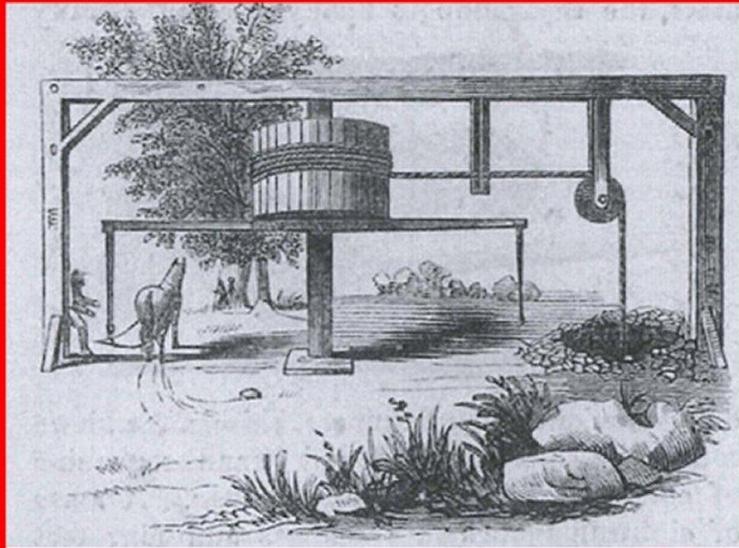


# DAVE TUFFLEY'S MINING GLOSSARY



Glossary of Mining Terms  
used in the Forest of Dean  
iron ore and coal fields

## INTRODUCTION

The Forest of Dean has a rich and distinct industrial history. Coal was recorded as being dug in the Forest in the mid 1240s, but its extraction was of secondary importance to iron ore mining until the 17th century. The mining and ironmaking industries were at their peak in the 19th century. In the 20th century deeper mining was abandoned as reserves of ore and coal became uneconomic to work, and jobs in mining and heavy industry largely disappeared to be replaced by other forms of employment.

In the mid 19th century, it was said there were more men working below ground than there were working above, and as late as the 20th century, when there were still large pits operating in the Forest of Dean, coal mining remained the principal source of jobs, employing 55 per cent of the adult male population, 84.5 per cent in the Cinderford area.

Today the tradition of mining is still carried on within the statutory Forest by a small group of Free Miners, operating a handful of small collieries, one iron mine and eight stone quarries.

Over the course of the years the miners developed a unique working vocabulary. Specific technical words or jargon formed part of the language used by miners at work. The use of this distinctive language in the mines helped strengthen the unique bond which existed between the miners. Although there are technical words specific to the mining industry which were in common use throughout the country, there are also words or phrases which were unique to a specific mining region or community.

Dave Tuffley, a leading member of the Forest of Dean Local History Society, has a long term interest in the history of the local mining industry. For over 25 years he has researched mining accidents in the Forest of Dean coal and iron ore fields by examining local newspapers, coroners' records and cemeteries. As a result he has recorded the details of hundreds of accidents in local mines and quarries. During the course of this research he has also come across many unique expressions and words that apply locally in our mines.

The results of his research into mining terms used in the mining operations in the Forest of Dean iron ore and coal fields have been collated into this 'Glossary'.

The Glossary is intended to be a 'living' document so if you know of any mining terms not included, or would like to make a comment, please use the feedback form at [www.forestofdeanhistory.org.uk](http://www.forestofdeanhistory.org.uk) .

There is a certain urgency in recording as many of the mining terms as possible, because, to quote Dave Tuffley; "Most of the Forest miners who worked for the National Coal Board are in their late 70 to 80's and once they have gone there will be no one to ask for this information."

## **Glossary of mining terms used in the Forest of Dean iron ore and coal fields.**

Certain terms are spelled phonetically as no known spelling is known to exist

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latest update:- 18<sup>th</sup> May 2017

### **A**

**Above the Wood:** The ancient division of the Forest of Dean mining areas pre-1838 Mines Act. The area included Newland, St Briavels, Staunton and Bicknor. They came under their own Deputy Gaveler until the passing of the 1838 Act of Parliament.

**Acme Mining Pick:** *See Hardy Patent Pick for identical description*

**Adit:-**A near horizontal tunnel by which a mine is entered and with just sufficient rising slope to ensure water drainage and to ease haulage outwards. This was usually driven with a rise of 1 in 200. Reputed to be from the Latin word adit, which means “way in”

**Advance Mining:-** The method of working coal is where heading roads were cut and the coal was worked as soon as possible, from the shafts and levels outwards towards the gale boundaries. Although profitable very early on, it meant that all roads had to be maintained with stone packs, steel rings and stone arches. The initial gain was lost later on due to the extra expense and the continual maintaining of the main roadways.

**Afterdamp:-** This name is given to the nitrous fumes given off after initiating an explosive charge. The effects could be counteracted by placing a wet cloth around the nose and mouth in order to get to a fresh atmosphere. At 0.025% in air it can cause death in a very short time. The fumes were normally dispersed by an adequate ventilating current. *See Powder Smoke*

**Air Bridge:-** Where the ventilating current passing down a tunnel needed to pass over another ventilating branch, an arched bridge was constructed. This allowed the two currents to bypass each other by the one current passing over the top of the other without any contact being made. If a current passed deep under the other, there was a chance that potential ponded water in the underpass would affect the passage of air.

**Air Door:** *See Ventilation Door*

**Air leg:-** An pneumatic strut part of a rock drill attachment which held the rock drilling head secure in between the roof and the floor.

**Air lock:** A set of two doors, set one in front of the other in a roadway, so when the one door is opened to access the roadway beyond it cannot short circuit the ventilation air flowing around the mine workings as the second door, either in front or behind, is still closed.

**Anchor Prop:** This is a piece of timber whose top end was thrust up into the rock at an angle. A Sylvester Tensioning device would be attached to the bottom end of the prop. When the tension came on from the Sylvester this would pull the prop upwards and creating a secure anchor for the Sylvester. *See Sylvester*

**Anemometer:-** A hand held instrument that was used to measure airflow and was used to establish ventilation air volume flow and to see if an adequate ventilation current was travelling along a roadway. By reading off the air flow rate and

multiplying that by the cross sectional area of the roadway, the cubic volume of airflow could be established and recorded.

**Angle Bob:** *See Balance Bob*

**Angle of dip or Dip Angle:-** The true angle of descent from the horizontal of a seam of coal or vein of iron ore

## **B**

**Backstay:-** *See Dagger*

**Bailiff or Bailey:-** Another name for a Pit Manager

**Bailey Seam:-** Also known as Yorkley Seam, Nags Head Seam or Yard Delf Seam

**Balance Bob:-** A large beam or lever arrangement attached to the main descending pump rods of a Cornish pumping engine and carried on its outer end a counter-balance box

**Balance Box:-** A large box placed on the end of a Balance Bob and filled with scrap iron or stones, to counterbalance the complete weight of the pump rods in the mine shaft.

**Balance Pit:-** *See Staple Pit.*

**Bank:-** The surface top of a mine. 'Being brought up to bank' meant being drawn up from the mines workings to the surface

**Banksman:** This man's job was chiefly to empty the shaft cage of carts full of coal, dirt or iron ore and then to put the empty carts back into the cage. In the case of an adit, he did a similar job by removing the full carts from the haulage rope at the surface for emptying, and then sending the empty carts back down underground.

**Bannister:-** A built up rounded corner usually at a road junction, to allow a haulage engine to pull around a 90 degree bend by the rubbing of the haulage cable on the wall of the bend. Usually made of masonry or brick construction, sometimes used with vertical rollers set in series.

**Bare Licence:** A non-assignable licence issued by the former National Coal Board to the existing working free mines at the time of the 1946 Coal Industry Nationalisation Act. This allowed the free mines to continue working in the manner given in the various Forest of Dean Mines Acts prior to the 1946 Act.

**Barrier:-** A large continuous thick rib of coal left around the perimeter adjacent to an adjoining mine gale. This was supposed to prevent any abandoned adjacent colliery or iron mine filling up with water and thus flooding the adjacent mine. However, this rarely proved to be successful, as the abandonment and closure of Trafalgar Colliery had a chain reaction of flooding which ultimately caused the closures of Foxes Bridge, Crump Meadow, Lightmoor, Speculation and finally New Fancy Collieries in the House Coal seams of coal

**Bash or Bashing:-** A barrier of boards or planks used to seal off any access to an area of danger.

**Basket:-** A sturdy wooden basket suspended from the winding rope and made for the shaftsmen to do repairs to the shaft and its pipe work. *Also known as a Corve*

**Bastard Fireclay:-** This was the hard stone-like fireclay that sat directly under the Yorkley seam. It has little grain in it and fractures easily in any direction. Most fireclays were of a softer, literally clay-like texture

**Becander:-** Small 10 horse power haulage. *See also Pickrose*

**Beef:-** A term used by early miners to describe the condition of the roof, exact definition is not yet known. '*He was struck by the falling of a strong top, called 'Beef'.*

**Beethoven:-** An powerful exploder that could to simultaneously fire up to 100 detonators at a single firing

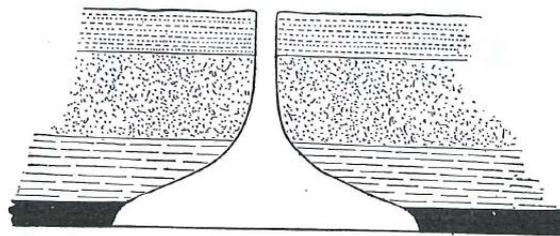


### **Beethoven 100 shot exploder**

**Bell:-** The origin of this feature is thought to be the remains of a fossilised tree stump that has been replaced by sedimentary deposits so that original form of tree has been preserved. It was a very dangerous feature and often liable to suddenly fall without warning from the roof and causing severe injury or death. It was tested by tapping the roof using a pick head, deputy's stick or any other suitable object. The tapping sound would change down lower in tone indicating that something was loose, although this could not be relied upon. If a bell feature was spotted it had to be securely timbered and supported.

**Bellcrank:** a large heavy triangular iron frame used to change the direction of the reciprocating motion of the pumping mechanism. Two good examples of this were found at New Fancy Colliery in 2015 when new capping was being placed over the main winding shaft

**Bell-pit:** An early primitive form of mining where a shallow shaft was sunk onto the shallow outcrop of a coal seam. The coal was worked around the shaft until the workings became unsafe and then the pit was abandoned at the point of collapse. In section the worked out area looked in section similar to a bell. *Not to be confused with Strike Pit*



**A typical Bell-Pit shape**

**Belts:-** The rubberised underground conveyor belts used to move the coal from the face and into the waiting coal carts or directly to the surface via an adit.

**Beltman:-** A person who operates and maintains a coal belt..

**Beneath the Wood:-** The ancient division of the Forest of Dean mining areas pre 1838 Mines Act. The area included Littledean, Mitcheldean, Ruardean and Flaxley. This area came under its own Deputy Gaveller until the passing of the 1838 Act of Parliament

**Bevan Boys:** During the period from December 1943 to March 1948, Minister of Labour, Ernest Bevin, introduced a scheme whereby 10% of boys conscripted into the

armed forces would be diverted into working in the various sorts of mines, as the country was desperate for coal and other minerals for the War Effort and home consumption. Bevin's secretary would pull a single digit from a hat and for a period all those whose national service number that ended in the digit would have to become a 'Bevin Boy'. They wore no uniform and some suffered taunts and were wrongly assumed to be avoiding service in the armed forces.

**Billy:-** A name for the oval hod or box used in the iron mines. This generally differs from the hod used in coal mines as it usually did not have sled runners, but was carried on the backs of boys whilst they were on their hands & knees or crouching down. It was made with a steel metal side which was nailed to a wooden base. A stout leather strap which came over the billy boy's shoulder and the whole was secured to the boy's waist belt by a billy catcher. It is now known that the working of Wigpool Iron Mine did use both types of billy and sled-hod

**Billy-Boy:-** Usually a young teenage boy used a billy on his back to carry out the hewn iron ore from small tight workings and take it down to tip into a truck. It was a very tiring and arduous job. Boys were used as they could access the small workings much easier.

**Billy Catcher:-** This was a curved piece of wood, bone or iron which was attached to the billy by a leather thong or strap. The opposite end of the catcher had a hook which attached directly to the billy boy's belt or a leather loop attached to his belt. Billy catcher lengths were made to suit the individual using it. The use of a billy catcher allowed at least one hand free for climbing and movement. The last reported use was in 1945 in the New Dunn Iron Mine.

**Billy Fairplay:-** A weighing machine that weighed the screened coal to ensure that the colliery owner only paid for large coal that the miners were contracted to produce. The machines were often viewed with suspicion by the colliers. Recorded as being used at East Slade Colliery in 1893.

**Bind:-** Sandy shales

**Black Damp:-** Called Carbonic Acid Gas, Stythe, Blind or Choke damp. Given off by decomposing timbers and oxidised pyrites in the coal. It is odourless, tasteless and is heavier than air. Will not support combustion, and can be detected by lowering a lighted candle and watching the flame lower on the wick, and will very often lift and burn 2 inches above the wick without touching the wick. The flame will finally expire if the gas is present in large quantity. It can hang in low depressions and catch the unaware. Chief constituent is Carbon Dioxide. At 3% in air it will not support combustion and any candle or safety lamp flame will be extinguished and all workmen would have been withdrawn into a fresh atmosphere

**Black Diamonds:-** Coal - both coal and diamonds are made of carbon

**Black Powder:-** *See Powder*

**Blacks:-** *See Warden*

**Black Spit:** *See Pneumoconiosis*

**Blast Net:-** A steel mesh net stretched across an area of a tunnel or heading to stop the progress of flying rocks and debris being scattered wildly due to an explosive charge detonation.

**Blind:-** *See Blackdamp*

**Blind Heading:-** A heading road that terminates in a solid end. *Also known as a Tighter*

**Blind Joint:-** An obscure bedding joint in the rock strata .which often led to falls of coal from the face, or roof falls because they could not be easily detected

**Block Coal:-** largest size of screened coal

**Blow George:-** A small ventilating fan driven by hand

**Blowing Road:-** The underground roadway where the stale air, that has ventilated the workings, is taken out of the mine via the upcast shaft (opposite to Wind Road)

**Blue Ore:-** *See Flint Ore*

**Bob Wall:-** The thick stone wall used to support the Cornish beam engine balance beam by pivot blocks on the top surface of the wall

**Bodger:-** *See Windy Pick.*

**Boiler Coal:-** The coal produced that was destined to be used in the mine's steam boilers, was marked with typically chalk with a letter "B", either on the top lumps of coal or on the side of the coal cart.

**Bond:-** The name given to the shaft cage or man riding trolleys or carts down a dipple. The men on the first bond were given a bond check to enable them to be the first back up out of the mine. In the manner of first men in, are first men out. *See Bond Check.*

**Bond Cast:** Winding of the miners and other workmen up and down the mine shafts and adits in the large mines, was done at certain specific times. If a miner arrived late at the pit head and was outside this time period he would not be allowed to descend and was described as being "bond cast." and he would be sent home. Interference with the winding of coal was not allowed outside these specific times unless it was an emergency

**Bond Checks:-** A paper ticket issued to miners who arrived first at the mine shaft or entrance to allow them to come back out of the mine in the same order and to prevent queue jumping. Especially helpful to preventing miners hanging about for too long in soaking wet clothes

**Bond Rider:-** A miner who used to ride on the leading end of a man-riding journey. Used in the southern part of the Forest coal field.

**Bonnet:-** Permanent overhead cover over the upcast shaft headgear in order to create a pressure differential with the down-cast shaft. This aided the ventilation of the mine.

**OR** the cover placed over a cage or truck used to raise or lower men and materials

**OR** the permanent cover around the gauze of a flame safety lamp.

**Book of Dennis:** Customary laws and privileges of the Forest of Dean Mine Law Courts were said to have been originally written in a document called the Book of Dennis. However, more recent controversial historical research has failed to uncover the document, or even that it existed at all.

**Borer:** The name given to a hand drill or a compressed air driven drill that produced the shot holes in the coal seam or rock heading.

**Bounce:-** A sudden explosive fall forwards of the coal face due to excessive super-incumbent pressure.

**Bowk:-** *See Kibble*

**Brashy:-** Usually refers to the nature of the surrounding rock or of the coal seam, meaning unsupportable, broken rock.

**OR** a dirty, broken, unworkable coal.

**Brass:-** The shiny iron pyrites found commonly in some of the Forest coal seams especially the Coleford High Delph Seam As its name suggests, it has a brassy look and is commonly called Fool's Gold.

**Brattice (or sometimes Braddish):-** A temporary screen, used in same manner as a brattice cloth

**Brattice Cloth:-** A canvas material with a rubberised coating. Used for directing a ventilation current into a particular part of the workings. The cloth was often hung from a wooden frame.

**Brazilly Seam:-** This seam is located in the Supra-Pennant geological group and is a bituminous Household Coal situated above the Yorkley Seam. It attained a thickness of 24 to 42 inches and had 3 leats, separated by thin partings of shale or stoney coal. Only where at least 2 leats had come together was the seam profitably worked but only to a limited extent. It was overlain by a thick sandstone roof but this could pass into sandy shales and was generally underlain by a shale floor.

**Bread Time:-** The name for the miner's lunch break generally about 20 minutes long in Princess Royal and in the southern part of the Forest coal field.

**Breadless Seam:-** This seam, when it is found, it is situated about generally 30 feet above the Churchway High Delph Seam. It is found in the Supra-Pennant geological group and is a thin, bituminous Household Coal. It had a sandstone roof and was underlain with a shale floor. As its name suggests, it was not worked anywhere in its own name due to its thickness of only 8 to 10 inches.

*See also Churchway High Delph Seam.*

**Brew:-** A name given to a rising road driven upwards up off another roadway. A known example of this usage was known to exist in New Dun Iron Mine

**Bridle Chains:-** *See Tacklers*

**Bridge Rail:-** A early type of underground steel rail made by passing a steel sheet through forming rollers, which made the rail section into a bridge shape in section. Older section type than 'T' Top rail and used for mainly transporting the coal or iron carts underground



### Typical Bridge Rail profile

**Broken ground:-** A description given to an area underground where the seam or vein has been mined away and the subsequent void has allowed the roof to collapse into it, destroying the strata above.

**Brow:-** The top of an incline or dipple

**Brush Ore:-** A fine stalactitic brown haematite resembling the bristles of a brush

**Bull Engine:-** This steam engine was situated directly over the shaft of a mine and was used for driving the pumping apparatus by pulling directly in line on the pump rod by the engine's cylinder rod. The stroke of the pumping mechanism being

identical to the engine's length of stroke. The weight of the pump rod being counter balanced by one or more balance bobs attached to the pump rods in the shaft. An example of bull engine was used at Fairplay Iron Mine

**Bull Head:-** A vertical waisted roller set in a series to help ease a haulage rope around a bend and prevent it rubbing against the walls of the roadway.

**OR** another name for 'T' top rail.

**Bull Week:-** Prior to any holidays extra effort was made to clear the coal faces resulting in more wages to the colliers and hewers. The colliers and hewers in turn gave a donation to the trammers for their extra efforts in clearing the coal from their particular face.

