



PRESIDENT - *Sir Kingsley Dunham F.R.S.*

NEWSLETTER NO. 31

SEPTEMBER 1994

By the time Friends receive this newsletter we will be nearing the end of a very full and successful 10th Birthday season at Killhope. You can read all about it elsewhere so may I simply remind you about the events which remain.

Saturday 1st October

"Recent Archaeological Work in the North Pennines" - a day school at Killhope organised by Friends of Killhope.

Wednesday 12th October

"Weardale in Old Postcards" - a talk and slide show by Peter Natrass.

Wednesday 9th November

"Britain's Old Metal Mines" - a talk and slide show by Trevor Bridges.

For further information on any of the above ring Killhope on 0388 537505.

ANNUAL GENERAL MEETING

Our Ninth Annual General Meeting took place at Nenthead Village Hall on a wet and chilly morning. The temperature no doubt contributed to a brisk and businesslike meeting at which the following officers were elected.

Ian Forbes, Chairman & Project Officer; Dorothy Chambers, Secretary; Bill Grigg, Treasurer; Bryan Chambers, Newsletter Editor; Trevor Bridges, Pam Forbes and Richard Turner, Committee members. Elected at previous meetings were Doug Tyerman and Dick Graham. All the above can be contacted via the Killhope number 0388 537505.

On our return to Killhope our Project Officer, Ian Forbes, showed slides illustrating the progress of the Park Level mine project and arranged to take interested members underground at a later date.

After Janet's usual excellent buffet lunch a good number of Friends faced most of the elements of the four seasons (except for sunshine) on a walk to the south and east of the site. Ian again led us round a highly interesting and varied route with Trevor Bridges adding geological tit-bits on the way. So ended another extremely satisfactory Annual General Meeting day for Friends of Killhope.

BRAINS TRUST

In July we held our "Brains Trust" with a distinguished panel of Sir Kingsley Dunham, Jim Foster-Smith and for the first time Brian Young of the British Geological Survey who members will already know as the respected judge of our Grand Mineralogical Exhibition. As usual we were thoroughly entertained and informed by reminiscences and answers to a wide variety of questions. The response to the first question: "Explain the relationship between a window damaged in the London blitz and the fault structure of the Northern Pennines" (!) setting the tone for another marvellous evening. Our grateful thanks go to our panel once again.

ANGLO-AMERICAN LINKS

Kevin Watson, author of Emigrants Corner in the last newsletter recently organised a gathering of some of his relatives from the U.S.A. and the North Pennines. They met at Killhope for a tour of the site and after tea at Stanhope an evening of music, poetry, drama and discussion was presented to up to 150 people in the Stanhope Methodist Chapel. It was a memorable occasion and it is hoped to develop the contacts already made. We will keep you posted.

A COURSE

The lead industry of the North Pennines Orefield - a University of Newcastle upon Tyne Centre for Continuing Education Course - Stafford Linsley. There will be 20 meetings beginning at 10.15 am on Thursday 6th October 1994 in the King George V1 building, Queen Victoria Road, Newcastle upon Tyne. Pre-enrolment is not necessary.

A CONFERENCE

I have early notice of a conference organised by David Cranstone on Industry and Agriculture : Post-Medieval Upland Landscapes in Northern England to be held at Van Mildert College, Durham University from 31st March - 2nd April 1995. Booking forms from Eric Instone, SPMA Conference, The Cranstone Consultancy, 267 Kells Lane, Low Fell, Gateshead NE9 5HU. I hope to give fuller details in the next newsletter.

