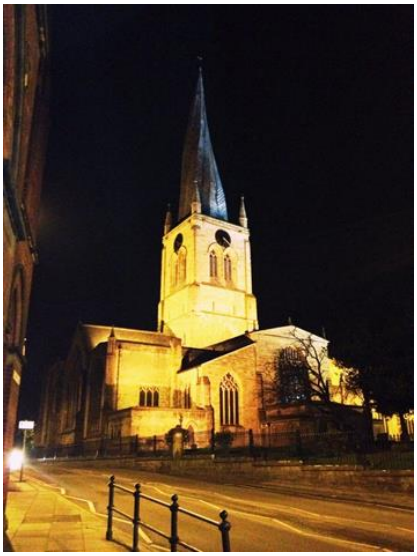
The Spire Sentinel



The Newsletter & Magazine of The Chesterfield Branch of The Western Front Association

ISSUE 90 – August 2023

Our aims are 'Remembrance and Sharing the History of the Great War'.

Western Front Association Chesterfield Branch – Meetings 2023

Meetings start at 7.30pm and take place at the Labour Club, Unity House, Saltergate, Chesterfield S40 1NF

January	4th	. **AGM +** `***British League of Help***` by Dudley Giles. Nearly 90 towns, cities, and organisations in the UK, Australia, Canada and Mauritius signed up in the period 1920-1922 to 'adopt' a village, town or city in the Devastated Zone of France.
February	7th	`**The First AIR War**`` by Grant Cullen. Based on a collection of rare photographs acquired over 20 years ago at a yard sale in Hazelwood, Missouri, US, this will look at the various protagonists in WW1 – people and Planes
March	7th	`**Voie Sacree**` by Roy Larkin. The story of the road that connects Bar-le-Duc to Verdun It was given its name because of the vital role it played during the Battle of Verdun in World War I.
April	4th	**"For Home and Honour`** by Yvonne Ridgeway and James Kay. A bit of a history of our local community in North Sheffield during WW1, from their own research, looking at recruitment, the 1st Sheffield blitz, the tribunals for those wishing to avoid military service and some of the local soldiers' stories.
May	2nd	**The First World War contribution of Dulmial Village, in present day Pakistan** by Dr Irfan Malik. His Gt. Grandfathers experiences in WW1, and the wider role of muslim soldiers during that conflict
June	6th	**Stepbrothers in Arms: the Conscript Experience in 1918** By Tim Lynch who will examine the myths and realities of the army of 1918 and what the evidence actually tells us about ideas of cohesion, morale and professionalism in the BEF.
July	4th	Dr Rebecca Ball '***Daddy, what did you do in the great War?***' Drawing upon fifty working-class autobiographies, this talk examines the impact of the Great War on fifty English families with a particular focus on fathers.
August	1st	Dr. Adam Prime – a newly appointed WFA Trustee who will talk about '***India's Great War***' This talk looks at India's contribution to the First World War in every sense of the word.
September	5th	**"Dark Satanic Mills - How Britain's Industry Went to War". By Andy Rawson** This is an insight into the wide range of factories across the country, which worked around the clock to keep up with the expanding requirements of the armed services.
October	3rd	Hedley Malloch ***Left Behind*** – the fate of British soldiers trapped behind German lines in Belgium and France after the Retreat of 1914
November	7th	Peter Hart – **Trench Humour -a look at how soldiers use humour to get through the horrors of trench warfare.**
December	5th	David Blanchard - **The Casualty Evacuation Chain from Hill 60, Ypres, in early 1915**

Issue 90 – list of contents

Any opinions expressed in this Newsletter /Magazine are not necessarily those of the Western Front Association, Chesterfield Branch, in particular, or the Western Front Association in general

Secretary`s Scribbles

Dear Members and Friends,

Welcome to the issue 90 of our Branch Newsletter for August 2023. I`m really getting in front of myself getting this newsletter out well before the end of the month!

On Tuesday 1st August, we welcome a first time visitor to the Branch Dr. Adam Prime

Adam is a historian of the Indian Army with a PhD from the University of Leicester. Between 2016 and 2020 he lectured in Military and International History at the University of Salford. He has published book chapters on the Indian Army's defence of the Suez Canal in 1914 & 1915 and on the make up of the Indian Army Officer Corps in the late Victorian period.

Adam has been on the WFA National Executive Committee since 2021.

'*India's Great War*' This talk looks at India's contribution to the First World War in every sense of the word. It takes in the huge recruitment boom. It also looks at the experiences of Indian soldiers (and their British officers) on the Western Front, in Gallipoli, in Mesopotamia and in the Middle East. Finally, it looks at India itself; and the actions undertaken there to defend the North West Frontier. Of particular interest, and based on his recent research, is Kitchener's willingness to risk Indian security entirely in order to defeat Germany. This talk comes from part of Adam`s PhD thesis. Like Rebecca Ball last month it is good to see younger people coming to the fore .

Adam`s talk will be complimentary to that given by Dr. Irfan Malik a couple of months ago.

I would like to take the opportunity, through this newsletter to thank Chesterfield Councillor, Ian Callan and his brother Andy for the recent donations of books to the Branch. These books of course are used to support our raffles at Branch meetings which in turn keeps our funds in a healthy state. Some branches have struggled to get back on their feet after the covid lockdowns but we are fortunate that our numbers are back to pre-covid levels, together with the generosity of our attendees supporting the raffle.

If you remember this time last year Andy Rawson conducted two `expeditions` on the hills west of Sheffield, exploring the sites of the Redmires Camp where the Sheffield Pals did their basic training in the Great War. Andy has offered to do likewise in August – response has been good , with it being likely that he will be guiding two outings. I will be letting those interested know shortly what dates Andy is proposing. Thanks, Andy, for arranging these and to those members for supporting.

Once again we have a full issue of the Newsletter, I`m always looking for new material for inclusion. If you have anything suitable, please get in touch.

Full ahead now for our 1st of August meeting.

Best regards,

Grant

Grant Cullen Branch Secretary

07824628638 grantcullen@hotmail.com

July Meeting

Dr. Rebecca Ball

Rebecca is an early career researcher, currently writing a book on the everyday lives of the English working class between 1900 and 1945. She completed her undergraduate degree in Modern History and Politics in 2013 at the University of Manchester, after which she completed her MA in History in 2014. Clearly not put off by endless research, she decided to continue on and undertake her PhD at the University of Wolverhampton, which she completed in 2022. Her PhD was inspired by her MA research on childhood in Britain during the First World War and this research also inspired her talk …..

'***Daddy, what did YOU do in the Great War?***' Drawing upon fifty working-class autobiographies, this talk examined the impact of the Great War on fifty English families with a particular focus on fathers. It explored too the childhood experiences of individuals whose father was absent on the Home Front and compares them with the experiences of those whose family remained together due to their father's exemption.

Rebecca said that when picking out the 50 autobiographies, she achieved an almost 50-50 split – male and female…26 female and 26 mail, all working class born in England in the years 1900 to 1915. She wanted to explore what it was like to be a child in one war, and an adult in another.

She used the extensive archive of social historian, John Burnett, a collector of working class autobiographies.

https://www.brunel.ac.uk/life/library/ArchivesAndSpecialCollections/Burnett-Archive-of-Working-Class-Autobiographies

These did reveal a wide range of experiences and Rebecca said she wanted to explore what it was like to be a child in a conflict…summed up by that famous poster entitled…'*Daddy, what did YOU do in the Great War?*'

From this propaganda poster, the young girl is questioning what her father did in the war, whilst her brother is, rather pointedly playing with soldiers on the floor. The audience knows the answer that the girl expects…that her father fought in the

conflict..any other answer would be unpatriotic…hence the rather guilty look on his face.

When she started out on these investigations she wanted to define the answers of children's` experience of absence, loss and death. What she did find was that during the war family life was far more nuanced than she had originally anticipated.

Rebecca said her talk would cover three areas

Death in the First World War

Wartime activities of fathers

The impact of the war on family life

Rebecca started with a quote from then autobiography of James Challender Newton.

James was born in 1912 in North London. He recalls that his father, a butcher to trade, joined the 7th Battalion of The Royal Fusiliers in 1915 and writing later said

" A tragedy occurred in August 1918 when my father was killed in action at Oppy wood in Flanders"

Rebecca expected that this would be a recurrent event in her sample of 50 autobiographies, considering over 700000 men from the United Kingdom (including Ireland at that time.)

As Jay winter said in his book Sites of Memory, Sites of Mourning, `Public Commemoration and War Memorials have fixed the narrative of death in contemporary British culture because death is the message that they convey`

In the aftermath of the war, there was very few places that you could look back on without thinking of the dead.

Historians have usually placed the absence of fathers through service and or death at the centre of children's` experiences. However, Rebecca`s researches revealed a differing view where death was not the central experience, this because of the 50 individuals being studied, James Challender Newton was the only child in that sample whose father was killed in action. Third part of her talk would explain why the mortality rate was so low amongst this sample.

From the sample considered, it became apparent that not all of the 50 had a father alive at the time war broke out in 1914. Whilst Ww1 is usually associated with death, civilian health actually began to improve due to a variety of factors, improvement in diet and improvement in social housing. From 1915 mortality through infectious disease began to drop, indeed the death rate was lower even allowing for the war itself. The years immediately before the war was a period of high mortality and short life expectancy, the average for working class men, being 46 and 53 in women.

From the 50 autobiographies, 46 had their father or stepfather alive during WW1. The remaining four mothers remained as widows

Of these only 13 had fathers absent on active service

12 survived – one was killed in action – the father of James Challender Newton

Survival rate of those enlisted 92%

So, what did this depend upon

- **Age**
- **Location of posting(s)**
- **Length of service**
- **Position or rank in the military**

Rebecca said that whilst the talk was focussing of fathers in the war, the impact of losing a sibling was not – it being more likely that a child would lose a brother or sister than a father during the war. It was brothers rather than fathers who had the highest probability of being killed in action, given the high mortality rate of under 25s in WW1

Harry Dorrell was born in London in 1903, one of 7 children and was 11 when two of his brothers enlisted in the army. His brother Alfie died just after the Armistice when he had a fatal fall on board navy warship and this badly affected Harry as tales of heroism were of little consolation to him…

…a sense of isolation surrounded me, not comprehending but knowing it was true that he wouldn't see his Alfie again, I did not cry..I stayed silent…

That being said, the high incidence of sibling death did have an impact on those compiling these autobiographies.

