

IMPORTANTBRITISH MINING No.10. "THE MINES OF MONTGOMERY AND RADNORSHIRE"

Part five in Mr Foster-Smith's series on the non-ferrous mines of Wales is planned for publication in the late Autumn. As previously, this will be issued as a separate entity and not as part of members' annual subscriptions. The next volume will be in similar format to British Mining No 6 (Merioneth). Anticipated price to members and associates is £1.00 plus 15p postage. An order form is provided with this newsletter. Send no money now since the volume will be invoiced upon publication.

Proposed Amendment to Constitution

In accordance with Section 27, the Hon Sec gives notice of this proposed change to Section 16, to be voted on at the Annual General Meeting in February.

Section 16 shall now read - The management of the Society shall be conducted by the committee which shall consist of all Society officers. Three shall make a quorum. Full minutes will be brought before the next General Meeting.

November General Meeting

This has been altered from Sunday 12th November to SATURDAY 11th November to start at 2.00pm to precede the Talk-in at Sicklinghall, Nr. Wetherby.

REMINDERS

Annual Dinner - 7th October '78 at Harefield Hall Hotel, Pateley Bridge. Time 7.00pm for 7.30pm. Only £3.75 for a 4 course menu of traditional Xmas fare. If you've lost your booking form from the May newsletter send a letter with details of number in party and full money to Mrs J. Guthrie, 186 Station Road, Billingham, TS23 2RT no later than 23rd September, 1978. Don't delay its less than a fortnight away.

The Guest of Honour this year is Dr David Prime, Radiation Protection Officer, Manchester University. For those wanting to camp there is a camp site at Riverside Caravan Park, Lofthouse Road, Pateley Bridge NGR Sheet 91 SE 154657, and I believe that caravans can be had for the night at very cheap rates.

Photo Competition for Julian Holmes Trophy - for Black and White prints only (any size) held on an annual basis. The rules are very simple:-

Rule 1. The judge is always right in all his/her decisions, and has the final say in any dispute.

Rule 2. In case of any disagreement Rule 1 applies.

It goes without saying that all pix must in some small way be related to mining; be all the entrants own work; have been taken within the previous 12 months. There is a limit of 3 prints per entrant to be accompanied by 5p worth of usable postage stamps per pix. All entries will be displayed and judged at the Talk-in, and if you want them returned by post please send a stamped addressed envelope.

All entries to be with the Secretary - John McNeil, 12 Woodville Road, Brierfield, Nelson, Lancs BB9 5RW no later than 1st November, 1978.

Presidents Talk-in and Pie and Pea Supper - Saturday 11th November, 1978 at 2.00pm onwards in Village Hall, Sicklinghall, Nr. Wetherby.

If you have any slides come and show them to us, similarly any exhibits, photos, articles, plans, in fact anything of interest bring them along and let us see them. We could still do with a few more short lectures, so anyone willing please intimate on the booking form attached to the newsletter. This is an afternoon and evening do. ALL please bring a dish, knife, fork and spoon. - Most important.

Next Years Meets.

Meet leaders are required for next year, so if you are prepared to lead a meet let us know where and when. This information is required in good time so that a programme can be arranged and printed on your membership card in December. All replies to John Mc (address already given) or any member of Committee.

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North Wales Meet, Spring Bank Holiday 1978.

H. Houghton.

When we went to bed late Friday night we were beginning to think that it was going to be a select meet of 2 + a child + a dog. On waking on Sat though, we saw that there was no need to worry 'cos 2 more members had arrived during the night. However by 10 o'clock 8 of us were ready to set off, and as most had had a very early start it was decided to make the first day a local tour in the vicinity of the campsite.

