

## A Glossary of Cornish Mining Terms

Adit	A near almost level tunnel for draining water from a mine; also a point of access. Deeper adits did not always connect to surface. Some were used to convey water back from distant workings to a pumping shaft.
Adventurers	Investors in mines – shareholders
Air-machine	A fan to provide ventilation – could be hand driven
Alluvial	Deposited by rivers or water
Angle Bob	A simple lever based device which used the reciprocal movement of pump rods/flat rods whereby the direction could be changed, e.g. from horizontal to vertical.
Arsenopyrite	Arsenic ore or arsenic sulphide
Assay House	A mine laboratory where ore samples were tested and analysed for their mineral content.
Attle	Waste rock that had no value
Bal/Ball	A mine. Usually applied to earlier mines. From the Cornish ‘Pal’ a shovel hence a digging of a mine.
Bal Mill	A rotating drum containing steel balls used to crush ore to consistency of sand
Balance Bob	A large counterweighted lever attached to the shaft pump rods and used to offset their weight and so reduce the work of the pumping engine to lifting water alone. A surface balance bob could be mounted close to the shaft on a pair of plinths or on a masonry support at ground level, known as a (balance bob mounting), the attached counterweight, a box filled with scrap working in an adjacent stone lined pit. Balance bobs could also be installed in chambers cut into the rock close to the shaft wall as needed to balance the weight of the pump rods, particularly in a deep shaft.
Bal Maid(en)	A woman or girl employed on the surface of a mine to dress the ore and other allied jobs
Banjo Shovel	A short handled shovel similar in shape to a banjo.
Bannock	A cooked lump of pastry
Battery Lamp	Modern lead-acid battery lamp
Beam Engine	a steam powered engine very popular in Cornwall for, pumping, winding and for providing power to crush ores prior to dressing on Cornish mines. The power from a large cylinder set vertically in an engine house was transferred by means of a huge rocking beam, known also as a Bob to the pumps in the shaft outside. For crushing or winding the Bob was attached to a flywheel and crank on a <b>LOADING</b> next to the Bob Wall, or in the case of an indoor situation, the side wall. These engine houses formed an integral part of the framing of the engine.
Bed Stone	a granite slab that was the foundation for the cylinder of a Cornish engine to sit on.

Big Hit	A sledge hammer
Black Powder	Gun powder or an explosive mixture of sulphur, charcoal and salt-petre
Black Tin	Cassiterite in powdered form resembles black sand
Blowing House	Early form of tin smelting furnace, usually on a small scale using charcoal for fuel
Boiler House	A lightweight structure adjoining an engine house, designed to house the horizontal boilers of a steam engine; the associated chimney stack was usually attached to this structure.
Bonnet	a Bal-maiden's head dress (gook). They differed in shape from village to village
Borer/boryer	Steel or iron bar used for drilling blasting holes, known as fingers
Bratticing	Timber partitioning in a mine; e.g. the Lagging Boards that lined the upper portion of a shaft where it was surrounded by soft ground
Buccas	Piskies, fairies or little people
Bucking	Crushing rock from gravel size, about 3 cm down to sand = 1 mm. This process comes after spalling and cobbing
Hammer Bucking	A hammer with a flat face used for crushing gravel to sand or dust
Buddle	A circular device used for concentrating tin ore. In the mid 19 <sup>th</sup> century they were pits with rotating brushes. The tin from the Stamps was fed onto side or centre of the pit and was graded by gravity, thus keeping the heavier ore near to the inlet. They were often driven mechanically. Buddles of an earlier time were often trapezoidal in shape and operated by hand.
Buddle Boys	Young boys employed to operate the buddles
Burning Fuse	Safety fuse: hollow cord filled with gunpowder that burns for a fixed time and rate. It was invented by Wm. Bickford of Tuckingmill in 1831. Previous to this hollow geese quills were used.
Cage	A metal enclosure used to raise and lower miners from their work level to surface
Calciner	a furnace and heating chamber in which ores were roasted to drive off impurities such as sulphur and arsenic. They were also known as Burning Houses; later patterns being of REVERBERATORY design. The Brunton pattern calciner, introduced in the mid 19 <sup>th</sup> century was mechanically powered and operated on a continuous basis, unlike previous designs. Other patterns of calciner were also devised usually named after their designers, (e.g. Oxland, Hocking, & Loam.)
Capstan	A manually or steam powered winding drum, usually installed on a mine to raise pit-work from the shaft for maintenance or repair.
Capsule	A detonator