AN APOLOGY

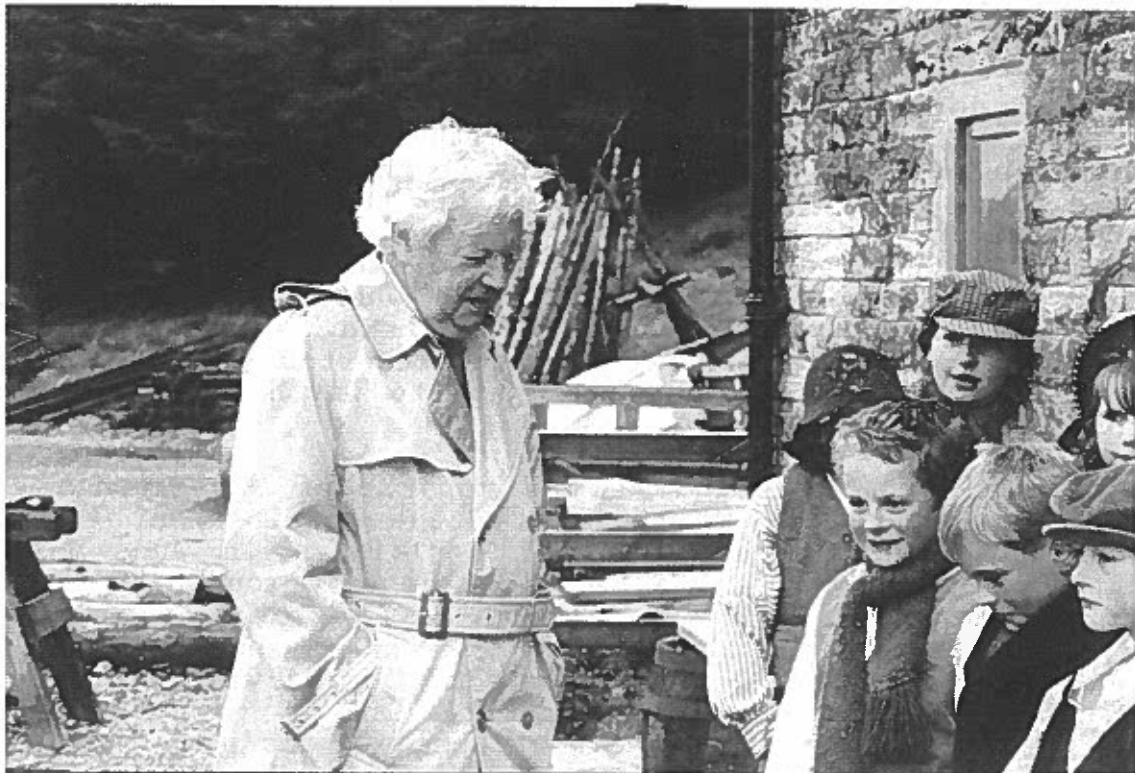
Due to a more than usual desperate rush to get this newsletter to the printers I have been unable to wait for a number of articles. I can assure contributors and readers that these will appear in the next edition and I apologise for any disappointment.

Though it is greatly premature we wish you all a happy Christmas and a peaceful New Year and likewise may we remind members that subscriptions for 1995 become due on 1st January 1995. A renewal form will be included with the next newsletter.

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KILLHOPE'S 10TH BIRTHDAY CELEBRATIONS

From left to right, Bishop David, Sir Kingsley Dunham and the Leader of Durham County Council, Don Robson during our President's speech of welcome to the Bishop
(Photograph - Bryan Chambers)



Bishop David and some of the 10 year-olds who entertained on the day
Photograph - Bryan Chambers

Nigel Chapman

MR. WESTGARTH'S WATER ENGINE.

In 1774 James Dickinson as agent for the Blakett Mines appointed Westgarth Forster as the second agent for the Coalcleugh area. These mines were then being developed and were exploited with renewed determination. In 1765 Westgarth Forester designed and built the first hydraulic engine for pumping in the country. He erected the engine at the Coalcleugh Mines pumping water from the workings. The fame of this unusual form of engine spread far and wide, attracting Engineers to the North Country to view the mines and the engine.

During the same year a Swedish Engineer by the name of Gabriel Jars on a tour of the area visited the mines and noted the engine in the following terms. "But to raise the water from a greater depth it is their intention to profit from the water which passes in great quantities through the upper level to work a machine of a new type the principle of which has been suggested by the fire engine. It is proposed to have a similar cylinder but instead of the column of air, the weight of the atmosphere, they intend to construct upon the piston a very great column of water."

The design was successful as four engines were in use at Coalcleugh in 1768 and others were used in Rampsgill and Middlecleugh mines. The fame of these engines eventually reached the ears of James Watt in Birmingham by 1787.

Having developed the Newcomen atmospheric engine into a true steam engine, James Watt along with Matthew Boulton commenced building and supplying steam plant to those in a position to pay for them. They built an engine to fit the buyer's requirements, then expected a yearly royalty based on a third of the cost saved by the use of their engine instead of the wasteful Newcomen. This royalty was payable when the engine actually worked and depended on information being supplied to Boulton and Watt. To protect their royalty, reporters were recruited to check on any illicit operation and to watch for infringements of Watt's patents.

It would seem likely that the reports of Westgarth's engine were considered as a possible patent infringement and a Mr, Hamilton visited an engine at Coalcleugh in June 1787. He produced a drawing and a technical description which are still in existence.

