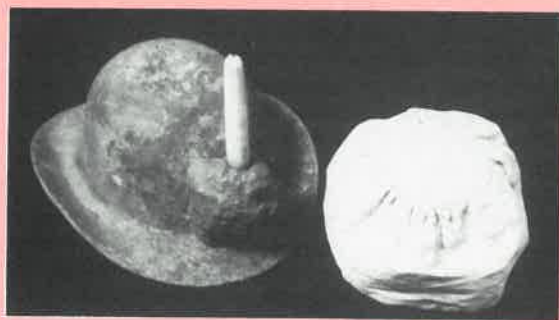


The larger mines had a changing house where miners put on their work clothes before going underground. The Laxey changing house, known as the 'Dry', was a long building near the Cross-cut Adit. It was described as "heated by a large horizontal boiler which was kept at a comfortable heat day and night".

A man with memories of working at Snaefell Mine said: "Underground we always wore a flannel shirt, as it was often quite hot, and the flannel absorbed the sweat . . . Another article of wear was a calico skull-cap to be worn under a hard hat for greater comfort. We were supposed to wear a hardened felt hat, but most of the men preferred a cap". An ex-Foxdale miner describing the headgear recalled: "We had a calico cap to put under the hard hat. The hat was made with a straight brim for the wet places so the water would run off". He mentioned special 'rosin' (resin) hats being sold to the miners at a shop in Foxdale village and added: "They were giving it a coat of glue when they got worn. I once got an ordinary hat and coated it with glue and it was all right". Miners' hats were chiefly to protect their heads from blows on the head as they walked along low and rugged tunnels and from falling stones while at work. A miner's hat was reckoned to be about four times the weight of an ordinary hat used around the year 1900. A lump of clay was used as a candle holder which could be easily stuck upon the hat, leaving the miner both hands free for climbing the ladders. Loads of clay from Clay Head brought to Laxey Mines were available for the miners to help themselves from. For the normal eight-hour shift one to one and a half pounds (up to half a kilogram) of candles would be used. The candles were carried tied by the wicks. The miners of later times at Laxey wore light coloured overalls of coarse cloth. Hob-nailed boots greased with dubbin were worn and a miner's feet were often wet as he worked.



Miner's headgear.

EQUIPMENT

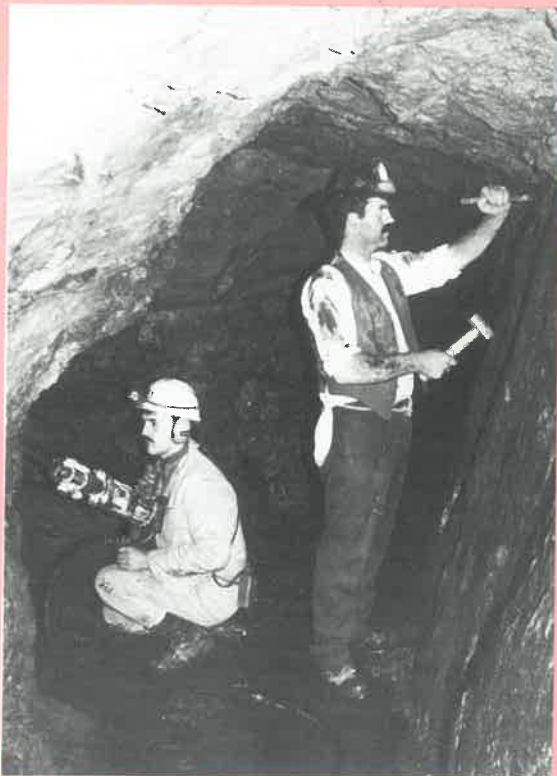
Tools would be collected before 'going under'. The mining company would supply all the necessary tools, the candles and gunpowder or dynamite for blasting. *Jumpers* were the simplest tools used for boring holes and consisted of a bar of iron tipped with steel, forged into a chisel-shaped edge. (These were also used in quarries). Hammers were brought to strike the jumpers and pickaxes to loosen hanging rock. From the 1880s drills worked by compressed air were used at the main mines. The noise of the compressor in the machine house above the

Welsh Shaft at Laxey Mines could be heard all down the valley. The compressors were force pumps which sent air through 10 cm pipes to supply the compressed air to work the drills. The air which escaped helped to ventilate the mine. Jumpers were used as well and right to the end of the mining days. Special care had to be taken with the explosives which were taken along to the work place. Fuses, detonators and explosives would be carried by different men.



