# Cumbria Industrial History Society



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**DECEMBER 2014** 



# **MERRY CHRISTMAS**

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#### **EDITORIAL**

Another successful year is coming to a close for the society with two successful conferences and a number of well attended day and evening meetings. The programme for 2015 is looking exciting with something for everybody our thanks must be given to all members of the committee for the hard work they have put in to produce the varied programme each year. This years Spring conference is certainly on a different theme looking at the way art has influenced industry and the influence of industry on art in Cumbria.

Whilst I am on the subject of day meetings it has been decided by the committee that a charge will be introduced for non members attending the meetings.

The membership of the Society is at its lowest for a few years and I would urge you all to return the enclosed membership renewal form enclosed. For those of you who have not yet signed up to standing orders please do so and also if you are a tax payer we can collect gift aid on your membership. For further details please contact Robin. If any members know of like minded people who may like to join please push them gently in our direction.

We are also looking for ideas for where the Society can promote itself to increase membership. We are working on a new set of display boards etc. that can be taken to meetings/conferences etc. along with a selection of the Society's publications to try and help promote the Society and increase membership. If you are attending such a meeting please contact a member of the committee.

Finally on behalf of the committee I would like to wish al members a Merry Christmas and a Happy and Prosperous New Year.

FRONT COVER STEAM CRANE - A second abandoned crane by Samuel Butler & Co Engineering, Stanningly, Leeds taken October 1968 MDS slide collection.

#### **SOCIETY EVENTS 2015**

SPRING CONFERENCE 18<sup>TH</sup> APRIL 2015 SHAP WELLS HOTEL

INDUSTRY AND THE ARTS IN CUMBRIA.

Details and booking form is enclosed.

TINDALE TO LAMBLEY. SATURDAY 9<sup>TH</sup> MAY 2015. 10.15 am.

Meet at Coanwood car park NY 679 595. We will then transfer in as few cars as possible to Tindale.

A walk along Lord Carlisle's railway to look the site of Tindale Zinc Spelter and at various coal mines finishing at Lambley Viaduct. A flat walk except for steps to get onto the viaduct.

JUNE EVENING MEETING. Details still being arranged.

NORTH ULVERSTON SUNDAY 19<sup>TH</sup> JULY 2015 10.30 AM.

Meet at Ulverston Station SD 285 778 for a walk around the north end of Ulverston to be led by Roger and Dan.

CARROCK MINE SATURDAY SEPTEMBER 12<sup>TH</sup> 2015 11.00 am.

Meet at end of the Mosedale Rd. NY 326 326.

A look around the only Wolfram mine in Cumbria and a look at the work recently done on the site by CATS. To be led by Warren Allison

OCTOBER CONFERENCE SATURDAY 17<sup>TH</sup> OCTOBER. 9.30 am

To be held in Market Hall Egremont. To look at the industries in the Egremont area.

NOVEMBER EVENING MEETING TO BE ARRANGED.

#### **`BENEATH A LAKELAND FELL PART 1.**

Some experiences of working in the Honister Greenslate Quarry, Borrowdale, Greenside Lead Mine and the Silver Band Mines near Knock, Appleby.

#### By Arnold Lewis.

These few notes do not pretend to be anything more than my own experiences in quarries and mines. The few historical notes I have either seen in other books or have been told by word of mouth by miners and others who were interested in mining. I am the son of a man who at the age of seven years began work in the welsh coal mines – he was born in 1859 - and died in 1933 – his body covered with blue scars – from the many cuts and abrasions he received when he won the coal.

Never go down a mine lad was his advice to me. I never intended so to do. But circumstances made it otherwise and I found the work hard – yes but I enjoyed it, and I liked the men with whom I worked with over a period of 23 years. True there were bad patches and anxious moments. There was tragedy, and heroism, there was music and laughter. There was above all a fellowship forged underground such as I found no where else except perhaps in the armed forces during the war. These men would do anything for you, even to the laying their lives for their mates – and some did just that.

To them and all Greenside miners I dedicate this book.