Emily Thornbury, in her autobiography recalls the deaths of two of her brothers early in the war which she blamed on the fact that both were officers and wore distinctive marks on their uniforms, making them targets for the enemy. The army realised this and made changes accordingly, but, alas for Emily`s brothers Alec and Leonard, was too late

Kathleen Botterton in her autobiography when asking `What did you do in the war, Daddy, asked , when answered, why he did not undertake military service. The reason? He was exempt.

What were the reasons for exemption.?

By a significant majority the main reason was that the fathers were in reserved occupations.

From the sample considered by Rebecca 16 were in those occupations considered by the war office to be indispensable to the war effort and were therefore exempt. 3 were exempt on account of age, 7 were considered medically unfit with the others in the sample not be categorised from the information contained in the autobiographies.

Rebecca went on to give detailed descriptions of family life – including breakdowns in relationship, infidelity included, in a wide range of subjects, gleaned from her researches into the individuals - quoting from a further thirteen who had written

those autobiographies upon which she had drawn so much to make her presentation such an interesting subject.

When Rebecca concluded, there was a good Q & A session…I prefer to describe it as a discussion to which many of our attendees contributed. With this part of the evening concluded, Tony Bolton, Branch Chair thanked Rebecca for her excellent presentation to which our members responded with a hearty vote of thanks.

Crucifix returned from England to France after 107 years

Priest-in-charge Jean-Louise Brunel said the crucifix was "very precious"

A group of people have travelled more than 300 miles from England to France to return a crucifix retrieved from the rubble of a church in World War One.

The cross originated from the church of Doingt-Flamicourt, which was destroyed during the Battle of the Somme in 1916.

It is believed to have been salvaged by a British Army chaplain and placed in All Saints' Church in Tinwell, Rutland.

The idea to return it came from a 16-year-old boy in the congregation, who discovered the church had been rebuilt.
His father Chas McDevitt accompanied the crucifix to France, and played the Last Post on a bugle during a ceremony held in the church cemetery.
"It was powerful," said Mr McDevitt.

"It was nice because every year I play the Last Post at Tinwell. So to be here and play it again is absolutely fabulous. It's deeply significant."

'Right thing to do'

Explaining where the idea to return the crucifix came from, he said: "My son and my wife were discussing the fact we had an artefact from a French church, destroyed in the war.

"He looked online and saw it had been rebuilt and said, 'Why don't we take it back?' Suddenly we have a day like today and it feels like the right thing to.

"It's so much more important for this community to have their cross back, it's a continuity of their history."

The church is in Doingt, which was rebuilt after being destroyed

The crucifix was returned on Saturday, which was the 107th anniversary of the start of the Battle of the Somme. The church is in Doingt, one of many settlements wiped from the map as the French and British armies fought Germany.

It was later rebuilt, and the community of Doingt still tends several hundreds of graves of British soldiers.

'Friendship with England'

Priest-in-charge Jean-Louise Brunel, whose parish includes the church in Doingt, said the crucifix was "very precious" and "a sign of Christ giving his life for us, like the soldiers".

"This cross is a sign of people today and friendship with England. So we are very impressed with the idea of Tinwell parish to give back the cross," he said.

"I hope there will be friendships between the two communities for some time."

The crucifix is now back at home at the rebuilt church

Special permission to return the crucifix was granted by the Diocese of Peterborough.

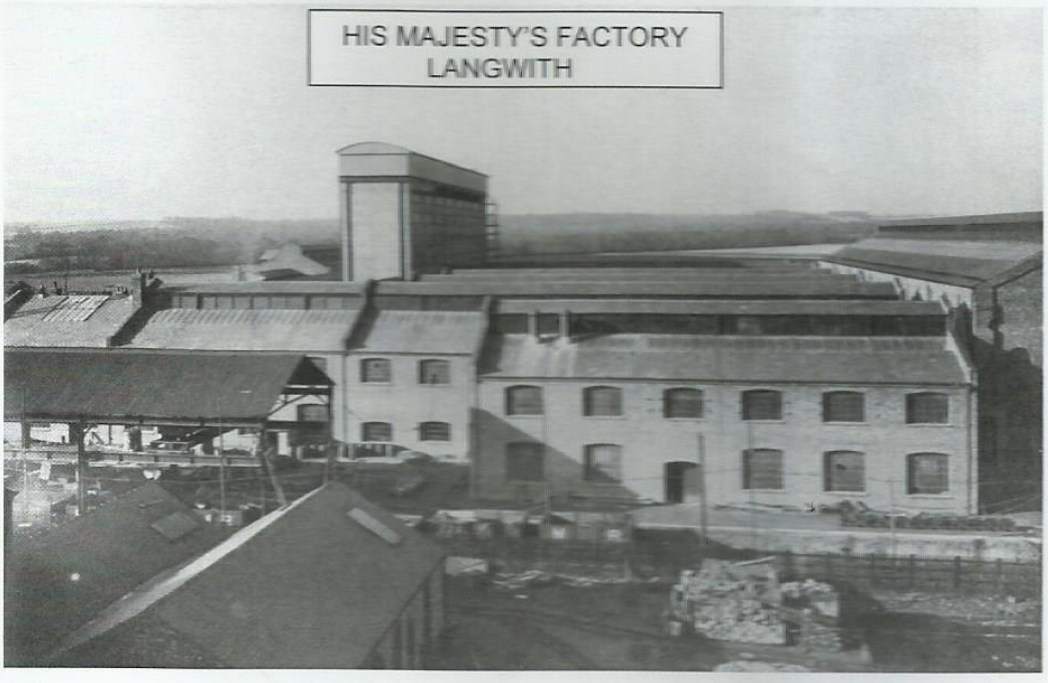
Rev Olwen Woolcock, priest-in-charge at Tinwell, formally handed it over.
"It was a wonderful feeling doing that service," she said.
"I was very conscious it was the right place for it to be. It feels great to bring the crucifix back to where it belongs.
"This village looks after more than 400 war graves, it tends the graves, they have their own acts of remembrance.

"It felt like the last piece of the jigsaw as the village was rebuilt."

Langwith Munitions Factory 1916-1919

As many of you know, I love walking and exploring new places with my two dogs, Bess and Teddy, particularly old railway lines, long forgotten. A few years ago I decided to visit Poulter Country Park at Langwith in North Nottinghamshire. I parked up near the station, crossed the footbridge over the Nottingham to Worksop line and entered the country park. I decided to do a circuit clockwise and set off. Coming downhill, towards another car park under a viaduct on which formerly ran a line to Shirebrook but just before turning slightly west, I noticed a concrete block with a blue plate attached to it – see picture – I didn`t realise that what is now Poulter Country Park was over 100 years ago a major factory for the manufacture of explosives used in the Great War. There is little to see now that could give a clue to the site`s former use – even the local colliery has long disappeared. However, the plaque mentions two accidents at the explosives factory each of which claimed the lives of three people. There is also a memorial to two airmen whose Beaufighter aircraft crashed on the site in 1942

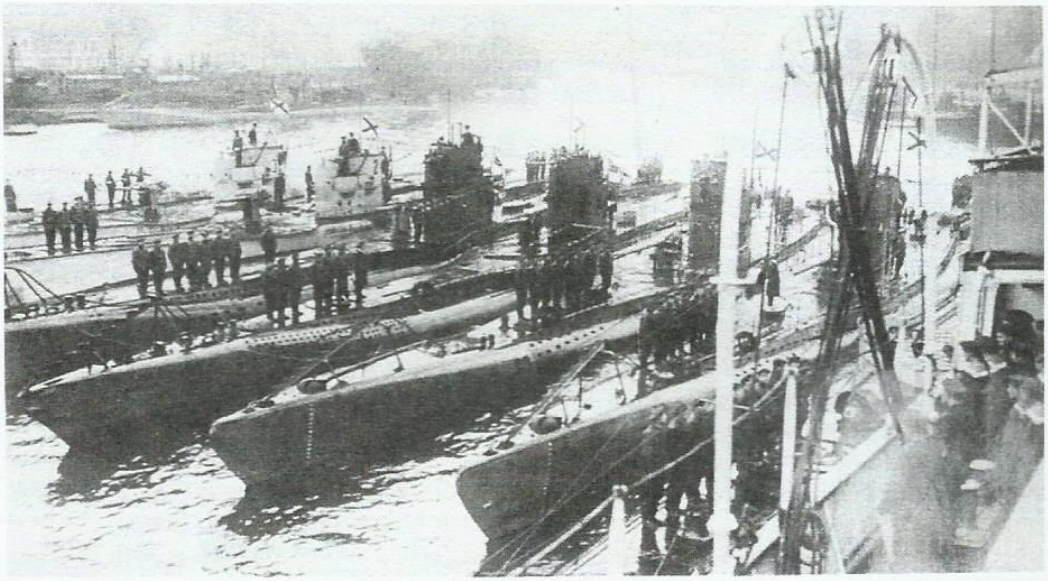
The following pages tell the story of that long forgotten site and of the people who worked there.



His Majesty's Factory

Langwith

THE STORY OF A FACTORY THAT HELPED WIN THE 1ST WORLD WAR



German U boats 1916

German U boat sinking a British Merchant Ship.1916
At the start of the war the U boat would allow the crew to leave the ship before they sunk it. Later no warning was given.

HIS MAJESTY'S FACTORY LANGWITH

On the 10th of May 1915 a note was passed to Lord Moulton, Director General of the Explosive Department, saying that the-

"Qu. of perchlorate supply demands immediate attention"

The First World War started on the 28 July 1914 and it was thought that it would be over by Christmas. However, by 1915 it was realised that the war could go on for years. In Belgium and France trench warfare was at a stalemate but at sea it was still very fluid. The German Navy had shelled the east coast but because of the threat from the bigger British Navy had retired to its bases in Germany.
In 1916 the German military was complaining to the Navy that it was not helping with the war so they decided to put to sea and engage with the British Navy. The two navies met at the battle of Jutland. It was an indecisive battle, although we claimed victory at the time. The German Navy again went back to its bases. The German Admiral Sheer realised that the big battle ships were very vulnerable but submarines would be undetected and could do a lot of damage to British shipping. Although U boat warfare was at first described as ungentlemanly, it was used more and more with greater success as the war went on.
Britain was a trading nation and depended on ships to bring in goods and food. 60% of all food was imported. In April 1916 only 6 weeks of wheat was left in the country. U boats were sinking one in four ships causing us to have to bring in food rationing in 1918.