A timber beam with an arch head at each end was pivoted in the centre and 22 feet long. Probably an 'A' frame of timber carried the beam with a chain attached to the pump in the shaft at one end. The opposite end was also attached by a chain to the wooden piston in the hydraulic cylinder. Water from a stream was fed into a cistern of 4 feet square by 2 feet deep placed on top of the cylinder. As the weight of the water

flowing into the cylinder it over-came the weight of pump rod and water in the shaft, the piston was pushed to the bottom of the cylinder and the mine water was pumped. When the plug rod hanging from the shaft end of the beam lifted the horizontal rod a valve at the cylinder base released the water into a second adjacent cylinder and the return stroke commenced. The weight of pump rods in the shaft over-came the decreasing weight in the cylinder and the pump rod descended, filling the pump for the next stroke. As the pump rods got to the base of the pump, the valve would have been closed by the horizontal rod and the water again commenced filling the cylinder.

As can be seen on the drawing the engine was erected on the surface of the mine and was lifting water from a shaft of 30 feet deep. Probably with an engine of this construction the rate of working was about a stroke a minute or so, depending on the flow of water into the hydraulic cylinder.

Many of the known examples had a large tank instead of a cylinder to hold the water and provide the hydraulic effect. Useful for removing small quantities of water from a mine without incurring large costs, they were gradually replaced by improvements in the capabilities of true hydraulic engines using high pressures derived from long columns of pipework. Improvements in the early nineteenth century in water wheels made these primitive engines obsolete.

Known in later years as a 'Tom and Jerry' or 'Flop Jack' engine, these basic hydraulic machines were used at mines across the country, but little remains of them today. The only existing example stands over a shaft at the Wanlockhead Lead Mine Museum in Scotland. It has been preserved and can be visited in normal Museum hours.

An example of 1783 is mentioned underground at the Ecton Copper Mines in North Staffordshire and illustrated on page 28 of a book about these mines. At the Llandudno Mines in North Wales a surface 'Flop Jack' was used about 1834 to power a line of flat rods over the Great Orme. However the system was soon replaced by a steam engine which was able to crush the ore and wind from two shafts.

REFERENCES.

A letter in the Boulton and Watt Collection in Birmingham Reference Library.

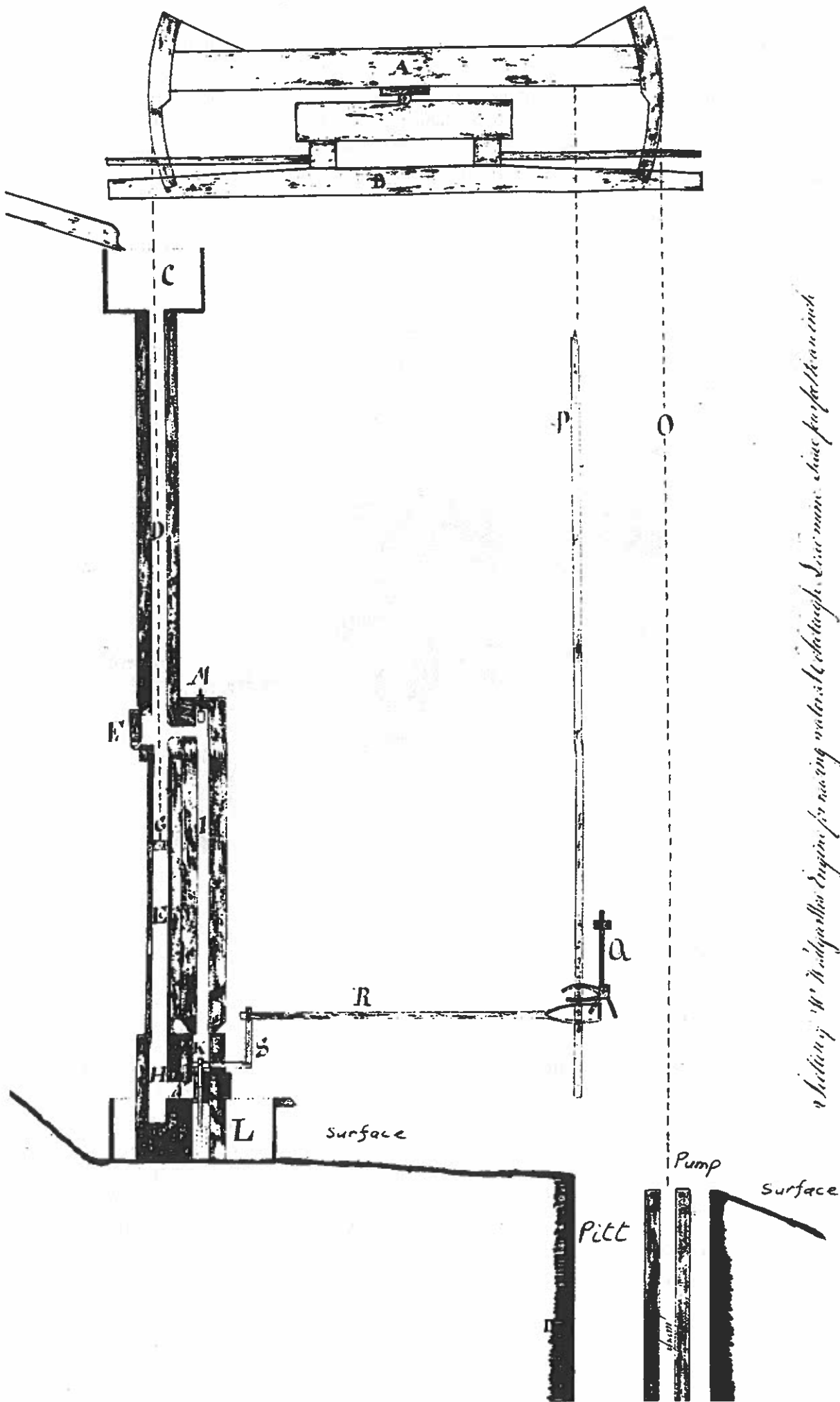
The Copper & Lead Mines of Ecton Hill. Staffordshire. by J. A. Robey & L. Porter. 1972.

