CHESTERFIELD WFA

Newsletter and Magazine issue 32

Patron –Sir Hew Strachan FRSE FRHistS

President - Professor Peter Simkins MBE FRHistS

Vice-Presidents

Andre Colliot

Professor John Bourne BA PhD FRHistS

The Burgomaster of Ypres

The Mayor of Albert

Lt-Col Graham Parker OBE

Professor Gary Sheffield BA MA PhD FRHistS

Christopher Pugsley FRHistS

Lord Richard Dannat GCB CBE MC DL

Roger Lee PhD jssc

www.westernfrontassociation.com

Branch contacts

Tony Bolton
(Chairman)
anthony.bolton3@btinternet.com
Mark Macartney
(Deputy Chairman)
Markmacartney48@gmail.com

Jane Lovatt (Treasurer)

Grant Cullen
(Secretary)
grantcullen@hotmail.com

Welcome to Issue 32 - the August 2018 Newsletter and Magazine of Chesterfield WFA.

The next Branch meeting is on Tuesday August 7th and Our speaker will be professional artist Peter Dennis, well known for his illustrations which adorn many of the Osprey series of monographs. He will talk about briefs and authors, how the image is put together, the editorial process and how the paintings are made. He will bring an armful of originals to hand around and hopefully the evening will become a general conversation about the pieces so that he can answer qu about the business of battle-painting. Peter is also a major contributor of art work to the war gaming community

The Branch meets at the Labour Club, Unity House, Saltergate, Chesterfield S40 1NF on the first Tuesday of each month. There is plenty of parking available on site and in the adjacent road. Access to the car park is in Tennyson Road, however, which is one way and cannot be accessed directly from Saltergate.

Grant Cullen – Branch Secretary

Western Front Association Chesterfield Branch – Meetings 2018

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

January	9th	**Jan.9th** Branch AGM followed by a talk by Tony Bolton (Branch Chairman) on the key events of the last year of the war 1918. Councillor Steve Brunt (a member of the WFA) will also be present to tell members about Chesterfield Borough Council`s plans for a WW1 2018 Commemorations Group.
February	6th	**Tim Lynch** ***`The Unknown Soldiers - the BEF of 1918`*** By 1918 the BEF was mostly made up of conscripts as it launched the most successful campaign in its history. How did an army many regarded as "shirkers" fight so effectively? Tim Lynch is a freelance writer and battlefield guide. This talk is based on research into his own family's part in the Great War.
March	6th	**David Humberston,** Chairman of the Leicester Branch, will be making his first visit to WFA Chesterfield to talk about ***`Women Spies in The Great War`***
April	3rd	**Peter Hart** making his annual pilgrimage to Chesterfield. His presentation will be ` ***Not Again*`** ***- the German offensive on the Aisne, May 1918.***
May	1st	Making his debut as a speaker to the Chesterfield Branch will be Jonathan Steer who will compare and contrast the `*BEF at Mons in 1914 with the BEF at Mons in 1918*`
June	5th	Rob Thompson – always a popular visitor to Chesterfield Branch. *"Running Out of Road. Supplying the BEF During the 100 Days Offensives. 1918*". This is a new talk dealing with the logistical and supply problems the BEF had as the end of the war approached (BEF needed Armistice as much as Germans).
July	3rd	**Dr. Graham Kemp. *"American Expeditionary Force"* – the story and experiences of the AEF, 1917-18. Talk covers the training of the new Army from the States to France. Taking in the experience, the hardship and humour. It looks at their first action at Belleville wood, and then turns to the success and tragedy of 'Argonne Wood.' It reveals the way the US Army contributed to the ending of the war and why afterwards US turned its back on Europe.**
August	7TH	**Peter Dennis** is an artist who lives in Mansfield but he has made a name for himself as an illustrator for the Osprey series of monographs on The Great War (as well as other conflicts from ancient times to the present) Peter will explain how he carries out his researches for technical accuracy. He will also bring some of his original artworks for members to view.
September	4th	**John Beech**. "***The Great Escape"***. John needs no introduction to Chesterfield members as he rarely misses a meeting. In September 1917 a group of POW German officers escaped from where they were being held (now on the site of the University of Nottingham). Using his meticulous research, John will tell this story.
October	2nd	Making a welcome return to Chesterfield will be our former Chairman / Secretary, **Peter Hodgkinson**, who will explain the ***Battle of Selle in October 1918.***
November	6th	**Bryn Hammond**. Another leading light in the field of historical research, study and publication on the Great War, Bryn will *discuss* ***`The 500 piece jig-saw: Tank – Other Arms Cooperation in the First World War.***
December	4th	Rounding the year off in style will be **Dr Phylomena Badsey** on ***"Auxiliary Hospitals and the role of Voluntary Aid Detachment Nurses during the First World War"***

Issue 32 – list of contents

A Personal note from The Chair (25)

I suppose like many of you I support the Royal British Legion and in common with most charities these days they see regular supporters as fertile ground for further appeals, I was therefore not surprised to see an envelope from the RBL marking the Centenary of the Armistice lying on the doormat. What took me by surprise however was that it was not addressed to me but to my wife, luckily it was not a secret love letter from an admirer as I had already opened it when I realised it wasn't for me. Perhaps because of my mistake I paid more attention to the envelope than normal and realised that the design on the back was a montage of seven head and shoulders photographs from the Great War. This collection of photographs left no stereotype unused, a nurse, a woman munition worker, a Sikh soldier, a child, a black soldier in a glengarry, and a soldier and sailor obviously picked to depict their extreme youth. It struck me that the only thing missing was a poet. I genuinely do not want to decry the contribution of these sections of society (well maybe poets) but I was reminded of Taff Gillingham's words at the York Conference in July that the Centenary has unearthed the forgotten contribution of black soldiers, Indian soldiers, munition workers (provided they were women), conscientious objectors, even Chinese labourers however the real section of society forgotten or at least largely overlooked by the media has been the contribution of the ordinary British soldier, sailor or airman of whom as we know literally millions served.

In the run up to the Centenary in 2013 I attended a conference of the British Society for Military History at Birmingham University when it was anticipated that historians would have to contend with the General Melchett and the Blackadder school of First World War history, in truth however the media have not returned to the bunglers and butchers theme but instead have chosen largely to concentrate on minority contributions rather than the big picture.

I am sure some of you reading this piece will disagree, possibly strongly disagree with my comments but if you are going to criticise me then please understand that the piece does not seek to downplay the important contribution of any of the groups mentioned but to place them in some sort of historical context and scale.

Tony Bolton

Branch Chair

Secretary`s Scribbles

Welcome to the August 2018 edition of our Branch Newsletter and Magazine. Having missed the last meeting due to a holiday booked way back last November, I am really looking forward to getting back into `harness`. I have not been completely `out of the loop` though having attended the inaugural meeting of the Branch`s Book Discussion Group (more about this elsewhere) – a splendid idea from member Andrew Kenning, indeed a venture which has not gone unnoticed by other branches. Our meeting this coming Tuesday night sees a bit of a departure from our usual format, having a professional artist as our guest speaker / presenter.

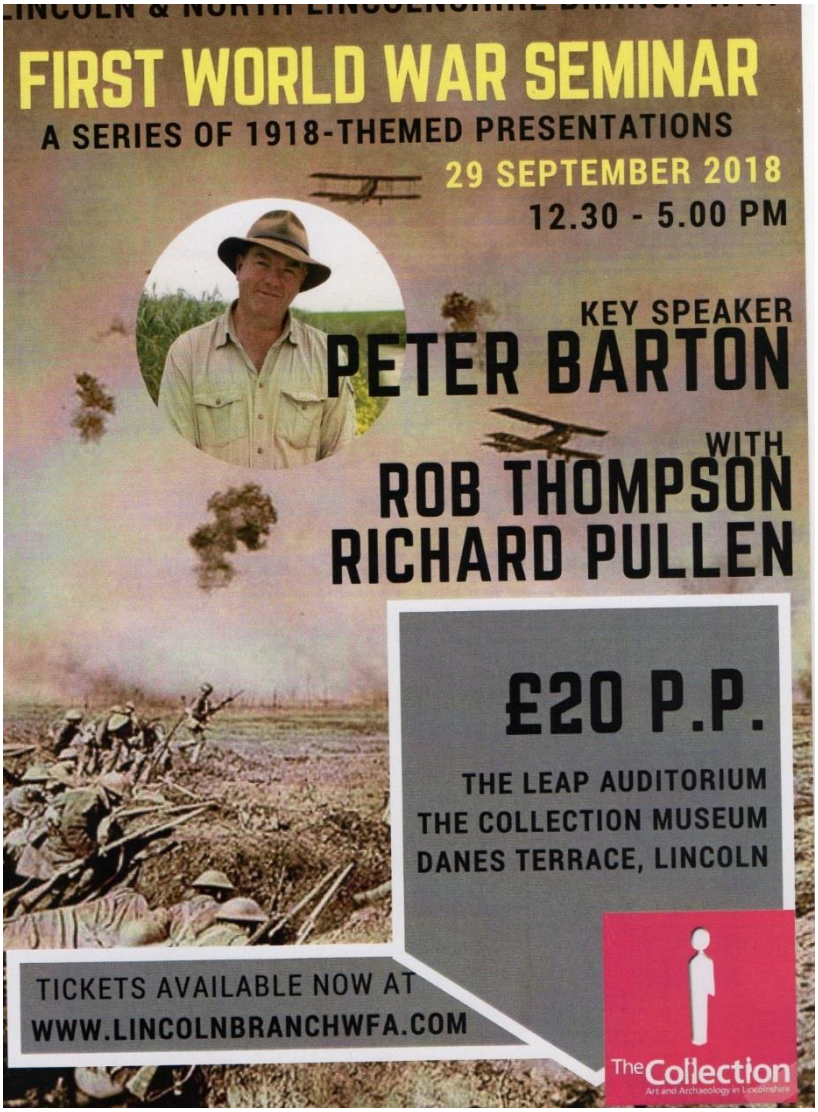
Peter, who lives in Mansfield was born in 1950. Inspired by contemporary journals like `Look and Learn`, he studied illustration at Liverpool Art College. He has since contributed to hundreds of books, predominantly on historical subjects. He is also a keen war gamer and model maker. This is perhaps an appropriate time for Peter to talk about painting Great War battle scenes for the Osprey Campaign titles as he is retiring from the series next year so that he can pursue other areas of artistic activity. He will talk about briefs and authors, how the image is put together, the editorial process and how the paintings are made. He will bring an armful of originals to hand around and hopefully the evening will become a general conversation about the pieces so that he can answer questions members might have about the business of battle-painting. In addition to the Osprey series, much of his work is also devoted to war gaming and production of the artwork for the models for the table-top battles, particularly through the publisher Helion who have done so much to make publications on Great War subjects affordable for the general interest reader, rather than as is often the case, the academics.