Loaded mine wagon

A miner had to be sure to take with him enough liquid to drink "We were taking a piece in our pockets wrapped in a red handkerchief and water in a bottle", recalled one man. At different times and places a variety of *pieces* were taken. Sandwiches of bread and herring were known at Glen Rushen Mines, bread with sugar sprinkled on was often eaten in the mid-shift break at Snaefell.



Mining - old and new methods

DOWN THE SHAFT

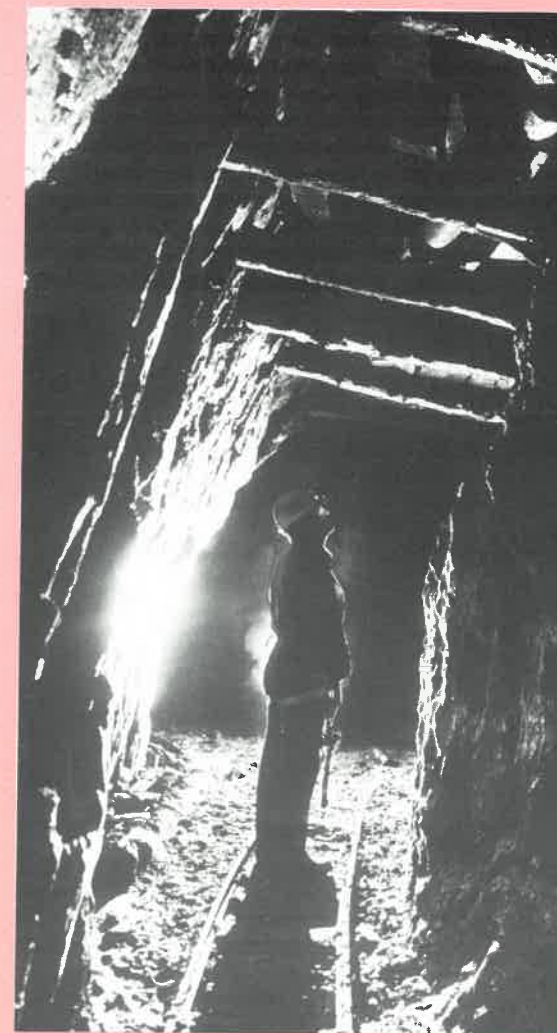
Miners would often enter the mine by an *adit* or *level*, which was a roughly horizontal tunnel. This would be wet as it was often an outlet for mine water. The shafts were deep pits cut downwards to give access to the different galleries or levels below where the men worked. The shafts were also used to bring up ore and waste from below and to get air to the underground workings. Ladders were the common means of going to work in the Manx mines. The ladders could be made of wood, iron or a combination of both. As the mines became deeper and deeper the time wasted in going up and down ladders increased. It was reckoned that there were about 380 men underground at Laxey in 1875 and that two hours of their eight-hour shift were spent on the ladders. By 1883 Laxey had a *man-engine* in the Welsh Shaft. It was a hydraulic engine having a wooden working rod with small platforms on either side. At each stroke the man engine moved twelve feet (about 4 metres). Men had to step on and off little platforms and wait between strokes. They held on by hand grips at face level. 25 minutes would now take a man up or down. At Foxdale there was a skip, rather like a cage, which would take six miners standing close together up or down.

On the ladders clay and wet made the rungs slippery and the draught in the upper sections of the shaft was apt to blow the candles out. After a long climb down on the ladders the men would rest for quarter of an hour to cool as they smoked a pipe and chatted. (The temperature underground rises 1 degree F. for every 20 metres roughly).

AT WORK

The workforce down below consisted of miners, 'marines' or waggoners, and labourers. The miners would be *driving a level* (cutting horizontally through the rock), or *sinking* (cutting downwards). General underground workers, such as boys who had started underground after beginning their working life on the washing floors at the surface, were called *knockabouts*. They would be working in pairs doing all sorts of work in different parts of the mine. The *marines* would push the iron trucks of ore along rails to the shaft. The waggons at Laxey were sloping-sided ones, about 2 metres long, 1.5 metres high and 0.5 metres wide at the top. They were fitted with a hinged door at one end for tipping.

