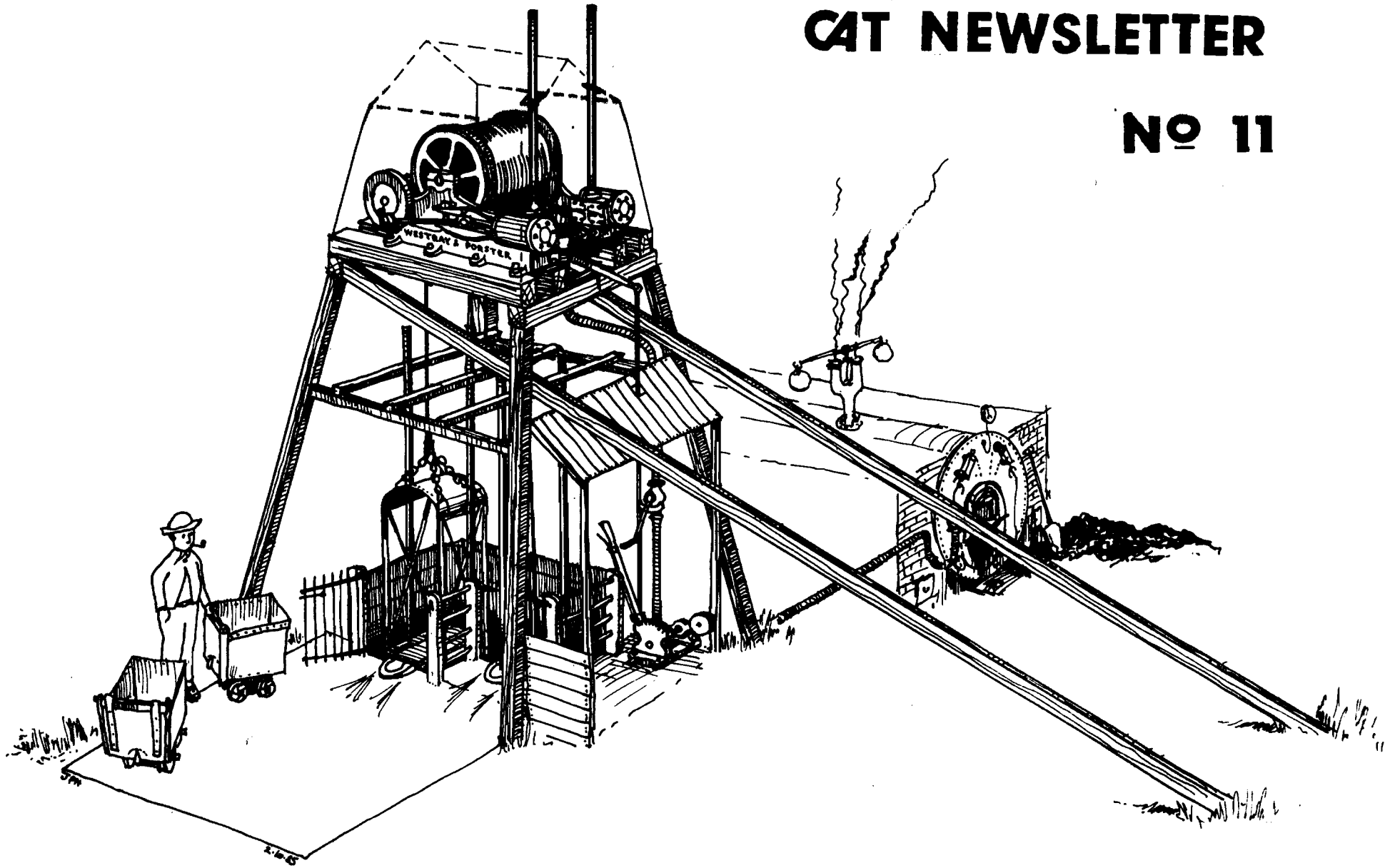
CAT NEWSLETTER

No 11



CUMBRIA AMENITY TRUST OFFICERS AND COMMITTEE MEMBERS FOR 1985

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Ken Battersby, Dave Blundell, Andy Carter, Peter Fleming, Lindsay Harrison, Mike Maher, and Dennis Webb.

AN EXPLOSIVE ISSUE

by McF

No doubt most of you are familiar with the legend behind Simon's Nick, that deep gash in the fellside above Levers Water. Well for those of you who aren't here is a brief account of one of the numerous versions. Simon was a German miner, one of the original band, or a close descendent, brought over to exploit the lead and copper veins of Cumbria during the reign of Elizabeth the Ist. Sixteenth century mining practices didn't impress Simon, they were slow, haphazard, and damned hard work; there was room for improvement and he knew it, scope for a little alternative technology. Simon was fed up with driving tiny levels with nought but his hammer and wedges, he'd had enough of cracking rock with fire and water. So in a fit of stress-induced desperation Simon called on the Devil to furnish him with the means of winning copper quicker and more easily than his fellow miners. "Fair enough," said the Devil, and issued Simon with a cask of a black powdery substance. But there was a condition: if Simon divulged the source of this black powdery substance then the Devil would wreak his revenge. From that day, or night as the case most probably would have been, Simon won copper quicker and more easily than his fellow miners, descending the open stopes above Levers Water with his mysterious cask of black powdery substance under his arm and initiating colossal thunderous roars which sent terrible echoes through the workings. In a matter of days Simon amassed a glittering heap of copper ore; he was the envy of all his friends and associates. Then, one night in the bar of the Black Bull, in a drunken stupor, Simon was goaded into divulging his secret. He showed them his mysterious cask, let them run their fingers through the black powdery substance, told them it was a gift from the Devil. Next morning, while descending the open stopes above Levers Water with his mysterious cask under his arm, the mysterious cask blew up and neither Simon, nor the mysterious cask with its black powdery substance, were ever observed again.

Now somewhere in that tale there is a moral, but being the sort of person whose morals leave a lot to be desired, I shall ignore it and discuss instead the black powdery substance. Simon, be he fact or fiction, is credited with being the first miner to use gunpowder as a blasting agent in the Coniston Copper Mines. There is more than likely a deal of truth in this episode for it is recorded in various forms and in many literary sources. Someone had to be the first man to blast with gunpowder, so why not poor old Simon? Anyway, Simon apart, gunpowder was introduced into our nascent mining industry and a mini revolution took place.

Driving tunnels with gunpowder was still hard work. Had Simon been around during the eighteenth and nineteenth centuries he would have had cause to complain for all shot-holes were hand-bored. An average level, being driven through country rock, would require as many as fifteen or sixteen shot-holes to advance it two feet; when following a vein, fault, slipe, or seam, the task was easier and the miner could get away with a dozen holes. The holes, when blasting with powder, would generally be fired in ones and twos, for if left for any length of time there was a chance they would fill with water. In wet conditions, when the holes filled anyway, or the miner struck water in the course of boring, powder was placed in a protective tin cartridge.

Blasting with powder was at first a tricky business - mind you it still is - but in the bad old days accidents occured frequently and fatalities were common. Powder was poured into a shot-hole and rammed home with a bar to pack it tightly. Many the old man to have his whiskers blown off when his iron bar sparked on the rock. The Mines and Quarries Act of 1894 states: No tool of iron or steel shall be used for stemming any hole. And a good thing too. Copper or brass charging sticks were expensive items but because of their relative softness they did not cause sparks. With his brass beater the miner could ram away with an easy mind, safe in the knowledge that the government's legislation was designed to preserve his limbs and not merely to halt a slump in the ailing copper industry with the enforced adoption of brass stemming rods. Once his powder was safely ensconsed, the miner inserted his pricker into the hole; clay, shale, or some other inert substance suitable for stemming was then rammed home forcefully with the beater till the hole was packed to the collar. The pricker, a metal tool res-