A week ago, I circulated a report by Branch Vice Chair, Mark Macartney, showing the `hits` on the respective Branch pages on the WFA national website – and the Chesterfield Branch leads the way – by a significant margin – over the York Branch in second place. Mark, in addition to his duties as WFA Trustee for Branded Goods, puts in a power of work, keeping the Chesterfield Branch section on the national website up to date. I know this for a fact as there is hardly a day goes by but Mark e mails or texts me for information on this or that which he can put up on the national site. While on the subject of Mr Macartney, he will have on sale at Tuesday`s meeting souvenir coasters – see details elsewhere – being produced and sold by the WFA to commemorate the commencement 100 years ago of the 100 Days Offensives by the Allied forces which culminated in the Armistice on November 11th 1918. These are limited edition pieces – only 100 are being produced.

I was a little bit perturbed when two members me contacted me recently (thanks for taking the time to do this) to say that they had received e mails purporting to be from the Branch but from the spelling and wording used appeared to be false and potentially harmful to the recipients e mail security. We all receive spam and occasional `phishing` e mails so it pays to be alert. I have taken steps to improve our security which I hope will prevent a recurrence.

Grant Cullen – Branch Secretary

07824628638 grantcullen@hotmail.com



We would like to draw members' attention to the above seminar being held in Lincoln, organised by the Lincoln Branch, on September 29th. The keynote speaker will be Peter Barton whom members may have seen on TV from time to time, mostly recently presenting a programme about the Battle of the Somme, which unlike so many TV programmes on The Great War, stuck to the facts rather than going on about `Bunglers and Butchers`. As has been explained the Lincoln Branch has paid out a lot of money and are very keen to get a good turnout. As our Branch has a surplus on funds at the moment, it had been suggested at Committee, that by way of thanking members for their support, the Branch pays for a bus – and possibly a packed lunch – to take members to this seminar. Members would be responsible for their entrance ticket although that if the numbers justified it, it may be possible to get a group discount on the ticket price. A number of members and friends have indicated their interest to the Branch Secretary but we need to decide whether running this outing is viable so will all who are interested, to respond to myself (grantcullen@hotmail.com or 07824628638)and once we know the potential numbers we can take it from there. Thanks

Still Available

BACKS TO THE WALL

'To commemorate the 1918 Spring Offensives, the Western Front Association commissioned a Limited Edition bone china mug featuring part of Sir Douglas Haig's 'Backs to the Wall' Order of 11th April 1918. '

Available from the eShop on the WFA website

(While Stocks Last)

Price: £14 (+£3 p&p)

Most Recent Special Edition Item (Launched 1st August)

(Slate Coasters)

To commemorate the Hundred Days Offensive of 1918, the Western Front Association has commissioned a Limited Edition of slate coasters, (100 coasters for 100 Days) of 8th August 1918. The coasters are “4” diameter round Bespoke hand crafted slate coasters” Individually polished and screen printed by hand, backed by a baize to avoid damage to surface

Available from the eShop on the WFA website

Price £7 (+ £1.50 Postage)

Book Group

WFA Chesterfield’s Book Group held their first meeting on Thursday 19th July in the Labour Club’s Function room. Seven members enjoyed a very stimulating and interesting discussion on ‘How the War was Won’ by Tim Travers. This was led by Tony Bolton, whose extensive knowledge and contribution overall was very much appreciated.

Although the book has attracted criticism from some of the revisionist historians, we concluded the author had done an excellent job with his analysis of the BEFs situation in the last two years of World War One, particularly since the book was written in 1990 before the internet was available. We also discovered one of Tim Travers main interests was the history of Pirates!

The next meeting is on Tuesday 16th October 7pm – 9pm when we will discuss 'To Win a War: 1918, the Year of Victory’ by John Terraine.

Andrew Kenning

Book Group co-ordinator

July Meeting

Branch Chair, Tony Bolton opened the meeting before a healthy attendance – good considering that the England versus Colombia World Cup tie was in direct opposition to our branch meeting. Before introducing our speaker for the evening, Dr. Graham Kemp, Tony said he would like to draw members' attention to a seminar being held in Lincoln, organised by the Lincoln Branch, on September 29th. The keynote speaker will be Peter Barton whom members may have seen on TV from time to time, mostly recently presenting a programme about the Battle of the Somme, which unlike so many TV programmes on The Great War, stuck to the facts rather than going on about `Bunglers and Butchers`. Tony explained that the Lincoln Branch has paid out a lot of money and are very keen to get a good turnout. As our Branch has a surplus on funds at the moment, it had been suggested at Committee, that by way of thanking members for their support, the Branch pays for a bus – and possibly a packed lunch – to take members to this seminar. Members would be responsible for their entrance ticket although Tony did say that if the numbers justified it, it may be possible to get a group discount on the ticket price. Branch Secretary will circulate to all our members and friends details of this seminar and Tony asked all those who are interested, to respond to Grant and once we know the potential numbers we can take it from there. Tony then drew members attention to `flyers` publicising our Branch meetings which Treasurer Jane Lovatt`s daughter had produced and invited members to take a few and if they are visiting local museums, libraries or other suchlike places to ask if they can be displayed.

That being all the `parish notices` Tony then introduced Dr Graham Kemp, Chairman of the Lancashire North Branch, who was making his first visit to Chesterfield Branch, on this occasion to talk about the American Expeditionary Force 1917-1918.

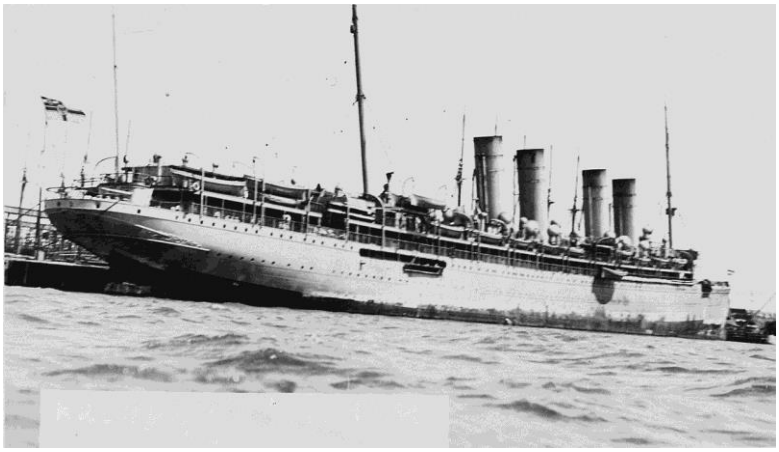
Graham began by saying that as far back as early 1915 when Falkenhayn was appointed CIC of the German forces, he had been asked what should Germany to do, he had responded – `Make peace`. On January 8th 1917 there was a conference at Pless which was held to determine what Germany should do – all suggestions to be considered. Initially there was talk of an American brokered armistice (which Woodrow Wilson favoured), the terms of which could be seen to have `rewarded` Germany. Hindenburg and Ludendorff were present, as was the Kaiser, who was by now just a figurehead handing out medals and awards. But the key speaker was head of the Imperial Navy, Holtzendorf, who had circulated a memo in December 1916 calling for unrestricted U Boat warfare, this memo had shown, backed by compelling statistics, that Britain and the Allies could be brought to their knees by the sinking of many of the ships bringing food and other supplies from the US and other parts of the world. He suggested sinking 600,000 tonnes of shipping per month would have the Allies seeking an armistice within six months, at which Germany could dictate the terms. The German Chancellor, Bethmann-Hollweg, reacted saying this could never happen, that Britain, as a naval power would never accept this, indeed would rather starve. He went on to say that if Germany did go down this route, it was just not facing defeat but total destruction. Hindenburg nodded his approval and Bethmann-Hollweg chickened out by not revealing the telegram he had received from Woodrow Wilson and thus on February 1st 1917 Germany commenced a campaign of unrestricted submarine warfare. All at that conference agreed that it was likely that this act could bring America into the war but it was considered that militarily America was weak and it would be at least two years before they could field an army in Europe. What seemed to escape their attention that, although America may not currently have a mass army, it was the world`s greatest economic powerhouse and that alone could tip the balance against Germany, indeed at this time America was already supplying vast quantities of munitions to the Allies, far in excess of what Germany could produce domestically. Graham illustrated these quantities, in tonnage volume and in monetary terms.

Logistically too, over 1000 miles of standard gauge railways, over 600 miles of narrow gauge, thousands of miles of telephone lines, docking facilities for dozens of ships, all of this and more were constructed by the Americans in France before the armistice. But it was not just the equipment and munitions they could supply, it was the overwhelming economic power that could be wielded by the US.

Since 1916 virtually nothing is getting into Germany via its western seaports, as the British economic blockade, supported by the Royal Navy really bites. But commodities are still getting in via neutral countries on its borders and the American attitude had now become that if you (i.e. the `neutrals`) are supplying an enemy belligerent – you are now an enemy of the United States. For example, the Danish fishing fleet relied upon fuel from the US – but most of its catch ended up in Germany, so the US attitude became – you supply fish to our enemy Germany then America will cut off supplies of fuel oils. Similarly, fertiliser imported from the US was used to create fodder for the pig industry – most of the pork products went to Germany – again the US used its economic `clout` to stop this flow of meat products under threat of cutting off supplies of fertiliser.

