

## The True Story of a Pit Shaft

In the year 1910, the colliery company at which I was employed, as an engineer under, determined to sink a new shaft with the object of striking the celebrated mountain mine, and I was selected as one of the winders, of whom there were two, doing twelve hours shifts. Now a winder over sinkers has to be extremely careful and attentive to his engine and signal as the sinkers would refuse to work under a winder, who made any mistakes.

The method of sinking a pit shaft is as follows:— First the engine and head gear are fixed, Then they begin to dig a hole, the size the shaft has to be, until it is about seven feet deep. The sides are then lined with planks of wood, which are placed upright, and held in position, by iron segments, bolted securely together. This is called putting in the cribbing.

(I)

When rock is reached the compressed air drills are brought into operation, and about sixteen holes are drilled in one half of the pit bottom. These are then charged with explosive, time fuses are attached, which are coupled to an electric cable, lowered from the surface. All the jinkers now ascend to the top.

The chargeman connects an electric battery to the cable, then he calls out "Fire" turns the battery handle, and the shots go off like clockwork.

Sometimes there is one will miss fire and this means, No one shall descend the pit for one hour, After all shotfiring a safety lamp is lowered to the bottom to test for gas.

The rock which is blasted up, is now filled into the hoppits, and sent to the surface, whilst another sixteen holes are being drilled in the other half of the pit bottom. When the shaft is about twenty four yards deep, preparations are made for lining

the shaft with brickwork. The bricks used are blocks about eleven inches long and five inches thick, slightly curved.

Holes are now drilled in the pit side near the bottom, at equal distances, and bars of two inch round iron, are driven into them, and are left projecting about ten inches

On these projecting portions, cast iron segments are fixed and securely bolted together. These are called "bricking rings" and are put in every twenty four yards until the required depth of the shaft is reached

A strong wooden scaffold is now lowered down to the pit bottom, and is fixed on the cast iron segments, and is held in position by strong moveable iron bars. A hopper of mortar is now sent down which is turned over onto the scaffold. This is done by the winding engine in

(3)

the following manner, The men in charge at the bottom, unhook the chains from the top of the hoppit, and hook them to rings near the bottom of the hoppit, Then they signal to the winder to stretch up, and the hoppit is turned bottom upward. They signal to lower now, and the hoppit is turned right way up whilst being lowered.

This is also done with a hoppit of bricks. The winder is now kept very busy, lowering, raising and winding up and down.

When about four feet of brickwork is put in all round the shaft, the scaffold is raised up and fixed on the top of the finished brickwork and a further four feet of brickwork is put in. This goes on until all the brickwork is put in ~~the~~ to the top and when finished, sinking is then



to get the coal, and the seam was followed for about two hundred yards in, but the coal did not prove to be satisfactory, as the coal was not more than twenty one inches thick.

The management then order boring to commence, boring downwards, at a point about ~~fifty yards~~ one hundred and fifty yards ~~from~~ from the pit bottom, as they had some doubts, as to the coal being the coal they were after, In my opinion it was the right coal, as there were found to be perfect petrified mussel shells, in clusters, embedded in the roof.

One day whilst we were engaged winding water from the sump hole, a signal was given from the top mine, denoting that men

(6)

wanted to come to the surface, and the savage way, in which the signal was given, made me think that they were in a great hurry. However, the water <sup>tank</sup> was taken to the mouthing for them, and they were signaling to go, almost before the tank was set for them.

When I landed them at the top I could see they were standing on the edge of the tank, instead of being inside.

There's something the matter I thought, and before I had lowered them on to the platform, they jump down, looking very excited.

The banksman then shouted to me, through the speaking pipe.

The water has broken in.

He then signals me to take the hopper to the middle mountain

(7)

mine, which is sixty yards from the bottom, and after I had started away, I tried to get the bankman on the speaking pipe, to ask him would it not be better to take the tank to the bottom first, but I could not make him hear me, owing to the noise of the water, falling down the shaft.

Well I thought, I will go to where I have been signalled, and there I shall be in order.