Carbide Lamp	A gas lamp which burns acetylene gas produced by adding water to calcium carbide powder or rock.
Carbona	An irregular mass of ore as found in St Ives Consols
Cataract Pit	(Or cockpit) A sub floor area within the foundation levels of an Engine House between the cylinder pit and Bob Wall, containing the regulating apparatus, and giving access to the cylinder 'hold down' bolts.
Cassiterite	Tin-oxide the main ore of tin
Chalcopyrite	Copper sulphide, copper ore
Charging up	Putting explosives in the hole
China Clay	Decomposed feldspar from granite
Clogs	Wooden shoes
Cobbing	Breaking rocks down to gravel size (3cm) to enable waste to be picked out (Follows spalling but before bucking
Coffin/Goffen	The narrow excavation resulted from stoping on a load being carried to and from surface on part or all of the lode. (See GUNNIS, STOPE, OPENWORK.)
Condenser	The cast iron cylinder set in a tank of cold water immediately in front of the Bob Wall of an engine house in which the exhaust steam was condensed creating a vacuum which greatly increased the efficiency of a steam engine. For a pumping engine this equipment was often contained within a pair of masonry walls projecting from the Bob Wall towards the shaft
Core	A set period of work; a shift. When one was at paid work, one was said to be working in core, but if you took on other work i.e. a secondary job, you was said to be working 'out of core'. A bit like a 'homer' or a 'Jan Luke'
Cornish Shovel	A long handles pointed, slightly hollow shovel, which the Cornish took with them across the world
Count House	This was the 'Account' House, or mine office sometime included accommodation
Crib	A food break – as in 'croust'. It seems there is no set time for crib or croust it was more a case of when you were hungry
Culvert	A small tunnel or drain constructed to carry a channel of water. Sometimes it would have a flat covering of slate
Cylinder Opening	The often large arched opening in he rear wall of an engine through which the steam cylinder was brought into the engine during the erection of the engine. This aperture was usually and subsequently closed off by the use of timber and usually incorporated the doorway into the engine house.
Cylinder Platt	This was the massive concrete base onto which the cylinder of a Cornish Engine was bolted down. It was also known as the 'Bedstone'

Deads	Waste rock of no significant value
Detonator	A small explosive charge in a metal tube which sets off the main charge of explosives
Detonator Pouch	Bag for carrying detonators
Developer	A miner who digs horizontal tunnels
Development	The building of horizontal tunnels
Diamond Drilling	Diamond tipped drill used to take a drill core for sampling
Dip	A miner's term for a candle
Double Hand Drilling	The practice of one man holding the borer and two to beat it in with sledge-hammers
Dressers	Those who separate the tin from the waste on the surface (Bal Maidens)
Dressing Floors	Place where tin was separated from the waste; this was an extensive area at the mine where the various processes took place – these consisted of crushing or stamping to obtain a uniformity of sizing separation of waste rock
Drill Core	A cylindrical piece of drilled rock used to sample lodes
Drive	A tunnel excavated on the line of a lode as the first stage of the development of a stope
Druse	Cavity in a rock containing crystals
Dry	Miners changing/drying room at surface level
Dump/Burrow	A pile of waste material usually from a mine or quarry. May contain primary waste or waste from the various processes of the dressing procedure
Dynamite	Explosive made from nitro-glycerine, contained in a type of clay and the invention of Alfred Nobel in the 1860's
Eduction Pipe	The large diameter pipe through which exhaust steam was drawn into the condenser set outside the boiler wall
Elvan	Quartz Porphyry rock – a very hard metamorphic rock; much used in road construction
Engine House	A building designed to contain steam, gas, oil or electric engines on a mine or other works. When they were an integral part of the frame work of a beam engine, these were particularly robustly constructed
Fathom	A measurement of 6 feet
Feldspar	Aluminosilicate, one of the main minerals that make up granite (long oblong crystals mainly white)

