, Knaresborough, and York, Selby, Tadcaster, Wetherby and surrounding areas.

In addition to railway lines for transporting raw materials and finished products, the North Eastern Railway Company operated 38 "*Barnbow Specials*" a day. These trains transported the workers to and from the site. There were also 15 ordinary trains. The workers had free work travel permits.

The Barnbow girls employed on shell-filling earned an average of around £3 a week. However, when the bonus scheme operated some girls could earn as much as £10-£12. Compare this to the wage of a domestic servant who earned as little as two shillings and six pence a week.

But the hours were long and the working conditions arduous, in part due to the nature of the explosive material the girls were working with. Nothing causing static and sparks was allowed: so rubber-soled shoes, smocks, caps only and no matches, cigarettes, combs or hairpins. Initially set up with two shifts a day, soon a three eight-hour round-the clock shift system came into operation. The girls normally worked six days a week with one in three Saturdays off. No holidays. No strikes.

But above all the work was dangerous. Not for nothing was the pay high (but not the equivalent of a man!) There was the very real risk of explosion, three occurring at the Barnbow factory during the war. But more insidiously, the women worked with toxic material, and were at high risk of poisoning. The symptoms included nausea, vomiting, chest and abdominal pain, headaches, blurred vision, nose and throat problems. However the most obvious manifestation was the yellowing of the skin caused by toxic jaundice, earning the girls the nickname of "*canaries*". Newspapers regularly advertised a skin

product called Ven-Yusa aimed at preserving the complexion, and the "*munitionettes*" were a specific target-market for this product.

Ann's family applied for name to be added to Batley War Memorial with that of her brother Edward in 1923 but this was refused. Her brother appealed stating she was the only woman in Batley who died for her King and Country in World War 1. The Mayor, Town Clerk and two other officials still refused. Sadly, women were not acknowledged in those days but she was added to the War Memorial in our Addenda 2019.

Researched by members of
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