COAL MINING

The Dangers and Hardships of working in a coal mine
In my time, from New Year, 1947.

By Fred Caban

Note: Fred's content has been changed as little as possible from the original. His stories contain graphic accounts of mining incidents and some mild language. Reader discretion is advised.

The coal mine was Stanford Main No.2 colliery at Paxton. It was owned by J&A Brown and Abermain Seaham Collieries Ltd. It employed about 400 men and produced 1000 tons of coal a day. It had a main haulage shaft 18' in diameter and 400' deep. There were 2 cages in the shaft, one going up and one going down. Each cage hauled 2 tons of coal or 12 men. The winding engine was driven by steam and had the fastest acceleration of any winding engine in the field. The gantry where the coal was unloaded was 50' above the surface. The time taken from the bottom to the gantry which was 450' took 10 seconds. The cage ride was very interesting. When the cage dropped away you would swear the bottom had fallen out and you were falling and when we got near the bottom we would feel very heavy. To make the ride more tolerable it was better get a good grip of the hand rail, look down and shut your eyes. If you looked at the surface as you went past, which was just an instant, you would get the most horrible sickly feeling in the stomach. When going up you also had to get a firm grip of the hand rail. If you failed to do this you could not stand and would end up in a heap on the floor. When the driver cut the steam at about a 3/4 of the way up, it would feel as though you were floating upwards and the coal dust would float up from the floor of the cage and get in your eyes.

The coal seam was usually about 6' to 7' thick but could be from less than 5' to 11'. Headings 18' wide were driven to the boundary and sections were worked from either side off that. The forward driven headings in the sections were called boards and they were 20 yards apart. These were linked up to each other every 40 yards by cut-throughs. The blocks of coal that were left were called pillars which resembled blocks in a town, with the boards and cut-throughs resembling streets. When the board and cut-through work reached the boundary of the section, pillar extraction began from the boundary back out. The pillars supported all the weight of the strata all the way up to the surface. When the pillars are taken out there is no support and the roof would fall. This area was called the goaf.

Formation and age of coal

Coal was formed from vegetation, much of which was moss formed in the ice ages. The age of our local coal which is bituminous is about 100 million years. The age of lignite which is the brown coal produced in Victoria is 50 million years and the age of Anthracite which is a very high quality coal

found in England is 200 million years. The amount of vegetation required to form the coal was enormous. I have forgotten the figures now but I think that for bituminous coal it was about 100' of vegetation to make 1 foot of coal.

Underground haulage

Coal was hauled out to the pit bottom (bottom of the shaft) in skips. Skips were little wagons which held a ton of coal when level full. These were coupled together in sets of 24 and hauled by 100 HP electric winches with about 1" diameter steel ropes for distances of up to a mile. They also had a tail rope to pull the empty skips back in. The main rope dragged along the ground and the tail rope was on rollers suspended from the roof by inch square steel bars.

Set riding

One of the jobs I did in my early days was set riding. This was a dangerous job. I would clip the ropes on and off and ride the sets to look after them. I would squat down on the buffers between the second and third skip. The wire ropes with 100 HP pulling on them would stretch like rubber bands. If a coupling broke close behind me, the skips I were on would very suddenly shoot forward like a shot from a shanghai. If the rope broke in front of me I would see a ball of fire at the break site and the skips would bang together. If a break occurred in the tail rope, there would be a ball of fire at the break and the shanghai effect would tear the roller supports from the roof.

Sixth sense

I developed an uncanny sixth sense while working in the pit. When the skips banged together which would have surely smashed my hips, I would be off an instant before and saved. The same thing used to happen with roof falls and the many others dangers that happened in the pit. When I was about 17, I revelled in these near misses and if I didn't just miss out nearly getting killed about twice a week it was getting too tame for me. By the time I got to 20, I thought, "I think I can do without these near misses." By the time I got to 22, I felt quite sure I could do without them. This sixth sense stayed with me right through my career with the ambulance.

Painters

There was a time when some painters from Sydney were painting the Paxton Hotel. My father was having a drink in the hotel when the painters began telling him what a wonderful job the miners had. My father said he didn't think they had nearly as good a job as the painters thought. They said their hours were 7 till 3 but sometimes they were in the pub by 1 o'clock and they were finished for the day. My father said that they had to work very hard to fill the darg in 8 hours so they had to work ever so much harder to do it in 6 and besides that it was very risky and dangerous. The painters said that it could not be all that bad. My father asked them if they would like to come down the pit and see it for themselves. They said yes they would like to see for themselves what a cushy job the miners really had. My father obtained permission from the manager and took them down one night.