Finger Dump	A linear dump of waste material from a mine or quarry, flat topped in order to allow material to be barrowed or trammed along it, sometimes equipped with a temporary set of tram rails
Flat Rods	Reciprocating (occasionally rotative) iron rods to transfer power from a steam engine or waterwheel to a remote use
Flue	A masonry tunnel or conduit connecting a furnace to a chimney stack
Fluorite	Fluorspar, calcium fluoride, a common material, usually green or mauve cubic crystals
Fuggan	A pasty containing dried fruit
Fuse	The item that is lit to give time to retreat from the explosive
Galena	Lead or silver sulphide
Geode	Cavity in a rock containing crystals
Girder	The massive timber beam set across an engine house just below top floor level to which the parallel motion was attached and on which the spring beams sat
Gook	Bal Maidens' head wear or bonnet
Granite	Igneous rock comprising quartz, feldspar and mica
Greenstone	Volcanic rock containing hornblende and feldspar in micro crystals. (It is very hard)
Gunnis	A narrow linear excavation left where a lode has been worked, most commonly used when open to surface (see coffin)
Gun powder	Black powder, explosive substance – mixture of sulphur, charcoal and salt petre
Hand barrow	A barrow for carrying rock, having no wheels but having handles at both ends, usually carried by two boys!
Head or Crop	The richest part of material in a buddle nearest its feed point
Head gear	Moving parts on top of a head frame
Head frame	A structure over the shaft which supports the hoist rope pulley
Hematite	Iron ore
Hob nails	Miners boots
Hoggan	Forerunner of the pasty, origin of the word 'oggy
Horizontal	A steam engine where the cylinders were set on an horizontal bed and the piston rods are attached via a cross-head to a crank and flywheel
Horse Whim	Similar to a capstan, but in this case power is supplied by a horse walking a round a circular platform (Plat) was applied to an overhead winding drum; frequently used for

winding from small shafts on Cornish mines, especially during exploratory work and shaft sinking. The smaller under-gear whims found in some 19<sup>th</sup> century farms were little used on mines.

Igneous	Magmatic rock, formed from molten rock, e.g. granite
Iron pyrite	Iron sulphide; commonly know as ‘fools gold’
Jig	A large hand operated or mechanically driven sieve set in a tank of water by which ore could be separated from waste; sometimes set in groups in Jigging Houses
Jumper drill	Iron/steel bar 1,5m long with a ball shape in the middle, used for drilling holes in a downward direction, mainly used for quarrying
Kaolin	Geological name for China Clay
Kibble	Iron bucket for raising ore
Killas	Sedimentary clay–slate
Knockers	Piskies, fairy miners, little people
Labyrinth	Flue between a calciner and its chimney for collecting arsenic (colloquially ‘labreth’)
Lagging Boards	Timber planks lining the upper part of a shaft, or where it ran through soft ground
Launder	A wooden or metal trough used to carry water or other liquids, often used to feed water wheels or finely divided material in suspension around a dressing floor
Leat	An artificial water course used to carry water to a mine or elsewhere
Lintel	The horizontal timber or stone support above an opening in a wall of a structure
Loading	The masonry platform in front of an engine house or elsewhere on which machinery such as cranks, flywheels or winding drums were mounted and on which the reciprocal motion of the sweep rod attached to the beam was turn into rotating motion
Lobby	The excavated cutting running up to an adit portal
Lode	Crack or fissure filled with minerals from which miners extract the ore
Lode Back Pit	A shallow shaft dug from the surface into shoad or the upper part (backs) of a lode, from which ore could be extracted from shallow stopes to the depth of the water table or just below. Waste material was generally dumped near to the shaft mouth
Lump Hammer	Hammer held and worked in one hand
Magazine	A mine’s explosive store
Magma	Molten rock beneath the surface of the earth
Man Engine	Device for lifting and lowering miners to and from their level of work. It resembles a mechanised ladder

Mellior Stone	The granite bearing stone in which the upright shaft of a Horse Whim ran
Metamorphic	Rock that has had its form changed by heat and pressure
Mica	Phyllosilicate mineral one of the main components of granite
Middles	The material in a buddle found between the crop and the tailings, this generally contained enough ore to warrant its retreatment
Mill	Processing building for the ore
Mine Captain	Person in charge of a mine; some mines had a surface captain and an underground captain
Miners Jack	A miners water container
Miners Lung	Silicosis, mining disease caused by an accumulation of dust on the lungs
Mossel	Food break – West Cornwall
Mossel Room	a small room for eating one's food
Native	Found as a single element e.g. gold
Oggy	Pasty
Open Work or Beam	A mineral extraction site open to the surface, similar to a quarry but usually distinguished by its elongated shape and steep sides. Generally applied to features broader in extent than a gunnies or coffin. A variety is a Stockworks, where an area of ground containing a large number of small parallel lodes was removed wholesale
Overburden	The topsoil and the subsoil removed in the process of opening or extending a quarry, stream-works or a mine
Pare	Team
Pelton Wheel	A small enclosed water turbine, working at high pressure and rotational speeds. In use from the later 19 <sup>th</sup> century
Pinch-bar	Iron/steel bar for prising rocks etc
Piskies	Little people, Buccas
Pitwork	Term used to describe the pump rods, rising main, shaft guides (buntings etc) within a shaft
Poll pick	Miners pick, one end used for hammering the other for using as a pick
Portal	The entrance to an adit beyond its lobby, often timbered or stone vaulted
Prospecting Pit,	A small pit dug in search of minerals and almost always found in linear groups. often arranged cross contour or at right angles to the projected strike of known lodes or deposits of shoad.