The Old Copper Mines of Snowdonia. by D. Bick. 1982. page 96.

EXPLANATION OF THE SECTION OF MR. WESTGARTH'S WATER ENGINE.

- A. The beam 22 feet long.
- B. the spring frame and supporters.
- C. the top cistern 4 feet square by 2 feet deep.
- D. the conduct pipe 8 inches diameter, 22 feet long from cistern top.
- E. the cylinder for pistern 9 inches diameter 12 feet long.
- F. a door for changing the pistern.
- G. the pistern of oakwood about 8 inches thick.
- H. the bottom piece, 4 inches long 10 inches diameter.
- I. the 'collateral' pipe, 6 inches diameter.
- K. the valve piece, 5 feet 6 inches long 10 inches diameter.
- L. the bottom cistern 7 feet square and 2 feet 6 inches deep.
- M. the regulator, a plug of wood with a screw through the top 'Collateral' pipe.
- N. the valve of brass 6 inches diameter, 13 feet long, $\frac{1}{2}$ inch thick of brass.
- O. the pump rods which go down the pump, 7 inches diameter and 30 feet long, to the bottom of the pit where the lead ore was met with.
- P. the working plug about 3 inches square,-as a fire engine.
- Q. the Y with its turns as in the figure, to be turned and returned by each stroke of the engine -the same as a fire engine.
- R. the communication rod-as a fire engine.
- S. the elbow joint for raising and depressing the valve, by means of the iron rod from K. to Q. which rod is fixed into a joint, arc of a cross rod which goes across the middle and through the side of the pump and this cross rod has an upright stalk from the middle of it to the valve to give motion to the outer cylinder of the valve, and stop or lift off the water.

If you were a member of Friends of Killhope in February 1987 you may just remember that Newsletter No. 7 contained an article by Ian Forbes called Mr. Westgarth's Static(al) Engine. Ian gave a brief account of the work of William Westgarth who was one of the Blakett's agents in the 18th Century.



A section of W. Hodgkiss's Engine for raising water at Edinburgh. See note above for full description.

WASHING RAKES**Harold Beadle**

Primitive or simple washing rakes in Upper Teesdale came in all sorts and sizes, their use ending with the one at Coldberry in Hudeshope Valley in the early 1930's which is well documented. (1) Those I remember being used are listed below using the names by which they are known by those who used them or worked there. Some of which may not be found on any of the ordnance survey sheets. However, grid references are given which are all in Square NY to assist in location. (2)



Small lead washing rake which can still be seen on The Bands in Harwood-in-Teesdale
(Photograph - Harold Beadle)

With the exception of New Lady's Rake and Coldberry which were used for washing and dressing lead ore all the others were used for barytes. A great many others have been destroyed by later mining and dressing operations or have just disappeared because of natural erosion, but none in more spectacular circumstances than two well preserved ones at Langdon Head which were completely obliterated by the great flood which took place in the evening of Sunday 17 July 1983 when pieces of peat nearing a ton in weight were washed all the way from near the watershed over a mile down the valley and deposited below the bridge carrying the road from Langdon Beck to St. John's Chapel. Now after 11 years, these can still be seen as weathered mounds.

