

# Cornish Mines and Miners

By A K Hamilton Jenkin

(From the first Old Cornwall Journal – April 1925)

Cornish tin mining started so long ago that of its beginnings nothing is known for certain. Only here and there some picturesque story points to its dim antiquity. One of these says that the brass used in the building of Solomon's Temple was made from Cornish tin, another that St. Paul himself came to preach to Cornish tanners and that he actually bought tin from Creegbrowse Mine. Whilst legends such as these are not to be taken as historical facts they do at least point to a very great antiquity for the working of tin in Cornwall. It is not, however, till centuries later that its history begins. In the past, and comes of just such local knowledge.

The first Charter of the Stannaries which is known, dates from the year 1201, and it is evident from the privileges therein granted them by King John, that the Cornish and Devonshire tanners already formed a considerable body of men. The early records as a whole, however, are dull reading, consisting chiefly of figures and statistics concerning the export of tin and the amount of revenues which the Crown thought it could extract from it.

One thing is clear, however. The early tanners confined their energies to "streaming" or searching for alluvial tin in the low grounds around the foot of the granite hills, nor was it until Elizabethan times or even later that underground mining attained to any importance.

Richard Carew in his fascinating "Survey of Cornwall" gives an account of mining which shows that by 1602 a few workings had reached the depth of 50 fathoms. Into these the miners were let down and taken up in a stirrup, "by two men who wind the rope" "In most places," he writes, "their toil is so extreme as they cannot endure it above four hours in a day. The residue of the time, they wear out at Coytes, Kayles or like idle exercises."

The tanners of this time are described in one record as "ten or twelve thousand of the roughest and most mutinous men in England," but those who knew them best give a far more attractive picture of them. A "clean-up" on a tin stream near Lostwithiel is thus described by one who stood by and watched it nearly 370 years ago :-

"About 36 years past my fortune was to be present at a wash of a Tynne work in Castle Park by Lostwithiell, where at there was a certain gentleman present whom I could name gatherings out from the heap of tynne certain glorious comes affirmed them to be pure gold which the tynners permitted him very gently as they will gently suffer any man to do most chefly if any of liberalitie will be shown amongst them but the value of one 2d to drink, then shall you have them dili very ently to go to their Buddies themselves and seek out amongst their comes of tynne which they' call Rux, the finest and most radiant comes and present them to you."

Another early writer tells of the friendliness of these early streamers to each other, how at dinner time all hands would sit down "in a little hedge made up with turfs, covered with straw, and made about with handsome benches to sit on. Here they used to sit and eat their bread cheese, butter and beef, and gave of their store to their poorer neighbour, who carried home the overplus to his family." The Cornish tanners however, much resented any foreign intrusion, and the same writer quotes an order by which:-

"searching, digging or mining for tin, all the tin they raised was to be forfeited, and the men were to be committed to Launceston gaol"

In spite of this, German miners, on account of their skill in metallurgy, were constantly employed in England in Elizabethan times. It is well known that Sir Francis Godolphin had over a Dutch or German mineral man to Godolphin to teach Cornish miners a better way of extracting tin, and in 1586 another German called Ulricke Frose was in charge of copper mining and smelting operations at Perranporth. At the latter place it was suggested by one of the "venturers" that a competition should be held between the German and Cornish workmen to try their respective merits. As feelings on both sides ran high, such a contest is likely to have ended in a set to with "shovel-hilts." In later centuries Germans were still occasionally employed in Cornish mines, one of the most famous being Rudolph Raspe, the narrator of Baron Munchausen's Travels, who was assayer and storekeeper at Dolcoath between 1782- - 1788.

In addition to the miners and streamers, there were nearly as many subsidiary trades connected with the tin industry in these early days as there are at present. Foremost amongst these were the Blowers or Smelters of tin. Though tin is still largely smelted in Cornwall, the use of the reverberatory furnace has done away' with the service of the blowers, and only the word "Blowing House" as a place-name reminds us of this once important occupation.

Down to 1700, however, all tin ore had 'to be carried to a blowing house. Here it was laid out with its proper flux on great moorstone hearths, and by the action of charcoal fanned to an intense heat by bellows worked with a waterwheel, was fused to a metallic state. Smelting under these conditions required great skill on the part of those who superintended it, but Beare says that the Blowers of his day were so skilful that one of them, on merely entering a blowing house, could tell by the sound of the bellows if there was any fault in its construction, or how the tin in process of smelting would turn out.

The use of charcoal for firing produced another class of men whose business it was to cut and burn the wood for this purpose and who afterwards peddled it from blowing house to blowing house in their packs. It was largely this use of charcoal for smelting which caused West Cornwall from Elizabethan times onwards, to be almost entirely denuded of trees.