Arnold Lewis Oct. 1978.

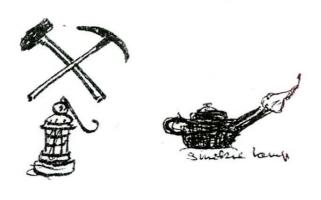
How old is mining I do not know, but I do know it is a very ancient craft – long before the Romans came to these shores – mining was an ancient trade – perhaps the first miners worked outcrops of iron, copper, lead or other more precious metals- The ancient civilisations had miners to dig the copper or other metals – for armour, weapons, ornaments, money and even to make their Gods of. The Bible describes mining in the 28<sup>th</sup> Chapter of the book of Job – and that was written perhaps four to five thousand years ago.

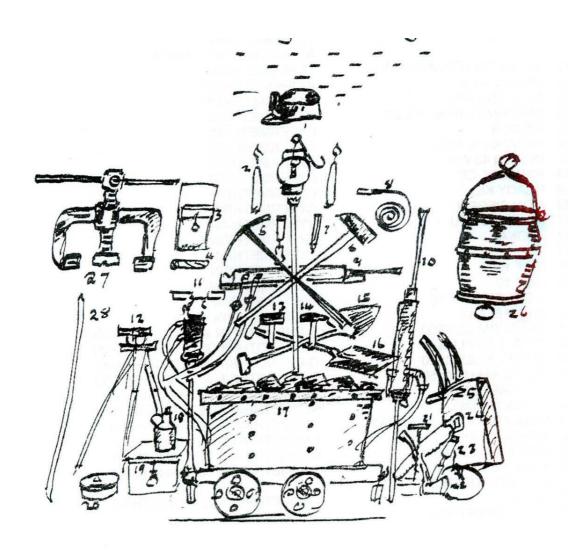


The Miners Paraphrase from the Book of Job Chapter 28, from the Living Bible.

Men know how to mine and refine Gold and Silver, To dig iron from the earth and melt copper from stone,

Men know how to put light into darkness So that a mine shaft can be sunk into the earth And the earth searched and its deep secrets explored. Into the black rock, shadowed by death, Men descend on ropes swinging back and forth, They know how to find sapphires and gold dust Treasures that no bird of prey can see No eagles eye deserves, For they are deep within mines, No wild animal has ever walked upon these treasures No lion has set his paw there. Men know how to tear apart the flinty rock And to overturn the roots the roots of mountains They drill tunnels in the rock And lay bare precious stones They dam up streams of water and pan for gold

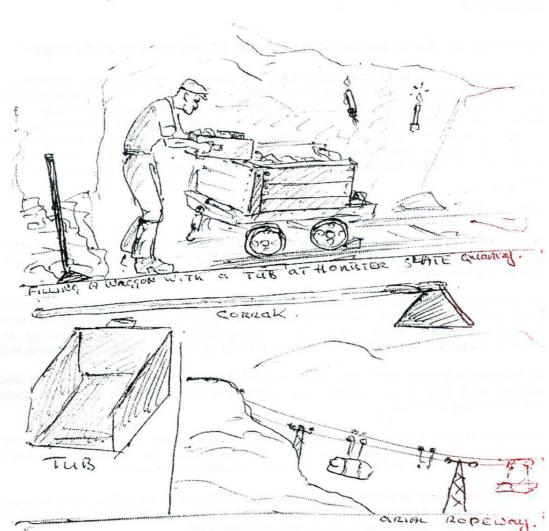




#### HONSITER GREENSLATE QUARRY.

I came to Keswick in July 1936 for a holiday with my fiancée. Keswick was her home town and she was in service in Cheshire where I had met her. I was employed in a cotton mill at 24/6 per week (£1. 26 today) for a full weeks work. My future mother in law suggested I tried for work there – so I went to the labour exchange and they sent me to Honister Green slate quarries where despite my inexperience I was given a job as a labourer at more than twice my previous wage. I was told I should have to live in the "barrackes" and bring my own provisions, bed and bedding would be provided. A relative of my future wife took me to work on his motorcycle. I was shown where to dump my clothes, food, etc. I put my food in a "bait bag" and put in charge of Jack Reppel – who lived at Bowderstone – a famous Borrowdale land mark. We set off together with other quarrymen up the rough road which led to the road and quarry. I noticed there was an arial ropeway which was used to bring the "clogs" of slate from the quarry to the saw sheds where they were sawn into blocks which would be easier to handle for the men who split the slates into various sizes. I believe in those days a quarryman was paid on