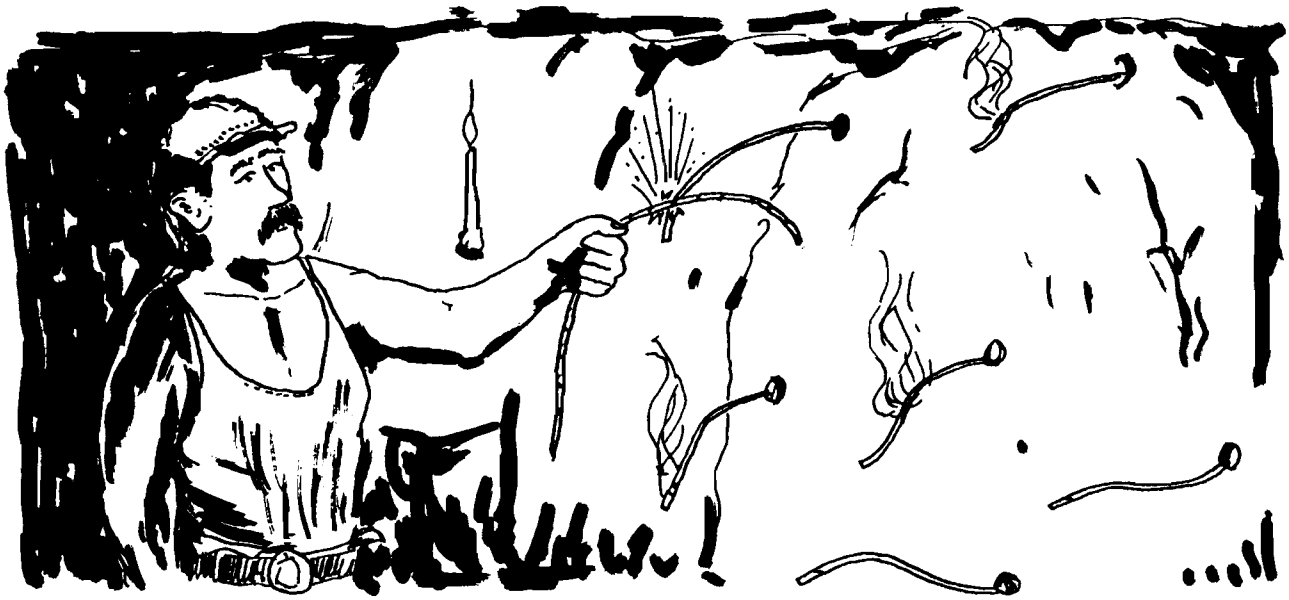
embling a large nitting needle, was then withdrawn and a straw fuse inserted into its hole. The miner then ignited the straw fuse with his candle and retired to a safe place. The Mines and Quarries Act has something to say about straw fuse: No straw fuse shall be used. The trouble with straw fuse was that the miner made it himself. It was not reliable, it did not burn at a controlled rate, and - because in most instances the miner was purchasing his own materials - the shorter the fuse, the more money saved. In draughty conditions, in a well-ventilated stope or an open quarry, straw fuse had a reputation for flaring up and initiating a premature explosion. With the advent of safety fuse the death toll was again significantly reduced. Safety fuse burned at a controlled rate, it could not be accidentally ignited, and because of its tough outer sheath could be inserted in the powder before the stemming was rammed home, thereby rendering the pricker a thing of the past.

In the 1860s and 1870s mining technique underwent another mini revolution, the most important since the introduction of gunpowder over two-hundred years earlier. Productivity was greatly improved when compressed-air drilling machines became available, and with Alfred Nobel's dynamite blasting became an easier, and less dangerous, process. Now the shot-holes could be bored swiftly and fired simoultaneously; and it didn't matter if they were filled with water.

Dynamite was a combination of nitro-glycerine, a highly unstable and volatile liquid, and a solidifying agent, usually kieselguhr, a diatomaceous earth. Once suspended in the kieselguhr the nitro-glycerine became relatively stable and could be transported to the depths of the deepest mine without much fear of it exploding accidentally. Problems of explosions caused by stray sparks or naked flames were a thing of the past; in theory dynamite could only be fired by a detonator crimped on the end of the safety fuse. But like most great inventions dynamite had its teething troubles; an early type used in the sinking of one of the Yarlside shafts* in the Furness iron ore field in which sand was employed to stabilise the nytro-glycerine, tended to separate into its two constituents when subjected to wet conditions. In this particular shaft water was a problem; the dynamite broke down and became unstable, resulting in fatal accidents on two separate occasions. The main drawback with dynamite was that it bacame more unstable with the lowering of temperature, therefore in wintery conditions it had to be warmed in special pans. It was not an uncommon sight, in years gone by, to observe quarrymen warming their 'Dinah' on the cabin stove.

To the miner dynamite was a boon - no more fiddling about trying to shove powder up an inclined hole, no more swabbing water from wet holes, no more beating stemming till his arm ached. Now the process was simple and safe. He cut a length of fuse and on one end crimped a detonator, then he inserted the detonator into the dynamite, pushed the dynamite to the extremity of the shot-hole with a wooden stick and added more dynamite, as much as was required to do the job. He took a handfull of clay and packed it in the hole, tapped it once or twice just to keep the pellets in position. He repeated the process till all his holes were charged, then took a knife and cut a nick near the end of each fuse. Next he took his 'spit', a piece of fuse with nicks cut along its length, the number of nicks corresponding to the number of charges and a couple extra for good measure. He lit the spit with a match, held it to the first fuse, and the jet of sparks issuing from the first nick ignited it. Each fuse was then lit in turn, the precise order having been determined previously. When the final fuse was flaring nicely he discarded the spit, picked up his jacket, removed his candle from the wall, and retired smartly.

Nowadays there are as many types of nitro-glycerine explosive as there are different tasks for them to perform. If poor old Simon were alive now he would shake his head in dismay and resort to driving levels with his hammer and wedges. High technology has taken over, explosives is a science all on its own, it is also big business and its products are complex and manifold. Here are a few of the explosives available to the modern miner and quarryman. Blasting Gelatine: amongst the commercial explosives this is the most powerful; it contains 92% nitro-glycerine suspended in 8% nitro-cotton; it is used mainly for hardrock and underwater blasting. In some grades of Blasting Gelatine the nitro-glycerine content is reduced to as little as 20%, the other constituents being composed of less powerful explosives and oxidisers. Gelignite: used extensively because of its excellent



water resistance, high density, and fume characteristics which make it suitable for use underground and in confined, poorly-ventilated locations. It is composed of nitro-glycerine, nitro-cotton, and ammonium nitrate. Slurry: as the name suggests it is a soft, water-based explosive, usually packed in plastic tubes but can also be poured directly into the shot-hole. It is an ammonium nitrate solution which has been gelled with solid nitrates and aluminium sensitizers. There are many different types and grades of slurry and these are used widely in both underground and opencast work. Anfo: this is a granular explosive composed of ammonium nitrate and diesel oil (92% and 6%) with a touch of aluminium thrown in for good measure. It is used largely in the roadstone quarrying industry for it is the cheapest of all the commercial explosives, and this is an important factor in a large quarry where blasting requirements can be into tons of explosive per week. Anfo is supplied in 25kg sacks and can be poured directly into the shot-hole, or, alternatively, can be bought in its separate constituents and mixed on site. The main disadvantage with Anfo is that it is totally lacking in water resistance; it is possible to purchase plastic containers for use in wet holes but because of the low density of the explosive these possess a tendency to rise back up the hole and eject themselves onto the top of the quarry if the stemming is not inserted fast enough. Gunpowder, or to be pedantic - Blackpowder: now only used in the specialised quarrying idustries such as slate and monumental stone quarrying where the object is to extract large and undamaged blocks for sawing and polishing. It is a relatively weak explosive and possesses the valuable characteristic - if used correctly - of being capable of splitting rock rather than smashing it. The Cumbrian slate quarries use powder in vast quantities; until recently the powder was produced within the county itself though now it is imported from Germany and is reckoned, by the quarrymen, to be of an inferior quality and substantially harsher in its effects.

And the list goes on into specialised explosives, it is practically endless, it gets longer every day. So hats off to poor old Simon the German miner who blew his ears off in the Coniston Copper Mines, for it was he, and others like him, who pioneered the art of breaking ground with explosives. Things have come quite a way since Simon's era, blasting is less hazardous, there are rules and regulations governing the use of explosives; now accidents are few and far between. All the modern mysterious powdery substances have been tried, tested, and given the government's seal of approval, they are stable, safe to handle - but not foolproof. So next time you visit the Coniston Copper Mines, or wander the fells above Levers Water, spare a thought for that daring entrepreneur who was atomized in the open stopes, who dedicated his life to the furtherance of science, for Simon, the German miner, was a man of vision and ingenuity. It's just a pity he didn't have a copy of the mines and quarries regulations.

* Details of Yarlside shafts kindly supplied by Jonathan Wignall.

Cover Picture.

This rather intriguing structure has been drawn by the Furness industrial historian, Peter Holmes. It was, he says, a once fairly common sight in Furness and is described as a 'Skylark' winding engine. If you want to know more you will have to wait for Journal No. 2 where a full report will be included.