Fossicking Pit or Costeaning Pit	A costeaning trench is a linear excavation cut for prospecting purposes
Quartz	Silicon dioxide, found in many colours, usually white when associated with lodes. Also one of the main ingredients of granite
Rack or Rag Frame	A mechanically vibrated inclined table-like surface on which very fine slimes in slurry form were treated to recover their tin. Large mines would have hundreds of such frames arranged in groups
Radon	Slightly radioactive gas
Reverberatory Kiln	A design of furnace in which there was indirect contact between the heat from the hearth and ore to be roasted, usually by incorporating a baffle flue
Rose	The cast iron strainer attached to the bottom lift of a pump
Rotative Engine	A beam engine in which the reciprocating motion of the beam was converted to rotary motion via a sweep rod, crank and flywheel
Rod of Quills	Goose quills filled with gunpowder and joined together to use as a fuse
Safety Fuse	See burning fuse
Sample House	Building where samples are prepared for assaying
Sampling	A small sample of a lode taken for assaying
Sedimentary	Rock filled with sediments
Serpentine	A type of igneous rock, makes up most of the Lizard
Sett	The legal within which a mine could extract minerals
Sett	One of a series of stone supports for a tramway, performing the same function as sleepers
Sett	One of the components of timber framing of an adit where it ran through loose ground; also the timber framing of a shaft to which the shaft guides and Lagging Boards were attached
Shacking Tables	Vibrating tables use to separate heavy ore bearing sand, from light waste sand using water and movement
Shaft	A vertical or near vertical tunnel sunk to give access to the exact areas of the mine
Shears or Shear Legs	A Tall timber frame carrying a pulley or sheave wheel erected in front of an engine house over a shaft and used for the installation and maintenance of Pitwork
Shoad or Shode	Ore weathered from the lode and moved (in geological time) downslope under the force of gravity. Material reaching a river would be in some degree concentrated before redeposition in horizontal beds. These beds of detrital material (placer deposits) were exploited in Stream-works.



Silicosis	Miners lung disease caused by working in dust
Single Handed Drilling	The practice of hand drilling by oneself, with the borer in one hand and the hammer in the other
Skip	A (usually elongated) iron or steel container with small wheels or brackets running on the shaft guides (buntings) and used for ore & rock haulage in later mines
Sledge hammer	Long handled hammer used in both hands
Smelter	Person who melts the black tin to extract the white tin metal
Spale	A fine for breaking mine rules
Spalling	The breaking of ore to manageable lumps (15 cm), followed by cobbing and bucking
Spalling Hammer	Large hammer much like a sledge hammer
Spring Beams	The pair of longitudinal extending from the rear of an engine house parallel to and on either side of the Beam at top floor level. These served to arrest any unwanted excess indoor motion of the beam via the catches set onto its rear and were extended out from the front of the house to form the foundation of the Bob Plat (timber platform from which the bearings on the outdoor section of the beam could be serviced)
Stack	A chimney on an industrial site, used to carry away smoke or fumes from boilers, furnaces and calciners and often situated at the end of a Flue
Stamps	A mechanised way of crushing ore, using long heavy rods
Stope	Excavated area produced during the extraction of ore-bearing rock. Often narrow, deep and elongated; reflecting the former position of the lode. Where they are open to the surface, these form Gunnises or Coffens
Stoper	Miner who extracts the lode working vertically
Stoping	Working vertically
Straw	a rod of quills forming a fuse
Stream Tin	Alluvial tin, generally in pebble form. Leats and reservoirs were needed to work these sites and are characteristic of them
Tallow Candle	Candle made of animal fat usually from sheep
Tin Floors	Place where tin is put into bags
Tourmaline	Boro-silicate, schorl, black mineral often seen as lines in granite
Towser	Bal Maidens apron (also used by other manual workers)
Trench Foot	Rotting of the flesh of the feet due to constant immersion in water
Tribute	Practice of working for a percentage of the value of the minerals you find

Tull	Old mining hat usually of thick felt hardened with resin
Tutwork	Practice of being paid for the distance dug and measured in fathoms
Vugg	Cavity in a rock containing crystals
Wagon	Metal container and runs on tracks to move ore
Wheal	Work or workplace
Whim	A winding machine, they have been powered by various means down the ages
White Finger	problem of blood circulation in the hands caused by mechanical drill vibrations
Winder	Machine for lifting/lowering men & ore, also refers to the man engaged in doing it
Winder House	Building containing the winding engine that lifts and lowers men & material
Wolfram	Tungsten ore