**Bumping:-** *See Flitting.*

**Buntons:-** Vertically aligned cross-timbers which were placed horizontally across shaft to support cage guides, cable guides or pipework. *See also Byatt*

**Burnside:-** A long drill used to safely detect the location of water when nearing old workings.

**Butts:-** The piece of coal which is undercut by the coal cutter

**Butty or Buttyman:-** A collier, who was contracted by the colliery to work an agreed area of coal. He would then employ other colliers and boys to help mine the coal or iron ore. There was usually two butty men to a group, one working on one shift and the other on another shift. They paid their own workmen a day rate but kept any profits for themselves. When the work became scarce the day rate workers would be laid off first. The system ended by pit head ballot in 1938 in Eastern United Colliery. The use of contracted labour relieved the pit owners of compensation payments under the Employers Liability Act.

The word is the origin of the Forest expression 'Old Butt or Old Butty' and also means a friend of the speaker. However this usage was also used in the South Wales coalfield

**Byatt:- (variations of spelling)** A timber stay or beam in a shaft using to support vertical cage guide rails. *See also Bunton and Horse Trees*

## C

**Cabin:-** A recess or room cut into the solid rock near to the pit bottom where various types of workmen would be stationed prior to going out to a job in the colliery workings. There would be a series of cabins for each type of tradesmen

**Cable Repairer:-** A man whose job it was to repair the heavy duty electric cables to the haulage winches, coal cutters, coal borers etc.

**Cage:-** When the use of lifting or dropping the men down the pit shafts in coal or iron carts or kibbles were superseded, steel cages came into common usage. The steel cage was securely connected to the winding rope and the cage could have steel mesh sides and a steel roof or bonnet to protect the miners from any falling water or debris. From the front and back of the cage secure gates were used when the cage was in motion. The mine carts were held securely in position by being clamped by the axles when the cage was in motion

Some cages were multi-decked to allow more carts to be wound up at one time. The roof of the cage could often be removed to allow long items to be protruded up in the air to allow safe winding e.g.. lengths of rail

**Cage Guides:-** In order to allow the two cages to travel vertically and to safely pass each other at the shaft mid-point, the cages ran in steel cage guides which were located at the top and the bottom of the cage

**Calcium Carbide:-** The basic fuel to power the carbide lamp. It looked similarly to hard lumps of gravel, which unless paraffin was used to dampen the nodules, would eventually turn to a white lime dust due to a chemical reaction with moisture. Many local shops would have stocked carbide in small sealed tins or in large drums if demand was steady enough to warrant the expense. It would give off acetylene gas when in contact with water.

**Canary:-** This song bird was once regularly used in local coal mines as an early warning system. Toxic gases such as Carbon Dioxide and Carbon Monoxide would kill the bird before affecting the miners. Signs of distress from the bird indicated to the miners that atmospheric conditions underground were unsafe. The use of canaries for this purpose were finally phased out by 1987.

**Carbide lamp:-** This type of open flame lamp was fuelled by the regulated dripping of water upon the calcium carbide fuel, which chemically reacted and then produced acetylene gas. The gas was emitted out through a fine jet and when ignited, burnt with a bright illuminating flame. The flame was focused with a reflecting shield to prevent the light blinding the miners' vision. Because methane gas was absent in the Forest of Dean's coalfield, open flame lamps were permitted.

The lamp could be either a hand lamp or a lamp that was attached to the miner's helmet by inserting the lamp's metal clip into a bracket on the front of the helmet. Often the miner would hold the lamp in place on his flat cloth cap by inserting the clip onto a piece of string that went around the rim of the cap. There were numerous models of this type of lamp - Justrite, Premier, just to name a few. It is interesting to note that the Premier Carbide lamp is still in production at the time of writing. Stan Meredith had a factory at Lydbrook which manufactured various types of carbide lamps which are now highly collectable and command a very high price



**Premier Cap Lamp**                      **Premier Hand Lamp**  
(Neither to scale)

**Carbide tip:-** A steel boring drill with tungsten carbide tips on its cutting faces to allow drilling a hard coal or rock without having the need to re-sharpen the drill so often.

**OR** the cutting teeth on the coal cutter jib were tipped with carbide to keep a sharp cutting edge

**Carbonic Acid Gas:-** See *Blackdamp*

**Cart:-** Common name for an underground truck used for transporting coal, iron ore or waste materials. (*See also dram, skip, tub & truck*)

**Cart Repairer:-** A man whose job it was to literally repair bent and broken coal carts and return them back to service in the mine.

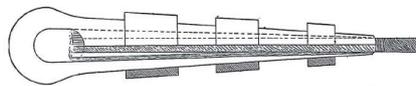
**Canch:-** *See also Caunch*

**Candles:-** These were made from tallow wax and were designated by the weight per pound. Therefore “16’s” were 16 candles per pound weight. Often called “Dips” due to the method of manufacture of dipping a piece of wick into the molten tallow and allow it to harden and then repeating the process until the required size was reached

**Cap:-** The top horizontal piece of a timber setting

**Cap Lamp:** Originally a carbide lamp that hooked onto a string that was wound around the flat cap that the miners once wore underground. Later it meant an electric lamp that ran off a lead acid accumulator that was worn on a belt around the waist and the lamp fitted into a bracket on the front of the miner’s safety helmet.

**Cappels or Capels:-** Part of the shackling arrangement on the top of the cage. Usually made from a strong steel, to where each of the chains or tacklers from the cage was attached by means of a ‘D’ ring.



**A typical Cappel**

**Caunch:-** The overhanging supported ledge left in a ripping operation.

**Chain:-** A mine measuring tool consisting of lengths of wire section linked together which was 22 yards long and was used for measuring distances during surveying. Each chain had 100 links (7.92”). Mining plans were often scaled at 2 or 3 chains per inch. Now obsolete.

**Charging a Hole:-** (Black Powder) After the shot hole was driven using sledge hammers and a shot hole drill, the following is recorded as the sequence used at Lightmoor Colliery by Eric (Ky) Warren:-

1) A Rabble (or Rabbel), which is a long copper rod with a half moon end, bent at right angles to the rod, was used to scrape out the rubbish and dust from the drilling operation.



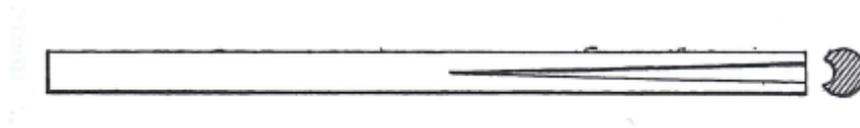
**Typical Rabble tool**

2) A bag or bags of black gunpowder were threaded over a long copper Pricker rod and both inserted together deep into the shot hole.



### Typical Pricker tool

3) A copper Rammer (or “rommer”), half-tube shaped, with a groove along its entire length and which sat over the first copper rod or pricker, which was through the powder bag, was used to ram the powder bag(s) down the hole and then the clay ramming around the rod. Iron or steel rammers were banned due to the number of fatal premature detonations caused by the non-copper rammers creating a spark



### Typical Rammer tool

4) The first pricker rod was finally fully withdrawn, leaving a hole through the clay ramming and powder bag, into which a black powder filled quill or German Squib, was inserted and sealed around with more clay and eventually lit to fire the charge.

**Check-Weighman:-** In order that the miners were paid for the correct amount of coal hewn and to see that the coal was of the correct size, the colliers were allowed to appoint and pay their own check-weighman to see fair play and honesty. He weighed the coal straight from the shaft and recorded the colliery gang’s mark that was on the side of the cart. It was not unknown for unscrupulous owners to under- pay or refuse to pay for so called small coal or coal allegedly with stones

**Chirker:-** A small stone which jams a drill’s rotation by getting jammed in the flutes of the air driven pneumatic drill bit.

**Choke Damp:-** See Black Damp.

**Churchway High Delph Seam:-** This seam is situated in the Supra-Pennant geological group. It is a bituminous Household Coal was of great demand and is found above the No Coal Seam. It is found in the central and northern parts of the Forest coalfield. The seam is divided into 4 leats known as Bottoms, Middles, Handfuls and Tops. Southwards, the seam splits into the Foot and Sixteen Inch Seams. The Tops and occasionally the Handfuls unite with the Breadless Seam and becomes the Smart Delph Seam. Where the Handfuls in not forming the lower section of the Smart Delph Seam, it is a thin unnamed seam 8 to 10 feet below the Smart Delph. Churchway High Delph Seam is overlain with a shale roof.

**Churn:-** The iron miner’s name for a large empty underground chamber that was once filled with iron ore.

**Clamps:-** Steel plates 6 to 9 inches long, 3 inches wide and 1/2 to 3/4 inch thick, driven over the top of the coal, and steel wedges were driven between them to force the undercut coal to break off and fall down.

**Cliff or Clift:-** Hard, blocky mudstone or marl.

**Clingings:-** The iron ore that clings to the side of a churn, in contradiction to the ore that was loose and easily shovelled up

**Clip:-** This was used to attach a coal cart to an overhead endless haulage rope

**Clod:-** A soft and tough mudstone or clay often found over, below and between thin seams of coal .Often found often on the north side of the Forest coal field, above the Coleford High Delph seam of coal. Sometimes also found in the iron mines.

**Clout:-** The name given to the action of hitting or striking something.

**Clumper:-** A large block of stone or earth or clay which fell from the roof of the mine roof..

**Coal Getting or Got:-** This was the very act of mining the coal. “The coal was got” meant the coal was mined. *See also winning coal or winning.*

**Coal:-** A combustible black rock consisting mainly of carbonised plant matter and found mainly in underground seams. Coal was laid down in the Upper Carboniferous geological period about 290 to 350 million years ago. Each seam has its own characteristics and is usually defined in the Forest of Dean into two groups, either as a House Coal Seam or a Steam Coal Seam. The total thickness together of all the coal seams in the Forest coalfield is about 25 feet in the north, and 32 feet in the south

**Coal Cutter:-** A mechanical means of undercutting the coal seam. Cutters were introduced into the Forest of Dean coal field with various degrees of success in the late 19<sup>th</sup> Century. Various styles of cutting machinery were tried and the most successful was the cutter type with a jib that looked like a chain saw which was driven by an electric motor. To prevent copious amounts of dust being created, water was supposed to have been sprayed into the jib. There were still 3 coal cutters working in the Forest in 2017

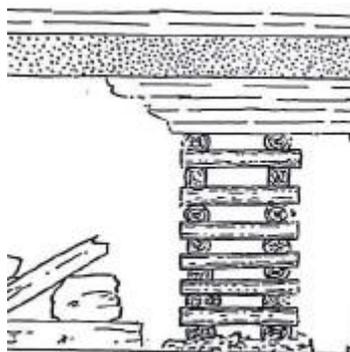
**Coal Master:-** A person of high social standing, who owned and ran an empire built on the large collieries that he owned. Often he was also an Iron Master. Such persons were Henry & Edwin Crawshay, Aaron Goold, Osman Barratt, Edward Protheroe, James Teague and William Blanch Brain, Sir Francis Brain and Thomas Bennett Brain. *See also Iron Master*

**Cocker:-** A vertical stick of timber put up off a timber setting cap to support a cavity in the roof above setting.

**Cockscomb:** The name given to the uppermost framework which supported the winding pulley wheel upon the head frame – expression used at St Annals Iron Mine.

**Coe:-** A place underground where the miners could sit together and eat their ‘bread’

**Cogs:-** These were stacks of approximately either 6 inches diameter or 6 inch square by 24 inches long oak timbers, each pair laid at right angles to the pair underneath. The cogs stacks were layered in several long rows parallel down the face. As the face advanced the cogs nearest the gob were removed and re-laid close to the face again and the roof allowed to gradually collapsing behind the last row. Cogs could be filled with dirt and rocks if they were to be left as a permanent support.



## A typical round timber cog

**Cog Blocks:-** The wooden timber pieces that were used to form a cog.

**Coleford High Delf Seam:-** This is the most important seam in the Forest coalfield. It is situated in the Pennant geological group and is a bright, bituminous Steam Coal, medium to soft in hardness, found above the Trenchard Seam. The thickness varied mainly between 42 to 60 inches. It could vary rapidly in thickness and could fall to nothing and rise to 9 feet or more over short sections. The seam was affected by washouts, but near this phenomena coal 20 feet thick was sometimes obtained. It sat generally under a sandstone roof but could sit under an area of shale or clod of various thicknesses in the north. Normally the seam was divided into 3 leats, separated by dirt partings but they could be absent. In the north a smut coal 12 to 48 inches was overlaying the seam.

**Collier:-** A miner of coal.

**Collier's Squat:-** Pronounced locally as "Qwat". The miner nearly always sat back onto his heels when stopping to talk to someone. This was due to the narrow House Coal seams making standing up nearly impossible. The name also applied when miners met in the street and persisted with this stance, even when it was not necessary. This now no longer seen in the Forest of Dean.

**Colliery Check:-** *See Tally.*

**Colliery Owners' Association:** An association of the colliery owners within the Forest of Dean which, by means of a sliding scale, set the wages per ton of coal or iron ore in their mines. This was originally set up to control the amount of miners' wages and also to prevent undercutting on the price of the coal and iron ore. Their combined actions often resulted in strikes and lockout in the mines. Militant miners could often be prevented in getting further employment in other mines by this association when laid off.

**Colour:-** A soft ochre or iron oxide that was used as a base for colouring paints and lime washes. Mostly scarlet red in colour but yellow, violet and other shades and hues were encountered. A valuable and most coveted scarce by-product of iron mining and worthy of a good bonus payment to the iron miner. St Annals Iron Mine had a large deposit of colour, which was so good and consistent, that it became a national standard colour shade known as 'Crawshay Red'. This was worth many times the equivalent amount in iron ore. Very often it was found to have the consistency of soft soap and was therefore easily mixed to make iron oxide paint.

Colour was also used as a 'raddle' and put on the belly of rams so that it marked the ewe's back to indicate when they had mated. *See also Red Ochre or Red Earth*

**Column:-** The long pipework up a shaft that carried the water from the pumps to the surface.

**Concessionary Coal:** A regular allowance of coal supplied to colliers as part of their wages or widows of miners killed or badly injured in underground accidents. Also supplied to colliers that had retired directly from the National Coal Board mines as they drew the old age pension. Sometimes supplies free of charge or at a reduced rate dependant on the individual decision of the pre-nationalisation mine owners.

**Conical Drum:-** *See Scroll Drum.*

**Cornish Beam Engine:-** This was developed primarily to drain the water from the Cornish Tin Mines. Its success caused the technology to be transferred to other types of mines. The reciprocating up-and-down motion of the piston in the cylinder is

transmitted by the beam to the piston in the water pump. The steam cylinder piston goes down under the partial vacuum created beneath the piston. The beam, powered by the cylinder piston, pulls up the water pump piston thus lifting the mine water. At the end of the downward stroke, the steam pressure is released and the steam cylinder piston returns to its original position because it is dragged back up the cylinder by the weight of the pump rods at the other end of the beam. This type of engine was commonly seen in the Forest of Dean House Coal Collieries and Iron mines developed during the 19<sup>th</sup> Century.

**Cornish Boiler:** A large stationary boiler with a single flue which extended through the boiler. The flue required a good natural draft of air, therefore, a tall chimney was required to ensure sufficient oxygen reached the fire and to ensure good combustion.. Unlike an Egg-ended boiler it was flat ended

*See also Egg-ended Boiler and Lancashire Boiler*

**Company:-** A group of miners working together to get the coal or iron ore and were all allocated a number to be written on their carts that were filled by the company. In New Dunn Iron Mine they consisted of up to six miners including a driller, a mucker and a trammer.

**Conveyor:-** An endless rubberised belt that ran on rollers set in continuous steel support frames which transported the coal and reduced breakage of the coal.

**OR** a double steel chain belt with spaced steel cross pieces which ran in a in a steel trough. Both systems used to move coal from the face and feed it into the coal carts.

**Conveyor Attendant:** A workman whose primary job was to operate and control the coal conveyor as took the coal away from the face and took it to a point where the coal was loaded into coal carts to taken to the shaft

**Corve:-** *See Basket*

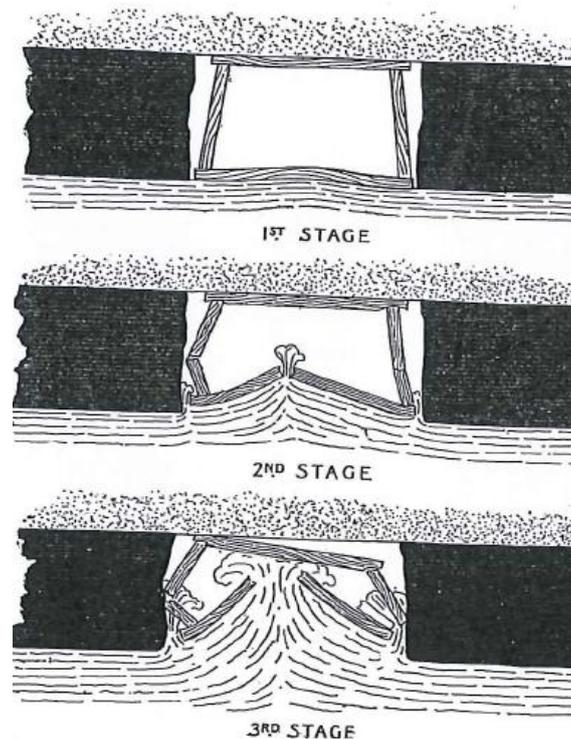
**Coupling:-** A short length of chain that attached one cart to another forming a journey of carts by means of hooking the chain onto a forged hook either at the front and the rear of the cart reading for hauling.

**Cowl:-** A tank or container used for hauling water up the shaft to the surface.

**Crab:-** A variety of hauling capstan consisting of a short horizontal shaft which serves as a rope drum. A crab was worked by gearing and used as a winch.

**Crease Limestone:-** Originally spelt Crys. This is the name given to the particular limestone strata which principally carried the main vein of iron ore.

**Creep:** The gradual filling up of roadways, stalls etc. by the expanding of the fireclay floor into such spaces caused by the weight of the upper strata forcing out the fireclay  
*See also Puff*



**Creep** – note that it was not usual for Forest of Dean mines to fit the bottom timber

**Creeper:-** An endless rope hauled track that took the full trucks of coal from the pit head and then into the screens. Arthur & Edward Colliery, Lydbrook, had a long creeper that took the carts 3/4's of a mile to its screens at Mireystock. It was double tracked and worked 24 hours a day. There was a short 'creeper' at the screens at both Northern United and Eastern United Collieries

**Crop:-** See *Outcrop*.

**Crop Coal:-** Coal at the outcrop of the seam, often soft, friable and contained little volatile material due to partial oxidation and was of little value.

**Cropped:-** To trim the coal back to the face.

**Cross-Cut:-** A tunnel driven through or across the measures from a shaft, or from one seam to another.

**Cross Measures Drift:-** See *Cross-Cut*.

**Crow Delph Seam:-** It is found in the Supra-Pennant geological group and was found 8 to 15 feet above the Twenty Inch Seam. It attained a workable thickness of 18 inches in the north. In the southern part of the Forest coalfield, where it is called the Dog Delph seam, it generally has a thickness of 12 to 16 inches in thickness and was therefore, worked to limited extent only.

**Culm:-** Small coal.

**Cut:-** See *Gutter*

**Cut Through:-** To swing coal face around at the Gale barrier

## **D**

**Daddicky or Dadducky:-** Rotten, beyond repair and of no further use, especially pit timbers and props. The spelling of this word is approximate only.