Book Review.

An excellent publication for those interested in the Teesdale area is "Mining and Smelting in Teesdale" by Harold L. Beadle, published by the Cleveland Industrial Archaeology Society and is available from the author at 22, The Avenue, Richmond, N. Yorkshire. at £2.50 plus postage. Plenty of good illustrations and a very informative text which is highly readable.

Killhope.

Latest news from the Killhope project is that an 8 ft. diameter water-wheel which once drove the famous Brunton Buddles on the Killhope site has been rescued and will be restored.
They have also taken on an unemployed horse called Bobby for timber extraction and general hauling on the site. It is hoped he may be used later to drive a gin on a shaft and also a crushing plant.

Russian Affair?

by Percy Pitprop.

Recently C.A.T undercover agent Vladimir Battersky was on a diplomatic mission to Ambleside and was walking along Church St. when he felt a stab in the back of his head. "It was as if someone was looking daggers at me" he later told me. He then passed out and finaly came round in the tourist information centre. Here an attempt was made to make him change his allegience and divulge many secrets of C.A.T. policy. "I was made to eat large meals and drink lots of Hartleys Beer, and all the while I was made to look at large display boards carrying pictures of all my old compatriots apparently working for the other side." he said. "Luckily I was able to lie my way out of these evil mens clutches by claiming to be a personal friend of Eric Holland. Naturally this soon reduced them to a state of quivering fear and when I started reading them excerpts from 'Underground in Furness' they quickly let me go. I then made my way back to Millom." He also claimed that he had seen a disgusting video which showed many C.A.T. members in compromising positions.

Wednesday Meetings.

Incase you are unaware, these take place, monthly, at the Farmers Arms, Lowick. on the second Wednesday of the month. There is always a slide show,talk, etc. and these have been excellent. Recently there was a video of Dinorwic Slate Quarry. Make an effort to get there, you never know what you might find out...

Famous Welsh Mine Rediscovered.

Owain Dwm Parcio

An old mine with some interesting features has recently been relocated in Mid-Wales. It is to be found on Mochyn Mawr near the tiny hamlet of Llamcwtio and is known as Moeth Glowr mine. It was worked for copper along the locally famous Twll dy din vein. The mine was worked, it is believed, from post Stone Age times but no record of its subsequent abandonement can be found.

What makes this mine so notable is that it was the only one known to have used a system of 'freeze-setting' to break ground early this century. This consisted of an underground chamber containing a refrigeration plant built by Frigidaire under license from Gebhardt and Koenig of Germany. Holes were drilled and then filled with a special compound which was then connected to the refrigeration plant. The compound expanded, splitting the rock off in large lumps. The ore was then transported to the smelter at nearby Llil Owstn.

Little is known of how the project fared but in the Brecon and Radnor Echo of August 1913 under the headline of "Mae'r Cwrw'n Ddrud Iawn" men are reported to have fled from the mine due to an ammonia leak from the plant. Little else is known of the work except that the refrigeration plant was sold to an industrialist in the North of England apparently to keep cool products in a meat processing factory famous for it's black puddings.

Boat Lift.

An appeal has recently been launched to provide funds to refurbish the Anderton Boat lift in Cheshire near Northwich. It was last used 2 years ago and has fallen into disuse due to being unsafe. It allowed boats to pass between the Trent and Mersey canal and the River Weaver some 50 ft. below. It works partly on the principle of a self-acting incline with the addition of electrically operated weights. These are used to shift two wrought iron caissons weighing 240 tons each when filled with water. Each caisson could take 2 narrow boats or one barge and was mainly used for the transport of salt from the Cheshire fields and coal and textiles from the North West.

I remember travelling in it 11 years ago and it was quite an unnerving experience to go in at the bottom and be lifted, quite smoothly up through a jungle of tubular iron to emerge at the top and sail out.

Tin Problems

Those of you who follow the financial pages of the 'Beano' may be unaware of the awful problems of the world tin industry. This has happened from a big decline in demand for tin coupled with a protectionist price per ton and an increase in production from many tin producing countries such as Bolivia. During the recent dollar crisis many world banks called in monies owing from tin brokers who have in effect created a tin 'mountain'. This has created a collapse in the industry.

This will undoubtably effect the Cornish Tin industry currently enjoying a rennaisance and producing some 5000 tons per year. However if the price of tin falls below £6000 per ton then the profitability of the Cornish pits also fails. A realistic price for tin appears to be around £5000 per ton. There is also a move afoot to include Britain as a tin producing nation of the international cartel, this would mean a reduction in output of 40 per cent. The only hope for the industry would seem to be some kind of support from central government. A small price to pay for a guarantee of native tin I would have thought.

Hatchett on Wadd.

In 1796 the amateur geologist and scientist, Charles Hatchett set out on a journey around England, Scotland and Wales to view "mines and manufactories". This was a most important time in Britain as the industrial revolution was beginning to gather momentum. Hatchett had travelled widely in Europe and was well versed in the arts of chemistry and he his perhaps best known for his work on bitumens. He had two minerals named after him, Hatchettite and Hatchettolite, a mineral which proved to be a columbate of uranium.

On Monday August 1st 1796 Hatchett arrived in the Lake District and "having breakfasted at 7 o clock" he"set out to go and see the Mine of Plumbago or Black Lead". He wrote '" I stopped to take with me in the chaise Mr. Caleb Fisher a principal farmer who lives there... on a hill is the Mine called the Wadd Mine... the path from the village to the mine is about ½ a mile in length and towards the upper part is very steep. This hill appears to be chiefly composed of a hard species of pale blue whin stone.... The plumbago is found in nodules accompanied by a loose Ochry Grit stone...at different depths from the grass to 70 yards. The last quantity was found at 2 fathoms below the surface and was of good quality. They are now driving a Level on the surface nearly N & South but I think the Pits sunk in various places would be a better mode to try and find it. They employ 7 men and the expences of the mine are very little. Great loss falls on the proprietors by the pilfering of the men. The best Plumbago is now said to be worth £3.3.0 per lb?..." He goes into a little more detail on the mine and also mentions a considerable quarry near the Castle hill "which affords a pale greenish slate excellent for covering houses etc., etc." He spent that night at an inn at Low Wood on the banks of Windermere which he held to be "most beautifully situate".

The whole book makes absolutely fascinating reading and was originally published in 1967 by D. Bradford Barton. It has been edited by the industrial historian Arthur Raistrick and is well worth the effort of getting your hands on a copy.

Trip to Eire.

Plans are well in hand for the 'overseas' expedition to the Emerald Isle next spring and people have already booked places. The format will be roughly the same as last time (read Journal No. 1) with visits to Avoca in the Wicklow Mountains and

Allihies in County Cork are absolute musts for further work and arm bending exercises. We have much more information on mining sites this time and we seem to be rather spoiled for choice especially in the County Cork area. Don't miss out this time.

Welsh Wales

Also on the list for places to visit is the proposed C.A.T. trip to Mid-Wales next year at Easter time. We were there some 3 years ago and were absolutely bowled over by the wealth of remains still visible especially at sites like Cwmystwth which is high on the visiting list this time. We also hope to take in the nearby Ffrongoch, Graigoch and Wemyss mines. If time allows after all this there is a possibility of a visit to Bwlchglas with its' spectacular underground headframe and Ystrad Einion with its' even more spectacular underground waterwheel, recently the subject of controversy with a proposed move to Morwhellham in Devon, now thankfully defeated.

New Gear Review

Not much around this time I'm afraid though Troll has recently brought out a new rope called 'Aquaguard' made for them by a well-known European rope manufacturer. The revolutionary feature of this rope is that between the sheath and the core is a thin layer of latex rubber. The idea being that no dirt or other grot can get through this layer and work its way into the core where it can and does do the maximum damage. The rope is claimed to be low-stretch and comparable with other caving ropes. I havn't seen a long term test of this rope but no doubt I will be getting a short length to test on various dirty holes.

Petzl are getting in on the mountaineers act of producing 'pretty' gear. Their new nylon sit harnesses are in a very fetching red and grey, apparently the 'in' international colour for tackle. How much longer until we see cavers dressing in colour co-ordinated furry-suit, oversuit, wellies and helmet with a contrasting rope and hardware? I'm waiting for the first cavers fashion show...

Through trip blues.