From camp the track up to the Prince Edward slate mine was followed, passing through the old dressing shed and thence up a long incline to the mine itself (here being caught up by the 9th member of the meet). Most of the workings are flooded and so the time was spent looking round the old buildings forming the central features of the mine. These are laid out in streets and it is possible to distinguish between workshops and barracks, weighbridge and office etc, because a lot of the buildings are more or less intact. After lunch we continued across the head of the valley to the mines in Cwm-dwyfor. These were metaliferous mines, and the 'rook tappers' with us found copper, lead and iron ores around the shaft tops and dressing floors. A wet smelly adit was looked at but it only went a few yards, likewise 2 open shafts sounded very wet, going by the dropped rock test. The waterwheel pit and rod/rope arrangement to the top of what must have been the main shaft gave cause for speculation before some of us descended via incline and tramway back to camp for a sunbathe and swim whilst others went for a walk up to the ridge and sweltered round the peaks at the head of the valley.

On Sunday we went to the sea side for the day, to see the Granite Quarries at Nant Gwrtheyrn. The sea cliffs here have been quarried for granite setts and chippings. Inclines descend from the top of the cliffs passing through many interesting relics to the crushing and dressing plants down on the beach, thence to the remains of a jetty. The heat of the day was spent in bathing and sunbathing on the beach, mining activities being forgotten by unanimous vote. On the way back to the cars a village, abandoned when the mine was closed, was explored.

The evening saw a party go for a walk to inspect the waterwheel and pump and remains at Gylfach coppermines, on the way back down looking at a couple of levels that did not go very far.

Monday, being the last day for some, was spent in the Rhosydd slate mine, some saying it was too nice to go underground others that it was too hot not to. The underground party saw great chambers where the slate was mined, and climbed inclines to look at haulage arrangements and water valves, then to gaze out of massive cavern mouths into the quarry. After retracing our steps into the sunshine the extensive ruins outside the mine were explored, before making our way back to the cars. The sun worshippers had a trot round the surface remains in both the immediate vicinity and others further afield.

The mineral hunters then went to the lead mine at Bwlch-y-Plwmb. These mines cover quite a large area of hillside, the longest level is over 800 yards in length with many shafts and stopes. Many of the smaller levels are hard to find amongst the trees and bracken, though towards the ridge the vein is stoped out to the surface in several places. The valley sang with the sound of hammers.

The last day was spent at the Dorothea slate quarry, at one time the largest man made hole in Britain. When it was being worked the quarry was over 900ft deep and the workings below this level were pumped by means of a cornish beam engine (now restored and preserved on the site). This hole unfortunately is now nearly filled with water, though is still quite an impressive sight. Many of the main features of the mine still remain; including the owners house (complete with stables and tiled stalls, coach house and built in dog kennels), the cornish beam engine, engine house and boilers, as well as remains of the blodwins (overhead ropeways to lift the slate out of the quarry) and workers houses and mine buildings.

Future meet leaders please note, perfect weather can be arranged, with correct planning.

Help Wanted I

Oxford and Cardiff Universities are starting an Archaeological research programme to study the lead isotope ratios of British Ores. Since many Bronze Age artefacts contain lead it is thought that the lead isotope analyses of these could be correlated with those of the ores. We have been asked to help by supplying samples of galena and copper ores from as many localities as possible. If you have any spare lumps and would like to help please send your samples to the address below. Samples must be clearly labelled stating where they came from, preferably with a grid ref. A small piece, about one gramme, will be sufficient for the universities' needs.

Send samples to :- Mr C. Salter, Dept of Metallurgy, University of Oxford, Parks Road, Oxford.

Note

At the recent A.G.M. of the Council of Northern Caving Clubs it was stated that people are going down Mongo Gill Hole, Greenhow without a permit. This hole is often visited by N.M.R.S. members so if you are planning a visit please make sure that you go through the proper channels and get a permit. And remember that if you're caught without permission don't bring the Society's name into disrepute.

Hennock Iron Mine

"Report by Captain James Seccombe.

Liskeard.

31st December 1866.

Henry Blanchford Esq.

Sir,

Agreeably with your request, I have made an inspection of the Hennock Iron Mine and beg to hand you the following report thereon.