The amount of carrying connected with the mines was formerly very great. Apart from the question of materials and supplies, the tin itself had frequently to be brought first from the mine to a place where sufficient water power could be got for stamping it, thence to the blowing house, thence again to one of the coinage towns where the tax or duty had to be

paid, and finally, after coinage, to the ports where the tin ships were waiting to carry it to London

All this carrying was done, in districts where scarcely even roads existed, on the backs of mules, and the keeping of trains of these animals provided an occupation for many men. Almost within living memory an old man called Neddie Bennets kept 200 mules near Nancledrea, and I have talked with those who have seen a string of a hundred or more munching their hay outside Chyandour, Penzance, whilst their drivers went to dinner.

The fact that down to 1838 tin might only be sold at the Coinage Towns on two, or latterly four, occasions in the year meant that the poor tinner in earlier times was almost always forced to apply to the merchant for an advance of ready money to enable him to live in the mean time. Money was generally lent on the condition of so much tin being forthcoming at the next Coinage, and as the rate of loan was generally extortionate, the tinner's output was almost always overpledged. Hence the saying "poor as a tinner" was one drawn from bitter experience.

Poor as he was, however, and subject at all times to periods of great hardships, the early tinner was not always the loser in life. In return for the tax or coinage which he paid, he received many privileges. He paid no tithes, neither dues at fairs and markets. He had a Court of Laws and a stannary parliament of his own. He could not be summoned for military service save at the special command of the Lord Warden. Most important of all he had the right of freely entering all wastrel or unenclosed land and there searching and mining for tin from becoming a slave as the colliers of the North practically did. Nor did the tinner consider himself, as a whole, a very miserable or ill-used man. "As for his labour he has a kind of content therein," wrote Westcote in 1630, whilst a hundred years later Tonkin said that what with his numerous holidays, holiday eves, Tinner Feast days, Chewiddens, Maze Mondays and the like, he did not believe the Cornish miner worked more than half the month underground.

Living however was very rough according to modern standards. The cottages, in Carew's time, had no panes or glass windows, no chimnies beyond a hole in the roof, their beds consisted only of straw and a blanket, and their furniture of a few pots and pans

The food they eat was chiefly fish, cheese, milk and sour curds, and was generally "much to the ill relishing of strangers."

Outdoors, men, women and children alike went about bare-legged and without shoes. Carew says that the old people of his day could rarely be brought to wear anything on their feet, complaining that it made them over hot. A hundred years later the "lappiors" and "buddle boys" might still be seen treading out the tin slimes with naked feet, in winter and summer alike.

The following notes, written by a Londoner visiting Cornwall in 1775, show the harsh impression which Cornish life made on him :

'This county in general has nothing to bespeak the good opinion of travelers. The West End of it must undoubtedly be very unhealthy, as being but a few miles across from the northern to the southern channel, by which means it is always subject to heavy, cloudy, rainy weather, so that those people whose business or calling oblige them to be much abroad, are almost continually wet to the skin and over shoes in dirt.

"The Natives indeed, through constant use, think little of this, but seem to be very happy when they can sit down to a furze blaze, wringing their shirts and pouring the mud and water out of their boots. But the common people here are very strange kind of beings, half savages at the best. Many thousands of them live entirely underground, where they burrow and breed like rabbits. They are rough as bears, selfish as swine, obstinate as mules, and hard as the native iron."

"Those of the very lowest sort live so wretchedly that our poor in the environs of London, would soon perish if reduced to their conditions. The labourers in general bring up their families with only potatoes or turnips, or leeks and pepper grass, rolled up in black barley crust, baked under the ashes, with now and then a little milk. Perhaps they do not taste a bit of flesh-meat in three months. Yet their children are healthy and strong, and look quite fresh and jolly,"

Dr. Pryce, of Redruth, whose book entitled *Mineralogia Cornubiensis* was written about this time, though not so troubled in mind by Cornish weather, cave-men and pasties, bears out this account of the hardness of the tanners' lives.

In his capacity as a "bal" surgeon he was often called upon to visit the home of some poor sufferer after an accident at the mine. Here he would find him, he says, lying in some wretched hut, "full of naked children, but destitute of all conveniences, and almost of all necessaries. The whole, indeed, such a scene of completed wretchedness and distress, as words have no power to describe."

That which caused most hardships in the miners work at this time was the labour of the hand pumps and the toil in climbing a thousand or fifteen hundred feet of perpendicular ladders after working in the hot levels below. Speaking of the hand pumps, Pryce wrote, "the men work at it naked excepting their loose trousers, and suffer much in their health and strength through the violence of their labour, which is so great that I have been witness to the loss of many lives by it.