Similarly when the convoy system was instituted, the Dutch said they would not take part as it would put their (neutral) ships at risk. At any one time one third of all Dutch ships were in and around US ports and Holland depended upon the US for food and many other essential supplies. The US again said conform or we will cease to supply. The Dutch conceded. More was to come for in 1918 Sweden, although neutral always seemed pro-German, handed over its entire merchant marine for the use of the Allies who in turn leased back a sufficient number of ships – about one third of the total and at that mostly smaller vessels - to the Swedes to allow them to be able to bring in essential supplies for their own consumption and those supplies were monitored and rationed as any more would likely be re-exported to Germany. These examples illustrate the big mistake the Germans made – they under estimated the economic power of America.

The Germans had estimated that if the British merchant marine was reduced by means of submarine activity, by 600,000 tons, then the British war effort would be significantly impacted for them to agree to an armistice, terms favourable to Germany. Again, what the Germans failed to anticipate was the fact that the US could immediately commit a further MILLION tons of ships to supply the Allies plus the vast building programme already underway – no way could the U boats counter that. There was also something else that the Germans had overlooked – they had sunk 800,000 tons in April 1917 – but hey – that was 200,000 tons more than we needed to sink. The net figure was actually 300000 tons because Germany had the largest merchant marine after Britain – and of these, 500000 grt was interned in US ports and these would be confiscated and given over to the Allied war effort now that America had joined in the ward. Addition many German liners were likewise interned in American ports and these were subsequently turned over to be used as troopships bringing the new American armies to Europe – much quicker than expected.



These included the liner *Kronprinz Wilhelm* (see left) which had wage a successful campaign as a commerce raider in the Caribbean before being interned in an American port, short of fuel and supplies and much sickness amongst the crew. The *SS Leviathan*, originally built as *Vaterland,* (pictured below) was another ocean liner which regularly crossed the North Atlantic from 1914 to 1934. The second of three sister ships built for Germany's Hamburg Amerika Line for their transatlantic passenger service, she sailed as *Vaterland* for less than a year before her early career was halted by the start of the war 1917, she was seized by the U.S. government and renamed *Leviathan*. She would become known by this name for the majority of her career, both as a troopship during World War I and later as the flagship of the United States Line.

Photo # NH 103156 S.S. Vaterland arriving at New York, 29 July 1914

This ship could carry an entire division – 12000 troops on each voyage – and that is how American troops were arriving in France in late spring of 1918 and not as the Germans had forecast – in 1919. So by July 1918 the Allies are now numerically overtaking the Germans despite the latter being able to move large volumes of troops from the former Eastern front.

Training of the American infantry was undertaken mostly by the British, that of the American artillery, by the French. The Americans disliked the British – plenty of tea but little coffee whilst the loved the French they being fellow revolutionaries.

The mobilization effort taxed the American military to the limit and required new organizational strategies and command structures to transport great numbers of troops and supplies quickly and efficiently. The French harbours of Bordeaux, La Pallice, Saint Nazaire and Brest became the entry points into the French railway system that brought the American troops and their supplies to the Western Front. American engineers in France also built 82 new ship berths, nearly 1,000 miles (1,600 km) of additional standard-gauge tracks, and over 100,000 miles (160,000 km) of telephone and telegraph lines.

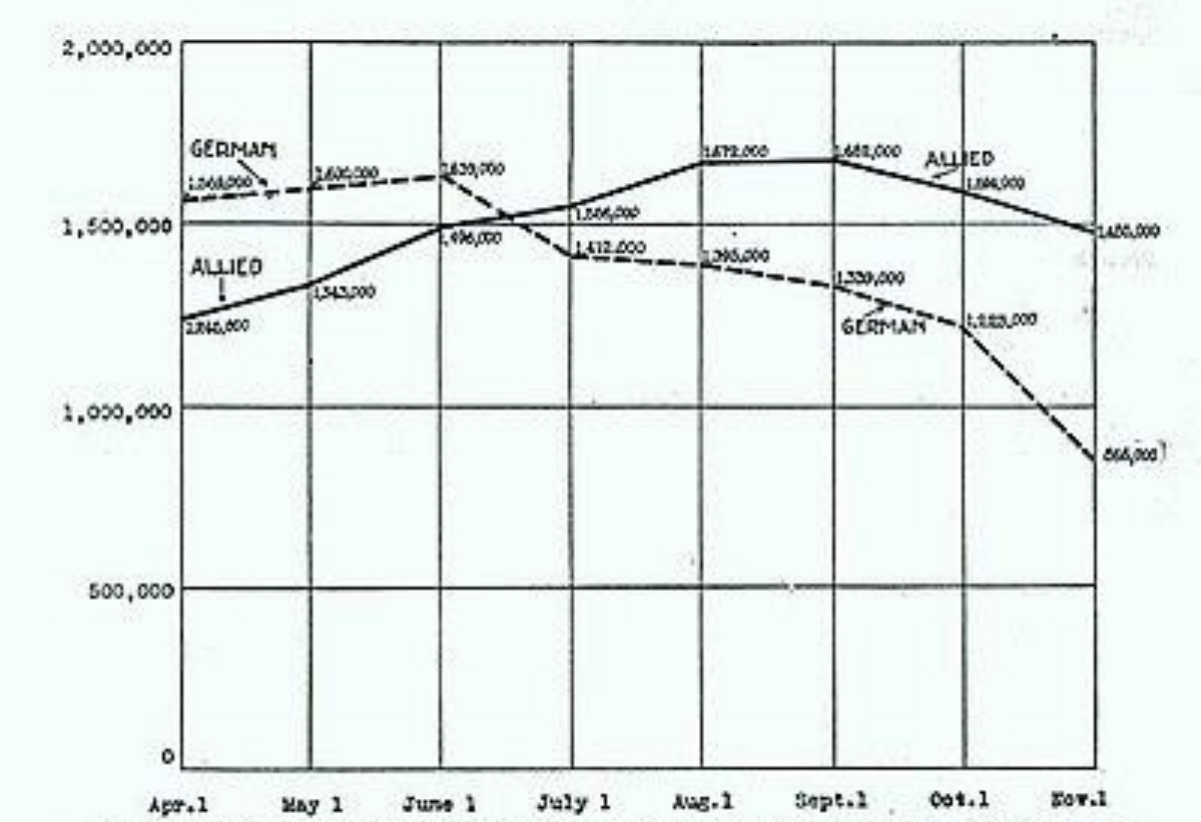


Diagram 45.—Rifle strength of allied and German armies on the western front.

The 77th Division was the New York City division - `New York`s Finest`. The New York National Guard's 27th Division represented the whole state, with "apple knockers" from Albany and men from Utica and Syracuse and Buffalo making up the bulk of the division. The National Guard's 69th Infantry Regiment and 15th Infantry Regiment -- better known as the 369th Harlem Hell Fighters--did come from New York City, but they were units of 3,500 men each and they had left earlier.

The 77th Division's 23,000 Soldiers were recruited through the draft. The division was part of the "National Army," which did not have roots in the Regular Army or the National Guard. The 77th was the first National Army division to be sent to France, in the wake of Regular Army and National Guard divisions which had been arriving since the fall of 1917."The men who formed it were from all classes of life, from peddlers and laborers to professional men and sons of the rich," according to the New York Times. "But within a short time the fifty nationalities represented were melted into a solid corps of American soldiers with racial distinction eliminated." The division's Soldiers supposedly represented 50 nationalities and spoke 43 languages along with English. *Organized August 30, 1917 at Camp Upton. The majority were from New York City and the enlisted men were sent from New York City and Long Island, New York. On Oct. 10, 1917, many of the men were transferred to Camp Upton and Camp Greenwood, the vacancies caused thereby being filled by men from Camp Devens, Mass., and from Northern New York State.*

"The recruits represented all races and all creeds - men who had only recently been subjected to the pogroms of Russia, gunmen and gangsters, a type peculiar to New York City, Italians, Chinamen, the Jews and the Irish, a heterogeneous mass, truly representative both of the varied human flotsam and the sturdy American manhood which comprise the civil population of New York City."

Germans would soon be fighting Germans – in fact cousins used to correspond across the front lines.

Graham enlivened his talk, much to the entertainment of his audience but telling a series of anecdotal stories gleaned from Divisional histories and post war memoirs.

At Camp Upton the men learned to march, shoot, throw grenades and the ins and outs of military service.

"Some days it seemed like real warfare, with the huge tank, brought from England, lumbering over "No-Man's Land," machine guns in emplacements, and the infantry going "over-the-top, " their bayonets flashing in the winter sun," the division history reports.

The division began leaving Camp Upton on March 28, 1918, and sailed from Boston, Portland (Maine), via Halifax and New York City on a fleet of nine ships. The voyage took fourteen days - with not a U boat in sight! With the exception of the artillery, all units proceeded through Liverpool, across England and landed at Calais, France.

The artillery sailed from New York in April and went direct to Brest, France. The division moved immediately to a training area back of the British front near St. Omer and while being trained by the 39th British Division, was held in reserve to meet the anticipated German attack against the channel ports which never materialized. They hated the food - breakfast - tea and jam; lunch - tea and beef; supper - tea and cheese; Where can we get a decent cup of coffee - indeed wherever they served in France, the price of coffee trebled!

David interspersed this account with humorous anecdotes from the Divisional history and memoirs and letters written by the troops.

The artillery brigade on arrival moved to an American training area at Souges. On June 16, 1918, the division moved by train to the Baccarat sector. On July 12, 1918, the artillery brigade relieved the French artillery in the Baccarat sector. During the time spent in this sector the division held a broad frontage. All this move was in `secrecy` but upon arrival they were greeted by a German observation balloon displaying a banner which read `welcome 77th Division `!

This was followed by a massive German artillery barrage of high explosive and poison gas which resulted in over 800 casualties.

On 26th June, these Americans got their first taste of action, an attack on Belleau Wood. The attack was uphill through an open field, towards the wood which had a line of machine guns. Like troops of 1914, they lined up and ran across the field towards the wood and this resulted in further mass casualties. When the wood was finally taken the Americans had sustained 1800 killed and 8000 wounded!