Boats sunk by U boats in 1917-18

A sea mine filled with T.N.T. and ammonium perchlorate

The only defence we had against these boats were sea mines. Huge mine fields were laid around the country and in the German shipping areas. A mine field was put across the English Channel to defend the ships supplying the troops in Europe. The U boats had to attack the shipping lanes by going around Scotland to get into the Atlantic.

Sea mines were filled with a mixture of explosives and an accelerant. It was probably T.N.T. and ammonium perchlorate and called at the time 'megadine'.
We had been obtaining this accelerant from Sweden and France. The internal note to Lord Moulton stated that he was very worried about the supply of this chemical as Sweden was a neutral country and we had to bring it across the North Sea. France, heavily engaged in the war, wanted all she produced for herself. The note went on to say a deal had been done with a Swedish Company for the whole of its production but also the Company might allow its manufacture in Britain under licence for the war period.

Lord Moulton

Lord Moulton was very hesitant about this as he thought we did not have the expertise to set up a factory and make the chemical. However, the Swedish firm said they would allow British staff to come to Sweden and see the process and send some of their staff to Britain to help set up a factory.
It needed a very high electrical current to start the manufacturing of the chemical. The Swedes were using hydroelectric power from their local waterfalls. Lord Moulton's note says that Ireland might be a suitable place for the factory.
The Power Gas Company was approached by the Government Explosive Department about the big power supply needed and they suggested Langwith.

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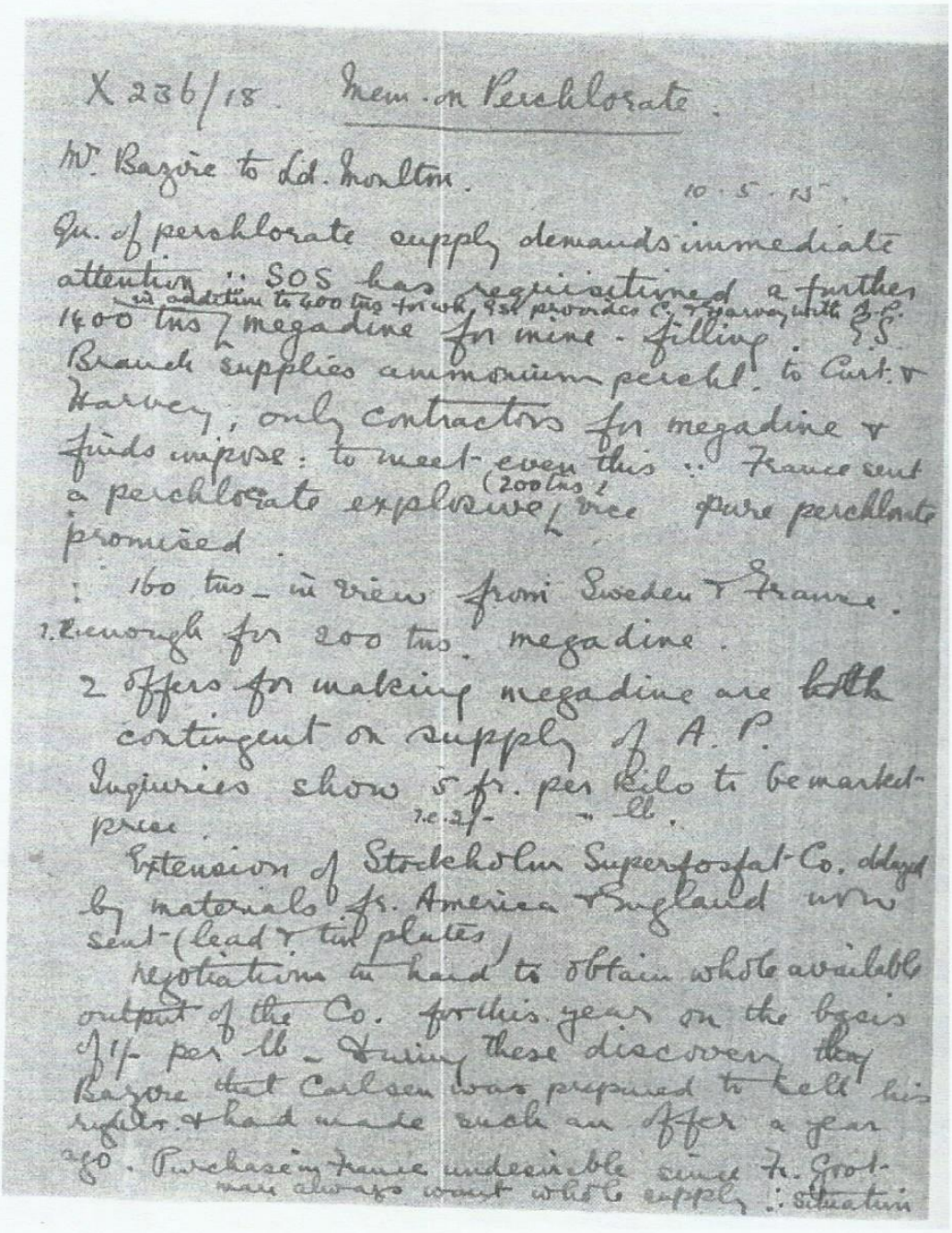


X 236/18. Mem. on Perchlorate.

Mr. Bazore to Ld. Moulton. 10.5.15.

Qu. of perchlorate supply demands immediate attention: SOS has requisitioned a further 1400 tns (in addition to 600 tns for wh. 1st provision C. Tyzack, with E.S. Branch supplies ammonium perchl. to Curt. & Harvey), only contractors for megadine & finds impose: to meet even this: France sent a perchlorate explosive (200 tns) free pure perchlate promised.

160 tns - in view from Sweden & France.

1. Enough for 200 tns megadine.

2 offers for making megadine are both contingent on supply of A.P.

Inquiries show 5 fr. per kilo to be market-price. i.e. 2/- - £.

Extension of Stockholm Superfosfat Co. delayed by materials fr. America & England now sent - (lead & tin plates)

Negotiations in hand to obtain whole available output of the Co. for this year on the basis of 1/- per lb - during these discussions they Bazore that Carlsen was prepared to sell his rights & had made such an offer a year ago. Purchasing France undesirable since fr. Grot- mans always want whole supply: situation

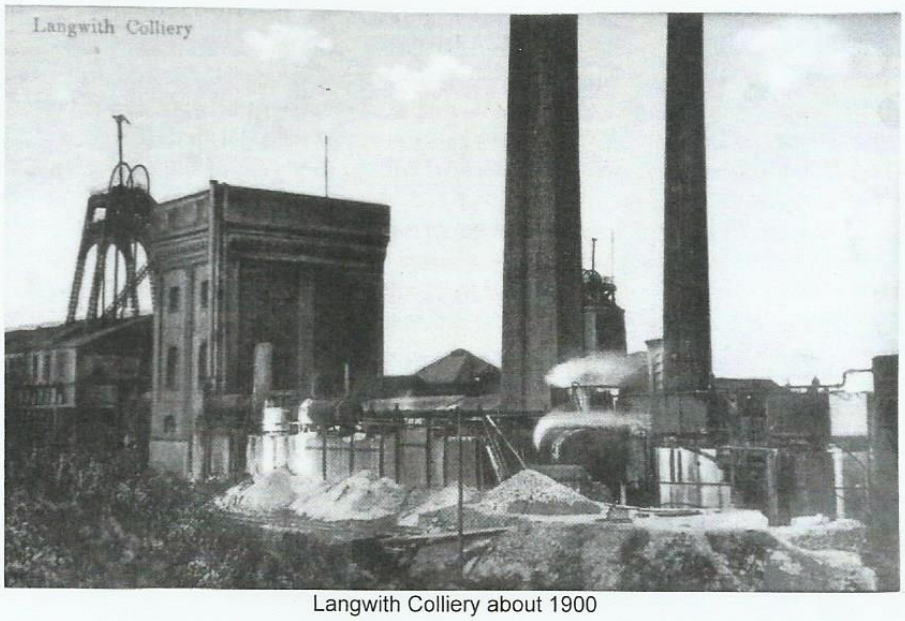
This is the internal note written to Lord Moulton stressing the urgent need for ammonium percholate and the problems of supply.

The Power Gas Company was approached by the government about suitable power plants and they suggested that as the Langwith Bye Products Plant was making producer gas, (which they were not using), it could be used to run large electric generators and also ammonium sulphate was a chemical needed in the process and so Langwith would be a suitable place to build such a factory.
By late 1915, the chemical works was being built, to the west of the pit, by the side of the Bye-Products plant. The Sheepbridge Company first mentions it in their Minute Books of March 1915 when they were to use gas from the Bye Products Plant. By September, negotiations about the land were in hand and in October 1915 they loaned £1145 to the Bye Products Plant to purchase the land from Earl Bathurst. The factory is named as the Perchlor Works on a map from Earl Bathurst. It had taken land from Apsley Grange Farm.

The National Gas Engine Company said they would provide the power station and started making the big engines and generators in August 1915. The Midland Railway said they would provide a connection to the site, and this was ready by May 1916.
Holloway Brothers of London were the contractors under the control of Sir Arthur du Cros of the Dunlop Rubber Company. Holloway Brothers were chosen as they had experience of building large factories and employing a large labour force. Sir Arthur also had experience of starting up large factories.

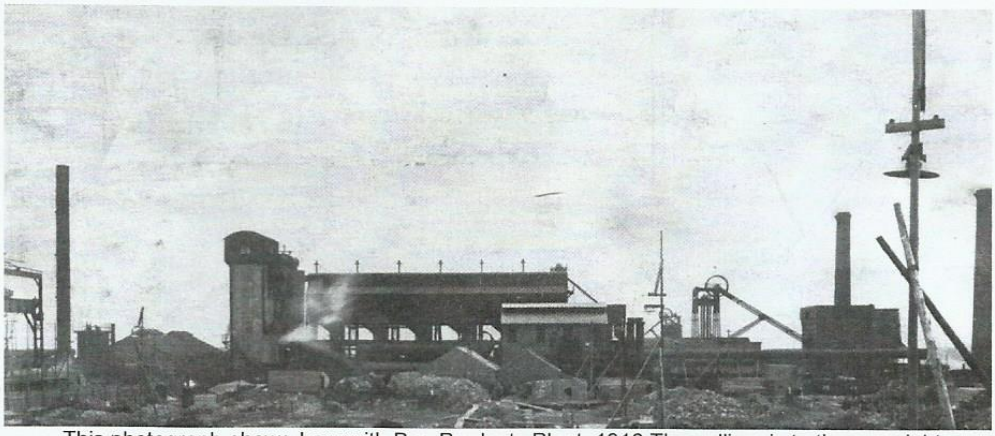

Sir Arthur du Cros

The building was to take three months from the start and the work would be completed by December 1915 and the gas engines in commission by February 1916. The contractors had great difficulties in procuring labour to build the factory and the project ran into problems due to this shortage.(All the younger men were in the army) To help with these problems in April 1916, 100 soldiers of the army labour companies were sent to the site followed later by another 50. This brought the total labour force up to some 490 by May and 582 by June 1916.
On Sunday, 29th May 1916, a church parade was held for the soldiers who were building the camp. They were under the command of Lieut. Powel and accompanied by Langwith Colliery Brass Band and Lance-Corporal Gregory played the organ. Later on 11th August an open-air meeting was held in a large tent for the Notts and Derbys Regiment of soldiers at the Factory. These were probably the builders of the works or they could have been the soldiers guarding the site from zeppelin attack.
The slow progress of building caused concern and so the site was photographed fortnightly from January 1916 to November 1916. (Some 106 photographs held at the National Archives, Kew.) They show the gradual erection of the big buildings helped by steam cranes and much scaffolding, with soldiers and horses and carts.