the amount of finished slates. If he sent a clog of slate that weighed a half a ton and the man who split the slate only got say five hundredweight that was all they were paid for. I received about  $\pounds 2-15$  per week which was considerably more than I got in the cotton mills.



I was given a large bunch of candles to carry. These were my source of light – only a few of the quarrymen had acetylene lamps – everyone else used candles made from tallow. Larger than the ordinary domestic candle with a stronger wick. They came in bundles with long wicks which were tied in a knot. The quarrymen hung them in the roof – the quarry was underground and rats would eat any candles or food left lying about. We made candle holders With a ball of clay and "clagged" it ont wa', out of the draught

If possible. When you were tramming a bogey outside you stuck your candle in the debris in the wagon or on the clog of slate – and hoped it didn't fall off before you got out and back again.

I never used a shovel there we had what was called a carrack and tub. Carrack I assume was a corruption of coalrake and was a long rake with a triangular shaped rake at the end. The tub was a metal box with handles on the side to facilitate lifting. You pushed this box into the debris raked it full then lifted it into the tub or wagon. This was wooden and also of three sides. You built a wall at the front end and packed your waste or debris behind it. When it was full you ran it out to the tip and put a safety on the back axle before you tipped it. The way out was wet and my shoes were soon in a pitiful state – I had to stick it out till I got my pay when I got a pair of "strong Bruits" and was able to work in comparative comfort.

The quarrymen used gunpowder to blast the slate but only enough to loosen it from its bed – dynamite was used to drive tunnels etc as this shattered the rock and made it easier to handle for the fillers.

We used to come outside for "bait" to a bait hut where we lit a fire and put a big black iron kettle to brew our tea. I enjoyed the work – but oh the dialect! Lancashire – and to a point Yorkshire W Riding I understood but some Cumbrian phases had me beat. I was once sent for a 'ten rauce stil' which I found later, much later was a ladder with ten steps. A 'gaut' was another thing I had no idea what it was. This was a platform the quarryman used to stand on when drilling. He fastened it to the rockface and had a fairly secure place to stand on. The quarryman had a helper who helped him to ... the clogs of slate and place on the bogey. A dangerous job, one man was killed when the clog turned round suddenly and crushed the unfortunate man against the wall. The clog of slate were run outside and chained and hooked on the arial ropeway. Then given a push and away it went down the valley to the sawsheds. I noticed the last time I was there on a visit about 3 years ago, the arial ropeway had been taken down and the slate came down by lorry.

The quarry men worked from 7.30 to 4.30 or 5 pm. We worked a half hour extra each day so we did not have to work Saturday mornings. Often receiving the pay on Friday afternoons, there was a mad dash down the Honister Pass one lot towards Keswick the other to Buttermere. Cycles and motor cycles going full belt down the pass like the charge of Ghengis Khan. I wouldn't have caredto have been coming up the pass when that lot were coming down. It was bad enough going down believe me.

When we finished our day's work we hurried to the "Barrocks" a series of huts where the quarrymen who did not live at Seatoller or near put up. I was in the big barrock which had a big dinning room cum kitchen and each man had a cubicle with a bed and locker. There was one mad dash to get ones pan on the big stove and cook a meal. This you watched like a hawk or the moment your back was turned some one would switch it off and put theirs in its place. I saw quite a few arguments but no fights. After our meal we either went for a walk or sat about, reading or just "crackin", some climbed the fells, some had a rest or the more energetic went to Buttermere for a pint. Some indulged in shooting rats or Cumberland and Westmorland style wrestling. If it was wet we stayed in and got the stove going sat round gaming away, some would play a mouth organ or mandolin – I can't remember a radio then we sang all the sentimental songs – and hunting songs. One or two were good comedians and we passed our evenings very well. The cold