One of the ancient survivors which I discovered, I partly restored and photographed 26 August 1969. this can still be seen in an old hush immediately above Peases Cottage in Harwood (828 334.) In size it is only 3' long x 2'6" x 1'. The trunk (settling tank) which can still be seen but which was not excavated continues below the knockstone about the same width. Apart from the knockstone the floor was of timber which was completely rotten and came out in handfuls liberally impregnated with fine lead which still glistened when washed in a bucket of water.



The section of the washing rake at Coldberry where the ore was first washed and dressed as far as possible by hand after which the remainder was crushed and screened for treatment in the hotching tubs. The men engaged are, from the left, Clary Watson, Jos Watson (Joe Gargate behind) and Tom Allinson. (Photograph - Harold Beadle)

This must be one of the smallest early lead washing rakes discovered and one is left to speculate as to whether or not there was every anything more to it than what can be identified today. In my opinion there would not be unless it was a small bunning on which to store the dressed ore, and it may well have been used by one of the old miners of whom it was said that, "If a man could get in a week as much yur as he could carry home on his back on a Friday night he was doing well." (3)

All the washing rake floors listed were of either timber or flags which sloped slightly towards the open end or side, whichever design was adopted. The usual procedure was to wash the ore by turning it over and over as the water flowed through it and when it was clean shovel it on to a bunning where hand packing played an important part in the

separation procedure. Then there was the trunk, sometimes large, depending on the amount of fines produced which, when it was full, was cast back on to a clean floor where it was reprocessed, using a controlled amount of water which ran over the evenly distributed ore which was raked or scrubbed at right angles to the flow. This was a simple method of buddling fines which resulted in the dirt and light material being washed away and the heavy ore being retained on the floor which was then shovelled on to the bunning.

The extensive treatment used in the dressing of lead ore in order to recover the maximum amount possible was rarely, if ever, used in the dressing of bartyes.

Notes:

- (1) See photographs Nos. 21 & 22 in Mining & Smelting in Teesdale C.I.A.S. Research Report No. 3, 1980.
- (2) (a) Little or nothing is now to be seen at most of the sites.
- (b) Washing Rake is the name given from early days to any place where the washing and dressing of ore was done. The third verse of the old miners song, Fourpence a Day, written many years ago ends thus, "So we had to go to the washing rake for fourpence a day." Dick Watson's poem, My Journey to Work, says that his journey ends, "...going down an easy gentle slope, I reach the Lake (rake) of Little Eggleshope."
- (3) M & S in Teesdale pp 3-4, "Yur" or "Ure" This name was being used in Teesdale to describe lead ore as early as 1563, when Roger Baynbrig bequeathed unto his master, " ten lodes of ure at ye newe grove in Eglishop." Miners in Teesdale until early this century always called lead ore (undressed or dressed) "Yur."
- (4) "By hand" indicates that the washing and dressing was done by the use of one or more of the following tools; shovels, buckers, ore hammers, colrakes or scrubbers, but without any mechanical appliance such as a hotching tub.

Footnote:

Seeing that washing and dressing tools are mentioned I enclose a photocopy of an account rendered by Wolsingham Iron Works to Jacob Allinson dated 25 April 1856. Allinson was then engaged by mining at both Langdon and High Skears. It will at once be apparent that the shovels are sold by weight at 5d per lb and the colrakes at 10/- each and that this was entered in the Mine Day Book page 125.