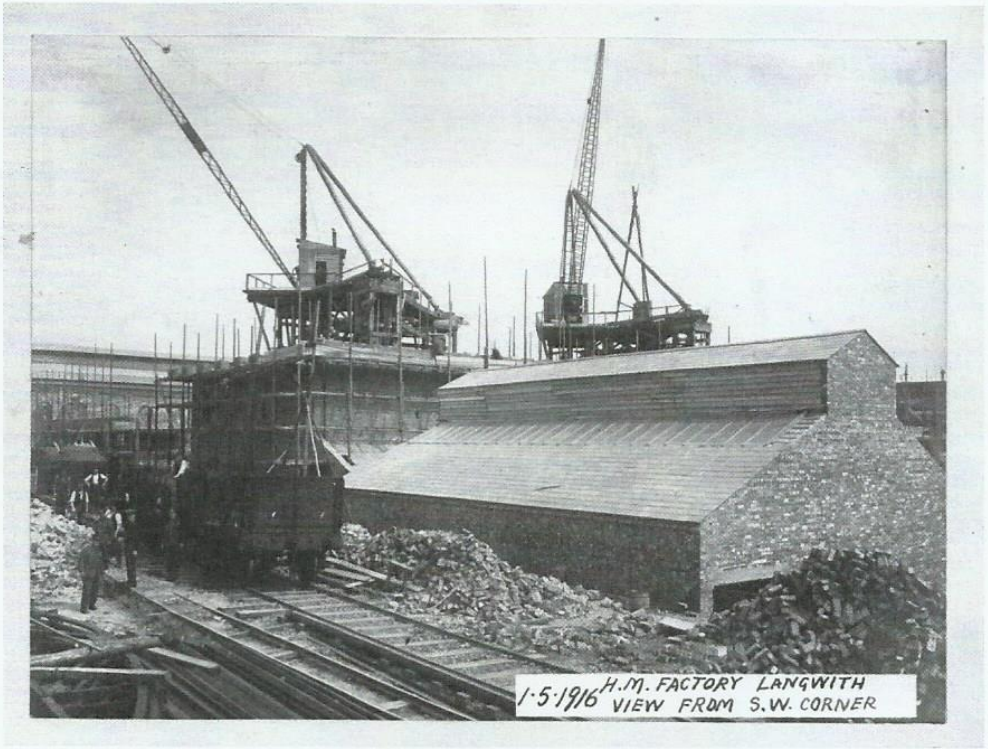
Langwith Colliery about 1900

Langwith Colliery, was sunk 1876, and was mining coal in the top hard seam. This coal had a high calorific content but was very brittle and caused a lot of slack, (coal dust), which was unsalable and was being put on the local tips. This caused them to later catch fire and send smoke and dust across the village. The Sheepbridge Coal and Iron Company, owners of the colliery, decided to use this coal dust in a bye product plant they built by the side of the colliery. The Langwith Bye Product Plant was started in 1907 using the Mond process. It made tar for roads and ammonium sulphate for use as farm fertilizer. The producer gas, also made there, was allowed to burn off from the six big retorts. (There had been a plan to use this gas for light and power in the village and even for the boilers at the pit, but it was never used.)

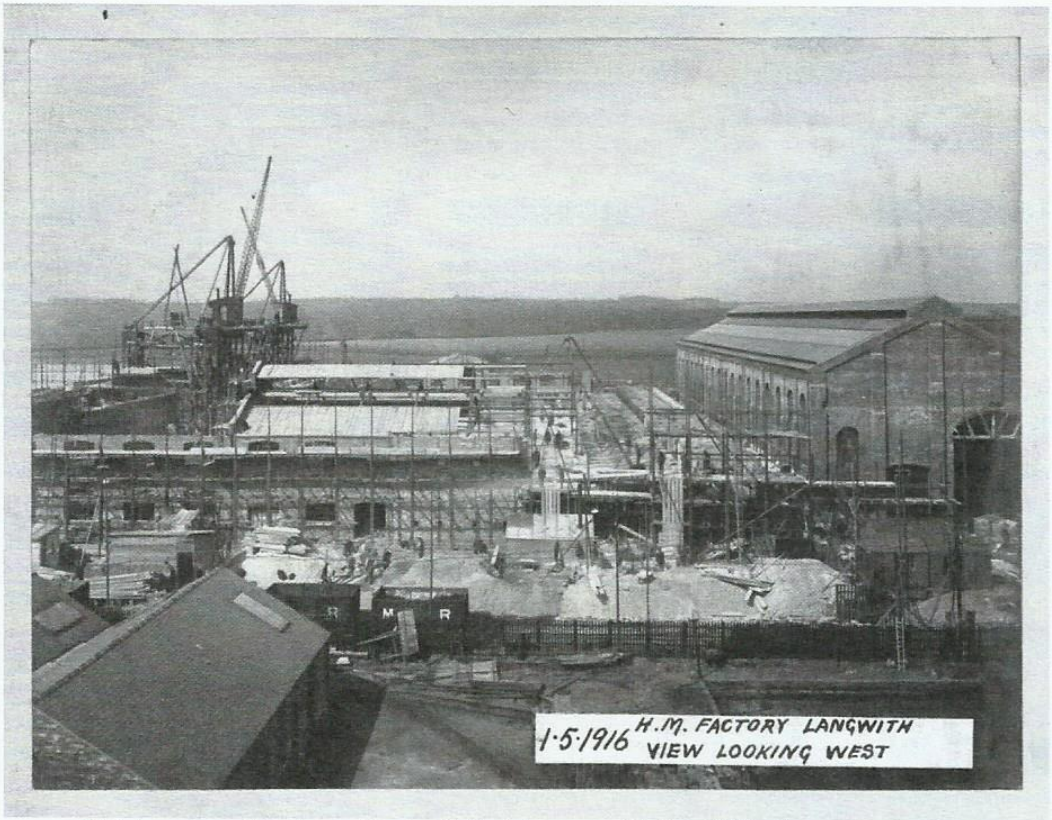


This photograph shows Langwith Bye-Products Plant. 1916 The colliery is to the rear right. The gas was burnt off from the six chimneys above the retorts.

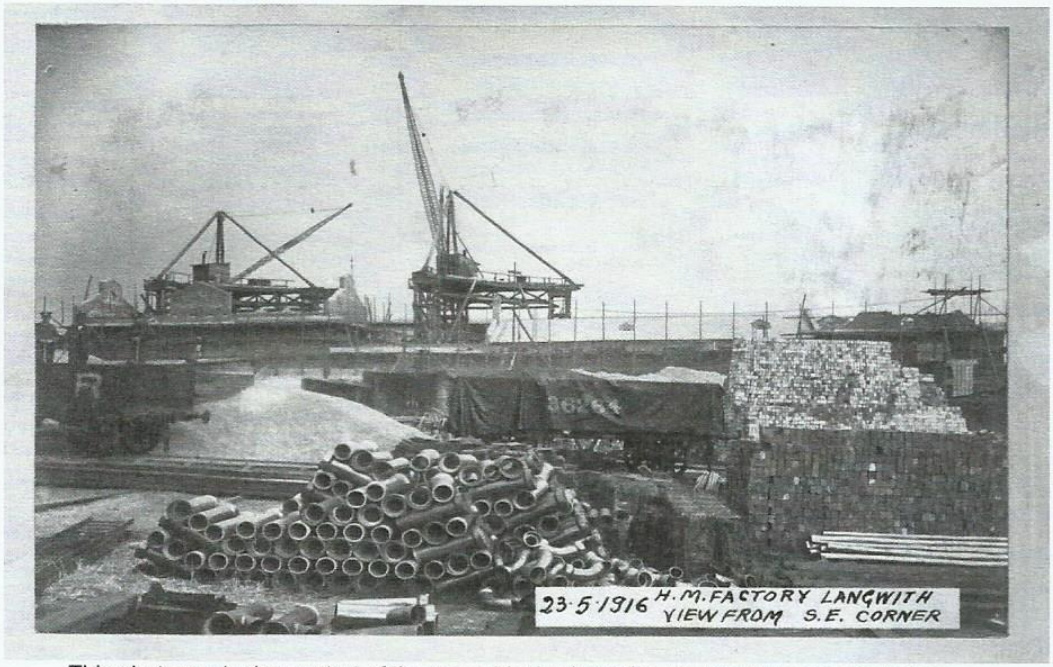
Some of the 100 - later 150, soldiers helping build the factory.