**Dagger:-** A safety device either in the shape of a large forged tapered steel pin, whose eye end sat over the rear cart draw bar hook and trailed behind. If the cart ran away then the dagger would dig into the ground between the track sleepers and stop a run-away from continuing down an incline

**OR** similarly a flat piece of steel 3 inches x 1 inch in section. The one end of the latter was split and splayed out to form two arms and a corresponding mounting eye was forged in the other and Similar in use to the forged steel pin method. *See also Swan Necked Dagger*

*See also Dog and Backstay.*

**Dams:-** These were put into disused roadways to prevent any unwanted feeders of water from the surface, potentially flooding the mine. They were built typically built of brick and/or concrete and had to be literally water tight all around. The crown of the dam arch faced the direction of water flow.

**Dasher:-** A ring of leather that fitted around the shank of a shot hole chisel, to prevent the dust suppressing water in the hole and rock fragments from flying back out of the hole with each blow of the hammer. Often cut from the leather of old boots.

**Davy Lamp:-** Correct term is a Flame Safety Lamp and was used for detecting Black Damp in the Forest mines. "Davy" lamps have long since altered their design since invented in 1815 by Sir Humphry Davy.

**Dead Rent:-** A sum of money set by the Deputy Gaveler for the annual rent of the gale area of the mine. If the royalty paid per ton of coal or iron ore mined, was greater than the Dead Rent sum, then the greater total sum of the royalty was always paid to the Deputy Gaveler each year.

**Deads:-** Waste rock and earth that is thrown into worked out churns in the iron ore mines, very often stacked to create dry stone walls leaving an access way if so required.

**Deep Pit:-** The deepest of usually two shafts sunk to the vein of coal or iron ore. The opposite of Land Pit.

**Delay Detonator:-** Used in order to make the detonation of a linked series of electrically fired explosive charges more efficient. If a tunnel was being driven using explosives, the centre charges would be linked up with instantaneous detonators. The next concentric ring would have several millisecond delay detonators fitted. The next ring would have a longer delay detonator fitted and so on. This allowed the first ignited charge to start to clear the centre away before the next round ignited. The following delayed charges would have less to move when they exploded and so on down the chain of detonation.

**Delay Fuse:** A delay in detonation was achieved by using safety fuse of differing lengths, hence the delay. A miner was seriously injured in New Dun Iron Mine during World war two as he lit the shortest fuse first of a series of charged shot holes!!

**Deputy:-** A safety inspector whose job it was to inspect the faces, airways, shafts, machinery and roadways before the start of a working shift. He was given a designated area to check and he was required to sign a written report of his findings. His authority was set down by various coal mining regulations. A pre-shift inspection and a 4 hour inspection after the shift started, was mandatory. The name is now redundant and simply called a Responsible Person

*See also Inspector & Examiner*

**Deputies' Crit:-** A small room at pit bottom with a table and a chair, where the deputy, after he had completed his inspection of his district, could write up his statutory written report. See known as the Deputies Hovel

**Deputy Gaveller:-** The Mining Agent & Crown Receiver appointed by the Crown to collect the mine dead rents, royalties and to supervise the running of the Forest of Dean coal and iron mines in accordance the Dean Forest Mines Acts and subsequent further legislation.

**Deputies' Hovel:-** *See Deputies' Crit.*

**Deputy's Report:** A compulsory inspection of all the working places within a deputy's district had to be made up to two hours before the other colliers started work on their shift. A mandatory written report had to be entered in the Deputy's district report book stating either whether the area was safe or whether any immediate action needed to be taken to render the area safe before any work could commence. The deputy nearly always stayed on to report findings to the next shift's deputy Such written reports in coal mines and latter in metaliferrous mines were made compulsory by Acts of Parliament

*See Deputy*

**Detonator:-** A device that detonated the main explosive charge. Sir Francis Brain and William J. Smith were the first in the world to use electric detonators underground at the Trafalgar Colliery in the early to middle 1870's. They eventually set up a factory on Serridge Green, near Brierley, for their manufacture. Detonators could also be initiated to fire by using a safety fuse which was a length of cord which would burn at a pre-determined rate and would explode the detonator when the flame reached it In electric detonators two copper wires were inserted into a copper tube, joined by a very fine wire which glowed when an electric current was passed down the wires. Theses wires were set in a fulminate which formed the initial detonating material and was ignited from the glow from the wires. They were liable to self detonate if knocked or abused.

**Detonator Box:-** Originally a lockable wooden box with a hinged lid, insulated internal wooden sides with individual cells, used to isolate and to protect the sensitive detonators from knocking each other and stray electronic pulses. They were later made from leather or plastic. The whole tin or box could be carried on the shoulder with a leather strap and were carried by a Shot Firer.

**Dial:-** The underground surveyor's theodolite, with sights, spirit level and inclinometer and is usually mounted on an adjustable tripod

**Dialling:-** The name given to surveying underground

**Dialler:-** A underground mine surveyor

**Dip Angle:-** *See angle of dip of geological strata*

**Dipple:-** An underground inclined roadway, usually following the dip of the strata and mainly describing a haulage road but can mean any inclined work road or work place

**Dips:** *See Tallow Candles*

**Direct Haulage:-** Used on an inclined roadway or Dipple where the carts were either pulled up or lowered down an inclined roadway.

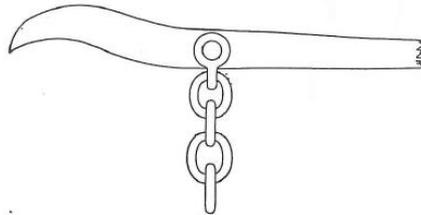
**Dirt:-** A fall of dirt often meant stone, rock, coal, shale, iron ore etc., literally anything falling from the roof.

**Dirt Day:** A day when only the dirt and rock would be brought out of the colliery and dumped on the colliery tip.

**District:-** An set specific area of the underground mine workings

**Dog:-** *See Dagger*

**Dog and Chain:-** A tool used for withdrawing props. It worked by digging in the pointed bottom end into the floor or around a timber post and pulling on the handle end whose length when compared to the lower end had a mechanical advantage of 7 : 1 which was enough to pull the timbers out easily. An less efficient alternative to a Sylvester.



**Dog and Chain tool**

**Dog Delph Seam:-** *See Crow Delph Seam.*

**Doggie:-** An Overman .

**Doorboy:-** usually a very young boy or an old man, whose sole job it was to open the ventilating doors to let the full and empty iron ore or coal carts through. He then had to shut the door in order to maintain the ventilating current. It was very often a lonely job, done often in the dark without a light or candle.

**Door Regulator:-** A sliding panel set into a main ventilation door which enabled a controlled small amount of ventilating current to be bled off from the main circuit and fed behind the door

**Dorker:-** Another name for a mining tool which was a light long headed hammer with a pick one end and a small hammer at the other end. Used to help position the underground rail track sleepers and to drive in the road nails and rail dogs to secure the rails onto the wooden sleepers.

**Double Bonded:-** Two sets of cages running in a shaft. One being simultaneously wound up as the other was let down.

**Double Shift:** Two consecutive shifts worked underground in order to overcome some problem which affected the safety of the mine

**Double Warwick:-** The use of two individual Warwick safety apparatus to be joined together so that the lifting of one allowed the joining wire to lower of the other Warwick. This arrangement allowed the passage of a cart down the start of a long dipple but the second lowered Warwick still protected the lower part of the inclined road. *See Warwick.*

**Downcast Shaft:-** The shaft where fresh air was forced down into the mine to ventilate the workings.

**Down Dip:-** The term used to describe the position of something that is down the inclined angle of the coal seam or iron ore vein from a reference point - (opposite to Up Dip)

**Down Throw:-** A fault in the rock by which the displacement of the geological beds has been downwards.

**Dowty Duke Hydraulic Prop:-** This hydraulic prop was produced by Dowty Mining Ltd at Ashchurch, Glos. The prop was retracted or extended up against a steel lid by

means of a special key. When the weight came down upon the prop, the prop yielded at a fixed hydraulic load and gradually retracted whilst still supporting the lid.

Although one or two were used (one at Hamblins Yorkley Gale 2005) they were not known to be generally used in the National Coal Board pits in the Forest of Dean.

**Dram:-** *See Cart.*

**Drammer:-** *see Trammer.*

**Drawbar:-** A steel bar usually with two forged eye ends which was secured between the pit cart body and the under frame beneath. Each eye end either connected by a chain link to other carts in a line or journey or had the end of a main and tail haulage line attached to them.

**Drawed:** When referring to a shaft lining, it meant that the stone or brick lining had fractured and fell off due to super incumbant pressure.

**Drawing Timber:-** The act of removing support timbers set at one point and moving them to another position

**Drift:-** A mine that is worked by an entrance tunnel

**OR** another name for a Journey of carts

**OR** Laminated sandy shales with thin ribs of sandstone.

**Driller:** A miner whose primary job was to drill the shot holes ready for blasting the rock down

**Drowned out:** Description given to mine workings that were completely flooded with water

**Duff:-** Fine coal left after going through the screens

**Dumb Drift:-** A short tunnel connecting the main return airway with the upcast shaft in order to prevent the foul laden return air passing directly through the underground ventilating furnace flames.

**Dummy Road;-** An area of roof blown down by explosives on rock roof faces to provide packing material to build a pack wall.

**Duns:-** Hard blue slaty shale.(F.M. Trotter 1942) A soft shale (Insole & Brunning 1881)

## **E**

**Easers:-** A ring of explosive charges with delayed detonators which are fired directly with explosive charges with instantaneous detonators (Sumpers). The easers make the series of delayed detonations more efficient.

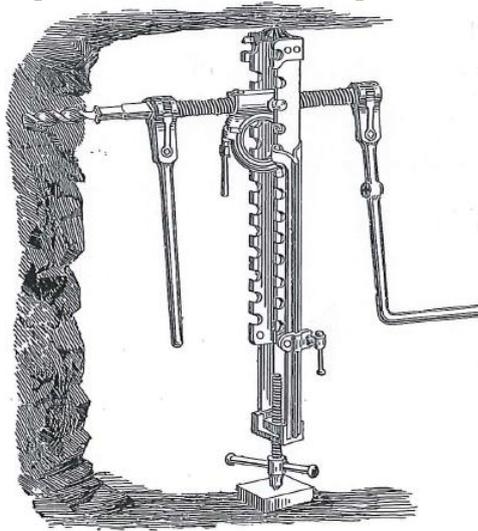
**Egg-ended Boiler:** An early form of tubular stationary boiler with hemispherical ends used to support higher pressure. It had an internal fire grate at the front. In evolution terms it was developed somewhere between a haystack boiler and multi-tubed boilers

*See Cornish boiler and Lancashire Boiler*

**Elliot hand drilling machine:**

This was a hand driven rock drilling machine, which consisted of a heavy metal column, which could be fixed against the mine roof and floor by means of a screw jack. The height and angle of the drill was selected by mounting the drilling mechanism in one of many mounting grooves in the metal column. The rock drill was advanced by means of a coarse threaded bar in the drilling mechanism, using a turning handle, until the drill was suitably up against the rock face to be drilled. The drill was rotated by means of a ratchet handle, until the drill had removed the rock in the shot hole. The advancing handle was then turned to progress the drill suitably

forward, and then the ratchet handle was again turned to remove the rock in the rock. This was done until the required shot hole was completed



**Elliot hand drilling machine**

**Endless Rope Haulage:-** A system of haulage where a steel rope passes from the haulage drum and through and around a pulley set at the far end of the haulage roadway. The rope is then fed back onto the haulage engine drum and spliced together with the first end. The carts were attached at either side of the rope loop with steel clips. The haulage engine could move the carts in a forward or reverse direction. The rope was wound  $2\frac{1}{2}$  turns around the haulage drum to get correct amount of holding friction and to prevent any slippage.

**Engine House:-** A large, usually masonry building that housed the winding or pumping engine.

**Engineman:-** Literally a man who drove an engine, usually the winding engine.

**Engine Plane:-** An incline up which loaded carts are drawn by a rope operated by an engine located at the top or bottom of the incline.

**Examiner:-** A man whose job it was to examine a designated area of the mine, before a shift started to ensure that all the statutory rules were complied with and the area was safe for the men to work in. He was mandated to write a signed, written report of his findings. *See also Deputy, Inspector, Fireman and Underlooker*

**Exploder:-** A battery or magneto powered device used by a shot firer, that fired the electric detonator in an explosive charge or shot.

**Explosives:-** Originally black gunpowder was packed into a drilled hole in the rock or coal and ignited by a simple fuse. Later, when it was proven by investigative tests that coal dust explosions in coal mines could be triggered by flame generated by most explosives in use at that time, certain Permitted Explosives could only be used. *See Permitted Explosives*

## **F**

**Face:-** Exposed long vertical surface of coal being extracted. Each collier working at the face, was allocated a certain length which he to main from the face before the end of the shift

**Fan Drift:-** A short tunnel leading from the top of the shaft to the ventilating fan. The top of the shaft was sealed with a trap door arrangement to prevent the air short circuiting from the surface and around to the fan, thus preventing ventilation of the general mine workings

**Fangs:-** *See Keps.*

**Fanmen:-** Men whose job it was to look after the ventilating fan mechanism.

**Fastener:-** A metal clip used to join lengths of conveyor belt together.

**Fatter:-** A simple automatic mechanism that lubricated a carts axles as cart passed above it on the rails

**Feeder:-** Any stream of water, originating from the surface and flowing from the surrounding strata into the mine workings

**Fettler:-** A man whose job it was to keep underground road or shafts in working order. *See also Shaft Fettler and Road Fettler*

**Fillers:-** An underground miner whose job it was to fill the coal carts with hewn coal. He did not hew the coal himself.

**Fire Clay:-** The under earth or clay immediately beneath a coal seam. It is usually a clay that can withstand great heat and is commonly used for the making of firebricks etc. *See Bastard Fireclay*

**Fire Damp:-** Or Marsh Gas or Methane. Correct name Carburetted Hydrogen or Methyl Hydride. The gas was given off by rotting materials during deposition of the coal measures. The Forest coal field has lost all trace of this dangerous gas and therefore has been spared the tragedies that blighted the nearby Welsh coal field. Naked carbide lamps and candles were commonly used, but then came completely banned by Act of Parliament across the British coal industry. This has again changed to become allowable if the mine atmosphere will safely allow it, and was changed again by a recent Act of Parliament

**Fire Engine:-** The original name given to an early surface mounted steam engine used for winding or pumping

**“Fire-On!”:-** This was shouted out loudly by the shot firer immediately prior to firing an explosive shot.

**Fire Setting:-** Used in iron ore mining for many centuries, before the introduction of good iron and steel tools. The rock surrounding an iron ore pocket was heated up by a fire and when this had reached a suitable temperature, water was thrown on the heated rock. The sudden contraction shattered the rock and the ore was easily won. Fine examples of this mode of working can be seen in Old Bow Iron Mine, Clearwell..

**Firing Shots:-** Setting off explosive charges underground

**First-Aid Container:-** A tubular metal container, painted white. It was divided generally into two separate compartments. One section contained a foldable stretcher, whilst the other section housed bandages and splints etc. The container was kept locked and the key was held by a deputy. The containers were usually fixed in remote outlying workings

**Fisher Detaching Hook:-** An apparatus that will automatically detach the cage from the rope and prevents a cage being continuing and be wound up over the winding wheel. The hook will grip the winding apparatus on top of the cage and thus prevent the cage from falling back down the shaft. *See also Overwind..*

**Fish Plates:-** Steel plates that were bolted on to join sections of “T” top rails and sections of rings together. Used in pairs each side of a joint

**Fissily or Fizzily:-** A small free mine - an expression more commonly used on the western side of the Forest

**Flap:-** A pair of timber safety doors that sat over a shaft. A rail was positioned on each flap, one each side of the shaft. The carts were pushed along these rails, over the shaft. The cart was then wound up off the flaps and they were then hinged back away from the top of the shaft and the cart lowered. They offered some protection from falling down the shaft. *See also Half Flap and Half Moon and Runner*

**Flats:-** A piece of timber supported by a prop at either end in order to support the roof on a coal face

**Fliggets:-** Loose wire strands that were projected from a wire winding or haulage rope. They easily pierced unsuspecting hands and usually indicated that the wire was past its best. They were also known as Scags.

**Fireman:-** Another name for an underground examiner. The name originated from the man who went into a fiery gas filled mine and ignited the methane by holding up a candle on the end of a long stick, although this was never done in the Forest of Dean mines

**Flitting:-** The act of moving a coal cutter or conveyers across gateways from one part of a longwall face to another to keep up with the face advancing. *Also known as Bumping in Eastern United and Princess Royal Collieries*

**Floods:-** Often caused by breaking into old uncharted workings full of brackish water.), Hopewell Colliery (1897), Union Pit (1902), and Arthur & Edward Colliery (1949) were all inundated in this manner.

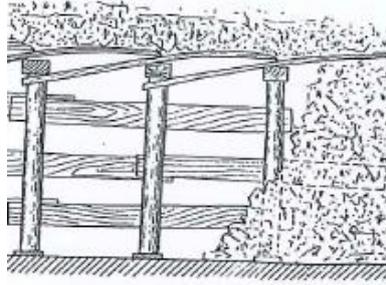
**Free miner:-** An ancient freedom conferred on Forest of Dean miners after they successfully undermined the walls of the castle at Berwick-on-Tweed for supposedly King Edward I or III in the 13th Century. Later confirmed by Act of Parliament in 1838. Now defined as a male (or recently, a female), being born and residing within the Hundred of St Briavels, over the age of 21 and having worked a year and a day in a mine in the Hundred. The exact time of the conferring of this freedom is so far back in unrecorded history that latter free miners recalled its creation in a period that was 'tyme (time) out of mind' i.e. so long ago it is now forgotten.

**Foot Blocks:** The name given to a thick wooden block that was placed under each foot of an steel ring in a roadway, in order to prevent the weight of the roof pressing down and pushing the bottom of the steel ring down into the floor.

**Foot Coal Seam:-** Also known as Little Delph Seam. It is found in the Supra-Pennant geological group. It is a bituminous Household Coal and lies 25 to 40 feet above the Lowery Seam. Its thickness varied from 12 to 18 inches and was therefore worked only to a limited extent. At Lightmoor Colliery it was underlain by a fireclay bed and overlain by a shale roof.

*See also the Churchway High Delph and Twenty Inch Seams*

**Fore Poling:-** The practise of driving wooden poles or planks through a clay or earth fall so that the front ends of the poles or planks are supported by the front of the fall and the rear of the poles or planks are supported by the cap of the previous timber setting. Wooden settings are then positioned underneath as the fall is cleared. They formed a continual overhead protection as the fall was cleared.



**Fore-poling in action. Note also the timber lagging down the sides of each timber setting.**

**Fossil Water:-** Selenite crystals, a variety of Calcium sulphate that occurs in the joints of the sandstone overlying and in the Coleford High Delph vein of coal.

**Framing:** The general name given to the structure that supports the winding pulley wheel. *See also Cockcomb*

**Furnace Shaft:-** The upcast shaft that ducted the rising current of hot air from an underground furnace and was used to pull the ventilating air around the coal faces of the mine. This method of ventilation has been illegal since 1913

## **G**

**Gale:-** The name given to a statutory defined area of a vein or veins of coal or iron ore that the mine could work and is granted only to a free miner by the Crown.