If you are considering a trip through from Simon's Nick to Hospital level, take a selection of bolts, hangers etc. with you as the original ones have been removed. They were originally installed in the winter of 1980-81 and on a recent COMRU rescue meet they were removed and examined by team members who were horrified by what they saw. The problem lay, not with the anchor but rather with the hangers and the carabiners used. On the big pitch (90 ft.) the main hanger (made of a lump of bed iron) seemed O.K. but the carabiner had started to rust so badly that lumps of rusted steel could be pulled off it. The back-up belay was also in a mess and here the alloy hanger was also severely pitted. This was also the case on the top 'slab' pitch where things were in a far worse state. It would seem that the highly acidic water present in the Coniston Copper Mines has taken its toll

of the hardware. In the future these will need to be replaced with stainless steel hangers (Petzl Hearts?) and stainless steel maillon rapides. The problem is, of course the cost of equipping the pitches with these. Of course it can be argued that it is hardly CAT's business to be equipping tourist routes for all to use or indeed to encourage the use of these aids by the uninitiated. I welcome correspondance from readers on this matter.

Get Knotted.

As threatened in Newsletter No. 10 here is all you need to know about knots.

Figure of Eight Knot.

This the basic knot and can just about be used for everything. All knots weaken rope and according to 'Techniques de la Speliologie Alpine', the figure of eight knot can reduce a knots strength by as much as 45% when used to join or attach ropes to the belay. Of course this still leaves a huge gap for failure and it is probable that personal gear will fail long before the rope does (A Fishermans knot reduced the rope strength by nearly 60%, but it still broke at a pull of well over a thousand kilograms). The figure of eight knot is tied in the same way as a simple overhand knot but an extra turn is put in giving it the characteristic '8' look. If it is used in a single rope it can be used in a stopper knot and a single one should always be put in the end of an abseil rope to avoid some poor unfortunate abbing off the end of the rope. When the rope is doubled to form a loop the knot is used as the main attachment for a belay. It is the ideal knot as it is relatively strong, easy to tie and easy to undo if it has been loaded. The knot can also be utilised to join two ropes together.

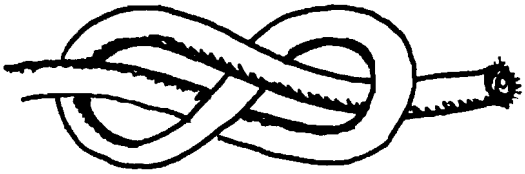
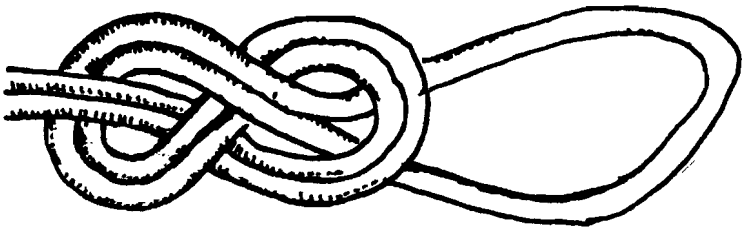


Figure of eight stopper knot



Doubled Figure of eight

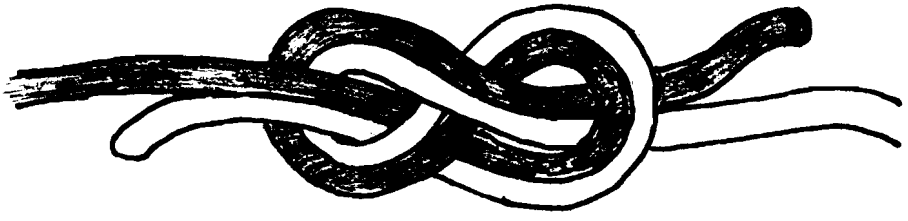


Figure of Eight used to join two ropes. This should only be employed if the two ropes are of roughly the same diameter.

News Briefs

THE DEPARTMENT OF THE ENVIRONMENT has at last placed a Preservation Order on the old copper works at Coniston, a measure which will hopefully halt further destruction of the Bonser Mill in Coppermines Valley. The area covered by the Order stretches as far as Levers Water and embraces the ruins of the Paddy End Mill as well as the main adit levels and water leats. The Bonser Mill has, over the past three years, been substantially altered - and not particularly with any regard to its historical importance - by the land owner, Mr Phillip Johnson, a businessman from Cheshire. Mr Johnson plans to develop the site as a visitor/interpretative centre, where students of industrial archæology can study the history of the mines in authentic surroundings. Work Mr Johnson has carried out so far includes: the destruction of settling pits for the installation of a septic tank and related pipework; conversion of the powder-house - in excellent condition considering its age - into a private dwelling, the nature of which, when taking into account its new extension and various alterations, is totally out of context both architecturally and æsthetically with the original building; the erection of a boundary fence where no fence has previously existed and in a valley where no other fences exist (access to the mill is now denied, a measure which never been imposed on any other Lakeland mill site); the erection of very heavy, and exceedingly high, 'factory' gates between the Youth Hostel and the B.M.S.C. hut, where no such gates have ever existed; and the planting of dozens of young trees on banks, spoil-heaps, and terraces, the roots of which, in due course, will destroy important archæological remains. Plans to convert the power house, the largest surviving ruin, into anything other than an accurately restored building will, presumably, be quashed by the D of E.

And if that's not enough to think about, controversy is looming on another horizon. In a meeting with a representative of Rydal Estates, the major land owner up at the Coppermines, Eric Holland learnt that there is a possibility the military might be called in to blow up all the mine entrances, a measure designed to deter people from going underground. Eric was not slow to point out that these entrances are situated in the area now embraced by the Preservation Order, and that their destruction could have serious legal repercussions. Eric also highlighted the fact that it an illegal act to destroy, or seal up, a mine that is a known habitat for bats, and that any person or organisation doing so will be prosecuted by the Nature Conservancy Council.

CROSSGATES RAILWAY TUNNEL, on the route of the old mineral tramway from Dalton to Marton, has been bulldozed in on its Tytup end and is the latest of the many Furness mining relics to disappear under the malignant corporation tips. Beneath the Tytup tips alone we have lost one other - though much shorter - tramway tunnel, three accessible mine systems, and a unique group of sandstone and limestone engine beds. Tipping at Tytup will cease in due course and the land be restored to agricultural use, but the dumping of domestic refuse will resume on a new site, probably Crossgates on the other side of the hill. In anticipation of this, one of the residents of Crossgates has been in touch with Eric Holland in the hopes of initiating some effective form of protest.

ACCORDING TO SOME IN-HOUSE LITERATURE published by McAlpines, the new owners of Honister, plans are afoot to open no less than FIVE new quarries. It is not known at this stage whether these are to be close-heads off the electric incline on the Kimberley Vein or opencast workings on the top of the fell where the slate metal - according to the rockhands who have worked in the partly-flooded Hopper Quarry - is of a high quality. What is known is that there is not enough slate being produced to keep the rivers busy. Even slate for the ornaments in the bric-a-brac shop is being supplemented with imports from Penrhyn.

FORCE CRAG MINE is still under starter's orders but the management hopes that very soon a regular three-day working week will be initiated. All energy has, in recent weeks, been channelled into the refurbishment of the mill, with very little underground work being carried out. Because of the depreciation in the zinc price the

barytes deposit at the extremity of Zero Level will be exploited first; a manway and hopper have already been erected and several tons of mineral taken out and stockpiled.

A C.A.T. EXHIBITION, depicting the history, geology, and contemporary photographs of the Furness Iron Ore Mines will be staged in Barrow Museum in May 1986. The exhibition will be launched in grand style with a sherry evening - open to all CAT members - courtesy of the museum. Member Lindsay Harrison is the organiser and he is currently up to his eyes in old plans, photographs, and sticky red implements. Lindsay is still searching for material to exhibit and will welcome any surveys, artifacts, or mining memorabilia that members would be willing to lend (emphasis on the word lend. All exhibits will be returned to their owners when the exhibition closes).

NEW DISCOVERIES in the Daylight Hole system at Lindal-in-Furness, effected during the drought of last year (drought....who can remember a drought?) are only now coming to light. The water level in the main chamber dropped by an incredible forty feet to reveal the fact that the main chamber, and the chamber at the foot of Wick's Shaft, are one colossal excavation.

Ray Bland and Graham Atkinson, two men with a disturbing appreciation of sticky red mud, discovered new workings to the north-west of the main chamber, way below the average water level. A series of photographs taken by Graham depict a large chamber at the foot of a steep boulder slope and an undamaged wooden wheelbarrow resting on its side in the mud. Graham says that there is a good deposit of hematite at the end of the chamber. The likelihood of the water ever dropping to this level again is extremely remote.