weather came, some got paid off and I was one of them. I could have gone back in the spring but I never did. I stayed at my future wife's aunts at Bassenthwaite whilst I was on the dole. She was very good to me. I got longing to see my fiancée, and I cycled all the way to Marple in Cheshire in one day and back the next. (I never was so tired in my life) on a push bike, I wouldn't like to attempt it now – the roads were not so busy then.

Back in Keswick I was in the Labour exchange when I heard men were wanted at the Greenside lead mine near Ullswater – NEXT day I cycled in pouring rain – about 20 miles – I think and saw the manager, who told me to come prepared for work on Monday. He sent me to the mine secretary Mr Matthew Place who gave me an address and I went to lodge at Miss Shaws at Redgate Cottage.

## ON A BEAUTIFUL SEPTEMBER DAY

Dan Elsworth and Roger Baker led a group of 20 or so members around and about the small market town of Broughton-in-Furness, followed after lunch by a visit to the nearby Duddon Furnace.

Broughton was the most important centre for oak swill basket making in this area. By 1890 there were 5 separate workshops in the 'town' employing 25 men in all, producing hundreds of baskets for use on the farm, in the mines, for loading and unloading ships etc.. We looked at the buildings at High Kepplewray where they were still weaving some baskets into the 1960s.

We visited the site of one of Cumbria's 70+ windmills, and peered over the wall into the wood to see what's left of the tower, although Charles Rowntree's collection of photos of the mill, past and present, made things a lot clearer. On the other side of Broughton we saw more of the use of water, where a small stream had in the past served 3 different tanneries, the first of which was built before 1750, the last still working in 1882. Presumably they were not all operating in the same period, otherwise each would have been using the polluted water of the next upstream.

We looked at the impact of the railway on the 'town' as first the Furness Railway was extended to it in 1848, followed by the line south from Whitehaven in 1850, and then as a station on the Coniston Railway when a new platform and station was built to the north of the original site, which later became the goods yard.

On the way we saw the cattle market, an old petrol pump, the new Square built in the 1760s, 'ancient' graffiti on rocks in the railway cutting, and the two big houses where managers of the Hodbarrow mines found it convenient to live. We began and ended the walk at the Donkey Rocks quarry, a fascinating geological feature and unusual place name.

#### THE 1914 – 18 WAR

Another viewpoint on the Submarine Bombardment of Lowca, West Cumberland on 16<sup>th</sup> August 1915 and some interesting Statistics on Submarine.

By J Y Lancaster

It is now 100 years since this happened. Recently I have unearthed a report which has been buried since 1968 when F.J.Carruthers, editor of the West Cumberland Times wrote an excellent article "The night a U-Boat surfaced to shell Lowca". At this time his article was discussed with Messr's R.D.McGowan, Director Workington I & S Cos Ltd and earlier Manager of the United Coke & Steel Companies Ltd and previously manager Lowca Chemical Plant and Mr A.Dodd current Manager of the Lowca Coke & Chemical works and myself.

We had been collecting information regarding the 1915 raid on Lowca for many years. We showed Mr F.Carruthers a paper which we had recently found on Chemical Manufacturing in West Cumberland which he referred to in his article as a "top secret" plant which would make toluene, the basic ingredient in T.N.T.

In the early 1900's, the German firm of Carl Still of Reckinghausen were offered a contact to build a Coke Oven & Chemical Plant at Lowca, near Whitehaven. Basically it was to make metallurgical coke for the local blast furnaces and to maximise the products from the coke oven gas.

At this time it was exceptional for benzole to be recovered at the gas works because of the reduction in the calorific value of the gas. At the Coke Woeks this did not apply and it was more likely to abstract benzole from the gas. The recovery averaged some 2.70 gallons per ton of coal carbonized and about 8% of this was toluene. The crude liquid was refined by fractional distillation and chemical treatment to produce three fractions containing respectively benzene, toluene and a mixture of xylenes, benzene being the major product.