The Germans were shocked…`they just kept coming`…..not like the French or the British……`it was a suicidal attack`.

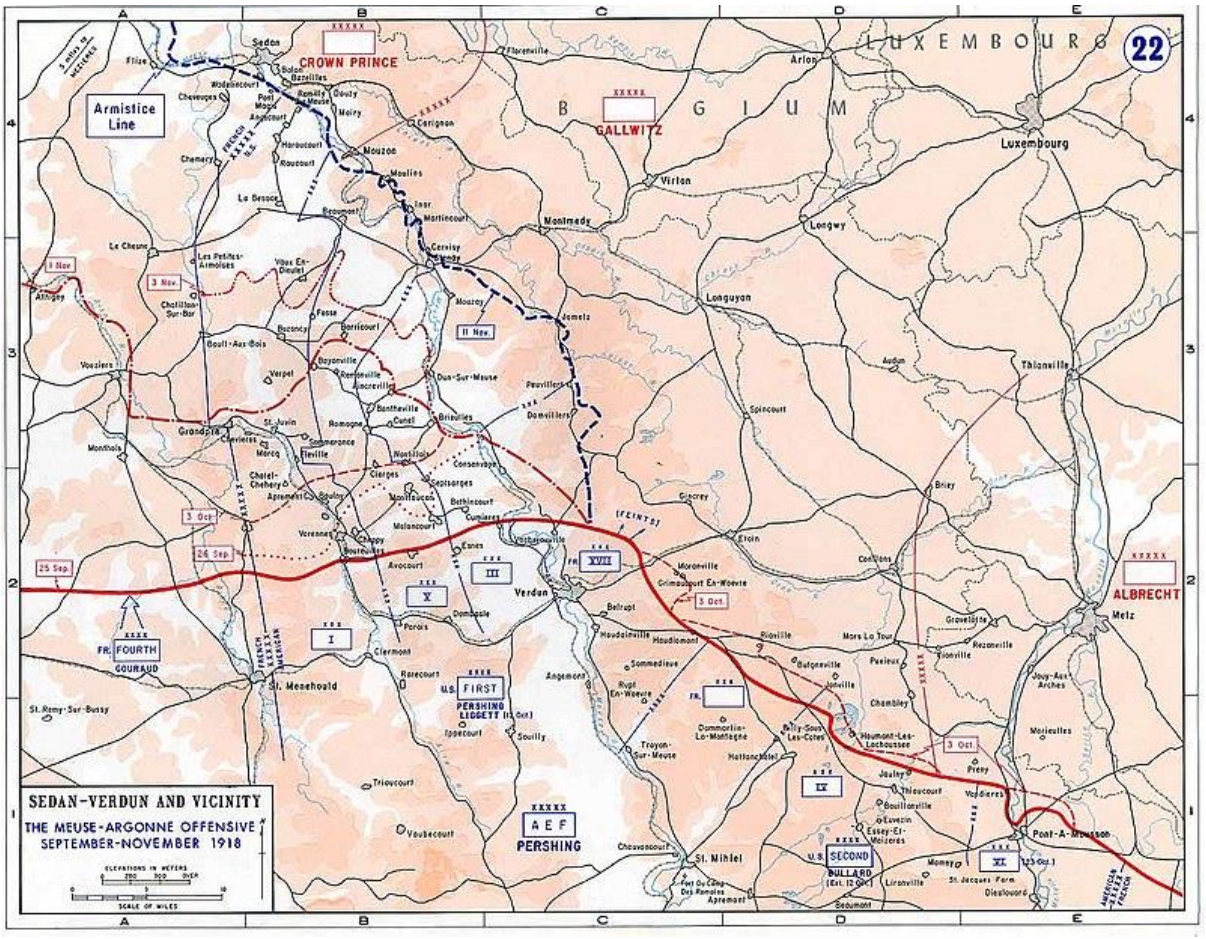
This was the Americans first real action and was beginning to suggest what the rest of their war would be like. On Aug. 4th, the division moved to the Vesle sector in the neighborhood of Fismes, on Aug. 11th, entering the line. With French troops on both flanks and forming a part of the 6th French Army, the division commenced the attack of the German positions north of the River Vesle on Aug. 18th, crossing the Vesle on Sept. 5th, and advanced its left flank to the River Aisne. The division was relieved Sept. 15th, moving for two days rest to the region of Arcy-le-Poin Sart. Division began moving Sept. 17th by bus and marching to St. Menehould.

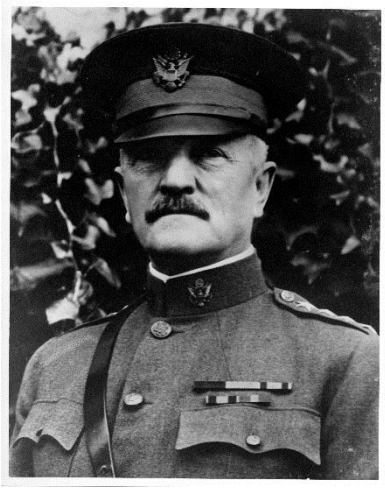
On Sept. 21st, elements of the division moved into position in the Argonne trenches. By Sept. 25th the whole division was in position and on Sept. 26th attacked on the left of the 1st American Army in the Argonne forest. The Argonne Forest had been taken by the Germans in 1914 using infiltration techniques which were not seen in evidence again until the Michael Offensives of March 1918. One of the German staff officers at that time was Erwin Rommel. The French considered the Argonne Forest to be impregnable as they hadn`t a clue how to take it, so it became one of the quietest sectors on the Western Front.

The Germans built the equivalent of an entire town in the forest, with deep, well equipped bunkers which Graham, amusingly, described in detail, including the ostentatious décor enjoyed by the officers in their quarters.

The Germans believed it was impossible to be taken – the French believed it was impossible to take…so they asked the Americans to take it!

The Argonne forest itself was dense, virtually impenetrable - a major barrier - and the German outer line was a series of machine gun posts which did not demand a great deal of troops to man it. They had had three years to prepare and every pathway was covered by at least three machine gun positions.





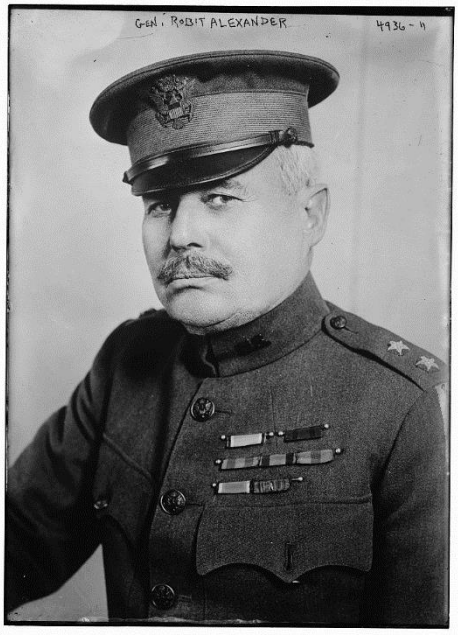
The American forces initially consisted of fifteen divisions of the US First Army commanded by then-General John J Pershing (left) until October 16, and then Lieutenant General Hunter Liggett

The logistics were planned and directed then-Colonel George Marshall. The French forces next to them consisted of 31 divisions including Fourth Army (under Henri Giraoud) and the Fifth army (under Henri Mathias Berthelot)

The U.S. divisions of the AEF were oversized (12 battalions per division versus the French/British/German 9 battalions per division), being up to twice the size of other Allies' battle- depleted divisions upon arrival, but the French and other Allied divisions had been partly replenished prior to the Grand Offensive, so both the U.S. and French contributions in troops were considerable. Most of the heavy equipment (tanks, artillery, and aircraft) was provided by the European Allies. For the Meuse-Argonne front alone, this represented 2,780 artillery pieces, 380 tanks and 840 planes. As the battle progressed, both the Americans and the French brought in reinforcements. Eventually, 22 American divisions would participate in the battle at one time or another, representing two full field armies.

The organisation of the attack was wholly lacking, the Americans being sent forward against the sweeping fire of the machine guns – there only answer seemed to be `pull your helmet down a bit tighter – and run faster towards the enemy 'The good old tactic of 1914 – the bayonet always wins against the machine gun and the artillery !`

This inevitable led to tremendous losses sustained by the Americans who by the time the offensive was concluded had lost over 120,000 casualties of which 22677 were killed.



The 77th Division was at this time commanded by General Robert Alexander.

Of course, as David put it, the men of the 77th Division were predominantly from east side Manhattan – they had never seen a forest before! Their attack started well but they soon got disoriented in the dense wood. Instructions on how to communicate with Verey signals was delivered – in the pitch darkness – just before the attack commenced, yet more evidence as to the lack of organisation of the Americans. The Americans were making slow but steady progress and the Germans were falling back – they could not reinforce to counter-attack as the British and French were attacking elsewhere on the front.

All that early enthusiasm demonstrated by the Americans, all that naivety, died in Argonne wood. What saved them in the end was the French FT17 tanks which came forward in numbers and dealt comprehensively with the machine gun posts

David them asked if anyone had heard of Major Charles Whittlesey. He was in command of the `Lost Battalion`.

The **Lost Battalion** is the name given to the nine companies of the United States 77th Division, roughly 554 men, isolated by German forces in the Argonne Forest. 197 were killed in action and approximately 150 missing or taken prisoner before the 194 remaining men were rescued. They were led by Major Charles White Whittlesey (left) On 2 October, the 77th launched an attack into the Argonne, under the belief that French forces were supporting their left flank and two American units including the 92nd Infantry division were supporting their right. Within the 77th sector some units including Whittlesey's 1-308th Infantry were making significant headway. Unknown to Whittlesey's unit, the units to their left and right had been stalled. Without this knowledge, the units that would become known as the Lost Battalion moved beyond the rest of the Allied line and found themselves surrounded by German forces. For the next six days, suffering heavy losses, the men of the Lost Battalion and the American units desperate to relieve them would fight a terrific battle in the Argonne Forest.