Miners often worked in teams of four. The stretch they were working was called a *pitch*. A *bargain* was made with the mines captain once a month on behalf of each team. So much a fathom (1.8m. approximately) was agreed upon based on an estimate of the nature of the ground ahead which was to be worked. A hole was knocked into the rock to mark the point where work started and a measurement would be made from here at the end of the month. The *bargain man/bargain boss* would be paid at the end of the month according to the work done



Underground at Laxey showing timbering and old rails.

and he then had to share out the money he received with his team. Sometimes the bargain proved a bad one and there was little pay to take home.

Drilling with the jumpers required one man to hold the drill and turn it whilst a partner struck it with a sledge-hammer. The compressed air drilling machines were large and heavy, requiring two men to lift the machine and mount it on a pole to support the weight while drilling. When the rock was particularly hard ". . . you'd see the fire coming from your drill". On a good piece of ground, such as along a piece of lead ore, progress was much quicker.

The sight of the rocks in parts of the mines was very impressive. At Foxdale beautiful galena (lead ore) crystals would be found in cavities as the rocks were opened up. Large quartz and other crystals formed where there had been plenty of space for them to grow. A lead mine was a beautiful place compared to a coal mine. "The light of the candle shining on the spar would beat all your Christmas trees and their decorations", one ex-miner recalled. When the miners stopped work for the mid-shift snack all would be silent. "It was very quiet underground when work had stopped, and hearing the water dripping, and you'd think it was someone coming, or even the fairies. The darkness underground was far darker than any darkness above ground". This was how a man who had worked

in Snaefell Mines described it. Another, who had mined for copper at Langness described how the rocks "shone like gold with peacock ore" when an explosive charge was fired.

Sometimes the pitch was not well ventilated. Snaefell Mine was recalled as always stuffy and airless underground "... and sometimes our candles would almost go out as we were going down. There was a fan at the top of the shaft to create an air current down below, but it was seldom used". This was because coal had to be used to work the fan and this had to be carted from Laxey and added to the expense of running the mine.

A variety of work went on underground. Some men would be putting up the pit-props. Cracks in the roof of the tunnel were smeared with clay so that any widening could be noticed. Some men would be drilling the rock and preparing for blasting. The broken rock containing ore would be taken away to the shafts where it would be loaded into long tapering barrels with iron hoops called *kibbles*. The kibbles were hauled up the shaft by winding gear.



A Kibble

Mining was always a dangerous occupation. When accidents occurred they were often connected with blasting. Some of the men who survived accidents with explosives could be seen going about with pale blue skin resulting from burns. When two groups of miners were working towards one another to open up a *winze* between two different levels much care was needed when they reached the stage of 'blowing through'. The group working upwards usually controlled the final explosion and gave warning by means of 'the miners' tap' with a hammer on the last rock barrier. In the words of one ex-Snaefell miner: "When ready to blast, they would hammer on the rock, giving two slow taps and three quick ones, and they would tap again to tell the number of holes. They waited for the answering tap to show that the others had understood, and to give them time to get out of the way". Gunpowder was used before dynamite was introduced and powder-filled straws were used as fuses in earlier times. A tapering rod of copper was used to make a hole in the

clay packed on the explosive charge in the drilled hole so that the fuse or straw could be inserted. (An iron rod could have struck rock and set off the explosion). Some accidents happened when men thought the fuse had not ignited and went back to the site and a delayed explosion occurred - as sometimes happens with a modern firework. There were many other causes of accidents including rockfalls and men falling from platforms and on the ladders.

RETURNING TO THE SURFACE

In the busy days of the mining in the 1870s and 1880s mines worked day and night except for Saturday night and Sunday. Shifts typically lasted eight hours, beginning at 6 am, 2 pm and 10 pm. The 6 am - 2 pm shift was the favourite one with the miners. Coming up the ladders after a hard day's work was very tiring and the climb often took over an hour. "When they came out of the mine they would be pulling their flannel shirts off and wringing them out, twisting them like a dishcloth - they were wet through", said a Foxdale man. Another ex-miner recalled: "You did not want much to eat, but you could drink a bucketful. When you were coming up past the lodge by the skip they would be calling out to you. "Have you anything left in your bottle?" and if you were saying, "Yes", they were calling: "Give us a drink"".