Arriving at the Middle Mountain Mine, I stopped the tank there, and I could see the bankman leaning over the pit, in a listening attitude.

In a few moments he jumps up and signals me to bring the tank to the surface, and on arriving at the top, expecting the tank to be



full of men, it was only full of water. After emptying the water out, and spragging the valve, at the bottom of the tank, so that the water would run out as it came in, the banksmen signals me to take the tank to the bottom mine.

On arriving at the bottom, I felt the tank strike the water, before reaching the level of the mouthing. Oh, my. "I thought," yonder men are done for, Will they be able to signal to me, if they get out to the pit shaft

I stood at the handles waiting for a signal, visualising what it would be like at the bottom. Oh, will they never signal. What must I do, should I fetch the tank to the top again in the hope of

there being some men in, I was on the point of doing this, when the signal began to go, and I got the signal of two, which meant to lower.

Good heavens "I thought" they don't want it lowering further in to the water, There must be something wrong, are they trying to signal three and one (which was the right signal to bring them to the top) and cannot knock any more, I'll risk it I said to myself, and I started to bring them up the shaft, and had not gone many yards up the pit, when the signal began to go again, and gave the signal of side and three, which meant that the Middle Mountain men wanted the tank at that mine

So I stop at that mine, and right away I get the signal of three and one which meant to come to the top. And then I knew that some of the men had got safely away from the bottom.

On arriving at the top, I could see the tank was full of men, all drenched through <sup>some</sup> standing on the edge of the tank, clinging to the chains. I ask if all the men had got away from the bottom and was told that this was so and then I hear a great sigh of relief.

Ordinarily there should not be more than six men hiding at one time in a tank or hoppit, but all the thirteen had found clinging room. One of the men was unconscious and had to be lifted out of the tank.

(11)

something having struck him on the head as they were ascending the pit.

The tank was then taken to the Middle Mountain Mine, and one of the sinkers, who had come up from the bottom went down to help them to get safely away. At last we had them all out and it seemed to have taken hours but it was all done in not more than ten minutes.

I then went on to the pit bank to see what the situation was like, and the noise of the water falling down the shaft, sounded like a railway train as it crosses a bridge. One continuous roar. As I was bringing the first tank full of men up from the bottom, the bankman gives me the

signal to stop, and as I stopped the engine, I heard a loud shout come up from the pit, and then the bankman signals me on again. On enquiring about this he said he thought they were shouting to stop me for something, and the place where he stopped me was right under the mouthing where the water was pouring out of, and fell directly on to them.

One of them said to me "Tom it was like entering into heaven when we got past the falling water. The stream was measured to be four feet wide and three feet deep and it soon had the shaft filled up to eighty yards above the mouthing where it had broken through.

From information I gathered, the men in the top mine were driving a tunnel upwards to another mine, which it was known to have had two roads driven, from an old pit situated about half a mile away. The roads extended for a distance of over a mile so there was an enormous body of stored up water.

The last shot they fired broke into the bottom of one of these old <sup>roads</sup> which had been reached sooner than was expected.

The two men told me that after they fired the shot they heard the rush of water, and then they raced for the shaft, only barely keeping in front of it.

When they reached the shaft they had the utmost difficulty

to escape being washed down the shaft by the stream. They had to cling to props for dear life.

The first rush of the stream carried all the rock which the shot had brought down also the props and bars they had lying to hand for use in the work in which they were engaged.

Here I will give the story of the chargeman in the bottom mine in his own words as I got them from him: We were going on with the boring, when I noticed a change in the direction of the air current. It had been completely reversed. I thought this was strange so I sent one of the men to the shaft to see if all was right.

In a few minutes he comes

running back, shouting, "There's a great lot of water falling down the shaft."

"Good God men," I shouted, "we're trapped. Follow me out and we made a wild stampede for the shaft, and we had one hundred and fifty yards to go. At one point the road goes down and then up again for a short distance."