This hardship was removed at last by the gradual substitution of steam power for human labour in drawing water, whilst in the deep mines ladders gave way to the man engine, and these in turn to the gigs and cages of today. The length of the underground "coors" which had increased from four hours in Carew's day to twelve hours by the beginning of the 18th century, was decreased again at the time when Pryce wrote to six or eight hours. The old long coors were generally abandoned, as it was realised that twelve hours was too much for any man to work without intermission underground. As long as they were customary, it was the habit of a "pare" of men on going underground to lie down and sleep out a candle, then rise up and work for two or three hours pretty briskly, after that "touch pipe" again for half

an hour, and so play and sleep half their working time. It must have been in those quiet resting times when the men lay between sleeping and waking, and the levels were silent but for the dripping of the water in the ends, that the voices were heard underground which we rarely hear of now. For it was then that the spirits which formerly haunted many of the old mines (as "Dorcas" did Polbreen) spoke to the miners, warning them of a coming "seal of ground," or luring them on to risk their lives in the pursuit of phantom lodes.

Often the old miners believed that such spirits might be appeased by offerings left in the levels. Readers of Bottrell will remember the story of the miner Tommy Trevorrow, who believing such tales to be nonsense used regularly to eat up all his "croust," and laughed at the warnings of his comrades who told him to leave something for "Bucca," until one night when he was at work by himself he suddenly heard a voice saying,

Tommy Trevorrow, Tommy Trevorrow

We'll send thee bad luck to-morrow,

Thou old curmudgeon, to eat all thy fuggan,

And not leave a didjan for Bucca! "

Bad luck he had, too, for shortly afterwards there came a "seal of ground" and covered up all his best work, the labour of months.

Another story says that on Christmas Eve the Spriggans, Small People (or Pick and Gad Men as they are sometimes called) used to meet at the bottom of the deepest mines and there hold midnight mass. Those who have been underground on such occasions have heard melodious singing - "No well! No well! the angels did say," whilst at the same time deep-toned organs shook the rocks.

Many other tales are related of the old mines of Cornwall. There were the dead hands seen holding candles in the shafts, the black dogs which haunted an old Woolf's engine at Wheal Vor, and the white hare which always appeared in a certain engine house on the same mine just before a fatal accident.

With the advent of the 19th century, improvements in the conditions of work did not come all at once. Ventilation underground was often extremely bad. In the United Mines near St. Day the temperature of the rocks rose to 115 Fahrenheit; and in some of the hot levels the men plunged into water over 92 degrees in order to cool themselves.

An old St. Just miner recently described to me how he once worked in a close place in a shallow level at Wheal Cuning, where there was a bunch of tin in an end far from the shaft. Even with a fan going all the time the candles would only burn right over on one side, and when the boy working the fan fell asleep, as he frequently did with the great heat, the candles went out immediately, and they had to stumble out of the level as best they could in the darkness.

Good pitches were thus often worked by the tributers under punishing" conditions. In addition many of the men walked six miles or more to and from the mine, and then had to climb a thousand or fifteen hundred feet of ladders at the beginning and end of each core. No wonder that the more reckless of them often leapt into a passing kibble as it came rattling and bumping up the shaft, and so saved themselves this added labour at the risk of their lives.

Nor were the wages earned by Cornish miners generally at all in proportion to their skill. Under the tribute system which was in general use in Cornish mines until 30 years ago the men got so many shillings for every pound's-worth of ore they raised. Their earnings thus varied with the richness of the lode. Sometimes they might get £50, in a month sometimes nothing at all. As an average, £3 a month was the wage on which many miners families now living were brought up.

In some mines a certain system was in force which actually did not allow the men to earn more than a certain sum per month, which was as unfair as it was short-sighted. Tributing, however, trained men to be expert miners as no other system ever could. A man had to " know tin " in the most literal sense, to make a living on tribute. Tributing, too, was a local system which was thoroughly understood by everyone concerned in the mines, masters and men alike. Everybody cheated the other a bit, but most of them knew where to stop. Many miners would not hesitate to "prill " their samples now and again, or to smoke over the rich parts of the lode with their candles if they thought they could get a pitch at a better rate by doing so. In the same way the "venturers" were always on the lookout for a chance to cut the rate of tribute. In the end a rough sort of justice was generally upheld, but tributing was doomed when strangers who knew not Cornish ways, began to take part in the management of the mines.