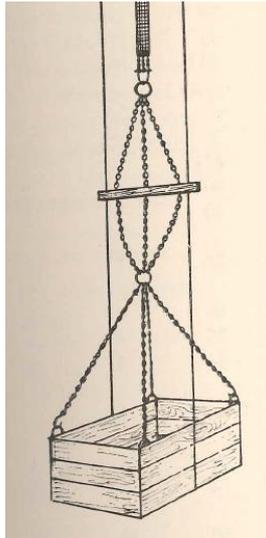
**Gale Boundary Stones:-** The gales are marked by gale boundary stones permanently set in the surface of the soil. Defined by Act of parliament in the Dean Forest Mines Acts

**Gale Money:** When the numerous deep coal gales were consolidated into new larger gales in the Dean Forest (Mines) Act 1904, a committee of trustees for the Free Miners was formed. When the new amalgamated gales were taken up by the various colliery companies to be developed, a system of a royalty per ton of coal was created by the trustees. All the vast number of Free Miners, who were on the committee, were paid an equal share of the royalty sum at the Speech House at an annual gathering at which the trustees thought. This was called the Gale Money.

**Galee:-** Owner of a gale or gales. A Galee can only own a maximum of three gales, another extra one will be then subject to forfeiture by the Deputy Gaveller. Or made to be sold on.

**Gamboreen, Gamborine or 'Gam':-** The shackling arrangement that secured a cart or cage to the winding rope in the mine shaft. Although it is not certain, it is believed that a gamboreen was the timber beam shown attached to the wire guide ropes shown below

*See also Tacklers or Rider.*



**A gamboreen arrangement used in Crump Meadow Colliery in 1881**

**Gateways:-** Roads maintained through the gob of a seam worked by the longwall method.

**Gate End Switches:-** Switches that controlled electrical power to the coal faces

**Gauging Notch:-** This was in a wooden board or plate set across the stream of a mine drainage level. A “Vee” notch of a pre-determined size was cut in the upper part of the board, which allowed water to flow through the notch. The height of the water in the notch helped determined the flow rate of the water down the level.

**“German Jigger”:-** A HausHerr manufactured compressed air pneumatic pick

**German Squibs or “Germans”:-** An early type of crude fuse. A thin paper tube filled with finely ground quick burning gunpowder and had a slow burning saltpetre paper match was attached to one end. The opposite end was inserted into a gunpowder charge set in coal or rock. The match was ignited and gave the miner enough time to get to a safe position. The tube then ignited and fed the flame down into the main charge, which exploded. Miners often pinched off the end of the fuse tube to enable a quick period to detonation sometimes with fatal results



**German squibs with hollow bamboo container sealed with a cork.**

**Length of fuse approx. 178mm (7 ins)**

**By kind permission of the Dean Heritage Centre Collection.**

**Girdle:-** A leather safety belt that was worn by shaftsmen shaft sinkers, skip riders etc. whilst they worked in the shaft. It was secured to the top of the cage or to a secure anchor point above a steel kibble or bowk.

**Gob:-** The empty waste area back behind the face, which was allowed to gradually collapse as the face advanced forward

**Gob Coal:** Originally this was coal that was too small to be of any commercial value and the colliers would not be paid for producing it. It was thrown into the back of the Gob just to get rid of it. This coal would now be sold to power stations and is of good commercial value.

**Gob Fire:-** A fire caused usually by spontaneous combustion of any small coal left behind in the gob. Arthur and Edward Colliery and Northern United Colliery both had serious gob fires that required those particular areas to be securely sealed off to extinguish the fire by denying the fire any oxygen. This type of fire was often detected by “Gob Stink” – a foul smell.

**Gob Pack:-** The secondary supporting pack walls or rib built in the gob and acts as a intermediary support between the main road packs.

**Gobbing Up:-** To fill up with waste material such as rocks and clay etc.

**Goethite or Gothite:-** A variety of brown haematite or Limonite and found in iron mines

**Goose:-** An iron box or tank on a wheeled framework, used to transport water underground. It was hauled by a horse on the underground rails.

**Gouty water:-** A foul mine water containing Sulphuretted Hydrogen or Stinkdamp, formed by the dissolving of iron pyrites into the acidic waters of the mine. It had a strong tendency to eat the steel rails way by slowly dissolving them

**Governor:-** A mechanism that was fitted to a winding engine and when brought into action would allow a slower rate of speed when men were being lowered or wound to the surface when compared to the normal working speed of winding coal.

**Gramme Generating machine:** Made by Siemens and was used at Trafalgar Colliery in 1879 to generate electricity for use on the surface and underground to drive electrical pumps and to provide illumination. This machine is still in existence and is preserved at the national Museum of Wales in Cardiff. It is claimed to be the first use of electrical power underground in the world

**Grey Ore:-** A poor specimen of brown haematite with a high percentage of calcite and limestone/dolomite.

**Guides:-** Fixed wooden runners or steel cables that guided the cage in the shaft.

**Gummings:-** The waste dirt, stones and dust produced whilst undercutting the coal seam with a mechanical cutter

**Gutter:-** An air road or wind road through the coal.

**Gypsum:-** A dry non-combustible mineral dust placed in piles on wooden platforms situated in the roofs of roadways to prevent the continuation of a coal dust explosion. If an explosion was initiated, the disturbed gypsum dust would smother the burning coal dust in the air and halt the explosive initiation. Used in Northern United Colliery

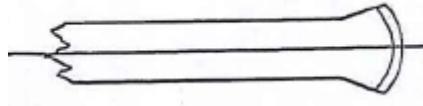
## **H**

**Half Flap:-** *See Flap and Runner*

**Half Moon:-** *See Flap and Runner*

**Hand Drilling:** This is a term to describe the drilling of a shot-hole usually in rock, by hand. A miner would hold a drill bar over one shoulder. Usually two other miners – one on each side of the first – would strike the flat end of the drill bar usually with a sledgehammer in turn. After each strike the first miner would turn the drill bar with a wrist movement. The holes were nearly always three lobed in section due to the

restricted wrist movement of the first miner. Later superseded by air driven percussion drills.



**A typical shot-hole drill half-moon end**

**Hand-Got:** The name given to coal that was mined by the use only a pick and shovel.

**Hand Tramming:-** *See Tramming*

**Hanger:-** A small wheel or pulley suspended overhead by means of a chain to support a haulage rope

**Hanger-On:-** Another name for an Onsetter at the bottom of the shaft.

**Hang Fire:-** This an expression given to an explosive charge that has misfired or failed to detonate sometime after the electric fuse or squib has been fired

*See also Misfire*

**Hard Heading:-** A heading road driven through solid rock in order to open out a new area for development.

**Hardy Pick:-** This was originally a light weight double ended coal pick designed and made by the Hardy Patent Pick Co. Ltd. The blade was placed through a cast steel box and held in place by a tapered steel wedge. The handle then fitted into the bottom of the box and secured with a steel rivet. At the end of the shift the wedge was tapped out and the blade was then left with the Blacksmith for sharpening in a forge. A collier could use several blades in the course of the shift if they were used on rock or hard coal.

*See also Acme Pick*

**Haulier:-** A man in charge of a journey of carts when being hauled. In early times they would ride on the front cart until this was made illegal.

**Haulage Clip:-** The device that attaches a cart to a endless haulage rope.

**Haulage Engine:-** Main roadway haulage engines were generally strong electrically driven winches that could pull many carts or journeys along the roadway or up dipples and was driven by a dedicated driver. Smaller engines would be situated near to the face.

**Head Frame:-** The well recognised latticed structure made of either steel or pitch pine, that sat immediately over the shaft and supported the winding wheels.

**Heading or Heading Road:-** Pronounced locally as “Yudding”. One of a set of parallel roads that were driven at each end of the coalface. The supplies and ventilating air current come along one road and the coal and stale air taken away from the face and back out by the other. Often named after the miner leading the gang driving the road ,eg. Wursfold’s Heading.

**Heading Men:-** The miners who drove the heading roads and because of the silicon in the sandstone rocks, were liable to contract Silicosis by not using the water to lubricate the drills and suppress the drilling dust. *See Heading*

**Heapstead:-** The raised stone or brick platform that surrounded the top of the mine shaft, and which supported the head frame

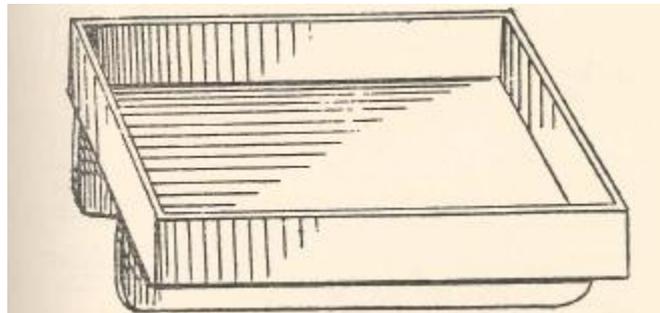
**Heaving:-** The floor of the mine is said to be heaving when the pressure of the above strata causes the fireclay from under the coal seam to be squeezed out into the

roadways and cause the road height to quickly decrease. It is not caused by the roof coming down. *See Squeeze or Creep.*

**Hewer:-** A collier that cuts or mines the coal with a pick.

**Hitcher:-** A man whose job it was to attach carts to the haulage cable in a main roadway.

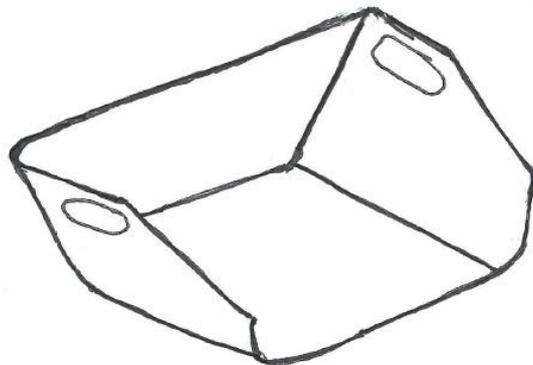
**Hod:-** A timber box set on wooden runner shod with steel strips, like a sledge. Usually the first job a young boy had to do at the coal face by hauling the coal from the low coal face and down to a staging where he tipped onto a stage ready for filling into the normal coal trucks. The hod was attached to the boy by means of a stout leather strap or girdle, which was split lengthways and which went over the boys head and rested on his shoulders. The two loose ends were brought together between his legs and were attached to the hod by a chain and hook. This type of labour was often seen and inhuman, cruel and exhausting. Used in the low house coal seams and last used in about 1940 in Lightmoor and 1944 in New Fancy Collieries. From 1 to 2 hundredweight were carried each trip in a hod.  
*See also Billy and Shovel Hod.*



**A typical hod construction.**

**Hodboy:-** The first job a young boy, fresh from school, undertook to before learning to be a collier.. He pulled the full hod of coal from the face into the roadways. This job was used only in the thin seams due to the lack of working height. *See also Hod*

**Hod Shovel:-** Used in the iron ore mines. This a large scoop shaped tool, with raised rear and 2 sides. The sides were perforated with an aperture on each side that acted as a handle. They were used in the iron mines and coal mines, and were especially useful in low veins or seams. They were thrust like a shovel blade, into the ore or small coal which was then tipped into a hod. They were made of sheet metal.. *See also Hod.*



**Typical construction of a hod shovel**

**Hod Staging:-** A flat area above the height of a coal or iron ore truck where the hodboy would tip his load in a pile and later the pile would be shovelled into a haulage truck for hauling to the bottom of the shaft or entrance dipple

**Holing:-** The act of directly undercutting the dirt or soft clay underlying the coal seam with a pick or coal cutter. The coal was then wedged down, blasted or fell down of its own accord.

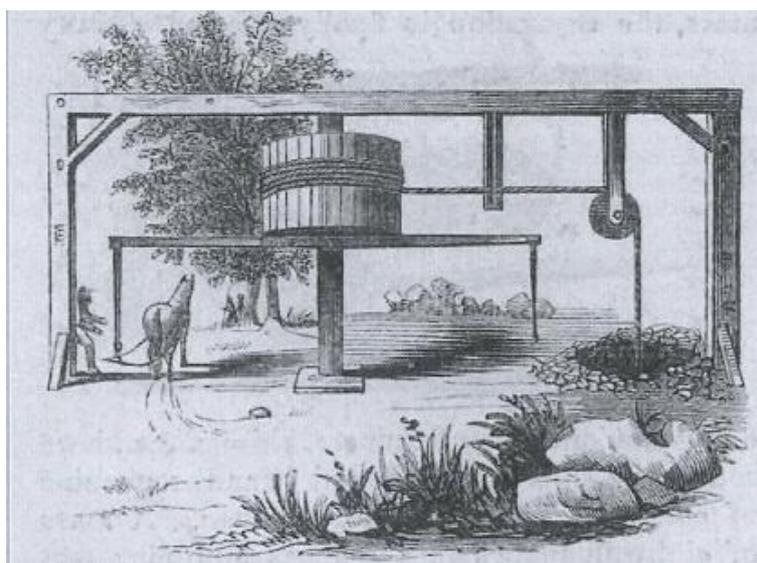
**Hooker-on:** An underground worker whose primary job was to attach carts a hauling cable.

**Hoppet. Hoppit:-** *See Kibble*

**Horse and Little Horse Washouts:-** The name given to two distinct areas devoid of any coal in the Coleford High Delph seam and were situated underground in the Cannop area. Thought to be caused by a river or large streams washing out the vegetable matter which would have eventually turned to coal. *See Washout*

**Horse:-** Various sizes of horses and ponies were used in the Forest mines. Lightmoor Colliery used some quite large horses and therefore the roadways near to pit bottom were higher and wider than was normally used. The horses used at Cannop Colliery were brought out in the cages by sitting the horses back on their haunches in order to get them into the cage

**Horse Gin:** A crude winding device where a horse walked around in a circular path and rotated a vertical drum for winding up the coal in a shaft.. *See also Whim, or Whimsey*



**Typical Horse Gin**

**Horse Keeper:-** A man who job it was to look after the horses underground. *See also Ostler.*

**Horse Leader:** *See Horse Lighter*

**Horse Lighter:-** The job given, usually to a boy, to light the way by walking in front of a horse with a light, when the horse was pulling trucks along an underground road. The name was commonly used in the Trafalgar Colliery. *Also known as a Horse Leader.*

**Horse Road:-** An underground roadway that horses were used to haul the carts along.

**Horse Tree:-** *See Byatt.*

**House Coal Colliers:** These considered themselves the more skilful when compared with the steam coal colliers. Due to having to work in much thinner seams and the

difficulty in turning around they developed strong upper body strength in their upper torso, shoulders and arms. The style of timbering also separated them from the steam coal colliers

**Hung Fire:-** *See Hang Fire.*

## **I**

**Inbye:-** Going in the direction of the coal faces ie. Going into the mine

**Inclinesman:-** A man who worked on a dipple or incline, usually hitching or unhitching carts to the haulage cable for extracting.

**Inclined Plane:-** Another expression for a dipple or inclined roadway.

**Inrush:** caused by mining into a body of water trapped in old workings. These old workings were unmapped or illegal and were very dangerous. *See also Floods*

**Inspector:-** *See Examiner*

**Iron Master:-** A person of high standing who owned and ran an empire built on the extraction of the iron ore from his mines, and often owned the iron furnaces that were used to smelt the iron ore. Such characters who had such influence locally were Henry & Edwin Crawshay, Aaron Goold, Moses Teague & Edward Protheroe.

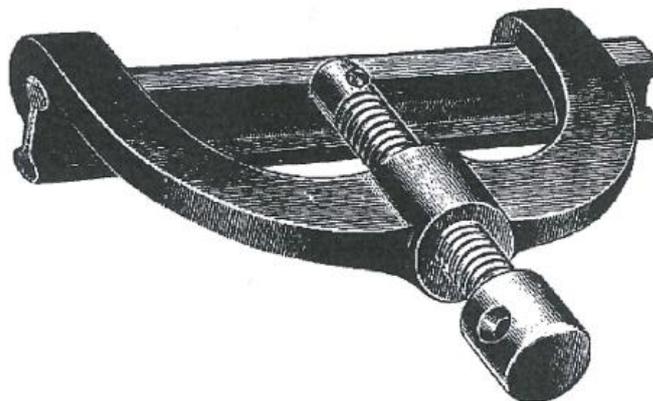
## **J**

**Jacks:-** Wheeled platforms which ran on rails up Cannop Colliery spoil heaps, onto which the pit carts were placed when full of refuse to be tipped on the coal tips

**Jib-** The name given to the cutting arm of a coal cutter which worked on the same principle as a chain saw bar by continuous rotation of the cutting teeth attached to a chain

**Jigger:-** A winding drum on a self-acting incline. *See also Jinney*

**Jim Crow:-** device whose two outer arms hooked over a rail, then an opposing centre screw jack would be wound down in order to bend rails sideways. Used mainly for forming junctions and bends in the underground track bed



**A Jim Crow ready to bend a rail**

**Jinney or Jinney Road:-** A self-acting incline where lowered loaded carts pulled up empty ones by both sets of carts being joined by a wire rope via a drum at the top of the incline. There were two and a half turns of the rope around the Jinney drum to allow it to work correctly. The act of lowering the trucks was controlled by a braking system.

**Jockey or Jockey Boy:-** The name given to a young boy who had command of a horse underground, he had to haul full & empty carts to and from the faces and in the main roadways.

*See also Horse Driver*

**Journey of carts:-** A line of iron ore or coal carts hitched together ready to be moved by a haulage rope or by pit pony to the shaft. *See also Set.*

**Journey Man or Rider:-** A person whose job it was to ride on the front cart of a journey whilst it was pulled by the haulage engine. This was later made illegal.

**Joint:-** A break in the coal seam or the roof material

**OR** A natural break in sandstone or limestone often containing iron ore.

**Jump:-** A small fall of stone from the roof

**OR** an upthrow or down throw of a coal seam at a fault. (Jump up or Jump down)

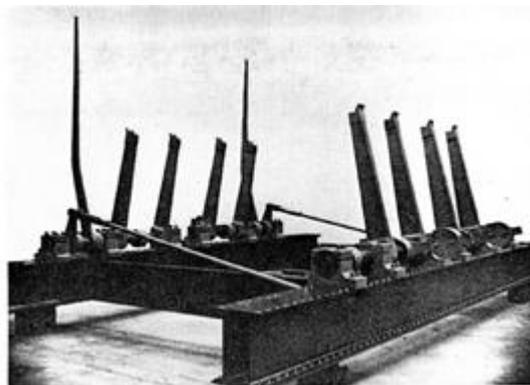
**Jumper:-** A hand drill used for boring shot holes for blasting.

## **K**

**Keep:-** Another name for the pulley wheel at the top of a winding head frame (DFM 6/1/1894)

**Keeping Point:** This is the maintenance of keeping the correct direction when driving a roadway or coalface

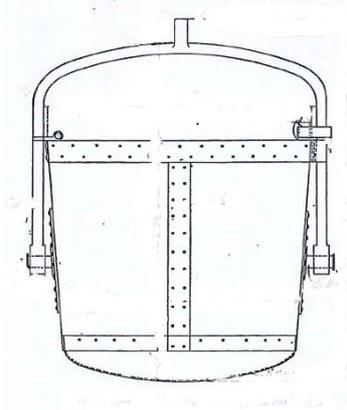
**Keps:-** The cage was lowered back onto a minimum of four of these, two each side, when the cage stopped at the top, intermediate level or bottom of a shaft. They were made of steel and supported the whole weight of the cage and its contents. They were pivoted out of the way of the cage when the cage had to be raised or lowered and were operated usually by pulling on a lever linked to the keps. *Also known as Landing Dogs*



**A typical set of keps used to support a shaft cage.**

*Similar set of keps has been discovered during work at the main shaft at New Fancy Colliery in 2015 and Park Gutter Pit in 2010. Note the crank operating levers to the left and right side of framework. Keps shown are in non-supporting mode thus releasing the cage*

**Kibble:-** An large iron barrel or tub used for hoisting rock and other debris when excavating or sinking a shaft. It has a lockable hooped handle from which it pivoted for emptying. *Also known as a Bowk.*



**Typical steel Kibble**

**Knocker:-** A simple bell arrangement which was operated by a pull on a wire, which in turn lifted a hammer or a spring loaded striker which rang a coded signal on a bell. One ring - Stop; two rings - Lower; Three rings - Haul up. Later man riding signals were indicated by a more complicated series of rings.