Washing Rakes

Listing begins at the head of the dale

Name	Grid Ref	Brief details including approximate size where known and when last used. Washing and dressing was entirely by hand with the exception of Coldberry (4)	Last User
New Lady's Rake	803344	Walled dressing floor 15' X 10' open at one side where the ore from Sir John's Vein was dressed until 1927	Harwood Mining Company
The Bands	830332	Walled dressing floor 10' X 6' open at one end where the ore from Bands Vein was dressed until 1924. The only protection from the weather was a fleak	Towards of Bowes Close
Dubby Sike	795319	Large dressing floor backed by a battered wall with walled ends and an open side protected by a roof, where the ore from Dubby Sike Vein was dressed and stored on a very large bunning until the early 1920's	Hedworth Barium Company Ltd
West End	810311	Floor 12' X 8' with battered walls on three sides used for the dressing of ore from the higher parts of Winter and Green Hush Veins until the early 1920's	ditto
Low Level	811305	Large washing rake sheltered by a roof with battered walls on three sides with a very large bunning used for the dressing of ore from the Winter Hush Vein until the early 1920's	ditto
Cow Rake	824313	Large washing rake which was fairly well protected from the weather by a roof with adjacent dam and dwindling remains; which dealt with the ore from four veins. Holmes, Middle, Hopkins and Isabella. latterly used as a washing rake and collecting point for all the Cowgreen barytes which was then transported by overhead ropeway to the main road above Langdon Beck Hotel, ending in 1927	Harwood Mining Company
High Hurth Edge	864313	Small dressing floor 8' X 4' with bunning where the ore from High Hurth Vein was washed and dressed until 1929. Sheltered only by a fleak	Bowlees Quarry Company
West Binks Edge	886308	Small dressing floor 8' X 4' with bunning where ore from West Binks Edge Vein was washed and dressed until 1927 sheltered only by a fleak	ditto
Coldberry	941292	A large washing rake equiped with a section where the ore was first washed and dressed in a shed by hand as far as possible. Any which could not be treated by hand was then crushed, screened and separated in a large double hotching tub. There were also large bunnings which were used for both run of mine ore and dressed ore. Operations ceased in the early 1930's	R.W.Raine & Son

WOLSINGHAM IRON WORKS,

Wolsingham, 25 April 1856

Mr Jacob Allison

BOUGHT OF R. HALL & CO.,

MANUFACTURERS OF

SPADES, SHOVELS, EDGE TOOLS, NAILS, CHAINS, HINGES, &c.

6	Washing Ho's	24 1/2 lb	25	10	2
6	do	bolts	10	5	1
				15	2

25	10	2
10	5	1
	15	2

DB

125

Jr Mr Allison



With any mention of the Blakett family in a lead mining context most of us tend to think of the Newcastle merchants and W.B. Lead. I suspect far fewer realise the family actually had origins in Weardale. This is revealed by recent research by and on behalf of one of our members, Les Blakett of Wearhead.

These "Weardale Blacketts" are thought to be the only remaining ones in Weardale and their lineage can be traced back to Edward Blakett who was born in 1557 at Hoppylands near Wolsingham. Sir William Blakett who was M.P. for Newcastle from 1673 to 1680 and its Lord Mayor was his third son.

This delving into his family history prompted Les to add some detail about his father's life in mining. This is his story:

THE BLACKETTS OF WEARDALE

Les Blakett

I know very little about my family until my father's time. My father's father Cuthbert was a colliery engineman with the heavy responsibility of controlling the cage in the shaft at Randolph Colliery at Evenwood.

My father, Alfred, was one of 10 children, of whom 3 didn't survive beyond childhood. He and his 2 brothers started work at the pit straight from school but sometime before the war his parents and 3 daughters left in search of work settling near Rotherham where some of the family still live today.

About this time my father started travelling into the countryside on a motorbike and side car. He met my mother, Eva at a dance at St. John's Chapel and they were married at Wearhead in 1941. My father was still working at Evenwood so they went to live there. His great ambition in life was to go to war in a submarine but as a "Bevan Boy" he had to settle for work underground!

After the war my parents moved to Far End Cottage at West Blackdene and father worked at Harthope Ganister Quarry for a couple of years followed by a similar period at Sikehead Quarry.

After Sedling mine was closed in 1948 the Weardale Lead Company decided to sink a shaft 90ft deep onto the Burtree Pasture Water level, clean out the level and from it explore the small Coptheugh vein for fluorspar. My father got work on this project but when little spar was found the venture was abandoned.

In 1954 he was labouring to a bricklayer building the then new filtration plant at Wearhead. The chance of bricklaying work nearly tempted him to move to Whitley Bay but my mother would have non of it. After the filtration plant was finished he got a job at West Blackdene Fluorspar mine then run by United Steel.

In 1958 I was born and 6 weeks later we all moved to Vedra Close, Wearhead.

One of my father's joys in life was to play the euphonium and while with Stanhope Band he once received a standing ovation for a solo at the Royal Albert Hall in London.

He worked at Blackdene until he was forced to take early retirement due to ill health in 1968 and after a long illness died in 1978 aged 61 years.

Some of our relations emigrated to the U.S.A. and my father remembered the family receiving coloured postcards from them in the 1920s.

My relationship to Sir William Blackett is uncertain but 14 generations can be traced back over 450 years from my children to Richard Blackett in 1540. (Richard's great grandson William became the first Baronet in 1673.)