FOUND IN THE BOTTOM OF THE GRAND PIPE, Borrowdale Wad Mines: one 'clog' screwgate karibiner, in good condition. Found during the recent Borrowdale meet. Owner please contact Alen McFadzean (who went to considerable lengths and depths to retrieve it because he hasn't got any nice shiny krabs of his own, and is only advertising it now because his conscience is troubling him) stating the colour of the identity tape.

BATAHS BHI

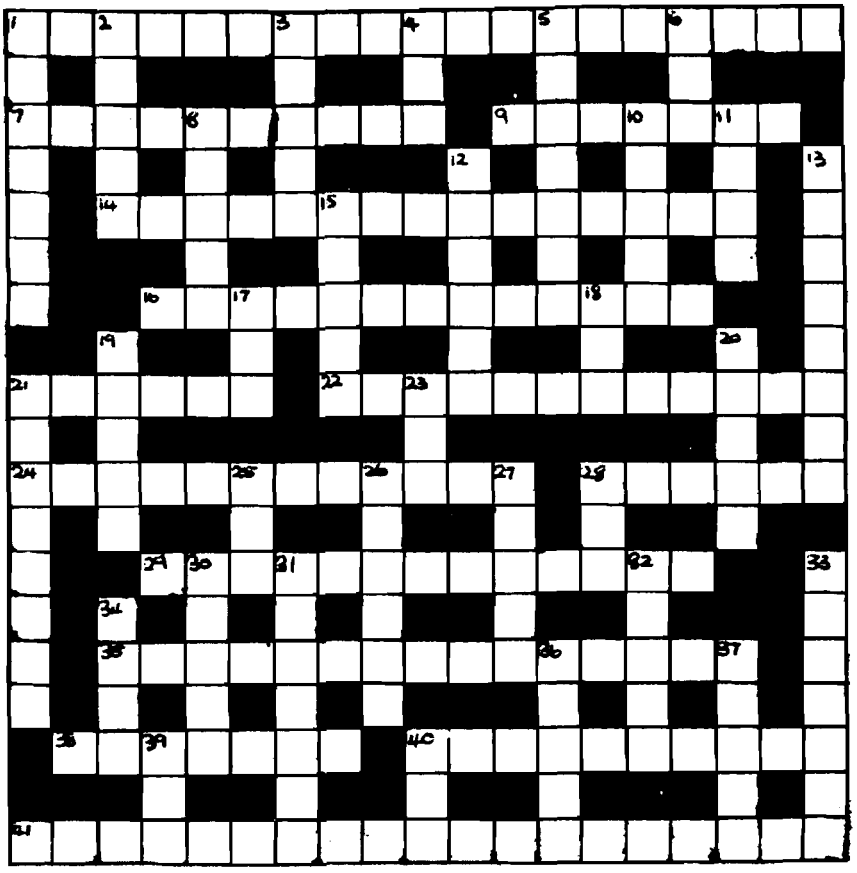
CONTRARY TO WHAT WAS REPORTED in the last edition of the Newsletter, we are pleased to announce that Member Ken Battersby's micro-wave oven was NOT damaged in the recent face-blast which demolished his weighbridge cabin at Ghyll Scaur Quarry near Millom. The oven survived the holocaust, was rescued from the wreckage by the frantic Battersby and is now safely ensconsed in a makeshift pavilion where it emits, on a regular basis, the aromatic scents of onion bhajias, shami kebabs, and tali machli. Said Member Battersby in another exclusive interview: "Krishna be praised. My heart is so jolly glad. I have ascended to the plain of heavenly enlightenment and am at one with the universe. I only wish they'd pay some jolly descent bloody wages."

Crossword Answers

Across: 8 Limestone, 10 Heath, 11 Thixotropic, 12 Shandy, 13 Switch, 14 Ore-bearing rocks, 18 Ferule, 19&7 down.Roof of thatch, 22 Hanging wall, 23 React, 24 Close-head.

Down: 1 Plumbago, 2 Estimated length, 3 Do-gooder, 4 Heirs, 5 The power of water, 6 Narcotic, 9 Myths, 15 Earth-wax, 16 Neon glow, 17 Salt beds, 20 False floors, 21 Wince.

PRIZE CROSSWORD Across clues are taken from 1ac., with "FOIL DIG" a large clue hidden about. Down clues are normal. The first correct solution received will be awarded a share in the "Hodbarrow Mining Co."



Compiled by G. Atkinson

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4 Saturate pointlessly this wood (3)

5 Accuse with 500 less to articulate (7)

6 A couple of amateurs not doing well (3)

8 Found in stone ground flour from Africa (5)

10 Our feet, perhaps, heard to hesitate (5)

11 Current inits supplied by a chemist (4)

12 Unfeeling heard to produce a thickening of the skin(6)

13 Odd to bring learner in to restrict passage (8)

15 Follow round in active pursuit (5)

17 Our grandmother? (3)

ACROSS

1 Fraud one's not about to gain a penny with; I'm about to be given points for hard labour (8,6,5)

7 Jail for simpletons (6,4)

9 Shilling hairdo? (3,4)

14 Chap ran dumping operation (3,3,5,4)

16 Dressing floor? (8,5)

21 Spooner's double gets a washer (6)

22 Benediction (4,8)

24 Depression after insult (8,4)

28 Grind corn in a bucket (6)

29 Place with bitter ale (13)

35 Clithridd Lene (8,7)

38 Name more appropriate to Henning Valley perhaps (3,4)

40 Good French-painful and conceited we hear (6,4)

41 Solomon's old firm? (7,2,5,5)

DOWN

1 "Look, in this place ran ——' dagger through" Shak. (7)

2 Informer about to stand by (5)

3 Old French onion (5)

18 Compete with pointless prospect(3)

19 Building material for new abode(5)

20 A famous Baggins (5)

21 Draw (8)

23 The same about turn for the act (3)

25 Measure of 'ades (3)

26 Author with apprentice barely emerges (6)

27 Dickens' Drood (5)

28 New Zealand grub (3)

30 Post Christmas account may be (2,3)

31 Spurious flutter - a dramatic flop (3,4)

32 Initially the race is easily run for one who makes the effort (5)

33 The French connection? (7)

34 In misty environment, caught ocular disorder (4)

36 A sound throw gets a high class mark (5)

37 Following direction, my time is the old one (5)

39 Lower mortgage by strike (3)

40 Dissolute Yank (3)

ASPECTS OF GEORGE BORROW'S WILD WALES

with an introduction by McF

GEORGE BORROW 1803-1881

George Borrow was born in 1803, the son of an army recruiting officer. He was a romantic at heart, a traveller, a lover of the open places, and spent much of his life wandering through the countries whose history and poetry he adored. He was also a deeply religious person, well educated and conversant in many languages - indeed, by the age of eighteen he is reputed to have been fluent in Welsh, Erse, Greek, Latin, Hebrew, German, Danish, French, Italian, Spanish and Portuguese, not to mention his native English. In 1854 George Borrow embarked on his famous tour of Wales, a journey which took him through - as well as many other places - the coal fields of Wrexham and the lead mining districts south of Plynlimon. Borrow was also (now you won't read this in an official biography) a typical middle-class English gentleman, a man who had little patience with the lower orders, a staunch Protestant who delighted in pouring contempt upon Methodists and Catholics, a scourge of the feeble-minded, self-opinionated and superior, a man who would not - and did not - hesitate to instruct the Welsh in the finer points of their own language; he was an expert offering guidance in the most obscure of subjects, a debater, a conversationalist, and above all, a man who delighted in argument. Those who dared to cross him were instantly rebuked, as one unfortunate fellow, a native of Chester, learned to his detriment: "The man whom I addressed, a rough-and-ready-looking fellow of the lower class, seemed half disposed to return me a savage answer; but an Englishman of the lower class, though you can call his word in question, is never savage with you provided you call him old chap, and he considers you by your dress to be superior in station. Now I, who had called the word of this man in question, had called him old chap, and was considerably better dressed than himself; so, after a little hesitation, he became quite gentle, and something more, for he said in a half-apologetic tone...."

In this, the first of a series of extracts from his book Wild Wales, George Borrow encounters the colliers, collieries, and furnaces of Wrexham.