My mentor Mr D.R. Wattleworth, manager at Lowca for a few years before moving to the new Coke Ovens at Moss Bay, Workington in 1936 spoke highly of the Koppers, German plant, who took over from Still's around 1910. Many of the German workforce spent their weekends touring all over the county usually in pairs on sit-up and beg bicycles with large plate cameras on their backs. They were observed taking photographs south of Egremont, north of Workington and camping near the top of Honister Pass. The Germans were very well acquainted with West Cumberland when they left for home in 1913.

Mr Wattleworth commented that relations with the foreign work force (Germans) and the local populace was always good and a few marriages took place.

Late in 1913 a Canadian, Mr Winfield B. Sifton arrived in Lowca with official authority to discuss a proposal to take benzene from the Lowca works and erected a plant to convert it into Toluene.

This conversion was a well established laboratory procedure. Every organic chemical student has at some time learned of the Friedel & Craft reaction which methyl groups are added to the benzene ring. It had never been carried out on a commercial scale before and even in the laboratory it resulted in Xylene being produced as well as Toluene and the conditions required to give maximum conversion of Benzene to Toluene were at that time unknown.

Mr Sifton insisted and implied that all such problems had been resolved and his air of confidence, backed by the support of the Ministry of Munitions lead him to being leased a suitable site of the sea brows about 400 yards south of the Micklam Brickworks. The design and erection of the plant was in the hands of Blair, Campbell & MacLean of Glasgow, a well established chemical plant manufacturers and it was duly completed and the necessary supplies of methyl alcohol and aluminium chloride assembled.

The first trials were a complete failure and resulted in visits by officials and chemists of the War Ministry who immediately condemned the whole process and that was the end of it.

Sifton was a very wealthy Canadian of high social standing. His father, Sir Clifford Sifton held high office in the Canadian Government. The Sifton family were on intimate terms with people in high places and there is no doubt it was through these contacts that the Siftons got support for this scheme.

A major point is that the Germans were still at Lowca when the field was being "pegged-out" for this new enterprise. It was thought at that time that they could have possibly left being unaware that they had seen the start of useless unproductive piece of plant. Does it not beg the question their were no spies on the Cumberland coast helping Schneider in the U24?.He reported back to Kiel unharmed saying that he had completed what he was commissioned to do.

It was never proven that Mrs Burnyeat was involved with flashing lights and was possibly held in custody for her own safety being released after a short time to tend to the needs of. her dying husband.

Mr Arthur Dodd the last Manager at the Lowca Chemical Plant brought a steel nose cap from a German shell down to the Moss Bay Plant for the Managers to see. It was found red hot by the Parton Stationmaster Mr.Twentyman on his way to stop an oncoming train. My notes say the cap belonged to a Mrs. Powley of Queen Street, Workington. At first the nose cap was claimed by the Government but it was later returned to Mr.Twentyman , the Stationmaster with a reward of  $\pounds 5.00$ .



Outside of my local interests of World War 1 I have been mortified at the appalling loss of life on every front. The first Battle of the Somme in N W France (1 July-! 9th Nov) developed into one of the bloodiest battles in world history with more than a million casualties When the Allied advance was abandoned they had only advanced less than 10 miles from their previous positions.

In 1916 the Battle of Jutland off the Denmark coast between the British Grand Fleet and the German High Seas Fleet Though the battle itself was inconclusive the Germans withdrew their fleet to port and turned to unrestricted submarine warfare.

The Somme and Jutland were possibly the most horrifying confrontations in history.

The Germans put 329 submarines into World Warl losing 179 boats would suggest nearly 5,500 German seaman would have been lost.

The submarine which sank most Allied Shipping was the U38 under four commanders. The most successful was Commander Max Valentiner who may have sunk more than 142 ships (more than 350,000 g.t). This submarine sailed back safely to Germany and was scrapped at the end of the war.