The start of the big tower block



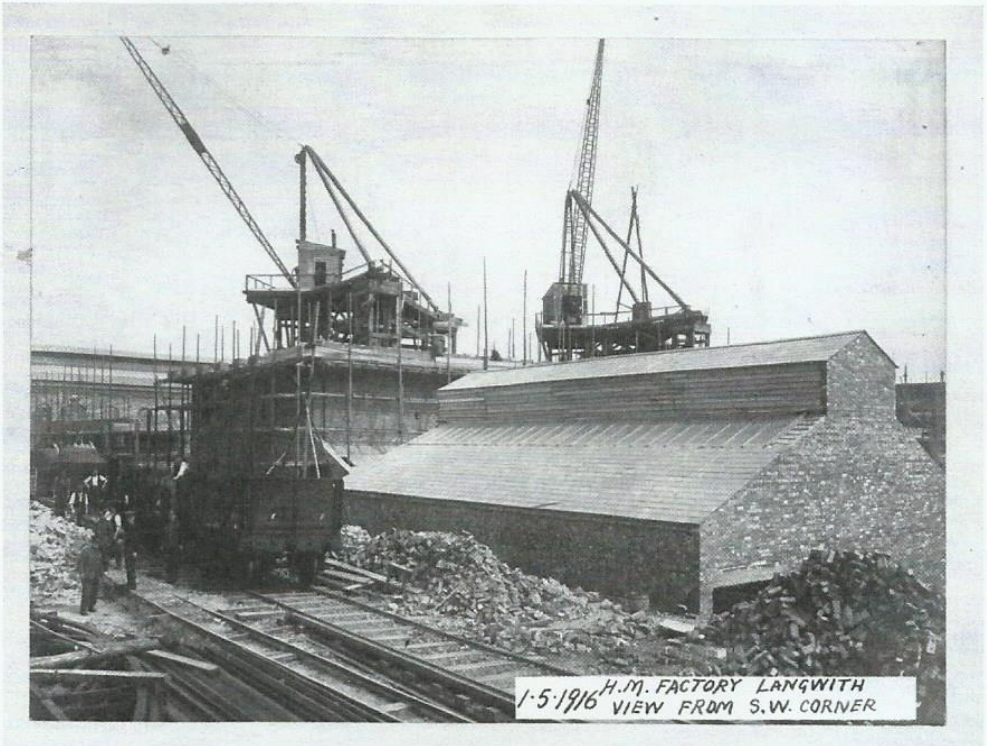
This is a view of the tower block with the big cranes. To the right is the gas engine house.



This photograph shows start of the tower block where the chemical process took place.

8

Some of the 100 - later 150, soldiers helping build the factory.



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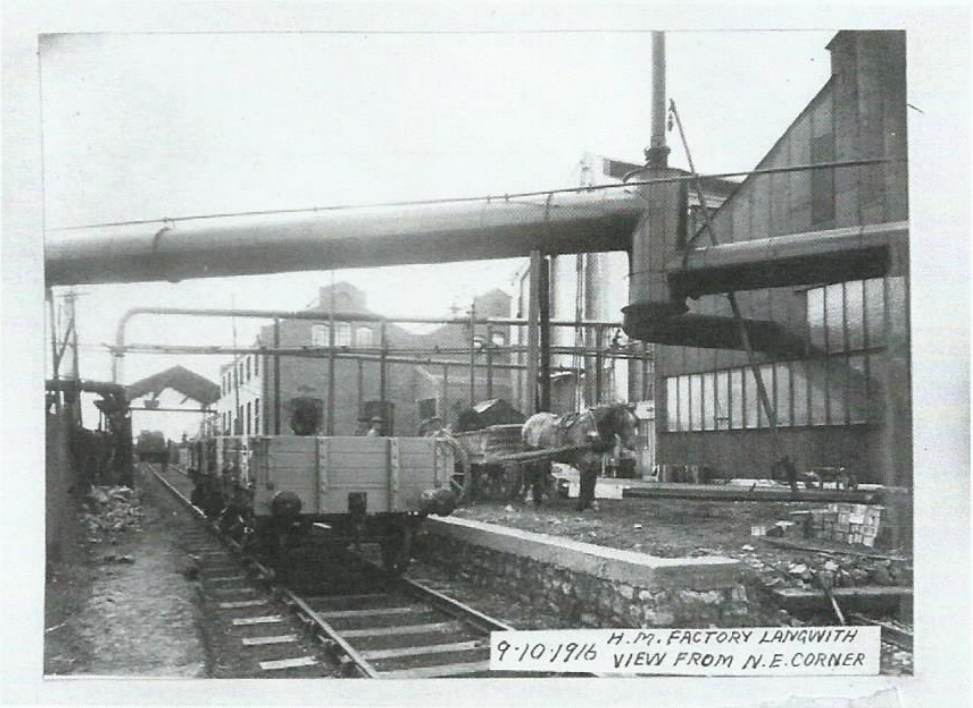
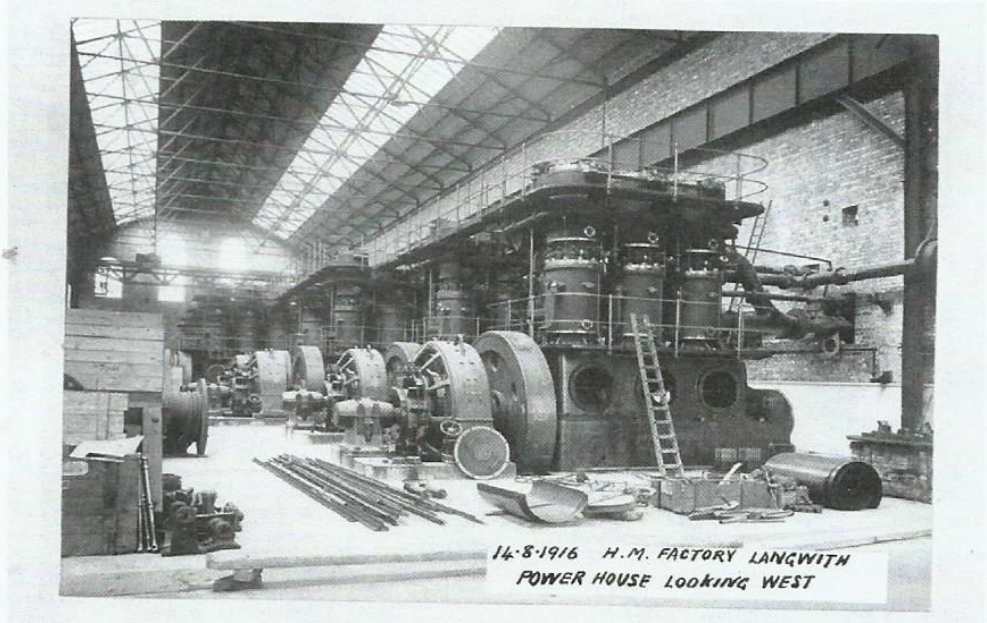


The big pipes bringing the gas from the bye products plant into the gas cleaning plant. The engine house is behind the horse and cart to the right,

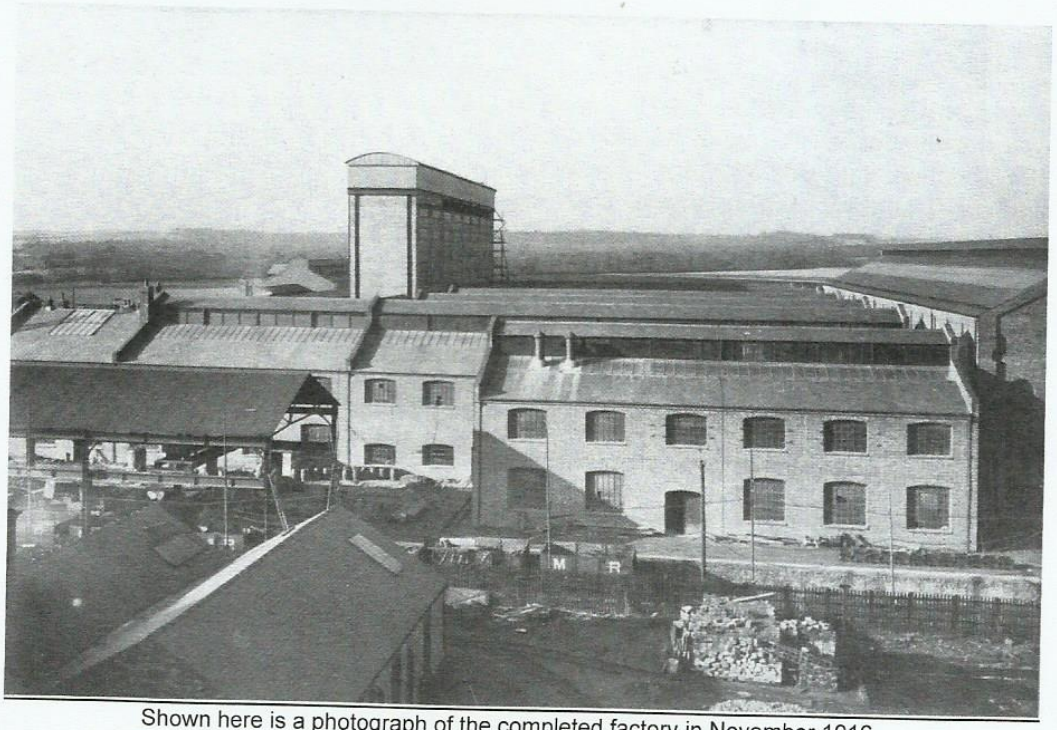


This shows nine big gas engines with their generators. The bigger engines are at the far end.

This is a photograph of the switch gear sending the power to the hydrolysis or acid department next door.

The tower block with the big water tank on top

The tower block where the chemical was made is completed.
The smoking chimney to the right is the bye-products plant making the gas for the generators.