**Knocker Bell:** A spring loaded striker or a hammer which struck a bell when the Knocker Wire was pulled down, to give the correct pre-arranged signal required

**Knocker Wire:-** A wire cable that when pulled down upon rang a series of signals on the signal bell at the haulage engine location

## **L**

**Ladder Drill:-** *See Elliot Hand Drilling machine*

**Lagging:-** Short pieces of timber that was laid between and over top of the timber settings and the coal seams sides in order to prevent pieces of rock and waste falling from between the settings and into the roadways. A term used on the East Dean side of the Forest of Dean. (*See also Shooters*)

**Lancashire Boiler:** A later development of the Cornish boiler but this boiler had two flues which again required a tall chimney to ensure good combustion of the fuel. *See also Egg-ended boiler and Cornish boiler*

**Lander:-** A person whose job it was to remove full carts from or to replace empty carts back into the cages at the surface or pit head.

**Landing:-** An stage level in a shaft which usually corresponded with a coal or iron ore vein.

**OR** A section of roadway where journeys of carts were changed over from one haulage system onto another one.

**Landing Dogs:-** *See Keps*

**Land Pit:-** The name given to the shallowest of usually two shafts, in the direction of the outcrop, sunk to the seam of coal or iron ore. (Opposite to Deep pit)

**Land Sales:** Most of colliery coal production left in railway trucks. However, general sales to the public were termed Land Sales and were weighed on a weighbridge within the colliery yard.

**Langslay Rope:** A wire rope whose strand construction prevented the rope from twisting around itself when not under tension or continually spinning when suspended. This type of rope was made compulsory on Winding Ropes and Haulage Cables.

**Lamp Check:-** This was normally a brass token with the miners electric lamp number stamped on, along with the colliery name. Each miner was issued with one when he claim his lamp from the lamp room and it was handed over at the surface prior to descending the mine. The check was placed on a numbered hook on a wooden board, whilst the miner was underground. On leaving the mine, the miner claimed his check back. Therefore a constant check on who was underground was being made at anytime. Of supreme importance during accident or mishap.

**Leader:-** A small iron ore deposit that was followed as the miners had proved that they often led to a major churn of ore.

**Leat:-** A parting or series of clay or stone partings in a coal seam

**Level:-** An entrance to a mine with a rising roadway to help with drainage of water back towards the entrance from the mine.

**OR** An underground surveyor's instrument for measuring deviation of roadway from a theoretical horizontal line.

**Lid :-** The top flat piece of timber wedged up against the roof, and supported by a single prop from directly underneath. Lids were used to support the roof just behind the face, in the gob or waste.

**OR** the name given to the red coloured Whitehead Limestone strata that overlaid the iron ore bearing Crease Limestone. Once the miners struck this red bed then they knew this was the top of the ore bearing body, hence the name Lid.

**OR** a large stout wooden cover that sealed off the top of any shaft adjacent to a ventilating shaft nearby. It prevented any air short circuiting the ventilating path required. Such a lid was used on one of the two shafts at Hawkwell Colliery when this colliery was used as the second way out for Northern United Colliery.

**Lidstone:-** *See Lid*

**Lime Coal:-** Small coal only suitable for the burning of limestone in a limekiln or sent to cloth mills in the Stroud Valley. There was only a small market for this size of coal generally. It was often thrown into the gob or waste if there was no immediate market for its sale. Colliers were therefore under constant pressure to produce as much large lump coal as possible.

**Line:-** A tarred string used to indicate where the white line was to be positioned and painted on roof surface . *See Linesman*

**Linesman:-** An assistant surveyor who was responsible for painting a white line on the roof of the face or heading etc. to keep them in a straight line or in the designated direction.

**Limonite:-** *See Goethite*

**Little Demon:-** An government approved single shot exploder which operated by magneto when the firing handle was rotated quickly. It was used to fire one detonator only. A similar version also fired a maximum of six shots or detonators. *See also ME6 and Beethoven exploders*



**Little Demon Exploder**

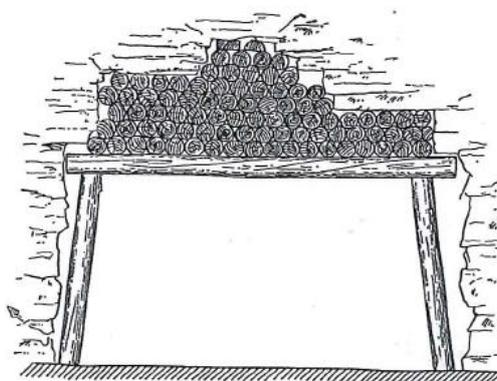
**Little Delph Seam.** *See Foot Coal Seam.*

**Lock-out:** Name given to the act of the mine owners preventing miners attending to their work at the colliery or iron mine.

**Lodge:-** *See Sump or Pump Hold*

**OR** the name given to a Union branch in a town or village.

**Lofting:** The complete filling up of an empty void above timber settings. As the pressure of the roof comes on then the load is spread along all the timber settings  
*See also Poullice*



**The principle of lofting**

**Longwall Working:-** A method of extracting coal by driving two advance tunnels or headings, and extracting the whole of the coal from between the two roads. See also Advance Mining and Retreat Mining.

**Lonk:-** A sudden dip in a generally straight underground or dipple.

**Lowery Seam:-** Also known as the Parkend High Delph Seam. It was found in the Supra-Pennant geological group and it was a bituminous Household Coal. Southeast of a line from Russell's Inclosure, through to Speech House and Crab Tree Hill, to Steam Mills, the seam averaged 36 inches thick. Northwest of this line the seam splits into an upper and lower seam, separated by 16 feet of shale. The Upper Lowery Seam or Thick Lowery attained an average thickness of 16 to 21 inches in the Foxes Bridge and adjoining collieries. The Lower Lowery Seam, due to variations in thickness from 6 to 21 inches, was little worked.

**Lows:-** Small side channels in a Washout.

**Lump Coal:-** *See Block Coal.*

## **M**

**Magazine:-** A building where explosives and detonators were securely and separately stored. The building was set far away from any other mine buildings in case of detonation of the explosives stored inside the magazine.

**Main & Tail Haulage:-** A haulage system where the one end of the haulage rope is hitched to the rear end of a journey of carts. The other end is fed around a pulley and goes back to be hitched to the front end of the journey. The journey could be hauled in either direction by the haulage engine.

**Manhole:-** A whitewashed numbered recess in a main haulage roadway where colliers could take refuge from an approaching journey of carts. Set a maximum distance apart from each other, which was set by Act of Parliament, usually 20 yards. A manhole prevented miners from being crushed by a journey of carts travelling along the roadway.

**Man Riding Trolley:-** A trolley that were lowered on rails down an inclined road or along a level road and were used to speed up the time it took colliers to get to and from their work places underground. They were introduced later on in the larger nationalised collieries. The ones used at Northern United Colliery, were 6 feet long, 3 feet wide and 6 inches deep, with a hand rail down the centre

**Marden:-** Soft carbonaceous shale with a black silky surface-lustre, an impure cannel.

**Marking:-** In the large collieries each gang of miners put a special chalk mark on the side of the cart it had filled, to signify that who had filled it and was paid for that specific weight of coal in it. Trafalgar Colliery gangs had crossed drumsticks, scissors etc., whilst other mines marked a number on the cart and on the lump coal. Latterly, the iron miners in New Dun Iron Mine in the 1940's put a wooden tally with a number formed by drilled holes, into the cart. There were many variations of marking throughout the Forest coal and iron ore field.

**Marlin Spike:-** A pointed spike used for working and splicing haulage ropes and cables



**A marlin spike**

**Master Miner:** A miner who was in authority of a gang of miners in an iron mine but beneath an Overman. This term was used in Westbury Brook Iron Mine

**Mattuck, Mattock or Maddock:-** Another name for a mining pick.

**ME6:** An exploder almost identical in shape to a Little Demon exploder, but this one could fire up to six shots simultaneously.

**Meend or Meand:-** An area of old rough surface workings at the outcrop.

**Metal:-** Argillaceous measures

**Mine:-** the term used by iron ore miners to describe the actual mineral - 'he shovelled the mine into the tram'.

**Mine Inspector or Her Majesty's Inspector of Mines:-** In 1840 a Royal Commission was set up to investigate the bad working practices in the nations coal mines. The commission reported serious failings by mine owners and in consequence of that The Coal Mines Act 1842 was passed which prohibited women and children from working underground. This act also provided for the appointment of the post of Inspector of Mines and the first, Hugh Tremeneere, started his duties in 1843. He was soon followed by many more additional Mines inspectors due to the immense scale of the coal industry.

At the time of the issuing of this glossary, the Mines Inspector whose area now covers the Forest of Dean coal field, is Mr J. R. Leeming, who was appointed in 2013, but has since been promoted to Chief Mines Inspector.

**Mine Law Court:** The laws and privileges of the free miners were controlled by an ancient court specific to all aspects of free mining The court was held at Speech House and all disputes were brought before a jury of 12, 24 and even 48 miners, for judgement. It fell into disuse in the latter part of the 18<sup>th</sup> century when all the records were illegally taken from a storage chest at the Speech House and the rules of mining were gradually ignored and abused.

**Miner:-** Locally originally refers to the local miners who worked the iron ore measures. Latterly, the term eventually included the colliers.

**Miners' Agent:-** The local mining union's full time official, paid out of the union fees collected. Famously, Timothy Mountjoy was the first in the Forest coal field and iron ore field.

**Miners' Demonstration:-** An annual gathering of miners and their families at the Speech House, accompanied by various brass bands, stalls and a fun fair. Speeches were given to the miners by men of note usually supportive M.Ps and National Miners' Agents. A long procession was usually made to the event's field and the last Forest of Dean Miners' Demonstration was in approximately 1939

**Miners' Dial:-** *See Dial.*

**Miners' Nystagmus:** Involuntary jerking of the eyeballs brought on by working in very imperfect illumination over a long period. It was often suffered by those who were undercutting at the coalface. Noted in Park Gutter Colliery

**Mine Rescue:-** A rescue station for the surrounding collieries. The first Forest of Dean Station was erected in 1880 and was situated at the central rescue station at Dockham Road, Cinderford.

**Misfire:-** The failure of an explosive charge to detonate as required. Removal of a misfired shot was illegal and remedy was to fire another closely drilled shot. A statutory set time ensured the miners had to wait due to the failure of a black powder shot which could be up to 30 minutes. An electric detonator failure wait could be as low as 10 minutes. There were quite a few accidents where miners were impatient and went back too early to the coal face, only to have the explosive charge blow up in their face causing serious if not fatal injuries

*Also known as a Hang fire*

**Moleskin Trousers:** A tough pair of initially white cotton working trousers universally used by colliers.

**Monday Hammer:** A heavy sledge hammer which proved to be so heavy that it was alleged to give the user the “Monday Morning” feeling. Used primarily to break up large rocks and stones.

**Monkey:-** A safety device set between the rails that catches the axle of a runaway or descending cart. It was released by a wire rope.

**Monocline:-** Applied to an area in which the strata of the rocks all dip or rose in a singular elevation or depression. The “Staple Edge Monocline” is an area of such a geological feature near the Eastern coal and iron ore outcrop near Cinderford. It affected both the coal and iron ore strata , which are vertical over a long area.

**Mother or Motherings:** -A hard line of black earth-parting.. It was known to exist in the Twenty Inch or Smith coal seam at Trafalgar Colliery

**Mothergate Road:-** The main road of a district in coal longwall workings that took out the hewn coal and the stale ventilation air.

**Mucker:** Part of a company of iron ore miners whose specific job was to shovel up either the rock or iron ore that had been blasted down, and then to shovel either into a cart or tub for tramping out from the workings.

**Mucking Out:-** Shovelling up the blasted rock from off the floor to fill up a cart or to throw it in the gob.

**Mucking Plate:-** A steel plate put onto the floor generally at the end of a heading, in order to make it easier to shovel coal, iron ore or waste rock up off the floor.

## **N**

**NACODS:** National Association of Colliery Overmen, Deputies and Shotfirers

**Nagshead Seam:-** *See Bailey Seam*

**Natural ventilation:** The term given to the ventilating air naturally circulating around mine workings. The temperature underground is normally fairly constant during winter and summer. In winter, the warm, less dense air underground will rise up in the workings and will flow out at the highest point it can find. The displaced warm air will then draw colder denser air into the working at its lowest point, and thus forming a natural circulating current. When the temperature of the workings is the same as the outside air temperature, then no circulation can take place. In the summer the temperature differential will be reversed and warm external air will be sucked in at the highest point, will be cooled and will flow out at the lowest point.

**Nelly:-** Originally, a ball of clay which held a candle to be used by an iron miner. A forked wooden stick was placed through the side of the clay to hold the candle away from the miners eyes. The other end of that stick was then held sideways in the miner’s mouth. Then another forked wooden stick was placed up through the bottom of the clay to support the weight of the clay and candle on the miner’s chest.

(continued overleaf)



**Well known picture of an iron miner and his boy, holding their nellys in the working position (Circa 1850)**

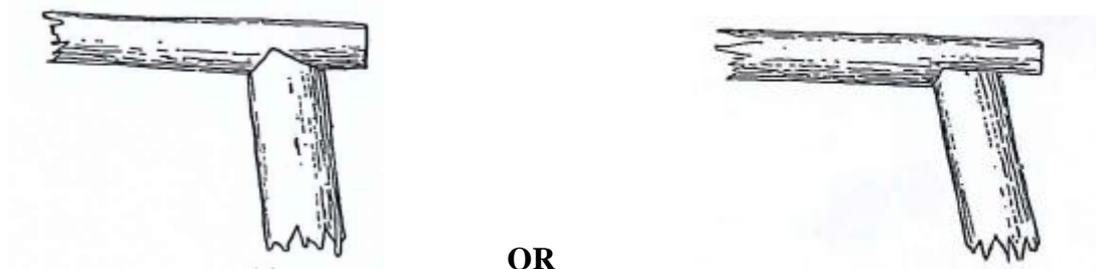
(Note that the older miner has a billy catcher over his left shoulder which is holding a hod)

**OR** a small, flat piece of wood that had a hole drilled to support a candle and a nail was then driven through one flat end face which was then filed to a point. The candle was then pushed into the hole. The Nelly could then be pushed into a post and held by the spiked nail, and illuminate the face for the collier

**Nesh:-** Soft or friable short grained coal, often found near to the outcrop.

**Nick or Nicking:-** The cutting of a vertical channel into the side of a coal face, in order to help release the coal after undercutting

**OR** The two grooves or notches made at each end of the timber cap ready to receive the corresponding shaped upright posts to make a timber setting.



OR

### **The typical types of Nicking in a timber setting**

**Nip Out:-** The disappearance of a coal seam by the thickening of the both the strata immediately above and below the coal seam.

**No Coal Seam:-** This seam is situated in the Supra-Pennant geological group. It is a hard, bright, bituminous Household Coal, with a well developed fracture but is very variable in thickness, the seam is in 3 leats, separated by 2 beds of soft shale, each leat may attain 30 inches in thickness. In the central portion of the coalfield the

middle leat attains a maximum of 20 inches thickness and was worked independently of the 5 inch upper and lower leats. The seam was generally worked where 2 leats came together and recorded thicknesses varied from 8 inches to 27 inches. It was overlain directly by a sandstone roof in the north and a shale roof in the south and in all areas it was underlain by a fireclay floor.

**Nogs:-** Large wooden wedges used to hold up the coal after it was undercut by a coal cutter.

**Nose Bag:-** A bag of food placed over the pit pony's head when the pony was at rest.

**No-Sew:** An adhesive used to place replacement patches of cloth over holes in the knees of miners' trousers. As the name says there was no need to sew. Used at Northern United Colliery.

**Notch Sticks:-** Short sticks, cut with identifying notches, used by the miners to act as a token on the trucks of iron ore or coal that they sent out of the mine and to show which miner or group of miners had filled that cart. *See also Marking.*

**Nothing:-** A white cotton-like fungal growth which grew on the damp timbers. When touched it went to nothing, hence the miner's name. It was said by the old miners to help heal cuts and wounds if placed over the area affected.

**NUM:** National Union of Mineworkers

## O

**Oiler:-** a man whose job it was to oil the rollers on the floor and sides which guided and protected the haulage rope.

**Old men's workings:** The name given to an area of either coal or iron ore which has had the mineral extracted long before mining records were kept by order of Acts of Parliament.

**Onsetter:-** A man whose job it was to load or remove carts onto or out of the cage or to attach or remove the cart directly to or from the winding rope. He could be also stationed underground at the various levels. *See Hanger-on.*

**Ostler:-** The man that was put in charge of the horses underground and looked after their welfare. *See also Horse Keeper*

**Outby:-** This means a direction away from the face and back towards the shaft or mine exit.

**Outcrop:-** A place where any coal seam or iron ore vein was exposed on the surface.

**Overman:-** An underground foreman in charge of an underground district or districts and who took his orders from, and was next in seniority to the Under-Manager, but over the Deputy.

**OR** A miner with authority over master miner and in charge of 2 or more gangs of miners in an iron mine. Used in Westbury Brook Iron Mine

**Overwind:-** To hoist the cage or cart into or over the top of the head frame pulley. Later collieries were fitted with safety overwind releases where the cable was parted from the cage. The cage was held secure over the shaft, without falling back down.

**Oyster:** The name given to a single fall of rock from the roof which has a flat undersurface but a pronounced rounded arched upper surface. Similar in nature, but not in shape, to a Bell

*See also Bell*

## P

**Packer:-** A man who built the various supporting stone pack walls alongside a coal face.

**Packing or Pack Wall :-** When the coal was mined from each side of roadway, the unsupported strata put great weight upon the steel rings or timber settings in the roadway. In order to stop the roadway closing up and the supports being crushed, both roadsides were packed solidly to the roof and into the gob for a set distance. Rock was used to create a wall each side of the pack and the centre filled with other waste matter. *See also Gob Pack*

**Pair of timber:-** *See Setting*

**Pans:-** *See Shaker Pans*

**Parkend High Delph Seam:-** *See Lowery Seam.*

**Parting:-** The point where two underground rail tracks divided

**OR** an unwanted thin interstratified band of marl or clay that separated a coal seam into separate layers.

**Pass-by:-** A siding or widening with two railway tracks in an underground tunnel in which carts can easily pass one another underground.