The battalion suffered many hardships. Food was scarce and water was available only by crawling, under fire, to a nearby stream. Ammunition ran low. Communications were also a problem, and at times they would be bombarded by shells from their own artillery. As every runner dispatched by Whittlesey either became lost or ran into German patrols, carrier pigeons became the only method of communicating with headquarters. Under a flag of truce the Germans asked the Americans to surrender, a demand which, of course, was rebuffed – in a manner which, as David said, he was too polite to repeat! In an infamous incident on 4 October, inaccurate coordinates were delivered by one of the pigeons and the unit was subjected to friendly fire. The unit was saved by another pigeon, `Cher Ami` delivering the following message:

"WE ARE ALONG THE ROAD PARALLEL 276.4. OUR ARTILLERY IS DROPPING A BARRAGE DIRECTLY ON US. FOR HEAVENS SAKE STOP IT. "

Despite this, they held their ground and caused enough of a distraction for other Allied units to break through the German lines, which forced the Germans to retreat. Of the original 554 troops involved in the advance, 107 had been killed, 63 were missing and 190 were wounded. Only 194 were able to walk out of the ravine.

The Americans were completely disillusioned by the battles of Argonne Wood and they were beginning to question why they were there, in France, at all and there casualty rate is really high in the last three months of the war – 500,000 killed wounded and missing. The Allies *needed* the Americans – in other areas, north of the Marne, the Germans had to move

reinforcements to try and block British and French breakthroughs – they could not reinforce the front where the Americans were continuously attacking.

Why did Ludendorff call for an armistice in October – Allies had successfully interdicted his railway supply system, particularly the north west – south east lines.

The battalion history speaks of the `Spirit of Argonne` - what Americans today can recall the `Spirit of Argonne`. David told of visiting a military bookshop in Boston, Massachusetts. A whole floor – bookcase after bookcase devoted to the American Civil War, similar for the American War of Independence. A bookcase and a half on WW2, two shelves on the Vietnam War – HALF a SHELF on the First World War. It has just simply been erased from the national memory.

When the troops returned home, America turned its back on Europe, a move which led to greater consequences later on – they felt they had been betrayed, they felt their enthusiasm had been betrayed. David then put up a picture of an American WW1 soldier and asked if anyone knew who he was – almost to a man our audience responded – Alvin York (below)

And yet when David had shown this picture to an American friend – someone ex US Marines - he could not answer – despite York -a Marine - being the most decorated soldier in American history. He is a forgotten hero to most Americans.

The Americans of the time felt that in the Argonne they had been cannon fodder for the Allies and an economic powerhouse for them when they entered the war in 1917.

David then said that the Americans had brought something else to Europe – and asked the question - what? – No answer from the audience this time – Spanish `Flu! It came on the troopships and ultimately cost 40 million lives worldwide, making the military losses in the First World War look small by comparison – but that, said David, as he concluded his presentation – is very much another story!

A fast flowing presentation will interspersed with anecdotes from the Divisional histories and various surviving memoirs. The meeting concluded, as is our custom with a brisk question and answer session with David fielding questions from various members before Branch Chair, Tony Bolton, wound up the evening with traditional vote of thanks.

The Munitions Crisis – part 14

Throughout August and September 1915, a correspondence was in progress between the Ministry and the War Office, and eventually arrangements were made in September for a census of skilled munitions workers in all units not yet sent out of the country and of those offering themselves some forty thousand were passed by investigators as suitable. By the end of October steps were being taken to allocate these men to munition works.

Great as were the difficulties of carrying out the schemes for return of skilled workers from the Colours, the difficulties in the way of introducing dilution of labour were far greater, though the ultimate results of this policy were more fruitful. The fundamental opposition to dilution came from the craft unions. Through long years they had built up as a protection against the dangers of cut wages, unemployment and blackleg labour an elaborate system of rules and customs which were designed to control the rate of output and narrow the doorway into the industry. The rules were highly artificial in many cases; men appertaining to certain crafts alone were permitted to touch certain work, even though it might be of kind which any handyman could do with little or no specialist training; and a man doing one job might not carry out the simplest task ancillary to it which ought by these rules to be allocated to another class of craftsman, but must stand by and wait until the other type of craftsman was called in and executed that limited operation. Experience of a restricted market for their labour had made the unions develop every means of restricting its supply and they were afraid, not without reason, that, if the door were was thrown open they would, after the War, suffer from a congested labour market and that if sharp demarcations between the crafts were once broken down would be difficult to re-establish. It was not a fear of falling wages during the war that troubled them, the Minister had guaranteed that this would not happen, it was rather a dread of losing the tradition of mystery and technical difficulty which they had built up to protect their craft and the apprehension of an overcrowded supply of workmen in their particular trade, leading to unemployment, lower wages rates and a reduction in the standard of craftsmanship and of living in years to come. The patriotic appeal of national necessity made difficult headway against these quite natural – as the event proved in some cases – justifiable fears. Georges Clemenceau once said that there was no difficulty in inducing Frenchmen to give their lives for their country, but they would not give their money. This is not to be wondered at when it is remembered that in actual fact the fires of patriotism are too often quenched when they come up against the cool waters of `business`. Trade Unionists flocked to the standard of their country when volunteers were called for to face death, but it was found to be common that men at the front, daily confronted with death and needing shells to protect and defend themselves, wrote home to their fellow trade unionists entreating them not to surrender any of the privileges of their craft, although strict adhesion to these privileges was impeding the supply of the munitions they so badly needed. The wartime profiteers were often the brothers or fathers of those who had suffered and died at the front and with altered circumstances might have shown equal self-sacrifice. But unhappily for sentiment when it comes to business matters you discover that business is business and admits of no divided loyalties.

It was perhaps fortunate that the first branch of the engineering industry where it was found necessary to raise the issue of dilution was the machine tool trade, since this was regarded as the very special preserve of the skilled worker, and was one the output of which, unlike that of shells or machine guns, would continue its importance after the war. When attempts were made to increase munitions manufacturing in the country, it was found that the first need was that of machine tools, which did not, as yet, exist in quantities sufficient even to carry out the orders already placed by the War Office, far less the greatly augmented

production at which the ministry aimed. At a conference on July 1915, the Minister addressed the manufacturers of machine tools and an agreement was reached with the trade unions for a programme of night shifts and labour dilution. But when officers of the Ministry tried to carry through this arrangement they came up against bitter opposition from shop stewards and local trade union committees. At Woolwich Arsenal the local committee resolved:-

"That *we refuse to entertain the proposal to allow the introduction of semi-skilled men on work now done by fully qualified mechanics as it is not proved there is the shortage claimed"*

At the works of Messrs J Lang & Sons, the workers committee declared:

"That no woman shall be put to work on a lathe, and if this is done, the men will know how to protect their rights"

This was August 1915 and Lloyd George had to weigh carefully the alternatives of taking drastic action or trying conciliation. Had stern action proved successful without rousing wide antagonism, it would greatly have expedited the process of dilution. If it had failed against the massed opposition on the part of the skilled workers – for it would obviously have been impossible to punish them all – then the campaign for dilution might have been permanently lost. As yet the Ministry was in its infancy, and a realisation of the immense and urgent need for greater munition output had not fully captured the minds and imaginations of the whole body of workers. The Minister decided to try persuasion first.

On the 9th of September 1915, David Lloyd George, as Minister of Munitions addressed the Trades Union Congress in Bristol on the subject of dilution. He told them how the German trade unions had organised and expanded their services for munitions production. The war, he declared, had become a conflict between the engineers of Great Britain and France and those of Germany and Austria. But, as yet this country was not doing its best in the struggle. Only 15% of the machinery which could be used for turning out rifles, cannons and shells (in all of which there was a shortage) was working night shifts. The problem, he pointed out, was largely one of labour. If every skilled man was working his utmost, there would still not be nearly enough. The issue of dilution was not simply of turning off a skilled man to make room for an unskilled, but one of concentrating the skilled men on the work only they could do. At present, highly skilled workmen, with years of training were doing work which could easily be done by those who had only had a few weeks, or indeed a few days training, and we could not equip our armies unless organised labour was prepared to assist by suspending, for the duration of the war all restrictions which made it difficult to use skilled labour in the best way by employing unskilled under skilled direction, wherever possible.

The Minister proceeded to explain the bargain which had been made with the trade union leaders at the Treasury Conference.

"Has the State kept the bargain" - to which a voice responded from the audience – No!

"I am going to tell you, profits and restrictions on profits - does anyone say we have not kept to the bargain?" - again someone responded from the body of the hall - `Nobody Knows`

"*Nobody knows ??"* said Lloyd George*, "We have declared 715 companies producing munitions of war to be `Controlled Establishments`; we have put them under the direct control of the State… and do not forget this, we have not asked any trade union to suspend any regulations except in an establishment where we, the Government, are controlling the profits. What have we done about controlling the profits? We have controlled them by an Act of Parliament…We are restricting them on the basis as to what they earned before the war…..They are only going*

to get the standard which is based upon the profit made before the war, with any allowance which is made by us in respect of increased capital which they have put in. What do we do with the balance? – We put it in the Treasury to continue the prosecution of the war. It is the first time this has ever been done in the history of our country, you have practically taken over the whole of the engineering works of this country and handed them over to be controlled by the state. I have seen resolutions passed from time to time at Trade Union Congresses about nationalisation of industries of the country – we have done it!"

Lloyd George went on to tell the Congress about the undertaking, embodied in an Act of Parliament, that conditions would be restored at the end of the war, and further, he gave them a guarantee that piece rates should be nowhere be cut down in munitions works on account of any increase in output; and that unskilled men and women should be paid the same rate for the job as had been given to skilled men for the jobs transferred to them. Having dealt with the way in which the government was keeping to its side of the bargain, Lloyd George then indulged in some plain speaking on the failure of the trade unionists to do their share, highlighting the refusal of men to admit semi-skilled workers, the squabbles between coppersmiths and plumbers as to the dividing line between their jobs, and the penalising of men who worked faster than average, citing a complaint from Woolwich Arsenal that there was a deliberate attempt to keep down the output and the trade unionists who defended the men.