Shown here is a photograph of the completed factory in November 1916.
The tower block rear left, the acid house centre and the power house to the right

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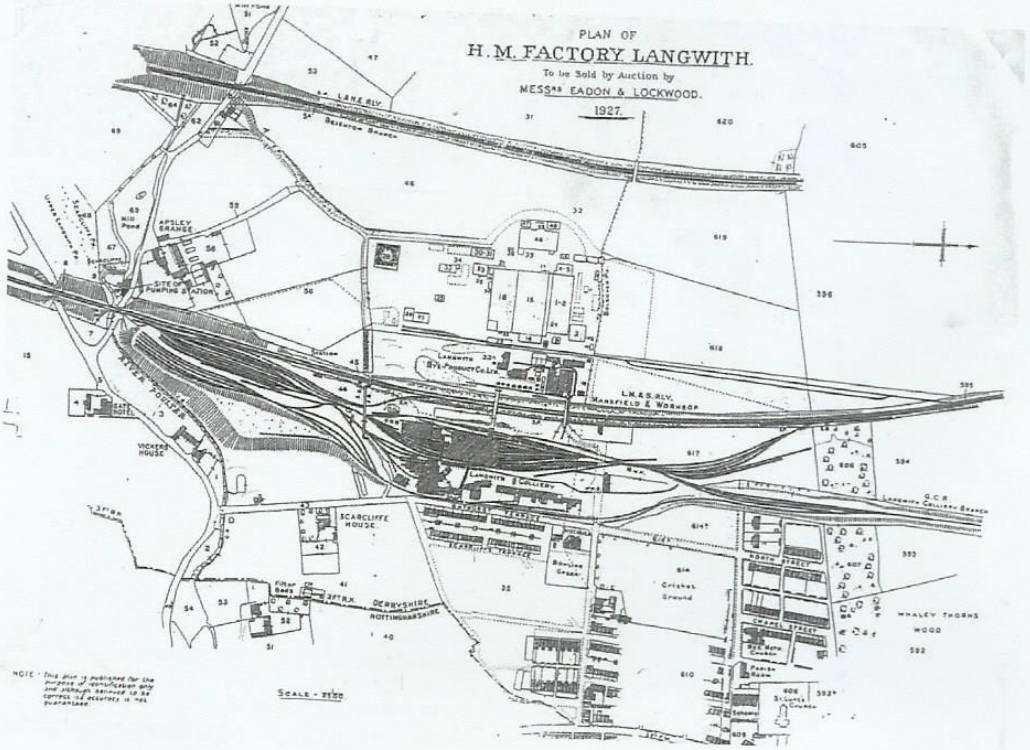
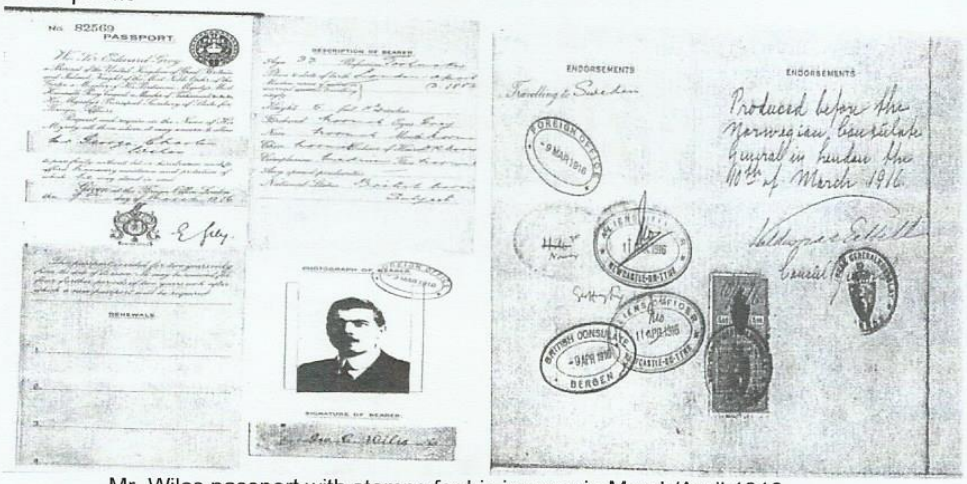


Map of Factory by the side of Bye Products Plant and Colliery

A Mr E. Young was appointed Assistant Chemist, along with 3 other chemists, for a period of 3 years in October 1915, getting a salary of £500 rising to £600 but as he was not needed at that time, he took another job at a higher salary. By December 1915 he was regarded as the only man for the job at Langwith and so was offered the higher salary of £600 rising to £650. He went to Sweden in December 1915 to see the process there. The Chief Chemist was to act as a consultant and would advise as necessary. An engineer was to be responsible for the power generation and machinery.

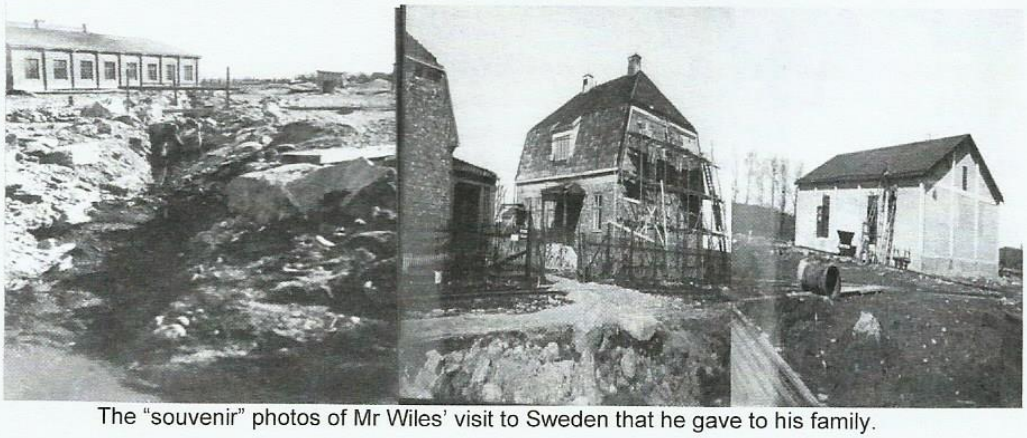
Another engineer, but described on his passport as a toolmaker, was Mr George C. Wiles, 33 years of age, who was working at the Royal Mint, London. One day, 6th March 1916, he was told he was to be loaned to the Ministry of Munitions of War-Explosives Department. There, he was told by Sir Arthur du Cros, who was in charge of the construction of the factory, to go on a secret mission to look at a chemical factory in Sweden. Such was the secrecy; he was told that if he got into any difficulties or trouble whilst on the trip, the British Government would disown him! Within five days of getting the letter confirming his secondment, which also told him to sign the Official Secrets Act and get a passport, he left Newcastle bound for Bergen, Norway. He took with him a photographer and was armed with a Swedish phrase book that had been given to him. After a visit to the British Consulate there, he left by train to Christiana, (later renamed Oslo), and from there to Mansbo near Stockholm and then on to Trollhattan in southeast Sweden.
The factory he went to see was that of Messrs Carlson, Stockholm Superfosfat-fabricks Aktiebolag at Mansbo and also one under construction at Trollhatten, where

they were manufacturing Chlorates or Perchlorates using the hydroelectric power that was available there from the big waterfalls in the area.
After a short instructional visit, he returned to Christiana and then back to Bergen on the 9th April and by the 11th April he was back at Newcastle, with the plans for the process. This was to be used under licence to Messrs Carlson and he had to sign a form saying he would not divulge the process to anybody else except those engaged in working for the Government at the Langwith Factory and not use the process for his own profit



Mr. Wiles passport with stamps for his journey in March/April 1916

His journey was done at a time when Sweden was neutral and not wanting to help either side. However, certain Swedes wanted to help the Allies and some the Germans. The German navy controlled the entrance to the Baltic and this was probably the reason he went via Norway to get into Sweden with the utmost secrecy.
Although he had seen a few Germans on his journey and some workers on a building at the factory had mysteriously dropped a hammer near him, his only trouble on the trip was when the boat was docking back in Newcastle. His luggage, that contained the plans, had a special label attached to it to stop it being searched by the Customs. This suddenly blew off but luckily he was able to trap it with his foot and re-attach it to the case.
As a souvenir he gave his family three photos of his visit which did not show any secrets.


The "souvenir" photos of Mr Wiles' visit to Sweden that he gave to his family.

He came to Langwith, staying on a small farm at Upper Langwith. (His family, wife and two daughters, came too, but did not like the accommodation so returned to their home at Woolwich.) His main problem at Langwith was the lack of skilled staff to build and install the electro-chemical baths needed to manufacture the acid that was the start of the process. He had to train girls to build the tin baths and install them.
By January 1917 he was back at the Royal Mint after they said they could not spare him any longer. In a letter he was thanked for his services- "which have been very freely given under circumstances that may not always have been very encouraging to you. But they have been given freely, skilfully, and we have had the benefit of them"
In a later letter from Sir Athur du Cros, dated June 1922, he said:
"You had a very difficult task in training the workers employed in the construction of the baths, who were all absolutely unskilled and principally girls, but you succeeded splendidly and turned out a first class job."

He worked on at the Royal Mint, until his death in 1939, aged 56.

Mr Wiles staff of tinsmiths and welders at Langhwith whom he had to train.

His Majesty's Factory, Langwith, as it was known, was a big factory with some large buildings covering some 27 acres. There was a north and south block with a six-storey tower block, 78ft. high, having a large water tank on the top. There were stores, packing rooms, a powerhouse, water-softening house, pumping station, workshops, a reservoir, a loading station plus many other smaller buildings. It had offices and laboratories that covered some 13½ acres. It was a permanent set of buildings of reinforced concrete and brick, with slates and timber felted roofs
The producer gas was made for the engines in the adjoining bye-products plant with coal from the pit. It was piped to the engines via a gas cleaning plant next to the power house.
The powerhouse had 9 very big gas engines of up to 1500 horsepower each with its own generator giving out some 2,000 kilowatts of electricity. The engines were: 2

they were manufacturing Chlorates or Perchlorates using the hydroelectric power that was available there from the big waterfalls in the area.
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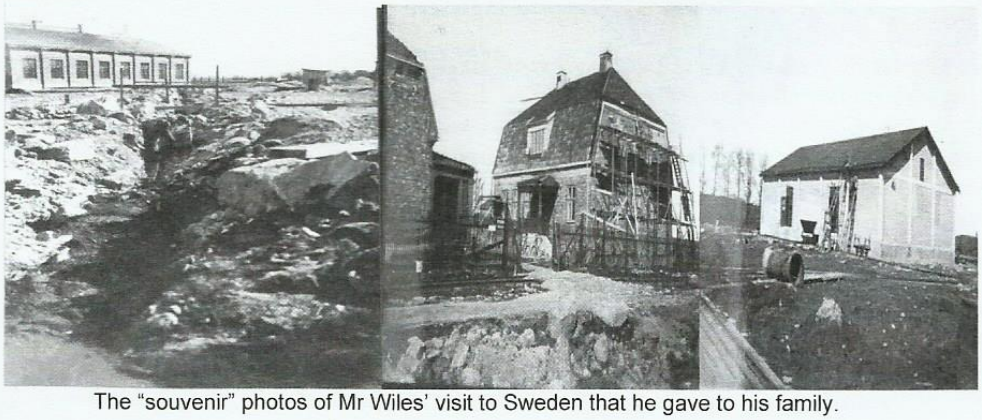
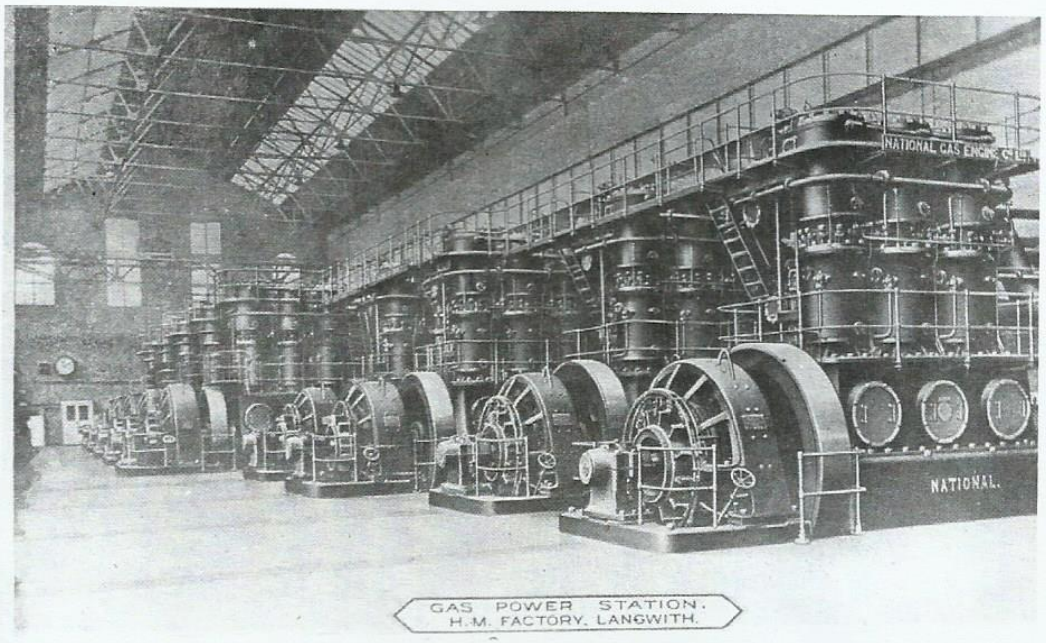