**Peas:-** Small lumps of coal, generally used for the domestic household fire

**Pegs:-** *See Notch Sticks.*

**Permanent Cogs:** Identical in construction to a temporary cog but the sides pieces are generally of round wood filled with rock and debris. *See Cogs*

**Permitted Explosive:-** This type of explosive did not create any flame when detonated, and thus did not create a potential coal dust explosion. Their usage was made mandatory by legislation in collieries and the cartridges would have a letter “**P**” set over a crown symbol to signify that it is a permitted explosive.

**Picking belt:-** A moving continuous rubber belt used during coal screening where all the stones and other bits of non-coal were picked out by manual labour, usually old men who could no longer work underground possibly due to a past injury or infirmity, or young boys.

**Picking a shot:-** Cleaning the roof and sides of dangerous loose rocks with a pick after a shot hole has been exploded.

**Pickrose:-** 5 horse power small direct haulage engine

**Pillar:-** The thin wall of coal left around a stall to support the roof. Reworked and removed at a later date. The area of coal worked was usually a 12 yards square panel

**Pillar and Stall Working:-** The system where the coal area is divided up rather like a chess board. Each individual square was a stall and the boundary adjacent to the next square was called the pillar. *See Pillar*

**Pillaring Back:** After the colliery had driven its Pillar and Stall workings to the gale boundary, the remaining pillars of coal, which were left to support the ground through which the mine was working, were removed and the ground allowed to totally collapse and close up.

**Pinch Out:-** *See Nip out and Wibby*

**Pipe Vein:-** An iron ore, so called because it ran through the mass of iron ore like small pipes or strings.

**Pipey Brush Ore:-** A type of Brush Ore with large stalactites of iron ore similar to the size of pencil leads or small pipes

**Pit Bank:-** The surface area immediately around the top of the shaft or around an adit entrance.

**Pit Boots:** The ubiquitous tough working boots used by nearly all mine workers, with a steel iron heels and toe tips and with triple steel studs set over the sole of the boot.

**Pit Bottom:-** The area of the mine workings immediately around the bottom of the shafts. However there were stages in some mines, notably New Dunn Iron Mine, where the three main levels off the main shaft going down were known as First Bottom, Middle Bottom and finally, Lower Bottom.

**Pitching:-** The term given to the true slope or angle of the coal seam.

**Pit Fettler:-** An shaft inspector whose job it was to ride on the top of the cage roof, attached to a safety harness and daily inspected the shafts for defects. He always wore a complete set of waterproof clothing due to the continual water cascading down the shaft. He then had to complete a written report of his findings.

**Pit Pony:-** A small horse used to haul the full and empty iron ore or coal carts from the workings and back to the haulage roads or directly to the shaft. They were kept in underground stables and were only brought out during holiday periods and were allowed to graze in colliery owned fields. Lightmoor Colliery horses were often large horses and the roadways were therefore of greater size to accommodate them. Cannon Colliery horses came out every day. The pit ponies used in Arthur and Edward Colliery were shot when the pit closed in 1959.

**Pit Togs:-** The miner's underground clothing

**Plane:-** A flat roadway in a mine.

**Plate Rail:-** *See Tram Plates.*

**Play day:-** A day when which the mine did not work due to strike action, layoffs or no work being available in the mine.

**Plumb Bob:-** This was used with the surveyors line hung up in the roof of the heading, face or roadway. They were hung down from the surveyor's line and positioned so that they were in line and therefore ensuring that the face, roadway etc. was always straight.

**Plunger:-** part of the pump rods that were placed in the shafts.

**Pop shot:-** The usage of part of a cartridge of Gelignite which was used to cut the steel rings to length

**OR** By shattering a large rock or stone by placing the explosive charge directly onto the surface of the rock

**Poultice:** An expression used currently in the central part of the Forest coal field which refers to the timber packing to be used to further support a hole in the roof above some timber settings. Used at Hopewell Colliery

*See also Lofting*

**Powder Monkey:** The name given to an assistant to a shot firer. He was not allowed to prime or fire an explosive charge

**Powder Smoke:** The noxious fumes given off when a gunpowder shot-hole was detonated. If not adequately ventilated it could cause bronchial diseases after a period of time

**Powder:-** The name given initially to gunpowder used underground. Later it was used to describe any explosive charge.

**Powder magazine:** *See magazine.*

**Powder Smoke:** The poisonous and noxious fumes given off after firing black powder shots holes. Later explosives were devised to reduce this effect. The fumes could only be removed by adequate ventilation. *See also Afterdamp.*

**Powder Tin:-** A tin with a wire handle, used by a shot firer to carry blasting powder or sticks of explosive. It was usually round or elliptical in shape, with a locked hinged

lid and was sometimes galvanised. Detonators were banned by law from being carried in the same tin.

**Pneumoconiosis:-** A chronic lung disease cause by the continual working in and breathing of coal dust *See also Black Spit*

**Pricker:-** *See Charging of a Hole*

**OR** a fine wire used to clear the jet of a carbide lamp.

**OR** a short non-ferrous tool with a pointed end to pierce the end of an explosive cartridge for a detonator to be inserted used usually by the shot firer or deputy

**Principal:** A name given to a unknown shaped heavy wooden support frame – used at Trafalgar Colliery when a fatal accident occurred in 1911.

**Pudding:-** a piece of timber, exact usage is not known. *See also 'wheel'*.

**Puff:-** This the name given to the fireclay floor being squeezed up by the weight of the strata above. It could not be prevented and caused a lot of extra work maintaining the roadway heights. This was especially prone in the Coleford High Delph Seam and when mines working this seam were closed it was not long before all the old roadways were completely filled in by this action. *See also Creep and Squeeze.*

**Pumpsman:-** A person whose job it was to operate and monitor the underground pumping machinery.

**Pumproom:-** A room usually set into solid rock near the bottom of a shaft, which contains the main water pumping equipment used to dewater the mine.

**Puzzle Shaft:-** The peculiar name given to the deep shaft driven upwards to the surface from the coal workings in the Trafalgar and Strip-And-At-It Mine complex. This shaft was situated near to Puzzle House, hence the name of the house

## **Q**

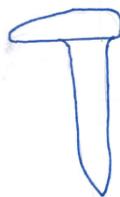
None

## **R**

**Rabble:-** *See Shothole Cleaner or Charging a Hole*

**Racing:-** The coal carts were filled to the brim of the cart, then large blocks of coal were placed on the top of the smaller coal. This was known as 'racing' the cart and was used in the House Coal seams especially at Lightmoor Colliery.

**Rail Dogs:-** Forged hooked steel nails that were driven into the mine rail sleeper but hooked over the rail flange as it was driven home. It also stopped any sideways movement of the rail as well as holding the rails down onto the sleeper. The section of the shank was square



**Rail Gauge:** The name given to the set distance between the underground and surface rails inner faces. Usually 20", 22" or 24" This was dependent upon each mine's individual requirement.

**Rake:-** A number of carts joined together for haulage. *See also Journey*

**Rammer:-** A long round piece of wood, sometimes tipped with copper or brass and used for ramming the clay into a shot hole in order to seal in the explosive charge and

prevent the explosion just blowing back out of the hole with little effect. Iron or steel rammers were banned in case they caused a spark which could prematurely detonate the explosive charge. *See Charging a hole.*

**Ramming:-** The clay or sand used to pack the explosive in a shot hole, to prevent the force of the explosion just blowing back up and out of the hole like a rifle barrel. Pronounced locally as 'romming'.

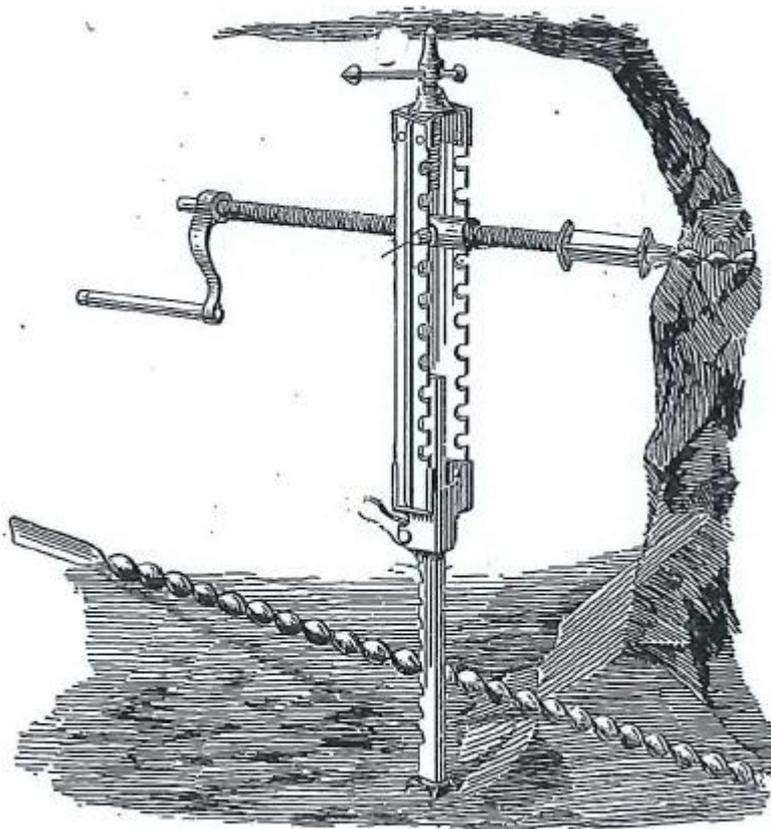
**Ratchet hand-drill:**

A man could generally drill a 3 foot 6 inch deep shot hole in about 10 minutes providing the rock was not too hard. Several drills were used, and each longer drill was slightly smaller in diameter than the previous one in order to make drilling easier by preventing the drill jamming.

The leg was driven tight between the hard floor and roof. The drilling arm was set at the correct optimum height

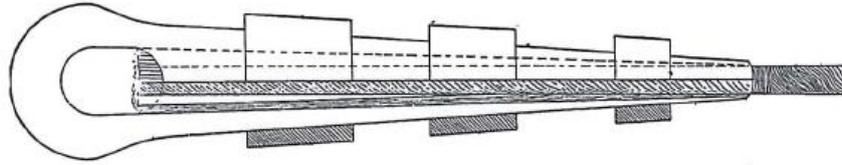
This type of drilling machine was later superseded by a percussive powered machine which was air driven.

*See also Elliot Hand Drilling Machine*



**Ratchet hand drilling machine**

**Rat's Tail:-** A cone which fitted chain shackle to winding rope on top of a cage



**A Rat's tail on end of a rope**

**Red Ochre or Red earth:-** *See Colour*

**Reeking:-** Caused by the weight of the strata coming down on the pit timbers and the noise being made as the strata broke up above the timbers

**Regulator:-** A sliding panel in an air door, the opening and shutting of which balances and regulates the supply of air into a secondary district.

**Re-railer:-** A pair of cast or steel castings that together were put together astride a pair of underground rails and allowed a derailed truck to be pushed up the leading inclined faces and moved to sit correctly back onto the rails.

**Retreat mining:-** This is where the heading roads were driven as far towards the mine's boundaries as possible. The coal was then mined back towards the shafts. This was initially very expensive but saved on having to maintain roads through the worked-out ground.

**Rider:-** Before the use of metal cages came into use the carts were guided in the shaft by two wire ropes, by means of a heavy wooden rider placed over the truck. *See Gamboreen*

**Rill:-** A small continuous feeder of water that came down through the rock strata

**Ring:** The name given to the action of striking the roof with a metal object to see if the roof was loose and dangerous. If the sound produced sounded solid then it was said to "ring". *See also Sound or Sounding.*

**Rings:-** Steel "I" or "H" sectioned arches that supported the roof and sides of main roadways. Very strong and were introduced where a good support for the main roadway was essential. Rings were used in Arthur & Edward Colliery (Waterloo) in the early 1900's In Northern United Colliery main levels hundreds were used every 3 feet and each cost £7 in 1965.

**Ripping:-** After the coal is removed at the front of a heading, the stone above the coal is brought down by explosives in order to continue the tunnel form. *See also Caunch*

**Rise:-** An inclined road, normally driven upwards so the slant allowed water to drain back towards the shaft. .

**Rising Main:-** The main pipe in the shaft which carried the pumped water out of the mine and then usually let it flow into a drainage adit.

**Roadman:-** A man employed to maintain the roadways underground. (*Also known as a Road Fetter, Roadsmith or Road Repairer*)

**Road Fetter:-** *See Roadman*

**Roadsmith:-** *See Roadman*

**Road Height:-** All main underground roadways must maintain a minimum height from the tops of the rails to the nearest point directly above on the roof. The current statutory minimum distance is 5 feet 6 inches.

**Road Nails:-** Large headed nails that were driven through the hole in the flange of a rail, and into the wooden sleeper underneath. *See also Rail Dogs*

**Road Repairer:-** *See Roadman*

**Road Smith:-** *See Roadman*

**Robbing or Robbed out:-** The removal of the pillars of coal left in the first working of a stall. If the pillar was left for too long it would be crushed by the settling strata thus producing small coal which was commanded a smaller sale price per ton and for which the colliers were not paid for.

**Rocky Seam:-** This seam is found in the Supra-Pennant geological group. It is a bituminous Household Coal. The seam is divided into 2 leats each averaging 12 inches in thickness and is underlain by 3 to 5 inches of thin coal and shale layers. It is found above the Breadless Seam when the latter exists, or failing that, it is found above the Churchway High Delph Seam. In the central and southern parts of the Forest coal basin it is overlain by a massive sandstone roof and by a shale roof in the northern parts.

**Roller:-** A steel bobbin whose spindle was set horizontally into bearing blocks at each end, over which ran the haulage ropes. The rollers were set in series both above and below ground to ease the friction of the rope when it was dragged along the ground.

**Romming:-** *See Ramming.*

**Roof Bolting:-** A permanent method of roof support where threaded steel rods are pushed up into a drilled hole in the roof and then secured by injecting quick acting resin which binds the rod to the roof strata. A steel plate was then placed over the threaded rod and then held tight against the roof by means of a large nut **OR** secured by the use of the "Rawlbolt" system

**Rope Rider:-** A man who hitched carts to endless rope

**Ropeman:-** A man who repaired and looked after the haulage ropes.

**Round of Shots:** Where more than one explosive charge is fired at one time

**Roughing it:** A description of when coal carts pass and rub the roof or sides due to the movement of subsidence

**Royalty:-** This was a payment per ton paid by the gale owner to the Deputy Gaveler. It was an annual sum paid per ton of coal or iron ore raised to the surface. If the royalty did not exceed the set dead rent, then the greater sum of the dead rent was paid in instead.

**Rubble:-** Another name for small coal. The Goold mansion in Belle View Road, Cinderford, was known as 'Rubble Castle' reputedly built from the sale of small coal for which the miners were paid virtually nothing for.

**Runner:** This was the name given to an early piece of equipment that was run across the top of an open shaft after the cart had been raised. The cart would be then lowered down onto the rails of the runner, and then wheeled away. The reverse was done when sending the cart back down the shaft. This was eventually superseded by Half-Flap Doors due to the number of men killed falling down the open shafts

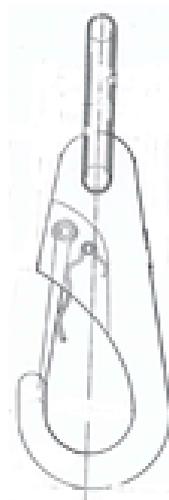
## **S**

**S36 (2) a. licence:** After the six large colliery concerns, plus a number of free mines, were nationalised in the Coal Industry Nationalisation Act 1946, the smaller former free mines were licensed to be further worked by free miners and non-free miners on behalf of the National Coal Board (NCB). The small former free mines were too small for the NCB to be economically worked, so it was decided to issue a license which was called a S36(2)a. license, which allowed the now nationalised mines to continue to be worked in the manner of the former free mines

**Safety Fuse:-** This consisted of a centre core of fine ground gunpowder, wrapped around with several layers of rubber coated hemp or cotton. It was ignited by a naked flame and it then burned at approximately 15 seconds per foot of fuse length until the flame reached a detonating cap which detonated and in turn setting off the main explosive charge.

**Salvage:** The term given to describe the reclaiming of various items of mining equipment from an abandoned district in a mine, or during the complete closure of a mine

**Safety Hook:** A forged steel lifting hook with a sprung steel catch to prevent the lifting cable from accidentally being released from a Kibble or lifting bucket



**Typical safety hook construction**

**Scabbings:-** See *Clingings*.

**Scags:-** See *Fliggets*

**Scotch:-** Another name for a wooden sprag which was inserted into through a cart's spokes to stop the cart moving.

**Scowles:-** A local term used to describe the ancient surface open cast gullies and holes dug by ancient miners in their search for iron ore in the outcrop.

**Scraper:-** A piece steel used to clean the mud and stones from the blade of a shovel or off the plate rails so that the wheels of the carts can run over them easily

**Scraper Chain Conveyor:-** This was two parallel endless lengths of chain with steel bars joining across between them. The chains ran in a steel trough and fed the coal from the faces along the conveyor and into the coal carts

**Screens:-** An inclined series of bars or steel mesh that allowed the coal to fall through and sorted the coal into its marketable sizes. It was set out on the pit head and was shaken or given a oscillating motion by cams or by bolting on a pneumatic pick The small coal was sorted out first and the large lump coal was the last size left to go through the screen.

**Schrams Patent Boring machine:-** A compressed air driven drill. The machine was fed by hand and used octagonal shaped drills in three lengths, 1 1/2 inches in diameter and could drive a hole up to 3 feet 6 inches in depth.

**Screw of Tobacco:-** See *Twist of Tobacco*

**Scowle A Brow:-** The direction driving of underground to find the iron ore in an iron mine by the miner's pure intuition.

**Scroll Drum:-** This is the drum of a winding engine constructed in the form of two truncated cones placed back to back, the outer ends being the smaller diameters. In this arrangement the diameters are proportioned and the strain upon the engine is uniform from the beginning to the end of the winding. The diameter is smallest when it commences winding with a full load in the cage and greatest diameter on the side with the descending empty cage. As the rope is wound onto the drums, the diameters of the cones conversely increase or decrease and thus automatically adjust the strain on the winding engine (Also known as a Spiral Drum.)

**Self Rescuer:-** A small safety breathing apparatus that is normally carried on the miner's belt, and used by inserting the mouthpiece and it extracts carbon monoxide gas resulting from an underground fire or face explosion. It is mandatory in coal mines across the country and normally lasts for about 1 1/2 hours before it must be changed. **It cannot be used where the atmosphere is deficient in oxygen.**

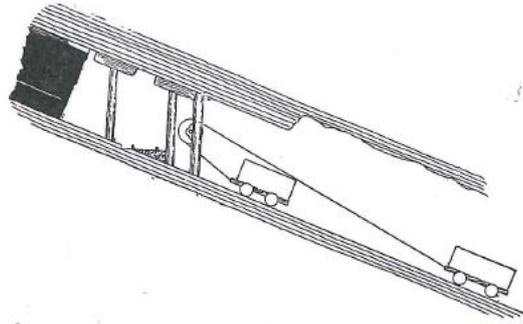


**Self Rescuer**

**Sentry:-** A workman placed by a shot firer at a position so that other miners were not allowed to pass the explosive charge and therefore render themselves liable to injury from a blast of explosives. The sentry had to be taken and placed at the position by the shot firer and the shot firer was not allowed to verbally pass the command to the sentry, by Act of Parliament. The sentry had to stop all passage of others until personally relieved by the shot firer and the sentry had to carry a tally or token which clearly stated his authority.