During World War I almost 5,000 Allied vessels had been sunk by U boats with loss of more than 150,000 mariners.

- 1. In the first five months of the War (Aug to Dec 1914) total tonnage sunk was 312,672g.t.with the month of September highest at 98,378 g.t.
- 2. In 1915, 1,307,996 g.t. went down with Aug having the heaviest losses of 185,866gt.In this month was the time when the U 24 bombarded Lowca Chemical works when her Captain thought was a T.N.T plant which had never been built.

The U 24 sank 34 vessels totaling 106,103 g.t. and damaged three others. She also sank one of the largest ships sunk by U boats, HMS "Formidable", 30 miles south of Lyme Regis .Out of the crew of about 711 men about 550 souls were lost.

The table below shows the Allied Tonnage sunk by German Submarines

Month	1914	1915	1916	1917	1918
January		47,981	81,259	368,521	306,658
February		59,921	117,547	540,006	318,957
March		80,775	167,097	593,841	342 ,597
April		55,725	191,667	881,027	278,719
May		120,058	129,175	596,629	295 ,520
June		131,428	108, 85	687,507	255 ,587
July		109,640	118, 21	557,988	260 ,967
August	62,767	185,866	162, 74	511, 73	283 ,815
September	98, 378	151,884	230, 46	351, 74	187 ,881
October	87, 917	88,534	'353, 66	458, 55	118 ,559
November	19,413	153,043	311, 50	289, 21	17,682
December	44, 197	123,141	355, 13	399, 21	
Total	312 672	,307,99	2,327 32	6,23 87	2,666,942
Grand Total 12	2,850,	815 gros	s tons		

On August 19th Lieutenant-Commander Schneider passed by the White Star liner "Arabic" bound for New York with 181 passengers including many Americans in addition to her crew of 248 hands. He torpedo the "Arabic" and in 10 minutes she was gone. By excellent management and discipline 163 passengers and 226 of the crew were saved by the ships own life boats and after sailing only 9 miles they were rescued.

In some reports which said this was the last vessel the U24 sank which was only partially true She was engaged with armed yacht "Zarefah" and in the North Sea she captured a Norwegian ore carrier and took her as a prize into List.

Previously on June 15th the 8825 ton "Armenian", a horse/mule transporter was sunk off Trevose Head, Cornwall. Originally this sinking was at attributed to the U38. Only very recently, I think with the help of a little German information it was corrected to the U 24. It appears that Schneider spoke to the ships crew in an unfortunate manner and the ship attempted to escape without success. Most of the crew of twenty nine were lost together with 1,400 mules which were on route from the USA to France.

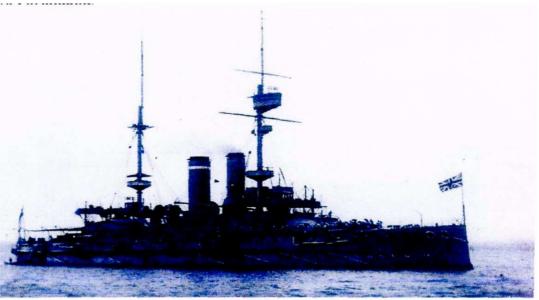
The information was very well reported only very recently in a TV episode of "Deep Wreck Mysteries" showing the wreck and successful location of mule bones by a wreck archaeologist ,Mr Innes McCartney.

3. 1916 saw losses of 2,327,326 g.t. with October and December reaching 353,000gt each.

- 4. The heaviest losses were in 1917 when 6,235,878 g.t. of shipping were reported with April the worst month ever at 881,027g.t.
- 5. In the last eleven months of the war total shipping losses of 2,666,932g.t. were recorded with March 1917 the worst with 342,577g.t.

6.Another interesting incident point is the U24 vs second kill was its most significant, the sinking of the 14,685 ton HMS Formidable battleship on 1st January 1915. When trying to run her aground after being struck she was hit again by a second torpedo. The rough sea conditions off Start Point in South Devon made help very hazardous .A Brixham trawler lifted 71 crewmembers and another pinnace saved 70 men only 48 getting ashore after being in the stormy seas for 22 hours. The total loss of life from the U24's action was 512 men and 35 Officers from a 780 complement.