At this time there was a creep going on in the mine. A creep is when the floor is softer than the roof and the weight of the strata above pushes the pillar of coal down into the floor which makes the floor in the traveling roads rise. A crush on the other hand is where the roof is softer and comes down causing a crushing effect. As you walk along the traveling roads it is quite common for coal to pop out of the rib, a crack to appear in the roof over head and support timber to crack and splinter or break as you walked past it. These dangers really frightened the painters and they said, "Don't try to tell us that men actually work in conditions like this". My father said, "No; not out here where it is

safe, but wait until you get in to the working area and you will find it will get interesting". They said "No: we are not going any further, we want to go home". My father told them that they had been mouthing off about the cushy job the miners have so they were going to go in and see where they work. He also told them not to try to go out by themselves because they would get lost and could end up in the goaf where there is poisonous gas and their bodies might never be found. He said stick very close to me and we will all get out safely.

When they finally got out very shaken and frightened they told my father that if the miners were paid 1,000 pounds a day it would not be anywhere near enough and when they get back to Sydney, if they ever hear anybody run the miners down, that person will be severely abused.

Problem with the winding engine

Every once and awhile a serious problem occurred with the winding engine. It could not be stopped and continued at full power. The brakes would not hold it at full power. On the first occasion a load of men were ascending and the driver could not stop the cage. The cage continued past the gantry right up to the top of the poppet head. There was a safety device in place just in case such a catastrophe ever happened. The safety device was a detaching hook which consisted of three pieces of inch thick steel plate bolted together with an inch thick copper sheer bolt. There was a steel bell at the top of the poppet head. When the steel plates which were splayed were forced into the bell, the copper bolt was sheered releasing the rope. At the same time, steel lugs were forced out above the bell preventing the cage from falling back down the shaft. Imagine the feelings of those men in the cage suspended 150' above the shaft with no rope on it. It took some hours to get them down.

On another such occasion there was a cage load of men coming up and another load going down. The engine drivers had by this time decided on a solution. They would alternately throw the engine into reverse and forward. The top cage would continue up toward the poppet head and then drop back down on the chairs. The bottom cage would hit the bottom and then jerk back up the shaft. This process- continued until they were able to get the steam cut off.

On another occasion there was a load of men descending and the cage could not be stopped in time. There were broken legs, a broken pelvis, a broken back and some other less serious injuries. My brother in law Stan Stewart was one of the men who sustained a rather serious back injury which still gives him trouble.

On each occasion the place swarmed with government inspectors, check inspectors, managers, engineers and officials but no fault could ever be found. The engine was stripped down each time so it was thought that each time a piece of slag from the boiler must have caught under the valve so that the steam could not be cut off.

Broken strands in cage rope

One day someone noticed a broken strand in the cage rope. The engineer was sent for and an examination made. The rope was about 2 inches diameter and had 16 strands. 13 strands were found to be broken. This meant that we could not be hauled out in the main shaft, but instead had to use the emergency shaft which was the return air shaft. The return air shaft only had one cage and it only held 6 men and it was very slow, in fact you could feel every beat of the engine as we made our way up the shaft in a series of jerks. Rather unnerving. The timber around the pit top had been there since the pit was built and was rotten. When the braceman stood on the rotten timber it

gave way and his leg was hanging down the shaft while he was frantically hanging on to the cage to prevent himself from falling down the shaft. We were all crowding around the shaft hoping to be the next ones in the cage because with the operation being so slow it was going to take several hours to get us all out of the pit. We heard a very loud metallic clang from the pit top so there was a mad panic to get as far away from the shaft as we could. We then realized that the clang was caused by the braceman dropping a bar which closed the gate. There was another rush to get back to the shaft. Then we had another scare. The cages in the main shaft had keepers running on guide rails, which were railway tracks, to stabilize them. The emergency cage did not have guide rails but instead had three heavy steel guide ropes. Our scare came when we heard a tremendous rumbling and roaring of something falling down the shaft. There was a rattle of crib tins and powder tins as a panic exodus occurred to get away from the shaft again. The rumbling was caused by a guide rope breaking near the top and falling down the shaft. When we settled down I heard one fellow say, "I think someone shit in my trousers". We all eventually got out safe and sound.