The "souvenir" photos of Mr Wiles' visit to Sweden that he gave to his family.

with 3 cylinders 750, B.H.P., 2 with 4 cylinders, 1000 B.H.P. and 5 with 6 cylinders, 1500 B.H.P. These 2 stroke engines, made by the National Gas Engine Co. Ltd., were started by compressed air and had flywheels some 9 feet 9 inch in diameter and 18 inches wide. The water supply was pumped up from the river Poulter near the bridge on the Whaley road. The pump house is now a garage.



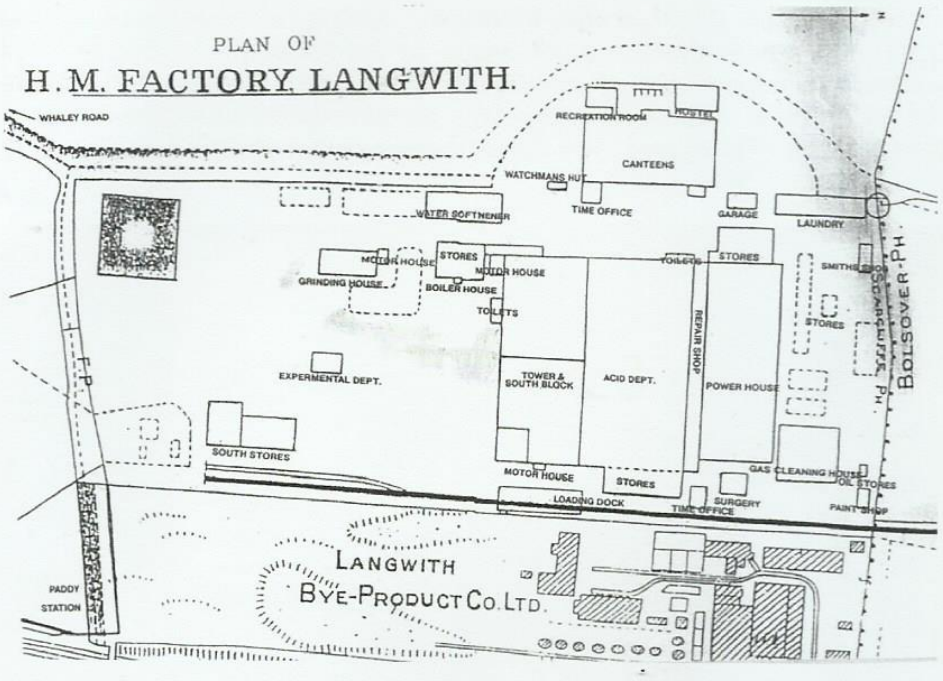
GAS POWER STATION.
H.M. FACTORY, LANGWITH.

Rock salt, which started out as a dirty brown colour, was put in heated baths and by electrolysis was turned into perchloric acid.
The process needed very high electrical power for the prolonged electrolysis as the electrodes had to be close together and it needed a temperature of 80 degrees centigrade for it to work.
Ammonium sulphate, being produced next door by the Bye-Product plant, was used in a chemical double decomposition to turn the perchloric acid into ammonium perchlorate. Sodium sulphate, (Glaubers salts), was a by-product of the process.
The chemical then passed to an evaporation plant to be dried, on to a grinding/milling plant and finally into a packing plant, where as a fine white powder, it was put into calico bags.
The powder was then taken by train to an explosives factory in Wales on the L.M.S. railway that ran along the side and had a spur into the factory. A light railway ran around the plant connecting the various departments. Some sea mines were also filled at Chilwell Nottingham The chemical, ammonium perchlorate; an oxidising agent was used to enhance explosives and was wanted for submarine mines.
The chemical was stable, if kept pure.

The factory staff numbered about 800 people, (some accounts say 1100), men, boys and mainly girls from the local villages. Many came by train, using weekly tickets, some from as far away as Kirkby. Special trains were run for the shift workers. They then used the paddy platform near the pit. Such were the numbers of workers that they even had their own football teams playing on pitches at the works. The pitches were between the railway and the factory. The big problem with these was that if the ball went out of touch it could go down into the railway cutting and was hard to retrieve so they would have about 12 balls at matches so they could carry on playing and not have to wait for the ball to be returned. These pitches were used into the 1930s. They also had tennis courts. There was a canteen and rest rooms where dances were held. Dr Poole, the village doctor, was on call but there was a surgery on site with nurses and an ambulance. The works had its own police force with an inspector in charge and two sergeants, one male, one female and about 9 other policemen and women. Night watchmen were discharged old soldiers. There was a laundry, as well as workshops for the big staff of plumbers, tinsmiths and fitters.

The Office Staff.
Mrs Collis, (nee Sanderson) is 2nd left front row.

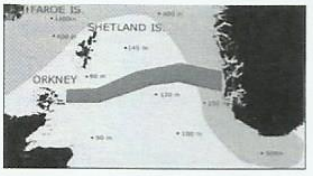
Two photographs of Factory workers



Production had started in October 1916 but there were problems with both the electrolytic and chemical processes and it was not until June 1917 that real output started. It was hoped that it would have a production of 50 tons per week. In August 1917 a simpler process was discovered for the chemical process. Full production was not reached till July 1918 and until the end of the war in November it was well over the target of 50 tons per week. Total production from June 1917 to December 1918 was 2,173 tons. The plant had cost £692,000, which was lower than the estimated cost of £707.000.

Sea mines were wanted right up to the end of the war as German U boats were attacking shipping that was supplying the country. In 1917, 400 Allied ships a month were being sunk and the British government feared we would be starved out of the war. The British navy was trying to keep the German submarines in their bases in the Baltic and Belgium by laying minefields in the North Sea at the entrance to the Thames estuary and in the English Channel. There had been a daring but only partially successful attack on the port of Zeebrugge in 1918 to stop its use by the U boats but the mine blockade still had to be maintained. There was a blockade between Dover and France but by early 1918 a further blockade between the Shetlands and Norway was put in place. It was some 250 miles long and had 72,000 mines laid in it to try to keep the U boats held in the North Sea and stop them going into the Atlantic. It was known as the Northern Barrage.

(Left) Some of the 72000 mines that were laid between the Orkneys and Norway
(Right) Map of the Northern Barrage



The staff from the different departments; probably taken at the end of the war.

The main staff had to sign the official secrets act saying they would not divulge the process of manufacture, and came from all over the country. One of the chemists was an Australian. Workers were housed in newly built homes on a 5 1/2- acre site which, in April 1917, was named as Langwith Drive and Boundary Walk. By 1915 the workers had been given homes in order of seniority. There were four managers' houses at the top of the Drive, (the rent was £1.05 to £1.50 per week), two semi-detached houses, (rent £0.75 per week), and 35 cottages, (rent £0.35- £0.40 per week). A block was used as hostels for single men who even had a housekeeper. (The block was later made into three houses). This area was first known as The Government Village, Langwith.

A Mr Jenkins was manager with Mr E. Young as resident chemist.
At the factory itself was a single storey hostel for eight women, (or maybe eleven as it had eleven compartments), for the female laboratory staff and policewomen. Beside this were huts for the policemen and their inspector.
Great care was taken as to the cleanliness of the plant. The girls in the north block wore grey flannel overalls, whilst those in the south block wore brown. They were searched on entry for hairpins and other metal objects.
The girls were well paid for the time, getting £3 a week, when the local wage was 17/6d, (75p), and they were allowed 15 minutes rest periods during their shift.

The factory was to have two serious flash fires/explosions causing the death of six people. The perchlorate was stable but if it became contaminated it could ignite on its own.

On Tuesday, 20th November 1917, at 12.15 pm., there was a flash fire in the grinding/milling house, which at that time was a two-storey building, and in a concrete embankment. Although fitted with a water sprinkler system, a fire started in

The grinding house, being built, that had the first flash fire/explosion

the upper storey. In a report on the accident to Winston Churchill, who was then the Minister of Munitions, it said the probable cause of the fire was either the introduction of some organic matter or Iron or steel nuts into the grinding mills which caused friction, enough to start an ignition.

One of the men killed in the incident had loose matches in his pocket whilst an iron nut had been found in the machinery earlier in the day. In the panic to leave the building the sprinkler system was not turned on until later. However, only 5cwts of the 10-½cwts of the ammonium perchlorate in the mill had burnt. The report gave recommendations for the safety of a future building, single storey, more exits and the rules of the Explosives Act to be observed.

The flash fire caused the death of a woman, aged 23, and two men, one-aged 53 years and the other 66 years. The noise and the smoke from the fire and explosion had brought worried relatives to the gates of the factory wanting news of their loved ones.