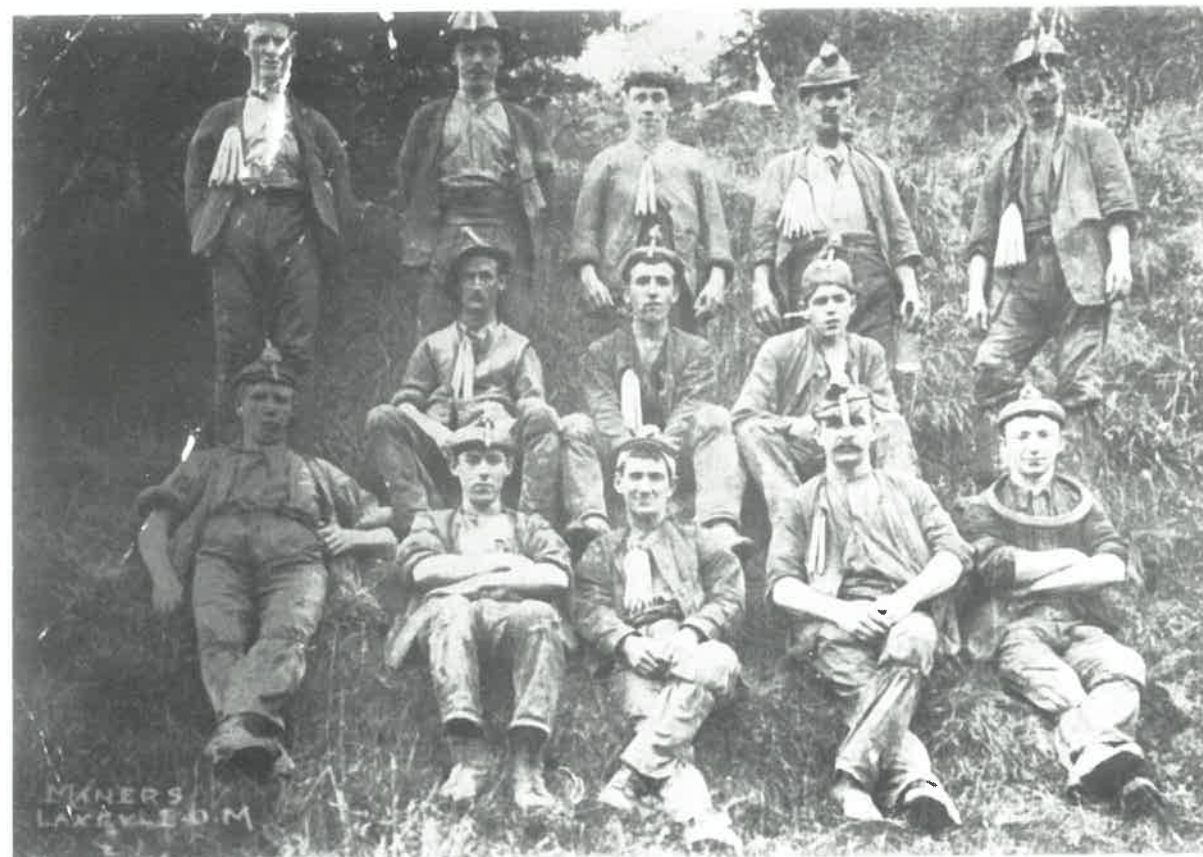
The effects of poor ventilation at work were recalled by a Snaefell miner: "Going down home . . . I would travel as if I was walking on air, but when I started the climb to Agneash, my feet seemed to be weighted with lead. When I got in the house I fell asleep as soon as I had eaten my dinner". Other miners, however, would sometimes be away to help a farmer after coming up the shaft at 2 pm. In winter, a long walk home by lantern light sometimes lay ahead for those finishing at 10 pm or 6 am.



MANX MINES ROCKS AND MINERALS

7

DOWN THE MINE



A group of Manx miners.

A MINER GOES TO WORK

As the mines of the Isle of Man were opened up, miners and labourers came to live close by. Once there were huts on the shore at Port Mooar in Maughold where men working in the iron mines lived. Some of the first miners at Glen Rushen Mines built themselves little sod houses. Foxdale and Laxey became mining villages, but there were men who travelled long distances to and from their work as well. Men were known to walk to Foxdale from as far away as Baldwin. Others walked in all weathers to Snaefell Mine from Sulby and Ballaglass. Men travelling in the dark over the mountain tracks carried lanterns for



Lantern used on night-time journeys to mines.

light. There were regular miners' tracks across the hills. At Baljean in Lonan there were 'miners' steps' leading down to the river on the way to Snaefell Mine.