".....Is the road to Wrexham hard to find?"
"Not very, sir; that is, in the daytime. Do you live at Wrexham?"
"No," I replied, "I am stopping at Llangollen."
"But you won't return there to-night?"
"Oh yes, I shall."
"By this road?"
"No, by the commom road. This is not a road to travel by night."
"Nor is the common road, sir, for a respectable person on foot; that is, on a Saturday night. You will perhaps meet drunken colliers who may knock you down."

"I will take my chance for that," said I, and bade him farewell. I entered the pass, passing under the strange-looking crag. After I had walked about half a mile the pass widened considerably and a little way further on debouched on some wild moory ground. Here the road became very indistinct. At length I stopped in a state of uncertainty. A well-defined path presented itself, leading to the east, whilst northward before me there seemed scarcely any path at all. After some hesitation I turned to the east by the well-defined path and by so doing went wrong as I soon found.

I mounted the side of a brown hill covered with moss-like grass,

and here and there heather. By the time I arrived at the top of the hill the sun shone out, and I saw Rhiwabon and Cefn Mawr before me in the distance. "I am going wrong," said I, "I should have kept on due north. However, I will not go back, but will steeplechase it across the country to Wrexham, which must be towards the north-east." So turning aside from the path, I dashed across the hills in that direction; sometimes the heather was up to my knees, and some times I was up to my knees in quags. At length I came to a deep ravine which I descended; at the bottom was a quagmire, which, however, I contrived to cross by means of certain stepping-stones, and came to a cart path up a heathery hill which I followed. I soon reached the top of the hill, and the path still continuing I followed it till I saw some small grimy-looking huts, which I supposed were those of colliers. At the door of the first I saw a girl. I spoke to her in Welsh, and found she had little or none. I passed on, and seeing the door of a cabin open I looked in - and saw no adult person, but several grimy but chubby children. I spoke to them in English and found they could only speak Welsh. Presently I observed a robust woman advancing towards me; she was barefooted and bore on her head an immense lump of coal. I spoke to her in Welsh and found she could only speak English. "Truly," said I to myself, "I am on the borders. What a mixture of races and languages!" The next person I met was a man in a collier's dress; he was a stout-built fellow of the middle age; with a coal-dusty surly countenance. I asked him in Welsh if I was in the right direction for Wrexham, he answered in a surly manner in English that I was. I again spoke to him in Welsh, making some indifferent observation on the weather, and he answered in English yet more gruffly than before. For the third time I spoke to him in Welsh, whereupon looking at me with a grin of savage contempt, and showing a set of teeth like those of a mastiff, he said, "How's this? why, you haven't a word of English? A pretty fellow you with a long coat on your back and no English on your tongue, an't you ashamed of yourself? Why, here am I in a short coat, yet I'd have you to know that I can speak English as well as Welsh, aye and a good deal better." "All people are not equally clebber," said I, still speaking Welsh. "Clebber," said he, "clebber! what is clebber! why can't you say clever! Why, I never saw such a low, illiterate fellow in my life"; and with these words he turned away with every mark of disdain, and entered a cottage near at hand.

"Here I have had," said I to myself, as I proceeded on my way, "to pay for the over-praise which I lately received. The farmer on the other side of the mountain called me a person of great intelligence, which I never pretended to be, and now this collier calls me a low, illiterate fellow, which I really don't think I am. There is certainly a Nemesis mixed up with the affairs of this world; every good thing which you get, beyond what is strictly your due, is sure to be required from you with a vengeance. A little over-praise by a great deal of underrating - a gleam of good fortune by a night of misery."

...that evening, on the way home...

I soon reached Rhiwabon. There was a prodigious noise in the public-houses as I passed through it. "Colliers carousing," said I. "Well, I shall not go amongst them to preach temperance, though perhaps in strict duty I ought." At the end of the town, instead of taking the road on the left side of the church, I took that on the right. It was not till I had proceeded nearly a mile that I began to be apprehensive that I had mistaken the way. Hearing some people coming towards me on the road I waited till they came up; they proved to be a man and a woman. On my enquiring whether I was right for Llangollen the former told me that I was not, and in order to get there it was necessary that I should return to Rhiwabon. I instantly turned round. About half-way back I met a man who asked me in English where I was hurrying to. I said to Rhiwabon, in order to get to Llangollen. "Well then," said he, "you need not return to Rhiwabon - yonder is a short cut across the fields," and he pointed to a gate. I thanked him and said I would go by it; before leaving him I asked to what place the road led which I had been following.

"To Pentre Castren," he replied. I struck across the fields and should probably have tumbled half a dozen times over pales and the like, but for the light of the Cefn furnaces before me which cast their red glow upon my path. I debouched upon the Llangollen road near to the tramway leading to the

collieries. Two enormous sheets of flame shot up high into the air from ovens, illuminating two spectral chimneys as high as steeples, also smokey buildings, and grimy figures moving about. There was a clanging of engines, a noise of shovels and falling of coals truly horrible. The glare was so great that I could distinctly see the minutest lines upon my hand. Advancing along the tramway I obtained a nearer view of the hellish buildings, the chimneys and the demonic figures. It was just such a scene as one of those described by Ellis Wynn in his Vision of Hell. Feeling my eyes scorching I turned away, and proceeded towards Llangollen, sometimes on the muddy road, sometimes on the dangerous causeway. For three miles at least I met nobody. Near Llangollen, as I was walking on the causeway, three men came swiftly towards me. I kept the hedge, which was my right; the two first brushed roughly past me, the third came full upon me and was tumbled into the road. There was a laugh from the two first and a loud curse from the last as he sprawled in the mire. I merely said "Nos Da'ki," and passed on, and in about a quarter of an hour reached home, where I found my wife awaiting me alone, Henrietta having gone to bed being slightly indisposed. My wife received me with a cheerful smile. I looked at her, and the good wife of the Triad came to my mind.

A jolly Xmas competition by A. Nonn

Please note: Any resemblance to any C.A.T member living or ex. is of course purely ~~intent~~ co-incidental.

Off the coast of Lamquatria lies the island of Catney, a place of mines and refreshment much frequented by the committee members of Dalton Outdoor Group wishing to escape from their tensions and discover new strengths. From the information given can you work out full details of the five cases featured, including the mining area of Catney where each stayed, the particular form of pressure from which he or she sought to escape and the consolation each found.

1) the man who had recently lost his kibble found the strength to become self sufficient.

2) Old Woman Bones benefitted greatly from her stay in Hagbarrow. She was not the member who had been panned by critics for a poor guide book to Clangington Treacle Mines.

3) Mac Mutchwell was suffering from stress caused by overwork. The visitor recovering from the trauma of not being re-elected to the committee did not take up a new hobby.

4) The person who suffered anxiety attacks as a result of opening a new museum recovered in Bent Head. This is not Mavis Brick.

5) The member staying at Loondale discovered a hithertoo unsuspected talent. Peter Fuming was not the man who stayed at Tupperthwaite Ghyll.

6) It was Cedric France who was brought back from the brink by taking a G C E in Industrial Archaeology.

(A chart is provided that takes into account every possibility . Enter information in ALL relevant places to narrow down the possibilities.)

	Bent Head	Black Dell	Hagbarrow	Tupperthwaite Ghyll	Loondale	Anxiety attacks	Thrown off committee	lost Kibble	overwork	panned by critics	Discovered New Talent	Learned Self Sufficiency	Made new friends	Started New hobby	Took GCE in Ind. Arch.
Mavis Brick															
Old Woman Bones			X												
Peter Fuming															
Mac Mutchwell									X						
Cedric France															X
Discovered New Talent															
Learned Self Sufficiency															
Made new friends															
Started new hobby															
took GCE in Ind. Arch.															
Anxiety attacks															
Thrown off committee															
lost Kibble															
overwork															
Panned by critics															

CATACLYSMS REVISITED

The 2nd prize in the competition of a 10 day mini-holiday in Paris with Chris. Jones (All expenses paid; 1st class air fares; free hotel; spending money etc.) was declined by the runner-up who wishes to remain anonymous.

The first prize was won by THOMASINA KRAGEN who will be bought a pint of Hartleys when I next see them.

Answers:-

1) Cumbria Amenity Trust.
2) Peter Fleming.
3) Single Rope Technique.
4) Eric G. Holland.
5) Horse Level.
6) Triddle Shaft.
7) Martin Maher.
8) Alastair Lings.
9) Alen McFadzeon.
10) Christopher Jones.
11) The New Coledale Mining Company.
12) Tilberthwaite Shaft.
13) Greenside Lead Mine.
14) Warton Crag Mine.
15) Dave Blundell.
16) Lucy Tongue Level.
17) Peter Blezard.
18) Ystrad Einion,
19) Paddy End Mine.
20) Pylon Pot.
21) Max Dobie.