This sett is situated in the well known iron bearing ground to the north of Bovey Tracey, and has running through its entire length a large iron course. The former proprietors worked on the back of this to a considerable extent and sold therefrom an immense quantity of iron ore of very high percentage, and I learn that notwithstanding their having to cart the ore to Newton and forward thence by boat to Teignmouth for shipment, they derived great profit therefrom.

Having continued their operations as deep as the water would permit of they brought up an adit from the lower part of the sett and continued this for a few fathoms after which it was abandoned - probably in consequence of a depression in the trade at that time and the great expence of carriage - before the run of ore was reached. Since that time a railway has been opened from Newton to Mortonhamstead passing within a very short distance of the property, by which the iron can be taken at small cost direct to Teignmouth, thereby saving sufficient in cartage and haulage alone to leave a good profit.

Judging from the size, character, and productiveness of the lode where opened up at the surface, I see no reason for doubting the statements made as to former workings, nor that returns equal to anything previously done can be made if not far exceeding. To do this it will be necessary to open and drive up the adit level which course I recommend being adopted; by doing so you will be enabled to work without machinery, as it will both drain off the water and act as an outlet for the ore, thereby saving the waste and damage of land, and the cost of pumping, which open workings, as formerly adopted would entail.

After making careful enquiries of those who were engaged in the late working and who have now no interest whatever in it, and comparing their statements with what I have been enabled to see for myself, I have arrived at the conclusion that a Capital of £1500 will be ample for all requirements to drive up the adit and bring ore to market, and that when laid open returns of from 4000 tons to 6000 tons of iron per year may be calculated open, at a profit at the lowest calculation of 3/- to 4/- per ton.

I am Sir

Your Obedient Servant

James Seccombe."

Note. At this time, services of experienced mine Captains were much in demand for

consultancy purposes; eg the following mines have a Seccombe's shaft, East Caradon, Phoenix United.

During this time, Captain Seccombe lived at Pendowery, on the Tokenbury/Upton Cross Road i.e. the Liskeard/Launceston B3254 - ideally situated for the West Country mining area.

R. Shambrook.

The Old Metal Mines of Wales

At a recent well attended meeting at Dylife I offered to compile a list of all those with interests in the old mines of Wales. The suggestion was welcomed and will enable contacts to be made and support to be drawn for protection of sites, etc., should the occasion arise.

If you wish to be included, under the heading 'Interest', please indicate General, Industrial Archaeology, History, Underground Exploration, Machinery, Restoration, Minerals etc., also any particular mines or areas, plus any societies or clubs with allied interests to which you belong.

The list will be circulated in due course. Please enclose a stamped addressed envelope with your reply.

David Bick, The Pearly House, Newent, Glos.

Help Wanted II

Frances E. Mayne Elliott wants help with the following:-

".... I have been wondering if any research has been done on the Parton Hematite Iron Works, owned, I think, by Blair and Vance. This is Parton, Cumberland. I should be interested in learning anything known of this company which, I believe, was in operation about one hundred years ago."

All replies to above at Burrenarragh, Birr Point, Ballyhalbert, Co. Down.

The Graphite or Plumbago Mine, Borrowdale.

J.T.Crompton.

A short history of the Mine

The mine originally belonged to the monks of Furness Abbey. After the dissolution of the monasteries it was granted by James I to William Whitmore and John Vardan who by a deed dated 28th November 1614, sold and conveyed the manor except the Graphite Mine to Sir Wilfred Lawson and thirty six others. About that time, or soon after, the mine became the property of Sir John Banks.

The Graphite found in this mine is remarkable for its purity; indeed it is unequalled by any other of its kind in the world. It was at one time considered of such importance as to merit a special Act of Parliament for its protection, which was passed 25th George II cap 10 and states that the mineral is necessary for "divers useful purposes, and more particularly in the castings of bomb shells, round shot, and cannon balls" and makes it felon "to enter unlawfully any mine, or wad hole of wad, or black-cawke, commonly called black-lead or unlawfully taking or carrying away any wad etc., therefrom or buying or receiving the same knowing it to be unlawfully taken". Nevertheless a trade was carried on between miners and certain Jews who came regularly to the George Hotel in Keswick to buy it.