To be Continued

CHESTERFIELD
BOROUGH COUNCIL

Be part of the Chesterfield community poppy cascade

We need thousands of poppies to create a cascade on either side of Chesterfield Town Hall to commemorate 100 years since the end the First World War.

You can help by:

- Knitting or crocheting poppies
- Donating wool or felt.

You can pick up a free pattern and also drop off your poppies at the Town Hall.

The last date for collection is Friday 2 November 2018

Contact Rob Nash on **01246 550 516** or email: **mayors.office@chesterfield.gov.uk** for more information or collections.

Chesterfield and District Combined Ex-service Associations

Be a part of the Chesterfield Community poppy cascade

Community poppy cascade

This year Chesterfield will come together to commemorate 100 years since the **end of the First World War.** Why not get together to knit or crochet poppies **(pattern and instructions** provided) which will be hung either side of the Town **Hall steps during the** commemorative period to create a stunning cascade.

Get involved

You can start anytime and your poppies can be taken to a number of outlets in **Chesterfield, see the website** for information. The last date for collection is Friday 2nd **November 2018.**

Tell us how you are getting on

Keep us informed of your fundraising events and how many poppies you've made by **contacting: jenny.flood@chesterfield.gov.uk** or **mayors.office@chesterfield.gov.uk** or **calling 01246 345 239.**

I can't knit
Don't worry, we have trainers who can help you and videos you can learn from.

Can I crochet a poppy?
Yes, the pattern can also be used for crochet.

If you can't knit or crochet you could make a poppy out of red felt.

Funding
We are seeking various funding streams but are asking local charities to donate the **needles and crochet** hooks and businesses to supply money or wool to help us.

Can I do it at home?
Of course, **and we** can help to get you started and support you.

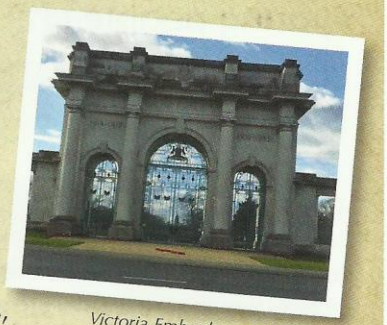
How can I help?
Spread the word, hold fundraising events to buy the wool, needles and hooks.

NOTTINGHAMSHIRE REMEMBERS
THE GREAT WAR

11 November 2018 marks **100 years** since the end of World War 1. The County Council is hosting a series of events, including an open air film screening of *War Horse* and a Heritage Day at Rufford Abbey Country Park, to commemorate the centenary of the end of the war and the sacrifice of men and women from across Nottinghamshire.

A lasting legacy to our Great War heroes

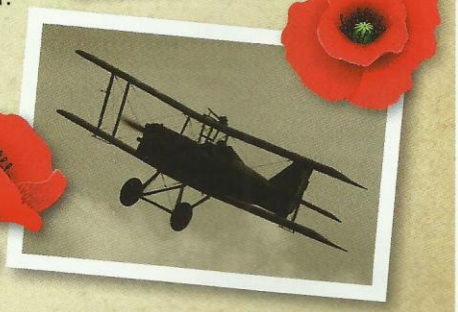
The culmination of the First World War commemorations will see the creation of a new memorial, located at the Victoria Embankment in Nottingham, which will feature the names of all 14,000 Nottinghamshire and Nottingham fallen during the Great War. Names of both forces personnel and civilians will be included on the memorial.



Victoria Embankment Memorial

The memorial project is being led jointly by the County and City Councils, in partnership with other local authorities, businesses and military associations. It is hoped that a proportion of funding for the project can be raised through public donations.

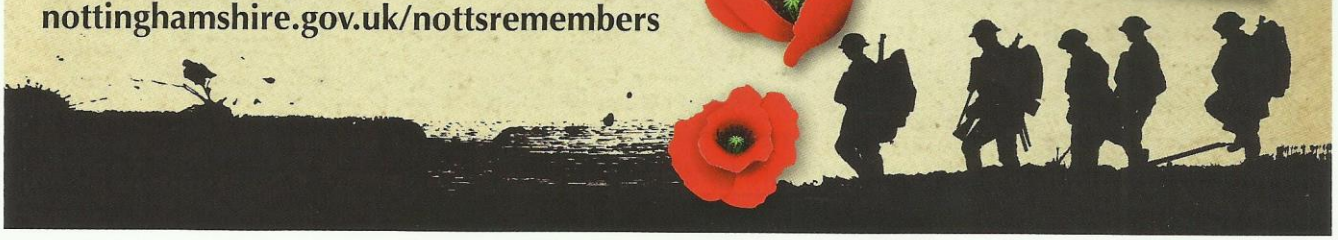
Since 2013, volunteers have been carrying out the painstaking task of compiling the Nottinghamshire Great War Roll of Honour – an online database of all the county's Great War fallen, including their place of birth, family history, military information, where they are buried and the location of any memorials bearing their name. This was part of the wider Trent to Trenches project, a countywide programme of events and activities to commemorate 100 years since the start of the Great War.



The names of people listed in the Roll of Honour will be used in the creation of the new memorial.

You can view the Roll of Honour and/or submit further information at nottinghamshire.gov.uk/rollofhonour

Find out more about the events and projects commemorating the end of The Great War
nottinghamshire.gov.uk/nottsremembers



The Tunnellers

The Somme is remembered for slaughter with men machine-gunned in their tens of thousands. But it also featured a bold attempt at breaking the deadlock - a form of warfare revolutionised by an unlikely group of British sewer workers.

The giant Lochnagar Crater, south of the French village of La Boisselle, has never been filled in.

The chalky soil of the 300ft diameter depression is now covered in grass and is overlooked by a wooden cross which stands as a memorial to all the dead in the bloodbath that was the Somme.

But this hole is also testament to an attempt to master the art of mining and reinvent it for the age of the machine gun. A 1,000ft tunnel was filled with 27 tonnes of ammonal explosive and the resulting explosion threw debris 4,000ft into the air.

It was the largest of the series of mines [the total is variously recorded as either 17 or 19] laid across the line of the Allied attack that day. The series of blasts was at that point the largest manmade sound ever made.

The revolution in using tunnelling for war had started in February 1915 with the formation of an extraordinary underground unit. The first 18 men were not typical Army recruits.

Many were over 40. A few were white-haired and toothless. Most were small - less than 5ft 4in tall, at a time when the average height was 5ft 8in. They had strong backs and calloused hands.

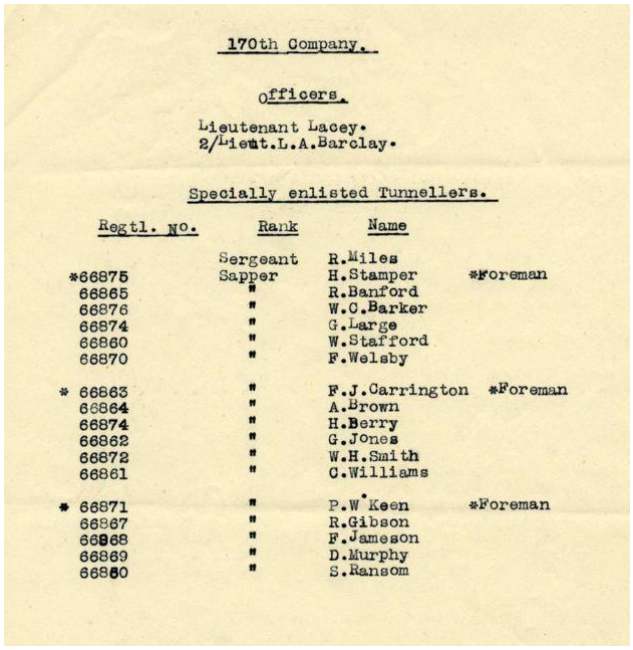
Although in uniform, they looked dishevelled. They couldn't march, drill or salute, and were more likely to call an officer "mate" rather than "sir".

The Manchester Moles were sewer men and they could dig four times faster than their German rivals. The men became the founding members of 170 (Tunnelling) Company, Royal Engineers. Their pioneering work was the beginning of more than 3,000 miles of tunnels in France, Belgium and Gallipoli. In a defensive war, both sides tried to dig under each other's fortifications to blow them up from beneath. And both sides tried to destroy each other's tunnels. While the horror of the trenches has been well documented, what happened beneath the battlefields - in the foetid, dark, cramped, and frequently wet tunnels - is less well known, and arguably far more frightening. While stalemate reigned above ground, a secret and often frantic subterranean war

raged below. There, the thunder of the surface war was deadened. Shell bursts were merely a muffled sound, however, one's ears were more important than one's eyes

At the end of a gallery, surrounded by still, damp earth, tunnellers listened. For a scrape, a knock, a voice… even for a sneeze. The enemy might be 50 yards away, or a couple of inches.

The slightest noise could bring terror. You either had to run, or set a charge, move back and hope that it was the other man who would be entombed, torn apart, crushed or gassed - even drowned.



170th Company.

Officers.

Lieutenant Lacey.
2/Lieut.L.A.Barclay.

Specially enlisted Tunnellers.

Regtl. No.	Rank	Name	
	Sergeant	R.Miles	
*66875	Sapper	H.Stamper	*Foreman
66865	"	R.Banford	
66876	"	W.C.Barker	
66874	"	G.Large	
66860	"	W.Stafford	
66870	"	F.Welsby	
* 66863	"	F.J.Carrington	*Foreman
66864	"	A.Brown	
66874	"	H.Berry	
66862	"	G.Jones	
66872	"	W.H.Smith	
66861	"	C.Williams	
* 66871	"	P.W.Keen	*Foreman
66867	"	R.Gibson	
66868	"	F.Jameson	
66869	"	D.Murphy	
66860	"	S.Ransom	

The British tunnelling masterplan was largely down to one extraordinary and rather eccentric man. Major John Norton-Griffiths, then MP for Wednesbury, had already earned the nicknames Empire Jack and Hell Fire Jack for his devotion to the British Imperial ideal. He'd even raised a colonial corps of old fighters at his own expense before Britain had formally gone to war.