Alfred Blackett loading a tub from a hopper on the main horse level, Blackdene Mine 1964-5. Photograph - Appleby Frodingham Steel Co/Branch of United Steel Co.Ltd

PROJECT OFFICER'S REPORT**Ian Forbes**

Killhope's tenth birthday year seems to be passing by in a blur of activity.

Your committee decided at the beginning of the year that rather than produce our own programme of celebrations, we as "Friends" would join in with staff at Killhope and County Hall based personnel to mount a communal series of events to mark this important anniversary for Killhope.

Thus many of the things I am reporting on here have been joint activities rather than exclusively "Friends" ones. However Friends have played a full and active part in everything that's gone on over the summer and I think this collaboration has been extremely successful.

The birthday party was launched in May by Dr. David Jenkins, then Bishop of Durham, now retired to Cotherstone and membership of the Friends of Killhope. Bishop David, as we expected, did us proud, setting just the right tone for the year with charm and humour. I must thank Ian Cundy for encouraging me to attempt to get Dr. Jenkins to speak to us and very special thanks to Sir Kingsley Dunham, our President, for persuading the Bishop to come to Killhope. With entertainment by local 10 year old schoolchildren in costume this was indeed a memorable day.

It has led us to so many other memorable days over the summer.

The annual quoits championship was as keenly fought as ever, but as always with great good humour. Did we set a world record in one match, when the age difference between the two competitors was 78 years? Jack Gardiner, one of our most senior members at 88, showed he can still throw a good quoit. The winner however was once again Joe Bean. Thanks to Peter Nattrass for organising the day.

The Tynedale Guild of Spinners, Weavers and Dyers weekend with Marjorie Grigg and her friends demonstrating - and encouraging visitors to try - traditional crafts, proved once again hugely popular, and it was augmented this year by demonstrations of sheep shearing by local farmers. We love having Marjorie's craftspeople at Killhope for they are so enthusiastic and willing to share and encourage others. Thanks to all of them for an excellent weekend. The sheep shearing aroused great interest, suggesting that this, too, should be an annual event.

Over the first weekend in September we held the Friends of Killhope Third Grand Mineralogical Display and Competition in the visitor centre. Although entries were down on last year, the quality of minerals on display was absolutely stunning and produced another different overall winner. Our congratulations to Roland Thomas, who takes the cup down to Surrey this year. As with many Killhope occasions one of the chief pleasures of the weekend was the "crack" - so many conversations between so many different people brought together by a common enthusiasm and a desire to learn more. As always a number of Friends helped organise and run the show, but I will single out a few. Brian Young was once again our expert judge - and we couldn't ask for a better one. Trevor and Shelagh Bridges produced an immaculate display of Lake District minerals and cheerfully and knowledgeably answered questions all weekend. And Bryan and Dorothy Chambers drew the short straw, sleeping overnight with the minerals, yet still smiling the next day.

Many of you will have seen the photographic exhibition "Rising from the Ruins" charting the history of the development of Killhope Lead Mining Centre which was held at Killhope in the early summer. A number of Friends supplied material for this, including Harry Parker who sent some of his superb portrait photographs, and Harold Beadle and Sir Kingsley Dunham who lent negatives of their early photographs of the site. Bryan Chambers also supplied a number of pictures, and Mary Bell lent us some old postcards. Freda Milburn helped me track down the story of the first volunteers on site - way back in March or April 1966. I hope we can tell more of this story in a later newsletter.

At the time of going to press we have held three meetings this year.. Stephen Robinson's superb slides, taken whilst exploring old mines enthralled his audience, as did some of his tales of adventures underground.

The Annual General Meeting is reported elsewhere, as is the "Brains Trust" which I was unable to attend for personal reasons.

Do try to come to our "Day School" on the first of October, and of course to the other Friends' autumn talks.

Behind the scenes at Killhope the development of the mine has been the big project of the year, taking up an immense amount of time. I have drawn freely on advice, equally freely given, from a number of Friends to help with the design of this project. In particular Brian Young has been a huge help with advice on all matters geological and mineralogical. Blue Circle gave us some vein material from Eastgate works which a small working party collected one hot summer day (remember them?) Dorothy Chambers located a ventilation fan, and put the County Council and Tursdale Engineering in touch with each other so they could sort our refurbishing and supply. The underground waterwheel project continues, but we'll say more of that in a later newsletter. Sufficient to say for now that Dick Graham continues to work minor miracles on our behalf.