In the year 1800 it was deemed necessary that a house should be built over the mouth of the principal level, and armed men were kept on guard there during the night. The miners were stripped and carefully searched on leaving their work and when the graphite was sent to the company's warehouse in London an armed escort accompanied it as far as Kendal.

There are eight or more veins in the Graphite Mine, and these traverse a somewhat peculiar rock formation, consisting of a dyke of highly altered diorite lying between two masses of compact blue diabase. The rocks on both sides of these intrusive masses are greatly metamorphosed. The dyke of diorite extends about 300 fathoms in a N.N.W. and S.S.E. direction; it contains numerous quartz strings, and on one, if not both sides, it is bounded by veins. The Graphite occurs chiefly in the blue diabase, but partly also in the diorite and ash. Its origin is involved in great obscurity, consisting as it does almost wholly of carbon, it must have been derived either from vegetable or animal matter, but the rocks of the volcanic series contain very little carbon, and none of the beds of Skiddaw slate met with elsewhere contain more than a fraction of the quantity required to account for the masses found in this mine.

The deposits of Graphite are not found in the veins, as is the case with other minerals, but in sops or pipes of various sizes at some little distance from others. Multitudes of strings, glazed with graphite diverge from the veins in every direction and in some instances run parallel with them. Some of the strings terminate at a short distance from the veins, while others extend six or eight fathoms; and it is driving along these strings that the deposits are found.

In 1778 the price was 30/- or £1.50 a pound. Between 1778 and 1812 casks of the best graphite realised £251.6s 10d.

Around 1833 the pencil manufactures found imported graphite could be utilised for making pencils at a cheaper price, so it forced the mine in a decline. Although the mine has been worked at intervals since 1833 and a considerable extent of ground covered no deposit of value has been found.

John Postlewaite. F.G.S. 1913.

Meet Report 10/11th June.

The meet was very successful with about 20 members present on a sunny day. After a short walk along the river bank we climbed the fell to the second level entrance at about 950ft. called Gilberts level. We had a short rest here to get the blood pump back to normal after the shock it had just received. We entered the level into ankle deep water with quite a draught issuing out of the level. After about 50 yards we came across Anthonys Drift about 50ft long. The next drift was on both sides of the level and called Stevens Drift, both about 50ft long.

Our next opening in the level is about 150yds in and is called the Grand Pipe.

It comes from the surface about 150ft above Gilberts level and passes below the level, but a fair pile of rubble covers it and causes a partial blockage of the level. After ducking under a flow of water the end of the level is about 100ft away and divided to left and right, the left ending in a pipe full of water which we couldn't pass. However quite a bit of time was spent trying to fill it up with rocks!!! On not being able to build stepping stones 20ft high we gave up and returned to the entrance where we were joined by some more members.

As we walked up the fellside we climbed up the dumps accompanied by the thump of hammers on rock (the geological section of the society) and some small pieces of plumbago was found. The next level called Farey's Stage crosses the Grand Pipe about 30ft from the entrance. It causes some difficulty because footholds are scarce although one could jump! The braver members fixed a top rope round the holly tree and abseiled 30ft from the surface.

This is a very complex part of the mine with drifts and pipes going in all manner of directions. We made a brave attempt to follow all the pipes but some were too deep to climb without proper equipment. However at this point we had some light relief upon descending a pipe called Water Pipe (it speaks for itself) Bob 'Yoga' Guthrie succeeded in placing people's limbs and other parts of the anatomy into positions they were just not made to go. Orders are now being taken for appliances to correct all ills NOTE trusses etc etc.....