CHRISTMAS CATACLYSMS

All answers to the anagrams can be found in the last few newsletters. A small ZIPER will go to the winning NERTY.

1) A curse ma! I burnt my tit.
2) Rent quaintly rural bogs.
3) Hi-Tech camel mill.
4) Try a red can.
5) Doll in charge.
6) More sane tune.
7) Win Ben,s bed.
8) By fresh water.
9) Some sin in pop concert.
10) Hark again! M. Stone.
11) By red tip.
12) "I'm Bland. Ever sin?"
13) Re. Bland. Clone tiny bit.
14) All waste.
15) Carnivorous pig has a smile.
16) B.L. Bike.
17) Kind old men met mini.
18) Ill ref. craves sin.
19) Harm rat mine.
20) Nylon sari is hard.

All answers to the Christmas Cataclysms and the Jolly Xmas Competition, plus letters of complaint and parcel bombs, to BENT BY THE TANKERS whose address can be gleaned from the membership list, and please, please not to the Editors

CALVIN'S COLUMN

DILLIES IN THE LOCAL COAL MINES

Up to 1960, when working small areas of coal in faulted areas of the Main Band workings, small pillars of coal would be left. To get at this coal a different approach had to be used. A roadway was driven in the coal seam right up to the edge of the fault, then other roadways were started off on the high side. This was alright at first for when the coal was bored and fired it all dropped down to the trail road and was loaded into tubs and trailed out to the main road. But as the high side places got further up, the coal had to be casted back down. When the casting back got too far for the two or three colliers they would get themselves a piece of haulage rope and a good running tub, set a 'still' up in the heading and onto this fix a small pulley then run the haulage rope round the pulley with one end fixed to the good tub.

The tub was then part-filled with stone and old pieces of rail. A coupling was fixed on the other end of the rope and attached to this was an empty tub. After a bit of filling and emptying the dilly tub you had a system which took the empty tub into the heading. But when the empty tub was filled with coal you always had to use a locking in the wheel, to slow the full tub down so it could be slewed on the flat sheets.

There was always spare rope on the dilly tub so they could extend the dilly up the heading. The system was used when there were no haulages or when three men were unable to shove an empty tub up the rise.

SOME LOCAL TERMS USED IN THE COAL MINES

Bull - a coupling hook to hold a tub.

Monkey - safety device to stop a tub running down a slope.

Hawke - a pick with a hammer head.

Eloy - windy pick.

Snuff box - the end drum of a conveyor belt.

Dimond - plate on which tubs were turned.

Scrum end - filter on a pump.

Banjo - shovel.

Jimcrow - clamp device for bending rails.

HAIG PIT

Cumbria's last remaining deep coal mine is to close in August 1986. The N.C.B. told the 160 strong workforce at a meeting at the pit top on the 31st of October. It could close sooner, possibly March 1986. This will bring an end to deep, undersea coal mining in the Whitehaven area. We all knew Haig was finished as a coal mine when the kind N.C.B. stopped the last longwall face; the last shear was taken off 240 Face on Friday the 25th of May 1984, bringing coal production to an end at Haig. The work that has been going on at Haig was to try and develop new areas of coal in the South Side, but due to the bad geology in the South Side they were unable to make the planned development programme the N.C.B. set them.

Haig Pit, which was sunk in 1914 and once employed as many as 1,700 men, is now doomed. The development work has discovered no new seams which are big enough to justify taking on redundent miners and installing expensive modern machinery.

Meets Review

by McF

According to my special informant who, because of his meteoric rise to fame as the man who told the world about the Wild Cat Woman of Wharfedale (more about this feline phenomenon later) wishes to remain incognito, the Keld meet of the 7th and 8th of September was a bit of a wash out. Only three members turned up on Saturday and on Sunday the grand total was reduced by 33·33%. This must surely rate as the worst attended weekend meet in the history of the universe, depriving a memorable excursion into Borrowdale, many long hazy summers ago, of this dubious distinction. However, the mines, I am told, were extremely interesting, the surface remains being more or less intact. During the course of the weekend the three members examined the restored waterwheel pit and bouse teams at Beldihill Mine, and explored Crackpot Hole Level - which was very constricted - and Swinnergill Main Level.

Last year, on returning from a meet in Arkengarthdale, half a dozen members briefly visited Beldihill Mine, walking along the hillside from Keld in the warm evening sun. The smithy, now used as a barn, is worth looking at for the hearth is still intact; in fact the whole valley is a treasure trove of remains, and a more idyllic location for a mining venture has yet to be found.

On the 15th of September twelve members met at Ulpha Bridge, on the river Duddon, for a hike around the copper trials of the surrounding fells. Under the leadership of Ian Tyler - who turned up half an hour late and was sufficiently hard-faced as to blame Dave Blundell's driving - we set out for Holehouse Gill Mine, first passing an open shaft - explored by CAT in 1980 - on the hill above the old bobbin mill.

Holehouse Gill Mine is situated on the side of Hesk Fell, over a mile from the road, and can be reached only by a wet trudge across open bogland. After passing the last farm the track winds through the mires and crosses Holehouse Gill Beck on a bridge constructed from rusty railway lines. Whether or not this bridge was built by the miners is a mystery not likely to be solved; but the lines almost certainly came from the mine.

The mine was worked from three levels, the upper two - judging by the size of the spoil-heaps - being quite extensive. The middle level was dug open several years ago by CAT, but a collapse some distance in has never been cleared and the stopes are completely sealed off. The mine buildings, although in ruins, were substantial enough to offer us shelter from the wind and comfortable enough to allow John Crammond to subside into his second snooze of the day, the first occuring in his extremely expensive car whilst waiting for the meet leader to materialize. And speaking of the meet leader - only one person ventured underground here, the unquenchable Tyler, equiped with his amazing foldaway shovel and size 14 Peruvian latex boots specially constructed by a Carlisle engineering firm for tall men who have a phobia for overhead cables. Tyler emerged bubbling with ebullience and extremely filthy.

The next mine was at Logan (pronounced Loggin) Beck. We reached this by trudging in a straight line across another two miles of bogland and through a dense conifer plantation. Curiously enough, although we didn't follow any paths, mid-way between the two mines we came across another bridge constructed from railway lines, spanning a deep pool in a beck. At the mine Ian pointed out a derelict reservoir, now a shallow depression in the bogs, which once fed the small waterwheel used for raising ore from a shaft. The shaft was originally about sixty feet deep though now it is more than half-filled with water. The main level, which is the only level still open, is quite extensive, running for several hundred feet along a copper-bearing vein. A series of deep and dangerous sumps in the floor of the level drop into an area of stoped ground, now totally flooded. The ruin of a smithy stands at the level entrance and it is possible, with a little rearranging of the nettles, to examine the hearth. In front of the smithy is a soft expanse of close-cropped grass upon which it is possible to snooze with gusto, as John Crammond

demonstrated. (This was Crammond's third and final snooze of the day. When asked what strenuous nocturnal activity had reduced him to the pitiful wraith stretched before us he would only smile evasively and close his eyes again. We can but speculate as to what he had been up to).

Unable to attend the weekend meet in Wharfedale I again issued my informant with a comprehensive sheaf of instructions and promised him, upon receipt of certain information, a copy of Max Bygraves' little-known book 'How To Breathe New Life Into Old Jokes', a publication for which he has been scouring second-hand book shops for many years.

Geof Cram led the meet, which got off to a flying start on Friday night with a visit to Trollers Gill Mine. Amongst the members present were two rough-looking youths on a motorbike who rode off into the sunset before the pubs closed and were never seen again, heading, it is rumoured, in the direction of Millom where the prospect of a Saturday morning's overtime had effectively doused their enthusiasm for mine exploration. On Saturday eight members entered Buckden Gavel Mine, spent seven hours on the move and never saw all of it. Plenty of scope here for another trip, said my informant in eager anticipation of aquiring the aforementioned book. There were plenty of artifacts - rare things nowadays - the most curious being the remains of a wooden cart which was, presumably, used in narrow and restrictive levels where the installation of rails would have been impracticable. On Sunday, while the rains came tumbling down, Geof led a walk around the surface remains on Grassington Moor, inspecting, amongst other locations, the site of Merryfield Mine and Endeavour Mine. Here, again, there was plenty to see: old engine houses and stone-built buddles, things that are not to be observed in our Lakeland hills.