**Sentry tally:-** A steel or brass token of authority which must be given to a sentry by a shot firer. *See Sentry.*

**Self-Acting Incline:** Used on an inclined road where a full cart coming down would pull an empty cart back up the incline. It was controlled by a braked Jinney Wheel at the top of the incline



**Self acting incline**

**Series Ventilation:-** The system of ventilation where the air current passed along each face or district in turn. The final area to be ventilated received the most stale air. Used in Northern United Colliery

**Service Road:-** The heading road that brought the timber, supplies and the fresh air current to the coal face

**Set:-** Another name for a journey of carts

**Setting:-** Two upright, slightly inclined posts and a cross top timber called a 'cap' which supported the roof in main roadways. The top of the two uprights sat in nicks in the bottom face of the cap (diagram needed here) and the bottom of the posts were set into post holes to stop them reeling out of position.

*Also known as a "Pair of Timber"*



**Series of timber settings in a 7 feet seam of coal in Quidchurch Free Mine**

**Shackle:-** *See Coupling*

**Shaft:-** A vertical hole sunk in order to reach a coal seam or iron ore vein to be mined. The shaft may be square, circular or elliptical in shape. Normally sunk in pairs to provide alternate access or egress, after legislation was passed due to several disasters in Yorkshire mines which happened in single shaft mines whereby all the miners died because their solitary shaft became blocked. Early shafts were often

square in section, later shafts were either circular or elliptical. Shafts could be masonry stone or brick lined and even driven through solid stone with no lining

**Shaft Curbing:** An annular ring of iron or stone which collected up water running down the side of the shaft and flowed it into a pipe which ran down the shaft to the sump

**Shaft Fettler:-** *See Fettler and Shaftsmen.*

**Shaft lamp:-** A large paraffin, carbide or electric lamp used by the shaftsman to examine the mine shaft during his routine inspections

**Shaft Pillar:-** An large area of coal that was left around the shaft area in order not to create instability and misalignment of the shaft by its extraction. It was often the last area of coal to be mined in a colliery just before its final closure. This was extracted at Northern United Colliery up to its 1965 closure.

**Shaftnel Coal Seam:-** *See Twenty Inch Seam*

**Shaftsman:-** A man whose job was to examine the shaft whilst standing on the top of the cage and he was held safely by wearing a harness which was attached to the tacklers. This was an inspection that was ordered by mining legislation, and a written report was mandatory.

**Shaker Pans:-** A coal conveyor that moved backwards and forwards in a reciprocating motion. This movement pulled the coal away from the face. The motion was induced by an eccentric cam.

**Shale:-** A fine grained stratified sedimentary rock formed from consolidated mud or clay which could be easily split into plates. Often sat above House Coal Seams

**Shire Horses:-** The largest of the pit horses used to move journey of coal. They were known to have been used in Lightmoor and Pludds Collieries in larger roadways than normal.

**Shoot Down:-** To bring down with explosives – “to shoot the shale down”

**Shooters:-** *See also Lagging*

**Short Clod:-** Clod with pronounced cross-fracture or cleat.

**Shot:-** A name to describe the use of an explosive charge to dislodge coal, stone or iron ore - Firing a shot.

**Shot Firer:-** A man specially appointed to fire off every shot or explosive charge in a certain district of the mine. The shot firer had to have written authorisation from the Mine Manager to carry out this duty.

**Shot Firing Tally:-** A disk with “Sentry” written on its face and was given to a sentry during blasting operations. It was a badge of temporary authority.

**Shot Hole:-** A hole drilled either into rock or coal for the purpose of inserting an explosive charge.

**Shot Hole Cleaner:-** A tool for cleaning the dust and coal out of a drilled shot hole. It was made of a stiff wire with a forged loop handle at one end and a solid half moon shape forged on the other. They were often made of iron, copper or brass. *See also Rabble.*

**Shooters:-** The small wooden half poles that went over the top of one wooden setting to another to prevent anything falling from the roof, used in the western side of the Forest coalfield. Known by the general term Lagging on the East Dean side of the Forest of Dean.

**Signal Wires:** Two bare electrical wires were hung off insulators in a haulage road and when touched together would ring a bell in the haulage house. They were powered by a 12 Volt D.C. supply

**Silicosis:-** A chronic disease of the lungs caused by the breathing of fine particles of Silica when boring shot holes especially into sandstone rock. Borers were mandated to use a water spray when drilling sandstone but often did not to save time – a fatal mistake later in life and rendered many middle aged miners disabled for life.

**Simultaneous firing:-** The simultaneous exploding of a number of explosive charges with instantaneous detonators

**Sinker:-** A workman which sank shafts down to the coal seam or iron ore

**Sinker's Hat:** A large wide brimmed water-proof hat worn by the sinkers to deflect the continual cascade of water down the shaft whilst sinking the shaft

**Sixteen Inch Seam:-** See Churchway High Delph Seam

**Skenning:-** Flat wood overlapping in roadways. *See also lagging and Shooters*

**Skiff:-** *See Skip.*

**Skip:-** The name given to the cart that the miners rode up and down the shaft. *Also known as a Skiff or Cart.*

**Slack:-** Coal that passes through the smallest screen.

**OR** the call to loosen the haulage rope, as in “Give some slack!”.

**Slatter:-** Hard carbonaceous shale to impure coal, found as a band on top of or in a coal seam. The Yorkley Seam has this feature.

**Slickenside:-** A smooth polished rock caused by the friction of a jump or fault in the rock

**Sliding Scale:-** The miner's wages were often paid in the same ratio to the price of coal sold. If the price of retail coal went up so did the miner's wages and vice versa. This, however, was often the point of many disputes and lock outs.

**Slip:-** A break in the coal seam, which often caused the coal to break off and fall from the face which caused many accidents and fatalities. Also applied to rock.

**Slippery:-** A description of coal that is very fragile and easily broken in transit *See also Tender or Slippy.*

**Slippy;-** *See Slippery*

**Slope:-** A name given to an drift mine where the tunnel immediately dipped down from the entrance, following the seam of coal.- example Peglar's Slope, Cinderford.

**Small coal :-** Coal that was generally too small to be sold on any market apart from coal that was later able to be sold to power stations *See also Rubble.*

**Smart Delph Seam :-** *See Churchway High Delph Seam.*

**Smith Coal Seam:-** *See Twenty Inch Seam*

**Smith Ore:-** A soft rich brown haematite ore, very much like brown sugar . If a churn of it was struck, the miners could easily shovel it up into the trucks. In Sling Iron Mine it is reported that two miners shovelled of the same pair of rails for 18 months before the churn was emptied right to the surface.

**Smut:-** An impure coal looking rather like soot, which was found in layers or pockets especially over the Coleford High Delph Seam and due to its weak, friable nature, was a source of accidents. Often found near the outcrop of the seam.

**Snap:-** *See Bread Time.* Used in the northern side of the Forest

**Snore:-** the end of the pump intake which drew in the water. It had a steel mesh or perforated end to prevent silt and stones etc. getting drawn in and damaging the pumps internal mechanism

**Snowle:-** The name given to the ubiquitous miner's lunch of a small loaf of bread, broken open and a piece of cheese and maybe an onion inserted inside. It was very often the standard lunch or 'bread' of the miner.

**Sough:** A drainage tunnel driven to take water from a coal mine without the need to pump the water to the surface. Major Wades Slough in Haywood Enclosure, in the 17<sup>th</sup> Century

**Sound or Sounding:-** To knock the roof to see if it is loose or safe to work under. A hollow or deep sound meant that the roof above was loose. A sharp ‘ring’ to the tap was an indication that the roof was sound and without any dangerous breaks. *See also Ring.*

**Special Rules:-** Further to the Statutory Acts of Parliament, the mine manager would often introduce a special rule in his own colliery. This was a written order, given to a specific person or for general notification, and was posted up at the top of the pit head, and was used to maintain a safe working practice. Workmen that broke these special rules, could be prosecuted in a court of law or by the Mines Inspectorate.

**Spiral Drum:-** *See Scroll Drum.*

**Splicer:-** The name given to the miner whose job it was to join steel cable together by splicing using a marlin spike. *See Marlin Spike*

**Spontaneous Combustion:-** Caused by the oxidation of iron pyrites in the coal by moisture. This causes a rise in temperature, leading to combustion of any coal. Commonly found in the gob or waste areas. Albert & Edward (Waterloo) and Northern United Collieries both suffered from this problem at various times. It could only be extinguished by totally sealing off the air in the affected area and smothering the fire due to lack of oxygen

**Sprag:-** A short length of timber to support the coal face in order to prevent the coal falling prematurely

**OR** a short length of timber with sharpened ends, placed in the spokes of an underground cart in order to stop the wheel turning and act as a brake on a steep incline. *See also Scotch*

**Spreader:-** A support used directly against the roof where the roadway sides were strong enough to support the weight of the roof coming in the support itself. The spreader was set into sockets either side at the top of the solid roadway wall “**Spwoil Yups**”. Forest dialect words that mean pit spoil heaps.

**Squeeze:-** When the weight of the strata above presses down on the coal seam, pit props or cog blocks.

**Squib:-** *see German Squib.*

**Stables:-** The place where horses were kept. In large collieries and iron mines the horses were often kept in stables underground.

**Stacks:-** *Also called Trees*

**Staining:-** *See Steining.*

**Stall:-** A rectangular area of coal to be worked by a gang of miners. The sides were usually left in order to support the roof. These sides or pillars were then often reworked and removed when that was all that was left to mine. Hence the term Pillar and Stall working. It was the usual way of working in the thinner house coal seams and the subsequent subsidence was less felt than in longwall working.

**OR** a cubicle in underground stables where each cubicle would house one horse or pony

**Staging:-** A platform or partial platform set across a shaft, to allow men and materials on and off the cage and into the adjacent mine level.

**Stanked-up:** A local description given to ponded dirty water held back by typically a partial roof fall or a dam.

**Staple Pit:-** An underground mine shaft that communicated from one seam to another. Used for ventilation, pumping or just an access. It was not open to the surface. See also Balance Pit.

**Starkey Seam:-** This seam is found in the Supra-Pennant geological group and is a bituminous Household Coal. It lies in 2 beds but this was only in the south of the Forest coalfield, where they are each 15 inches thick and separated by less than 2 feet of shale, that they have been worked together. In the central and northern areas the lower seam was seldom more than 12 inches thick, and the upper seam, where it separated from the lower seam by 6 feet of fireclay, was it worked under the name of the Starkey Seam. The upper seam then averaged 18 inches in thickness.

**Steam Coal Collier:** A collier who worked in the steam coal vein of coal. Often looked down upon by the House Coal Colliers who considered themselves the more skilful set of colliers.

**Steining:-** The masonry or brick wall surrounding a shaft in order to give it stability and help prevent ingress of water from the strata it passed through. The steining was built on concrete, iron or even wooden supporting rings set at intervals in the shaft

**Stell:-** The anchor point to attach a Sylvester safety tensioning device. Name used in southern side of the Forest coal field

**Stemming:-** *See Ramming or romming.*

**Stick of timber:-** A roof supporting wooden post.

**Stink Damp:-** Hydrogen Sulphide gas or the 'rotten egg smell'. This gas was produced by the decaying of vegetable matter and the decomposition of iron pyrites by the acidic mine waters in wet collieries. It is colourless, does not support combustion and had a distinct disagreeable smell. Continued exposure to this gas deadens the sense of smell by destroying the olfactory organs in the nasal passages and leads to a false sense of security. If present in above 0.07% in air it can cause permanent heart damage and death.

**Stint:-** The length allocated to each coal hewer or collier that he had to remove from the coal face during each shift

**Straw:-** A slow burning paper tube or goose feather quill filled with fine, quick burning gun powder. It was inserted into the main charge explosive charge and the end lit with a match. *See also German Squib or Squib*

**Stricker or Striker Plate:-** A flat iron or steel plate normally laid on the floor at a temporary underground junction. The cart would be run off the end of the rails and onto the plate. The cart would be manually turned on the plate to the new direction required and pushed onto the second set of rails. It saved on a complicated set of points and was easily moved.

**Strike Pit:** A small shaft driven to the various outcrop coals by miners trying to earn a little money during strikes in the 1920's. Often confused with Bell pits in appearance

**String Ore:-** *See Pipe Vein..*

**Stoker:-** A man who stoked the boiler fires on the surface usually but could also be found at underground furnaces such as at Lightmoor Colliery.

**Stone Billy:-** Pronounced 'Stwun Billy' in the Forest miner's dialect. This was a device of various lengths and sizes and depended on what the blacksmith decided to manufacture. It was basically a steel bar with a bulbous or tapered, but sharply pointed end which was put in a crack or weak part in the rock and was then struck with a sledge hammer to force the point into the weakness and thus break the rock

apart. If the rock was weak enough then and it was heavy enough then it could be just dropped using its own weight to break the rock. It was used in collieries quarries for the same purpose.

**OR** A small steel wedge that was hit with a hammer in order to prise the iron ore away from the limestone.

**Stone Blind:-** Thin-bedded shaley sandstones and sandy shales.

**Stone dusting:-** Inert gypsum stone dust that was spread around to stifle a coal dust explosion and stop it spreading along the underground tunnels and roadways. It was often placed on a long ledge set above the roadways on loose boards so the boards would act as paddles to spread the flame choking dust in the event of an explosion. Even though there was no perceptible methane present on the Forest of dean mines, an explosion could still occur in disturbed dry coal dust suspended in the air

**Stomp:** The name given to the act of cutting a post hole (or similar) -“Stomp thic hole out.”

**Stopping:-** A permanent air tight barrier to prevent ventilation air or men from going into a district affected by a gob fire. The stopping suffocated the fire as the combustion used up the surrounding oxygen supply.

**Strut:-** A length of timber or steel to keep the steel rings the required distance apart.

**Stythe:** *See Blackdamp*

**Subsidence:-** The knock-on effect of the gradual collapsing of the various overlying rock strata into the void left by mining, which finally causes the original surface to also collapse into the final depression. Major structural damage can affect buildings, roads and railways etc. It was usual to leave a ‘pillar’ of coal to protect such places.

**Sump:-** An area, usually the extended bottom of a shaft, that acted as a deep reservoir to hold the mine water ready to be pumped to the surface.

**Sumpers:-** The first round of explosives with safety or electric instantaneous detonators, to be fired in a tunnel or shaft bottom.

**Superincumbant Pressure:-** The pressing weight of the strata above the coal would often explosively burst coal off the face when under great pressure in the deep workings, sometimes with fatal consequences

**Support Rules:-** Rules that were made mandatory by the manager so that the roof supports and packs in roadways and on the faces were to a safe set method and maximum distance apart. Each mine or seam of coal would have a standard which would suit local conditions..

**Swan Necked Dagger:-** This was a safety device that was locked on the front of a coal cart or man riding trolley and was usually used on inclines. The hinged end was located on the front of the front cart and the hooked end was cranked and rested on the haulage cable. If the cable broke the swan necked dagger would fall and hook itself on the top side of a sleeper as the cart ran backwards and prevent the cart or trolley from rolling back down an incline.

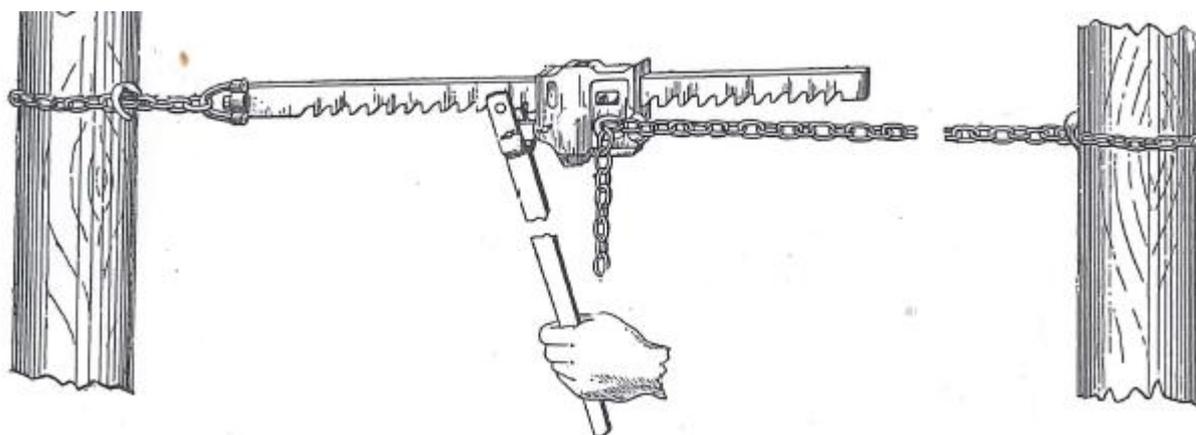
**Swing Rail:-** Used to guide carts at a “Y” junction onto the correct route required. The swing rail was pivoted at the throat of the “Y” parting and could be easily moved by hand sideways to enable carts to pass to and from the other direction. *Also called a Switch Rail.*

**Switch Boy:** A young lad or boy whose job it was to control the coal on a conveyer and to monitor the filling of each coal cart. When the cart was full, the Switch Boy would turn off the conveyer until the next cart was in place. Used in Northern United

**Syncline:-** Meaning a basin shape in geological terms. The Forest of Dean geology is classed as a synclinal basin

**Sylvester Tensioning Device:-** This ratchet and lever tensioning safety device was invented and patented by Walter Sylvester, of Staffordshire, in 1895 and was used primarily for the withdrawal of pit props and cogs which were situated in the gob area. They could have many other uses when used in a similar manner. The Sylvester allowed the withdrawal of the timber with the operator being position in a place of safety. However, to attach the device, the operator had to advance into the danger area to attach the tensioning hook and chain. The Sylvester was usually attached at the rear to an anchor point or stull by another short length of chain and hook. The popularity of the Sylvester was sealed by the Coal mines Act 1911 which stipulated that “The use of a safety contrivance is compulsory in all cases where props are to be withdrawn from the waste or the gob”. However, if used improperly the Sylvester could be dangerous. Several fatal mining accidents occurred in the Forest of Dean by its improper use. They had a 30:1 leverage ratio and used a handle three feet long. Their usage was banned by the National Coal Board but not in all districts, in 1978 due to the number of accidents. A Sylvester was commonly used in most local deep pits and free mines but they are now confirmed as being prohibited in the Forest of Dean by the current HM Chief Inspector of Mines. A Sylvester had a mechanical advantage of 30 : 1

(A similar tool to a Dog and Chain)



**The Sylvester tensioning device seen here pulling on a timber prop whilst being anchored on another prop on the left hand side. However, this example was a most dangerous way of using the tool and the cause of death of Charles Mason (father of author Winifred Foley) who was killed at Northern United Colliery, in this manner on 13<sup>th</sup> December 1945**

## **T**

**Tacklers:-** The name given to the four chains that attached a cage to the cappel on the winding rope in the shaft.

**Tallow Candles:-** These candles were made from animal fat and a prescribed number were often used for judging the length of the shift. However, variable drafting air currents could upset this calculation.. Often mounted in a “Nelly” holder and were sold by a certain quantity per pound weight. Also known as “Dips” as the string wick

was repeatedly dipped into the tallow fat to create the size of candle required. Candles were much later made of paraffin wax

**Tally :-** A brass disk which indentified the mine and was struck with a miner's individual number. One was issued to each miner. The tally was handed over to the banksman to show that the miner had gone underground. The tally was handed back as the miner left the mine, to show that he was no longer underground and returned to the tally board. In some coal fields two tallies were used. *Also known as Colliery Checks*

**Tally Board:-** A wooden board with many hooks on which the brass miner's tally were placed in numerical order after the miners had gone down underground. It showed who and how many were underground in an instant. It would be of great value to the rescuers during a mining accident

**Tally Mark or Token:-** A mark or number placed by the miner on the side of the cart or chalked on a large lump coal or a marker placed in every full cart of coal or iron ore sent out of his work place. This identified who had filled the cart so that they could be paid for it. The soft bottom clay under the coal seam was often used to draw the mark on the side of the cart. *See also Notch Stick*

**Tamp or Tamping:-** To fill a shot hole with clay after the explosive had been inserted. *See also Ramming or Romming.*

**Tender:-** *See Slippery*

**Tension Box:-** Return roller on belt conveyors which is adjustable in order to maintain correct tension on the coal conveyor..