The woman killed was Miss Cicely Eady, (born 31-3-1894), of Blue Barn Lodge, Blue Barn Farm, Langwith. (She was the local gamekeeper's daughter.) She was buried at Cuckney Church, 24th November 1917. In attendance were 12 girls and two nurses, in full uniform, from the factory. The Vicar of Cuckney, the Rev. J. W. Smith, said at the funeral:

"She should be numbered amongst the noble band that had made the greatest sacrifice in the cause of freedom and righteousness".

Miss Cicely Eady's name is on the war memorial altar of St. Luke's, along with the 40 others who gave their lives in that war, and is also on the memorial in front of the Jug and Glass.

Here is Cicely Eady's name on the Nether Langwith war memorial. This memorial is unusual as not many carry names of ladies who gave their lives in the War.

One of the men, who were killed, came from 4 Portland Street, Mansfield. He was Samuel Chapman, 53, described as an assistant miller. His death certificate stated he had died after being accidentally suffocated by nitrous and chlorine fumes caused by the ignition of perchlorate of ammonia. His son who worked as a fitter at the factory had identified his body. The other man was George Lane and he was described as a labourer, aged 66, living at Ivy Villa, Crow Lane, Mansfield Woodhouse.

The grinding/milling house was rebuilt as a single storey building but at 3.55 p.m., on Wednesday, 20th March 1918 there was a fire and explosion in that grinding house.
Of the six girls working there, three were killed. They came from Shirebrook and were buried side by side, with full military honours in the cemetery there, on Sunday, 24th March 1918. They were Dorothy Brown 17, Elsie May Garrett 22, and Ethel Gorrill 18.
(Ethel Gorrill had lived on Whaley Common and was educated at Whaley Thorns School but later lived at Shirebrook.)
A girl in charge of the team working there, Winnie Pegg was hurt in the leg, but she was able to give evidence at the inquest. She wore, like all the other forewomen, a corporal's stripe on her overalls to signify her position.

A photograph of the grinding house girls including the three that were killed.
1 Dorothy Brown, 17 years old, 2 Else May Garrett, 22, 3 Ethel Gorrill, 18.
Winnie Pegg, (4) on the right was injured in the leg.

At the inquest of the second explosion and fire, no reason could be found as to its cause. It was stated that the product was stable as long as it was kept pure. It was also stated that there was absolutely no evidence that it was the work of a spy!
King George 5Th had asked Winston Churchill about the accident and Churchill sent a telegram to the Factory saying that the King sent his condolences to the families and was asking to be informed of the progress of Winnie Pegg's injuries.
This second grinding/milling house was a stone surrounded building with a wooden

and soil roof. It had four double exit doors. The top collapsed in the fire. Another grinding/milling house was built, to the south of the last one.

A member of the Pegg family wrote the following poem about the second explosion.

March 20th 1918

It was the 20th of March and a lovely day.
The morning shift had been working but had gone away,
The afternoon shift so bright and gay,
Had started work and were grinding away.

At 3.55 that same afternoon, A Bang, A Flame,
Hark, My God, grinding house blown up again,
Willing helpers all rushed to put out that flame,
To save the girls lives was every ones aim.

Three were recovered, Reading, Burton, and Pegg,
One only, Our Winnie was hurt in the leg,
Willing helpers were searching amidst smoke and flame,
To save the three girls who still remained.

Alas and alas three bodies were found,
Ethel Gorrill, Elsie Garratt and Dorothy Brown,
Their poor bodies lay prone on the ground,
Three girls who resided at Shirebrook town.

Let us honour their names on the Roll of Fame,
They laid down their lives for their Country's Aims,
That Freedom and Right should overcome Might,
These girls have made the great Sac-ri-fice.

The names of the four ladies who lost their lives in the two explosions are recorded on a plaque on the screen of the St. Nicholas Chapel in York Minster. They appear along with 240 other women who lost their lives making ammunitions in the war. The other plaques contain the names of all those women who lost their lives in the conflict of the 1914- 1918 War.
As the war came to an end on November 11th 1918 production was gradually run down, and ceased in 1919, by the end of 1920 most of the staff had left.
The factory might have been used to process some of the poisonous gases that were used in the 1914 -1918 war. They were sent a consignment of gas cylinders to be emptied. There is a rumour that they simply opened these at night and allowed the gas to escape! The Nether Langwith Parish Council, in May 1919 was complaining about the "noxious fumes" from the factory! In July 1922 there were some 10,000-gas cylinders at the factory

One of the young girls that worked at the plant was Louise Sanderson, (1900- 1996), from the Model Village at Shirebrook. She had started, at the age of thirteen and a half, in a job at Armstrong- Whitworth's factory at Blaydon on Tyne, Newcastle but

the sulphur fumes made her ill and so she retuned back home. When she felt well enough to work again, she cycled to Mansfield Labour Exchange and was told a factory had been built at Langwith and needed staff. Next day she cycled to Langwith and met Mr Armstrong the chief chemist. He asked her some scientific questions and she told him that she had not gone to a grammar school and was unable to answer them. He said "Never mind come with me to another office." This was the office of the Chief Accountant, Mr James Drummond Grahame. He took her name and asked what her writing was like. She was able to show him a self-addressed envelope. "Are you in the habit of writing to yourself" he said. She answered "No Sir but I'd written to Armstrong Whitworth's for my insurance card." He then asked if she was good at arithmetic to which she answered- "I will answer any thing within reason" He asked her what 37 times 39 was. She looked back at him and said, "I said anything within reason, sir!" He laughed and told her to go to another office and get a rail warrant and start on Monday. She was to get £1.50 per 5.5-day week. Being a member of staff she had to sign the Official Secrecy Form and was the first girl to work in the general office. After some months she was given a salary increase and was dealing with Insurance Cards and Unemployment Cards from the Labour Exchange at Mansfield and rail tickets from the local Station at Langwith. After a few weeks she was introduced to a new costing system and again received a wage increase. Her pass, which she had to show on entry to the factory, then said she was "Wages and Costing Clerk". She witnessed the first fire/explosion from her office and also saw the collapse of the second grinding house. These affected her greatly and she was given sick leave. Although the war had ended she stayed on with a reduced staff to see if the factory could be sold as a going concern but in November 1920 she was given a months notice. She was the last girl to leave except for 3 typists, Misses Marsh from Nether Langwith and Miss Eady, sister to Cicely who died in the first explosion. They were working for the Auctioneers who were selling the place.

(Mrs L. Collis, nee Sanderson, worked in the Second World War at Cuckney/Budby Ammunition Depot. She lived on Langwith Drive in one of the original Government Village houses. Later she was again a wages clerk to Welbeck Estates Gardens Department. She died at the age of 96 in 1996.)

In February 1921 a Captain Johnstone was appointed depot manager on a salary of £400 per year.
Later in 1921 the factory was being pilfered. A man was fined for stealing chisels from the site and Captain Johnson, said in court that this pilfering had been going on for two years.
He was a fine one to say that! In March 1922 there was an auction at the site, after which there were a lot of unsold materials. Captain Johnson took matters into his own hands and started selling garages, (One to Mr Grimes at the London Stores) steel, glass and some 8,600-gas cylinders. Much left the factory by railway wagonloads, some 35 loads. This was all for his own profit!
At Derby Assizes, 17th February 1923, he was sentenced to 12 months hard labour and had to pay back his ill-gotten gains.

A report to the Ministry of Munitions had praised the processes at the factory but the factory and bye-products plant was put up for private sale in September 1921 as a suitable place for a chemical or engineering works, and it was hoped an American firm would be interested but in 1927 it was publicly auctioned. The Sheepbridge

Company bought the site and His Majesty's Factory, Langwith, was pulled down. There was talk of some of the recycled bricks being used for the colliery. A piece of land was let to a C. Glough for the erection of a small factory. (Was this ever built?)
The colliery used the rail tracks and sidings at the site to stockpile wagons of coal long after the closure of the factory
The death of the six people during the explosions was not to be the last fatality at the factory. In September 1928, when a firm of contractors from Sheffield was demolishing the factory, Sydney Charlesworth, aged 10, and living at 199, Scott Street went to take the workmen some tea. He stayed on the site and climbed up some ladders to the top of the main tower building that was 78 feet high, looking for wild pigeons in the tanks there and fell through some rusted thin iron sheeting to his death.

William Kinsey, a ripper at the pit, and family bought and lived in the old hostel for a time, (He was there in 1929 to about 1955. It was described as South View Bungalow in 1932.). He recovered some of the bricks from the site but gradually the tips grew in size and came up to the bungalow. He sold the bungalow to the Coal Board and the whole site was finally covered in pit spoil.

Such was the importance of the factory that when zeppelins started to raid the country, during 1916 and 1917, they placed a gun and searchlight on the hill near the wood on Blue Barn Farm land to guard it. Wooden huts were put up to house the soldiers who manned them, (some were Australian), along with an ammunition store, placed opposite the entrance to what is now the new cemetery on Cockshuts Lane. The officer in charge lodged at Blue Barn Farm.
These huts were made into a bungalow, (opposite the Cemetery), in the 1970s but had been lived in from 1920 by an ex miner and cattle haulier W. Reaney, (died 7-7-70 aged 84). He later bought it from Welbeck Estates in 1922 for £180.
A German zeppelin did cross Langwith, 31st January 1916, after raiding Sheffield and going on to bomb Nottingham.
A zeppelin, (the same one?), dropped a bomb above Pleasley pit. It missed the colliery and landed on their tip. Zeppelins conducted other raids in the area in 1916-1917.

The site of the Bye Products plant and the Ministry of Munitions Factory are now covered with pit spoil, soil and trees and is now part of the Poulter Country Park.

(Ammonium perchlorate is still used in space craft and fireworks as a fuel accelerant.)

A Face from the Great War

What captivates me most about this image of a young French woman from the Somme region is her saddened face and forlorn gaze. What has she seen and what deep mark has it left upon her?
Her blackened hands and coarse working dress betray a life of toil and hardship. Many allied soldiers remembered seeing such women labouring in the fields, because their husbands or fathers had been conscripted into the French Army.
'They appeared strangely ambivalent to the activity surrounding them,' recorded one, 'for them the war seemed like just another force of nature to contend with, like floods, famine, or drought.'
Another noted that whenever they sought billets from French women, they responded: Room monsieur - yes, there is the room of my son who was killed at Argonne - of my husband who was killed at Verdun.'
We have American philanthropist Anne Morgan to thank for this image, and others like it.
From 1917 to 1921, while residing near the French front line, Morgan marshalled relief aid for French non-combatants.
She commissioned these evocative photographs to generate a humanitarian response to the plight of French refugees.