H.M.S. Formidable



Both the Paul Jones attack on Whitehaven on 13th April 1775 and the one on Lowca on 16th August 1915 produced little damage but as public relations exercises were tremendously successful.

Outside of my general historical interests in the Great War and particularly in the U24 attacking my own county for the first time ,my curiosity broadened reading that nine ships built by the Brocklebanks of Whitehaven had been sunk in the War.

I have always been mortified by the sadistic savagery and dreadful loss of more than 8 million lives lost souls. No one could ever predict that what started with an assassins bullets on the 28th January 1914 killing the heir and his wife to the Serbian throne, a minor kingdom, would lead to four and a half blood soaked years of total war involving 32 countries.

## Some estimates of the combatants<sup>1</sup> losses:-

British Empire just less than 1 million France nearly 1.4 million Italy nearly 500,000

Russia 1.7million Austria-Hungary 1.2 million Germany 1.8 million Turkey 325,000 U.S.A. 115,000

From 1963 onwards I have visited more than 15 museums and War Grave sites in Europe. Ypres in West Flanders was a starting place where three major battles took place and where the Germans used both Chlorine and Mustard Gas and half of the 160,000 British troops involved were killed or injured. Later in 1917 at Passchendaele in battlefield swamps Canadian infantrymen gained a mere 5 miles with enormous loss of life. The many grave sites in this area are simply awesome. Thousands and thousands of white crosses in the graveyards have perfectly straight lines in every direction, many without names but the majority with ages 17 to 22 years. The Menin Gate in Belgium where countless thousands of reinforcing troops passed through in the 1914-18 War had a War Memorial built there in 1927 to the lost lives of serving soldiers. The names of many Border Regiment soldiers are commonplace and terribly disheartening. Every night at S.OOp.m a bugler sounds "The Last Post" and individuals from world wide countries recite poetry vilifying future wars. The first World War is remembered for its horrific casualties. Today it is estimated that those served more than 40% were either killed or suffered serious injuries. The memory of this war has haunted British Society for many decades.

J Y Lancaster was Senior Technical Officer at Hindustan Steel works in West Bengal, India before becoming Archivist/Records Manager for Scotland /N England with the British Steel Corporation.

Acknowledgements:- John Lawson. John Whitwell

#### **COMMITTEE MEMBERS DETAILS**

Roger Baker, 3 Sun St Ulverston Cumbria LA12 7BX mbarb@freenetname.co.uk

Mr Ron Lyon Chrondrenn Church St. Skirwith Penrith CA10 1RO Chrons12@btinternet.com

Geoff Brambles, Chairman 21 Derwent Drive Kendal LA9 7PB

Mrs Helen Caldwell, Secretary Low Ludderburn Cartmel Fell Windermere LA23 3PD lowludderburn@btinternet.com

Mr Dan Elsworth, Publicity Officer 6 Town Street Ulverston LA12 7EY dwelsworth@cooptel.net

Mr Robin Yates Membership Secretary Glenrae Brigsteer Rd Kendal LA9 5DX Bill Myers 20 Lord St. Millom Cumbria LA18 4BL bill.myers@nwemail.co.uk

Mr David Powell 45 High St Workington CA14 4ET daipowell@btinternet.com

Graham Brooks, Bulletin Editor Fairhurst Aglionby Carlisle CA4 8AQ solwaypast@yahoo.com

Alan Postlethwaite, Treasurer 17 Railway Terrace Lindal-in-Furness Ulverston LA12 0LQ mandatelsop@btinternet.com

Dr Ian Hill 5 Parkside Drive Arnside Cumbria LA5 0BU fi.hill@btopenworld.com

Mr David Beale, Minutes Secretary, Low Row Hesket Newmarket Wigton CA7 8JU



A VIEW DOWN ON TO CARROCK MINE. THE SITE FOR THE JULY FIELD VISIT.