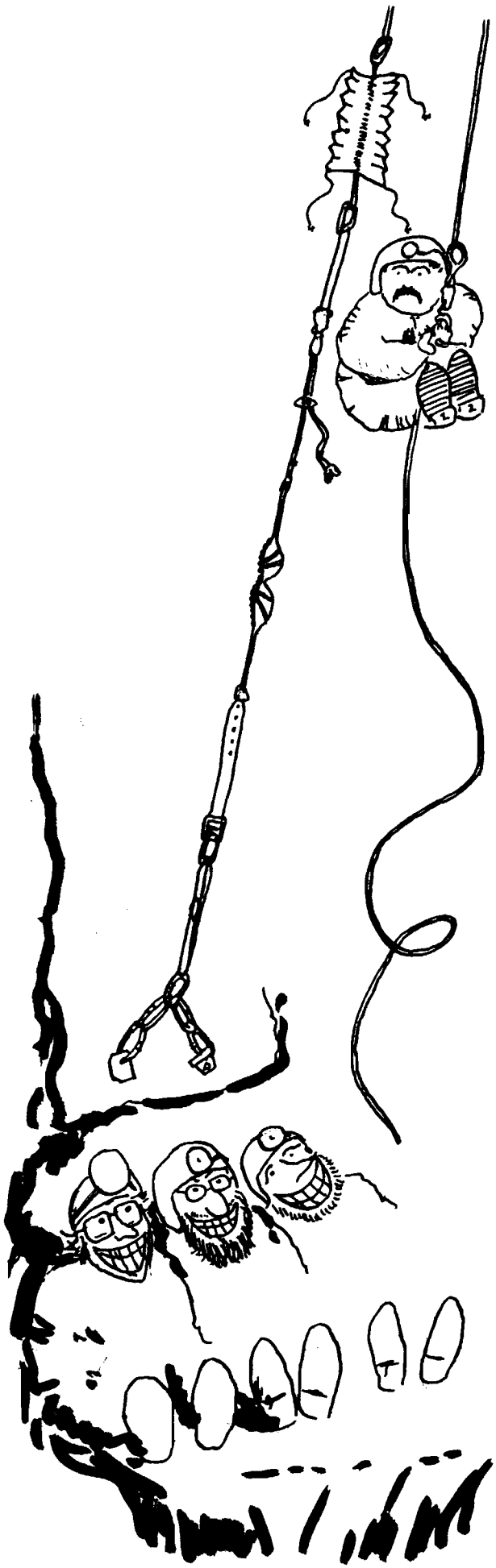
Before I move on to the next meet my informant insists that I mention that now well-known phenomenon, the Wild Cat Woman of Wharfedale, an apparition which has so far materialized only on this one occasion but, we are assured, will appear again to imbue us with wonder in the not too-distant future. Member Joan Helme who, apparantly, is not only a dab hand at making her own clothes, is also endowed with that strange and indefinable sense of humour so essential to those wishing to remain members of this society for any length of time. Not impressed with the wetsuits, drysuits, furrysuits, and other caving apparel available in the outdoor shops, Joan has made her own underground garment - the CAT SUIT - a devillishly cunning coverall fashioned from a clinging leopardskin material. Has it got a tail? Alas, that information has been withheld but I'll let you know as soon as I've had a sneaky look - that is unless the animal rights people get to it first.

Now then, where did I put that joke book I'd put aside for Peter Fleming?

The 27th of October was a glorious autumn day, more suited for a walk on the tops than a visit to the Wad Mines of Borrowdale. Twenty-three members turned out, all huffing and puffing up the steep fellside to the entrance of Harrison's Stage (or was it Goaton's Stage?) where they collapsed in the grass to have their particulars jotted down by the meet leader, Angela Wilson, who appeared to be the only person not suffering from oxygen starvation. The young doctor Merrin, who had spent the previous night sleeping up at Hollow Stones on Scafell so he could get an early start (yes, lost again, wrong mountain, wrong valley) was present to administer artificial respiration to the older members and was obliged to give up on one or two, a certain chap from Kentmere being written off and left for the vultures.

The main body of the group were shown the ramifications of the upper levels by Angela, the remainder fragmenting into a number of small cells and disappearing in different directions. I don't know what each individual group got up to so I will make do with relating the antics of the group I was attached to, which included the young doctor Merrin, Editor Jones, and Dennis Webb who was taken along for ballast.

We abseiled down a fifty foot shaft from Harrison's Stage to Gill's Stage where we bumped into Ian Mathieson and Richard Hewer, who had descended another shaft close to the dam in Newhouse Gill. Descending further we came across Member Timothy F. Clark who was either enjoying a solitary ramble through the workings or had been left behind by some other group. Alighting on Farey's Stage, which is one of the main levels (for a detailed cross-section of these mines see News-



letter No.1), we nipped outside for a bite to eat before descending the Grand Pipe, the site of the richest ore body in the mine. First stop down the Grand Pipe was the Old Men's Stage, a very ancient level that once went out to daylight but can now only be entered from inside. It is an excellent example of a coffin level, being driven with hammers and wedges before the advent of gunpowder.

From the Old Men's Stage the plan was to abseil down Dixon's Pipe in a series of three pitches to Gilbert's Level, the lowest level of the group - excluding Robson's Level which is lower still but not connected to the main group of workings. At this point things became complicated for we were employing the far-from-foolproof abseiling system where the participants descend on a double rope and pull the rope down after them. On the first of the three pitches the rope, on being pulled through the permanent belay, jammed. The young doctor Merrin bravely volunteered to prussick back up and sort it all out while the rest of the team hung on to the other end, using for a back-up belay an old Karibiner McF had just found in the bottom of the Grand Pipe (have to test new tackle somehow). This problem overcome, we embarked on the next pitch only to be confronted by a problem far more serious. The rope was not long enough. Fair enough, when used in a single length there was plenty to spare, but this would mean we couldn't pull it through to use it on the third and final pitch. In essence, we were trapped on the middle pitch with no hope of climbing up and no means of getting down.

After much scratching of heads Jones, Merrin, and myself, abseiled down on a single rope, leaving Webb at the top of the pitch. Once at the bottom, and after a little more debating, we decided on a plan to retrieve Dennis and the rope at the same time, not wishing to leave either behind. Necessity being the mother of invention and all that, the thing to do, we agreed, was to make the rope longer. All manner of things were then joined together: karibiners, slings, wire belays, harnesses, cows' tails, braces, suspender belts, you name it, it was in there. This agglomeration of gear was belayed at the bottom of the pitch and the other end joined to the rope. Dennis then pulled the rope through the belay at the top of the pitch till he'd taken in all the slack, and abseiled on the free end. The plan worked a treat. I must add that Dennis was totally unaware of what was going on at the bottom of the pitch and appeared to be mildly surprised - while casually abseiling down - when in the darkness his eyes alighted on a pair of Chris Jones' braces stretched to their limit and tunefully twanging away in the shadows. Still, all went well. But the young doctor Merrin

insists to this day that his cross-your-heart Platex bra has never been the same since.

By comparison the third and final pitch, which is about sixty feet down a shaft sunk from the bottom of Dixon's Pipe, went without a hitch. To be quite honest it was rather dull.

In the next Meets Review read about the successful attempt by fourteen CAT members to abseil the entire depth of Coniston's notorious Triddle Shaft, five-hundred feet of nail-biting and unsurpassable horror. Discover the fantastic mineral formations in the Taylors Level extension, one of which - Wickenden's Wonder - featured on the cover of the Journal. Your imagination will be projected to new boundaries, your inner spirit elevated to dizzy heights by the bravery, the dedication, the comradeship. Read about Ian Mathieson, the man who sacrificed all and valiantly fell through the rotten plank; Chris Moore, who unselfishly offered to chop his own legs off to save his fellow members; Phillip Merrin, master physician, the man who brought blinding light to the dark stopes by waving his iridescent Hawaiian shirt above his head. Important questions will be answered. What significance has the sighting of a yeti on Striding Edge with the absence of Mike Maher from the Triddle team? How did [illegible] Fleming last a whole day without losing his temper? Who was the man who [illegible] out, got changed and donned a £75 technicoloured dreamcoat before t[illegible] had even clipped his jammers on the rope? All this and more in the ne[illegible] f the Newsletter.

THE EDITORS WOULD LIKE TO
WISH YOU ALL A
MERRY CHRISTMAS