The skill and patience shown by the old men towards their own work was extraordinary. As a miner once said to me " the old men would go in anywhere after a bit of tin." The holes and crannies in almost every hill and cliff from the Tamar to the Land's End prove how true this statement was. So small are some of these little places that they seem at first sight scarcely big enough for a man to breathe or turn in, far less work, yet into them the old miners crept like bees after pollen, picking the tin out with crooks and pokers.

The patience shown by the miners in their work under-ground was equalled by the women and girls who worked the buddles and hand frames on the dressing floors "at grass." A generation ago it was a common sight to see women cleaning up the frames with bunches of fine feathers, that the smallest grains might not be lost.

It was the fact that many of them started life as " bal maidens" which gave to the Cornish miners' wives that had surprising knowledge of the men's conditions of work which the older ones still possess. Further, the old men took an intense interest and pride in their work, and delighted in talking it over with their families.

Bottrell tells how one old tinner of Lelant used to go home every evening and explain to his wife with the aid of diagrams drawn with a poker upon the "crauel," the nature of his day s

work up to " bal " ; how he had sunk so many feet in the new winze, or driven so many fathoms along the course of ore, asking her how she would have shot the holes if she had been in his place, and scarce waiting for an answer before he explained how much better and more economically he had done it himself.

It was this intelligent interest in their work, whatever it might be, which enabled the old miners to be successful at many other things besides mining.

In their hours "out of core," many of them worked small wheelbarrow farms, or in seaboard districts like St. Ives and St. Just, held shares in a boat and went a-fishing. Often like a colonist in a new land the miner, at vast expense of time and labour, took in portions of the rough crofts and there built his own cottage with the first moorstone, cob and thatching material which he found to hand.

In these cottages of West Cornwall, many of which are now sinking into ruin and decay, were reared the fathers and grandfathers of many Cornish mining families who are now scattered throughout the globe.

The best of their descendants, however, have always remained true to their Cornish blood, and when they have made their pile have gladly returned to the old Duchy.

With the revival now taking place in Cornish mining it is to be hoped that before long many will once again find work, where they have long wished it - at home.

Amongst many ancient customs retained by the Cornish tanners down to the 19th century, a few clearly date back to the Roman Catholic England of before the Reformation. Mr.F.J. Stephens, of Reskadinnick, tells me that though they had long ceased to attach any religious significance to it, it was the habit of miners within living memory to place a little image of clay over the first set of timbers in the entrance to a level. Again, when a new level was begun a curious formula was uttered, beginning, " Send. for the merry curse and the priest," which our Recorder suggests may be a Cornish invocation to Camborne's patron

sa i n t "S y n t M e r a y e s k, n y a' t h p y s...." " S a i n t M e r y a s e k, w e p r a y t h e e," etc.

Other customs such as that of christening the " bob by breaking a bottle of whisky over it at the starting of a new mine, or of hanging up a bush of holly on the tackle of the headgear at Christmas time, are customs which have been continued almost to the present day.

Formerly a time of great jollification for all people in Cornwall was Midsummer. This, happening also to be the occasion of the Coinage, especially affected the Tanners, who would come to town en masse, and with money in their pockets, celebrate the evening with noisy festivities. Tar barrels used to be lighted in the streets and candles placed in the windows of the houses. This day was celebrated in the outlying mining districts until recent years. Early in the morning, a flag was hoisted on the top of the headgear, or else at the corner of the engine house, and those who were not working first core by day went up to the carns to beat the Midsummer holes. At twelve o'clock all work ceased, and the men came up from underground. Afterwards the holes which had been charged with gunpowder

were fired off, and by the time night came on bonfires would be blazing on all the hills and beacons as far round as eye could reach.

Though such customs as these were practised within living memory, they belong as much to a past age of Cornish mining as do the old men who can still remember them. Modern machinery and the introduction of new mechanical terms has given birth to a new speech and a new race of men. Though one would not willingly believe that the modern Cornishman is a less skilful miner than his forefathers, it is a different kind of skill. And as the men are changed, so are the captains and managers. No longer does the old type of Cornish mining engineer exist, such as was represented through many generations in such families as the Vivians, the Teagues, Thomases, Leans, Whites, Henwoods, Michells, Harveys, and an infinite number of others.

Men of this type, who had been underground in almost every mine in Cornwall and who knew the districts like an open book, might be seen until recently in the streets of the mining towns, dressed in their high pole hats and frock coats of rusty black, the regular insignia of a Cornish mine manager. But now they are nearly all gone and their place has been taken by a race of specialists, machine men, geologists and electricians. May these in their turn carry on the great traditions of Cornish mining, and meet with successes no less memorable than those which have made Cornish mines and miners so famous in the past.