Other dangers

Roof falls- These were a fact of life but unfortunately sometimes a fact of death.

Gas - We had a gaseous mine (methane or fire damp) so care had to be taken to avoid explosions. Of course we also had black damp and hydrogen sulphide (rotten egg gas)

Darkness — It was so dark that you could not see a white object right in front of your eyes.

Lights going out — The lights in those days were very unreliable, sometimes they would go dim burning with a weak red glow, sometimes they would wink and blink and sometimes they would go out altogether. Quite a problem if you were on your own.

Runaway sets — Very devastating.

Water — sometimes dripped heavily from the roof, sometimes you might have to work in a foot or so of water — an inconvenience.

Hardships endured by miners

Dust on the lungs

There was a considerable amount of dust in the mines and because the miners worked so hard, they breathed in copious amounts of fine dust. The dust entered the small sacks in the lungs causing scar tissue with very dire consequences. There was much wheezing and shortness of breath until eventually it became fatal. Dust on the lungs was a disease called Pneumonoconiosis. If it was derived from coal dust it was called Anthracosis and if it was derived from stone dust (which contained silicon) it was called Silicosis.

Under height money.

You can imagine how difficult it is to shovel coal into a skip if the roof is low. It was accepted that this was a problem and the miners were granted an award called 'under height money'. They were paid 5 shillings a ton to get and fill the coal and an extra 1/8th of a penny a ton for every inch that the roof was lower than 5 feet. This meant that if the roof was 4ft 4inches they would get an extra 1 penny a ton. Shovelling the coal in was not the only difficulty. With the roof being lower, less coal was won by a round of shots. This meant more powder had to be used and much more work done,

more rails had to be put on, more timber erected and so the 1/ 8th of a penny a ton seamed such a dismal amount. You could not stand up straight under a low roof.

The darg

The contract miners worked in pairs and the darg was 20 tons of coal a day for each pair. Filling the coal was the easy part. They had to bore holes in the coal with a hand drill and shoot the coal out with blasting powder. The powder cost them 5 shillings for a 5 pound packet which was much as they got for filling a ton of coal so where the coal was more easily worked they would dig it out with a pick. They also had to erect timber to support the roof, put brattis up to direct the air and lay rails to run the skips on. They also had to cope the empty skips which were heavy, to let the full skips get past.

Saving a winch driver.

After earning my brownie points working around the shaft at the pit bottom I was given a cushy job of taking picks around to all the coal cutting machines in the mine. During some leisure time on this job I became very interested in the winches. One winch driver taught me how to drive it and was kind enough to let me take over at times. On one occasion I walked into a winch room in the north section. The winch driver was leaning over the winch with an oil can while it was running at full power. The power was transmitted by gears; one of which was about 6' in diameter and the other about a foot. Ned's trousers got caught in the gears. I got there just in time to throw the winch into reverse and jump on the brake. Had I not been competent with the winch, Ned would surely have been dragged through the gears with very tragic consequences. His trousers were torn off and shredded by the winch so he had to go out without any trousers and hope there were no magpies around. I might add that I would have been less than 17 at the time.

Tragedy on Christmas Eve

There was one Christmas Eve after almost everybody had gone home a deputy had to make one last trip down mine. He got in the cage to go down but the other cage did not go right to the top but stopped at the surface. It was thought that when the cage stopped 50' from the bottom, the deputy had stepped out. The 50' fall might not have killed him but then the cage weighing several tons came down on top of him. What a terribly sad Christmas.

Young horse

A young horse was being lowered down the shaft for the first time. This was always done at a very slow speed until the horse got used to it but he panicked and kicked the gates off and fell down the shaft. The horse exploded when he hit the bottom and one of his shoes was thrown to a brick stopping 30 yards away.

First aid

I was very interested in first-aid and in 1950 I did a first-aid class and won a 2 guinea prize for topping the class. I continued with the class and gained my 3rd year bronze medallion. This was followed in 4th, 5th and 6th year doing courses on mine fires, gases, explosions and self-contained breathing apparatus which earned me a gold medal. I was appointed as the first-aid officer for the section in which I worked and was also the mine first aid officer for 3 months while the usual first aid officer was on long service leave.