When we got to this point we found it almost full of water and we had to hold our heads up to the roof. Here all our lamps were put out and we were in complete darkness, battling through the stream. When we got to the pit shaft the water was up to our necks. I prayed for the



tank to come down, and the men ~~were~~ were all praying out loudly, to God to save them.

I tried to find the signal wire, but could not, owing to being in darkness, and the stream of water being too strong and we having to climb anywhere we could to keep our heads above water.

I imagine, if you can, a stream of water falling four hundred yards down a pit shaft, and we thirteen men at the bottom. It was terrifying.

Then I notice a difference in the sound of the falling water, and I knew the tank was coming down to us, and had now landed at the bottom.

I reached as far as I could into the pit with one hand, whilst grasping a bolt in the wooden ventilating pipes with the other, but could not get the tank. I knew the tank was down, and that

the falling water was keeping it at the far side of the pit.

I was on the point of swimming round the pit side to fetch it when it struck my hand, seizing it I shouted, "Men the tank's here, Help yourselves. We scrambled into, and on the sides of the tank, and I found the signal wire, which I kept a hold of

"Are you all in, Are there any more" I call out three times, "I'm going to knock away" and with that I pull the signal wire to signal three and one, but at the second signal I gave, something held the wire somewhere up above, and I could not knock any more.

"Good God men" I shouted "the signal wont work now"

Then I feel the tank give a slight

movement and I shout out "Hes going to go" and then we go up through the falling stream. We are stopped at the middle mountain mine, where the men in that mine had found out what was the matter, "Knock three and one." I shouted. We will send the tank back for you." and up we go again until we are stopped again, just below the mouthing, where the water is pouring out of. We all give a shout "Take us up" knowing that the banksman would hear us now, and up we go again to land safely at the top. Thanking God and the winder to have made our escape. We all jump out of the tank except one man who is unconscious and had to be lifted out, he having been struck on the head, by a stone as we were coming up the shaft.<sup>K</sup>

And that brings his story to an end.

The tank is then taken to the middle mountain mine, and one of the sinkers who had escaped from the bottom mine, bravely goes down with it again, to help the men to get safely up, which is successfully done.

When the middle mountain mine men found out that water had broken in, they made a rush for the shaft. When they got there, they could see the water falling down the shaft, past the mouthing and that the winding rope was down to the bottom.

One of the men was so terrified that he shouts out "I'm going to climb the rope" and with that he leaps into the shaft, and succeeds in grasping the rope and attempts to swarm up the rope.

The chargeman in the mouthing

knows it is impossible for him to do so, seizes one of the long hooks which are provided to pull the hoppits to the pit side, and pulls the rope to the side, and the men pull him off. This was the reason that the tank at the bottom was brought ~~to side~~ from the far side to the side where the men were at the bottom mouth, it being on the same side as the other mouth at the middle Mountain mine.

Had the man not jumped for the rope it is doubtful if any of them would have been saved.

It was also a very fortunate thing that we had the water tank on the winding rope, at the time which has chains of its own and they are shackled and bolted to the tank, while the chains to the

→ Pits have hooks at the end and if you had been using the hoppit at the time, there is no doubt the chains would have become unhooked when the hoppit first struck the water on first taking it to the bottom mine.

Another fortunate occurrence was that the foreman pit carpenter was at the colliery office and had been delayed. At the time of the catastrophe he should have been at the pit bottom making alterations in the ventilating pipes. If they had been on this work they would have been using a large square wooden box, in place of the water tank, and would have had the box pulled to the pit side, and tied with spungarn, to keep the box in position, when they would have received the first fall of the

stream of water which carried all the debris before it, of props, bars, and broken rocks, and they would undoubtedly all have been killed, and then all the men in the mines would have been drowned, because it would have been too late by the time those on the surface got to know the state of affairs.

The pit is now abandoned of which I enclose a photograph.

The above account is true in every word and occurred in one of the well known Lancashire coalfields on the outskirts of Wigan town

Yours truly

T. Brookes, Author

(23) Jas Bradshaw, sketches  
and drawings