As we moved further up Seatoller Common to our next level we passed a collapsed level called Gills stage. Our next level Harrisons Stage proved quite extensive with bodies appearing in all manner of positions. We sent our human fly, Vaughan Landless, through a small hole in the roof of a pipe, the pleasant part of the climb being the water pouring through the hole. However it proved that passages exist above the last open entrance to the mine.

As we came down the fellside the discussion was centered round the first level which we had not entered, although we had been told it was open. We stopped by the entrance in the trees for about 3hr discussing this Robsons level which was supposed to have been worked under the other claims. A look was had down the level and a supercharged John Mac was sent off through the 3ft deep water followed by three more stalwarts, including yours truly. I have only one thing to say about this trip - brass monkeys would have been very proud of us. After all this suffering the level ended in a collapse about 250yds in. I don't know how far it goes but it could be worth a dig.

Thanks to all who turned up and many thanks to J.D.J. Wildridge for all the information on the working of the mine.

Sunday was spent looking around the slate mines at Honister pass. These mines are still worked for Cumberland State for use nowadays mainly for decorative tiles and slabs etc.

Tourist Pit-Stop Daily Mirror 24th August, 1978.

The 140-year old Chatterley-Whitfield pit at Tunstall, Stoke on Trent, is being opened up as the country's first underground colliery museum next Easter.

Mine Tests bid Newcastle Journal 6th June, 1978

Yesterday a spokesman for London based Selection Trust Ltd revealed that it is ready to sink at least £50,000 into test drilling and surveying near the old Settlingstones witherite mine. The trust is seeking permission for test bore holes on land at Haydon Fell.

However from a later edition of the paper "Mr Bill Smith of Selection Trust said, 'I gather the water authority have got to look at the thing as a result of some objection that it may interfere with the water table'."

No to Tourist trips into mine. The day the last newsletter came out this appeared in one of the West Cumberland papers.

Plans to open up a disused Lakeland lead mine to the public have been kicked out by the Lake District Planning Board.

News from Wanlockhead

W. Harvey

The Miners' Library, an important part of the Museum, was re-opened on the 12th July. Its renovation has cost more than £7,000, a sum largely dictated by the work needed to repair and rebind most of the eighteenth century book stock. As well as these valuable indicators of social history, the Library will house much of the Museum Trust's own archive.

The summer field work has been largely in the Loch Nell mine. These old workings were first opened by the Quaker Company c1720 in an attempt to reach the ore in the southern end of the Cove Vein. The level was abandoned before any ore was reached, but work was restarted by Grauford and Co in 1793. They were successful, and between 1802 and 1835 ore was mined to a depth of 50 fathoms. Operations ceased in 1860, but part of the mine was kept open as a way-gate from the Straitsteps adit. A survey of the workings is being carried out by the Glasgow Speleological Society assisted by Jerry Landless.

The Museum Trust intend to open part of the level to visitors, and an effort was made to have some of the entrance passage ready for the Open Day. To this end a great heap of deads had to be cleared and a drain laid through the portal. All this proved very heavy work, but with herculean effort it was finished, and 150 visitors were taken in. However much remains to be done before any extent of the level is safely open.

The Open Day proved a great success and visitors joined in Gold Panning, Quoiting and the ancient sport of Bannock Hurling. (You've never heard of it! Come along next year.)

Meet Report Millclose Mines 24/25th June.

R.H. Bird.

After some delay caused by the relocation of camp site to meeting point, a party of eight members drove to the site of Millclose Mine and started by inspecting Watt's Shaft where an early Newcomen engine was first installed in 1748. Latterly the engine house held a 50" Cornish engine when Old Millclose mine was being worked by a daring and successful entrepreneur, Mr Wuss. A walk was then made through the works of James Erkhoven which now occupy the site of the 20th century Millclose workings, and through chest high terrain - evil nettles and the like - to the tail of Yatestoop Sough. This connects with the pumping shafts at 'new' Millclose Mine and was driven for a considerable distance to unwater Yatestoop mine and the Elton area. After lunch, the party collected at Knowles Mine open-works on Masson Hill and walked to the rear entrance to the Masson Cavern which gives access to about five miles of surveyed workings beneath the hill. Some two or three hours were spent underground here including an illicit visit to Masson show 'cave' (a misnomer since visitors are shown only a large working in the Great Rake and now no longer see Great Masson Cavern proper) and a view of the fine coffin levels and the ramifying workings in Crichman Mine were to be had. Here, the guide 'went wrong' - easy in the confused rabbit warren of Crichman - and about half an hour was spent looking for the way back, interspersed with 'stopping' large flourite cubes in the roof, an