Although work on other areas of the site has been slow this year, largely because of the mine, some work has been done on the jigger house. Les Blackett and Phil Murray helped with some pipework here, and Bryan Chambers and Russ Parkin went down to Littleborough, near the M62, to buy a large number of flat belts. We're still looking for pulleys.

I should record a number of donations briefly, but one very special one deserves pride of place. Earlier in the summer, Jean Cripps of Delaware got in touch and said she would like to donate something to Killhope. When her great-grandfather Joseph Graham emigrated to the United States in 1852, he was followed shortly afterwards by Hannah Peart from Allendale, whom he subsequently married. Amongst the things Hannah took with her from England was her own hand-stitched quilt - and it was that Jean wanted us to have. So, in August, she and Harry flew over to England to give us Hannah's much-treasured quilt. It was really good to see them again, and they spent a very happy few days with us. In due course Hannah's quilt will go on display at Killhope.

We continue to get donations to the Friends library, and Carol Sutton is, whenever she has time, continuing her cataloguing. Recent gifts have included a large photograph of Barbary mine and a framed section of strata from Harold Beadle, a collection of technical books and two London Lead Company bibles from anonymous donors, some old Weardale photographs

(including washerboys at Sedling) from George Batey, and an offprint of a lecture by Sir Kingsley Dunham. Doug Tyerman has transcribed some hand-written notes on various mining topics lent by Willie Watson.

Donations to the site have included pen-nibs from George Pickin, and a large bench-mounted hand-drill from Freda Milburn.

Finally I would like to thank everyone who has helped the Friends of Killhope over the last ten years. The "Rising from the Ruins" photographs showed very clearly how rapid the transformation of Killhope has been. We as Friends have played our part in that, but we have also contributed to something less tangible. The spirit of Killhope is that indefinable something that has been behind all the celebratory events of the summer.

Thank you all.

READERS LETTERS

Following Ian Forbes' recent note in the Friends newsletter about spar boxes I was wondering if members would be interested in this photograph of a Teesdale spar box which is now on display at the Bowes Museum.

It was made by Jacob Readshaw, Middleton-in-Teesdale's self-taught astronomer and pioneer photographer, in around 1865. The cabinet sits on a standard Victorian 3 drawer chest and has a glazed arched front showing a grotto scene made from fluorspar, calcite and quartz samples; a sense of depth is provided by a series of mirrors set between the minerals. The electric candle is a modern addition but real tallow candles may have been used by Readshaw to give a touch of theatre to his cabinet.

The cabinet is on display in The Museum's Room 8. Other items on display in the same room which may interest Friends include a slide from Old Gang Mine showing the strata in the mine, a Lead Company presentation bible, a set of miniature miners' tools in bronze and a compressed felt safety hat, very similar to the Cornish type, from the Teesdale mines.

John Pickin

Spar box on display at the Bowes Museum



KILLHOPE SUNDAY SCHOOL**Ian Forbes**

I have heard stories over the years about a Sunday school which used to be held in the mineshop building at Killhope but I was never able to find out much about it.

Then, earlier this year, Mr. Graham who lives near Brampton in Cumbria visited Killhope.

Mr. Graham talked to staff, and it emerged that he had, as a youngster, attended this Sunday school.

Shortly after this I wrote to Mr. Graham to ask he what he could remember about the building and the Sunday School.

He very kindly wrote back with some fascinating details of Killhope 70 years ago.

This is what he said:

"The room Sunday school was held up the steps same side as the mine entrance." (i.e. in what is now the office.) "The blacksmith's shop and stable was boarded up, the other room was open with part of the floor removed. The walls were plastered next to slates. Sunday school would close in 1921 or 1922, the bridge was unsafe, so we went to Lanehead Sunday school." (Remember there was no ford then, so the only access to the mineshop was across the cart bridge, which clearly was still surviving - though unsafe - in 1921.)

"Jonny Peart from Burtreeford was the teacher. The big wheel was covered in wood. All the machinery was in. The washing tables were made of metal, the building opposite was known as the pugmill. The waterwheel at the bottom"(i.e. the Brunton buddle wheel) "was used for washing lead, the troughs were made of wood. An open shed was there for weighing lead. Ned Peart from Lanehead may have worked there, as he looked after the water race and the place known as the Park in the early 20's." (I had heard before that the Brunton buddles might have been used by someone after the rest of the site had stopped processing ore.)

"Hoping this information may be of some help to you. I will call again this year and hope to have a look in the mine next year. I will be 79 years old shortly.

Yours faithfully,

E. Graham."

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