Accidents and Health in Cornish Mines

Accidents in mining were common in the past. It has been estimated that the death rate for tin and copper miners in the 19th century was approximately double that in coal mining. Coal mines suffered huge losses from explosions from gas: tin mines were free from this, but accidents from blasting, falling rock and men falling in shafts – together with more unusual causes of accidents such as underground fires or flooding or lack of oxygen in the air meant that a steady high death rate was maintained.

It was the custom in the 19th century for miners to pay ‘doctor’s pence’ out of their earnings to retain the medical services in case of an accident. A doctor retained by the mine would attend in the case of an accident – although there are recorded instances of doctors ‘not finding it worthwhile’ to attend at mines. Doctors would never go underground to treat injured miners, and it was left to fellow workers to bring anyone injured to surface.

The later 19th century brought new problems: housing improved and the terraces of miners’ cottages with ‘slabs’ – cast iron coal fired ranges made by companies such as Holmans – for cooking and heating were introduced. The ‘tin boom’ of the 1870s boosted earnings and improved diets. However, after the 1890s the death rate from lung diseases amongst miners – always a major problem – increased. This was in part due to the poisonous fumes of the recently introduced nitro high explosives, but mostly due to the new pneumatic rock drills. These speeded up the process of breaking ground, but the early drills worked dry and created clouds of silica bearing dust. The resultant ‘phthisis’ – chronic lung infection – often proved fatal in the long term and was often referred to as ‘miner’s disease’. The rock drills were only made safe by the addition in the 20th century of a dust suppressing water spray – look for the hole in the end of the drill steels on display. The earlier drills were often called ‘widow makers’.

One health problem arose from Cornish miners often working abroad. This was more common by 1895 as competition to Cornish tin grew. Miners who had worked abroad contracted parasitic intestinal worms from the total lack of sanitary care underground. The symptoms of the disease were a pale complexion and shortness of breath: it was nicknamed ‘Dolcoath anaemeia’ after the mine where it was first observed. Effective enforcement of proper sanitary care was introduced and fatalities from the disease – properly named hookworm or ankylostomiosis – were avoided.

An attempt to control chest infections was the use in 1946 of ‘McKechnies Powder’. This was an aluminium dust which was introduced twice daily into the air in the ‘Dry’ or changing and shower areas. It was believed that this would reduce chest diseases such as silicosis: there is no evidence that it was effective, despite the support of the Medical Research Council for the project.