exercise which produced a fine sample for the leader although many members were apprehensive of a run-in due to one member's enthusiastic drilling operations! The day ended with (for those stalwarts who were fit) a short visit to Jugholes cave; this being a natural cavern, very much altered by flousspar mining.

Sunday saw a party of about 13 or 14 members and their friends gathered near Snake Mine, Hoptonwood. The initial laddering of the climbing route was interrupted by a visit from two individuals claiming that permission must be obtained etc etc. A hurried council of war ensued up the shaft but since the duo in question never reappeared with reinforcements, exploration continued. Due to the size of the party and the time involved in ladder climbing, exploration stopped at a point where free climbing would be necessary. The minute 'scrins' worked by this mine were visible as were the keystoneed limestone stemples over the climbing way.

After lunch a reduced party (have we left some down the shaft?) proceeded to Matlock Bath where, due to recent surface alterations, the guide again 'went wrong' for a moment which required a quick return to his car to consult the 6" O.S. The tiresome carping verbiage from one portly member became a bit too much at this stage!! However, the Royal Mine - which was being searched for - was ultimately located (have they moved it recently?) and explored through to Hopping Incline which surfaces near the hamlet of Upperwood. The Royal Mine consists of massive boulder strewn caverns last worked for fluorspar in the '50s. Here the portly member came undone(!) whilst trying to take a photograph since he couldn't sort out his 60th of a second from 'B' setting and from then on the carping verbiage ceased. On return to daylight, members returned to their cars and it appeared all were too overcome to manage a visit to the newly opened Peak District Lead Mining Museum nearby.

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Book Reviews

"THE OLD WEST: THE MINERS" Robert Wallace. Time Life Books, New York. 1976

240pp, copiously illustrated with photographs, drawings, maps etc.

Not a newly published book this, but one which will enthrall, fascinate and interest anyone who has the slightest interest in mines, miners and industrial history. Generally the book deals with the adventures and hardships of the men who opened up the Wild West as one of the foremost precious metal producers in the 19th century. Those who got rich quick (and often lost it all even quicker); those whose 'share dealings' would have astonished the most ardent stock manipulators in 19th century mid Wales - and elsewhere; Cornish immigrants; the strikes (in both senses); accidents mining and milling practise, gambling, violence, murder, all this and more besides are dealt with in this volume. Illustrated with colour plates and numerous contemporary photographs, "The Miners" is a real eye opener and, in no way esoteric, one of the most fascinating books this reviewer has read for a long time. Beautifully presented in imitation leather binding it contains a very comprehensive bibliography, index etc.

Of the numerous anecdotes contained in the work, the following is worthy of note due to its Cornish connections. A Cornish miner's wife who kept a boarding house on Nevadaville walked into a butcher's shop for provisions. On espying a stuffed owl decoratively placed upon a shelf she asked the butcher, "Ow much for the flat faced chicken?" The butcher replied "That's no chicken, that's an owl". At this the lady snapped "I dunt care ow owl he be! Ee'll do for boarders". So much for the dialect problems!

FORGE BOOKS, 42 RECTORY LANE, BRACKNELL, BERKS, announce that they will be reissuing Pt 1 "St Ives District" of H.K. Hamilton Jenkins 'Mines and Miners of Cornwall' and this is expected to be ready by the end of July. Price about £1.30. Further out-of-print parts will be reissued shortly.