**Thick Lowery:-** *See Lowery Seam.*

**Thill:-** Floor of an iron ore or coal mine.

**Throw-Ons:-** *See Re-Railer*

**Tighter:** The name given to a short blind side road – used in the central Forest mines. Used at Hopewell Colliery

**Timberman:-** A miner whose job it was to ensure the timber settings and props in the roadways and headings were secure and safe. He would replace any timberwork where it was necessary.

**Timberjack:-** A tool similar to a modern Acrow Prop used to help erect heavy timbers up to the roof, using a heavy screw jack action

**Timber Trolley:-** A flat open bedded cart with vertical posts at each corner. It was used to carry the pit timbers up the face in the flat position. They were ideal in low seam conditions.

**Tippler:-**A mechanism where full carts at the surface, were pushed in and held locked. Then the apparatus would revolve sideways and tip the coal or ore out. The mechanism would then revolve full 360 degrees and bringing the cart back upright and allow it to be moved.

**Tonnage:-** The payment system where miners were paid for the weight of coal received at the surface.

**Tommy Bag:-** A cloth bag with a draw-string that miners kept their food in, it was hung up out of the way of rats, mice and cockroaches. Also a bag made to carry food and drink often made from old pieces of conveyor belt that were stitched together

**Tommy Box:-** A sheet steel tin box which was used for the same purpose as a Tommy Bag

**Tommy Shop:-** *See Truck shop*

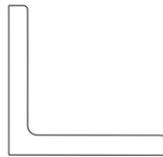
**Tongue:** A protruding stage in the shaft to allow carts to be taken from or to placed into the cage.

**Train of carts:-** *See Journey of carts.*

**Tree:** Another name for a pit prop

**Tram Road:-** An early horse drawn privately owned railway where coal, iron ore and other goods were transported from the mine to their respective markets. A toll per ton was usually charged. This mode of transport was superseded by the steam railway. Many tram road routes still survive locally.

**Tram Plates:-** The cast iron tram road's **L** shaped rails that the rimless tram wheels ran on, usually mounted on stone blocks. *Also called Plate Rail*



**Typical Tram Plate profile**

**Trammer:-** A person who moved the full or empty carts underground.

**Tramming:** - The act of pushing carts of coal from the coal face to the shaft or Adit.

**Tram Road:-** A simple plated railway where the plates were L in section and the wheels of the carts ran along the bottom plate. The plates were mounted onto stone blocks and were the forerunner of the steam railway. The carts were horse drawn.

**Trees:-** Another name for underground pit props.

**Trenchard Seam:-** This is a bituminous Steam Coal, found in the Trenchard geological group and is the deepest coal seam in the Forest coal basin and lies below the Coleford High Delph Seam. It is generally grouped into 2 seams - The Upper Trenchard and Lower Trenchard Seams, each of around 24 inches in thickness. The Lower Trenchard Seam contains numerous shale partings and in consequence was little worked. In the southern part of the Forest coalfield the 2 seams come together to average 54 inches in thickness. The Trenchard Seam is underlain by a thick hard fireclay (or bastard fireclay) in the north and was overlain by shale bands below a sandstone roof, and in the south was underlain by a soft fireclay. It only attained workable thickness in the south where in a limited area it reached a maximum thickness of 44 inches. This latter thickness was associated with an adjoining thin area or where the seam is suddenly absent.

**Trigger:-** A simple steel mechanical device that stuck up and held carts by their axles bars on an incline and prevented them from rolling backwards. The triggers would then be lowered to release the carts. This mechanism could also be used in a cage to prevent the carts moving during winding or lowering.

**Trill:-** An iron mining expression relating a small gulley used for sending down iron ore to either another stage or an ore chute.

**Trimmers:-** The last of a series of explosive charges to be fired. These have the longest delayed detonators and are used to remove rock from the bottom corners when driving a roadway in rock. The rest of the charges are arranged in concentric circles around the centre of the roadway

**Trippet:-** A piece of iron that haulage riders hooked onto the front of a cart to act as a seat whilst it was being hauled along the roadway or dipple. They were later made illegal due to the number of fatal accidents suffered by this practise.

**Tripod:-** *See Trippet.*

**Trolley:-** A small low cart used to bring the coal from the narrow seams

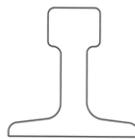
**OR** a long flat cart fitted with seats used to lower men down the long, steep dipples or tunnels to speed up their journey times to the distant work places

**Trolley Road:-** The small tunnel down which the trolleys were taken to the horse roads

**Trucks:-** *See Carts*

**Truck Shop or Truck system:-** The miners were paid so much in cash and so much in tokens from the mine truck shop. This was open to abuse whereby the effective price at the company shop was very much higher than at independent shops and stores. Later this mode of payment, either whole or in part, was made illegal by Act of Parliament in 1831 and all miners were paid in cash. It was also made illegal to pay the miners in a public house.

**‘T’ Top Rail:-** the type of underground rail section that is identical to modern main line rail.



**Profile of typical ‘T’ Top Rail**

**Tubs:-** *See Carts*

**Tubbing:** Large cast iron bands fitted it part of a shaft in areas that are very weak and helps reinforce the lining of the shaft and keep that water from pouring into the shaft.

**Tugger:-** A small electric haulage engine which would be fitted to the front of a coal cart. Used at Princess Royal Colliery

**Turgite:-** A variety of purple ocherous haematite.

**Turnout:-** A siding or passing on a haulage road.

**Turned Out:-** An expression to describe the turning of empty carts onto their side in a short side heading or an increase in tunnel width to allow full carts to pass by.

**Twenty Inch Seam:-** Also known as the Smith Coal. This was found in the Supra-Pennant geological group. It was a well banded bituminous Household Coal which lay above the Foot Coal Seam. It maintained a 20 to 24 inch thickness and was overlain at a short distance by a thin coal known as Twenty Tops or Shaftnel Coal. In places the Foot, Twenty Inch and Twenty Tops (Shaftnel) Seams ran together to give a seam of 4 feet thick

**Twenty Tops Seam:-** *See Twenty Inch Seam*

**Twist of tobacco:-** A piece of tobacco which the miners chewed to keep their mouth moist. *See also Screw of Tobacco*

**U**

**Under Beam:-** Similar to the standard Cornish Beam Engine Balance Beam which is situated over the top of the steam cylinder, but on an Under Beam Engine the layout is inverted, with the steam cylinder above the balance Beam

**Undercut:-** The name given to literally undercutting the coal seam by pick or coal cutter ready to bring it down with steel wedges driven over the coal. Before the coal was brought down, wooden wedges were driven into the undercut to prevent the coal falling prematurely and injuring the collier. The lower wedges were removed and the steel wedges were driven in to release the coal from the face.

**Underearth:-** *See Seat Earth.*

**Underlooker:-** yet another name for an underground examiner

**Undermanager:-** The manager in charge of all matters underground. His duties were defined in the Coal Mines Regulations Act

**Upcast Shaft:-** The shaft which conducted the stale ventilated air out of the mine workings and to the surface

**Up Dip:-** The term used to describe the position of something that is up the inclined angle of the coal or iron ore seam from a reference point - as in up dip from a level (*Opposite is down dip*)

**Under Edge Stone:-** Floor or thill of an iron mine.

**Up throw:-** A fault in the rock in which the displacement had been upwards.

## **V**

**Ventilation Chimney:-** A stone built chimney used to exhaust the hot up draught from an underground ventilating furnace. *Good surviving examples of this are the Findall Iron Mine chimney at Stapledge and at Dodsmore Colliery, Bream.*

**Ventilation Door:-** A wooden hinged door that was placed in a roadway ensure that the ventilating current of air would be ducted into the correct area of the mine. In early history it was a job given to old men and young boys who were paid a low wage to sit in the dark, often without an illumination and to open the door to allow a journey of iron ore or coal carts to travel along the roadway, and then shut the door in order the ventilating current is maintained. It could be hung so that it was self-closing. *Also called an Air Door.*

**Ventilation Furnace:-** This was a furnace burning underground and the pulling draught into the flames created a ventilating current in the mine. This practice was later made illegal by Act of Parliament. This was used in Lightmoor Colliery which ventilated the smoke and stale air up a shaft to the surface which was called the Smoke Shaft.

**Ventilation Reversal:-** Every mine that had a ventilating fan that had to be able to reverse the forced air flow underground. This ensured that a ventilating current could be prevented from feeding oxygen into a underground fire or to be able to feed air to survivors of an explosion and to the rescuers

**Vern:-** An old Forest of Dean expression which referred to a miner's young workmate or trainee

**Vibration White Finger:** An industrial injury which caused permanent damage to blood vessels, nerves, muscles and joints in the hand caused by the continual use of hand-held vibrating tools such as pneumatic picks or drilling machinery

## **W**

**Wait Order Coal:** This was coal that had been mined and screened and then placed in railway trucks in a siding to wait an order from an as-yet unknown customer.

**Walking-out Road:** The name given to the escape route used by miners in New Dunn Iron Mine when the winding up the main shaft had to be stopped for some reason. The walking-out road came out to the surface at the outcrop of the iron seam.

**Walrus:-** The shape given to a fall in the roof of a roadway which looked like a drooping walrus moustache when view directly in section down the roadway

**Warden:-** *Sidney Peart's inquest 30/7/1909 - Warden or 'blacks' fell from over the coal, in places it was soft. Exact definition not yet known*

**Warrant:-** a fire clay seat-earth

**Warwick:-** This a piece of safety apparatus the stopped run away carts from going down a inclined roadway. It was hinged at the roof and hung down at an angle facing up the roadway. It could be lifted by pulling on a wire rope attached to the lower end and thus allowing the passage of the carts. *See also double Warwick*

**Washery:-** A large set up by which the coal was separated from rock by immersing both in a medium which had a lower specific gravity than rock, but a higher one than the coal. This meant the coal floated off on the surface but the rock, sand and shale sank. Water alone could not have achieved this.

**Washout:-** An barren area that was formed by a flowing river or deeper water preventing the plants and trees, that created the coal deposits, from growing. Cannop and Eastern United Collieries both suffered from such barren, unproductive areas.

**Waste:-** Another word used to describe the Gob and used more often in the southern Forest

**Water Ring:-** To draw the water away from the sides of a shaft, a retaining notch or notches were cut around the diameter of the shaft. These caught the water running down the shaft sides and fed it into a pipe leading to the sump. *Also known as a Water Garland.*

**Water Garland:-** *See Water Ring*

**Waterloo:-** The local name given to Arthur and Edward Colliery at Upper Lydbrook but pronounced locally as "Wayterloo".

**Wedge:-** A tapered piece of wood that was driven between the rock and mine timbers in order to tighten them and fix them firmly in position.

**Wedge and Feathers:-** Feathers were half round pieces of steel that were placed in a drilled hole in a rock. The top of the feather was bent over at right angles to prevent the feather falling too far into the hole. A steel wedge was then lightly driven in between the feathers and the resulting side load in the hole would cause the rock to split apart. They were often used in series in a straight line in order to break off a large regular faced stone and were very effective.

**Wedging:-** The coal was undercut by pick or machine and wedges were driven over the top of the coal in order to make it fall. OR were put into the undercut made by the coal cutter in order to stop the coal from falling forward and injuring the collier

**Weight:-** The name given when the strata pressure came down on the coal and timber supports causing them to crush.

**Welsh Notch:-** name given to the particular shape of the notches which secured the upright timber posts to the horizontal cap to form a timber setting.

**Wet Cutting:-** Coal cutting with a dust suppressing water sprays delivered onto the cutting jib of a coal cutter and thus into the cut. The water had to be carefully regulated in order not to adversely affect the nature of the surrounding ground. Too much water could cause the floor to become saturated and then allow the roof pressure to cause the props and pack walls to move and allow the roof to fall. Too

little water would cause air laden coal dust and cause the miners pneumoconiosis of the lungs. Wet cutting was made compulsory by law in 1941.

**Wet Money:-** About a shilling (5p) was paid per shift to miners who worked in particularly soaking wet areas underground

**Wet Note:-** A ticket given to colliers who worked in wet conditions, to prevent them having to stand around in wet clothes whilst waiting to be wound back up the shaft to the surface.

**Wheel:-** a piece of timber, exact usage is not known. *See also Pudding*

**Whelve or Whelver:-** Another name for a fall from the roof often caused by fossilised plant matter that produced a localised area of weakness in the roof

**White Damp:-** Carbon Monoxide or Sweat Damp, produced from incomplete or slow combustion of some explosive agents and gob fires. Internal combustion engine were banned from underground and therefore the exhaust fumes from this source was not present.. It was extremely poisonous and will burn and support combustion. .0.001% in air will prove fatal within 10 minutes

**Whittington Seam:-** This seam is found in the Pennant geological group, above the Coleford High Delph Seam. It is a sulphurous, bituminous Steam Coal of second class quality. It could attain a thickness of 36 inches but this figure includes a layer of clod up to 6 inches thick and a dirt parting up to 2 inches thick was frequently found in the lower part of the seam. The seam deteriorated rapidly, becoming unworkable north of an east/west line at Clements Tump. It had a sandstone roof and was underlain by a large shale bed in the south. It came down to the Coleford High Delph Seam in the area of the Pludds shaft at Arthur and Edward Colliery

**Winder:-** The operator whose job it was to control the winding engine on the surface. By Act of Parliament he must be over the age of 21 years.

**Winding:-** The act of lifting the cage up and down a shaft by means of rope wound by a steam or electric engine or even a manually wound windlass

**Winding Engine:-** The main engine which lifted and lowered the cages in the main mine shafts. Early engines were steam driven but later were electrically driven. There were many different types..

**Winding Rope:-** Originally made of hemp, which proved to rot easily and therefore caused breakages. Flat iron chains then replaced hemp, later on they made of flat braided steel rope and laterally anti-spin steel hawser type wire ropes were introduced, which were of great strength. A written report had to be kept of the installation date of the rope and of its working life at the colliery for detailed inspection by the H. M. Mines Inspectorate. The rope was visually examined daily by two men who were given written instruction by the mine manager

**Windy Pick:-** A slang term given to a compressed air driven pneumatic pick. *Also called a 'Bodger'*

**Winding Register:-** A book which recorded the number of coal and iron ore trucks raised to the surface, the stoppages and how they were occasioned.

**Winding Wheel:-** The large grooved flanged, spoked wheel at the top of the head frame or head gear, over which the winding rope ran from the winding engine and down the shaft. They were usually fitted in pairs on the head frame in the larger mines in the Forest of Dean. They could be as much as 15 feet in diameter and were usually split into two halves through the centre bearing diameter. The spokes had to be cast into the rim by Mining Regulations

**Winning or Winning the coal:-** *See Coal Getting or Got.*

**Whim or Whimsey:-** An early type of winding mechanism, usually driven by a single horse through a gearing system to a large vertical drum which carried the winding rope.

**Windway or Wind Road:-** The name given to the underground road which brought in fresh ventilating air from the down cast shaft.

**Windy Pick:** A light weight compressed air driven miners' pick typically used to bring the coal down from the face. Often known as a CP3 to CP5

**Windlass:-** A simple winding drum used for lifting and lowering in a shaft

**Whibby:-** A short upward roll of fireclay floor from the floor which pinched out the coal seam up against the roof.

**Woorgreen Seams:-** These are found in the upper division of the Supra-Pennant geological group. They are all hard, bright bituminous coals and are classified as 'Woorgreen Coals' The following are the sequence of coals discovered in descending order, during drilling operations in the Woorgreen No 2 Gale in 1969, with later opencast operations during the 1970's and early 1980's :-

The following is from a report given by the Deputy Gaveller, Mr John Harvey: Deputy Gaveller:-

**Woorgreen No 3 Seam:-** Averaging 24 inches in thickness over the opencast site and is overlain by about 25 feet of intermittent sandstone lenses, mudstones and shales. Above the latter order are two small unnamed thin and impersistent coals totalling 5 inches in thickness. The No3 Seam is underlain by fireclay and mudstones and siltstones 25 to 30 feet thick and as far as it is known, is found within the Woorgreen Trough.

**Woorgreen No 2 Seam:-** Averaging 30 to 41 inches in thickness with a thin clod or clay parting. It sits about 15 feet below the No 3 Seam and is underlain with 15 feet of fireclay, mudstones and siltstones. Beneath that sequence is a thin, impersistent coal 2 to 3 inches in thickness, followed then by about 25 feet of further mudstones with sandstone lenses. As far as it is known, is found within the Woorgreen Trough.

**Woorgreen No 1 Seam:-** Averaging about 24 inches in thickness and the most worked of the 3 Woorgreen Seams. Worked by the Woorgreen Colliery, near to the Yew Tree Brake Enclosure. It is found above the Crow Delph Seam and is thought to extend around the central part of the Forest coal basin.

## X

None

## Y

**Yardage:-** Payment by the amount of advancement of the heading in yard units.

**Yard Delph Seam:-** See *Bailey Seam*

**Yard Stick:-** A three feet long ash measuring stick carried by a deputy or official and used to measure distances underground and to tap its steel ferrule against the roof to detect a potential roof fall

**Yield:** Term given to the amount the roof slowly fell behind the advancing coal face after the coal had been removed.

**Yorkley Seam:-** Also known as the Bailey or Nagshead Seam. It is a good quality bituminous Steam Coal and is found in the Pennant geological group, above the Whittington Seam where the latter exists, and therefore above the Coleford High

Delph Seam when the Whittington Seam is absent. The Yorkley Seam averages 35 inches in thickness in the southern and western parts of the Forest coalfield. It can have 2 or more soft clay or clod partings up to 4 inches thick. It thins to the north east and disappears between Ruspidge and Ruardean. In an area west and southwest of Brierley it splits into 2, separated by large shale or fireclay bands. It was about 22 inches thick with a 13 feet rock roof at Mireystock

**Yorks or “Yarks”:-** The bottoms of the miner’s trousers were tied around generally with a piece of string to prevent the coal dust travelling up his legs and to help keep his trousers out of any mud and shallow water

**“Yups and Zonks”:-** An expression given to something that went up and down and was not level. “The roadway was vull (full) of yups and zonks”.

## Z

**Zonk:-** To hit or strike a blow as in “Go on zonk ‘un one!”

**OR** to mean a dip, especially in a roadway floor.

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- Ray and Jonathon Wright – Iron mine owners
- The Forest of Dean History Society
- Ian Pope- Mining Historian
- Maurice Bent -former miner at Northern United Colliery
- Geology of the Forest of Dean Coal and iron Ore Field HMSO 1942
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