"He was an entrepreneur, a go-getter - not a glory seeker, but the type of man who didn't sit on his hands and liked to get things done," says Tony Bridgland, author of Tunnelmaster and Arsonist of the Great War: The Norton-Griffiths Story. The larger-than-life character was soon renowned for touring the trenches in a Rolls-Royce loaded with cases of port.

John Norton-Griffiths had various nicknames including Empire Jack and the Angel of Destruction

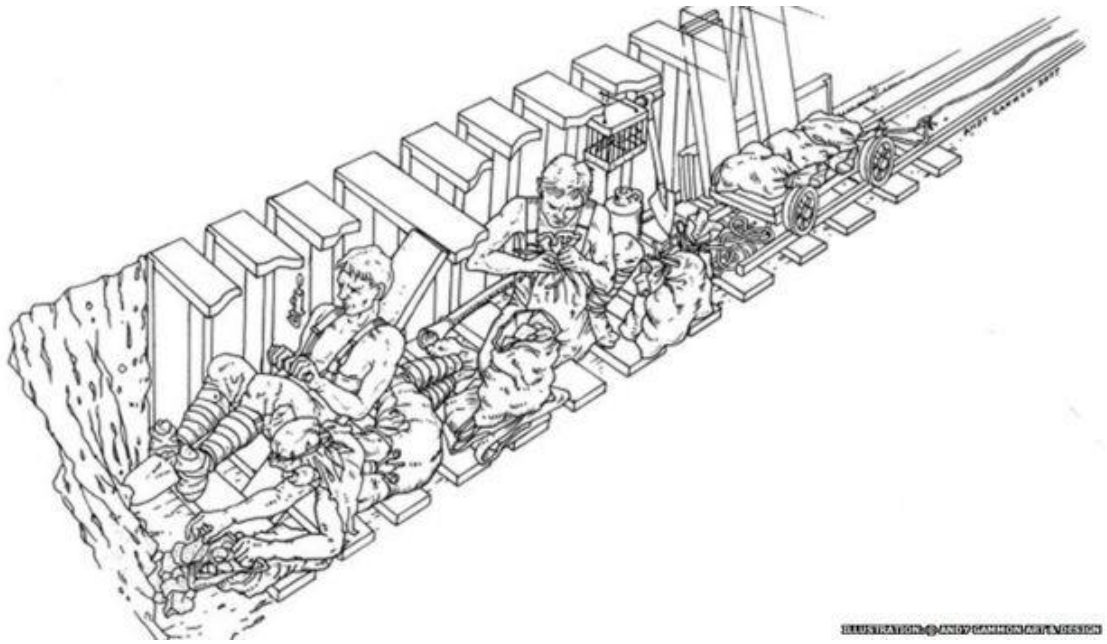
When war was declared, his engineering company Griffiths & Co were working on a contract to extend Manchester Corporation's drainage system. But Norton-Griffiths believed his specialist sewer-drivers possessed a skill that would give the British an advantage in Flanders.

The Manchester geology was a similar to that of Flanders - heavy clay. Rather than using picks with their arms to tunnel through the clay his men employed the far greater power of their legs.

Their technique - known as "clay kicking" or "working on the cross" - involved a man sitting with his back supported against a wooden rest (the cross) and pushing a small, razor-sharp spade-like implement (a grafting tool) into the clay face before him.

It was not only quick and efficient, but quiet.

Norton-Griffiths became convinced that clay-kicking could be a useful weapon on the Western Front.



Persuading the War Office and the Secretary of State for War Lord Kitchener - a family friend - to regard his idea as anything other than absurd however, was another matter.

After the Germans blew their first underground mines killing a number of Indian soldiers and creating panic for miles, he wrote asking if "a handful of Moles" - as he called his Manchester men - could be sent to France. The letter was filed under "M", but ignored.

But Norton-Griffiths was nothing if not persistent.

By January 1915, and after more costly explosions, it was clear that the Germans were beginning to mine systematically.

The British were unable to respond, for in the belief that siege warfare tactics like this were a thing of the past, the Royal Engineers had wound down their military mining section. There was consternation at the War Office.

On 12 February 1915, Norton-Griffiths received a telegram from Kitchener asking for advice.

"Norton-Griffiths barged into Kitchener's office, grabbed a shovel from the grate, went down on the floor on his back, threw his legs in the air and began furiously shovelling imaginary earth between his feet to demonstrate clay-kicking," says his granddaughter Anne Morgan.

"He wasn't always the most politically correct man - he was impatient, of a rebellious nature and went on to bribe commanding officers of different companies to let him have their miners by getting them drunk on fine port - but he was certainly charismatic."

Kitchener was convinced. He asked for 10,000 Moles - immediately.

Work on Manchester Corporation's drainage system

Norton-Griffiths said he didn't think there were that many in the nation, but straight away rushed to France with two employees to establish the suitability of the ground.

On arrival, his manager and works foreman, 35-year-old Norman Richard Miles, told his boss the clay was "so ideal it made his mouth water".

A trial was agreed, and Norton-Griffiths wasted no time getting his men to the front line. The next day, 20 Manchester sewer men found themselves London-bound.

Eighteen passed the medical and were sent to Royal Engineer HQ at Chatham in Kent, to be enlisted as sappers.

Two days later the men arrived in Bethune, less than 15 miles from Givenchy. The village and nearby sectors were to be their home for most of the next three years. The tunnelling companies had been born.

The original 18 men were divided into two sections which were augmented by infantrymen with mining experience drawn from nearby battalions. Officers were assigned, and the entirely inexperienced crew began digging.

Military historian Jeremy Banning says even though the sewer men were used to working underground, the sudden shift from Manchester to the bloody French battlefields would have been overwhelming.

"These men had changed from civilian to military in a matter of days, when the average infantry soldier at that time would have had six months of training to drill, get physically fit, and learn the rules of order and obey.

"They also weren't used to having a silent enemy that could strike at any moment. The mental anguish and the strain on their nerves would have been testing, especially in the grim conditions at Givenchy."

Underground warfare was a 24-hour business - shifts worked eight hours on, 16 off. The Givenchy tunnels were very wet, claustrophobic and constricted, typically measuring about 4 ft 6in (130cm) by 2ft 3in (69cm).

"A clay-kicking team," says Peter Barton, author of Beneath Flanders Fields and designer and instigator of The Tunnellers Memorial at Givenchy, "consisted of a kicker, who silently prised out clay "spits" at the "face", a bagger who quietly put the spits into sandbags, and a runner who put the bags on a small trolley on rails which led back to the shaft.

"The team periodically changed places. Filled bags were hoisted up the shaft and dumped on the surface to give extra protection to the men in the trenches."

"Tunnelling at Givenchy, where the clay was mixed with sand and gravel, was extremely difficult," he says.

Despite this, the men could advance an average of 26 ft per day. German tunnellers managed less than 7ft in 24 hours.

Back in London, the War Office issued requests for ex-miners serving with infantry units to urgently transfer to tunnelling companies.

Norton-Griffiths believed experienced older men were the best for this highly stressful task, for they were likely to be "steadier" under pressure, and not panic in an emergency.

One war diary entry records: "Sewer men of the type of [his manager and works foreman] Miles are very limited and at all times are difficult to get, and for permanent supplies we have no other course but to fall back on the Miners."

Professional mineral, slate, and coal miners from across the UK, and indeed hundreds from every corner of the British Empire, had soon been signed up.

The enticement of six shillings a day - a decent wage for working men at that time - was a powerful incentive. By contrast, an unskilled tunneller's mate received two shillings and tuppence, while the infantryman in the trenches pocketed a meagre one shilling and threepence.

The company soon began four separate tunnel schemes in places where the Germans were already mining - the underground war had started.

170 Tunnelling Company diary entry on 3 April 1915:

"Charges were put in the ends of galleries and exploded, blowing up a strong point in the enemy's line... In the meantime the Germans had started a counter-mine, but we managed to blow up their trenches bringing down the front half of a brick stack which had been hollowed out and used as a sniper's post. One of the snipers could be plainly seen when the smoke cleared away pinned in up to his middle by the fallen bricks."

With the two sides working in such dangerous conditions and in such close proximity, it wasn't long before the Manchester Moles suffered their first fatalities.

It's hard to be certain how the first of Norton-Griffiths' sewer workers died, but the Commonwealth War Graves Commission records and the tunnelling company's war diary suggest that a sapper called William Stafford was killed by a German mine on 21 April 1915:

"When driving further branch galleries for attack purposes, we heard the Germans working a counter mine near one, and exploded a small charge to destroy his work. The Germans put very large charges in their counter-mines and destroyed our forward galleries, besides blowing up a considerable portion of their own trench. Two of our men were killed underground by the explosion."

Just a few days later, an officer suffered a similar fate after a delay in detonating a mine at Givenchy led to the Germans blowing their mine first. A 24 April entry at the Orchard workings in Givenchy reads:

"Sounds first heard at 1pm of dropping tools and talking. Action taken by 2/Lt Barclay was to build a barricade against the crater end of our tunnel and to send for Colonel Boardall. This officer was over at Cuinchy and the message did not reach him at once. He arrived at the site between 5 and 6pm and instructed Lieutenant Barclay to construct another barricade 4ft this side of the original one, leaving sufficient space at the top for the [gun] powder to be passed through. He himself came down to arrange about getting a charge ready.

"Before the second barricade was quite completed the Germans blew a mine killing Lt. Barclay and 6840 Lance-Corporal Bishop, 2nd South Staffordshire Regiment attached to 170 Coy. RE. This happened at 9.30pm."

A sea of craters was gradually formed between the opposing trenches. If a crater could be incorporated into one's trench line, it could prove very valuable. They were always fought over.

For Norton-Griffiths' former sewer foreman, returning to the scene of an explosion on 24 April, again at the Orchard, ended in him paying the ultimate price:

"2/Lt Lacey and 2/Lt Martin who had gone up with Lt Boardall to assist in laying the charge then went out with a patrol of the IG sent to OC section to see if the crater was occupied and found it empty. Sp 66877 Sergeant Miles RE, who had accompanied this patrol, went out again with a second, which was to occupy the crater. The Germans had meanwhile occupied it and shot him dead."