The above publisher/bookseller has kindly agreed to stock a small quantity of the Society's publications for resale. Along with other outlets - especially Mr Gray-Thomas's bookshop in Caernarvon - members are asked to support these booksellers whenever possible.

CARADON & LOOE: THE CANAL, RAILWAYS AND MINES" M.J. MESSENGER. Twelveheads Press.

This title was mentioned in the last Newsletter but its publication was delayed due to problems with the printers. However it is now available and the wait has been well worthwhile. Mr. Messenger has written a model local history study embracing the

the many fascinating facets of the mineral industry of the Caradon area and the transport system it gave birth to. Beautifully illustrated with numerous maps and photographs, this work will appeal to all those who have but the remotest interest in railways, canals and mines and certainly will be of utmost interest to I.A. buffs mining students and devotees of "ferritic equinology".

R.H. Bird.

Following the Derbyshire meet the 2 most asked questions have been:-

"Does Dick ALWAYS get lost!!?" and "Are NMRS meets always so chaotic?".

Repent and Beware - A warning to all

Certain bodies are in bother with the constabulary due to their over zealous illegal activities at, amongst other places, Carrock Hall and Heights. We have heard that as well as damage and theft the illegal use of explosives is also involved.

Coniston Copper Mines

The following has been 'borrowed' from the newsletter of the Trafford Caving Group relating to one of their field trips:-

Bonsor Deep Level . NGR SD 291986. Copper

The entrance to the Horse or Deep Level (drainage adit) is located a little way up Red Dell Beck from the Youth Hostel. A steady flow of water exits from the portal, which is superbly lined with dressed slate until it has passed through the valley sides. The level is followed for a considerable distance in a north easterly direction until it breaks into a small chamber. In the right conditions, the level emits a very strong draught, presumably derived from a strong draught down from the engine shaft. The chamber has two galleries leading off to the left and right. To the right the passage has collapsed and is dangerously unstable. To the left the gallery has been extensively stoped and wooden 'bunnins' hang precariously above. This section is very unstable and the roof gives one the impression that the slightest movement would cause a major collapse. This gallery originally led to the great "open" known to the miners as 'Cobblers Hole' but serious collapses of ground have completely blocked the route. The chamber also houses the remains of a pumping valve and pumping pipe, protruding from a small flooded shaft.

On from the chamber, a wooden 'doorway' leads to a short stretch of level to another large chamber cum stope, which contains a large flooded shaft. This is the old Engine Shaft and from the Deep Level it originally dropped some 900ft to the lower levels. Hanging above the shaft is a rusting wire cable, presumably from the headgear at the top of the Engine Shaft, seen at the surface. To the left of the shaft by carefully scrambling over deads and passing under rotten timbers it is possible to gain access into the more recent workings of the 1950's driven to bypass the collapses in Cobblers Hole in an effort to reach Paddy End Mine.

Paddy End Mine. N.G.R. SD 282992. Copper

This group of mines lie around the obvious footbridge crossing Levers Water Beck at the south easterly end of Levers Water. A number of short levels were investigated but the most promising and interesting working proved to be the one accessible from a small entrance nearest the footbridge mentioned above. This was found to fork after a short distance, the right hand side passage ending relatively shortly. The left hand passage leads to a small but very deep hole in the floor. This can be crossed very carefully (a bit dicey) and a further section of the gallery leads to a large gaping hole which is spanned by a wooden plank. This can be very carefully traversed over (very dicey - use a lifeline). After a further traverse a large stope was reached, the walls being covered by a very attractive coating of blue/green copper. The passage continues from here and is partly railed. A fork is soon reached and the right hand level was found to lead to another large stope, the rails protruding over the edge! To the left the gallery was found to continue as a yucky brown lake which was crossed and further wet passages were followed but no definite end was reached.

All contributions for Newsletter to H. Houghton, 29 Parkside Road, Meanwood, Leeds LS6 4LY. Tel 758505.