Deputy's ticket

In 1951 a deputy's course was run at Paxton. To obtain a deputies ticket the applicant had to have 5 years underground experience and be not less than 23 years old. I had 5 years underground experience but was only 21. I attended the course anyhow and didn't worry too much about it but a week before the exam I found out that I could sit for the exam but the certificate would be withheld until I was 23. There was a bit of a mad rush for that week to prepare for the exam but luckily I passed it and became the youngest person in the industry to pass a deputy's exam.

Under manager's course

After passing the deputy's ticket, I followed up with an under managers course. This course involved going to tech at night for 8 hours a week for about 8 years. A few months before I finished the course I was retrenched from the mine. I completed and passed the course even though I was running around looking for work. With mines closing everywhere there was no prospect of getting back in the mines so I took up a career in the ambulance.

Scraper Loader

I did many and varied jobs in the pit, but for most of the time until I was caviled out I worked as a scraper loader operator. These were an early mechanical coal loading device which had ropes and pulleys and a 10 or a 15 I-IP motor. They dragged coal in a steel scoop up a ramp and dropped it into an empty skip underneath. Three men worked a scraper loader, one was the loader operator, one was the wheeler who pulled the full skips out to the flat with a horse and brought the empty ones back and one was the miner or "getter". I was usually the miner. I drilled holes l 1/2"' diameter and 8 ft or 9 ft deep into the coal face and blasted the coal out with blasting powder. I used 15 pounds of powder a day.

Grunching for a Joy Loader

Grunching was the term used for boring holes and blasting the coal out with powder. Joy loaders filled so much coal that coal could not be kept up to them by grunching so a coal cutting machine had to be used. It made a horizontal cut 6" wide across coal face. The cut enabled more coal to be produced more quickly and with less powder. In the north section the floor was soft and the cutter which ran on caterpillar tracks kept getting bogged. I was sent in to grunch one board so that the cutter could catch up. Luckily a cut through was being broken away at one side, giving me a loose end. I bored holes right across the board and used 35 pounds of powder to blast it out. Seven shuttle cars (which was 35 tons) were filled from that one round of shots in a 6 feet high seam. Not only was it a record for grunching in a seam only 6 feet high but I had also blown out all the bottoms and tops which had been sticky. Overmen who came and inspected it said it was the best round of shots they had ever seen.

The miners

The miners were wonderful lot of fellows. They were very skilled at their work, hard workers, hard drinkers and keen fighters. They would argue and fight among themselves but would emphatically defend each other if need be. Swearing and foul language was a way of life with them but they would never swear in front of women and were terribly embarrassed if they made a mistake and accidentally did swear in front of a woman. They were known to be flattened if they deliberately swore at a woman. They were extremely tough. When I was in the first aid room they would come to me with a huge splinter in their leg. When I would explain to them that with a splinter that size they

would need to go to the hospital to get it out they would say, “No, you dig it out” and would sit there without even a murmur while I did. They would let me take foreign bodies out of their eyes, remove splinters, treat and dress large lacerations and treat all sorts of injuries without ever complaining. When some foreign workers came up from the Snowy to sink a drift it was a totally different story. They were too frightened to let me touch them or even look at them.

It was said that the miners filled all their coal in the pub, drank their beer in their home and had all their sex in the pit because that was 90% of their conversation.

My father worked at Paxton Pit, I worked there when I turned 16 followed by his 2nd son Owen and then 3rd son Ernie. Ray the 4th son worked at Pelton Pit where our grandfather had worked. Mervyn, the 5th and youngest son did not work in the mines but made a career as a motor mechanic. A cavil out in 1958 took the jobs of Owen, Ernie and myself. Our father was kept on for about another 2 years until they closed the mine completely and permanently and then he was out of work. Ray who worked at Pelton and then relocated to Ellalong remained there until his retirement at age 60. He worked for 44 years in the mine. Ray and his mate had been buried in a fall of coal. Ray sustained a bad injury to his leg which now gives him an enormous amount of trouble but for his mate it was fatal.

In spite of the bad publicity and adverse reputation that the miners endured, I considered them to be very great mates.