In a roll of honour notice, Miles's commanding officer is quoted as saying he had to prohibit the men from extricating his body to bury him, despite them being "very anxious" to do so. He said:

"Having inspected the spot I was reluctantly compelled to forbid them to do so, as it would not have been possible without a very grave risk of losing further lives in the attempt. His body lies buried under about 15 feet of earth half way between our trenches and the German trenches in the orchard just each of Givenchy."

The most common killer, however, was carbon monoxide poisoning - generated in large quantities by every explosion. It was invisible and odourless.

"Tunnellers could lose consciousness or control of their limbs in a matter of minutes, so they had to act fast after an explosion. If they were working underground and the shudder of a blast was felt, everyone would race for the shaft to get out into the fresh air before the gas got into their bloodstream," Barton says.

As an "early warning system", like coal miners, tunnellers carried caged canaries underground. "If a canary fell off its perch, gas was present," Barton says.

Clifford Maher, 74, from Cheadle Hulme, near Manchester, says his grandfather Sapper Stephen Ranson - who had worked as excavator for the Water Board before he became one of the original 18 men in 170 Tunnelling Company - was gassed twice in Flanders. In each instance it took a considerable time to recover.

"His tunnelling experience didn't put him off working as a ganger though. After he came back from the war he continued to work on contracts like Merseyside all-round the country. He was quite well paid I think, not short of a bob or two," he says.

170 TC had soon distinguished itself in some bitter mining contests.

Sapper Thomas Welsby, a 44-year-old father of five, and again one of Norton-Griffiths' originals, was awarded the Distinguished Conduct Medal Conduct (DCM) for "conspicuous gallantry and ability" at Cuinchy on 28 June 1915. The London Gazette records:

"Whilst clearing a gallery which had been damaged by a German mine, he made a hole into the enemy's gallery accidentally, this he at once blocked up with sandbags and laid a charge against it. Our mine was successfully fired, destroying the enemy's gallery, and exploding the charge which they had laid."

His granddaughter, Enid Forshaw from Stockport, says the family was always told how brave he was:

"I think he specialised in laying and defusing bombs and mines in the tunnels, which sounds skilled but was also incredibly frightening. He died in shellfire in 1917. My father said it was a struggle for his mum to bring up the children on her own."

The same week, fellow Manchester Mole Sapper Dennis Murphy was awarded the DCM.

A supplement to the London Gazette recorded: *"During the operations of a German working party at the end of a 200-foot gallery, Sapper Murphy, with two other men, listened to and noted the progress of the work, and ultimately placed 200 lbs of gunpowder and over 400 sacks of tamping at the end of the gallery, working at the highest speed in bad air, when the slightest noise would have cost them their lives. He showed a splendid example of devotion to duty."*

In August 1915 Captain Lacey, who'd been attached to 170 TC since the first moles had arrived at Givenchy, was killed in an explosion with six of his men in a tunnel in the neighbouring sector of Cuinchy.

The 28-year-old had already received the Military Cross and just five days before had been promoted to the rank of captain.

"The last few months of 1915, when 170 TC was working in a deadly sector known as the Hohenzollern Redoubt, was probably the most hostile period for the company, with mines being blown up every other day," says Banning.

"The Germans and British were about 50 to 100 yards apart, with each trying to seek the advantage. There was an overlapping mass of mine craters between them - it would have been hell on earth," he says.

The geology of this sector was different, however - it was chalk rather than clay.

"This would have suited the men with coal mining skills - ex-coalminers that had been transferred from infantry battalions - because coal has similar properties to chalk. So the clay-kickers would have had to pick up new skills from them. Instead of working on the cross, they'd have had to use short picks or even prise out lumps of chalk as quietly as possible with a bayonet," he says.

Despite the British tunnellers soon seizing the initiative underground, the Germans always remained superior at crater fighting, according to Banning.

An extract from 170 TC war diary on 18 March 1916 shows how hostile it could be:

"Germans made a very strong attack on Crater Nos. 2, A, B & C at 5pm. exploding a small shallow mine East of No.2 Crater and another north of C Crater, both doing only very slight material damage. Our men were all caught in the crater by the bombardment. 1 NCO and 1 man retrieved from C Crater. 15 RE's and 20 attached infantry missing. The Germans gained crater 2, A, B & C, and we now have bombing posts looking into Nos 2 B & C."

By the middle of 1916 the number of British tunnellers had risen to about 25,000, but they were vitally assisted by almost twice that number of "attached infantry", soldiers who worked permanently alongside them as "beasts of burden", fetching and carrying equipment and timber, pumping air and water, and removing spoil.

With such long periods in dark, damp and cramped conditions, many men became ill. When the mental stresses were added to the physical effort, the work could be desolate and debilitating.

Alcohol was an important part of many tunneller's lives, used a release valve for the constant state of anxiety. Courts martial for drunkenness were far from uncommon.

Another original clay-kicker, 40 year-old Sapper Charles "Chas" Williams, was sentenced to 21 days "Field Punishment No 1" for drunkenness in February 1917.

This involved being tied to a fixed object, often a wheel, for up to two hours per day.

Fellow sewer worker sapper Frank Jameson also received seven days of this treatment for getting drunk and going absent without leave for two days in November 1915 - he forfeited two days' pay as well.

"Very few tunnellers lasted the whole war, it was too great a strain on their body and their nerves, for every moment spent working underground could have been their last," says Banning.

Five of the 18 Manchester sewer men received the Silver War Badge, issued to service personnel who had been honourably discharged as a result of wounds or sickness.

The sterling silver lapel badge was intended to be worn on civilian clothes back at home, to avoid the wearer being presented with white feathers, usually by "dutiful" women to shame apparently able-bodied young men not in uniform to go to war.

The large mining operation before the Somme assault which left the Lochnagar Crater was not a resounding success. But lessons continued to be learned and the very next year mining warfare reached its zenith.

On 7 June 1917, 19 huge British mines were exploded beneath the Messines Ridge in Belgian Flanders. The blasts killed as many as 10,000 soldiers and shattered German morale and enabled the British to capture the enemy positions within hours.

The explosions were said to have been heard by the British Prime Minister, David Lloyd George, 150 miles (241 km) away in 10 Downing Street. The attack was one of war's few unalloyed successes.

Again, the idea for these huge multiple blows came from John Norton-Griffiths, who first put forward the audacious proposal two years earlier in 1915.

When the war ended, 12 of the 18 original Manchester Moles had survived.

Barton believes WWI was truly a war of engineers. "The Mancunians were the starting point for a colossal scheme of military engineering," he says, "and it would be impossible to say what would have happened underground on the Western Front without the dogged determination - and a shameless disregard of the rules - of John Norton-Griffiths."

The most unlikely heroes of all, however, were the motley crew of Manchester sewer men.

"Suddenly sewer men that at home might often have been looked down upon as grubby, rough and ready industrial types were the most prized troops on the Western Front," says Banning. "They are unsung, but worth their weight in gold, and they should be remembered accordingly."

The **memorial** to them can be found in the village of Givenchy - where the underground war started.

The Tunnellers Memorial

On the morning of 22 June 1916, Sapper William Hackett and four other miners of 254 Tunneling Company were driving a tunnel towards the enemy lines below the cratered surface of the Givenchy sector of northern France. At about one-quarter of the way towards the German trenches at a depth of about 35 feet, the timbered gallery 4’3” high by 2’6” wide was still in the early stages of development; it was served by a single shaft – the Shaftesbury Shaft. At 2.50am the explosion of a heavy German mine (the Red Dragon) blew in 25 feet of the tunnel,

cutting the five men off from the shaft and safety. On the surface, a rescue party was immediately organised. After two days of digging an escape hole was formed through the fallen earth and broken timbers, and the tunnellers contacted. William Hackett helped three men to safety. However, with sanctuary beckoning, and although himself apparently unhurt, he refused to leave until the last man, seriously injured 22 year-old Thomas Collins of the Swansea Pals (14th Battalion, the Welsh Regiment), was rescued. His words were said to be, "I am a tunneller, I must look after the others first". The rescuers worked on, but were frequently immobilized by German shelling and mortaring of the shaft-head. Conditions above and below ground became more treacherous by the minute. Eventually the gallery collapsed again, entombing the two men. Both still lie beneath the fields of Givenchy today.

The dimensions of the Memorial were designed to match the standard interior proportions of mine galleries constructed by Tunnelling Companies in the Flanders clays; they precisely match those in which William Hackett and Thomas Collins were working in June 1916 – 120 centimetres (4 feet) high, 80 centimetres (2' 6") wide. The construction material is ultra-durable Lakeland slate – Brathay blue-black for the outer 'frame' representing the timber 'sett', and Kirkstone sea green for the engraved interior. Visitors can thus envisage the cramped and claustrophobic nature of the Tunnellers' working life and the scale of the environment in which Hackett and Collins laboured, lost their lives, and lie still. The circular base engraved with the trench map reference has the same dimensions as the Shaftesbury Shaft which served the gallery. The Memorial is precisely orientated so that the view through the central axis of the yellow glass T – representing the Tunnellers' shoulder title – will take the visitor's gaze exactly to the site of the original shaft head close to the place in the landscape beneath which the two men still lie. An illustrated explanatory panel describing the work of the Tunnelling Companies is located adjacent to the memorial.

With William Hackett's courage exemplifying the Tunnellers' work, the memorial stands in celebration not only of his self-sacrifice, but the endeavours of all his military mining comrades from around the world; men from Australia, Canada, New Zealand, and South Africa whose critical but clandestine role in the Great War has been long overlooked. Although heroes of obscurity, with their names featuring only marginally on the great lists of dead, wounded and missing, their contribution to the surface war was integral and vital. Few have spoken or written of their ways in the last nine decades, no monuments had been erected to their memory, and yet fewer poets have immortalised their hidden and selfless endeavours in the most secret, personal and savage battlefield of the war – the battlefield beneath No Man's Land.

Greater Love hath no man than this, that he lay down his life for friends